STIBO SYSTEMS
MASTER DATA MANAGEMENT



SETUP and USER GUIDE

Web User Interfaces

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Web User Interfaces

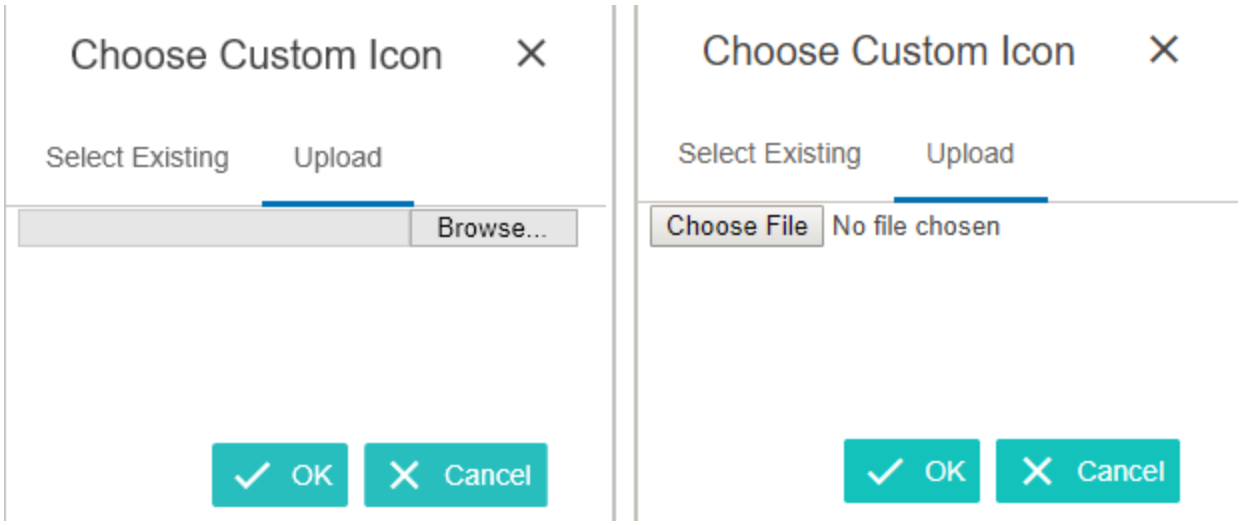
Web UI is an interface to STEP and provides an easy-to-use, intuitive way to work with data in the system, i.e., updating data or creating new objects, etc.

Web UI also provides a customized view of STEP. For example, Web UI can be configured to only show what is needed for a given task, while ignoring other components / screens, which are not required for that task.

The Web User Interfaces documentation will guide you through the prerequisites and basic setup procedures needed to implement a Web UI. You will also find additional information about Web UI components, how to configure the components, and recommendations for using them.

After reading the documentation, Web UI designers (admins) and end users will have a better understanding of all the functionality available through Web UI.

In very rare cases, admins will view labels that appear slightly different than described while in design mode. For example, 'Choose File' may appear in one browser but will appear as 'Browse' in a different browser. There may also be differences between Mac and PC users. However, these are exceptions and Web UI functionality will not differ from what is described in this documentation.



Important: Admin users should be aware that the option of customizing the layout of the Web UI through CSS, which overrides the existing classes, is not supported. Custom CSS can cause issues for customers with each feature release and/or patch update.

For information on the design system, which holds the guidelines for the visual styling, interactive behaviors, and component design within the STEP Web UI, as well as information on typography, capitalization, truncation patterns, the color system, and other design elements, refer to the **Web UI Design System** topic.

Web UI Getting Started

There are some prerequisites to Web UI configuration / usage.

Privileges

Privileges configured in STEP Workbench also apply when working with data in a Web UI. For instance, if a user can edit attributes in STEP Workbench, they will also be able to edit attributes through a Web UI.

Web UI configurations will, by default, not be user / user group specific. Apart from the fact that the standard privilege setup can influence what a user accesses / is able to do, the Web UI will be the same for all users logging in.

Users need privileges to be able to access and use Web UI. Different privileges can be set up for different users and user groups depending on the users' roles. As an example, if a user will maintain Web UI configurations in an admin role, the user will need the proper privileges to access Web UI Designer. Or, if an end user will be using workflows or viewing / maintaining objects, then there are separate privileges for these tasks. Furthermore, users can be prevented from accessing specific Web UI instances they do not need to use.

To follow any of the steps in the **Web User Interfaces** documentation, the proper privileges have to be granted (e.g., you cannot create a new Web UI unless you have the privilege to do so). For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

Web UI Access Privileges

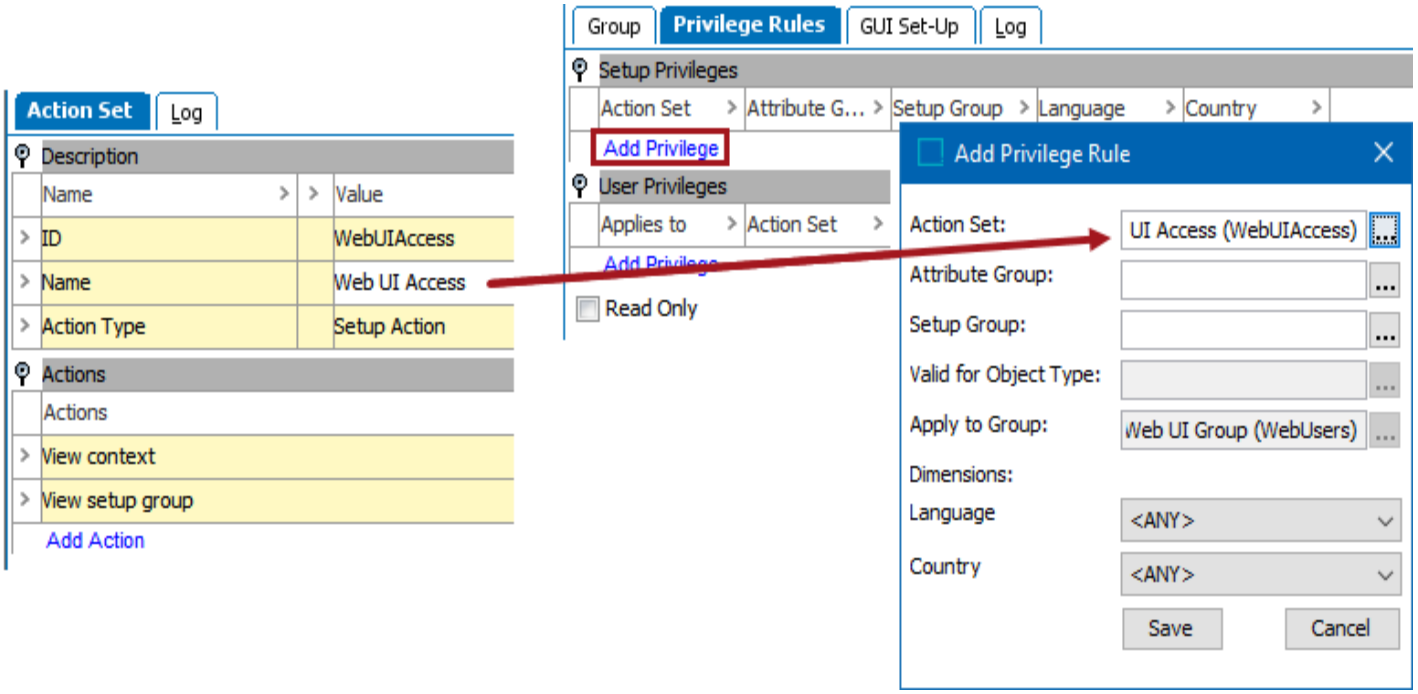
At a minimum, the actions, 'Access Web UI' and 'View context' must be added to a user group's privileges before a user is able to log in to a Web UI. If these actions do not already exist as a standalone item or as part of an existing Action Set, then they need to be set up.

Below are the steps for creating an Action Set and applying it to a User Group.

1. Go to **System Setup** in the STEP Workbench.
2. Under **Action Sets**, right-click **Setup Actions** and add a New Action Set.
3. Type in an ID and Name then click Create. In this example, the name is 'Web UI Access.'
4. Click on the new action set that was just created (Web UI Access) and go to the Action Set tab.
5. Click on the Add Action link and select 'View context' then click Select.
6. Click on the Add Action link and select 'Access Web UI' then click Select.
7. Go to the **Users & Groups** section of **System Setup** and click on the user group that needs Web UI access.
8. On the Privilege Rules tab, click the Add Privilege link under the Setup Privileges flipper.
9. In the 'Add Privilege Rule' dialog box, click the ellipsis button (...) next to the Action Set field and choose the Action Set you just created (Action Sets > Setup Actions > Web UI Access). Then, click Select.

Note: If the user(s) should only have access to specific Web UI instances, define the Setup Group in which those Web UIs reside. Click the ellipsis button (...) next to the Setup Group field and select the relevant Web UI Setup Group.

10. Click Save.



Important: If restricting user access to specific Web UIs, make sure there are no competing Action Sets set for the user group. The action set with the most generous access applies, not the Action Set with the most restrictive access.

For admin users who will be using the Web UI Designer, refer to the **Designer Access** section of the **Web User Interfaces** documentation.

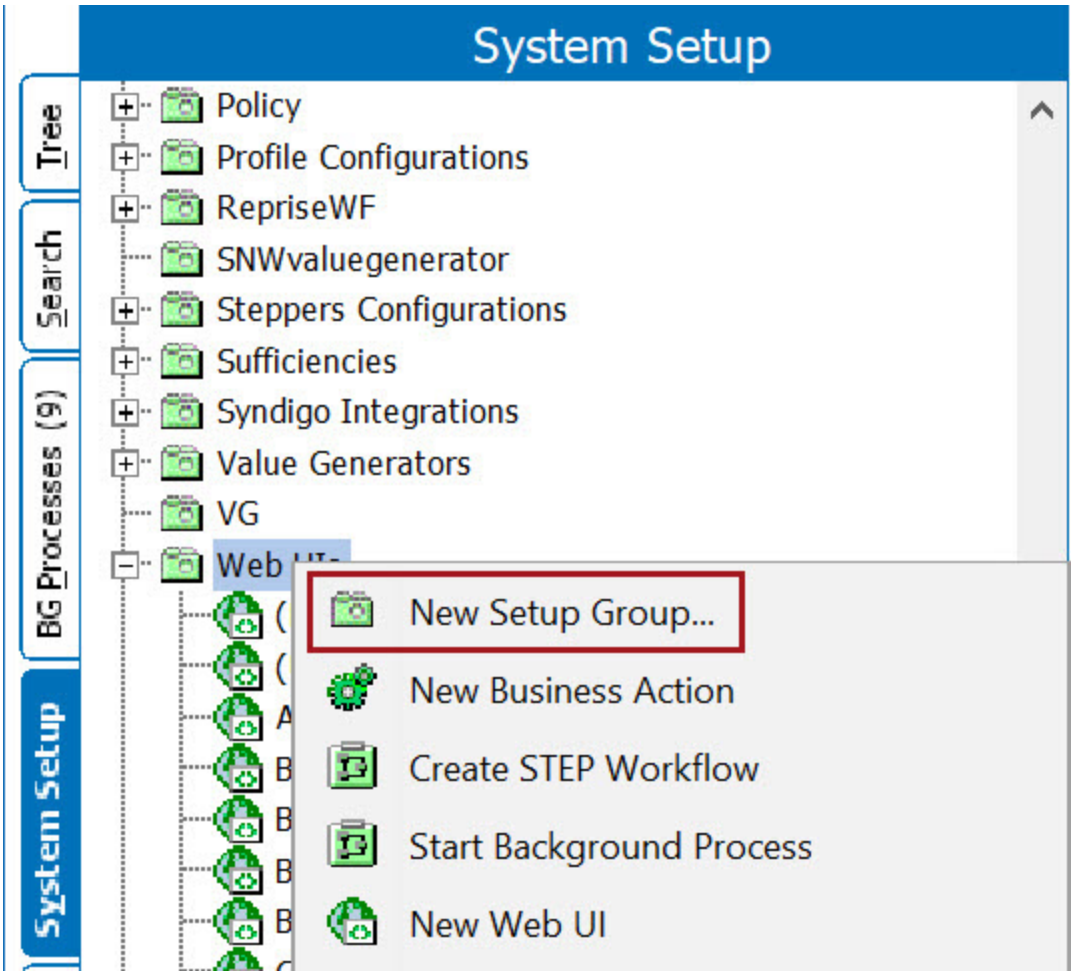
Restricting User Access to Web UIs

In certain instances, admin users may require that access to Web UIs be restricted to only specific privileged users. For instance, users in Group A should not be able to access Web UIs intended for Group B, and vice versa, while an admin user should be able to access all Web UIs. By following the steps listed below, admins can add Web UIs to Setup Groups to meet this requirement. For additional information on Setup Groups and how to set them up, refer to the **Setup Groups** documentation.

To control access to a group of Web UIs, admin users must take the following steps:

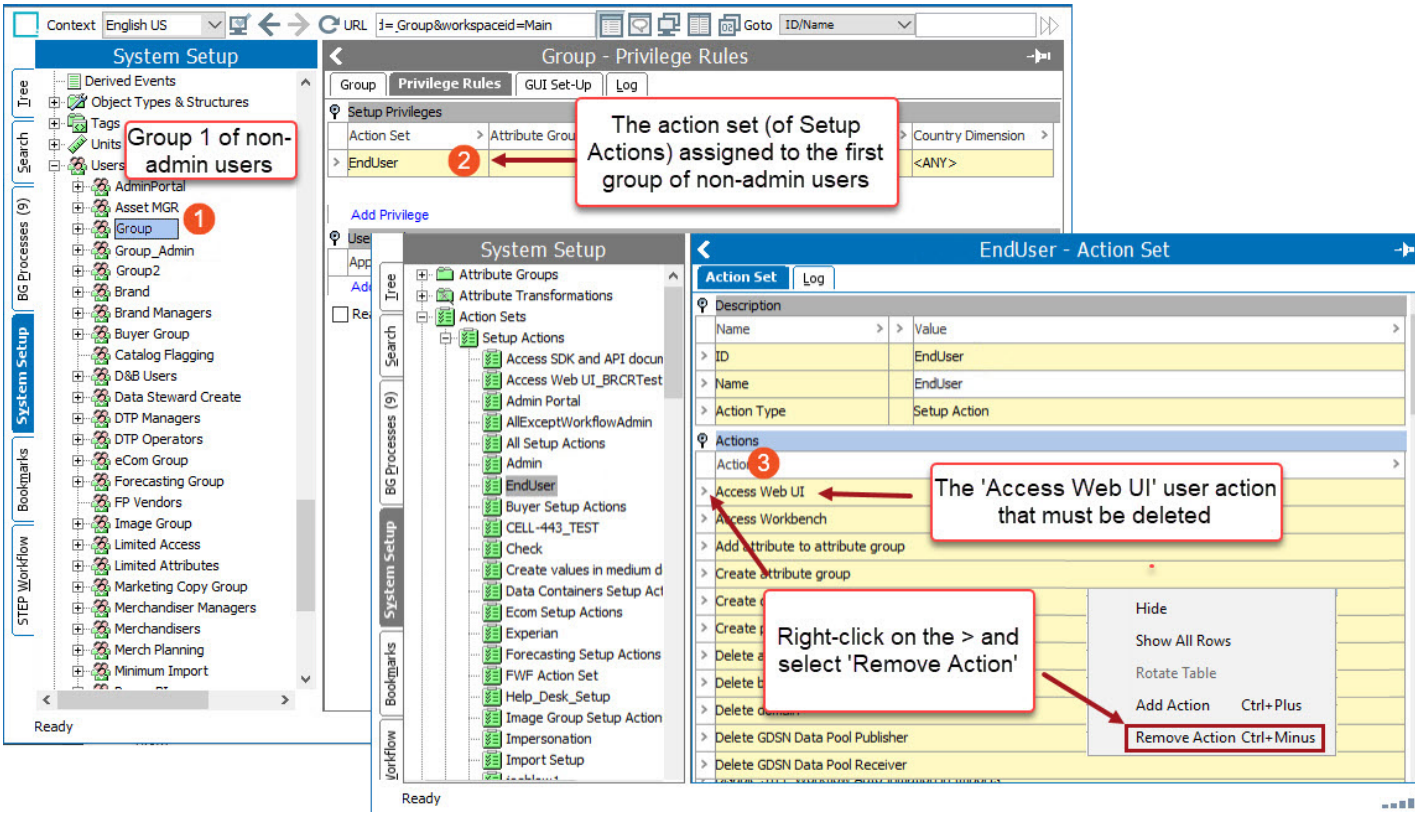
1. Create a setup group and add the Web UI(s) that the first group of non-admin user(s) must access. In this instance, the setup group refers to a grouping of Web UIs.
   - To create a new Web UI setup group, in workbench, right-click on the 'Web UIs' node in the 'System Setup' tab and select 'New Setup Group' from the menu that displays.
   - Create the Web UIs that will be accessed by the first group of non-admin users into the new setup group.

   Note: If you are moving existing Web UIs into a new Web UI setup group, right-click on the Web UI you wish to move and select 'Cut' from the edit menu dropdown. Right-click on the Web UI setup group into which you want to place the Web UI, and select 'Paste.' The Web UI now resides inside of the desired Web UI setup group.

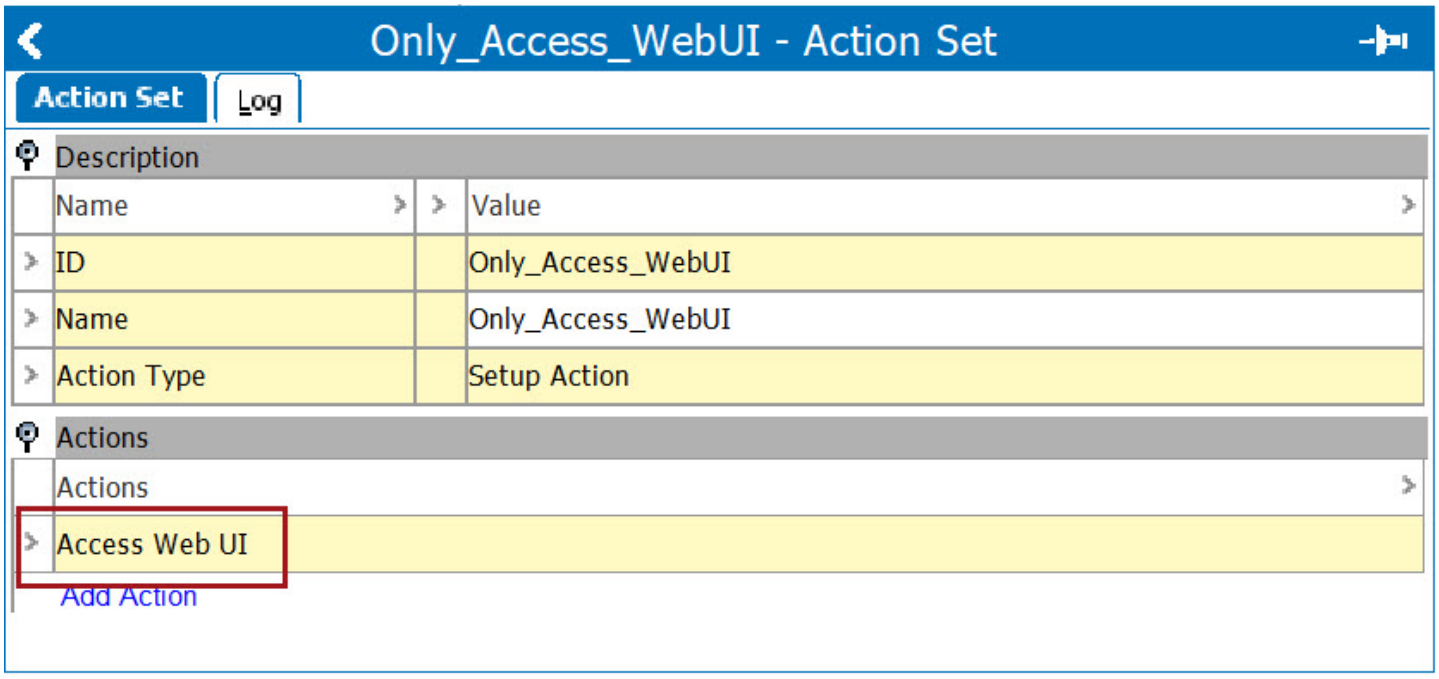


2. Repeat step one to create a setup group for the Web UI(s) to be accessed by the second group of non-admin users.
3. Verify that neither group of non-admin users have the 'Access Web UI' setup action in their setup privileges.

- In other words, check the action set configured for the setup action group assigned to the relevant user group, and remove the 'Access Web UI' action from the group.

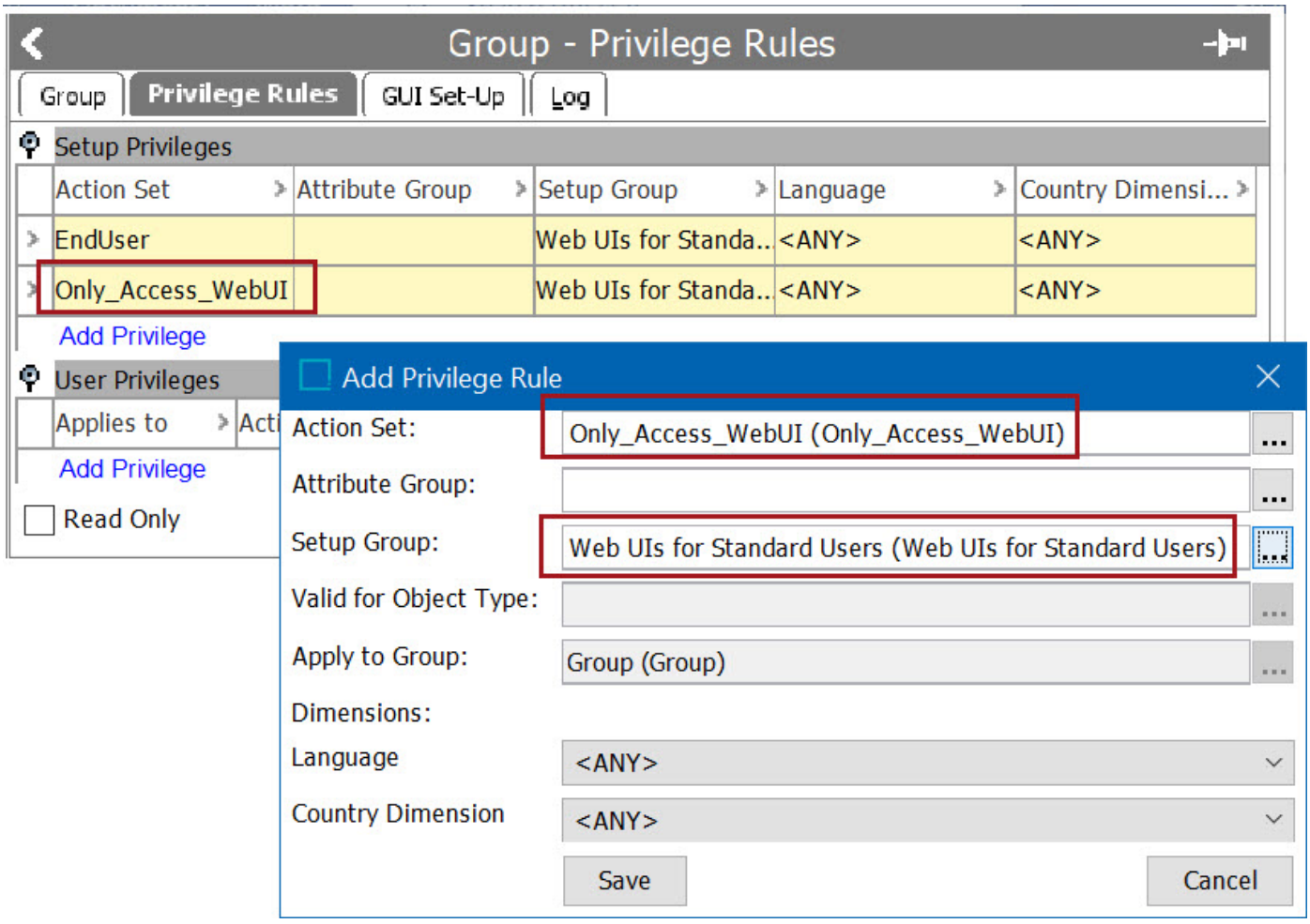


4. Create a new Action Set (in Setup Actions) that contains only the 'Access Web UI' setup privilege.



5. In the user group for the first group of non-admin users, under 'Setup Privileges', click 'Add Privilege'. In the 'Add Privilege Rule' dialog box, click the ellipsis button (...) next to the 'Action Set' field and select the new action set (the one with only 'Access Web UI' in it). (Action Sets > Setup Actions > 'Web UI Access-only' setup action). Then, click Select.

   - For the 'Setup Group' field, find and select the setup group (created in step 1) that contains the Web UIs this group of non-admin users should access. The 'Add Privilege Rule' dialog should resemble the one pictured in the screenshot below.



6. In the user group for the second group of non-admin users, repeat step six.

When this configuration is complete, both groups of non-admin Web UI users can access only those Web UIs they are privileged to access, while the admin users can access all Web UIs in the Web UI setup groups. For instance, users belonging to the second user group of non-admin users will get this message if they attempt to login to the Web UIs accessible only for users in the first group of non-admin users:



Timeout

The configuration property `Portal.Timeout` defines the number of minutes that the Web UI is allowed to remain idle before timing out. Upon time out, all credentials granted to the current Web UI user until the next log in. This property is also used for the timeout of the admin portal.

For example: Adding the property `Portal.Timeout=30` to the sharedconfig.properties file means that a Web UI will remain accessible for 30 minutes of idle time before logging the current user out. The default time is 15 minutes, and if 15 minutes is the desired time, then no configuration property has to be added to the sharedconfig.properties file.

Note: If the 'Inactivity timeout period' option is set with a different timeout period, it will supersede the Portal.Timeout setting. Refer to the **Security Policy** topic in the **Users and Groups** section of the **System Setup** documentation.

Creating a New Web UI

A Web UI is defined in an XML file placed in STEP. This XML file is called a Web UI configuration. Web UI configurations are listed in the STEP Workbench in **System Setup** below a specified setup group. New STEP installations are pre-configured with this setup group, which can be renamed by the user.

If using a system that does not have this setup group configured, one can be easily created by following the instructions found in the **Setup Groups** section of the **System Setup** documentation.

Users can also choose to duplicate an existing Web UI instead of starting from scratch, and the steps are outlined later in this topic. Once a new Web UI is created or duplicated from another Web UI, it can be modified and customized to meet business needs.

Important: Before moving ahead, a crucial starting point in developing a new Web UI is the initial analysis of the requirements and purpose of the Web UI (e.g., how will it be used, what kind of data should be displayed, should data be editable, etc.). Once the use case and any data analysis is done, it is time to move ahead with creating and configuring a Web UI.

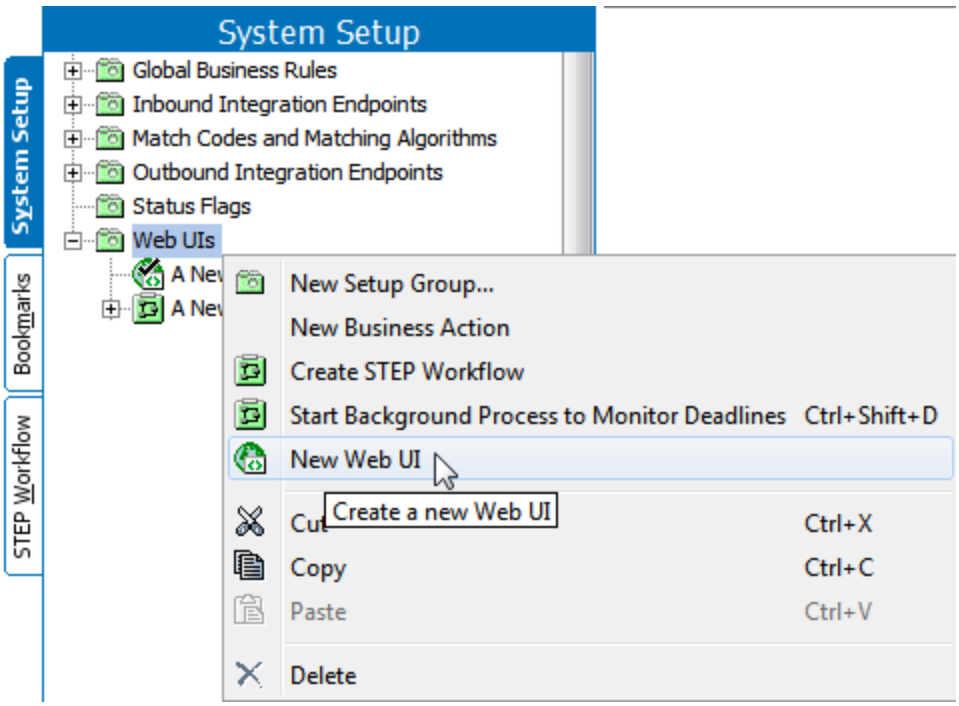
Creating a New Web UI

To create a new Web UI:

1. In **STEP Workbench**, go to the **System Setup** tab and right-click the setup group that is designated as the parent folder for Web UI configurations. Select **New Setup Group** and name the group.

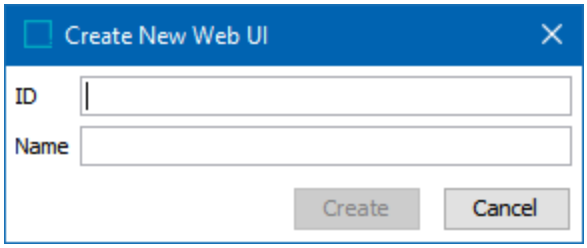
   While you can skip the New Setup Group step and go directly to step 2 to create a new Web UI directly under the parent folder, it is recommended practice to put each Web UI in a Web UI group so that you can limit user access if / as necessary. For systems in which multiple specialized Web UIs are going to be created / exist, this ensures that privileges can be set up so that users can only access Web UIs relevant to them.

2. From the setup group, right-click and choose **New Web UI**. (If the New Web UI option is not showing, make sure you are using the correct setup group folder.)



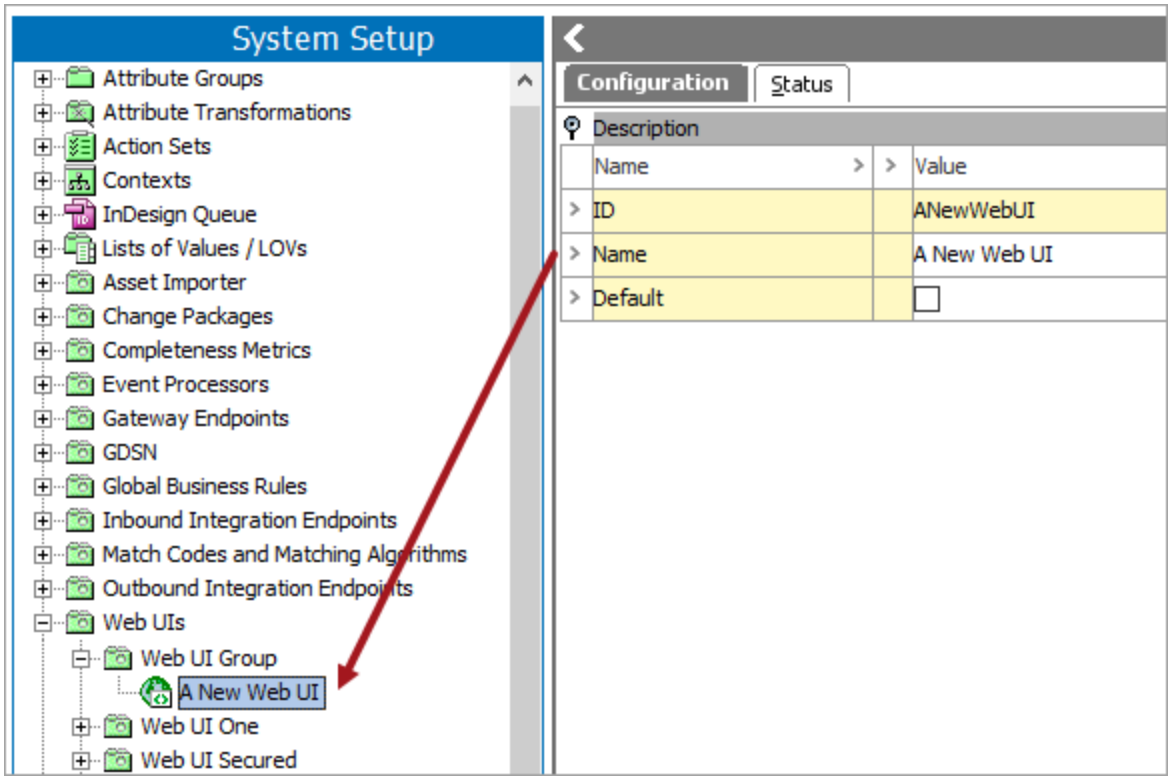
3. In the **Create New Web UI** dialog, enter an **ID** and a **Name** for the configuration, and then click **Create**.

Important: Do not use spaces or special characters in the ID since the ID is used as part of the URL for accessing the Web UI. The name is used as a display name within the STEP Workbench and on the Start Page. The ID becomes the Web UI configuration ID referenced in various sections of the **Web User Interfaces** documentation.



A Web UI configuration is now created in STEP and will appear by name under the setup group folder.

The Web UI is available for configuration editing (e.g., Web UI name and default status) in System Setup and available to access using a browser.



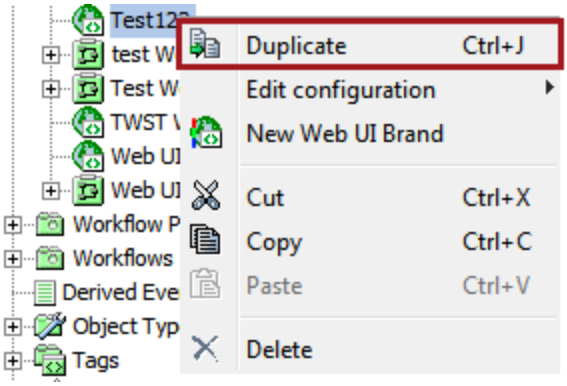
If **Default** is enabled / checked on the Configuration tab, the Web UI can be accessed via a simpler URL (no Web UI configuration ID required) than what is used for non-default Web UIs. For more information, refer to the **Accessing a Web UI** section of the **Web User Interfaces** documentation.

Note: Setting a default is not required. If using this feature, only one Web UI at a time can be set as the default. The Default checkbox for a specific Web UI cannot be unchecked once it has been enabled, but users can change the default selection by enabling the value for another Web UI.

Duplicating an Existing Web UI

Instead of creating a new Web UI, it may be ideal to duplicate an existing one. In many cases, this will make the creation of a similar Web UI easier since much of the configuration has probably already been done.

1. In the workbench, go to **System Setup** and expand the setup group(s) that contains Web UI configurations.
2. Right-click the Web UI configuration to duplicate.



3. Select **Duplicate** from the menu.
4. When the 'Duplicate' dialog appears, enter an **ID**. The **Name** is pre-populated, which can be edited or a new name can be entered. Click **OK** when finished.

A Web UI configuration, duplicated from an existing Web UI configuration, is now created in STEP and will appear by name under the setup group folder. The Web UI is available for configuration editing as described at the end of the **Creating a New Web UI** section found earlier in this topic.

For details about working with Web UI revisions and deleting a Web UI configuration, refer to the **Managing Web UI Configurations** section in the **Web User Interfaces** documentation.

For information on how to use the Web UI Designer, refer to the following topics in the **Web User Interfaces** documentation:

- Managing Web UI Configurations
- Designer Access
- Design Mode Basics
- Selecting Components
- Configuring Components
- 'Web UI component configuration reference' available at [system]/webui/docs

Accessing a Web UI

Web UI users, regardless of their role (e.g., admin or end user), must have Web UI access privileges. For more information on setting privileges up, refer to the **Web UI Getting Started** section of the **Web User Interfaces** documentation.

Once the proper privileges are set up, you can access a Web UI with **Direct Browser Access** or **Launch Button Access**, both of which are defined below, in addition to the **Forgot Password** functionality.

Read more about **Creating a New Web UI** in the **Web User Interfaces** documentation.

For details about **Managing Web UI Configurations** (reverting to previous versions or removing a Web UI configuration revision from the revision history), refer to the **Web User Interfaces** documentation.

For information on how to use the Web UI Designer, refer to the following topics in the **Web User Interfaces** documentation:

- Designer Access
- Design Mode Basics
- Selecting Components
- Configuring Components
- 'Web UI component configuration reference' is available at [system]/webui/docs

Direct Browser Access

Privileged users can access a Web UI by opening a browser and entering the relevant URL. A Web UI URL is the same as the URL used to access STEP Workbench but is appended with **/webui**.

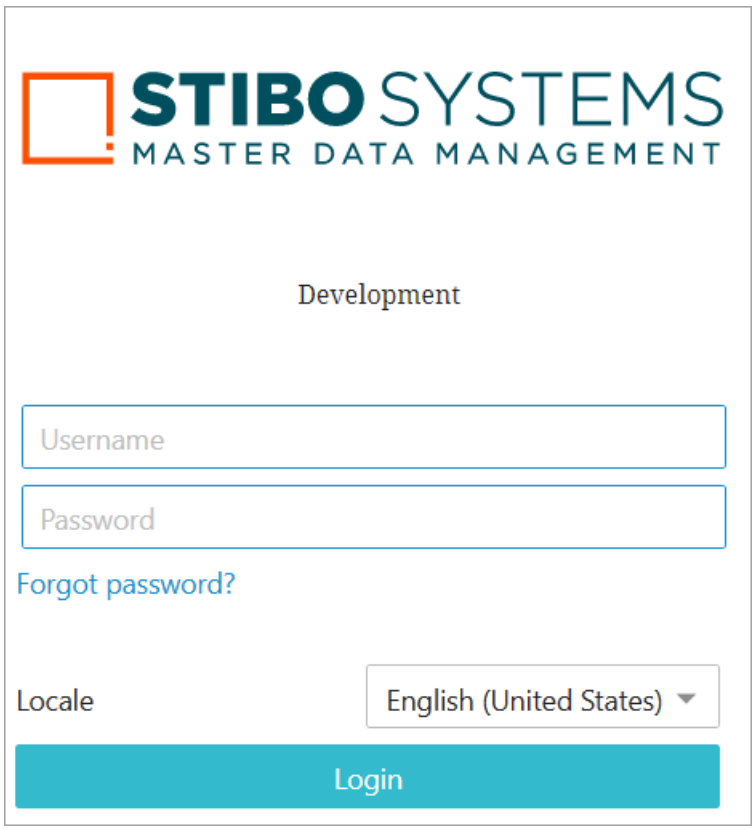
If the Web UI you are accessing is not enabled as the Default Web UI, the URL must also be appended to include the ID of the Web UI configuration.

Default URL Format	Non-Default URL Format
http://[your system name]/webui	http://[your system name]/webui/[Web UI configuration ID])

The following are basic example URLs for a Web UI configuration where the system name (server URL) is 'your-system' and the Web UI configuration ID is 'ANewWebUI.'

Example Default URL Format	Example Non-Default URL Format
http://your-system/webui	http://your-system/webui/ANewWebUI

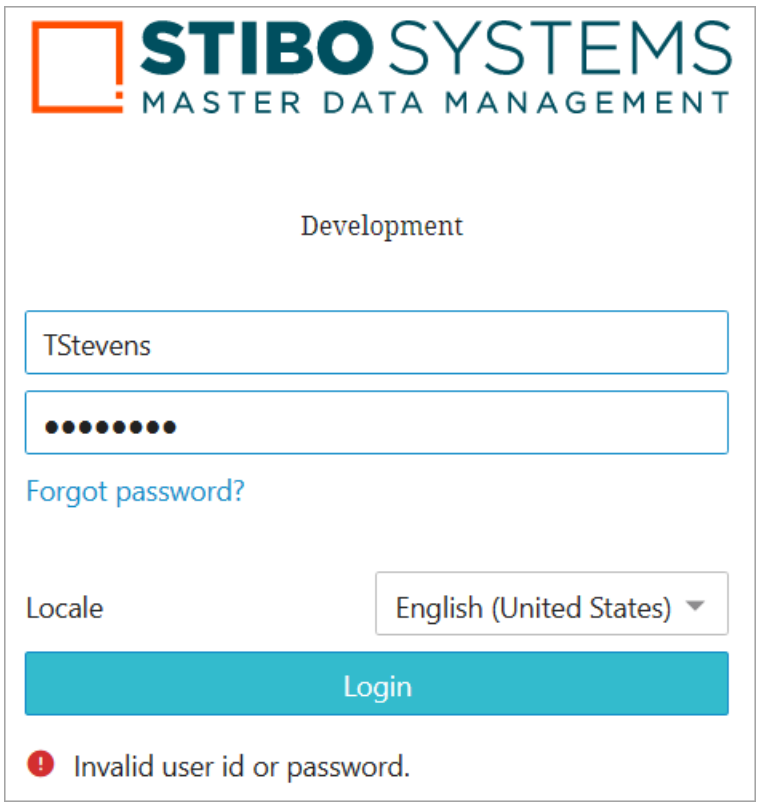
Once the URL is entered into a browser address bar, a login screen displays.



To access the Web UI homepage:

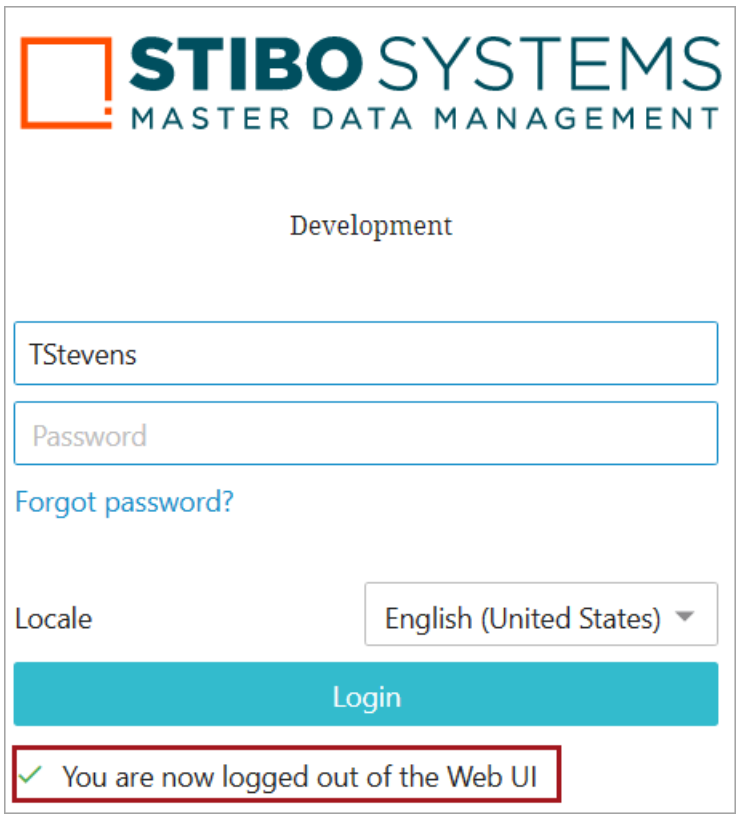
1. Enter STEP Username.
2. Enter STEP Password.
3. Click Login.

If you do not have authorization to use a particular Web UI instance, access will be denied and a 'You do not have privileges to access this Web UI' message displays.



Users with the appropriate privileges can access multiple Web UIs under a single username by logging in just once. Once a user has logged into a single Web UI, additional Web UIs (for which a common username is valid) may be opened in the same browser, either in new browser windows or new browser tabs. The name of the Web UI displays in the browser tab. During a browser session, logging in to each new Web UI is automatic, forgoing the login screen altogether.

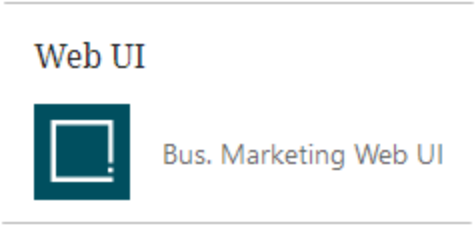
To access a Web UI using a different username, users must first log out of one of the open Web UIs. This has the effect of logging the user out of all open Web UI sessions. The closed Web UIs will revert to the login screen and display a notification that states, 'You are now logged out of the Web UI.'



Once logged out, users are able to log into a Web UI using a different username.

Launch Button Access

The Start Page can be configured to display a launch button for all Web UIs created in STEP. Web UIs display in alphabetical order by name. Click the applicable launch button to open your default browser and navigate directly to the Web UI URL.



In the config.properties file (or sharedconfig.properties file if running servers in cluster) the **Webstart.Portal.ShowAll** setting must be equal to true. If **Webstart.Portal.ShowAll** is equal to false, no Web UI launch buttons are displayed and users must follow the **Direct Browser Access** directions earlier in this topic.

```
#=============================================================================#
# Portal Settings
#=============================================================================#
Webstart.Portal.ShowAll=true
```

Forgot Password

If a user forgets their password, or is otherwise unable to log in with the password they enter into the 'Password' field, that user can click the 'Forgot Password?' link, located just beneath the login fields.

If your company is a mix of LDAP and non-LDAP users, use the WebUI.ForgotPassword.ForceEnabled property in the sharedconfig.properties file. Set the property to true to enable the 'Forgot password?' functionality, even when LDAP is used. LDAP users cannot reset their passwords in this way. Refer to the **Single Sign-On (SSO) and LDAP** section below.

Prerequisites

To enable the 'Forgot Password' functionality, ensure the following settings:

1. Configure the following email-related properties on the sharedconfig.properties file:
   - `Mail.MailServerURL=[the host name of the mail server]`
   - `Mail.DefaultFromMailAddress=[the email address used as a sender if no specific sender is available]`
2. Associate an email address with each user ID in the workbench 'System Setup' tab under the 'Users & Groups' node.

   Important: If user information is configured without an email address, or if a user submits information that does not match what is saved in the system, or if an email address is associated with multiple user accounts, the user receives no password reset email. Additionally, if an email is provided for a user in one user group, the email address is associated with that user for all user groups in which that user is included.
3. Prior to needing a password reset, a user can verify the accuracy of their email address via the User Details Screen within the Web UI, provided that for each user, the 'Force Authentication via STEP' setting is checked on the user node in workbench. Refer to the **From the Web UI** section of the **Changing a User Password** topic in the **System Setup** documentation.

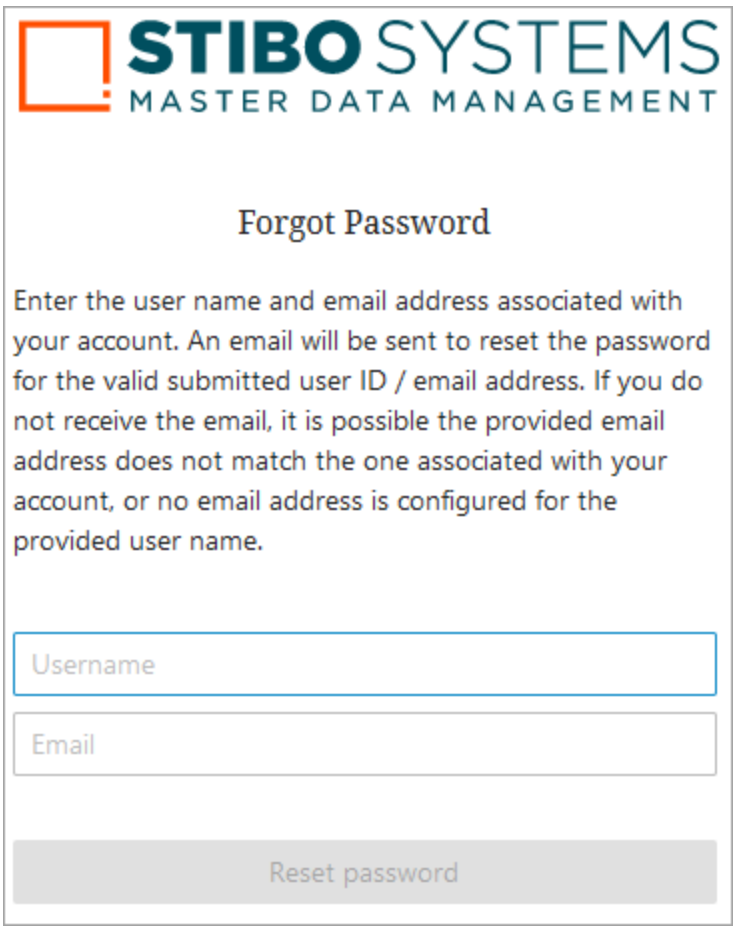
To reset a password, follow the directions below:

1. Click the **Forgot password?** link to display to the 'Forgot password?' screen.

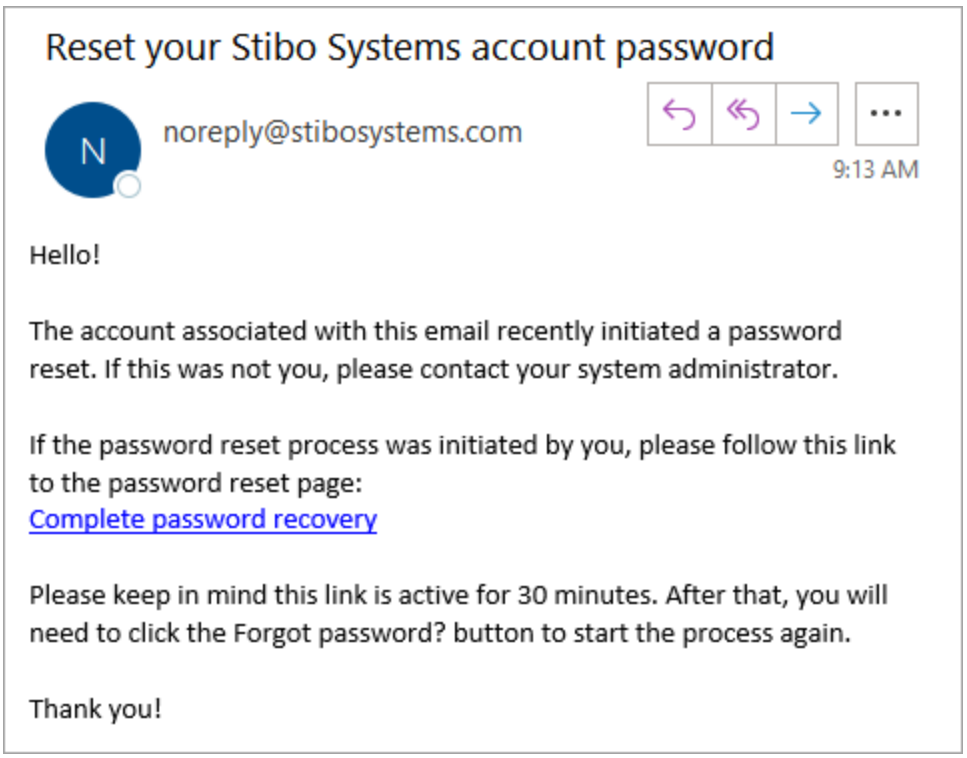


2. Enter the Username and email address associated with the user's account.

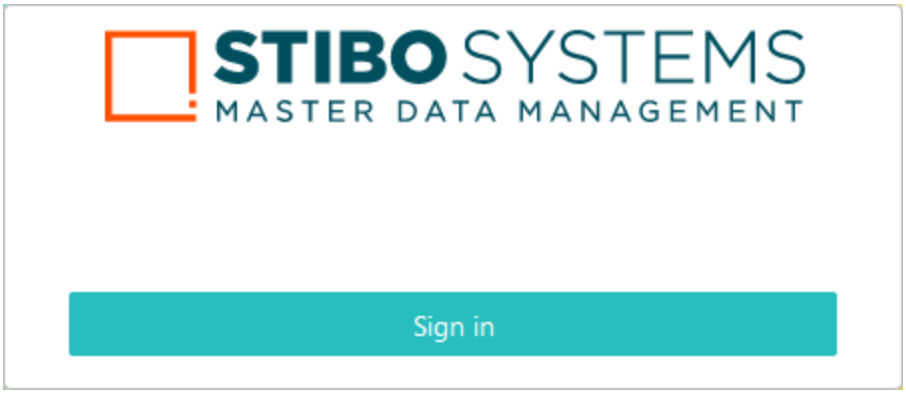
Note: The email is evaluated on email correctness only, not case sensitivity.



If the Username and Email address match what is in the system, an email containing a 'Complete password recovery' link is auto-generated and sent.



3. Click the **Complete password recovery** link to be directed to a new page where a new password can be set.
4. Re-type the new password, and if both passwords match, the **Save new password** button becomes active.
5. Click the **Save new password** button to set the new password and display a window with a 'Sign in' button.



If at any point the passwords do not match, a **Passwords don't match** warning displays.



6. Click the **Sign in** button to return to the original login page.
7. Enter the user ID and the new password to gain access to Web UI.

   The new password created during this process is saved to the server.

Restricting User Access to Web UIs

If your business processes require that some Web UIs not be accessible by some users, this setup can be implemented using a combination of Web UI setup group and user group configurations. For information on how to configure Web UIs for limited access, refer to the 'Restricting User Access to Web UIs' section of the **Web UI Getting Started** topic.

Single Sign-On (SSO) and LDAP

Implementations of STEP that enable access to the Web UI via Single Sign-On (SSO) or via LDAP do not display to the 'Forgot Password?' button because access to the Web UI using these methods does not involve the standard login page.

If your company consists of users that sign in via LDAP and those that do not, the `WebUI.ForgotPassword.ForceEnabled` property can be set in the sharedconfig.properties file. Set to true to enable the 'Forgot password?' functionality, even when LDAP is used. However, the LDAP users cannot reset their passwords in this way.

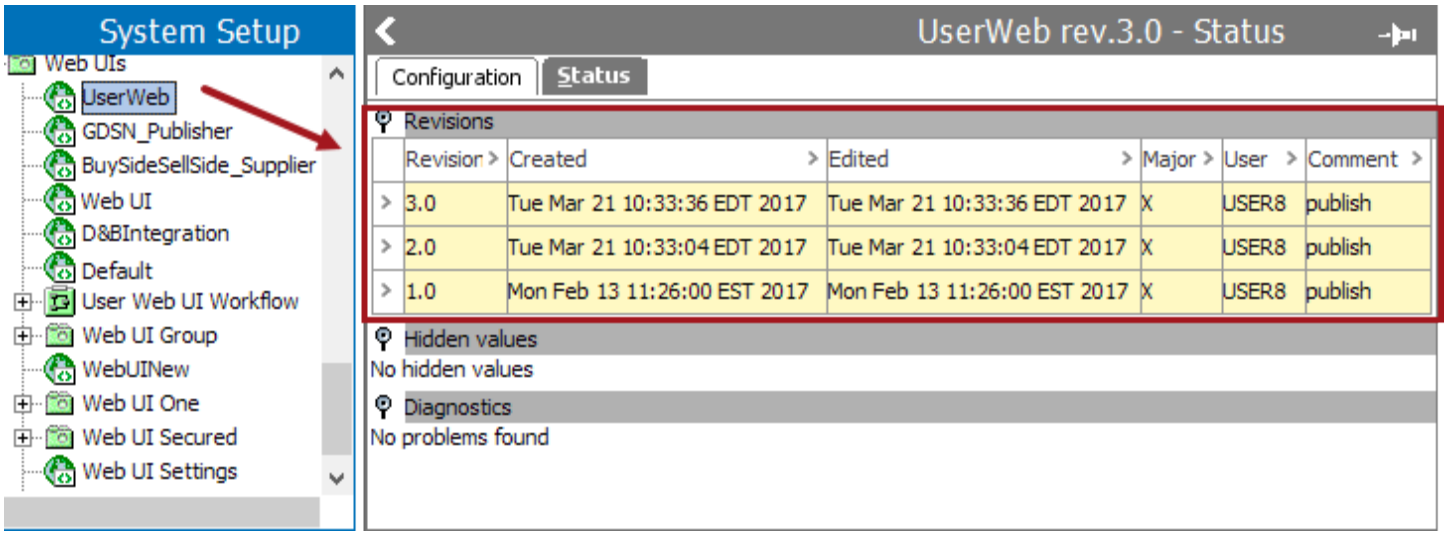
For information regarding changing your password from within the Web UI, refer to the **Changing a User Password** topic in the **System Setup** documentation.

Managing Web UI Configurations

Each time a change to a Web UI configuration is saved, a revision is created and listed in the STEP Workbench. This allows users to better manage the Web UI. There may be a need to revert to a previous revision if a configuration error is made. And if a particular revision contains an error, it can be removed (purged) so that it cannot be used again.

Revisions can be viewed from the **System Setup** tab in the workbench. Click on the Web UI name and then on the **Status** tab to view the revisions for that particular Web UI configuration.

Revisions are shown under the **Revisions** flipper, and display with the latest (newest) one at the top of the list. Each revision is shown with the date it was created and edited, whether revision includes a major change or not, the user who made the changes, and system revision comments.

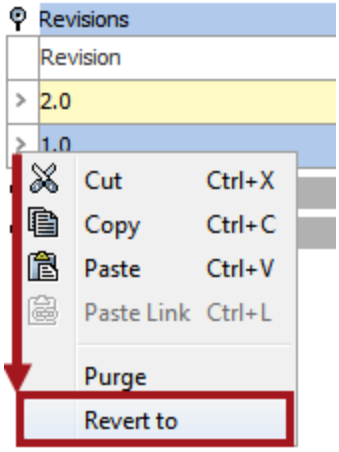


Note: The **Hidden values** flipper displays hidden inherited values on the object, and are those that are inherited from another dimension point rather than from a parental object. More information on this is available in the **Contexts** topic in the **System Setup** documentation. Diagnostics displays any issues found by system diagnostics with the object. If a problem has been found, the information can be copied by clicking the file link.

Reverting to an Older Revision

Revert a Web UI configuration to an earlier revision by following these steps in the workbench:

1. In **System Setup**, select the relevant Web UI configuration.
2. Click the **Status** tab.
3. Click the arrow to the left of the row that contains the revision that you would like to revert to, then select **Revert to**.

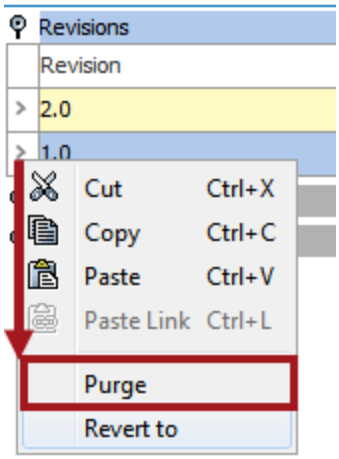


The Web UI configuration is now reverted to the selected revision and a new revision is created.

Purge a Web UI Configuration Revision

To remove a Web UI configuration revision from the revision history:

1. In **System Setup**, select the relevant Web UI configuration.
2. On the **Status** tab, click the arrow to the left of the row that contains the revision to purge, and then click **Purge**.

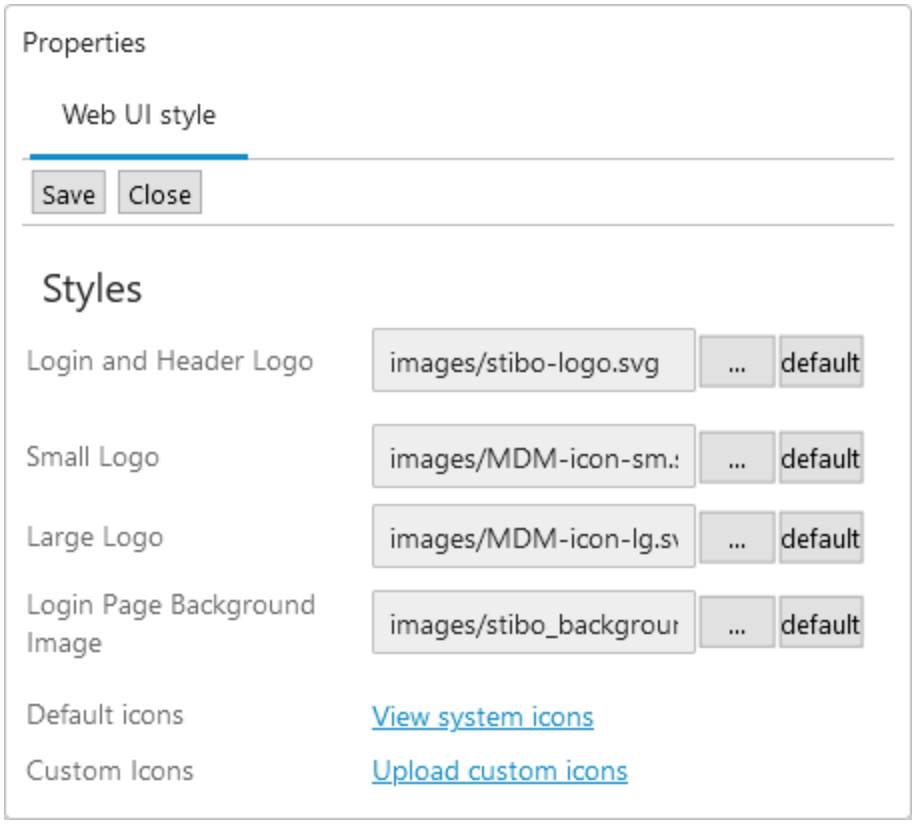


Note: If you purge a Web UI configuration revision and then later revert a workflow to a version that is dependent on the purged configuration revision, it may result in the workflow and/or Web UI configuration not working as expected.

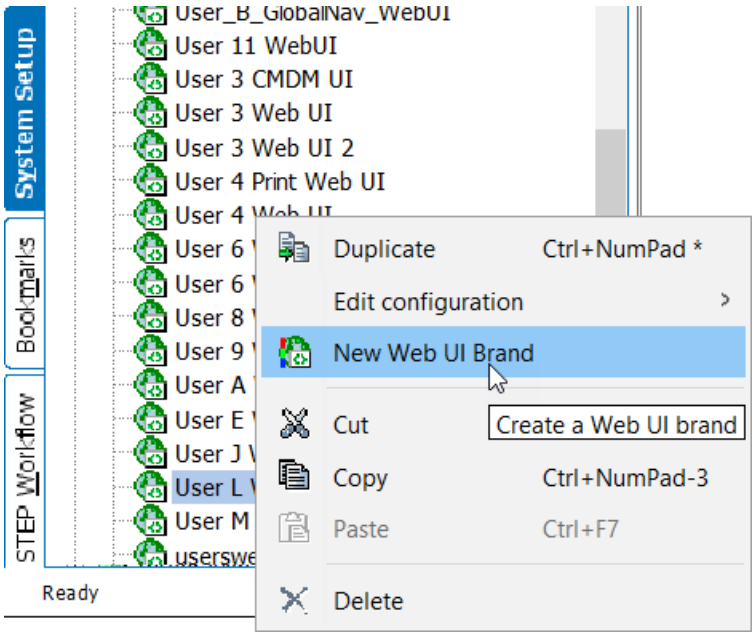
Creating a New Web UI Brand

Clicking this option allows for differing styles of the selected Web UI. This is helpful if different users need the same Web UI but with a different look and feel.

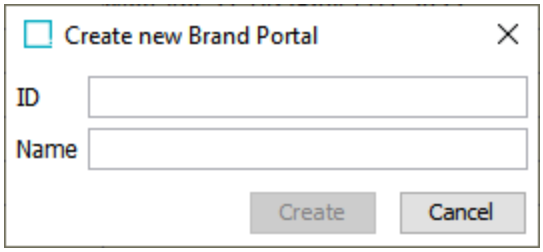
By clicking this option, the main Web UI is the only one that needs to be fully configured. Duplicates of the initial Web UI are configurable only for styling, i.e., logos, pictures, and icons. No other modifications can be made within the designer.



1. In **System Setup**, expand the Setup Group that contains Web UI configurations.
2. Right-click the Web UI configuration to create as a New Web UI Brand.
3. Select **New Web UI Brand** from the menu.



4. Within the popup dialog, provide an ID and Name for the New Web UI Brand.

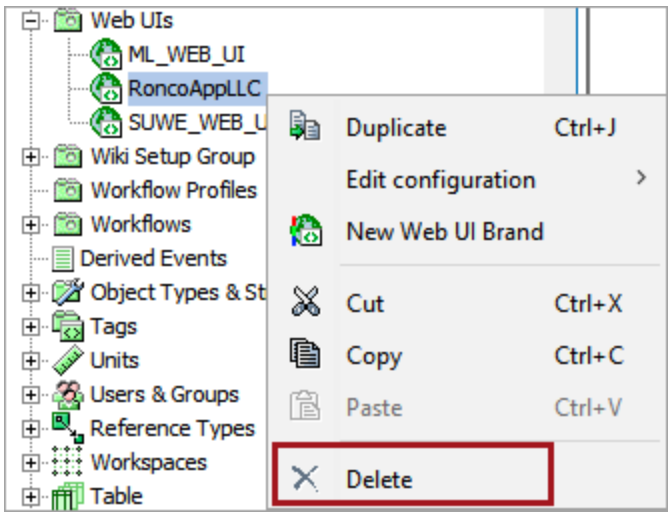


5. Click 'Create.' The dialog closes and a New Web UI Brand has been created.

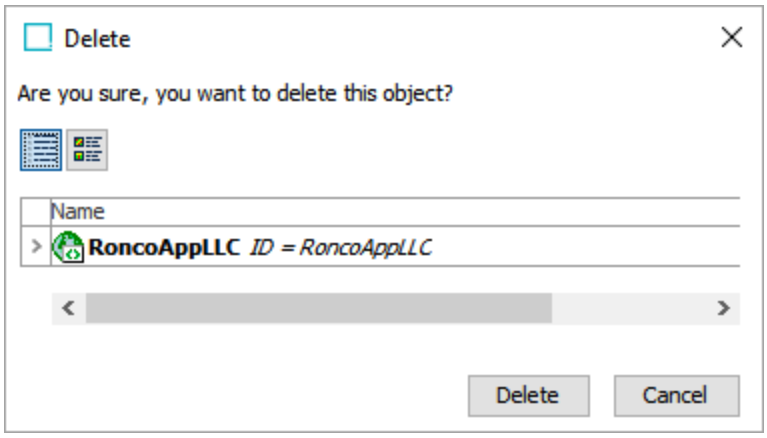
More than one New Brand Web UI can be created, and all New Brand Web UIs are linked to the original Web UI that the Brand New Web UIs were based on. With these Web UIs all being linked, anything done to assets, classifications, entities, and objects is reflected across all linked Web UIs; however, any Web UI configuration changes made to the original Web UI do not reflect in any created New Brand Web UI.

Delete a Web UI Configuration

1. In **System Setup**, expand the Setup Group that contains Web UI configurations.
2. Right-click the Web UI configuration to delete.



3. Select **Delete** from the menu.
4. Click **Delete** again once the 'Delete' dialog appears. (If you decide you do not want to delete the Web UI, click **Cancel** to exit without deleting.)
5. Observe on the 'Delete report' dialog that the Web UI was deleted successfully.



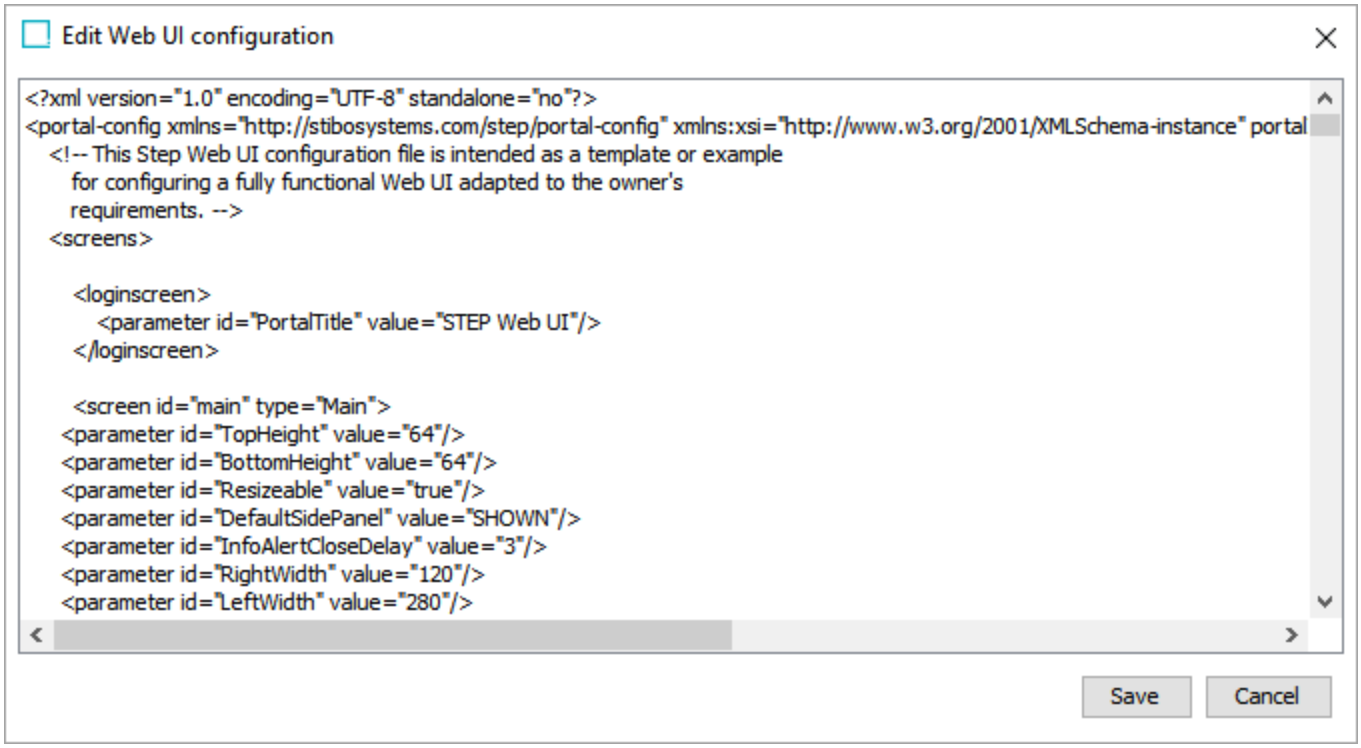
If there is anything stopping the Web UI configuration from being deleted, warning messages will be shown in the 'Delete report' dialog. You should review these messages carefully and make any changes, if applicable. Choosing 'Force Delete' is only an option when the button is active and should be used with caution.

Edit a Web UI Configuration

While it is recommended that Web UI configurations are done through Web UI designer so that you are notified when making invalid design choices, a Web UI configuration is actually an XML file that contains all the information about the content of the Web UI. The XML for a Web UI configuration can be edited and can be used for building custom screens. Editing the Web UI XML should be done with caution, as an error in the XML syntax or content can potentially break the Web UI.

To edit the Web UI XML:

1. Go to **System Setup** and expand the Setup Group that contains Web UI configurations.
2. Right-click the Web UI configuration to edit.
3. Select the menu item **Edit configuration**.
4. Select **Internal editor** (shown below) or **External editor** (if you have a software program that allows for editing of XML files).
5. Edit the XML for the Web UI once the editor appears.
6. Click the **Save** button to save the changes.



By editing the XML, It is possible to apply restrictions to specific components or parameters so that they can only be found by specific user groups. In the example below, the Status Selector Homepage Widget will only be visible to users in the 'Data Stewards' user group due to the presence of the 'restrict="Data Stewards"' attribute.

```
<component restrict="Data Stewards" type="StatusSelectorHomepageWidget">
  <!-- conf left out -->
  <parameter-list id="States">
    <parameter  value="Enrich"/>
    <parameter value="Marketing"/>
    <parameter value="Verify"/>
  </parameter-list>
  <parameter id="Title" value="Onboarding Workflow"/>
  <parameter-list id="InitiateScreenSelectors"/>
</component>
```

In a similar way, a single state could be restricted:

```
<component type="StatusSelectorHomepageWidget">
  <!-- conf left out -->
  <parameter-list id="States">
    <parameter restrict="Data Stewards" value="Enrich"/>
    <parameter value="Marketing"/>
    <parameter value="Verify"/>
  </parameter-list>
  <parameter id="Title" value="Onboarding Workflow"/>
  <parameter-list id="InitiateScreenSelectors"/>
</component>
```

For information on how to use the Web UI Designer, refer to the following topics in the **Web User Interfaces** documentation:

- Designer Access
- Design Mode Basics
- Selecting Components
- Configuring Components
- 'Web UI component configuration reference' available at [system]/webui/docs.

For more information, refer to the **Accessing a Web UI** section of the **Web User Interfaces** documentation.

Designer Access

All tasks related to configuring a Web UI, besides the initial setup in workbench, are carried out using the Web UI Designer.

The Web UI designer enables users to modify any Web UI to better suit business needs. Web UI components can be added, configured / reconfigured, and unused components can be deleted from showing on screen, allowing users to focus on the tasks at hand. Furthermore, the Web UI designer allows for basic look-and-feel changes, such as company logo, colors, and screen font size.

The Web UI Designer is a licensed component and thus to open it, the required license must be in place. The user or users accessing designer must have user privileges to make Web UI configuration changes.

Applying an Update Web UI Configuration Action Set

First, an 'Update Web UI configuration' action will need to be created if it does not already exist as a standalone item or as part of an existing Action Set. This privilege enables users to run a Web UI in design mode.

Note: The Designer button in the Web UI is not displayed for users without this privilege.

1. Go to **System Setup** in the STEP Workbench.
2. Under **Action Sets**, right-click Setup Actions and add a New Action Set.
3. Type in an ID and Name then click Create. In this example, the name is 'Web UI Designer.'
4. Click on the new action set that was just created (Web UI Designer) and go to the Action Set tab.
5. Click on the Add Action link and select 'Update Web UI configuration' then click Select.
6. Go to the **User & Groups** section of **System Setup** and click on the user group that needs Web UI Designer access.
7. On the Privilege Rules tab, click the Add Privilege link under the Setup Privileges flipper.
8. In the 'Add Privilege Rule' dialog box, click the ellipsis button (...) next to the Action Set field and choose the Action Set you just created (Action Sets > Setup Actions > Web UI Designer). Then, click Select.
9. Click Save.

Note: Adding the 'Update Web UI configuration' action allows a user to view the design mode icon once they log in to a Web UI. At a minimum, the actions 'View context' and 'View setup group' must also be added to the user group privileges before a user is able to log in to a Web UI. Read more in the **Accessing a Web UI** section of the **Web User Interfaces** documentation.

For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

Web UI configurations will, by default, not be user / user group specific. That is, apart from the fact that the standard privilege setup can influence what a user accesses / is able to do, the Web UI will be the same for all users logging in.

By editing the XML, It is possible to apply restrictions to specific components or parameters so that they can only be found by specific user groups. In the example below, the Status Selector Homepage Widget will only be visible to users in the 'Data Stewards' user group due to the presence of the 'restrict="Data Stewards"' attribute.

```
<component restrict="Data Stewards" type="StatusSelectorHomepageWidget">
  <!-- conf left out -->
  <parameter-list id="States">
    <parameter  value="Enrich"/>
    <parameter value="Marketing"/>
    <parameter value="Verify"/>
  </parameter-list>
  <parameter id="Title" value="Onboarding Workflow"/>
  <parameter-list id="InitiateScreenSelectors"/>
</component>
```

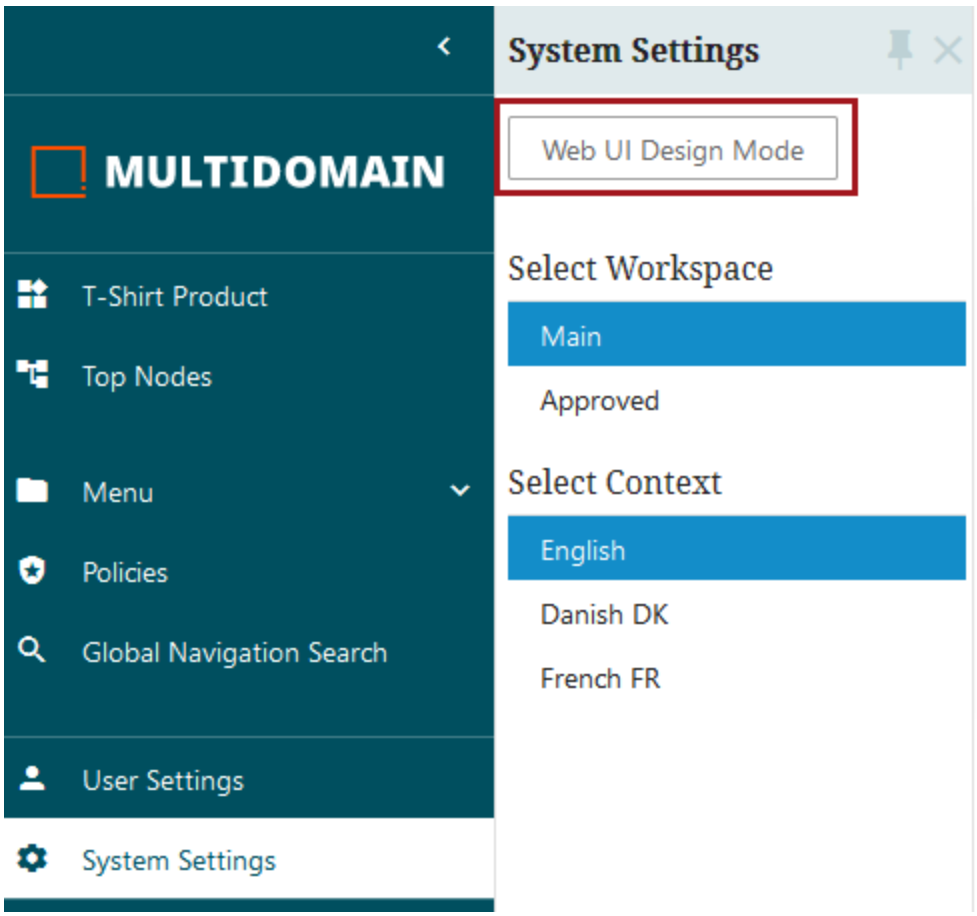
In a similar way, a single state could be restricted:

```
<component type="StatusSelectorHomepageWidget">
  <!-- conf left out -->
  <parameter-list id="States">
    <parameter restrict="Data Stewards" value="Enrich"/>
    <parameter value="Marketing"/>
    <parameter value="Verify"/>
  </parameter-list>
  <parameter id="Title" value="Onboarding Workflow"/>
  <parameter-list id="InitiateScreenSelectors"/>
</component>
```

Entering Design Mode

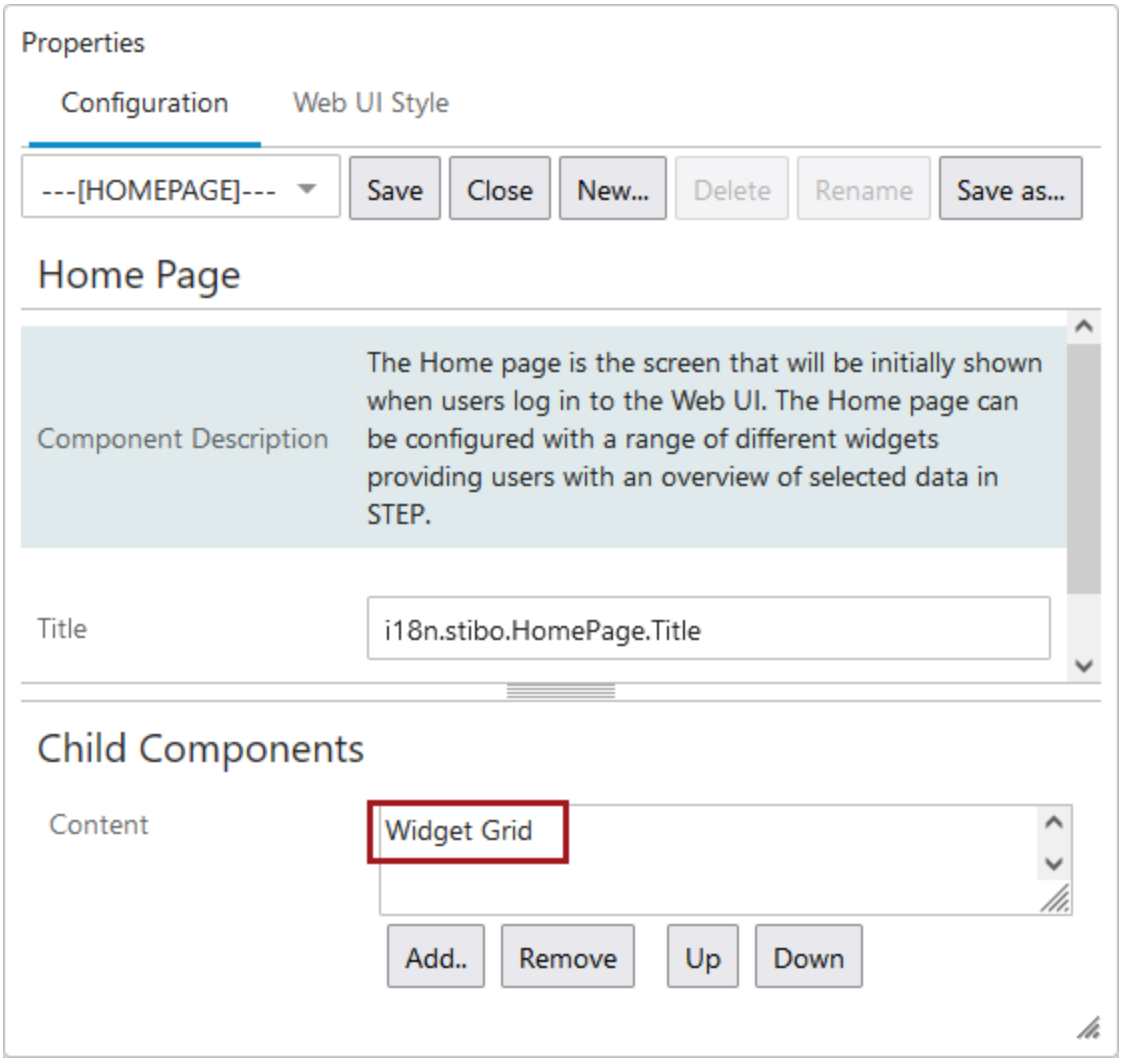
Entering design mode can only be done by privileged users. These users can enter design mode by clicking on a launch button within Web UI or by entering a specific design mode URL into a web browser. Both methods are explained below.

1. Log in to the Web UI.
2. Click the design mode launch button icon found on the Global Navigation Panel. Navigate to the System Settings section, and click on the 'Web UI Design Mode' button.

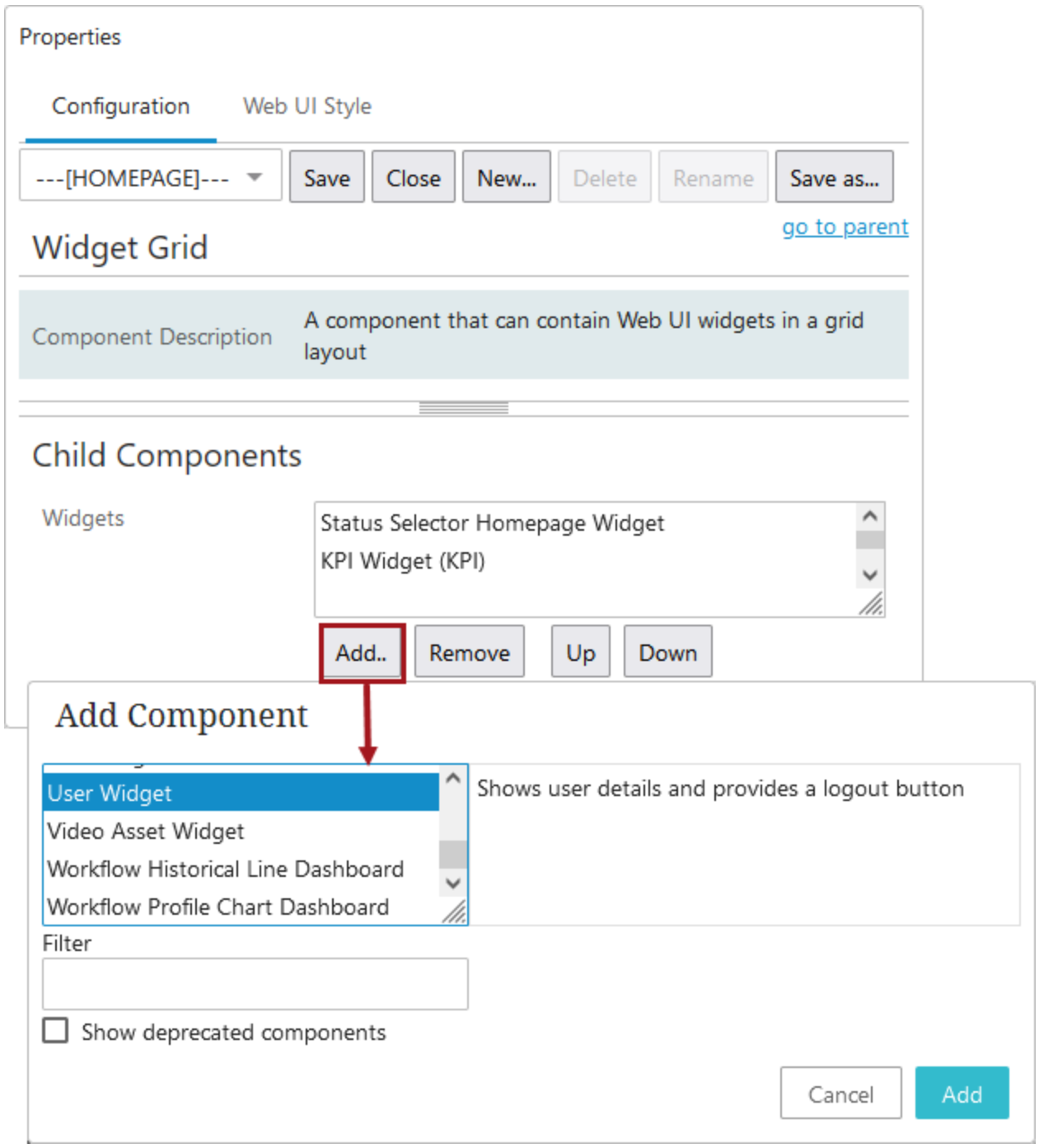


Alternatively, once in design mode, a second design mode button can be added by adding the User Widget.

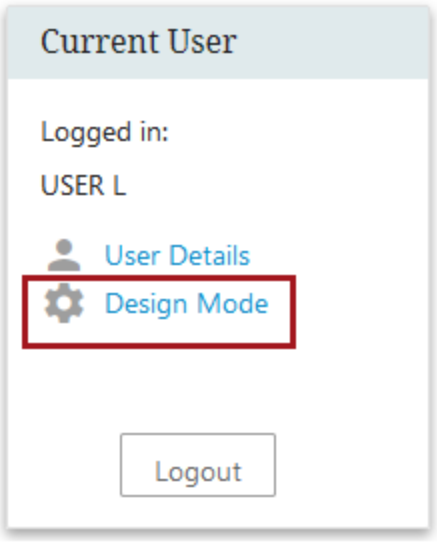
1. Go to ---[HOMEPAGE]--- > Child Components > Content > double click on Widget Grid.



2. On the Widget Grid, go to Child Components > Widgets > click **Add** to add a **User Widget**.


Properties
Configuration
Web UI Style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Widget Grid
Component Description
A component that can contain Web UI widgets in a grid layout
Child Components
Widgets
Status Selector Homepage Widget
KPI Widget (KPI)
Add..
Remove
Up
Down
Add Component
User Widget
Video Asset Widget
Workflow Historical Line Dashboard
Workflow Profile Chart Dashboard
Shows user details and provides a logout button
Filter
Show deprecated components
Cancel
Add

3. Click Save and close the designer. An example of a User Widget is below.



Append URL in Browser

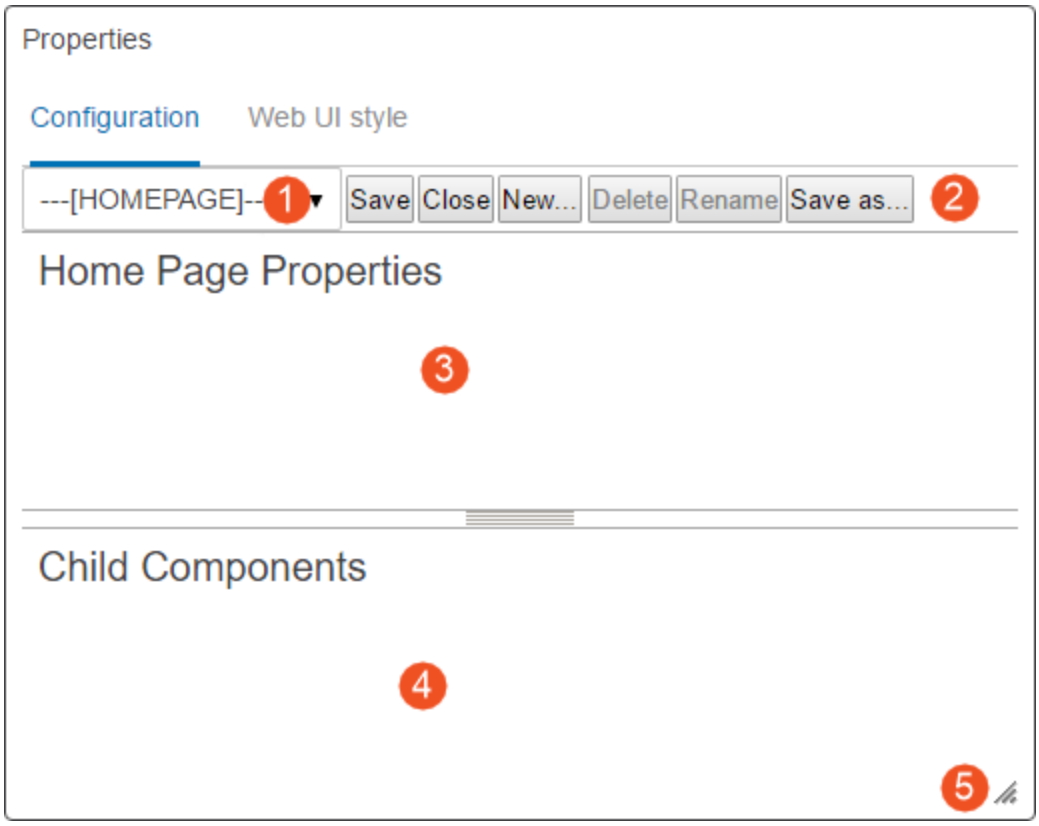
If a launch button is not already configured, or just as an alternative method, a user may access design mode by appending the Web UI URL to include **#designmode=true** at the end. If the Web UI URL already includes the '#' character, it needs to be appended with the string **&designmode=true** instead. Users will be automatically entered into design mode after entering their username and password on the standard Web UI login screen.

As a basic example, this is what the URL will look like in both cases for a Web UI configuration where the system name is 'your-system' and the Web UI configuration ID is 'ANewWebUI':

```
http://your-system/webui/ANewWebUI#designmode=true
http://your-
system/webui/ANewWebUI#contextID=Context1&workspaceID=Main&screen=Import
&designMode=true
```

Design Mode Basics

The Web UI Designer Graphical User Interface (GUI) is divided into four main areas plus a drag handle for window resizing:



1. **Screen dropdown**: Select which screen / component to review and edit.
2. **Action icons**: Icons that can be clicked allow users to save changes to the properties configuration, close / exit the properties window, create a new screen, rename a screen, or save a configuration as new screen ID. Each option is explained in greater detail in this documentation.
3. **Properties area**: The main component properties of a selected screen are displayed and can be edited.

   Parameters are grouped together on the component properties screens for easier understanding of parameter interactions. Parameters that are required, as well as those frequently used, are shown immediately when opening a properties page. Additional optional parameters are grouped by topic and displayed when the user clicks the arrowhead preceding the group.

4. **Child components area**: This is the area where child components can be edited, deleted, and created. The area only displays information if the selected component can contain child components. If unavailable, the area under the Child Components header is empty.
5. **Resizable window**: By dragging the lower right corner of the design window, users can adjust the screen to easily view all available content. The component fields within the window adjust in size to match the size of the window.

There are also two main tabs in the designer that the user can work in to make changes to the Web UI. The tabs are called:

- Configuration
- Web UI style

For more information on the functionalities of each tab, refer to the Designer Configuration Tab and the Designer Web UI Style Tab topics in this documentation.

For information on the design system, which holds the guidelines for the visual styling, interactive behaviors, and component design within the STEP Web UI, as well as information on typography, capitalization, truncation patterns, the color system, and other design elements, refer to the **Web UI Design System** topic.

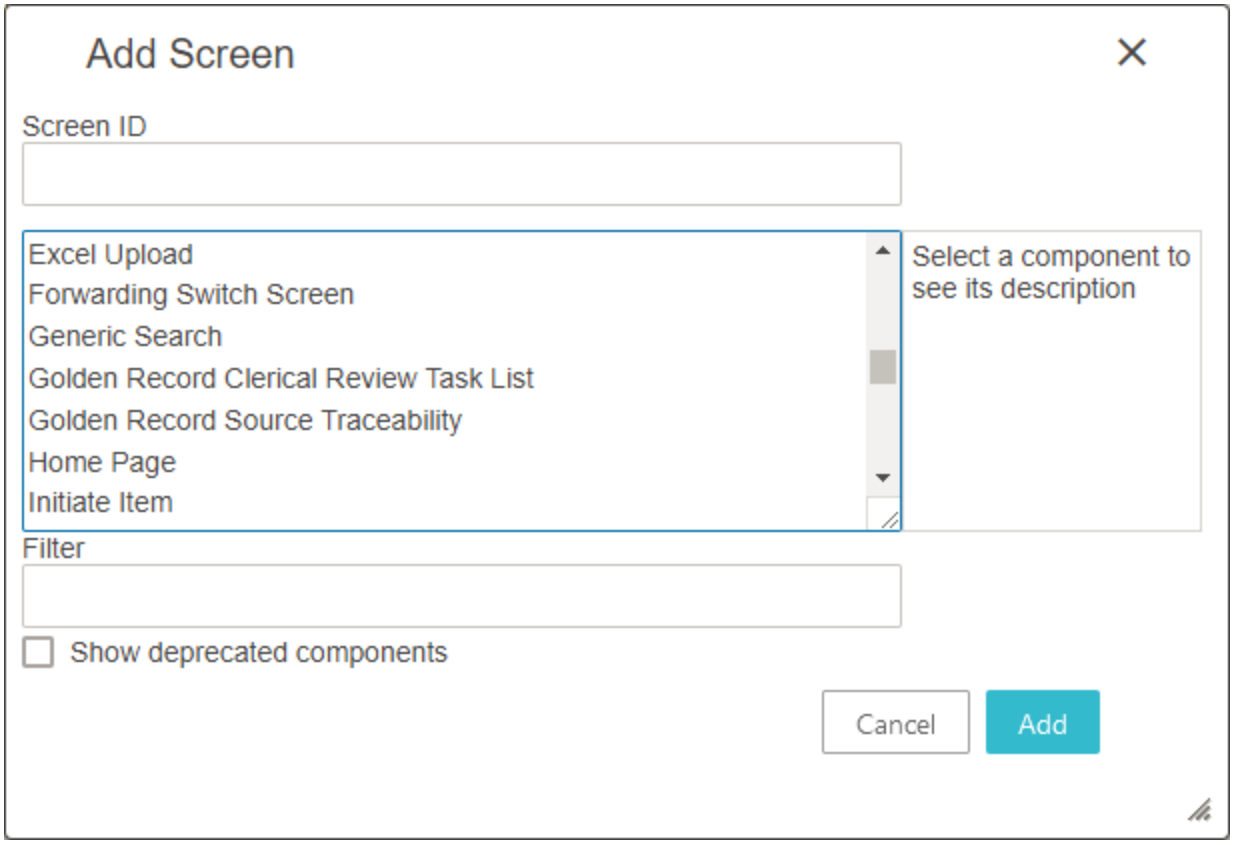
Designer Configuration Tab

The Configuration tab in the design is were Web UI screens are created and maintained for end user use.

Creating a New Screen

Select a component from a list and give it an identifying screen ID. The screen ID will show in the dropdown once saved.

1. Click the **New...** button in the Designer.



2. In the 'Add screen' dialog, enter an ID for the new screen in the **Screen ID** field. Make it descriptive so that it can be easily identifiable when a user looks through Screen IDs to make a selection.
3. In the screen type list, select the screen type you want to create by clicking on the displayed screen ID. Click the ID to view explanations on the different types. Use the **Filter** field to quickly display only the components matching the text entered in the filter box.
4. Click the **Add** button.

The new screen is created and displayed in the Web UI. You can now configure any applicable parameters and child components within the properties dialog.

Note: When the 'Show deprecated components' checkbox is checked, the withdrawn or deleted components will be listed within the screen type list. Using any of these deprecated components will prompt the Web UI user with an error.

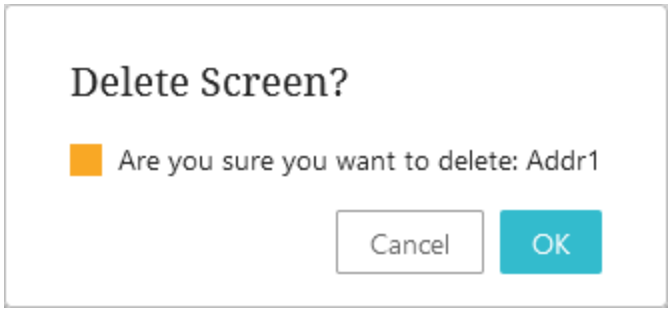
Deleting a Screen

Delete an existing screen ID, and the ID will be removed from the screen dropdown list.

1. Select the screen you want to delete from the dropdown screen list.
2. Click the **Delete** button in the clickable icon row of the Designer window.



3. A 'Delete screen?' dialog appears. Click **OK** to proceed.



The screen is now deleted.

Note: If a screen is referenced by other parts of the configuration a warning will appear telling where the screen is referenced. The screen cannot be deleted until the references are deleted. The delete button is inactive when you are on the ---[LOGIN]---, ---[MAIN]---, or ---[HOMEPAGE]--- screen IDs.

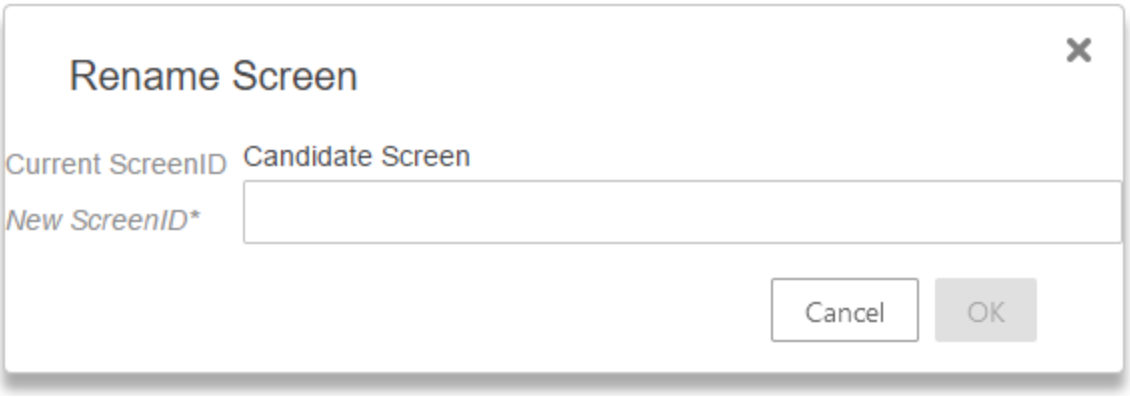
Renaming a Screen

Rename an existing screen ID to a new screen ID, and the existing screen ID will be replaced by the new one.

1. Select the screen you want to rename from the screen list.
2. Click the **Rename** button in the Designer.



3. A 'Rename screen' dialog appears. Enter the new name for the screen ID.



4. Click **OK**.

The screen is now renamed. If the renamed screen is referenced somewhere else in the Web UI configuration, the old name (screen ID) will automatically be replaced by the new name.

Note: The that the 'Rename' button is inactive when you are on the ---[LOGIN]---, ---[MAIN]---, or ---[HOMEPAGE]--- screen.

Saving Changes to a Configuration

There are two options for saving screens in the designer.

Save: After making configuration edits, click the **Save** button. The screen is saved with the current screen ID.

Save as: Saving a screen configuration under a new screen ID:

1. Click the **Save as** button in the Designer.





2. When the 'Save screen as' dialog appears, enter an ID for the new screen. Make it descriptive so that it can be easily identifiable when a user looks through Screen IDs to make a selection.
3. Click on OK when finished.

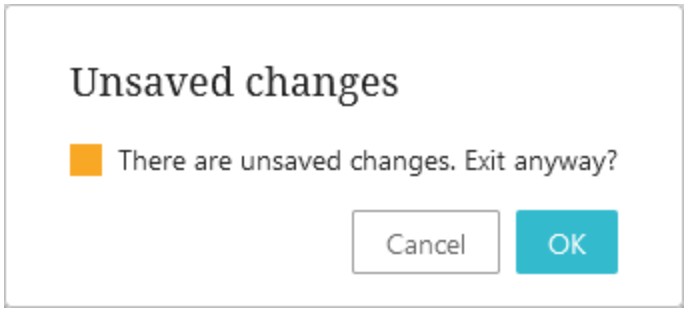
Both the new screen ID and the original screen ID show in the screen dropdown list.

Exiting Design Mode

Exit design mode by clicking the **Close** button.



If you have unsaved configuration changes, you will receive an 'Unsaved changes' warning.

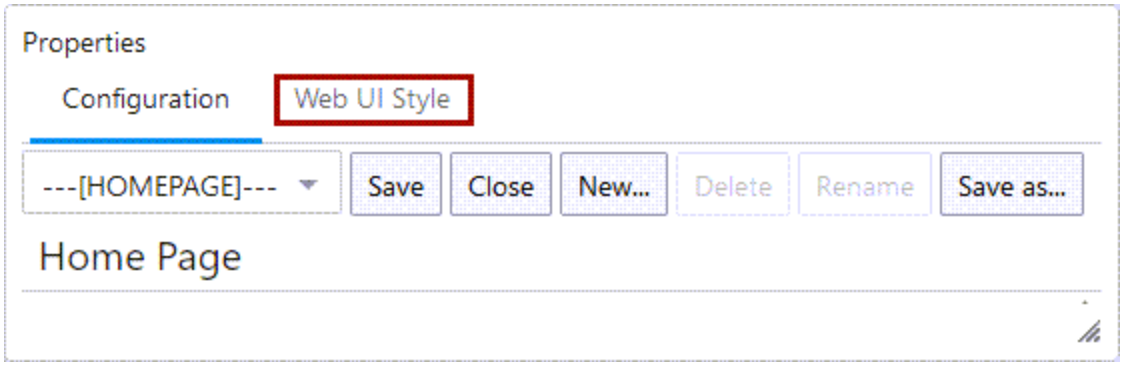


- Click **OK** to close the designer without saving changes.
- Or, click **Cancel** to be sent back to the properties screen so that you can Save the current screen or Save as a new screen ID.

After closing / exiting the designer, the Web UI is now in normal mode.

Designer Web UI Style Tab

The settings available on the Web UI Style tab allow the admin user to make specific global changes to the look and feel of the Web UI. To access these parameters, click the 'Web UI Style' tab found at the top of the designer panel, as shown in the screenshot below.



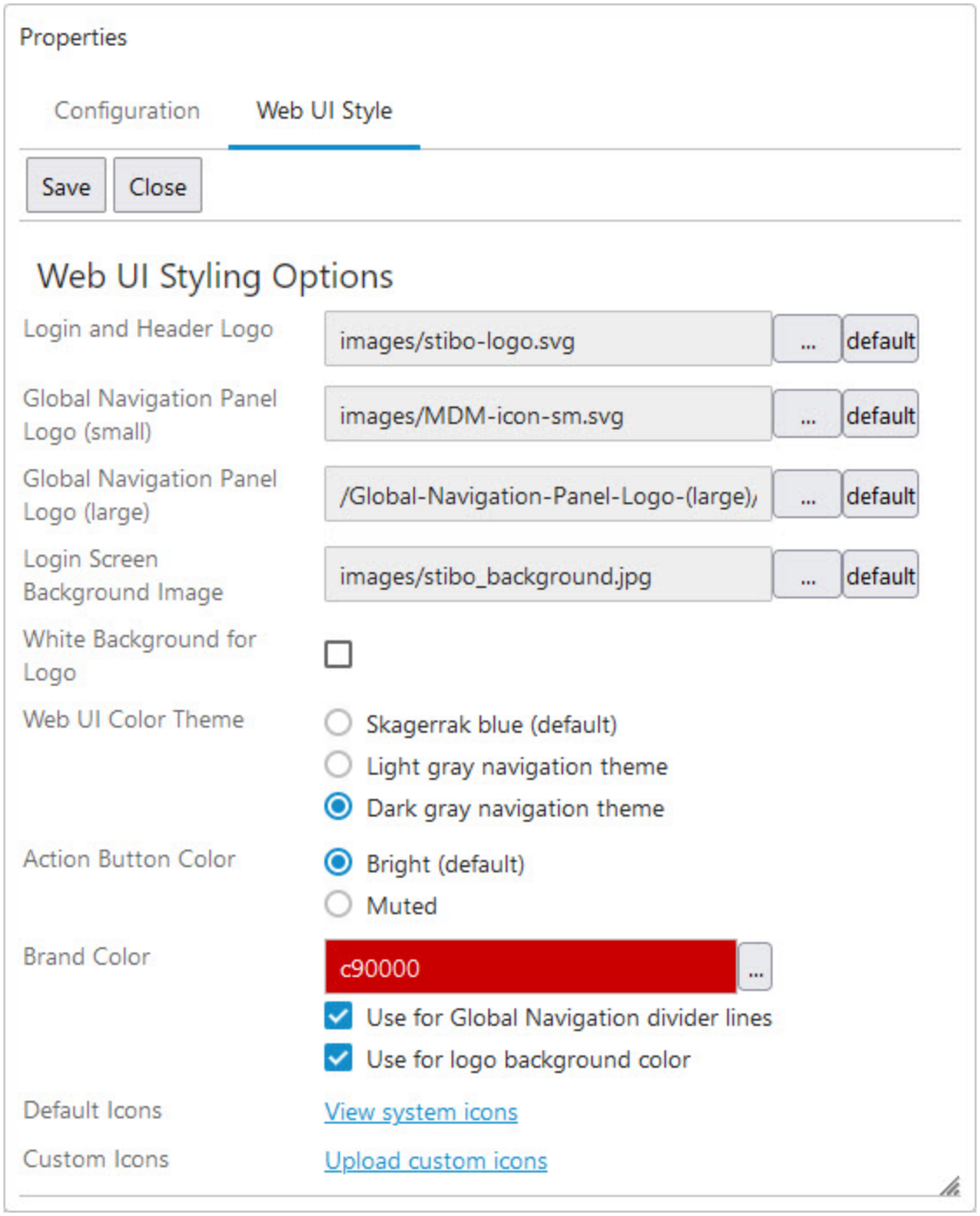
Prerequisites

It is expected that anyone configuring visual elements of the Web UI via the Web UI Style tab is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring the Web UI Style tab

The configuration parameters listed in the Web UI Style tab primarily affect the appearance of the Global Navigation Panel. Visual elements in the panel that can be customized include the panel's color scheme and the logos that display at the top of both the panel's expanded and collapsed versions. Admin users can also select one of two color styles for the action buttons that display throughout the Web UI, and upload new icons to be made available when configuring the display of action buttons.

The available parameters on the tab are listed and described below, along with information about how to configure them.



Login and Header Logo -Select an image, often a company logo, to display on the Web UI's Login screen. Acceptable image file formats are svg, png, and jpg. The Login screen supports display of an image that is up to 352px wide and 64px high.

If no Global Navigation Panel is configured, the logo selected will also display in the Global Header panel. In these instances, the dimensions of the image that displays in the Global Header can be up to 400px wide and 50px high.

Note: An external authentication login page will not be affected by updates made to this parameter. Changes to external login pages should be made directly through the external authentication service provider.

Global Navigation Panel Logo (small) - The logo image selected will display at the top of the Global Navigation Panel when the menu is collapsed (narrow view). The image must be no larger than 265kb in size. Svg, png, or jpg are acceptable file formats. Recommended dimensions are 32px in width (or less) and 72px in height (or less). If using the default color scheme, Skagerrak blue, it is recommended that admins select logo images that stand out against the dark blue background.

Global Navigation Panel Logo (large) - The logo image selected will display at the top of the Global Navigation Panel when the menu is expanded (wide view). The image must be no larger than 265kb in size. Svg, png, or jpg are acceptable file formats. Recommended dimensions are 208px in width (or less) and 56px in height (or less). If using the default color scheme, Skagerrak blue, it is recommended that admins select logo images that stand out against the dark blue background.

It may be useful to select a larger version of the same image selected for the 'Global Navigation Panel Logo (small)' parameter. When the user toggles between the collapsed and expanded versions of the Global Navigation Panel, the logo image switches between the 'Global Navigation Panel Logo (small)' and the 'Global Navigation Panel Logo (large)'. If two differently sized versions of the same image are used, the resulting effect of expanding and collapsing the Global Navigation Panel is a smooth enlargement / reduction animation.

Login Screen Background Image - The image selected will fill the entire login screen to the left of the login column. A large, high-res image of at least 1920x1200px is recommended. Both .png and .jpg file formats are acceptable.

Note: An external authentication login page will not be affected by updates made to this parameter. Changes to external login pages should be made directly through the external authentication service provider.

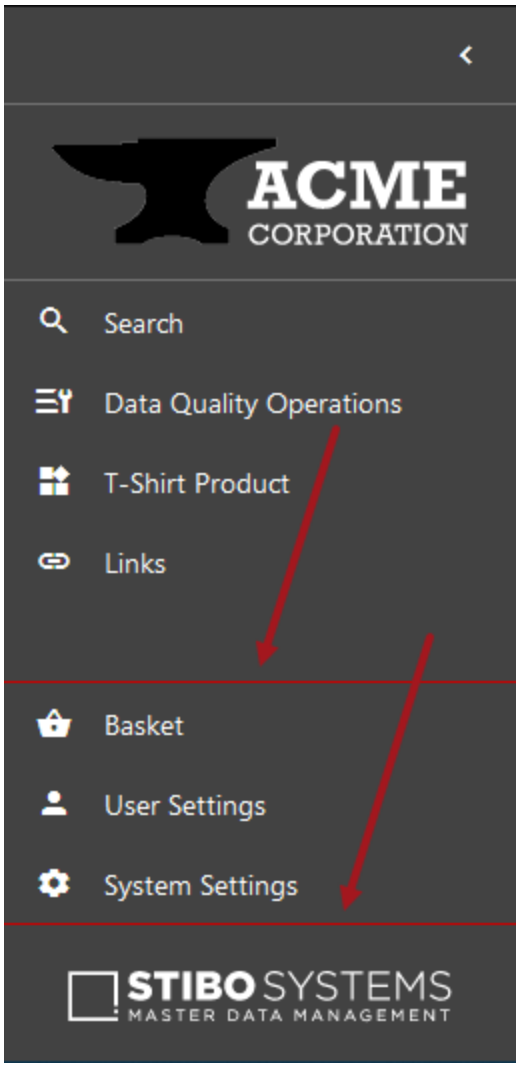
White Background for Logo - Check the box to change the background color for both Global Navigation Panel Logos (small and large) to white. Leave the box unchecked to retain the color selected in the 'Web UI Color Theme" parameter as the background color.

Web UI Color Theme - Select one of three options for the Global Navigation Panel background color. If Skagerrak blue, the default option, is selected, additional custom color branding options accessible in the 'Action Button Color' and 'Brand Color' parameters will not be available. However, those parameters will be available and configurable if either the 'Light' or 'Dark gray navigation theme' options are selected. The selected color theme determines the color of the Global Navigation Panel as well as how the table and homepage widget header are shaded: if Skagerrak blue is selected, the table and widget header will display in a light blue color; if either the 'Light' or 'Dark gray navigation theme' is selected, the table and widget headers will display in a light gray color.

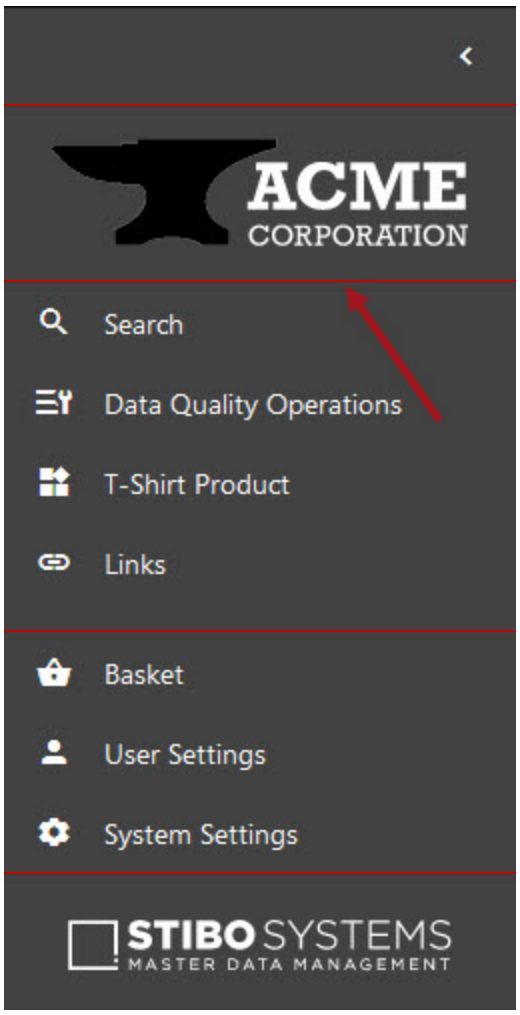
Action Button Color - Select one of two color themes for the action buttons that display throughout the Web UI. 'Bright,' the default option, enables a more vibrant appearance for action buttons, shading active buttons a light turquoise color. 'Muted' provides active buttons with a more subdued appearance, shading active buttons a dark teal color. If 'Skagerrak blue' is selected for the 'Web UI Color Theme' parameter, these options will not be accessible, and the 'Bright' setting will be enabled by default.

Brand Color - Select a custom color that will display as either the background color for the Global Navigation Panel Logo, the divider lines separating sections in the Global Navigation Panel, or both.

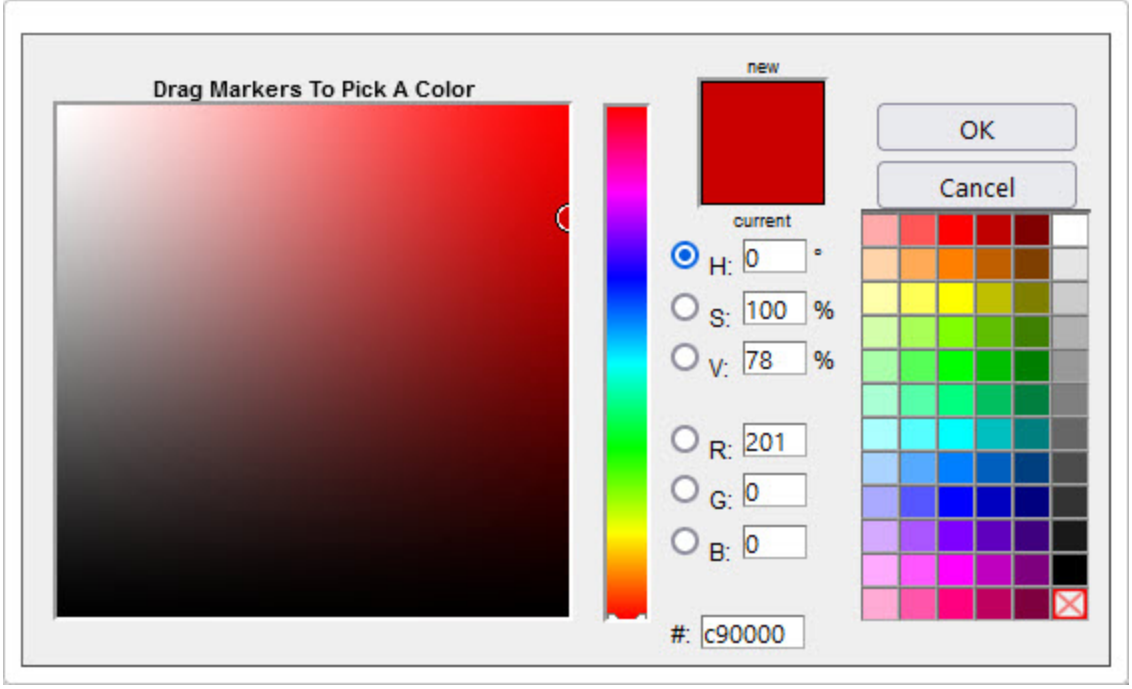
Check the 'Use for Global Navigation divider lines' box to apply the selected color to the divider lines that separate the various sections of the Global Navigation Panel.



Check the 'Use for logo background color' box to apply the selected color to the background of the logo images selected for the small and large Global Navigation Panel Logo parameters.



Click the ellipsis button to bring up the color selection window, shown below. Select the color to apply to the Global Navigation Panel logo background or divider lines via a color picker, an HSV or RGB number, or a hex code.



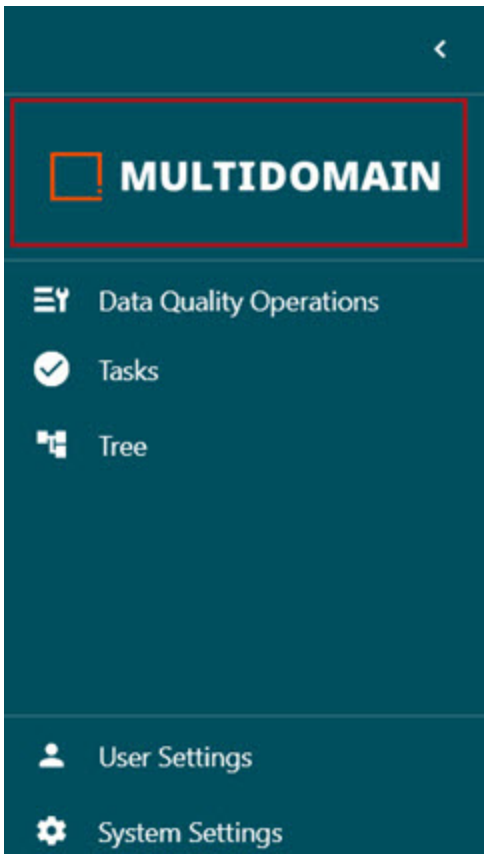
Default Icons - When 'View system icons' is clicked, a window displays showing all available system icons. This is a reference feature only as no icons can be selected or applied to Web UI elements from this window.

Custom Icons - Click 'Upload custom icons' to bring up a dialog that allows users to upload image files from their machine directly into the stock of available system icons. Images loaded will not display in the 'Default icons' window, but will be available when selecting custom icons throughout the Web UI.

Important: Logo files can be svg, png, or jpg formats unless indicated differently above. Pixel recommendations are shown per logo. Use caution uploading high-resolution Web UI Style tab image files, as this may cause Web UI pages to load more slowly.

Using custom icons

In order for the icon to appear consistently in all Web UIs within a clustered environment, users must first add the files to the server either manually or via the 'Custom Icons' process described in the previous section. The default path to the file system location where custom images are located is `webui/custom-theme/icons`.



To change the default file location, add the case sensitive property **WebUI.Theme.Images** to the sharedconfig.properties file on the STEP application server. The property needs to point to an existing directory in which the server should pull the stored logos. For example:

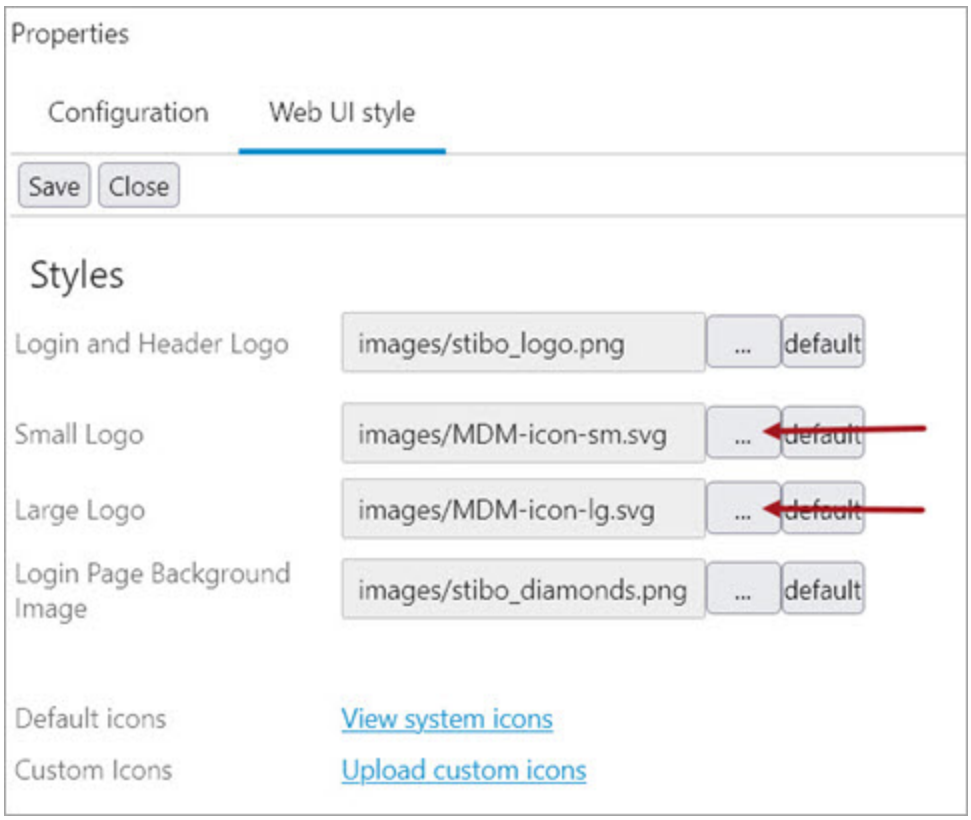
- Small logo example:

```
WebUI.Theme.Images=webui/custom-theme/images/Small-Logo
```

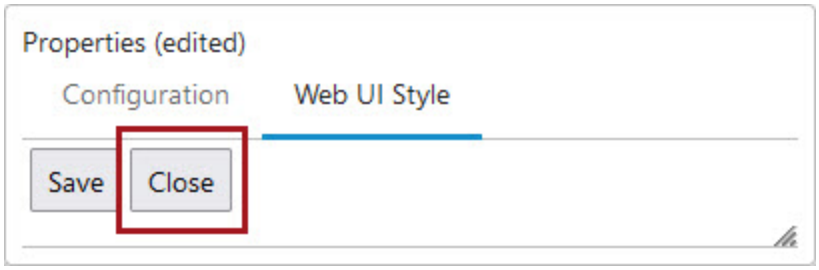
- Large logo example:

```
WebUI.Theme.Images=webui/custom-theme/images/Large-Logo
```

Once the path is in the sharedconfig.properties files, open the designer and navigate to the Web UI Style tab. From there, the desired icon can be browsed for by click the ellipsis button (...). Choose the logo from the 'Select Existing' tab and click OK.

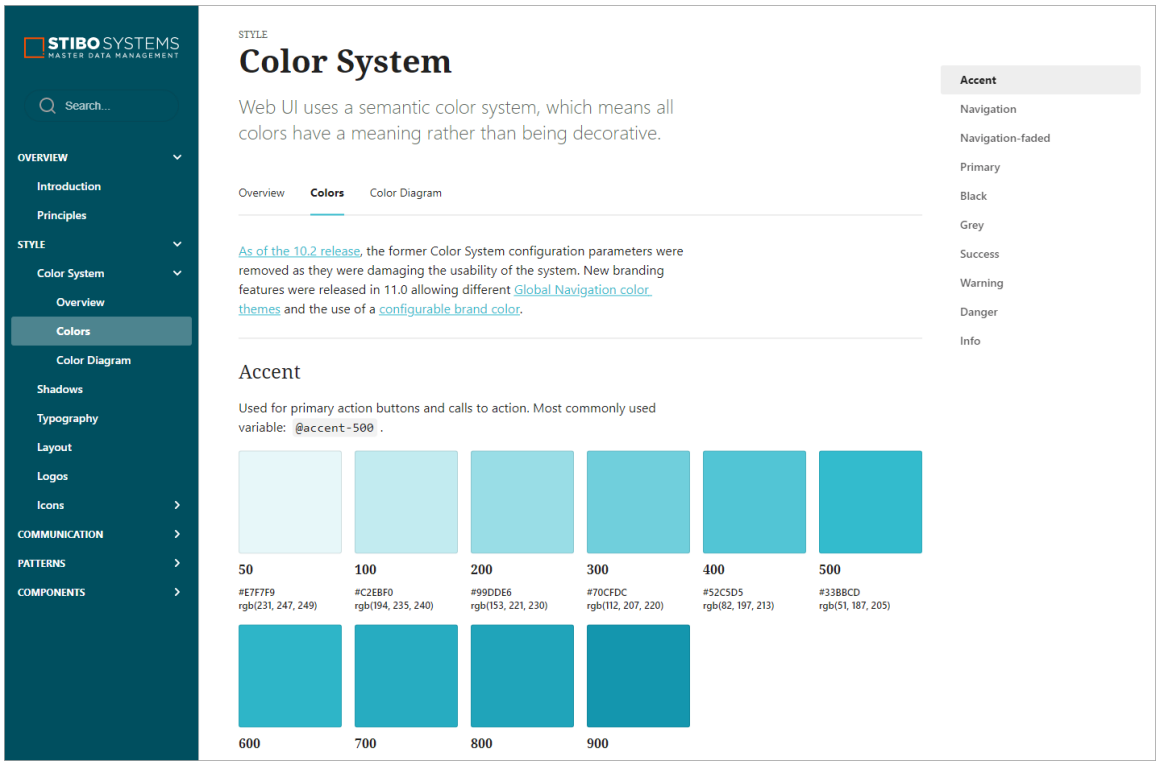


When finished with all Web UI style changes, click the **Save** button, and then the **Close** button to exit the designer.



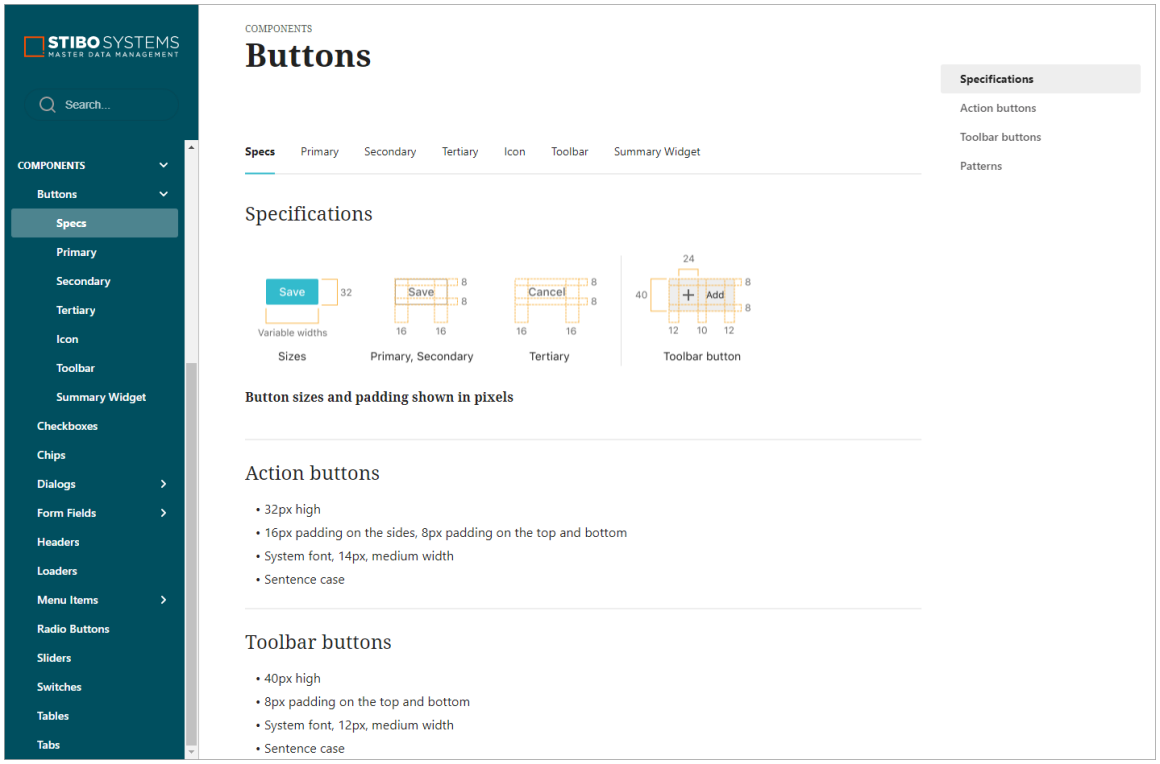
STEP Web UI Design System

The STEP Web UI Design System (webuidesignsystem.stibosystems.com) is the source of truth for visual styling, interactive behaviors, and component design inside the Web UI. The design system includes information on e.g., typography, capitalization, truncation patterns, and the color system, as the following image shows:



You can find information about why the Web UI uses three levels of hierarchy for text colors (following Google Material Design specifications), and why icons are used in certain places of the UI, but not others. There are also recommendations for using the branding features, when to use a modal vs. pop-up dialog, and when to use each value component such as a slider vs. a switch.

In addition, the design system includes inspectable components which show styling code to help you build custom features while keeping the entire Web UI consistent. The image below displays the specifications for button sizes and padding that are defined by the system.


STIBO SYSTEMS
MASTER DATA MANAGEMENT
Search...
COMPONENTS
Buttons
Specs
Primary
Secondary
Tertiary
Icon
Toolbar
Summary Widget
Checkboxes
Chips
Dialogs
Form Fields
Headers
Loaders
Menu Items
Radio Buttons
Sliders
Switches
Tables
Tabs
COMPONENTS
Buttons
Specs Primary Secondary Tertiary Icon Toolbar Summary Widget
Specifications
Action buttons
Toolbar buttons
Patterns
Specifications
Save
32
Variable widths
Sizes
Save
8
8
16
16
Primary, Secondary
Cancel
8
8
16
16
Tertiary
24
40
Add
8
8
12
10
12
Toolbar button
Button sizes and padding shown in pixels
Action buttons
• 32px high
• 16px padding on the sides, 8px padding on the top and bottom
• System font, 14px, medium width
• Sentence case
Toolbar buttons
• 40px high
• 8px padding on the top and bottom
• System font, 12px, medium width
• Sentence case

Web UI Component Basics

From a configuration perspective, the Web UI is largely a framework comprised of various components. Components can be built upon other components, which in turn form a foundation upon which still more components can be built. A good illustration of this concept would be a Node Details screen as a base component, a References component built on that, and then a Node Picker component built on that. As the Web UI continues to evolve from update to update, new components are introduced that may either solve for new business cases, or address existing business cases in a more efficient way. This means that components that have been replaced with newer, better ones, must enter the first stage of an established component removal process.

The stages of the component removal lifecycle are:

- **Superseded** - The first phase of the component removal lifecycle. Superseded components already configured will remain, and new instances of the component can be added if desired. The only change that occurs is that, in a component list where the relevant component is listed, the component description will indicate that the component is superseded and will list the component recommended to be used in its place.
- **Withdrawn** - The second stage of the component removal lifecycle. Withdrawn components already configured will remain and function as always, but if removed, users are unable to add new instances of the component.
- **Deleted** - The final stage of the component removal lifecycle. Deleted components that are configured on a system will be removed (no longer render or be shown) in the Web UI.

From the moment a component enters the 'Superseded' status to when it is finally deleted from the system represents approximately 12 months, or two release cycles.

There is also one additional phase or 'Status' that customers may view: 'Replaced.' The 'Replaced' status means that the system, when upgraded, will seamlessly exchange the replaced component for a new and improved component without requiring user action. This can be done if the stored configuration for both components have overlapping parameters. This way the replacing component can be loaded with the exact same parameters that have been stored for the old component. A good example of this is the 'Primary Navigation' component, which was replaced by the 'Global Navigation Panel' component. The 'Primary Navigation' component is automatically replaced upon upgrading, requiring no additional work for an admin user.

Depending on metrics collected regarding usage of components in the Web UI, some outgoing components may skip the withdrawal step and be deleted directly. For example, if a component has dropped out of usage entirely because the functionality exists in a different component, Stibo Systems may delete the component outright. The standard lifecycle applies to most components, but there may be exceptions depending on customer impact.

Web UI Component Report

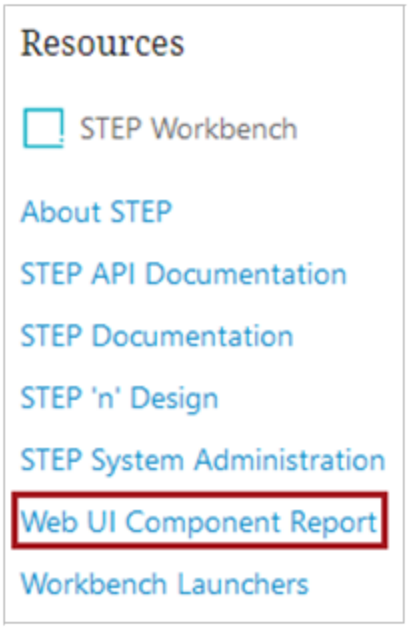
To help admin users manage their Web UI configurations more efficiently, the Web UI Component Report is available to admin users. Accessible via the Start Page and when accessing the designer in the Web UI, the Web UI Component Report lists all end-of-lifecycle components configured on all Web UIs added on a given system. The components shown in this report are components configured on a Web UI that have been deleted entirely (will not render), withdrawn (if removed, cannot be added again), or superseded (will work as usual, but a new and improved component is available). When available, the recommended replacement component is

listed alongside the unsupported component; this gives the admin user ready access to information about which parts of their Web UI configuration have improved and require action, and also speeds the process of updating the Web UI for those components that require it.

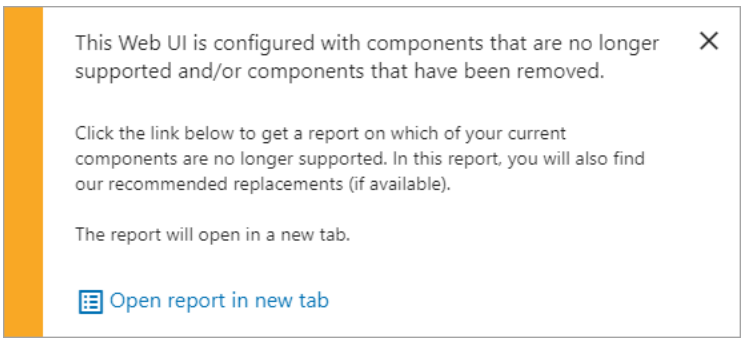
Deleted component	Recommended replacement
Initiate Business Action Action • NodeDetails (Item detail) → Buttons → Actions (Initiate Business Action Action)	Run Business Action - The Initiate Business Action component has been removed because the Run Business Action component is better suited for the relevant use cases.

The Web UI Component Report can be accessed in one of two places:

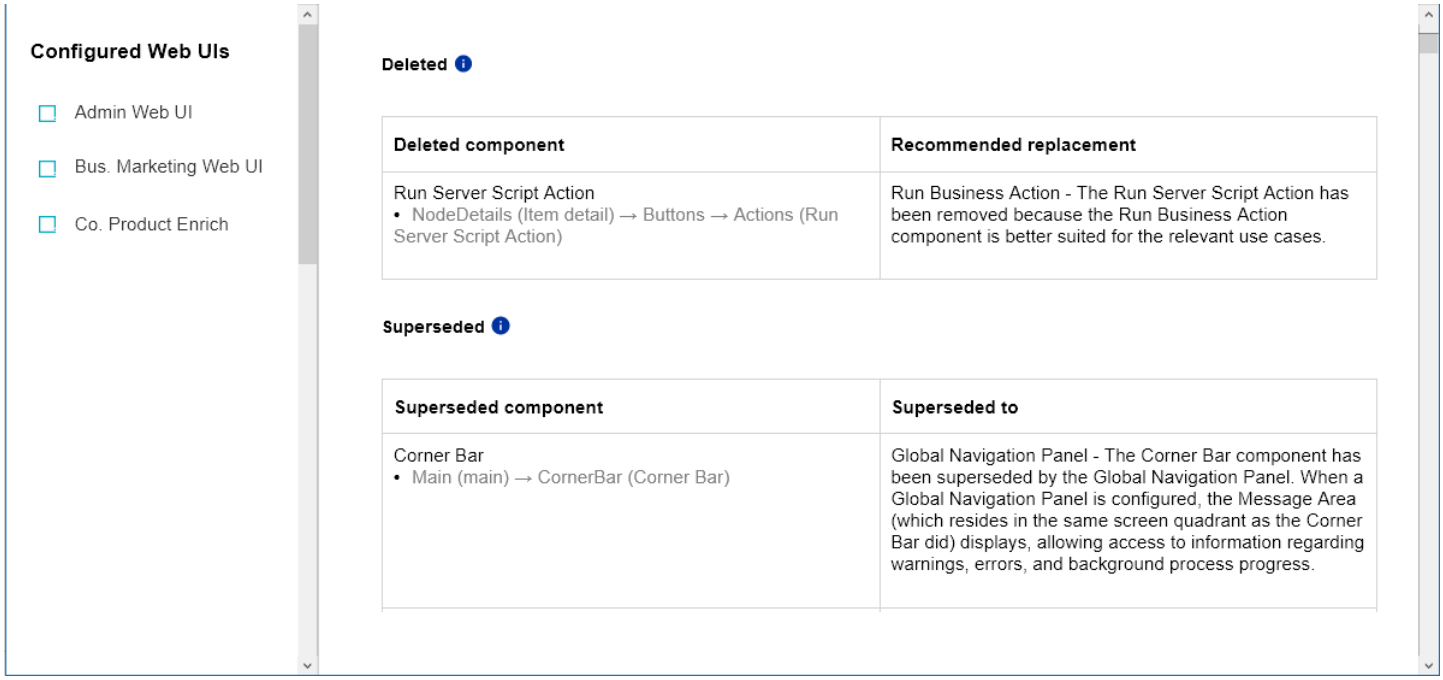
- clicking the 'Web UI Component Report' button at the top-right of the system Start Page



- clicking the link in the popup that displays when accessing the Web UI designer



All Web UIs configured on a system are listed along the left side of the screen in alphabetical order. Clicking any one of the Web UIs will auto-scroll the user to the position on the page where the selected Web UI's unsupported components are listed.



Each Web UI that contains unsupported components will list those components in alphabetical order in one of the three lifecycle status groups, (when applicable): deleted, withdrawn, and superseded. Each component in these groups will be listed in a column with the location of the configured component displayed in gray text below. A second column called 'Recommended replacement' lists the component best suited to replace the unsupported component. Refer to the **Example** section below for instructions on resolving the reported components.

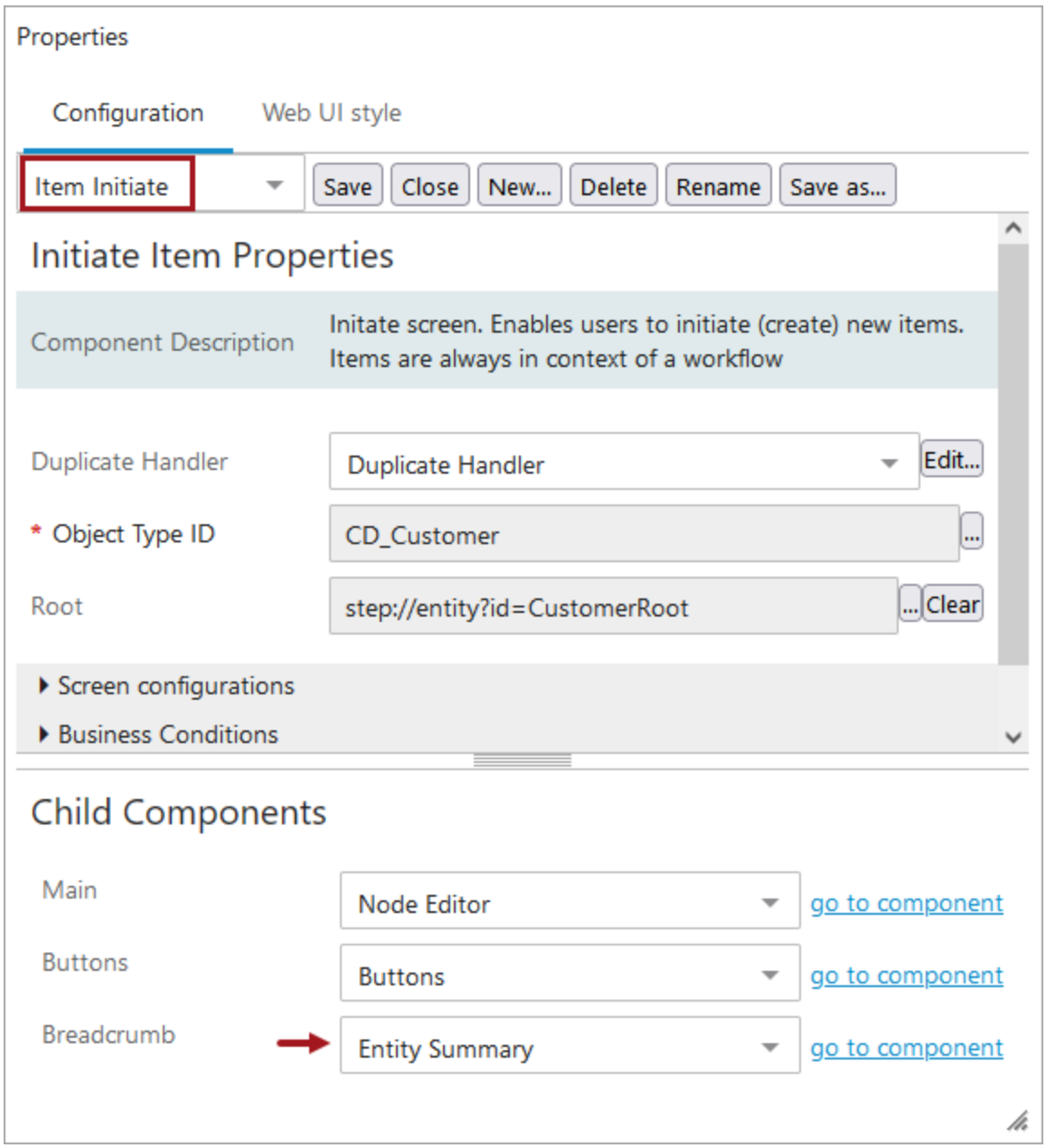
The same privilege that allows users to enter Web UI Design Mode also allows users to log in and access this report. If users do not have this privilege, then upon entering their STEP username / password and clicking Login, they will view a 'You do not have privileges to access the Web UI Component Report' message.

Example

For the sample Web UI, the following deleted Web UI component is detected.

Deleted component	Recommended replacement
Entity Summary • InitiateItem (Item Initiate) → Breadcrumb (Entity Summary)	Entity Summary Card - The Entity Summary component has been removed because the Entity Summary Card component is better suited for the relevant use cases.

Open this Web UI, enter design mode, and go to the 'Item Initiate' screen. The Breadcrumb parameter is in the Child Components section.



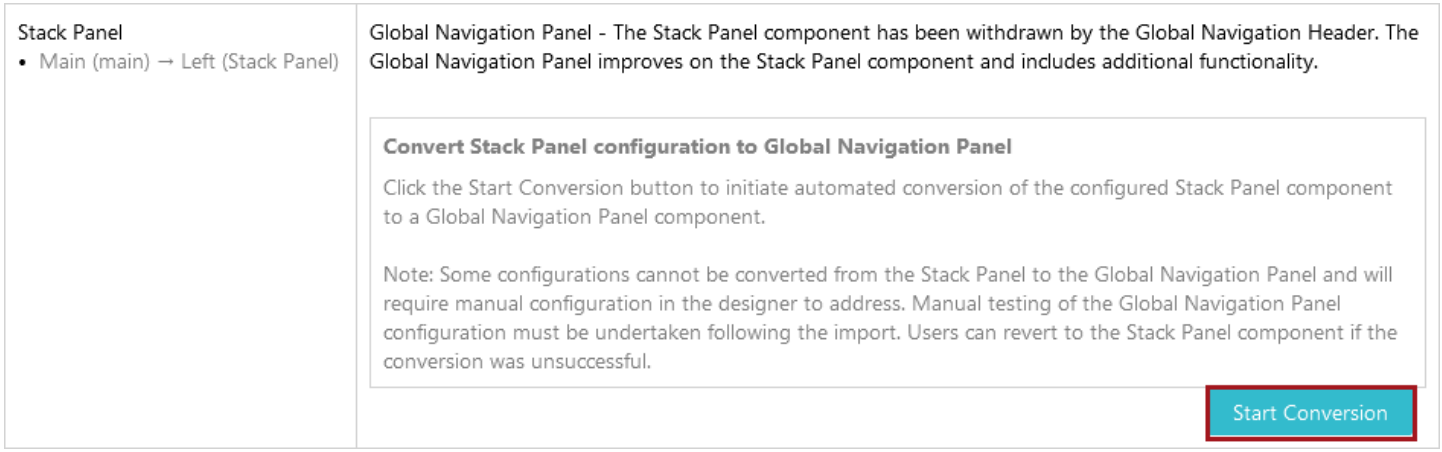
Configure the Breadcrumb component correctly per the **Recommended replacement** from the report.



Save the Web UI and refresh the Web UI Component Report to verify that unsupported component is no longer reported for this Web UI.

Global Navigation Panel Conversion

For users with Stack Panel components configured, which has been withdrawn, a 'Start Conversion' button will display in the Component Report for each applicable Web UI.



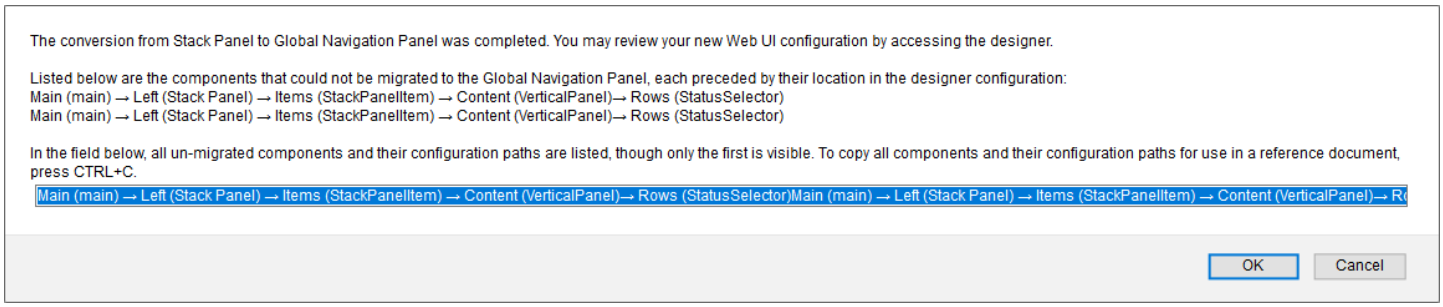
When the 'Start Conversion' button is clicked, the system automatically converts all Stack Panel and Corner Bar components that are compatible with the Global Navigation Panel.

These are the Stack Panel components that will convert to the Global Navigation Panel by clicking the 'Start Conversion' button:

Links Widget, Search Panel, Smart Sheet Export, Status Selector Sidebar Widget, Screen Navigation, Navigation, External Navigation, Node Navigation, Clear Basket Functionality. Smart Sheet Import Action. Vertical Panel components can be converted, depending on which components have been configured within those Vertical Panels. Status Selector Sidebar Widgets, for example, will not convert if configured on a Vertical Panel within a Stack Panel.

In addition to Stack Panel and Basket Stack Panel Items, the following Corner Bar components will also automatically be converted to their corresponding components for the Global Navigation Panel: Global Header Search, Corner Bar Search, Corner Bar Simple Search, Corner Bar Links Folder, and the Corner Bar Screen Navigation Action.

When the migration is complete, a message will display in the Component Report. Any components that cannot be automatically migrated will be listed in this notification message, along with a configuration path describing where the components were configured in the Web UI. Users may easily copy the path so they can paste it into a file to be used as reference when reviewing the configuration in the designer. In the example below, two Status Selector Sidebar Widget components that were configured on a Vertical Panel component cannot be converted and will need to be manually configured as components on the Global Navigation Component.



In all instances, administrative users are advised to review the converted Global Navigation Panel to confirm proper display. Once confirmed, admin users can safely delete the Stack Panel component, which will remove the 'Start Conversion' button from the Component Report for that Web UI.

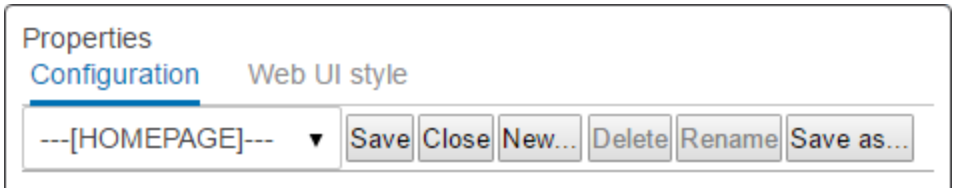
Selecting Components

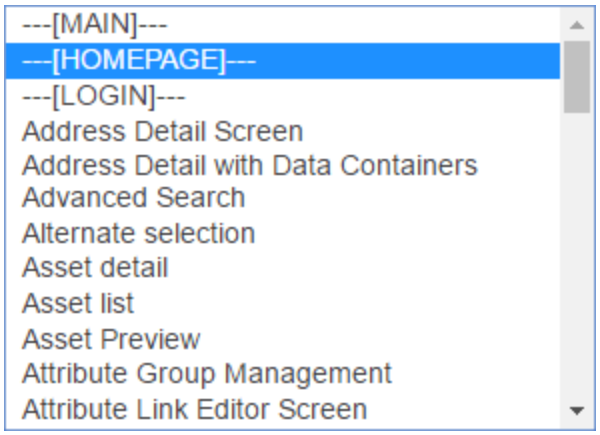
For descriptions of the components available within the Web UI Designer, refer to the 'Web UI component configuration reference' available at [system]/webui/docs.

Choose a Screen and Enter Design Mode

There are two ways to select a screen and enter design mode.

- Navigate through the Web UI to the desired page and then enter design mode using the icon. The screen you are on will automatically be selected.
- Or, enter design mode from the homepage and then select the screen. To select a screen through the Designer, click the screen dropdown from the graphic interface and select the screen you want to edit. The desired screen will be shown.





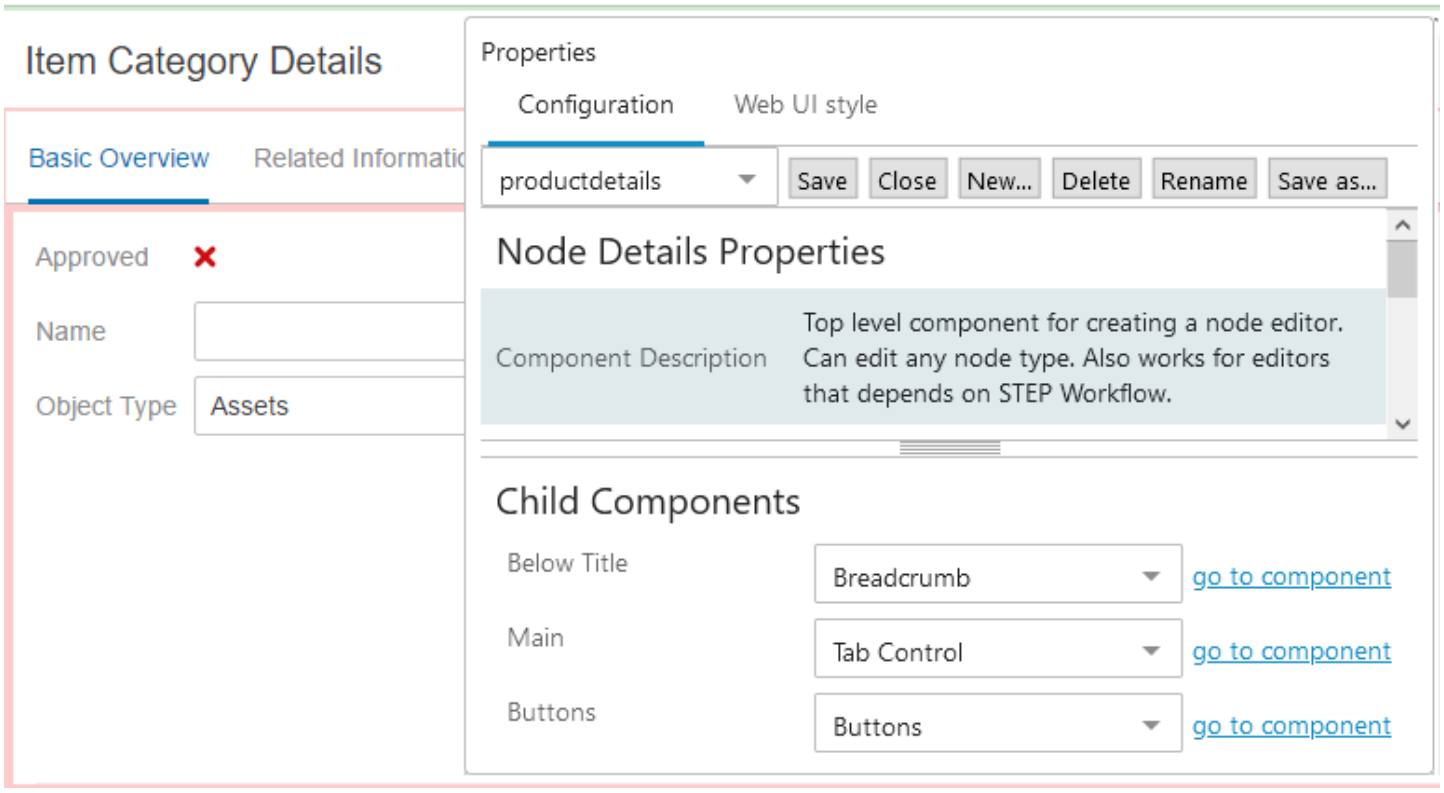
Now you can use Designer to edit the screen properties by configuring the components shown in the properties area and the child components area.

Select Components to Edit

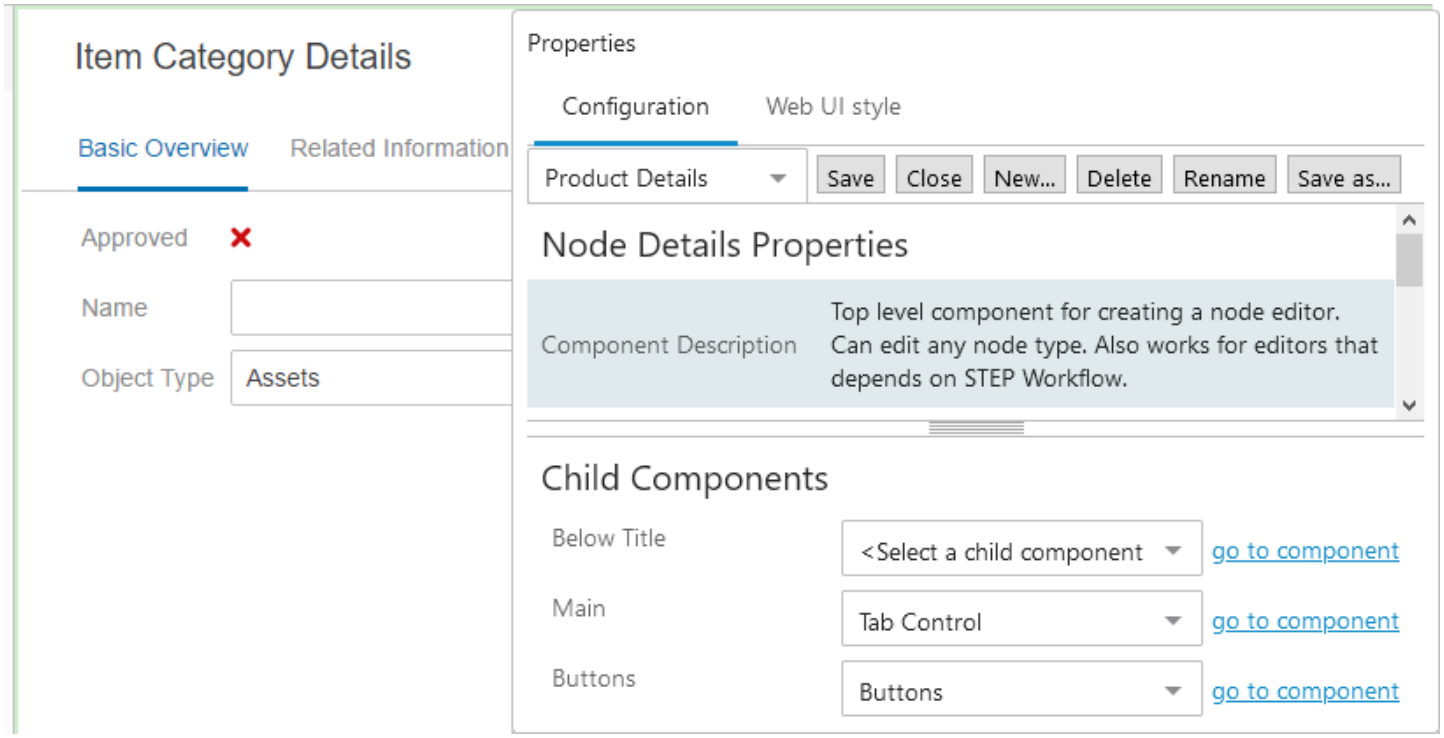
To select a component on a screen, click it and the Designer is updated based on the selection. Moving the cursor over the different components on a screen highlights the components that are selectable.

The highlighting patterns are outlined below:

1. Red frame: When you mouse over the component, the red frame indicates that the component can contain child components.



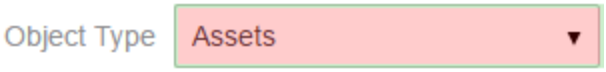
2. Green frame: The green frame is displayed if a component that can contain child components is selected.



3. Red transparent box: Mousing over a component that cannot contain child components.



4. Red transparent box with green frame: Selecting a component that cannot contain child components.



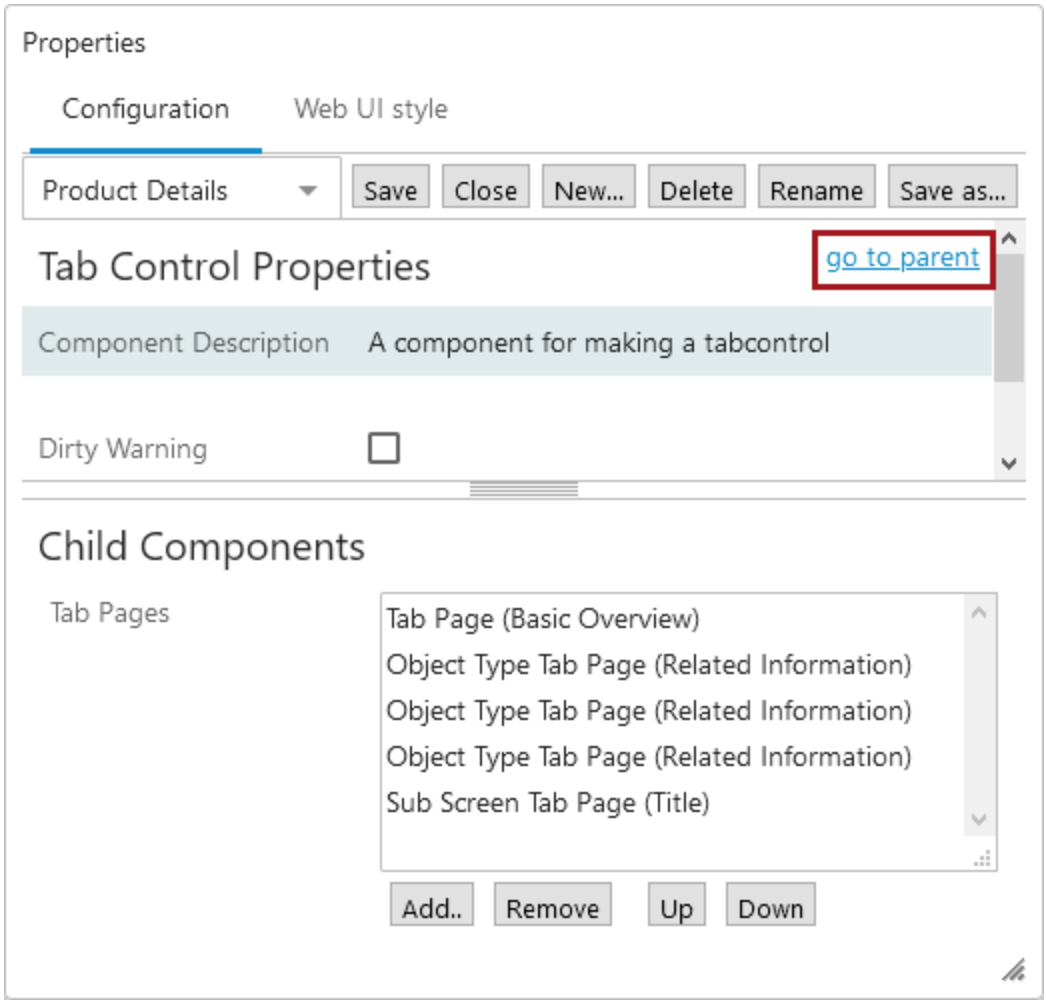
Navigating Up and Down the Component Structure

Some components are considered 'parent' components and can have a child component or components. In the Web UI, you may not be able to view this relationship, making it difficult to select the right component.

You can select a parent component or a child component easily within the Designer.

Selecting a Parent Component

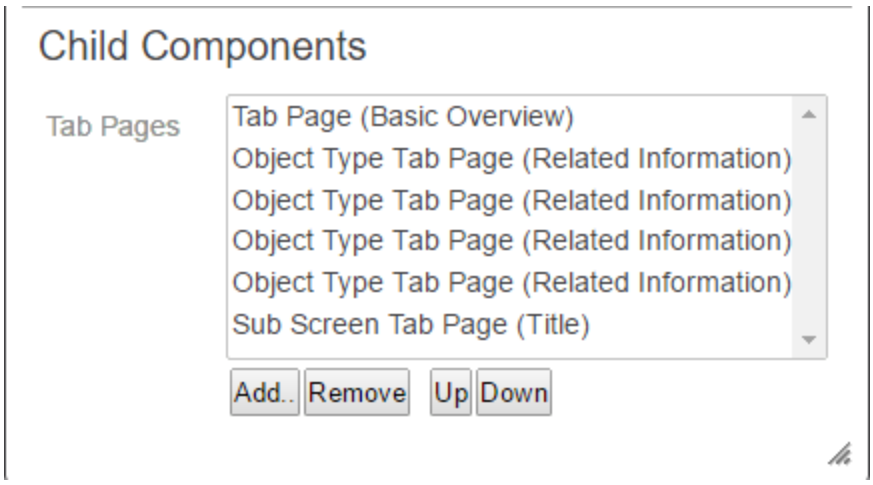
If you have selected a child component and want to select the parent component, use the '**go to parent**' link in the upper right corner of the Properties area to navigate to the parent component. When the 'go to parent' link is no longer showing, you know you are at the top level for that particular component structure.



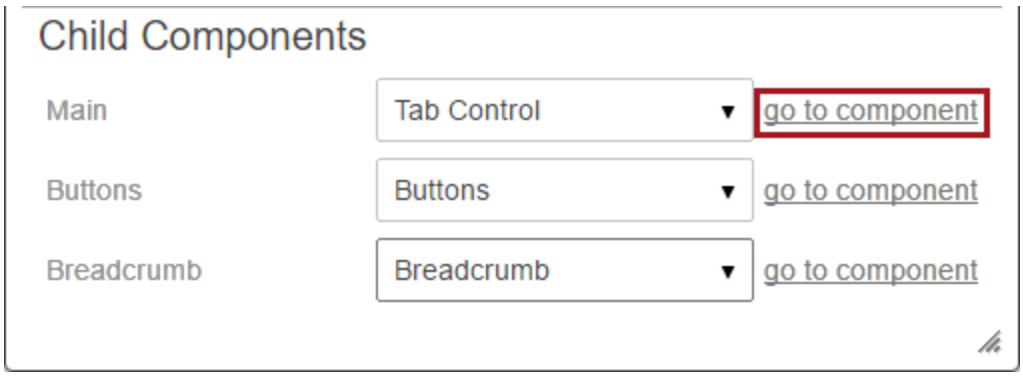
Selecting a Child Component

If you have selected a parent component and want to select a child component, there are two ways to do this within Designer.

1. If the child component list allows multiple components, double-click the child component:



2. If the child component list only allows for one component, a '**go to component**' link is available next to the component listed in the child components area:



For information about **Configuring Components**, refer to the **Web User Interfaces** documentation.

Configuring Components

To edit components, select the desired screen and then configure the component properties shown. The properties that are available for each component vary depending on the component type. Configuration options may include the ability to enable / disable parameters based on checkboxes, make displayed component title changes, choose table sorting options, and much more. Configurations may be done by selecting checkboxes, using dropdown menus and node selector buttons to make selections, or by entering text into free-text fields.

For descriptions of the components available within the Web UI Designer, refer to the 'Web UI component configuration reference' available at [system]/webui/docs.

Prerequisites

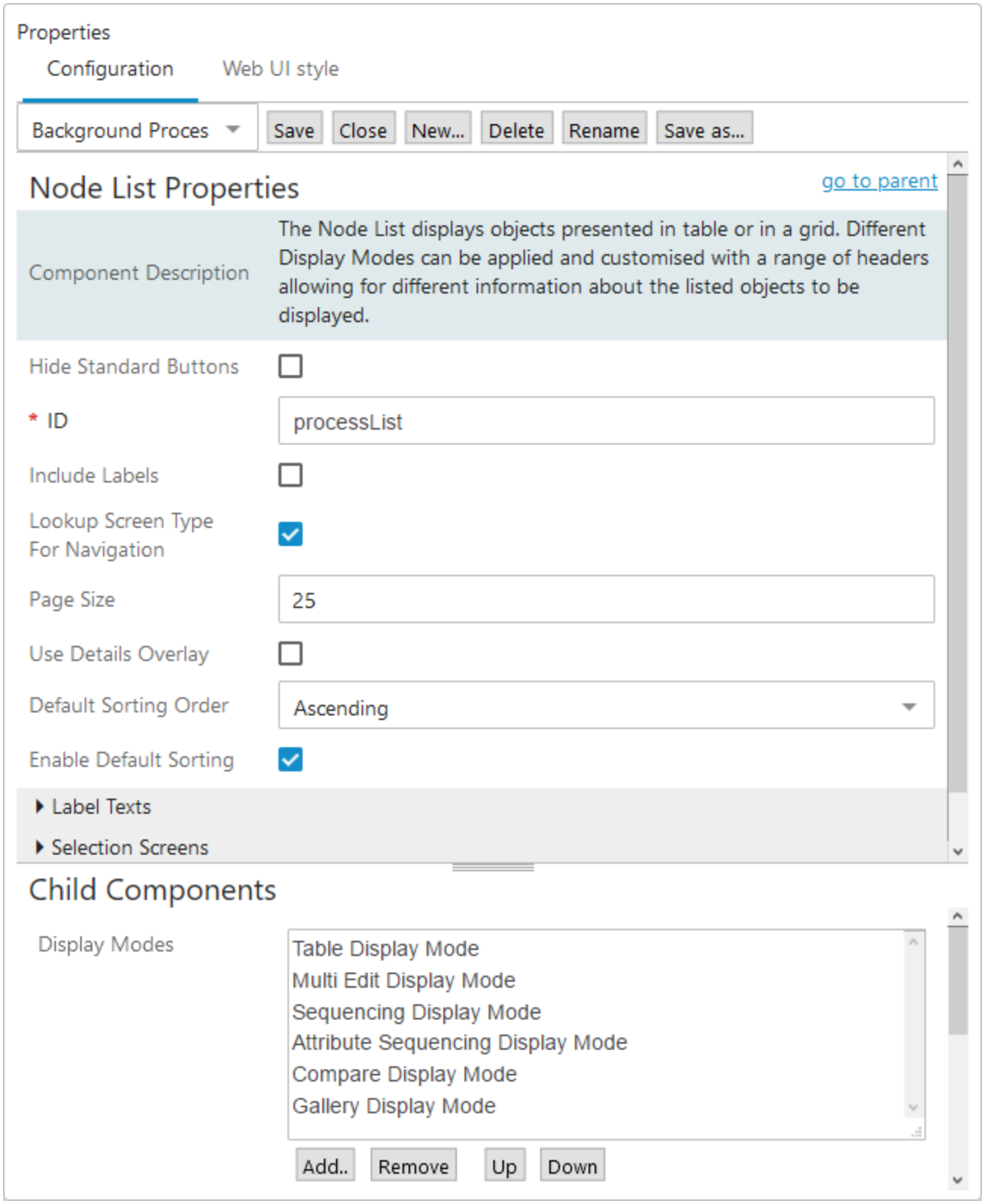
The directions given in this document are simple examples on how to use the properties screens. Before beginning any steps, anyone editing components should be familiar with the **Design Mode Basics** section and the **Selecting Components** section of the **Web User Interfaces** documentation.

Properties Area

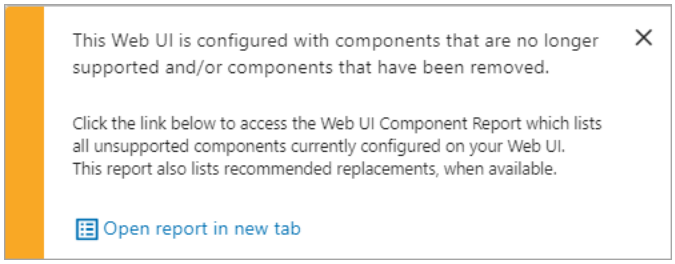
The parameters that are available for each component varies depending on the component type.

1. In design mode, select the component to edit.
2. On the screen, the Designer displays the available properties that can be maintained for the component.
   - The main parameters, those required or used most often, are shown automatically when the properties window opens. They also have a green background.
   - Some parameters are optional and grouped together under headings (e.g., Validity, Advanced, Label Texts, and Selection Screens). These can be accessed by clicking the arrowhead icon next to the heading name.
3. Changes made to the properties may be displayed directly on the screen as changes are made or will become applicable after saving the Properties screen.

Important: Some properties include a Title parameter, before entering a custom title, it is important to know if the title parameter offers i18n key functionality. Presence of an i18n key indicates that the field can be included in extraction for external translation, and that a value has not been manually populated. Once a value has been manually populated within the designer, it is no longer available for extraction, unless the manual value is removed and the configuration saved, closed, and then reopened. Customers planning to pursue or utilize Web UI translations should not overwrite i18n values manually in the designer, and should instead populate texts within the Web UI locales files on the application server. For more information, refer to the **Localization** topic within the **Administration Portal** documentation.


Properties
Configuration
Web UI style
Background Proces
Save
Close
New...
Delete
Rename
Save as...
Node List Properties
go to parent
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Hide Standard Buttons
* ID
processList
Include Labels
Lookup Screen Type For Navigation
Page Size
25
Use Details Overlay
Default Sorting Order
Ascending
Enable Default Sorting
Label Texts
Selection Screens
Child Components
Display Modes
Table Display Mode
Multi Edit Display Mode
Sequencing Display Mode
Attribute Sequencing Display Mode
Compare Display Mode
Gallery Display Mode
Add..
Remove
Up
Down

Note: If you enter design mode and have invalid settings (e.g., unsupported components), a pop-up will appear, and you will be able to access the **Web UI Component Report** so that you are able to update and/or remove the parameters / components that are not valid for your data structure. For more details about the report, refer to the **Web UI Component Basics** topic.



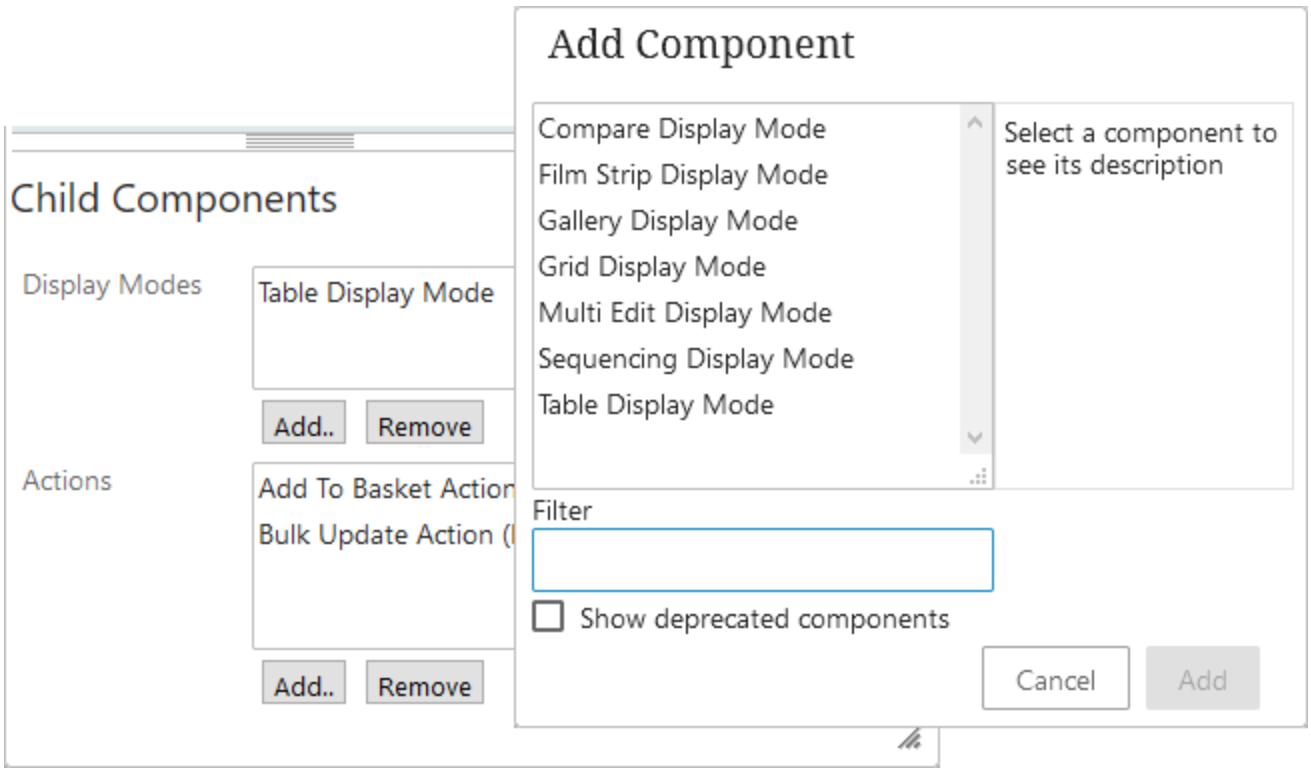
Child Components

Some Web UI components, called master components, can contain child components. Child components allow a user to drill down further into component configurations. These are maintained in the Child Components area in the Designer. Using the previous screenshot as an example:

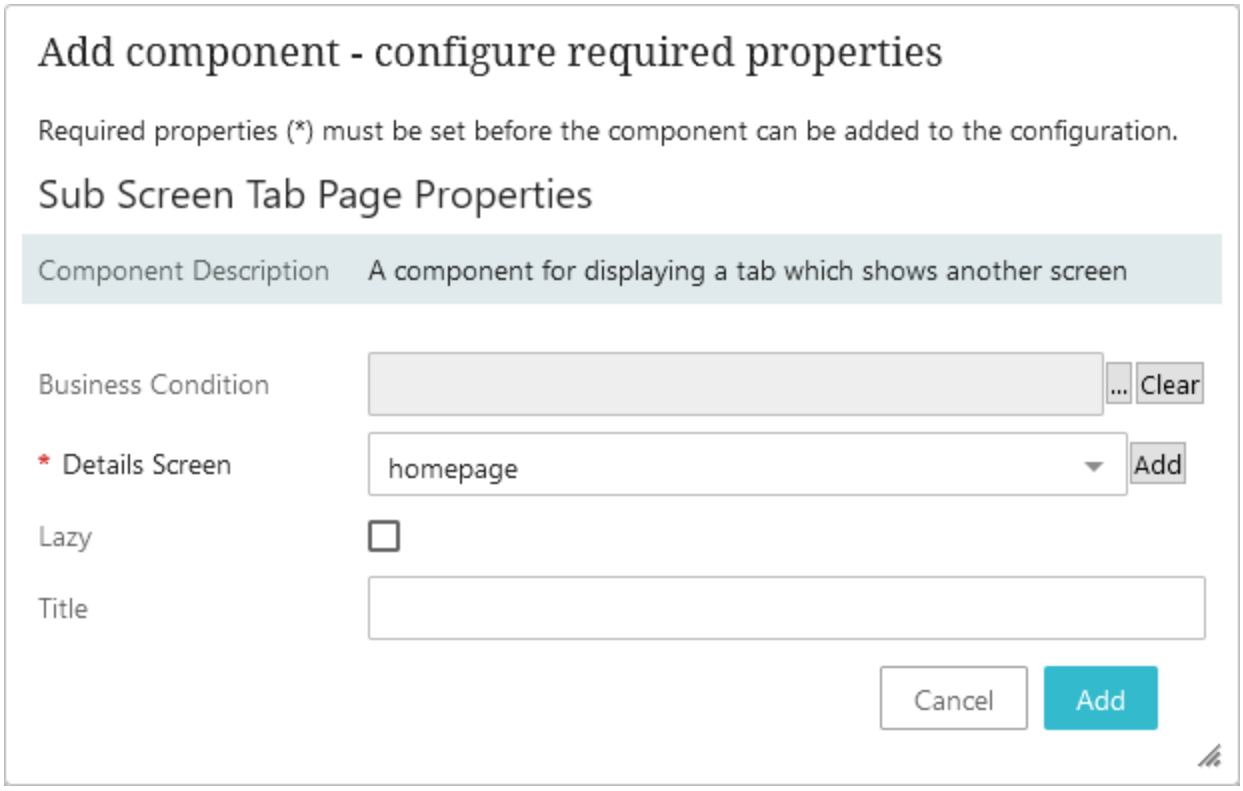
- Select the master component (Node List) you want to edit as described in the Properties Area section of this document.
- In the Child Components area, the child components that have been added to the master component (Table Display Mode) are shown. Remove or add more child components or change the sequence of the child components using the Up and Down icons.

Adding and Configuring a Child Component

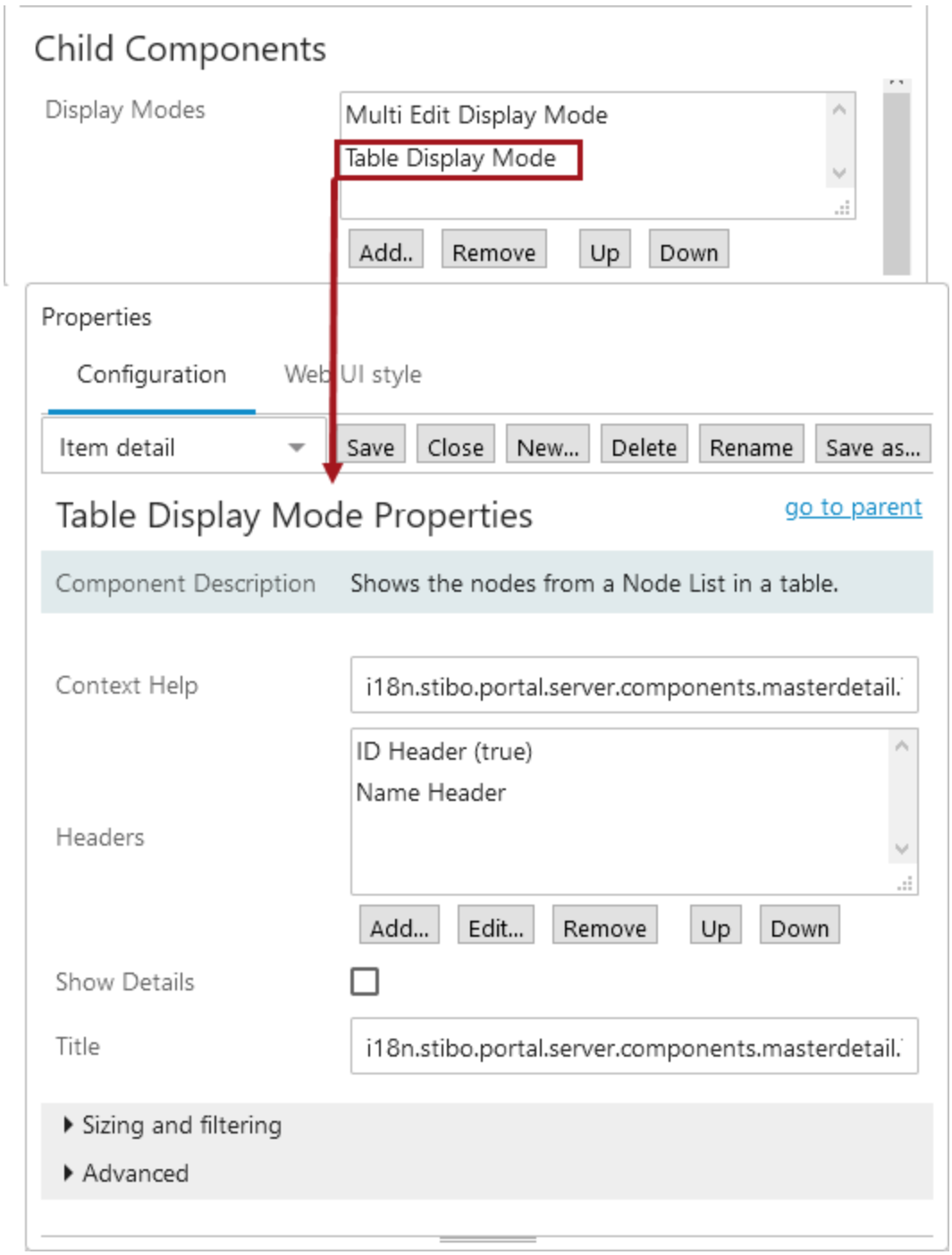
1. In the Child Components area, click the **Add** button, and a list of possible child components will be displayed in an 'Add component' dialog box.



2. Click on a component to make a selection, and then click **Add**.
3. If the chosen child component has a mandatory parameter that must be defined or verified before it can be displayed properly, a dialog will automatically show and selections / changes can be made. As an example, in the screenshot that follows, a user can change the default Details Screen before adding the child component—or leave the default 'homepage' selection and just click Add.



4. If a dialog is not automatically displayed, no immediate component decisions need to be made or verified. The component will be added to the child component list and can be selected / maintained as any other component. To configure the component, double-click on the component name within the child component list and a properties screen will be displayed. Make selections as needed.



5. Click Save on the properties screen before exiting design mode.

Changing the Sequence of Child Components

1. In the child component area, click to select the child component to be re-sequenced. In the next screenshot, 'Tab Page (Images and Documents)' is selected.

2. Click the Up or Down button to change the sequence of the selected child component.



Removing a Child Component

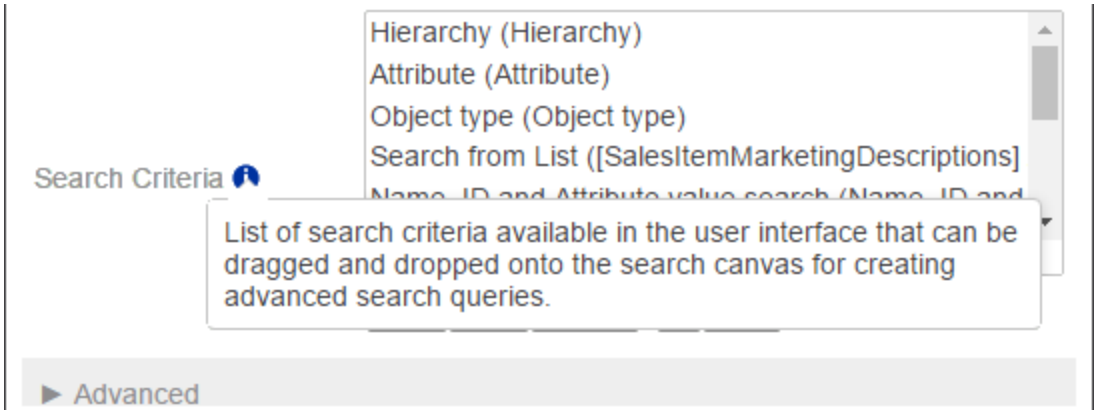
1. In the child component area, click to select a child component. In the next screenshot, 'Multi Edit Display Mode' is selected.
2. Click the Remove button. The child component is removed from the screen.



Help Text

Context help is available for each component in both the Properties area and the Child Components area, and provides users with a brief explanation about the purpose of the component and/or parameter. This is especially helpful if the user is fairly knowledgeable about a configuration but needs a little guidance completing a step, enabling a specific parameter, or understanding a new component.

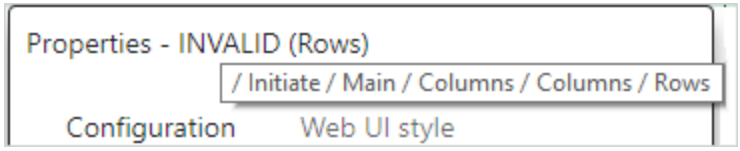
Access help text by placing the cursor over the component / parameter name. A circle icon with an 'i' inside of it will show. Click the icon and a dialog box displays with descriptive help text. To remove the help text box, click the 'x' in the top right corner of the box.

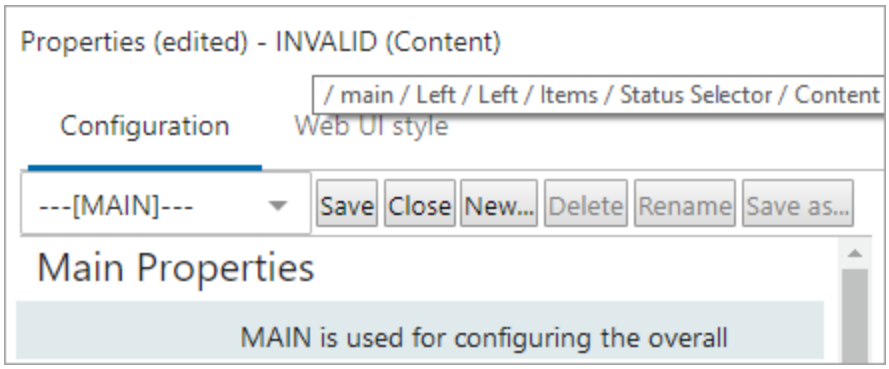


Invalid Properties

If you enter design mode and the Properties dialog indicates that there are invalid settings, you need to update and/or remove the parameters / components that are not valid for your data structure. For troubleshooting, the Properties dialog header identifies INVALID settings.

Hovering over the INVALID text displays the path to the parameter / component where there is a problem. Once the initial issue is fixed, additional errors may exist and need to be fixed. 'INVALID' will no longer display when validity is restored.





Using Web UI

This documentation gives users more details in regards to how components work and how they can be configured.

Important: GUI setups described in this section are not meant to be used to replace user privileges. For example, if you have allowed all privileges to the primary product hierarchy, you cannot control updates to specific product structures with GUI setups. The user privileges must be used to control such actions.

For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation. Also, refer to the **Web UI Getting Started** topic.

General Information on Web UI Behavior

The ability to copy and paste a URL from the Web UI to recreate a mirror image of the original Web UI screen in another browser tab or window is supported, but there are limitations to this 'deep linking' that may affect a user's experience. The following items are not remembered when accessing a deep link:

- Freezing and manual table flipping (horizontal / vertical).
- Attribute groups, states, and value sections (expanded / collapsed).
- Hide equal / Mark different (actions for Multi Context screen).
- Select Languages, affecting the number / order of displayed lines in table (action on Multi Language Screen).
- Applied user configurable views, if end user does not share the same configurable view as original user; instead, they will view the standard layout or their own previously applied user configurable view.
- When multiple pages of Homepage widgets are sent in a URL, the URL will not remember the specific page of widgets, taking users to the first page by default.
- Automotive search in Application Manager.
- Manually resized column widths.
- Values entered but not saved including open editor dialogs.
- State of panels (e.g., expanded collapsed 'Recent background processes' side panel/ 'Recent warning notifications' side panel/ Global Navigation Panel).
- Position of drag handles and scroll bars.

Additionally, consider these items:

- Pages will not be scrolled to focus on read-only attributes on a Node Details screen.
- Focus on attributes on a Node Details screen is not visible when fields are checkboxes or radio buttons.
- Having two Node Lists inside the same tab, only one display mode state is saved.
- When working in Microsoft's Internet Explorer (IE) or Edge web browsers, some copied URLs may exceed IE / Edge's maximum character count for URLs, which is 2,046 characters. When these long URLs are

pasted in either of these browsers, the system will display an error and the user will not be navigated to the desired Web UI page.

Action Buttons

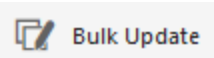
In Web UI design mode, action buttons can be added to one or more types of screens and/or components. The following list is not an all-inclusive list.

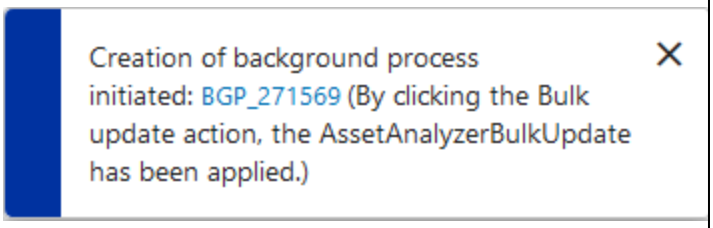
For configuration of some of these action buttons that appear on a Node List, refer to the **Action Button Configuration on a Node List** topic in the **Web User Interface** documentation.

Note: Some print-related actions may not be present on the list.

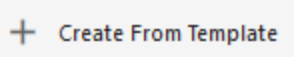
Important: A restriction has been made on Web UI toolbar actions that do not use a collection and a background process to handle the actions on the server. These actions are disabled when the number of selected nodes exceeds 10000.

Action Title	Description	Screen / Component Configuration	Topics with additional Information
Add Autopage Items Action	This component adds items to an Autopage Publication.	Child Action component on a Node List	Node List Component
Add Selected Items To Collection	This component adds selected nodes to the collection without query URL.	Child Action component on a Node List	Node List Component
Add To Basket Action	When added to a PowerSearch screen, this action lets users add the selected items to the basket.	Child Action component on a Node List	Node List Component
Add to Batch Action	When added to the Actions parameter of a Node List, this component allows the user to add the selected items to a batch.	Child Action component on a Node List	Node List Component
Assign Toolbar Action	On the Task List screen, this component can assign and unassign tasks in bulk. The Assign toolbar action comes by default with two options: 'Release task' and 'Assign to.' Selecting the 'Release task' option will release the task to the user group to which the workflow is assigned. Selecting the 'Assign to' option results in a second dropdown that lists both the default user group to which the workflow has been assigned,	Child Action component on a Node List	Node List Component Assigning Workflow Tasks in Web UI

Action Title	Description	Screen / Component Configuration	Topics with additional Information
	and all users to which the task item can be assigned, including the user who has clicked the button.		
Attribute Add Valid Object Types Action	This component adds valid object types to an attribute. The user can browse or search for the desired product object type.	Child Action component on a Node List	Node List Component Attribute Management Screen
Attribute Remove Valid Object Types Action	To remove a valid object type from a product, select the object types that need to be removed, then click on the 'Attribute remove valid object types.'	Child Action component on a Node List	Node List Component Attribute Management Screen
Bulk Update Action	Allows the user to perform a bulk update of the selected items.	Child Action component on a Node List	Node List Component
Bulk Update List Action	This component allows the user to perform bulk updates of the selected items using templates and root node parameters that house bulk update configurations.	Child Action component on a Node List	Node List Component Parameterized Business Actions in Web UI
Bulk Update Template Action	Allows users to select items in a Node List and update them all at once according to a pre-configured Bulk Update configuration. The title, icon, and help text for the action are configurable. • How the toolbar action button displays in the toolbar: 	Child Action component on a Node List	Node List Component Bulk Updates

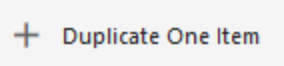
Action Title	Description	Screen / Component Configuration	Topics with additional Information
	With this component, users can also configure the text that will display in the information popup when the bulk update action has been initiated. Background process pop ups can be configured to include not only a custom message, but also existing names and processes by adding braced words. The braced words are: {Action}, {Configuration}, {WorkflowID}, {WorkflowName}, {WorkflowState}, {StatusFlag}, {ItemCount} and {ImportFile}. Each of these will bring in the corresponding element name into the background process message. Below is an example of a valid 'Process Description' message added in the designer:  And below is how the background process popup would display: 		
Cancel Asynchronous Job Action	When added to a job list screen, this component allows the user to cancel the selected asynchronous job(s). Note that this action button is designed to cancel only asynchronous translation jobs, not all background process (BGP) jobs.	Child Action component on a Node List	Node List Component
Change Reference Target Action	This component changes the target of the selected reference(s) in a table.	Child Action component on a Node List	Node List Component
Confirm as Non-	This component, which can be used while merging confirmed matches or confirming a deduplication via	Child Action component on a	Node List Component

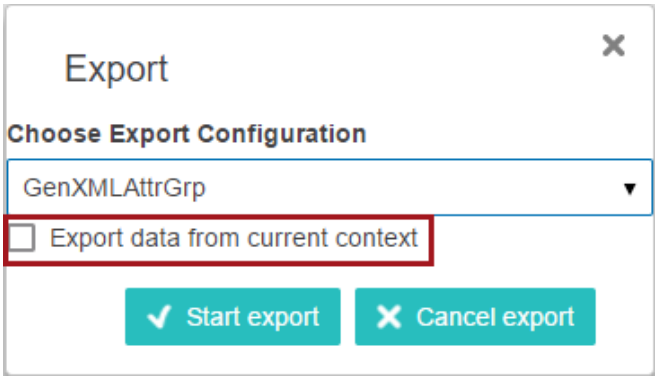
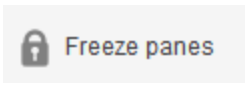
Action Title	Description	Screen / Component Configuration	Topics with additional Information
Duplicate Action	clerical review, rejects the selected items in grid as duplicates.	Node List	Merging Confirmed Matches Configuring a Deduplication Clerical Review in Matching, Linking and Merging
Confirm as Duplicate Action	When performing a merge, this component confirms the selected items in a grid as duplicates. To perform a merge, choose which objects to merge with the selected node and click 'Confirm as Duplicate Action.' In the message that pops up, provide a reason for why they are duplicates, then click OK. Navigate to the 'Confirmed Matches' component screen and select which match to merge the currently selected node with. Then, click the 'Navigate to merge nodes screen' button. On the merge screen, choose which attributes and references will survive the merge by clicking the arrows next to them. Select the surviving node via the radio buttons displayed above the Merge button.	Child Action component on a Node List	Node List Component Merging Confirmed Matches in the Matching, Linking, and Merging documentation
Create from Template	Allows users to configure product-based templates that can be used to create new products. When one or more templates have been created, users can click on the 'Create from Template' toolbar action to create a new product. A 'Create New Item' window displays with a series of template options, each indicated by an image. Once created and a new name assigned to the new product, the selected template's attributes, attribute values, and references are applied to the new product. This component allows users to configure the new object's object type and placement in the hierarchy to be different than that of the template. It is important to note that an auto ID configuration must be setup for the relevant object type to enable this action.	Child Action component on a Node List	Node List Component

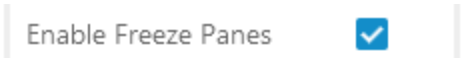
Action Title	Description	Screen / Component Configuration	Topics with additional Information
	• How the toolbar action button displays in the toolbar: 		
Create Asset Action	Allows the user to create a new asset.	Child Action component on a Node Details Screen Child Action component on a Node List	Action Button Configuration on a Node List. **Note:** Configuration on Node Details is the same as Node List.
Create Classification Action	Allows the user to create new classifications.	Child Action component on a Node Details Screen Child Action component on a Node List	Action Button Configuration on a Node List. **Note:** Configuration on a Node Details is the same as Node List.
Create Collection Action	Collections are containers for storing sets of objects. This action creates a collection from results of a search.	Child Action component on a Node List	Node List Component Status Selector Homepage Widget
Create Collection Action Automotive	This action creates a collection from results of a search within the Application Manager Screen.	Child Action component on a Node List	Node List Component Results Table and Toolbar

Action Title	Description	Screen / Component Configuration	Topics with additional Information
Create Confirmed Match From Grid	This action adds an additional confirmed match. Matches must be confirmed via the Potential Duplicates List or Deduplication List screens.	Child Action component on a Node List	Node List Component Confirmed Matches Component
Create Entity Action	Allows the user to create a new object of the entity super type.	Child Action component on a Node Details Screen Child Action component on a Node List	Action Button Configuration on a Node List.
Create Product Action	Allows the user to create a new product.	Child Action component on a Node Details Screen Child Action component on a Node List	Action Button Configuration on a Node List.
Create References Action	Enables the user to create a reference or link between selected objects and one or more targets for the configured reference or link type. The available reference and link types include Classification, Entity, Image and Document (assets), or Product reference types, or the Product to Classification link type. The reference and link types applied can be displayed using the 'Reference Header' when configured as a Table Header in a table / grid Display Mode.	Child Action component on a Node List	Node List Component Create References Action Configuration
Custom Export Action	The Custom Export Action can be added to a toolbar on a given screen a Node List or Task List, enabling the user to export a selection of products, classifications, or entities. Supported export formats for Custom Export are Excel and CSV.	Child Action component on a Node List	Node List Component Custom Export Action

Action Title	Description	Screen / Component Configuration	Topics with additional Information
	This action was previously called the Simple Exporter Action.		
Delete Confirmed Match From Grid Action	This action deletes a confirmed match.	Child Action component on a Node List	Node List Component Confirmed Matches Component
Delete From Collection Action	This action deletes the selected item(s) from the collection.	Child Action component on a Node List	Node List Component
Delete From Grid Action	This action deletes the selected item(s) in the grid.	Child Action component on a Node List	Node List Component
Download Assets Action	Asset Download is an add-on component for STEP that enables users to provide a URL to an asset on a product and have STEP automatically download the asset. This functionality allows users—typically suppliers—to efficiently create and/or replace their business-critical assets in STEP, adding an additional layer of flexibility in how they can manage and store the assets and images that need to be linked to their products. The Asset Download component enables STEP to pull assets (e.g., images) from external URLs, store them in supplier asset classification structures, and link them to products in an automated operation.	Child Action component on a Node List	Node List Component Asset Download Download Assets Action
Duplicate Item Action	Enables users to duplicate a single item in a Node List on a Display Children screen or a Children of Types screen. Once an object in a Node List (displayed in a tabular view style) is selected, this toolbar action button can be used to duplicate that object. The duplicated item is added to the same parent node as the original and retains all of the original object's information, including references. It is important to note that an auto	Child Action component on a Node List	Node List Component

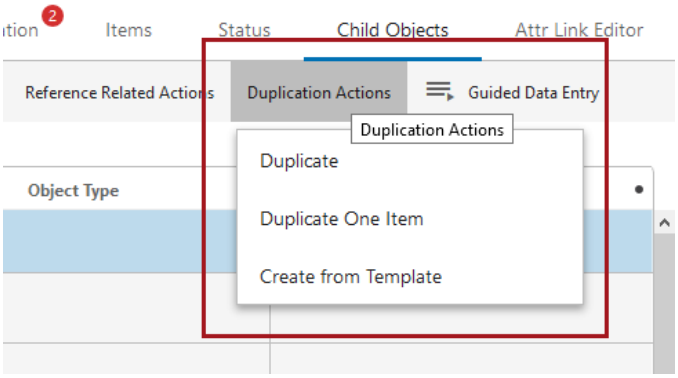
Action Title	Description	Screen / Component Configuration	Topics with additional Information
	ID configuration must be setup for the relevant object type to enable this action. • How the toolbar action button displays in the toolbar: 		
Edit Collection Search Criteria Action	This action allows the user to edit the search criteria for a collection.	Child Action component on a Node List	Node List Component
Experian Email Validation	Once all setup is complete, the Experian Email Validation integration allows users to perform email validations on a node list with one click of the 'Validate Emails' button. Users can choose one or more objects containing email account data that need to be validated, then click on the 'Validate Emails' button to run the 'Experian Email validation Job' background process.	Node List component	Experian Email Validation Integration in Web UI
Export Action	Downloads selected items using the selected saved export configuration. • By default, STEPXML and Advanced STEPXML configurations export data from the current Web UI context. • By default, non-STEPXML configurations export data from the context saved in the export configuration. To overwrite the configuration context and export data from the current Web UI context, check the 'Export data from current context' parameter.	Node List component on a: • Task List screen • Display Children screen • Classification screen • Collection Content screen	Node List Component Task List Advanced Search Search Screen Basket Maintaining a Saved Export Configuration in the Data Exchange

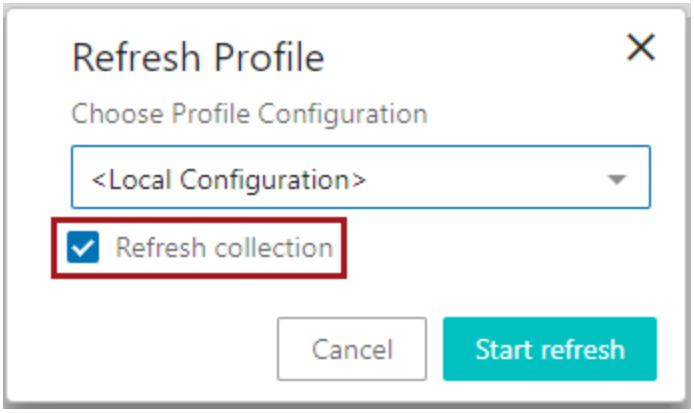
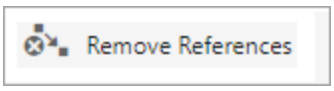
Action Title	Description	Screen / Component Configuration	Topics with additional Information
		• Asset Basket screen • Advanced Search screen	documentation
Export Action Automotive	This action can be added to a Node List within the Application Manager screen for downloading selected items in the current state using a saved export configuration.	Child Action component on a Node List	Node List Component Using Automotive Exporters
Export Current View	With a single click, allows users to export selected Node List items directly to an Excel spreadsheet, using the same columns and column ordering of the exported table.	Child Action component on a Node List	Node List Component Export Current View Action
Freeze Panes	Allows Node List tables viewed in either the Multi Edit or Comparison View modes to be locked vertically and horizontally on a selected cell. The parameter that enables Freeze Panes is available in the 'Advanced' section of the Multi Edit view mode in the designer. • How the toolbar action button appears in the toolbar:  • How the Enable Freeze Panes parameter appears in the designer:	Node List component in Multi Edit or Compare View	Node List Component

Action Title	Description	Screen / Component Configuration	Topics with additional Information
			
Generate PDF	This component generates PDF files for the mounted pages in the selected publication(s), section(s), or page (s).	Child Action component on a Node List	Node List Component
Golden Record Advanced Merge From Grid	This action, when added to a Golden Record Clerical Review Task List screen, opens the Golden Record Advanced Merge Dialog, which allows the user to edit the golden records merged result.	Child Action component on a Node List	Node List Component Golden Record Clerical Review Task List Golden Record Advanced Merge Dialog
Golden Record Merge From Grid	In the Golden Record Clerical Review Task List, this action merges the selected task(s) into a single surviving golden record (for each task selected). Which values get promoted to the surviving golden record are determined automatically by the survivorship rules specified on the corresponding matching algorithm.	Child Action component on a Node List	Node List Component Golden Record Clerical Review Task List
Golden Record Reassign From Grid	In the Golden Record Clerical Review Task List, this action enables the user to reassign chosen task(s) to another user or user group configured in the workflow. The new assignee can be selected from the 'Select assignee' dialog box that pops up.	Child Action component on a Node List	Node List Component Golden Record Clerical Review Task List
Golden Record Reject From Grid	In the Golden Record Clerical Review Task List, this action confirms golden records as non-duplicates and removes them from the workflow.	Child Action component on a Node List	Node List Component Golden Record Clerical Review Task

Action Title	Description	Screen / Component Configuration	Topics with additional Information
			List
Golden Record Submit From Grid	This action submits the configured event to the chosen task(s) in the Golden Record Clerical Review Task List.	Child Action component on a Node List	Node List Component Golden Record Clerical Review Task List
Guided Data Entry	This action will move selected items into Guided Data Entry. The Guided Data Entry window displays configured attributes, attribute groups, and reference types for the selected objects. Users may then add attribute values or references to complete the Guided Data Entry 'stepper.'	Child Action component on a Node List	Node List Component Adding Guided Data Entry to Web UI
Hide Equal	When clicked, the Hide Equal button hides all rows / columns showing the same data. For instance, if all objects listed have the value 'Blue' for the attribute 'Primary color', clicking Hide Equal will hide the 'Primary color' attribute from the table.	Child Action component on a Node List for Display Children, Task List, Collection List, Collection Content, Multi Selection screens; configurable via checkbox selection for Multi Revision, Multi Workspace, Deduplication Screen, and Potential Duplicates List	Node List Component Comparing Data Using Hide Equal and Mark Different
Initiate Business	Once configured, the Initiate Business action component can be used to start a business action on a	Child Action component on a	Node List Component

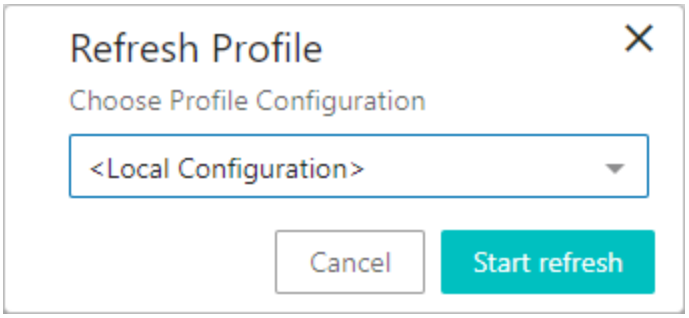
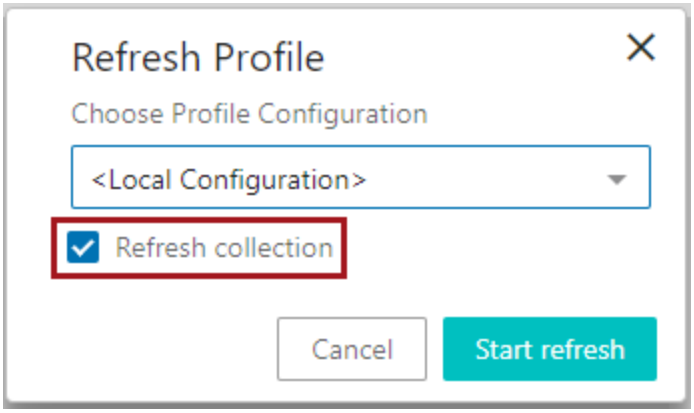
Action Title	Description	Screen / Component Configuration	Topics with additional Information
Action	data container. Below is an example of the Initiate Business Action button:	Node List	Using Asset Download
Initiate Business Rule Action	Action for invoking a business rule on a single selected entry.	Child Action component on a Node List	Node List Component
Mark Different	When clicked, the Mark Different button highlights all rows / columns showing differing data. For instance, if one or more objects listed have different values for the attribute 'Primary color', clicking Mark Different will highlight the 'Primary color' attribute.	Child Action component on a Node List for Display Children, Task List, Collection List, Collection Content, Multi Selection screens; configurable via checkbox selection for Multi Revision, Multi Workspace, Deduplication Screen, and Potential Duplicates List	Node List Component Comparing Data Using Hide Equal and Mark Different
Menu Group	Multiple toolbar action buttons can be configured to display in a single group using this component. Once configured, users can click the 'Menu Group' button and all included toolbar actions display in a dropdown menu.	Child Action component on a Node List	Node List Component

Action Title	Description	Screen / Component Configuration	Topics with additional Information
			
Multi Context Edit	This component enables users to view object information for multiple objects in multiple contexts in the same view. Once configured, users implement this editable view by selecting the objects to be viewed from the Node List, and then clicking the Multi Context Edit button. Users then select which headers should display in the view, and then which contexts should be included in display. The view shows all selected objects, once for each selected context, with all of the selected attribute information.	Child Action component on a Node List	Node List Component Multi Context Edit Component
New Item Action	This action can be added to a Node List inside the Children Of Types screen. This allows the user to create new children below the selected product.	Child Action component on a Node List	Node List Component Children of Types Screen
Partial Approval Action	This no-configuration button can be added to Node Editors and, when clicked, opens a full-screen overlay showing all unapproved changes made by the logged-in user as well as by other users. Users may create a selection of unapproved changes, and then approve them in the overlay.	Child Button Component on a Node Editor	Node Editor Component Partial Approval in Web UI
Refresh Profile Action	Allows the user to manually generate / update a data profile for the currently selected collection. When clicked, the user is prompted to select a profile configuration. A 'Refresh collection' option is also	Child Action component on a Node List	Node List Component

Action Title	Description	Screen / Component Configuration	Topics with additional Information
	available. Checking this box will refresh the collection before the profile is run:  A link to the background process is provided any time this action button is used.		
Remove From Basket Action	This action can be added to the Basket screen. It allows the user to remove the selected items from the basket.	Child Action component on a Node List	Node List Component
Remove References Action	This component enables users to remove one or multiple references from one or multiple objects in a Node List. Once properly configured, initiating this action brings up a window displaying a menu of all configured reference types for which there are references, along with the objects referenced using that reference type. Users may then select one or more of the referenced objects and remove all references to that object in all selected Node List items in one action. • How the toolbar action button appears in the toolbar: 	Child Action component on a Node List	Node List Component
Run Business	Enables users to execute a business rule when clicking	Toolbar action	Run Business

Action Title	Description	Screen / Component Configuration	Topics with additional Information
Action	a button in the Web UI. Can be used, for example, to streamline navigation through workflows in the Web UI. Because the Run Business Action component enables business actions to make changes in the Web UI, this component can be applied by admin users in a wide range of scenarios.	button on a Node List Standard action button on a Node Details screen	Action Component Node List Component Node Details Screen
Run Business Condition	Creates a button for initiating a business condition.	Child Action component on a Node List	Node List Component
Select	This action can be added to a Planned Spread Navigator screen. This allows the user to choose the version for which to display the planned pages.	Child Action component on a Node List	Node List Component
Smart Sheet Export Action	After enabling the Excel Smartsheet Format functionality, use this action to maintain data by allowing users to download Smartsheet maintenance files from objects in a workflow.	Child Action component on a Node List	Excel Smartsheet Format (in the Data Exchange documentation) Node List Component Smartsheet Export Action
Start Workflow From Grid	When working with objects in Web UI, a Start Workflow Action button can be added to any Node Details screen. This allows users to work with object data and then initiate the object into a workflow by clicking the 'Start STEP Workflow' button at the bottom of the screen. The button is only enabled when initiation is possible. If disabled, the object may already exist as a task in the designated workflow.	Child Action component on a Node List	Node List Component Initiating Objects in a Workflow using Web UI

Action Title	Description	Screen / Component Configuration	Topics with additional Information
	Note: The button label for 'Start STEP Workflow' can be configured in the designer.		
Stateflow Filtering Action	This action, when added to a Planned Spread Navigator screen, allows the user to filter pages by stateflow assignee.	Child Action component on a Node List	Node List Component
Submit Action	This action button generates submit buttons for the events that are valid for a given product state and STEP workflow. One button will be inserted for each event.	Standard action button on a Node Details screen.	Submit Action Workflow Navigation Handler
Submit From Grid Action	This action submits the selected item(s) in a grid.	Child Action component on a Node List	Node List Component
Unlink Duplicate From Grid Action	This action unlinks the selected items in a grid. To use this action, select two source records and click the Unlink Duplicates button. This will unlink the two records and mark them as confirmed non-duplicates. Only one will survive and remain linked to the golden record.	Child Action component on a Node List	Node List Component Golden Record Linked Members Component
Unlink Single Record from Golden Action	This action unlinks the selected record from the golden record. To use this action, select one source record and click the Unlink Single Record From Golden button. This will remove the source record reference from the golden record.	Child Action component on a Node List	Node List Component Golden Record Linked Members Component
Update Profile Action	Allows the user to manually generate / update a data profile for the currently selected node. When clicked, the user is prompted to select a profile configuration:	Child Action component on a Node List	Node Details Screen

Action Title	Description	Screen / Component Configuration	Topics with additional Information
	 When updating a collection profile, a 'Refresh collection' option is also available. Checking this box will refresh the collection before the profile is run.  A link to the background process is provided any time this action button is used.		
Upload Asset Action	The Upload Asset action, which can be added to a Folder screen or Asset Folder screen, allows the user to upload and create an asset in the current classification for the screen. **Note:** An asset importer configuration must be selected before uploading an asset. The configuration will apply its rules against the imported asset and make any necessary changes (or reject if it fails to meet minimum requirements).	Child Action component on a Node List	Node List Component Asset Importer in Web UI

Action Button Configuration on a Node List

In Web UI, action buttons aid users in performing various tasks. In some cases these action buttons are configurable to allow for better ease of use. Below are the various options for configuring action buttons on Node Lists.

Important: A restriction has been made on Web UI toolbar actions that do not use a collection and a background process to handle the actions on the server. These actions are disabled when the number of selected nodes exceeds 10000.

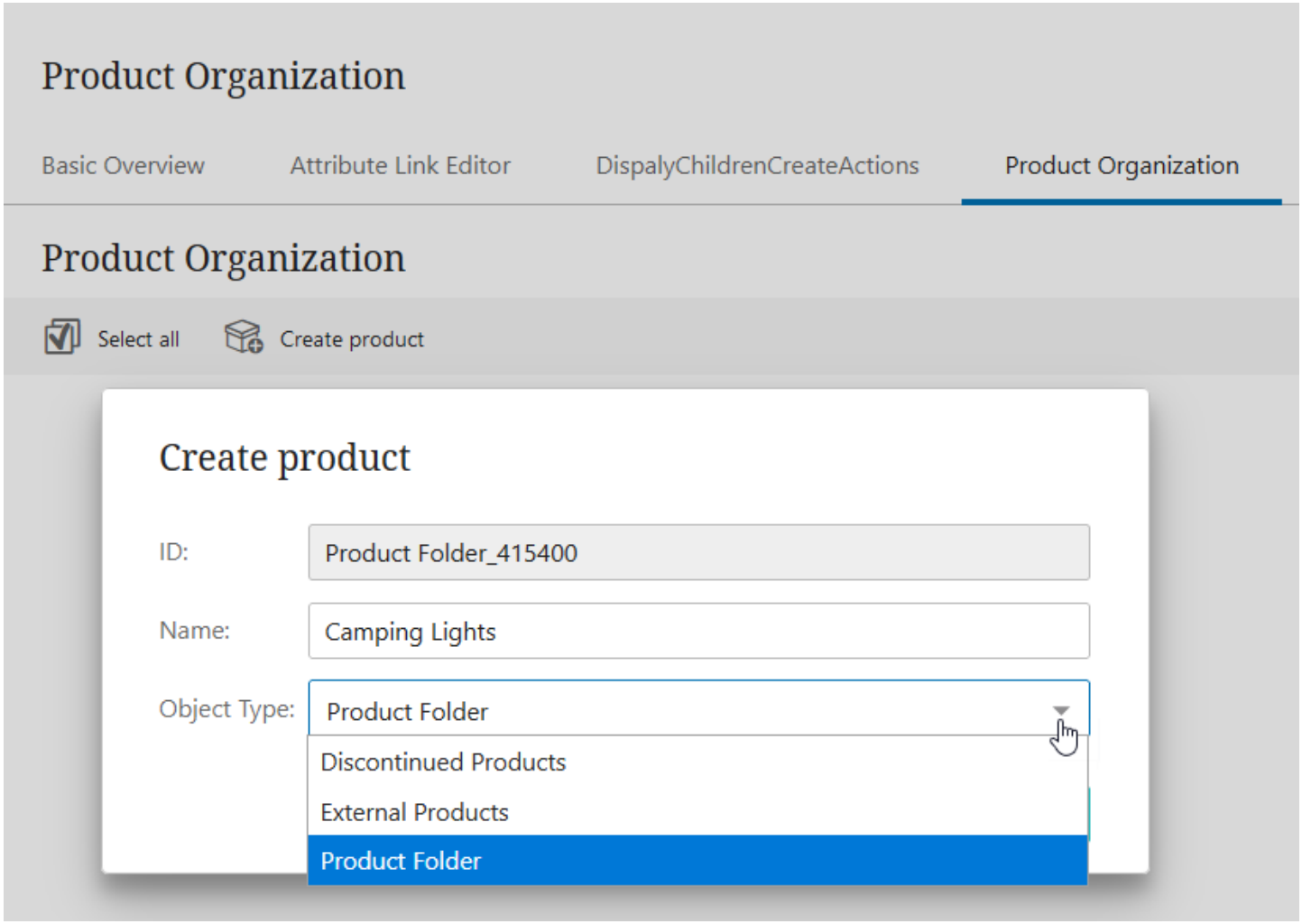
Configuring Create Action Buttons

Note: The configuration below is also used when configuring the create action buttons on a Node Details.

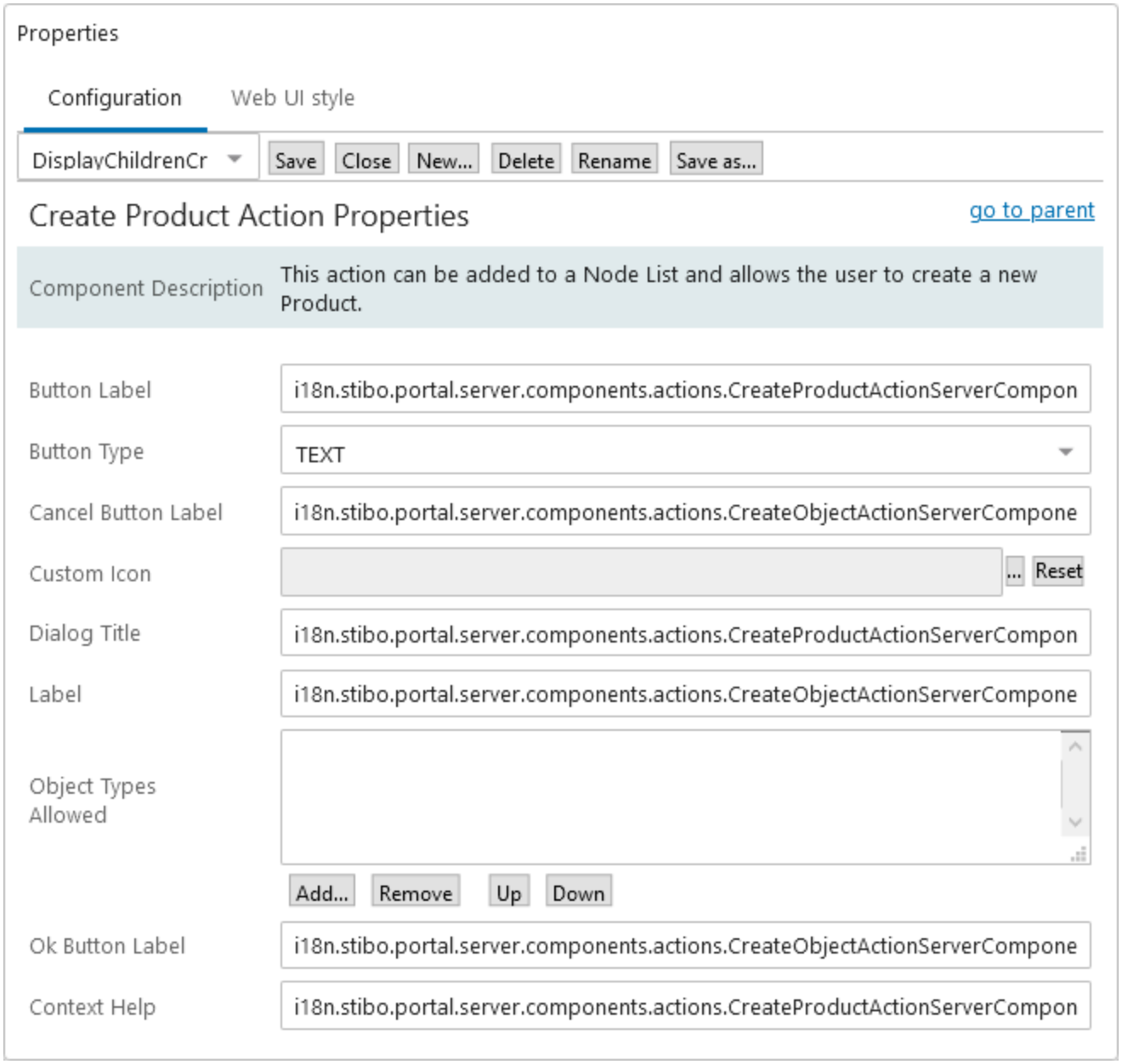
There are a number of create action buttons that are used to create products, classifications, entities, and assets. These create buttons are:

- Create Asset Action
- Create Classification Action
- Create Entity Action
- Create Product Action

Depending on the create action button selected, a dialog displays with options for the user to choose which object type they want to create. In the following example, the Create Product Action button was selected.



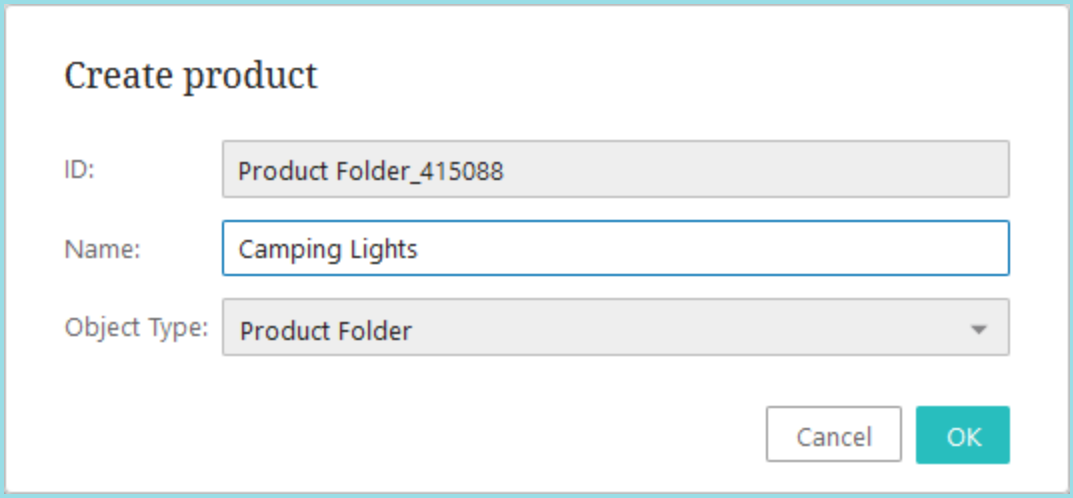
When configuring, each create action button has the same parameters like the example below:



- **Button Label:** Displays the create action button name. This is only available when the action is applied on a Node List.
- **Button Type:** Indicates if the button should display just the icon, text, or both.
- **Cancel Button Label:** The name of the cancel button in the create dialog.
- **Custom Icon:** An icon that is uploaded to the system and used instead of the default icons. Refer to the Configuring Custom Labels for User-Added Toolbar Actions section below in this topic for further details.
- **Dialog Title:** The title of the create dialog.

- **Label:** Displays the create action button name. This only displays when the action button is used as a child action on a Node Details screen.
- **Object Types Allowed:** The list of object types that may be created with this action. If no object types are configured, all valid object types below the current object will be shown.

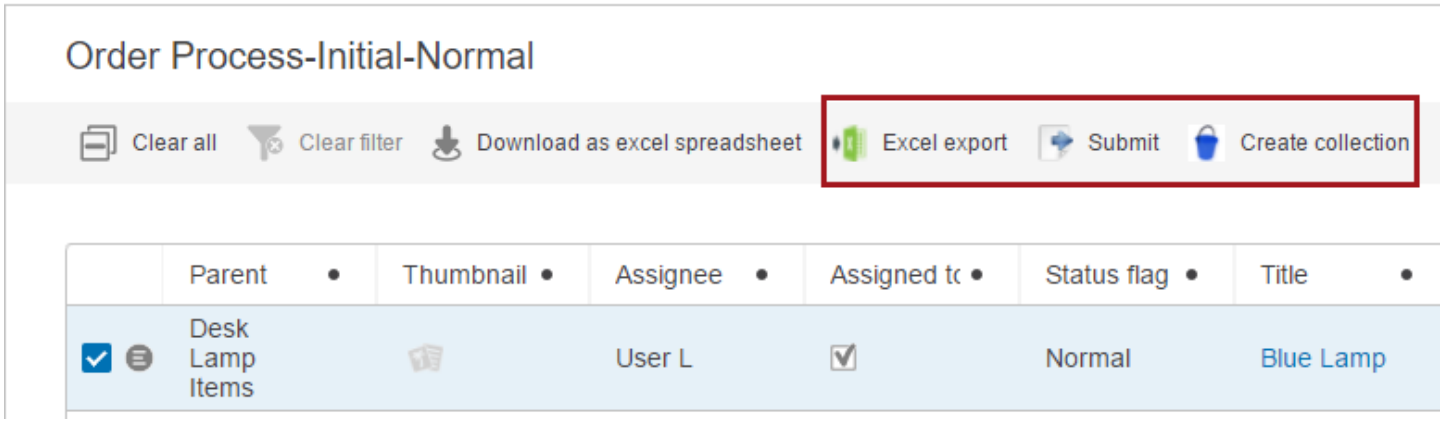
Note: If only one valid object type has been configured in the 'Object Types Allowed' parameter in the designer, the Object Type field will display the designated object type as read-only by graying out the field and disabling the dropdown. Additionally, if there is more than one object type configured, but the data model allows only one of the object types configured when on a particular product, then again, the object type field will be read-only and grayed out.



- **OK Button Label:** The label of the OK button in the create dialog.
- **Context Help:** Provides additional information to the user about the create button.

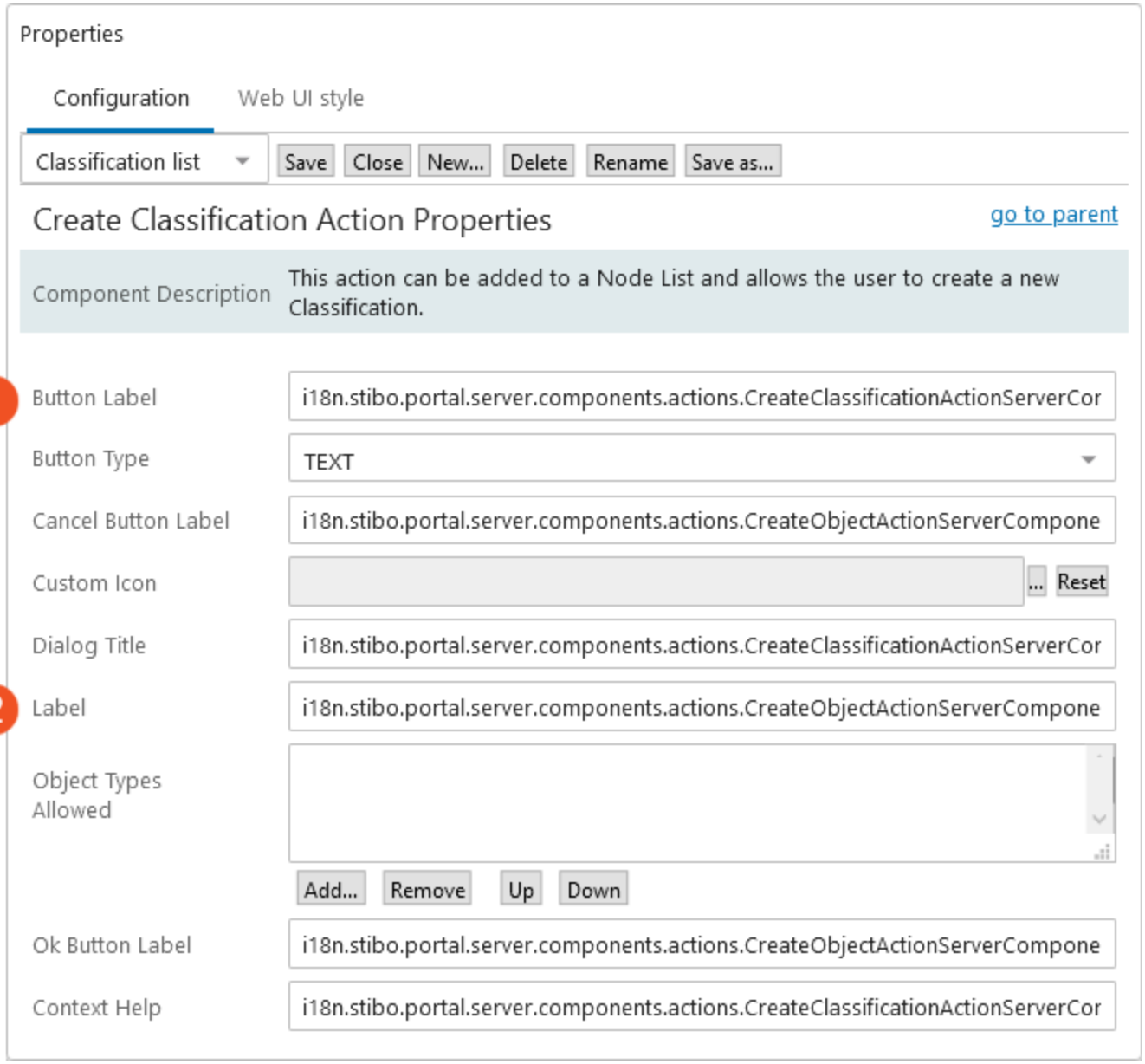
User-Added Toolbar Action Buttons on Node Lists

In Web UI, user-added toolbar action buttons on Node Lists help users perform various actions. A few examples are: exporting data, creating collections, submitting a task from one state to another in a workflow, etc. Because there are so many different types of actions that a user may need to use on a Node List, it is sometimes hard to remember what each button does. For this reason, text and icons of user-added toolbar actions can be customized to make it clear to the user what action the button represents.



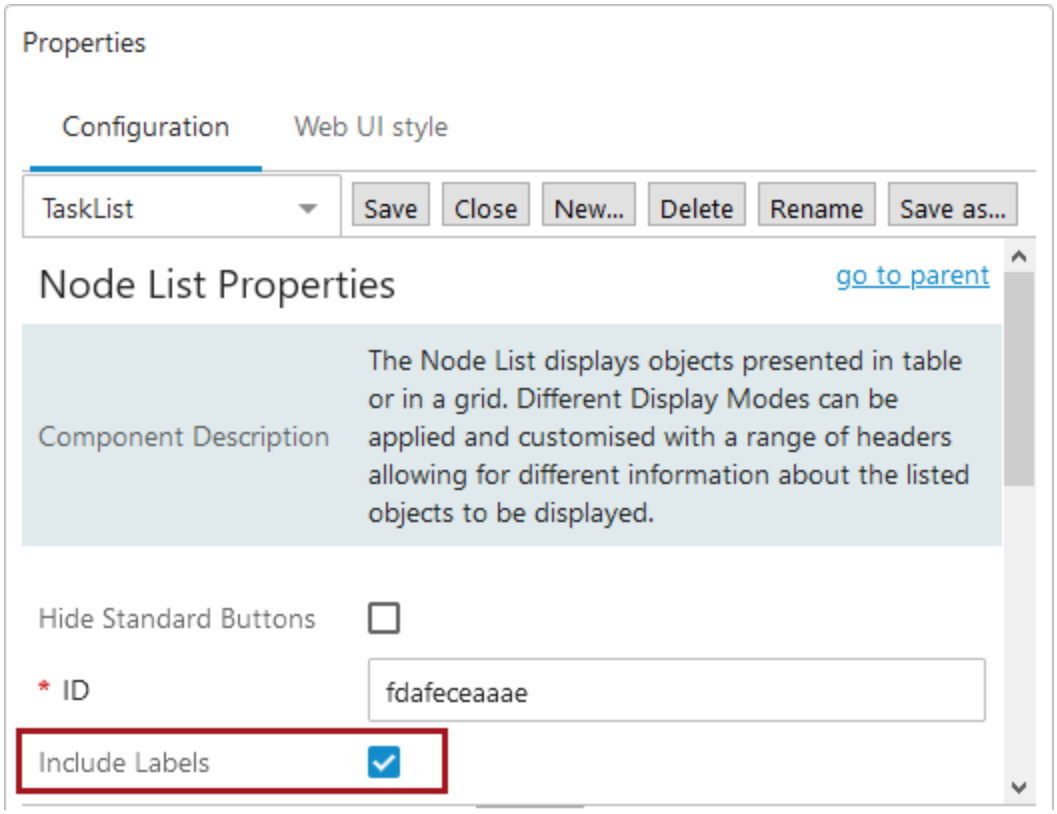
It is important to note that some of these user-added actions are shared between Node List toolbar actions and child actions on a Node Details screen. Therefore, the custom label and icon parameters are available on these shared actions, though only functional when the actions are applied as toolbar actions on Node Lists.

1. The **Button Label** parameter is only available when the action is applied on a Node List.
2. The **Label** parameter only displays when the action button is used as a child action on a Node Details screen.



Enabling / Disabling Button Labels

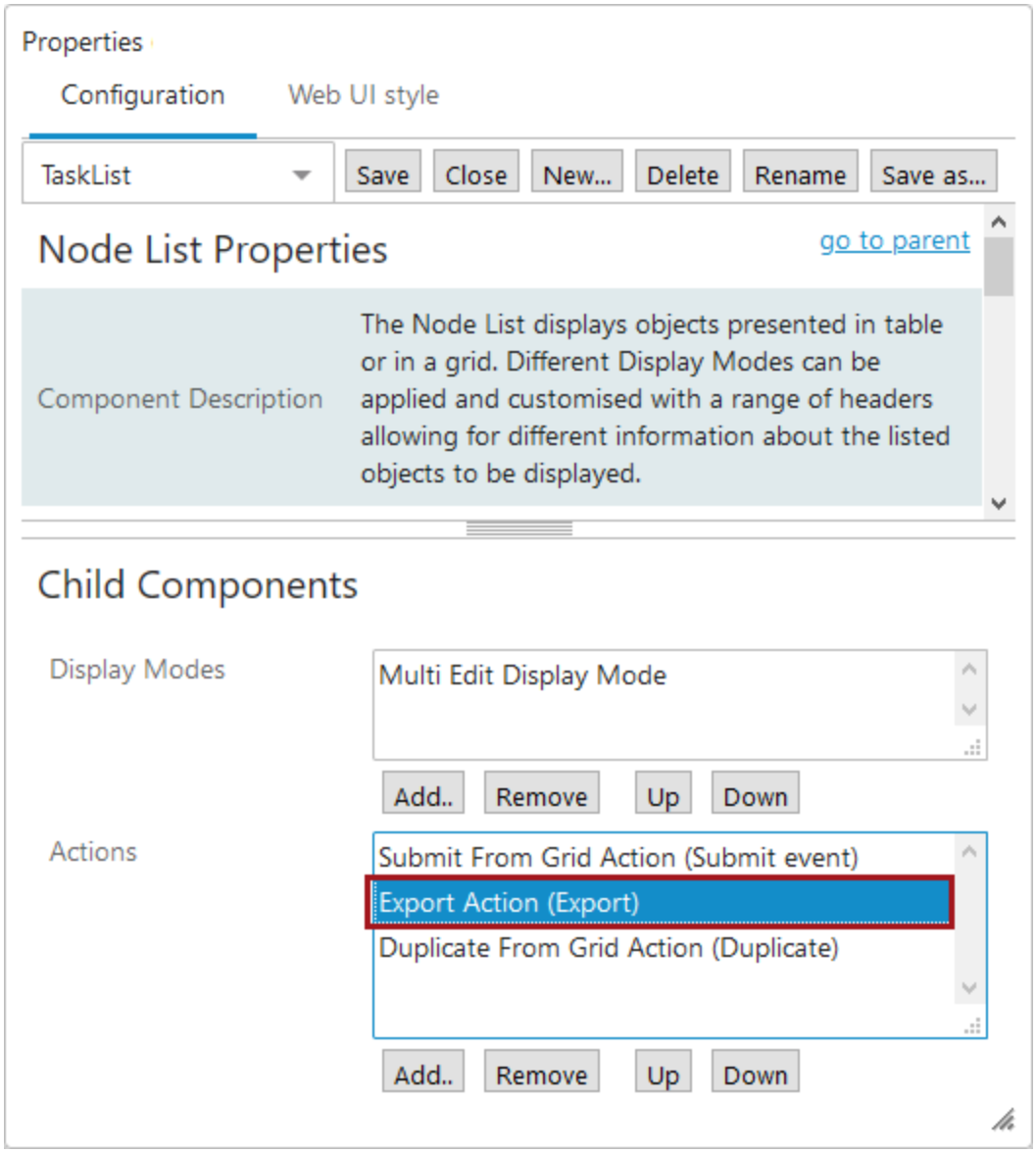
The presence / absence of text labels is determined by the parameter **Include Labels** on a Node List.



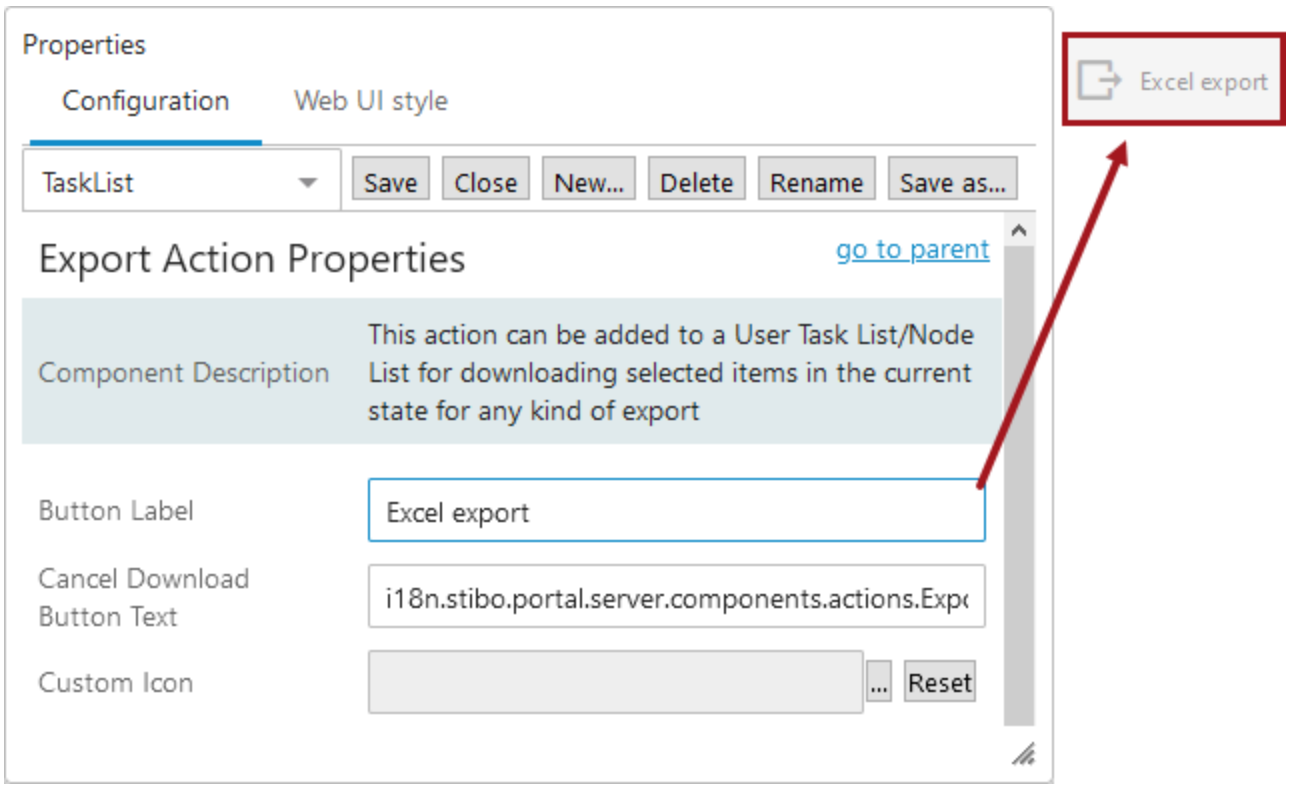
Once checked, all toolbar actions display predefined set labels, though administrators can configure user-added toolbar actions with distinct text labels to display instead of set labels.

Configuring Custom Labels for User-Added Toolbar Actions

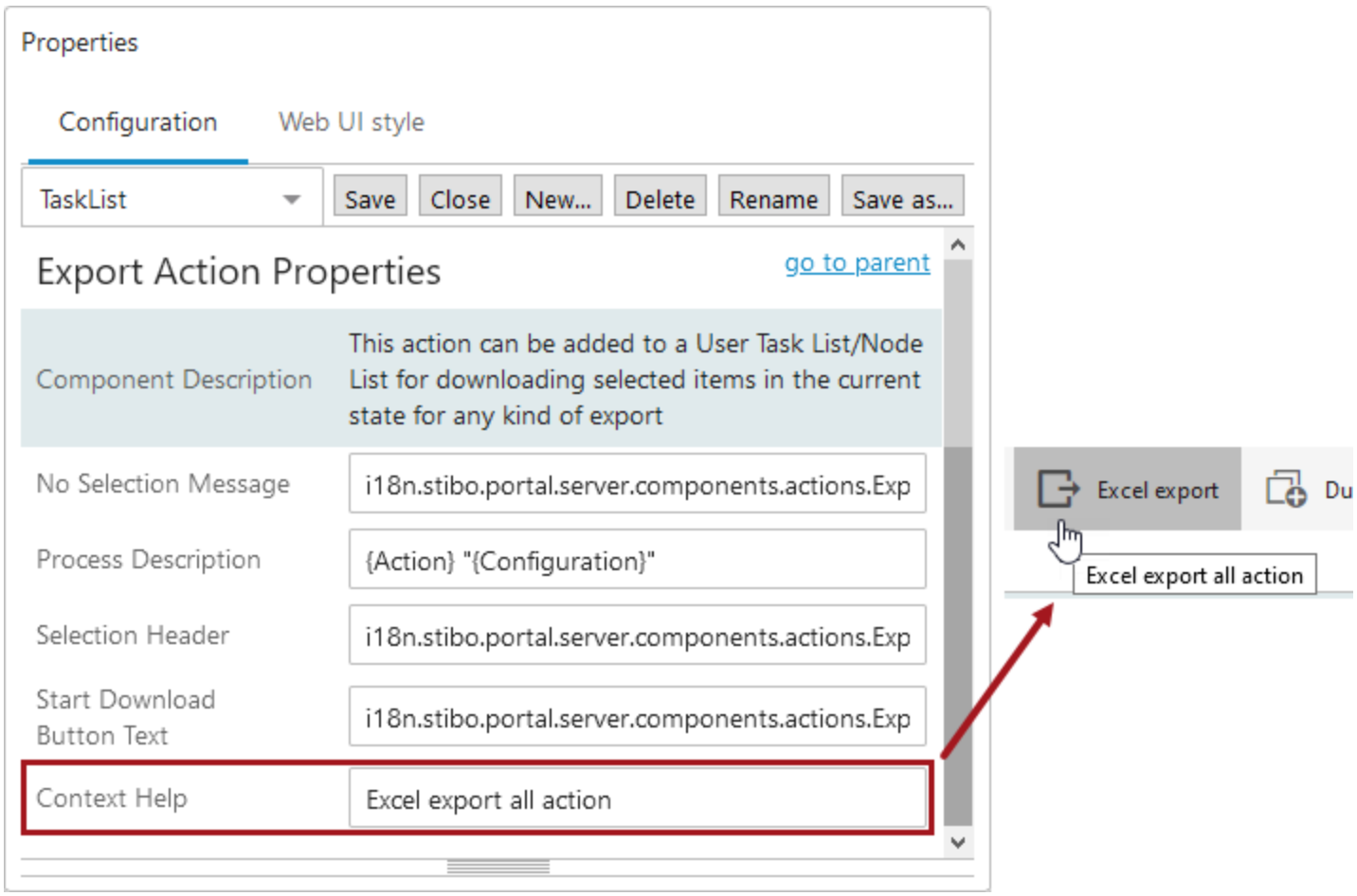
To configure user-added toolbar actions with custom text labels go to Node List Properties > Child Components > and double click on the desired action.



Once opened, a user can configure the **Button Label** field by entering the desired text label.



Note that if the name for the button label is long, it is suggested to put it in the Context Help field and put a more abbreviated name in the Button Label field, or leave it blank.



To revert to the default Stibo Systems button label settings, clear the Button Label field, and then save and close the designer.

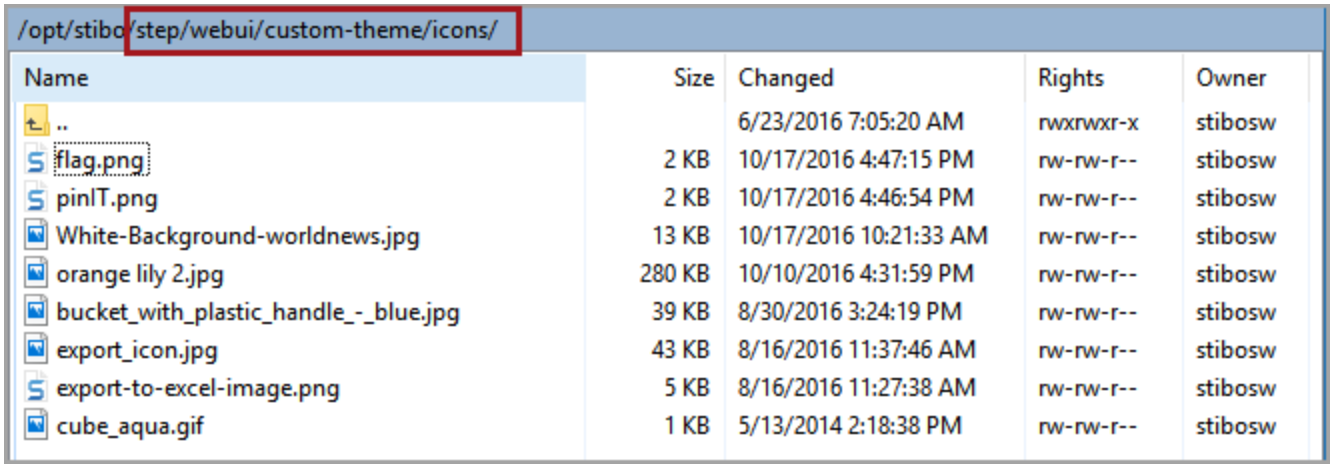
Configuring Custom Icons for User-Added Toolbar Actions

There are two ways to add icons to Web UI for use on a Node List when configuring custom icons.

- Upload a single icon directly from a Node List configuration
- Upload multiple icons from the designer's Web UI Styles tab

Note: All uploaded images should be either a JPG or PNG file, and it is suggested that it is between 20 pixels high and 40 pixels wide.

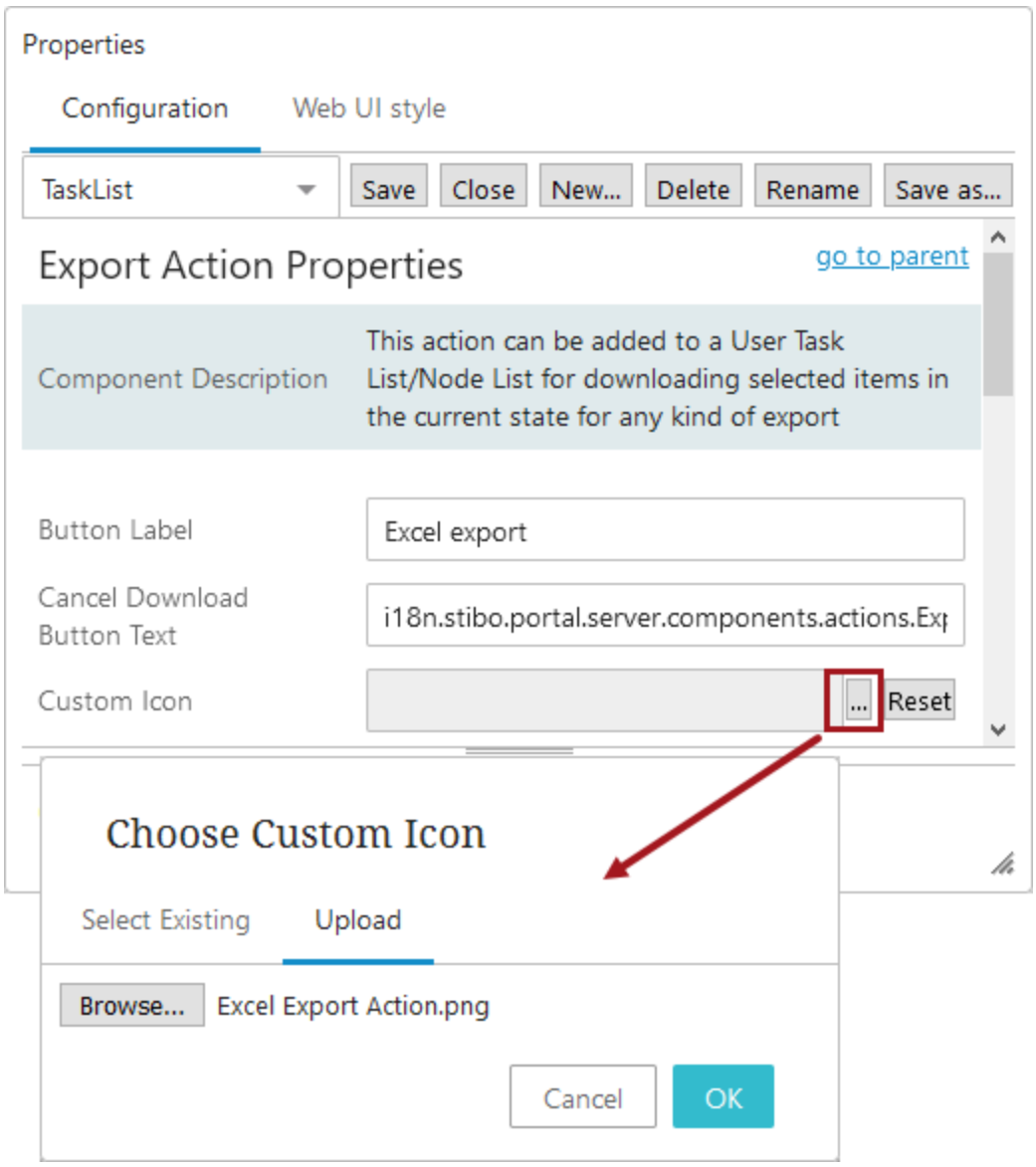
Once images are uploaded, they are stored on the server and are available for other Web UIs. The image below shows the standard directory path where the icons will be stored.



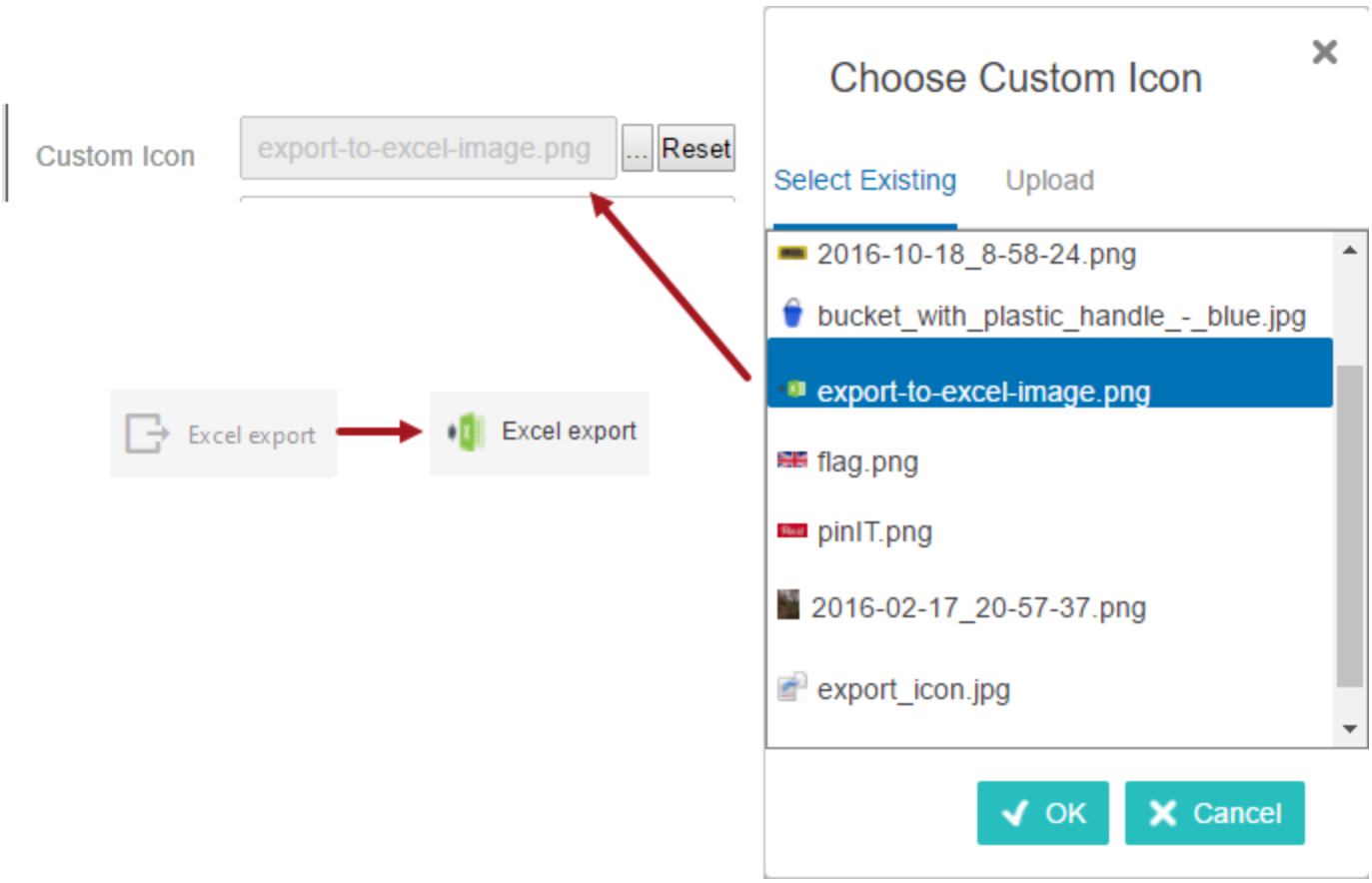
Upload a Single Icon Directly From a Node List

To add a custom icon to user-added toolbar actions go to Node List Properties > Child Components > and double-click on the desired action.

Once opened, click the ellipsis button (...) to configure the **Custom Icon** field. Select the **Upload** tab, and upload a new image. Once selected, save and close the designer.



If selecting an image already uploaded to Web UI, choose the image from the **Select Existing** tab.

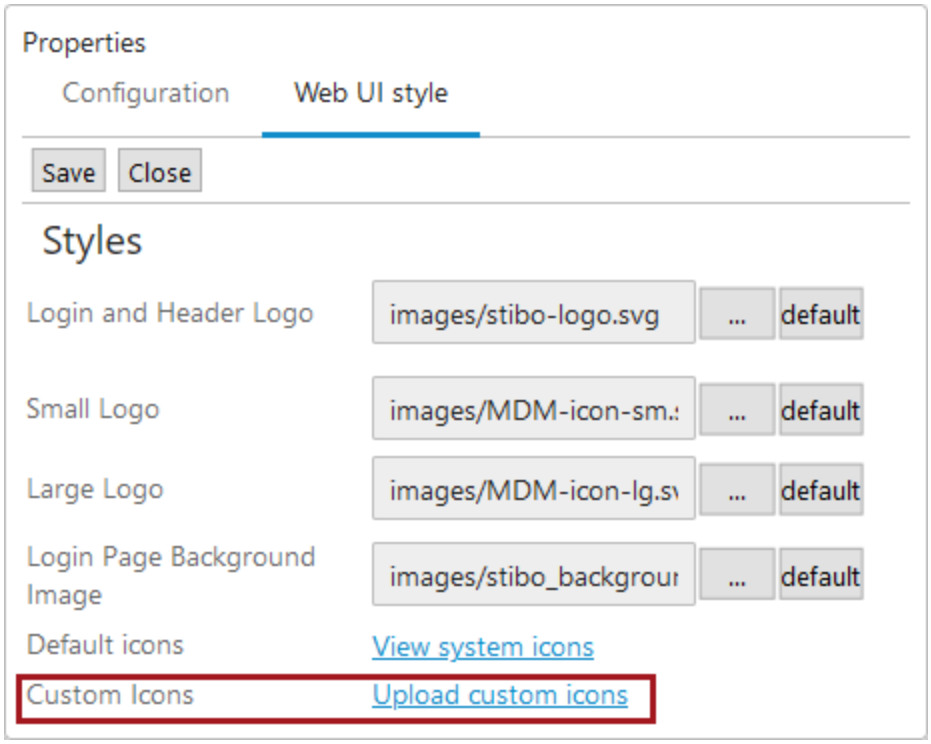


To revert to the default icon setting, select the **Reset** button next to the ellipsis button (...), save, and close the designer.

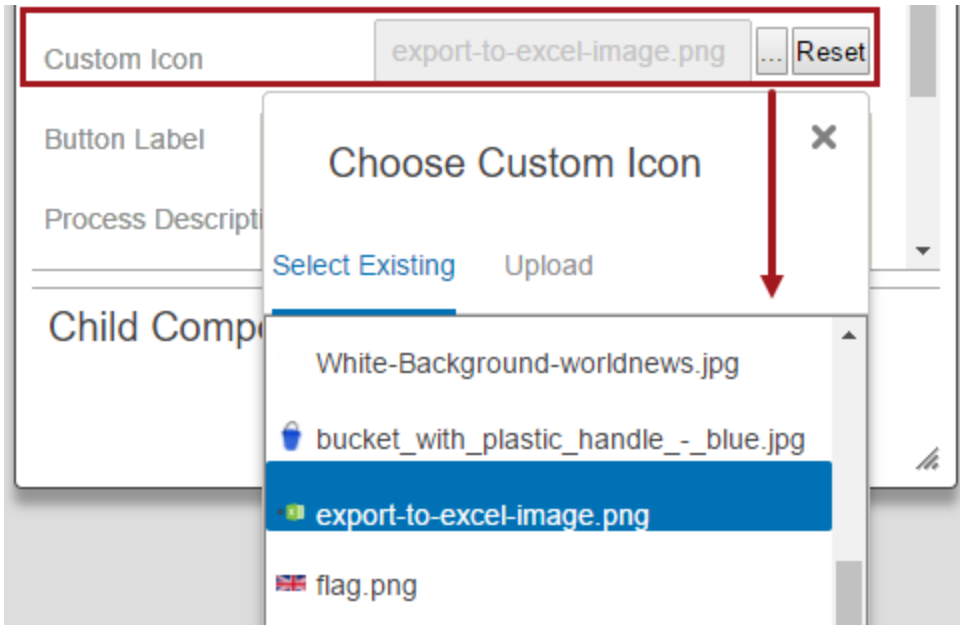
Upload Multiple Icons From the Designer's Web UI Styles Tab

The option to upload many images at one time ensures that images are ready to use when needed. For example, if an administrator is configuring multiple Node Lists, having the images already in the system to choose from will save time and make the configuring process easier.

To upload multiple icons at the same time, open the designer > Web UI Style tab > **Upload custom icons**. Multiple files can be selected.



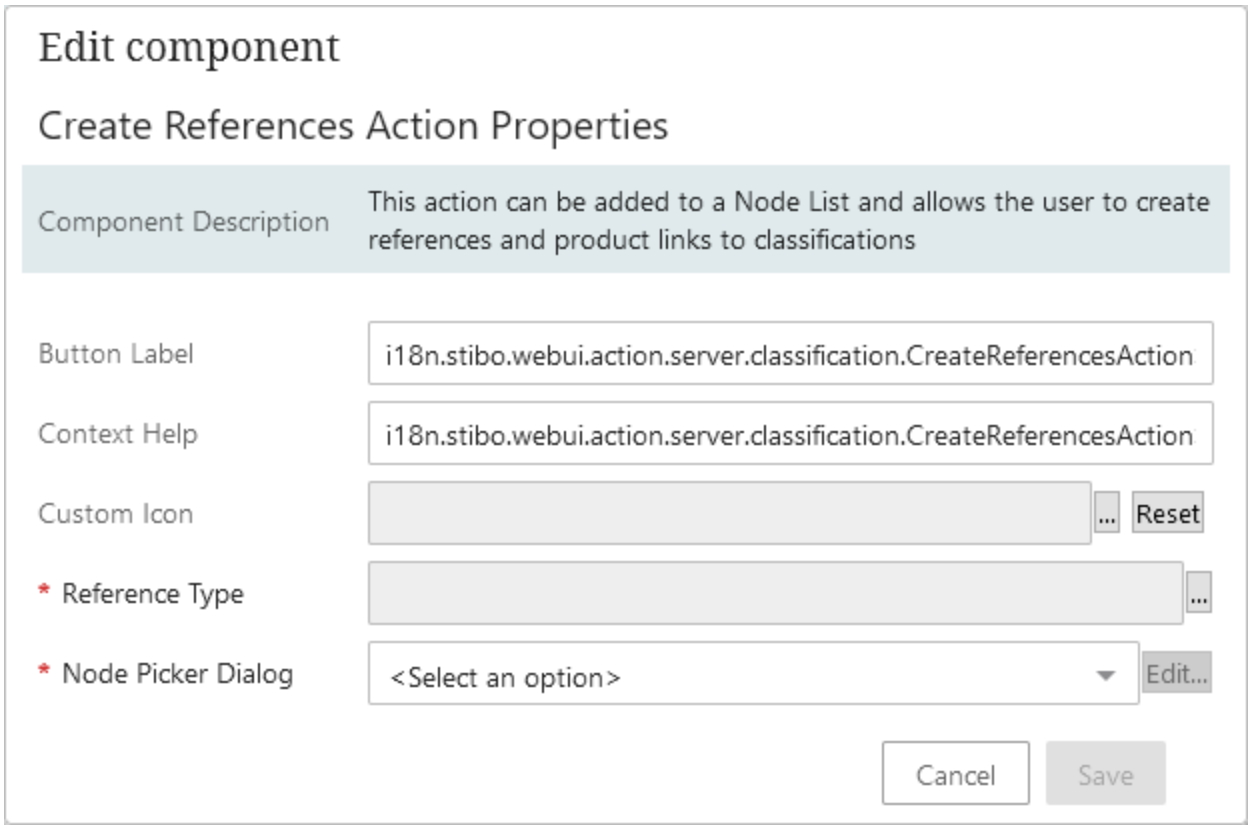
Once uploaded, apply the icons by going to Node List Properties > Child Components > double clicking on the desired action > Custom Icon > **Select Existing**.



To revert to the default icon setting, select the **Reset** button next to the ellipsis button (...), save, and close the designer.

Create References Action Configuration

The Create References Action can be added as an Actions child component on a Node List.



Action button configuration parameters include:

- **Button Label** allows custom text to be displayed on the action button. For details, refer to the **Configuring Custom Labels for User-Added Toolbar Actions** section of **Action Button Configuration on a Node List** in this guide.
- **Context Help** allows custom help text to be displayed when hovering over the action button. Type in the text you want to display, or leave unchanged for the default hover text.
- **Custom Icon** allows a custom icon to be displayed on the action button. For details, refer to the **Configuring Custom Icons for User-Added Toolbar Actions** section of **Action Button Configuration on a Node List** in this guide.
- **Reference Type** allows selection of a single reference or link type that has been defined in workbench. An additional action button must be configured for each required reference or link type needed.

  Creation of a reference type or link type in workbench includes setting the 'Allow multiple references / links' parameter, which determines if single or multiple targets are allowed. If multiple targets are allowed by the reference type or link type, the Create References Action allows the user to choose to replace the existing specified reference or link altogether, or to add to the list of existing references or links. When a single target is allowed, the existing reference or link is replaced.

- **Node Picker Dialog** allows display of only the valid target nodes, the Browse Tab or Search Table Tab components, and a custom title. For details, refer to the **Node Picker Dialog** documentation in this guide.

  When configuring the Node Picker Dialog, to locate the desired target for a reference or link via values on metadata attributes that are valid for the reference or link type, in the Tab Pages parameter use the **Search Table Tab** option and set the **Search Plugins** parameter to use **Name Or Id Or Attributes**. For example, the ETIM metadata attribute 'Synonyms' includes alternate names for an ETIM classification. After clicking the toolbar action button, searching for one of these synonym values would allow the user to find the classifications that include the value without having to know the classification's STEP name.

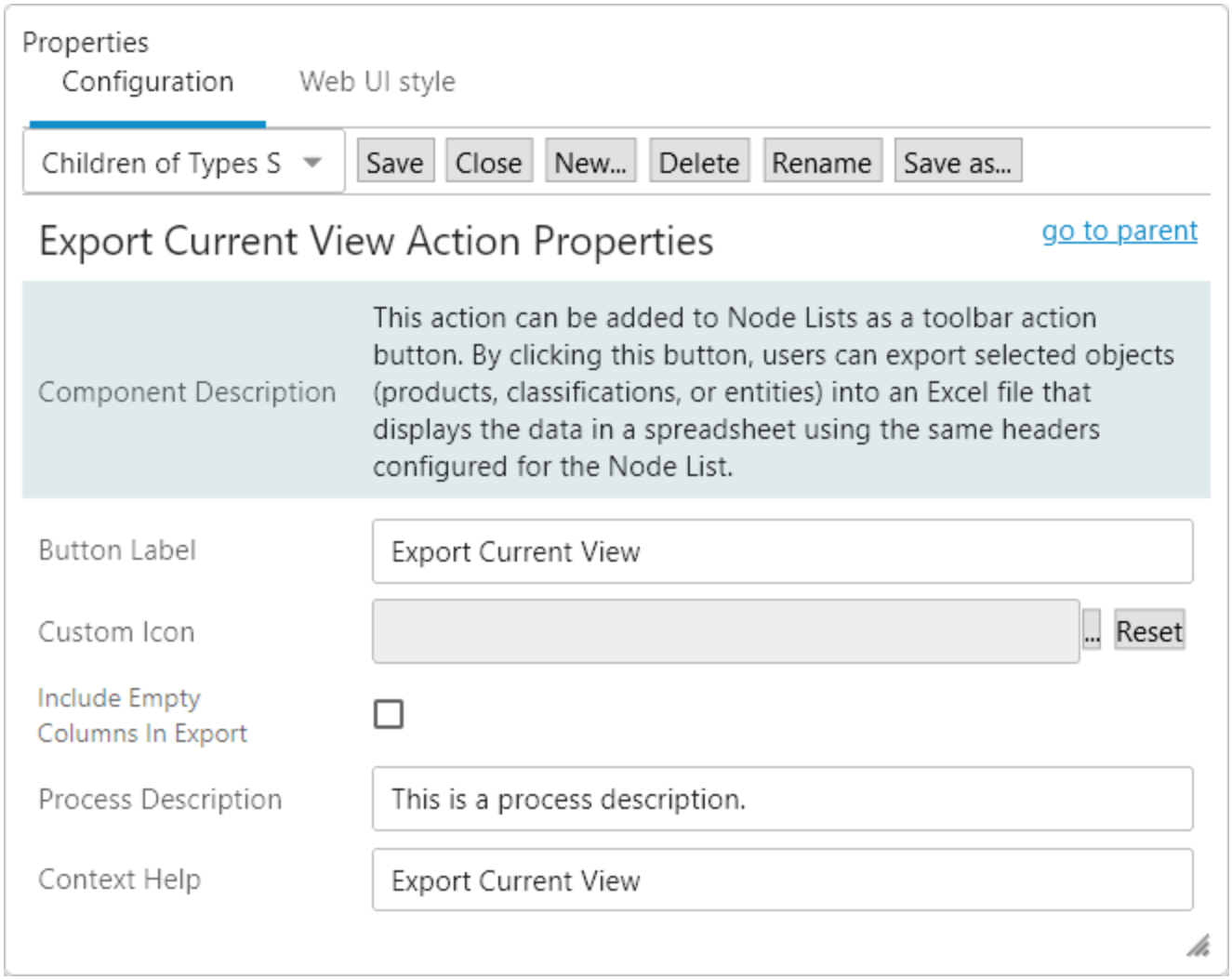
Export Current View Action

The Export Current View Action toolbar action can be used to export data for selected records in a table, using the table's current configuration. When clicked, the Export Current View Action initiates an export to an Excel file via a background process (BGP).

Important: The Export Current View Action does not work with entities.

Configuring the Export Current View Action

There are four parameters available when configuring an Export Current View Action toolbar action. Below is a screenshot of the component in the designer. Each of the four parameters is described below the screenshot.



- **Button Label**: The text entered in this field displays on the configured button along with the icon for the action. The default label is 'Export Current View,' but can be amended to display custom text. The label will

only be displayed if the 'Include Label' parameter on the parent Node List properties is checked.

- **Custom Icon**: If desired, select a custom icon that will overwrite the default icon displayed in the graphical interface. The default icon is this:  . The recommended size of the icons is 20 (height) x 35 (width) pixels.

  The recommended color of the icon is 'jewel-toned' as this gives the icon a deep color that will also display well when disabled.

- **Include Empty Columns in Export**: If checked, the export includes all attribute columns when attribute groups are mapped, even when no value exists for any of the objects for one or more of the attributes in the group. By default, the parameter is disabled since exporting empty fields can increase the time for the background process to complete. All attributes mapped individually are included in the export regardless of this setting.

- **Process Description**: Text added in this field displays in a pop-up message informing the user that the export has initiated a background process. This text also displays as the first part of the export BGP's title when viewed in the Background Process Panel. This text can be useful to make clear what the export is intended for and to differentiate the BGP from other BGPs. An example of this parameter can be found in the screenshot below as the text that displays for the attribute 'Description.' It the field is left blank, the process description defaults to 'Export Current View.'

  For more information on how to fully configure the Process Description field, refer to the **Background Process Messaging and Identification** section of the **Background Process List Screen** topic in the **Web User Interfaces** documentation.

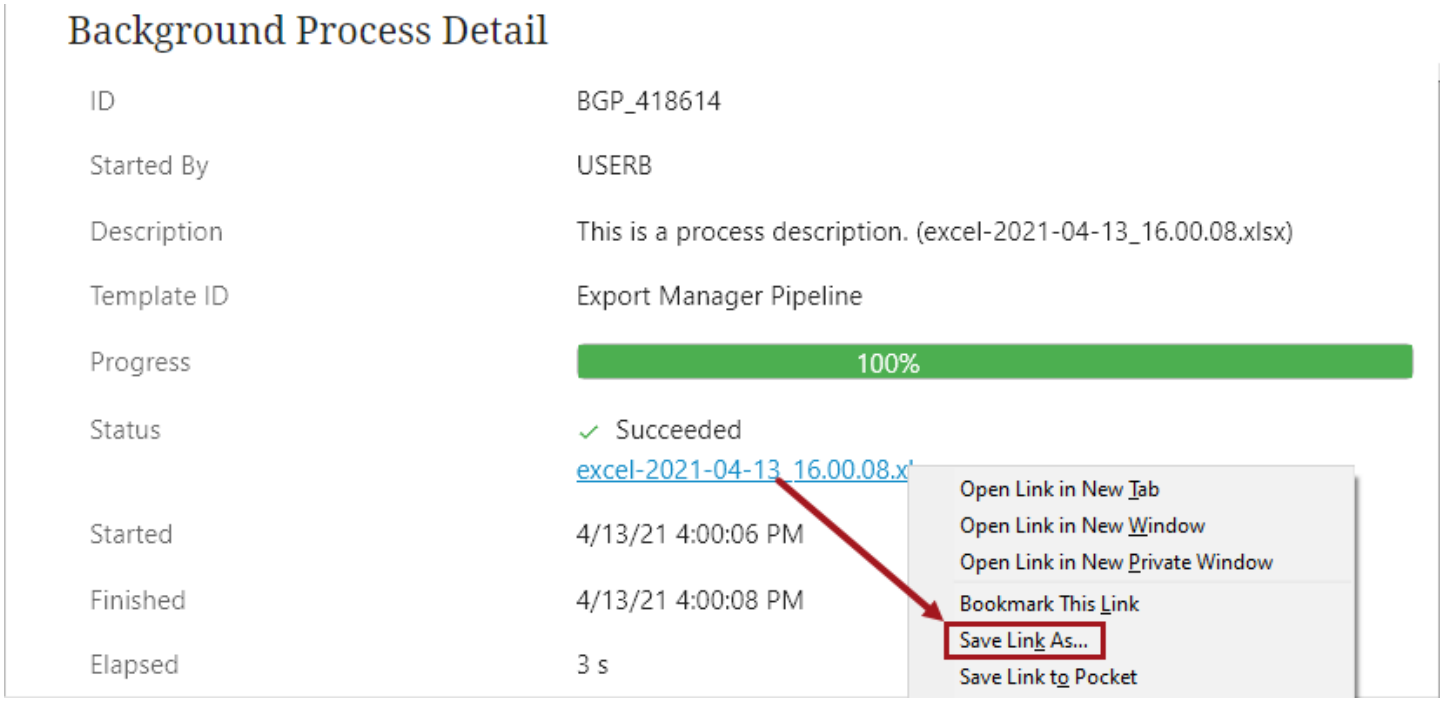
- **Context Help**: The text entered in this field displays in a small pop-up whenever the cursor is placed over the icon.

Using the Export Current View Action

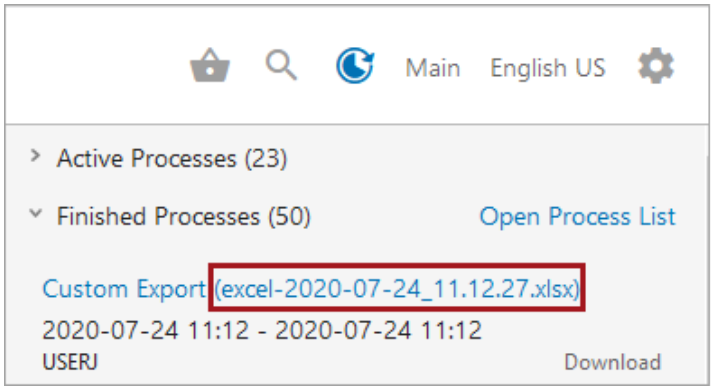
When the 'Export Current View Action' button is clicked, users are asked to click 'OK' in a confirmation pop-up to initiate the export. When confirmed, a pop-up displays at the top of the screen to inform the user that a background process has been started for the export. The pop-up includes a link to the background process. When clicked, users are navigated to the Background Process Node Details Screen, provided it has been configured in the Web UI.

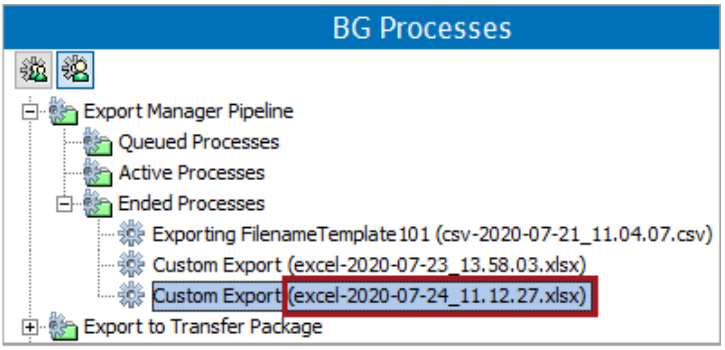
The exported file is named with the file type of the export file, followed by a time stamp. For example, 'excel-2020-07-24_11.12.27.xlsx' in which 'excel' indicates the file type (Excel is the only file type that can be exported for this toolbar action), '2020-07-24_11.12.27' is the timestamp of the background process as YYYY-MM-DD_HH.mm.ss.

If desired, users can assign a new file name for the export once the file name is displayed in the **Background Process Node Details Screen** as a background process with status 'Succeeded,' right-click the file name link and choose **Save Link As** option to provide the desired file name.



The description consists of the text added for the 'Process Description' parameter when configuring the 'Export Current View Action' button, followed by the file name. The file name is also used as the process description and can be viewed in the Web UI in the 'Recent background processes' side panel. For more information, refer to the **Recent Background Processes Side Panel** topic and the **Background Process List Screen** topic in the **Web User Interfaces** documentation. For more information on the BG Processes tab in workbench, refer to the **BG Processes Tab** topic in the **Getting Started** documentation.





Run Business Action Component

The **Run Business Action** component is a configurable feature that provides admin users with additional flexibility when designing how end users navigate through and complete tasks in the Web UI. By incorporating custom business rules, this component can be applied in a broad range of scenarios. Added as either a toolbar action button on a Node List or a standard action button on a Node Details screen, the **Run Business Action** can help address challenges that may arise in the Web UI for which existing features may not fully account.

Important: The complexity of the business rule configured for the Run Business Action component, as well as the number of nodes upon which the business rule is to be executed, must be considered when using this feature. **Running a complex business rule on a sizable selection has the potential to crash the system**. Execution time does not scale linearly with the number of nodes selected. This means that each additional node selected will compound the execution time.

Through the use of a global JavaScript bind called 'Web UI Context' that enables business actions in the Web UI, the **Run Business Action** component can, for example, be used to show popup notifications with custom messages when the **Run Business Action** button is clicked. These messages also support display of rendered HTML, providing admin users with a range of messaging options when configuring this component. Additionally, the button can be configured to display a user-input window that allows information to be added to an object. The window can include attributes with values selected via Node Pickers, date pickers, and Lists of Values (LOVs), for example. For more information, refer to the **Web UI Context Bind** topic in the **Resource Materials** online help.

Information related to configuration of this component can be found in the **Configuring the Run Business Action Component** topic in this documentation. Information related to example use cases describing applications of this component can be found in the **Run Business Action Use Cases** topic, also in this documentation.

Configuring the Run Business Action Component

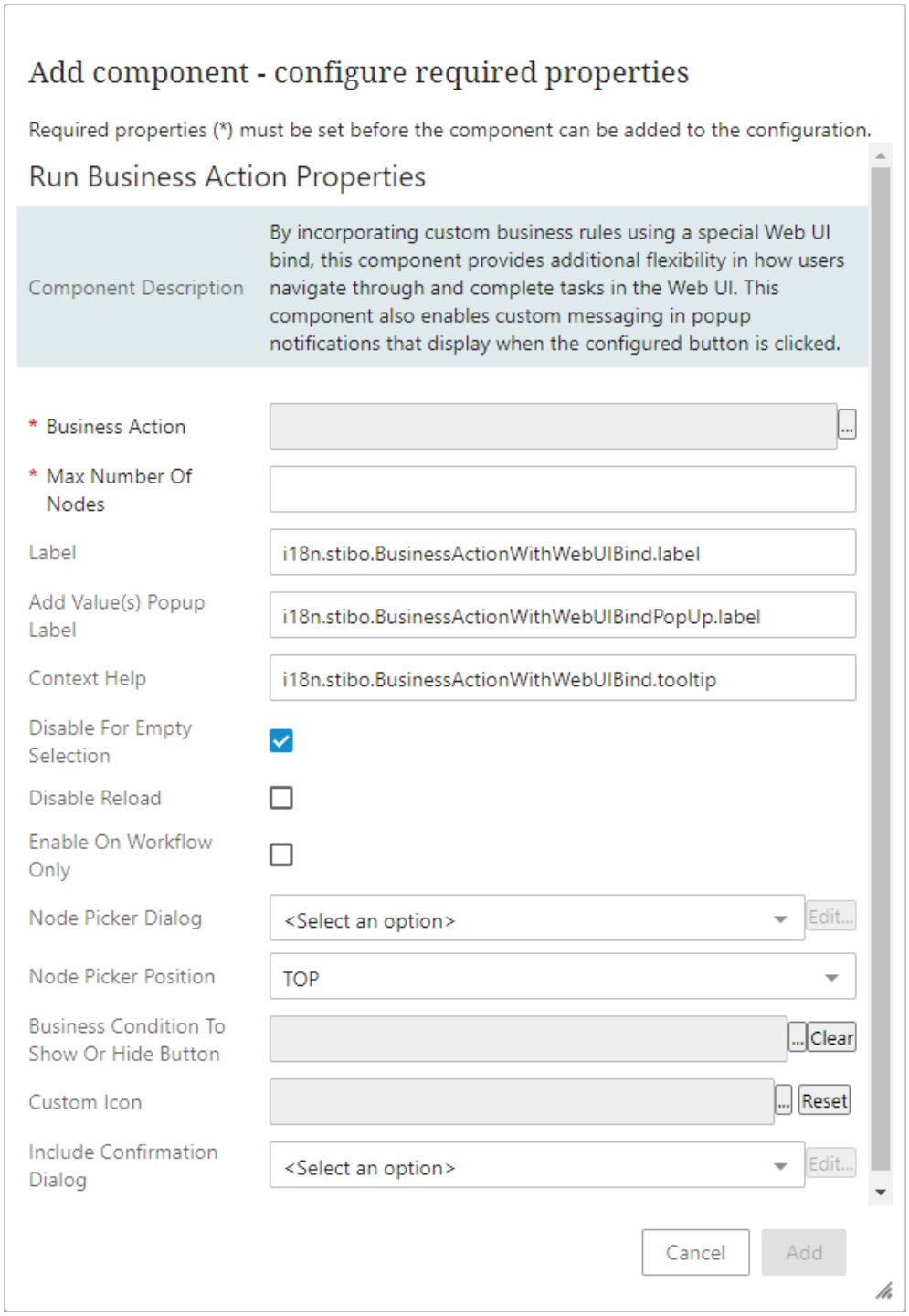
The **Run Business Action** button can be added to any Node List as a toolbar action (a button accessible above the table) and to any Node Details screen as a standard action button (a button accessible below the table).

To add the **Run Business Action** button to a Node Details screen as a standard action button, navigate to the relevant 'Node Details Properties' screen in the designer. Under 'Child Components', click the 'go to component' link next to the 'Buttons' parameter. Click 'Add' and then find, select, and add the 'Run Business Action' component.

To add the **Run Business Action** button to a Node List screen as a toolbar action button, navigate to the relevant Node List component in the designer. In the 'Child Components' section, click the 'Add' button below the 'Actions' field. In the 'Add Component' screen that displays, find, select, and add the '**Run Business Action**' component.

Depending on whether the **Run Business Action** component is configured as an action button or toolbar action button, the options displayed in the designer will differ slightly. Which options are available for which type of configuration is outlined in the description of designer parameters below.

Displayed in the screenshot below is the **Run Business Action** properties screen as it displays when being configured for a Node List screen. The properties screen for this component when being configured for a Node Details screen will have slight differences, which will be outlined in the parameter descriptions located below the screenshot.



- **Business Action**. By clicking the ... button to the right of this mandatory field, users can select which pre-configured business rule will be run when the button is clicked. If no business action has yet been configured, set up of this button cannot be completed. For information on how to configure a business rule for this component, refer to the **Run Business Action button Use Cases** topic later in this documentation. For general information on business rules and conditions, refer to the **Business Rules** documentation.

- **Max Number of Nodes**. Enter any integer to specify the maximum number of nodes on which the rule should execute. This is required to reduce potential performance impacts and the complexity of the rule must be carefully considered when setting this number. A highly complex rule should have a low maximum, while a simple rule may have a larger one. Keep in mind that the rule executes on all nodes in a single transaction and performance does not scale linearly based on the number of nodes on which it is executing. This parameter is only available when configuring this component on a Node List. For components already configured on Node Lists, the default for this parameter is set to 50.
- **Label**. When configuring a standard action button, the text entered in this field will display on the button. When configuring a toolbar action button, the text entered in this field will display beside the button.
- **Add Value(s) Popup Label**. If the selected business action includes Attribute Validated Parameter binds and / or a Node Picker is configured, the text entered will display as the title of the Add Value(s) popup.
- **Context Help**. Enter the text that will display in a small informational popup message when the cursor is placed over the button.
- **Save Before Executing**. When checked, the button will save all on-screen information prior to executing the configured business action. Note that this setting will not be applied when configured as a toolbar action. This parameter is only available when configuring this component on a Node Details screen, so it is not pictured in the above screenshot, which shows a configuration screen for this component in a Node List component.
- **Disable for Empty Selection**. Available for Run Business Action components configured on Node Lists. When this parameter is checked, the Run Business Action button will only activate when a selection is made. When no selection is made, the button will display as inactive. If left unchecked, the button will be active regardless of whether a selection has been made. Defaults to checked.
- **Disable Reload**. Available for Run Business Action components configured on Node Lists. When checked, the automatic reloading of a Node List following a user action is disabled.
- **Enable on Workflow Only**. When checked, the button will only be available when the item is being viewed through a workflow state.
- **Node Picker Dialog**. Select 'Node Picker Dialog' from the dropdown if a Node Picker element is required for the business action configured for the Run Business Action component. For more information on configuring Node Picker components, refer to the **Node Picker Dialog** topic in the **Using Web UI** section of this documentation.
- **Node Picker Position**. If a Node Picker is configured in the business rule and in the designer, selecting 'TOP' places the field containing the Node Picker at the top of the Add Value(s) Popup, and selecting 'BOTTOM' places the field at the bottom of the popup.
- **Icon**. Select from (Google) Material icons combined with Stibo Systems proprietary icons. If choosing from the ICON_AND_TEXT or ICON button types (explained below), then this icon will display on the action button. This parameter is only available when configuring this component on a Node Details screen, so it is not pictured in the above screenshot, which shows a configuration screen for this component in a Node List component.
- **Button Type**. Select from ICON_AND_TEXT, ICON, and TEXT using the dropdown. The text shown for the ICON_AND_TEXT and TEXT options is 'Initiate Business Action.' This parameter is only available when configuring this component on a Node Details screen, so it is not pictured in the above screenshot, which shows a configuration screen for this component in a Node List component.
- **Business Condition To Show or Hide Button**. This parameter, available when configuring the button as a toolbar action on a Node List or as a standard action button on a Node Details screen, enables users to determine under what conditions a specific Run Business Action button will display through application of a business condition. The condition will run on the current node, which can be the current selection or the

current user. In cases where there is no current selection when the screen is loaded (e.g., Task Lists), the current user must be used.

- **Custom Icon**. This parameter, only available when configuring the button as a toolbar action, enables users to upload a custom icon (or select a previously loaded custom icon) that will display in the toolbar in place of the default icon.
- **Enforce Validity**.When checked, the button will not be enabled until all data on the screen has been provided and is valid. This parameter is only available when configuring this component on a Node Details screen, so it is not pictured in the above screenshot, which shows a configuration screen for this component in a Node List component.
- **Include Confirmation Dialog**. Enables users to add and configure a confirmation dialog that displays a customized message to users after a business action has been initiated but before it is executed. To create the customized \confirmation dialog, users may add a message 'Headline' that serves as the message header, and 'Details' content that provides the bulk of the message to the user. These two text elements display together in a popup dialog that prompts the user to either confirm the initiated business action should move forward, or that it should be canceled. This feature is best used for resource-intensive business rules that may be disadvantageous to run inadvertently.

When configuring more complex business rules to be linked to the Run Business Action component, there are binds that are frequently used. Described below are three of these binds:

Web UI Context bind -- The Web UI Context bind acts as a bridge between business actions and the Web UI that enables business actions to initiate changes in the Web UI. For more information on the Web UI Context bind, refer to the **Web UI Context Bind** topic in the Resource Materials documentation.

Attribute Validated Parameter bind -- Enables users to configure specific attributes to display and be interacted with in the Web UI when a business rule is run. For more information on the Attribute Validated Parameter bind, refer to the **Parameterized Business Actions in Web UI** topic in the **Web User Interfaces** documentation.

Data Issues Report bind -- The Data Issues Report bind allows users to insert custom messages related to attribute issues into the Web UI through business actions and conditions. Configured error and warning messages display beneath the affected field on Node Details screens and in the Warning Notification Panel located in the Message Area. If no Warning Notification Panel is configured, error messages will display beneath the field and in a pop-up at the top of the screen. On Node Lists, error messages will display when the user hovers over the yellow triangle icon in the cell (for warnings) or the red circle within the cell (for errors). For more information on the Data Issues Report bind, refer to the **Data Issues Report Bind** topic in the Resource Materials documentation.

Run Business Action Use Cases

Because the **Run Business Action** component is so configurable due to its close integration with custom business actions, describing the steps to follow to enable the component does not provide a full picture of this component's capabilities. With that in mind, full use cases are described below that outline instances where this component has been successfully implemented.

The use cases described in this section are:

- Configuring auto-navigation through a workflow
- Adding references and reference metadata in the same action
- Reparenting objects
- Configuring a simplified approval process

Run Business Action Use Case - Auto-Navigation Through Workflow

In this use case, the customer requires that the same user who initiates new products into a workflow must also complete enrichment tasks on those products once they have entered the first workflow state.

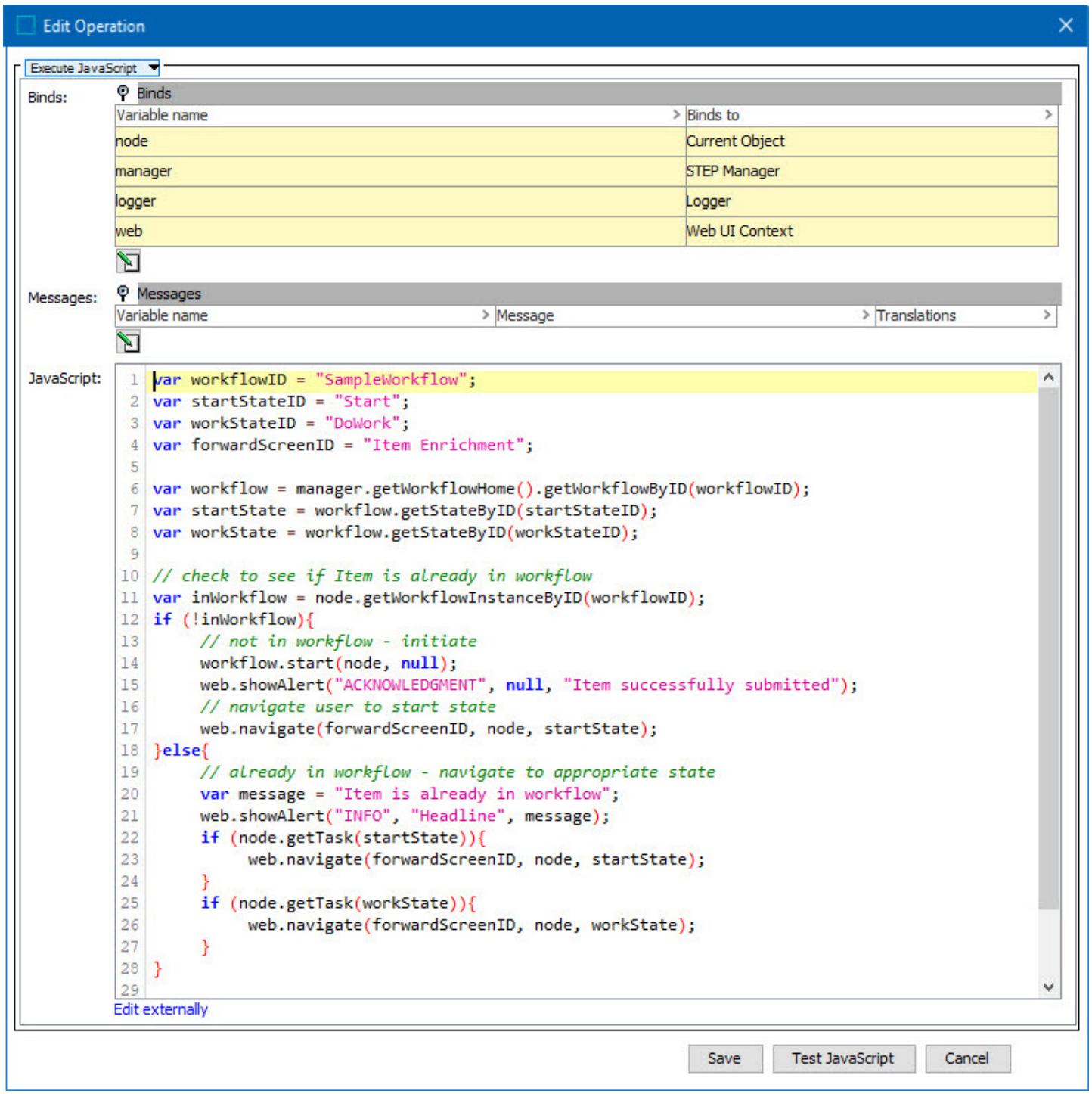
Default behavior in the Web UI is that, following either initiation of an object into a workflow or submission of an object from one workflow state to the next, the user must navigate back to the homepage, click on the relevant state in the relevant Status Selector Homepage widget, and then find the submitted object in a Task List screen. Appropriate configuration of the **Run Business Action** component can address this by auto-navigating the user to the appropriate screen on the same object, allowing the user to continue to move an object through the workflow.

The configuration steps required to address this use case are described below:

1. **Define desired workflow**. In this instance, the customer is asking its users to access products either in the Tree or through an advanced search and initiate them into a workflow. Products are mapped to a screen with four tabs. The business rule needed to meet the requirement must, following a click of the **Run Business Action** button, take the user from the current screen to the screen upon which the user will add values. Additionally, the business rule can be configured to show a success message when the product is successfully initiated into the workflow.
2. **Configure the business rule**. Directly below is a screenshot of the business rule, as it displays in the workbench, that meets the above-described requirement. Beneath this screenshot is the text of the business rule that can be cut and pasted into the business rule editor in the workbench, and then edited as needed.

   The binds required to enable this business rule are listed above the business rule itself. The bind that does the work of bringing the business rule into the **Run Business Action** component is the 'Web UI Context' bind. Regardless of the work the business rule is configured to do, the 'Web UI Context' JavaScript bind must be included for the component to work.

   Additional guidance about how this business rule has been written displays in green text in the screenshot below.




```
var workflowID = "SampleWorkflow";
var startStateID = "Start";
var workStateID = "DoWork";
var forwardScreenID = "Item Enrichment";

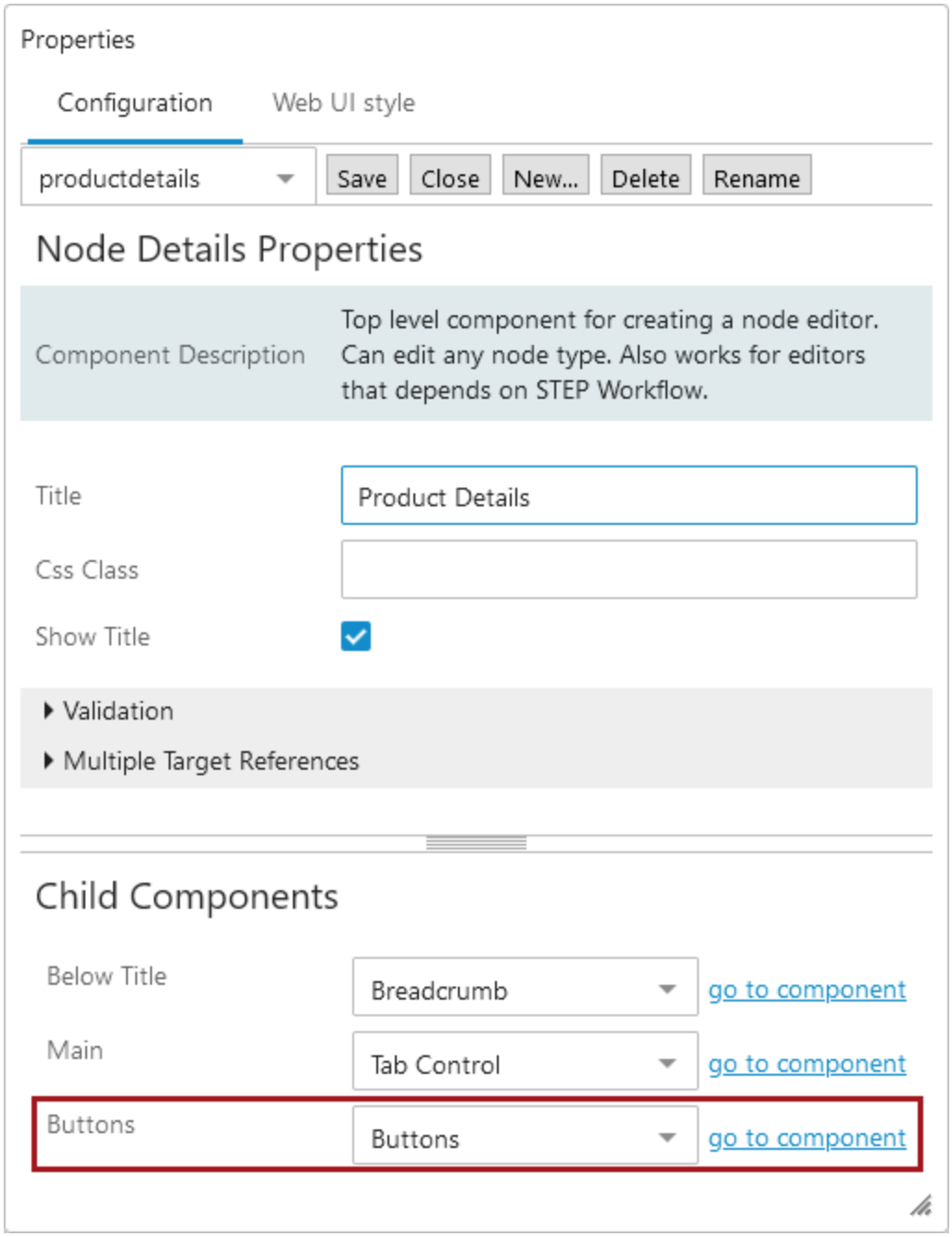
var workflow = manager.getWorkflowHome().getWorkflowByID(workflowID);
```

```
var startState = workflow.getStateByID(startStateID);
var workState = workflow.getStateByID(workStateID);

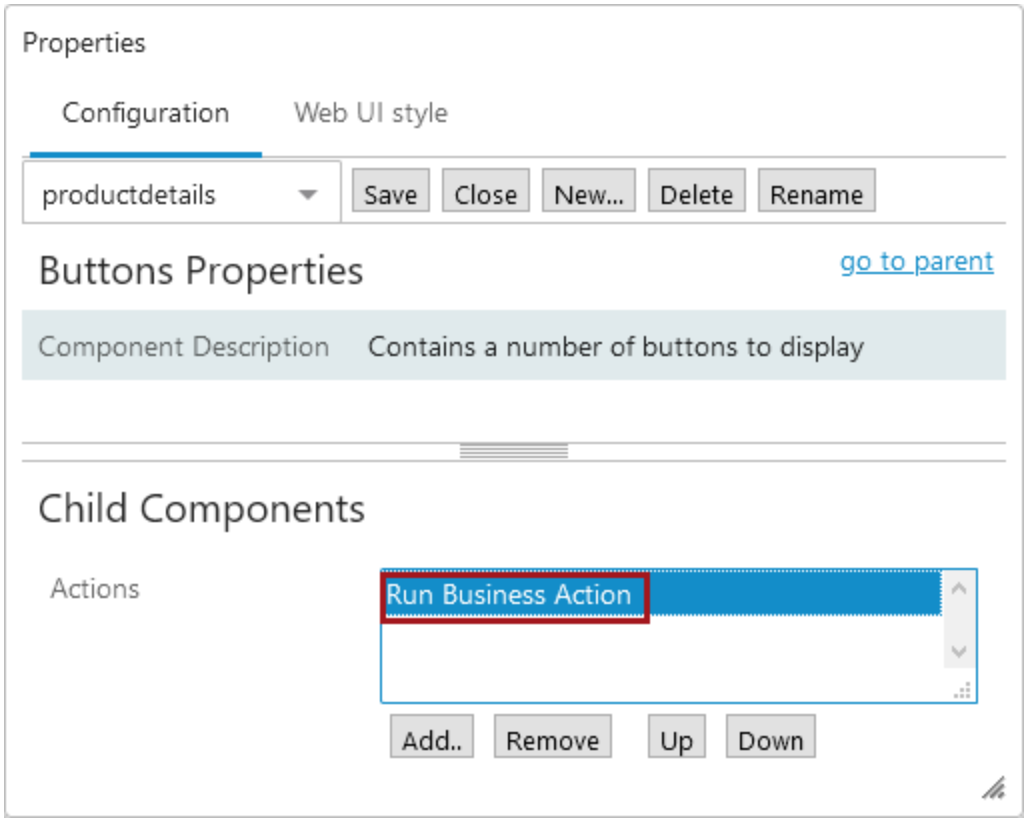
// check if Item is already in workflow
var inWorkflow = node.getWorkflowInstanceByID(workflowID);
if (!inWorkflow){
	// not in workflow - initiate
	workflow.start(node, null);
	web.showAlert("ACKNOWLEDGMENT", "Item successfully submitted");
	// navigate user to start state
	web.navigate(forwardScreenID, node, startState);
}else{
	// already in workflow - navigate to appropriate state
	var message = "Item is already in workflow";
	web.showAlert("INFO", "Headline", message);
	if (node.getTask(startState)){
		web.navigate(forwardScreenID, node, startState);
	}
	if (node.getTask(workState)){
		web.navigate(forwardScreenID, node, workState);
	}
}
```

3. **Configure the button**. With a business rule created, users can now configure this component in the Web UI.

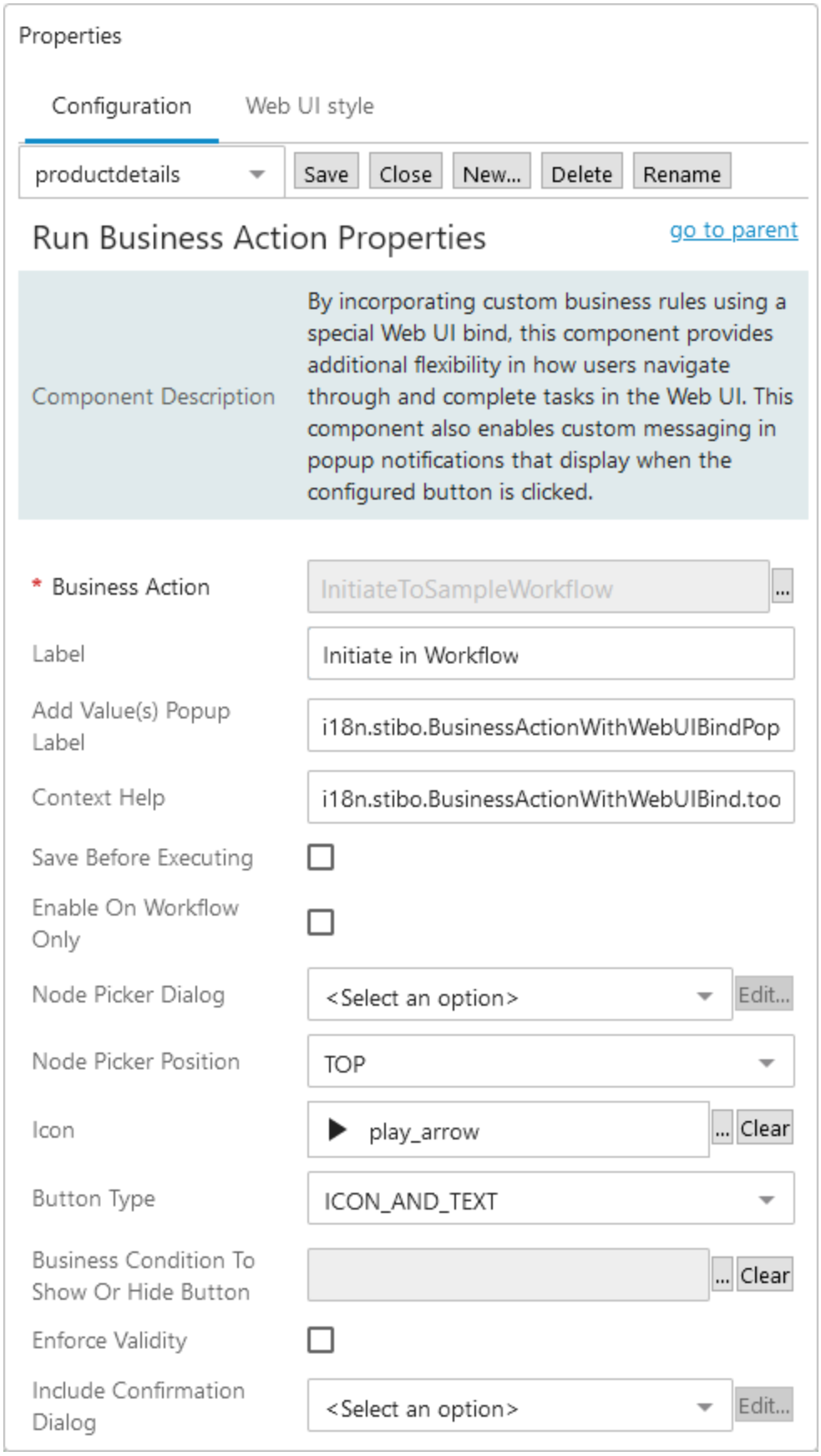
   To make the button accessible on any of the four tabs configured for the mapped Web UI screen, as per the use case's requirements, the **Run Business Action** component should be configured as a standard action button, which is a button that displays at the bottom of a Node Details screen. On the screen mapped to the relevant products, in this case a Node Details screen the user has named 'Product Details', click the 'go to component' link beside the 'Buttons' parameter as shown in the screenshot below.



Once there, add the **Run Business Action** component.

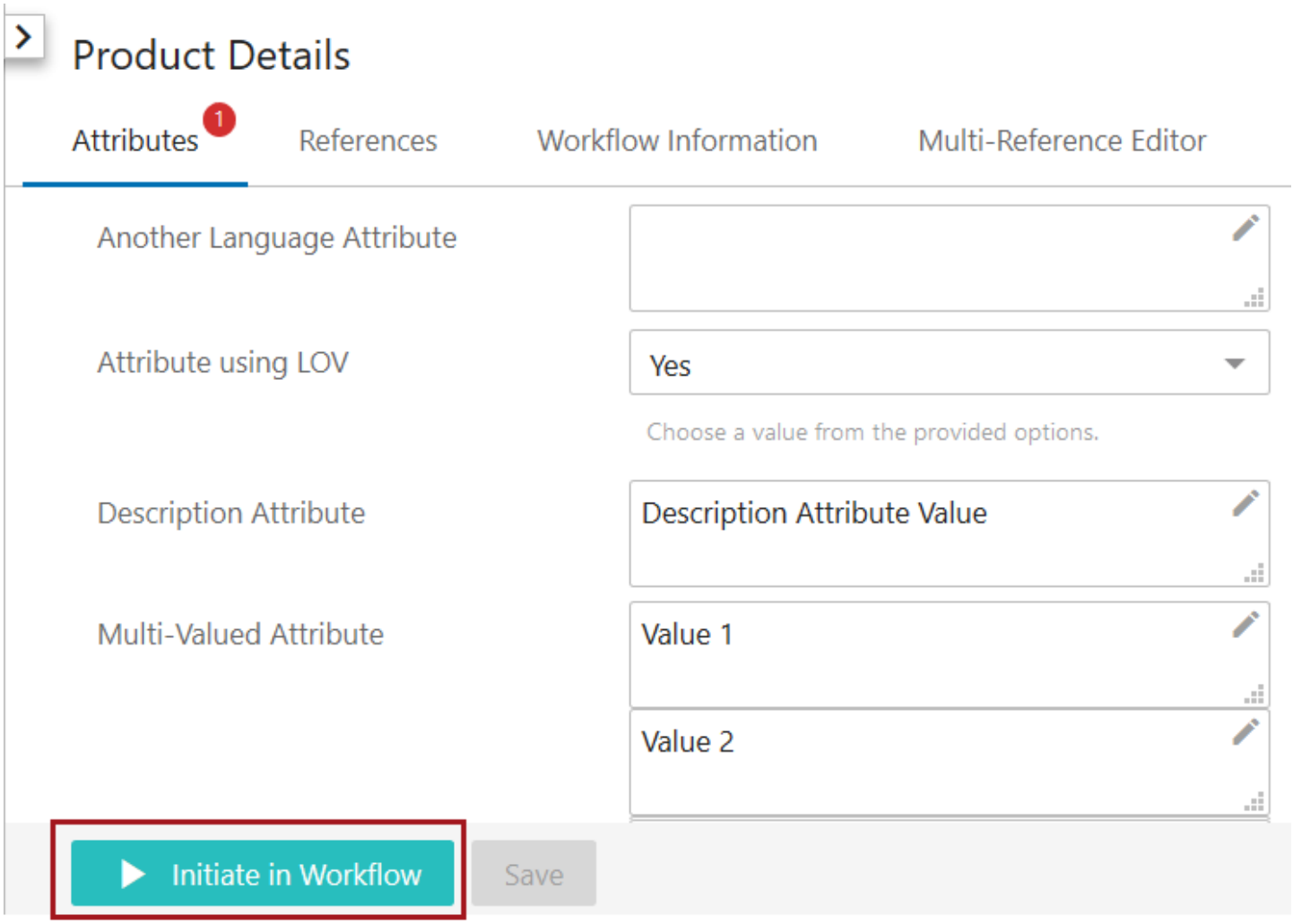


Double-click on the action to access the **Run Business Action** configuration screen in the designer.

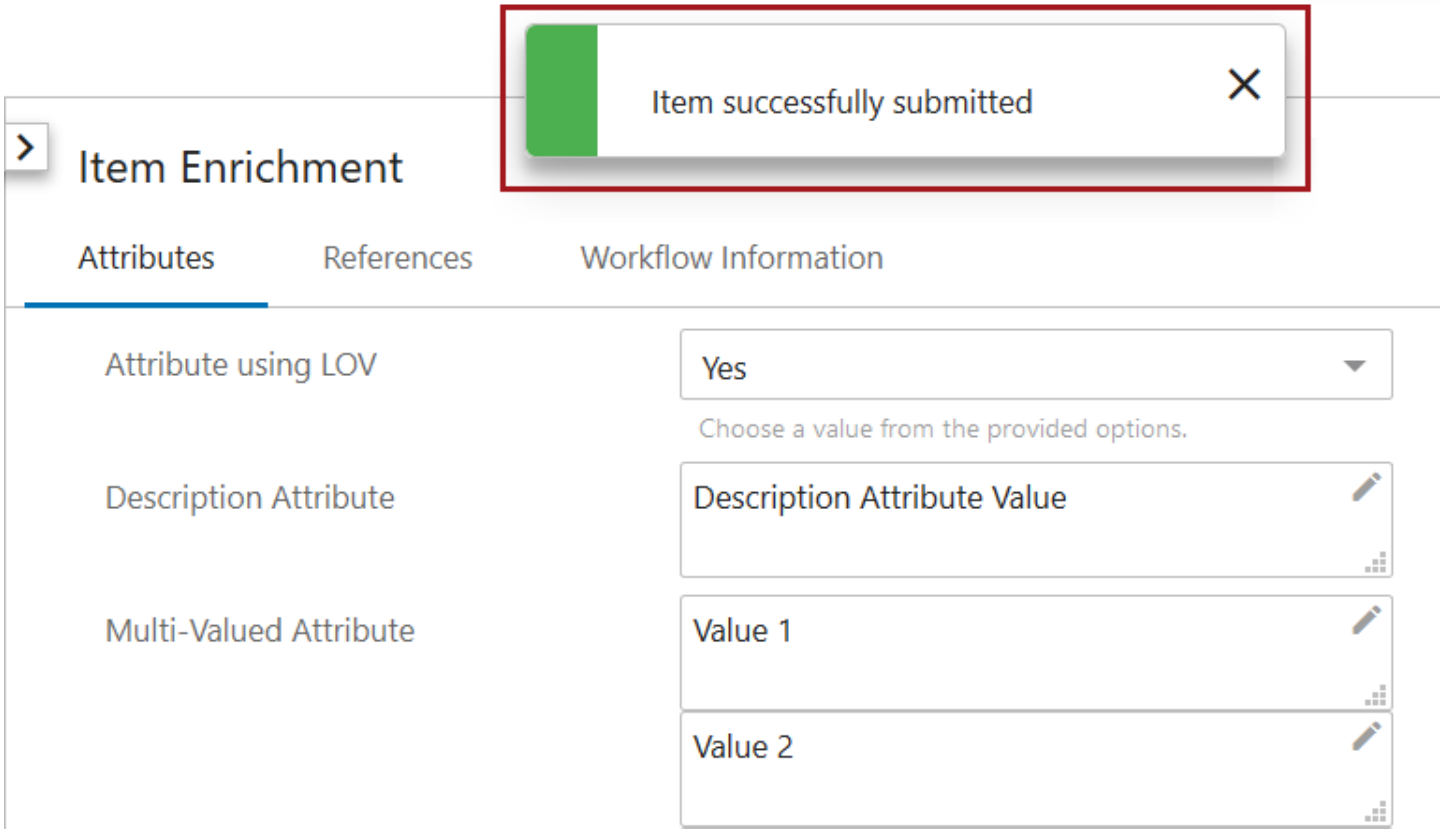

Properties
Configuration
Web UI style
productdetails
Save
Close
New...
Delete
Rename
Run Business Action Properties
go to parent
Component Description
By incorporating custom business rules using a special Web UI bind, this component provides additional flexibility in how users navigate through and complete tasks in the Web UI. This component also enables custom messaging in popup notifications that display when the configured button is clicked.
* Business Action
InitiateToSampleWorkflow
Label
Initiate in Workflow
Add Value(s) Popup Label
i18n.stibo.BusinessActionWithWebUIBindPop
Context Help
i18n.stibo.BusinessActionWithWebUIBind.too
Save Before Executing
Enable On Workflow Only
Node Picker Dialog
<Select an option>
Edit...
Node Picker Position
TOP
Icon
play_arrow
Clear
Button Type
ICON_AND_TEXT
Business Condition To Show Or Hide Button
Clear
Enforce Validity
Include Confirmation Dialog
<Select an option>
Edit...

- On the 'Business Action' parameter, click the ... button to select the relevant business rule from a Node Picker. In this case, the business rule is titled, 'InitiatetoSampleWorkflow'.
- In the field for the 'Max Number of Nodes,' set a maximum number of nodes. This number determines the maximum number of nodes a Run Business Action can be executed on. If the number is set too high, performance issues can result from a large selection.
- On the 'Label' parameter, add text that will display beside the button in the toolbar. In this case, because the operative business rule moves a product into a workflow, the button label text is 'Initiate in Workflow.'

4. **Result**. Now, when a user selects a product, either from the Tree or via an Advanced Search, an 'Initiate in Workflow' button displays at the bottom of the screen.

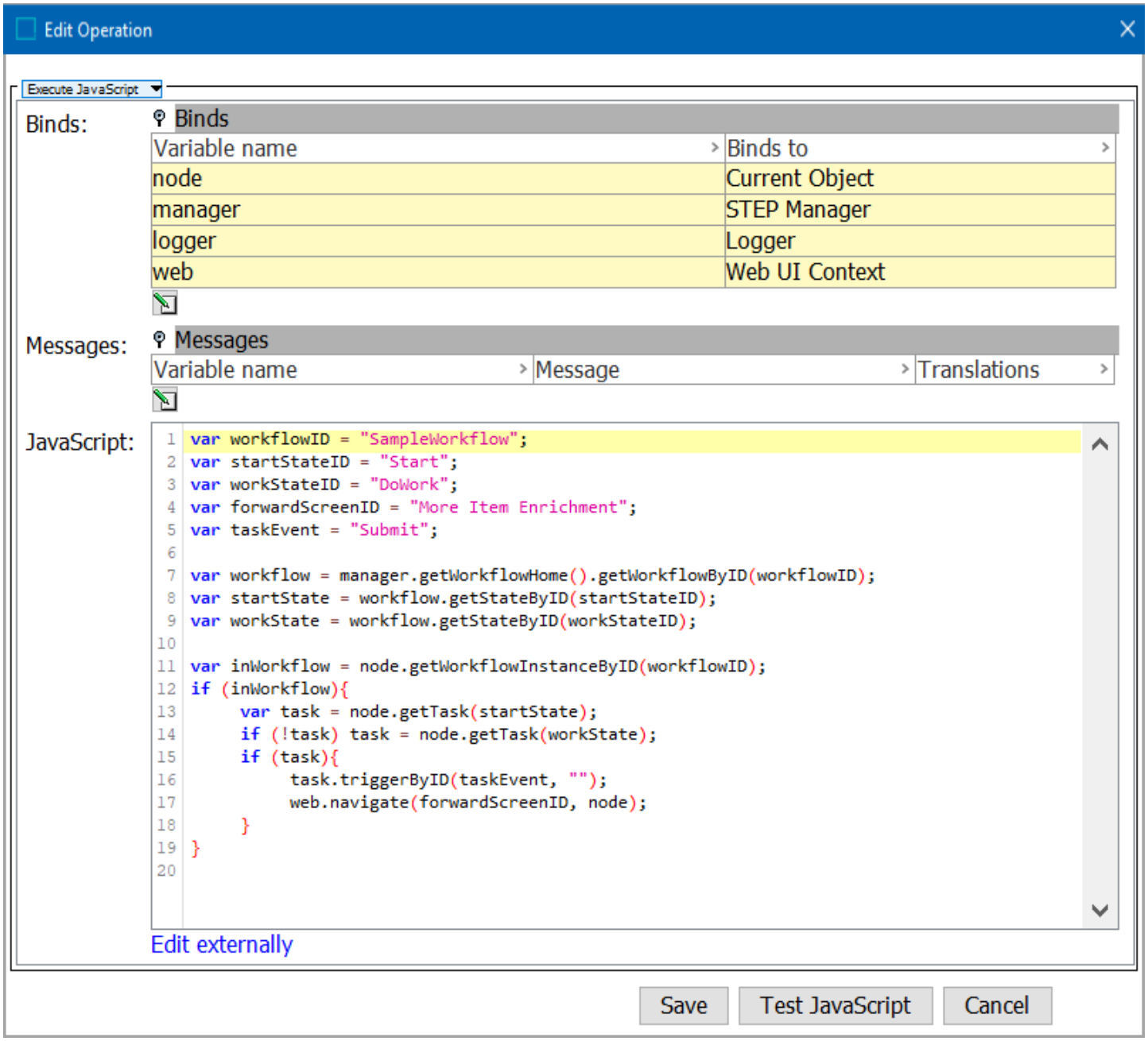


Based on the configured business rule, clicking this button will simultaneously initiate the product into the workflow, and auto-navigate the user to the relevant screen for the first state of the workflow. In this case, the screen to which the user has been forwarded is titled 'Item Enrichment'. The custom text configured with the business rule to display upon executing the business rule ("Item successfully submitted") displays at the top of the screen.



The second requirement for this use case entails giving users working on a product in one workflow state the ability to submit the product into the next state and, simultaneously, be auto-navigated to the relevant screen to start work. In essence, the same user who submits a product into a new state is also tasked with acting in the next step, so it does not make sense for them to have to locate the object again via a Status Selector Homepage widget.

1. **Define the desired workflow**. In this case, users who complete their tasks in the 'Do Work' state must push a 'Submit' button and be taken to the same product on the screen mapped to the 'Finish' state.
2. **Configure the business rule**. To meet the stated requirement, a second business rule must be written to configure a second **Run Business Action** button. Directly below is a screenshot of the business rule, as it displays in the workbench, that meets the above-described requirement. The binds required to enable this business rule for the component are shown above the text of the business rule. Beneath this screenshot is the text of the business rule that can be cut and pasted into the business rule editor in the workbench, and then edited as needed.

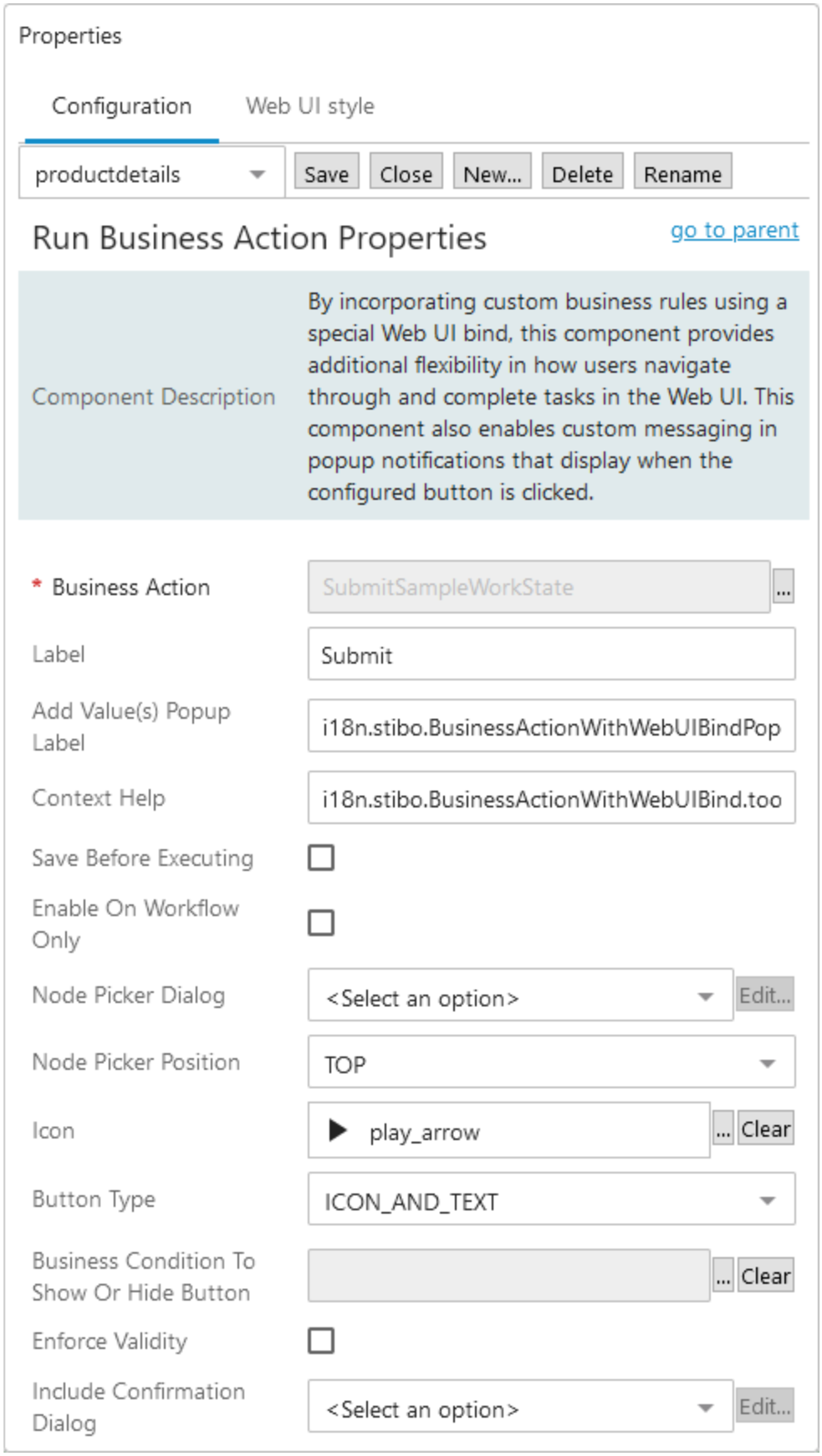



```
var workflowID = "SampleWorkflow";
var startStateID = "Start";
var workStateID = "DoWork";
var forwardScreenID = "More Item Enrichment";
var taskEvent = "Submit";

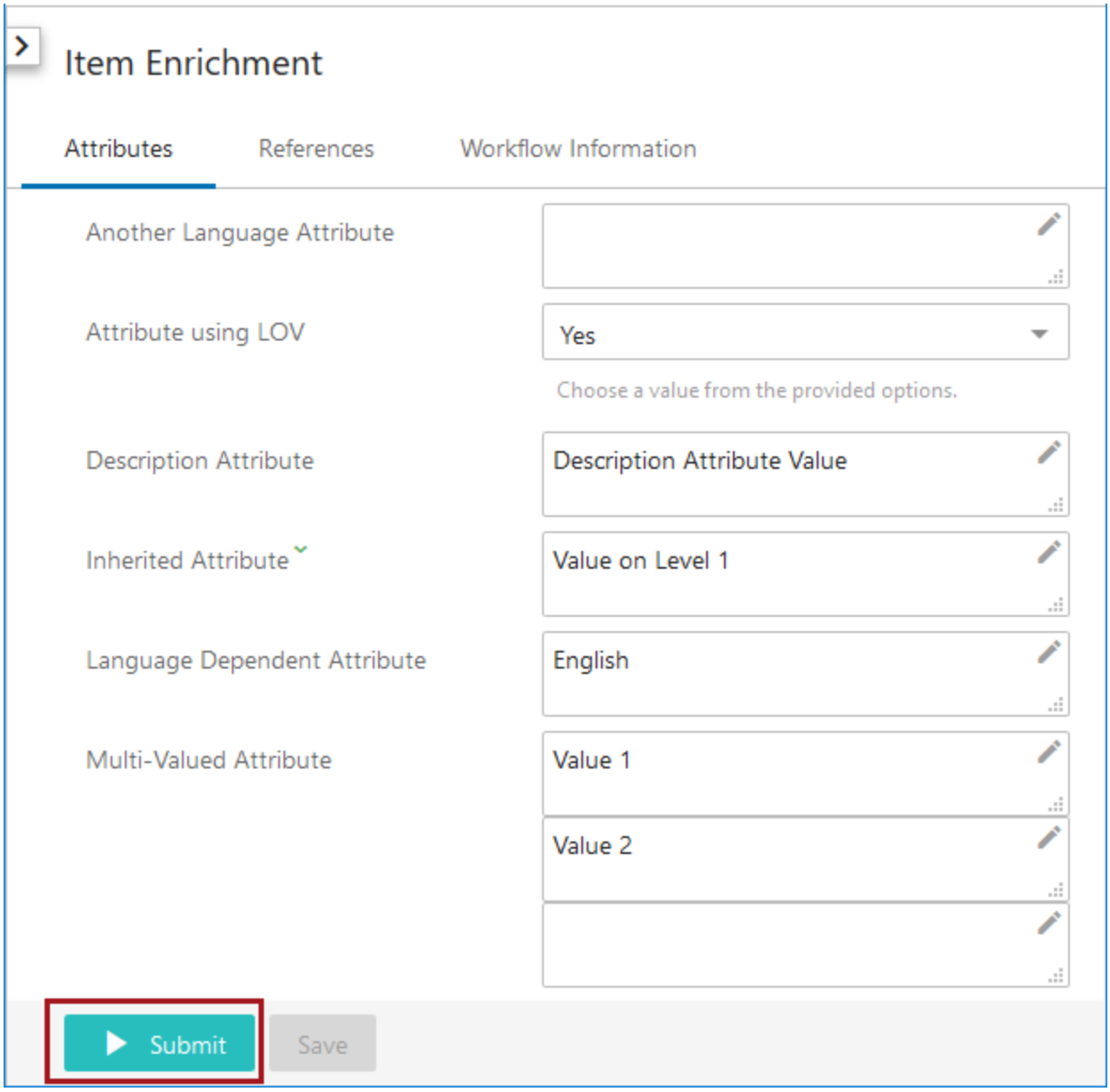
var workflow = manager.getWorkflowHome().getWorkflowByID(workflowID);
var startState = workflow.getStateByID(startStateID);
var workState = workflow.getStateByID(workStateID);
```

```
var inWorkflow = node.getWorkflowInstanceByID(workflowID);
if (inWorkflow){
       var task = node.getTask(startState);
       if (!task) task = node.getTask(workState);
       if (task){
              task.triggerByID(taskEvent, "");
              web.navigate(forwardScreenID, node);
       }
}
```

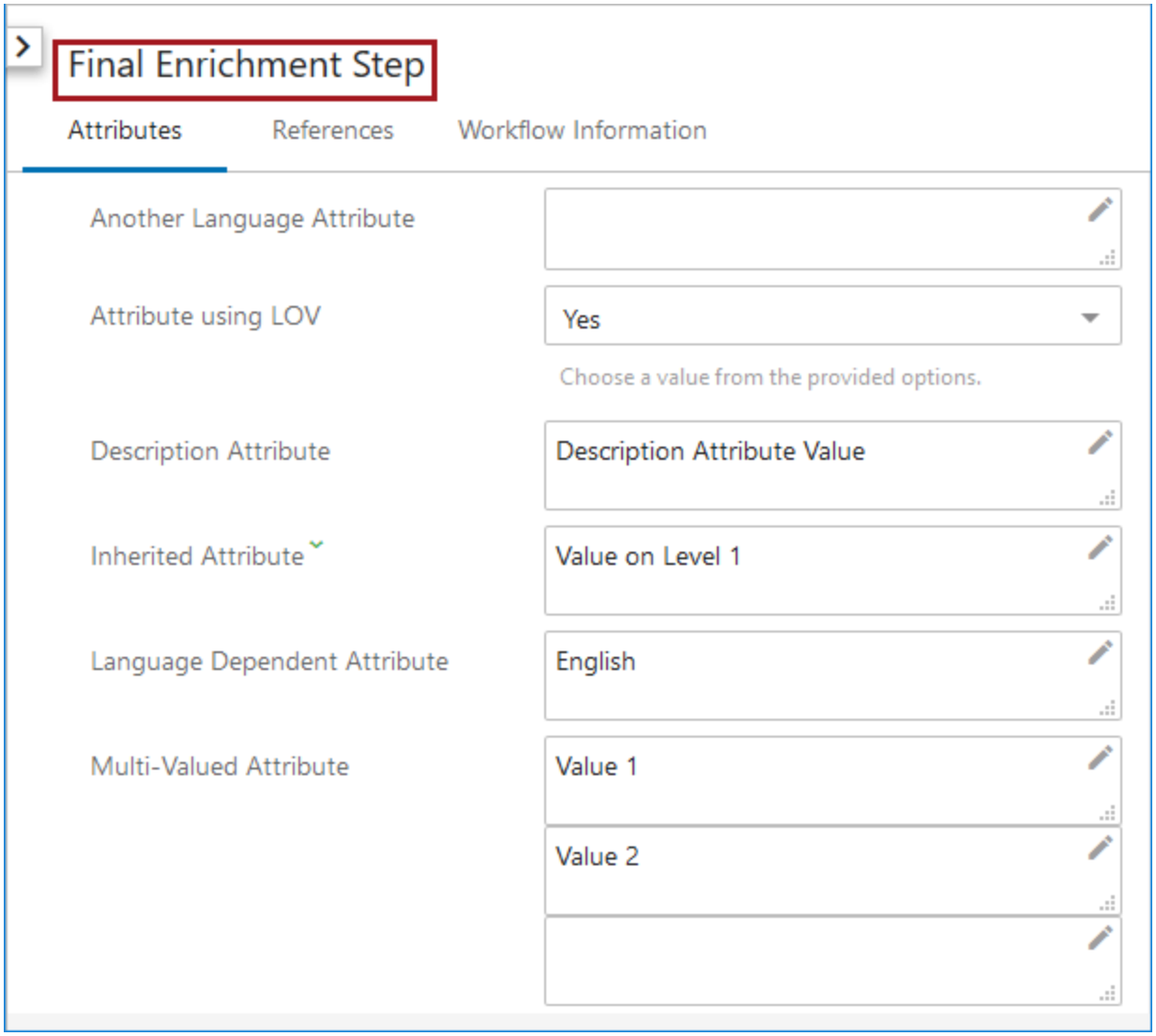
3. **Configure the button**. For the configuration of this button, the same sequence of steps described before should be used, except the user should select the relevant business action. In this case, it is 'SubmitSampleWorkState'.


Properties
Configuration
Web UI style
productdetails
Save
Close
New...
Delete
Rename
Run Business Action Properties
go to parent
Component Description
By incorporating custom business rules using a special Web UI bind, this component provides additional flexibility in how users navigate through and complete tasks in the Web UI. This component also enables custom messaging in popup notifications that display when the configured button is clicked.
* Business Action
SubmitSampleWorkState
Label
Submit
Add Value(s) Popup Label
i18n.stibo.BusinessActionWithWebUIBindPop
Context Help
i18n.stibo.BusinessActionWithWebUIBind.too
Save Before Executing
Enable On Workflow Only
Node Picker Dialog
<Select an option>
Edit...
Node Picker Position
TOP
Icon
play_arrow
Clear
Button Type
ICON_AND_TEXT
Business Condition To Show Or Hide Button
Clear
Enforce Validity
Include Confirmation Dialog
<Select an option>
Edit...

4. **Result**. Now, when a user selects a product that is in the 'Do Work' state, a 'Submit' button displays at the bottom of the screen.



When the user clicks 'Submit', two things happen simultaneously: the product is moved into the next state of the workflow, in this case the state named 'Finish', and the user is auto-navigated to the screen mapped to the last state in the workflow, in this case, the screen is entitled 'Final Enrichment Step.'



For more information about Submit Action, refer to the **Submit Action** topic.

Run Business Action Use Case - Simplified Approval Process

In this use case, the customer requires that a user who has made changes to information on a Multi-Reference screen should then be able to multi-select the changed items and approve the information that has been updated. The solution is to activate auto-save and configure the **Run Business Action** button so that clicking it will approve all changes made to values for the relevant attributes. For details, refer to the **Auto-Save in the Web UI** topic.

The configuration steps required to address this use case are described below:

1. **Review requirement and assess solution**. In this instance, a Multi-Reference component displays on a Node List configured on a product. The target objects being referenced are other products. The headers on the Multi-Reference screen display information from attributes on the referenced product. These attributes are grouped in an attribute group. With the appropriate business rule written and configured for the 'Approve' button, the user can make updates to any of the values under the grouped headers, multi-select the references upon which they have made updates, and click the 'Approve' button. The auto-save saves all updated values, and the business rule approves only those changes made to attributes on that target object. Validation is run on each selected reference and, for those that fail, a notification message has been configured to display following a click of the button.
2. **Configure the business rule**. Directly below is a screenshot of the business rule, as it displays in the workbench, that meets the above-described requirement. In the online help, beneath this screenshot is the text of the business rule that can be cut and pasted into the business rule editor in the workbench, and then edited as needed.

   The binds required to enable this business rule are listed above the business rule itself. The bind that does the work of bringing the business rule into the **Run Business Action** component is the 'Web UI Context' bind. Regardless of the work the business rule is configured to do, the 'Web UI Context' bind must be included for the component to work.

   Additional guidance about how this business rule has been written displays in green text in the screenshot below.

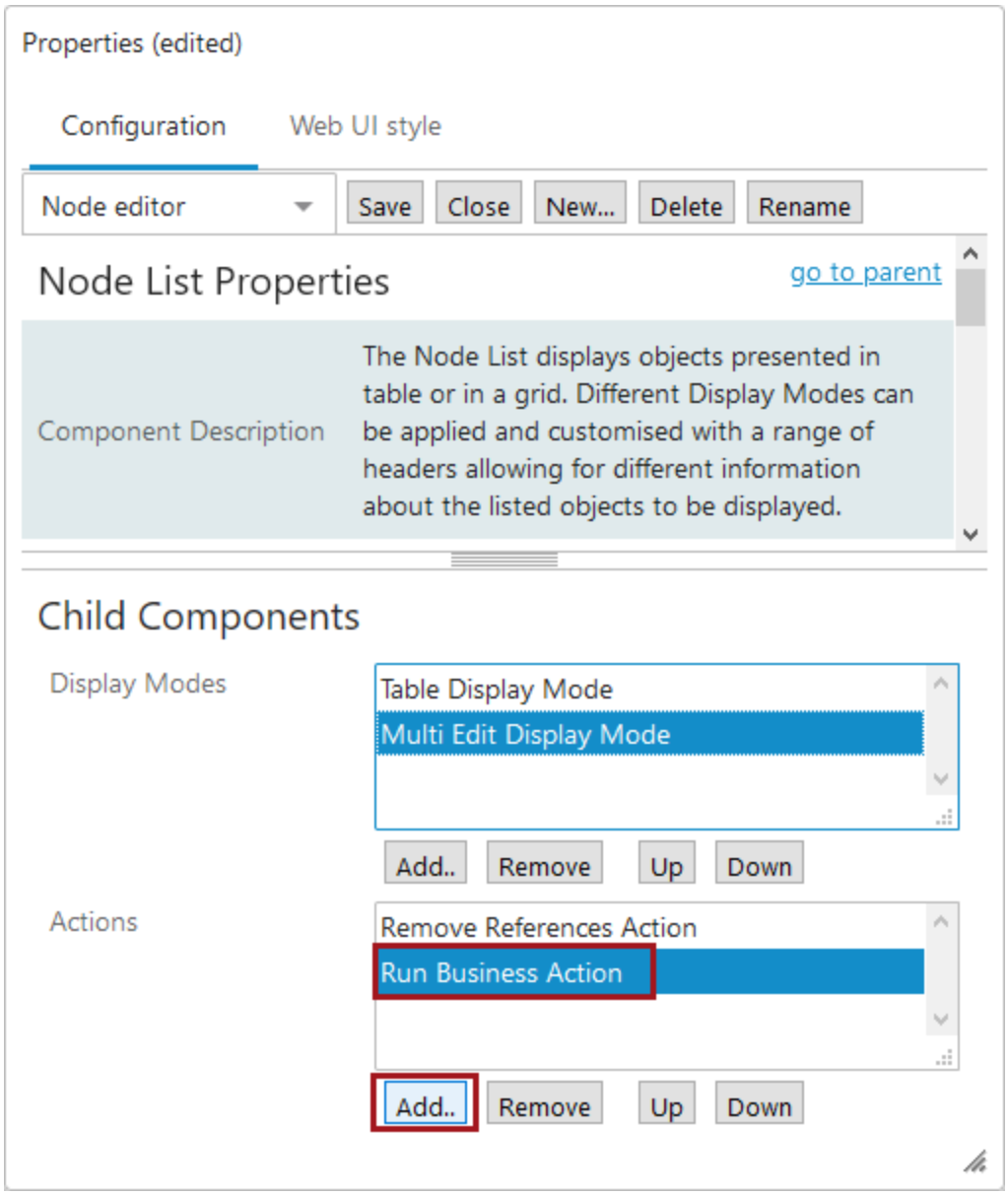

Edit Operation
Execute JavaScript
Binds:
Binds
Variable name
Binds to
manager
STEP Manager
logger
Logger
web
Web UI Context
Messages:
Messages
Variable name
Message
Translations
JavaScript:
var attributeGroupID = "AttributeGroup";
var exceptionMessages = new java.util.HashMap();
// start by creating a HashSet containing all attribute IDs we want to evaluate for approval
var group = manager.getAttributeGroupHome().getAttributeGroupByID(attributeGroupID);
var attributeSet = group.getAllAttributes().iterator();
var attributeIdSet = new java.util.HashSet();
while (attributeSet.hasNext()){
var attribute = attributeSet.next();
attributeIdSet.add(attribute.getID());
}
// loop through each of the selected products and look for changes to approve
var selection = web.getSelection().iterator();
while (selection.hasNext()){
var node = selection.next();
var approvalSet = new java.util.HashSet();
var exceptionSet;
var exceptionMessage = "";
// loop through the set of unnapproved part objects and build a set of those we care about
var unnapprovedSet = node.getNonApprovedObjects().iterator();
while (unnapprovedSet.hasNext()){
var partObject = unnapprovedSet.next();
// if it's an attribute value, check to see if it's part of our group set
if (partObject instanceof com.stibo.core.domain.partobject.ValuePartObject){
if (attributeIdSet.contains(partObject.getAttributeID())){
approvalSet.add(partObject);
}
}
// also check for a name change
if (partObject instanceof com.stibo.core.domain.partobject.NamePartObject) approvalSet.add(partObject);
}
// if the approval set isn't empty, attempt an approval
if (!approvalSet.isEmpty()){
try{
exceptionSet = node.approve(approvalSet);
}catch(e){
if (e.javaException instanceof com.stibo.core.domain.approve.ApproveBulkValidationException ||
e.javaException instanceof com.stibo.core.domain.synchronize.exception.SynchronizeException){
// provide some meaningful information to the user
exceptionMessage += "   " + e.javaException.getMessage() + "<br/>";
}else{
// we can't hide unhandled exceptions because the db transaction is already voided, so rethrow it
throw(e);
}
}
}
// check if the approve operation returned synchronize exceptions
if (exceptionSet && !exceptionSet.isEmpty()){
// one or more synchronize exceptions occurred - provide a meaningful user a message
var iter = exceptionSet.iterator();
while (iter.hasNext()){
var exception = iter.next();
exceptionMessage += "   " + exception.getMessage() + "<br/>";
}
}
if (exceptionMessage){
exceptionMessages.put(node.getID(), exceptionMessage);
}
}
// create some user messaging
if (exceptionMessages.isEmpty()){
// no approval errors were caught, all is well
web.showAlert("ACKNOWLEDGMENT", "Selected items successfully approved");
}else{
// some errors were caught, format error message list
var headline = "Approval Errors";
var message = "";
var errorNodes = exceptionMessages.keySet().iterator();
while (errorNodes.hasNext()){
var errNode = errorNodes.next();
message += "Errors for item: " + errNode + "<br/>";
message += exceptionMessages.get(errNode) + "<br/>";
}
web.showAlert("ERROR", headline, message);
}
// refresh the page after we're all done to make sure the user is seeing current values
web.navigate;
Edit externally
Save
Test JavaScript
Cancel

For a full JavaScript code example, refer to the online version of this topic.

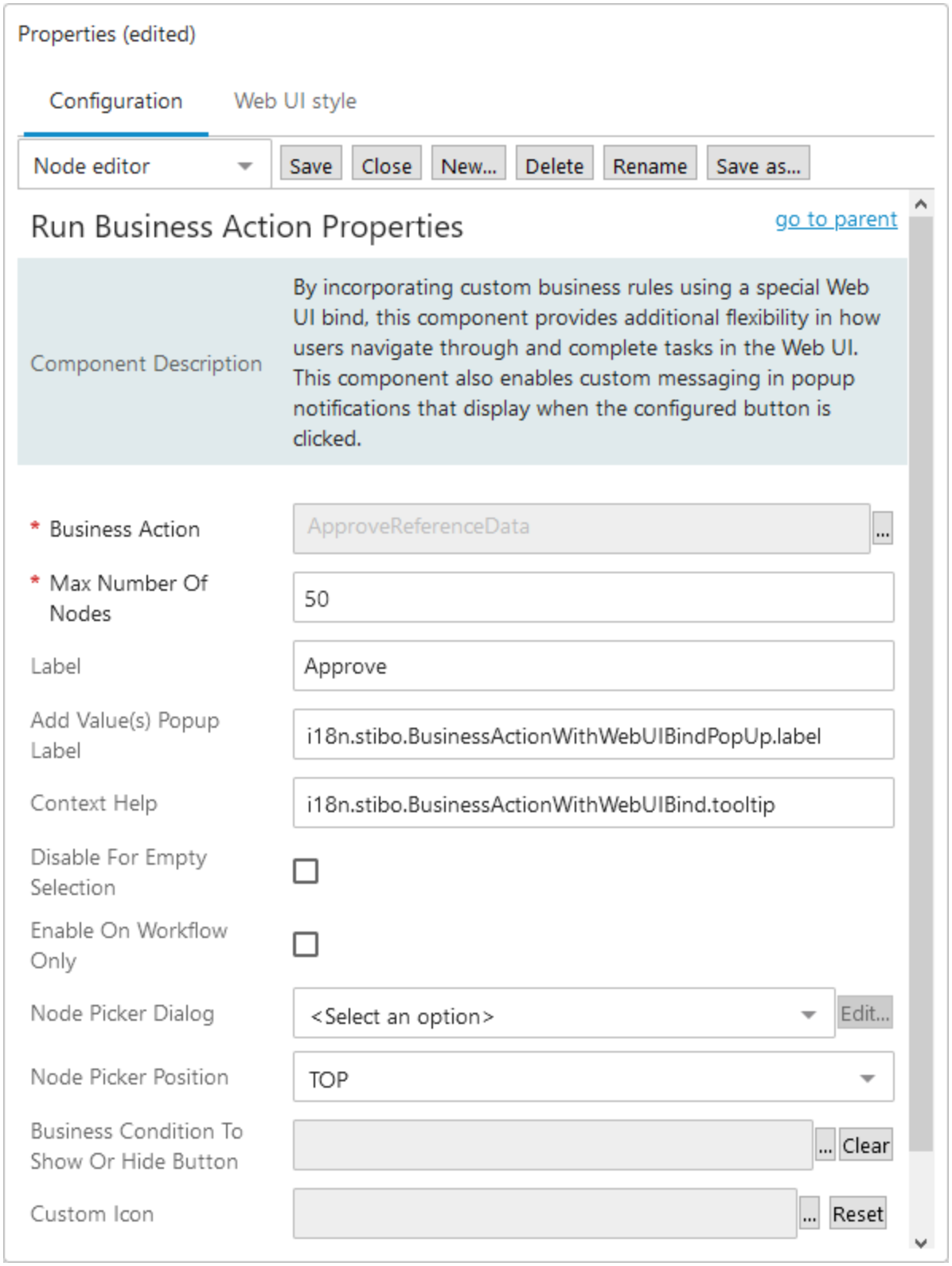
3. **Add the button**. With the business rule created, users can now configure this component in the Web UI.

   Because the button should only be accessible on the Multi Reference Editor screen for this use case, the component will be added as a Toolbar Action button on that screen. In this instance, the Multi-Reference Editor screen is configured as a Node List Tab Page on a Node Details screen.

   The **Run Business Action** component should be added as a toolbar action button in the 'Actions' field.

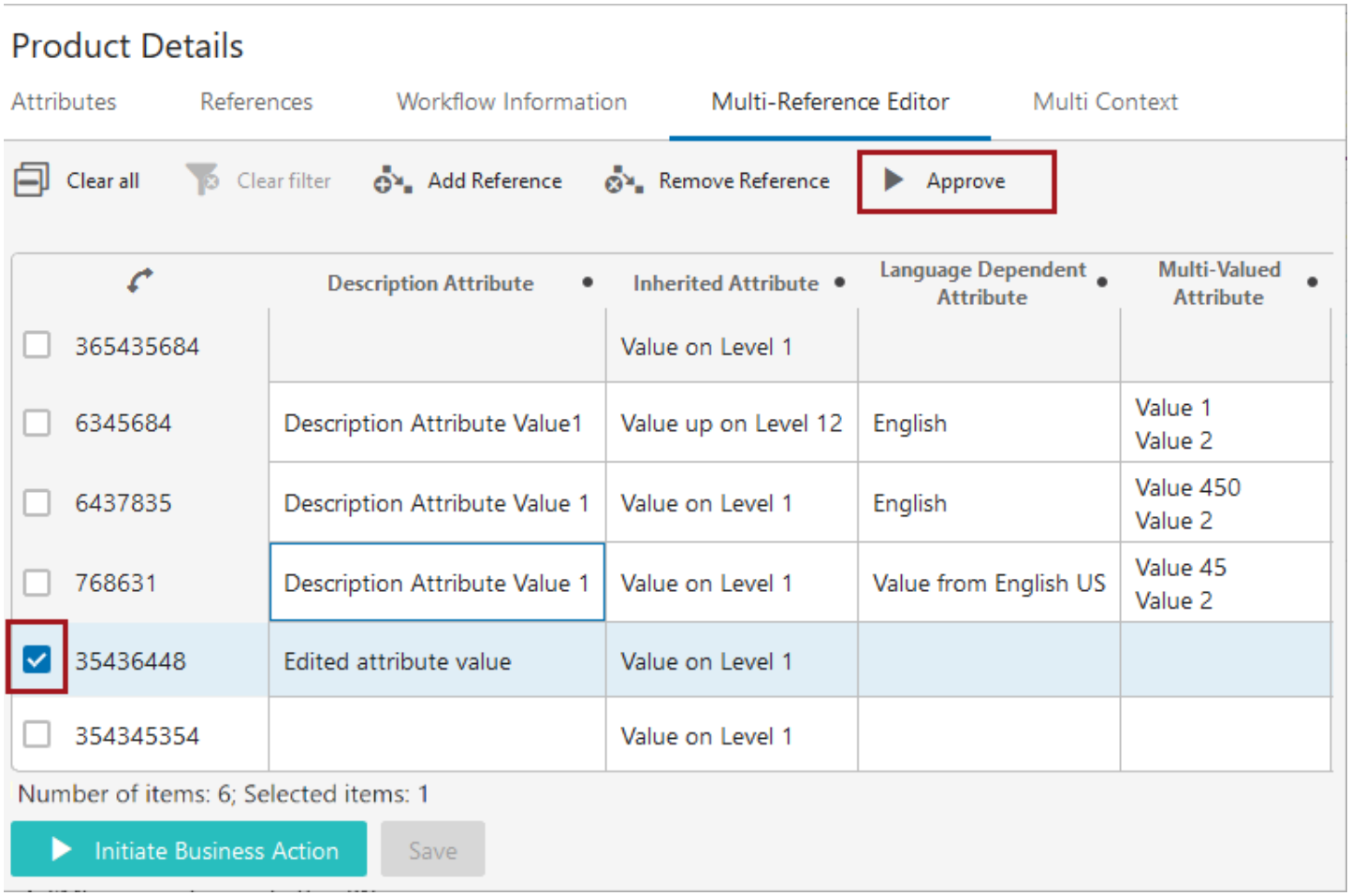


4. **Configure the button**. To configure the **Run Business Action** component as a toolbar action for this use case, review the bullets below:

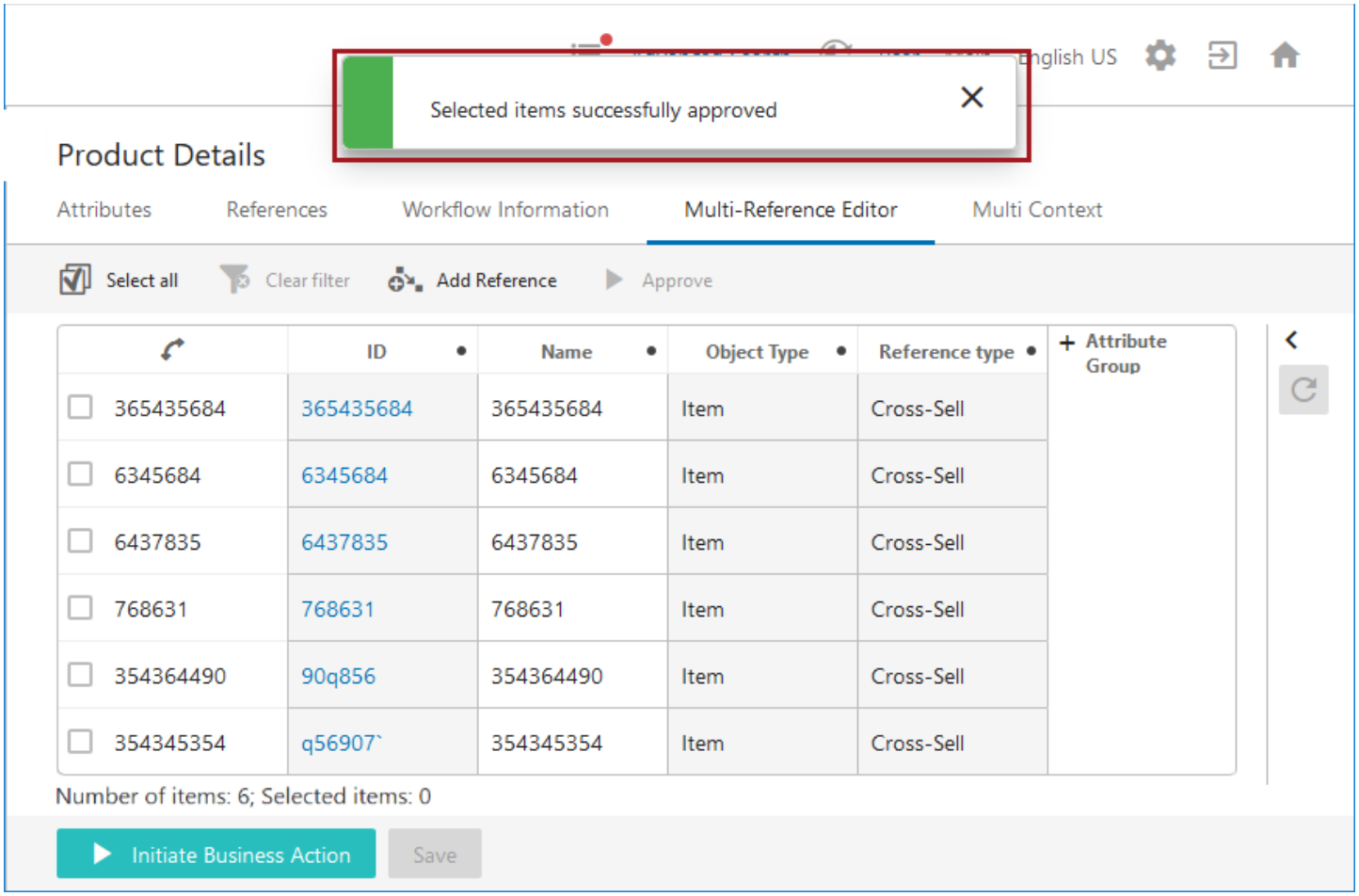

Properties (edited)
Configuration
Web UI style
Node editor
Save
Close
New...
Delete
Rename
Save as...
Run Business Action Properties
go to parent
Component Description
By incorporating custom business rules using a special Web UI bind, this component provides additional flexibility in how users navigate through and complete tasks in the Web UI. This component also enables custom messaging in popup notifications that display when the configured button is clicked.
* Business Action
ApproveReferenceData
* Max Number Of Nodes
50
Label
Approve
Add Value(s) Popup Label
i18n.stibo.BusinessActionWithWebUIBindPopUp.label
Context Help
i18n.stibo.BusinessActionWithWebUIBind.tooltip
Disable For Empty Selection
Enable On Workflow Only
Node Picker Dialog
<Select an option>
Edit...
Node Picker Position
TOP
Business Condition To Show Or Hide Button
Clear
Custom Icon
Reset

- On the 'Business Action' parameter, click the ellipsis button (...) to select the relevant business rule from a Node Picker. In this case, the business rule is titled 'ApproveReferenceData'.
- In the field for the 'Max Number of Nodes,' set a maximum number of nodes. This number determines the maximum number of nodes a Run Business Action can be executed on. If the number is set too high, performance issues can result from a large selection.
- On the 'Label' parameter, add text that describes in two or three words what action clicking the button will execute. In this case, because the operative business rule approves changes made to values in the attribute group, the button label text is 'Approve'.
- 'Enable On Workflow Only' should not be checked as this component's configuration does not touch on workflows.

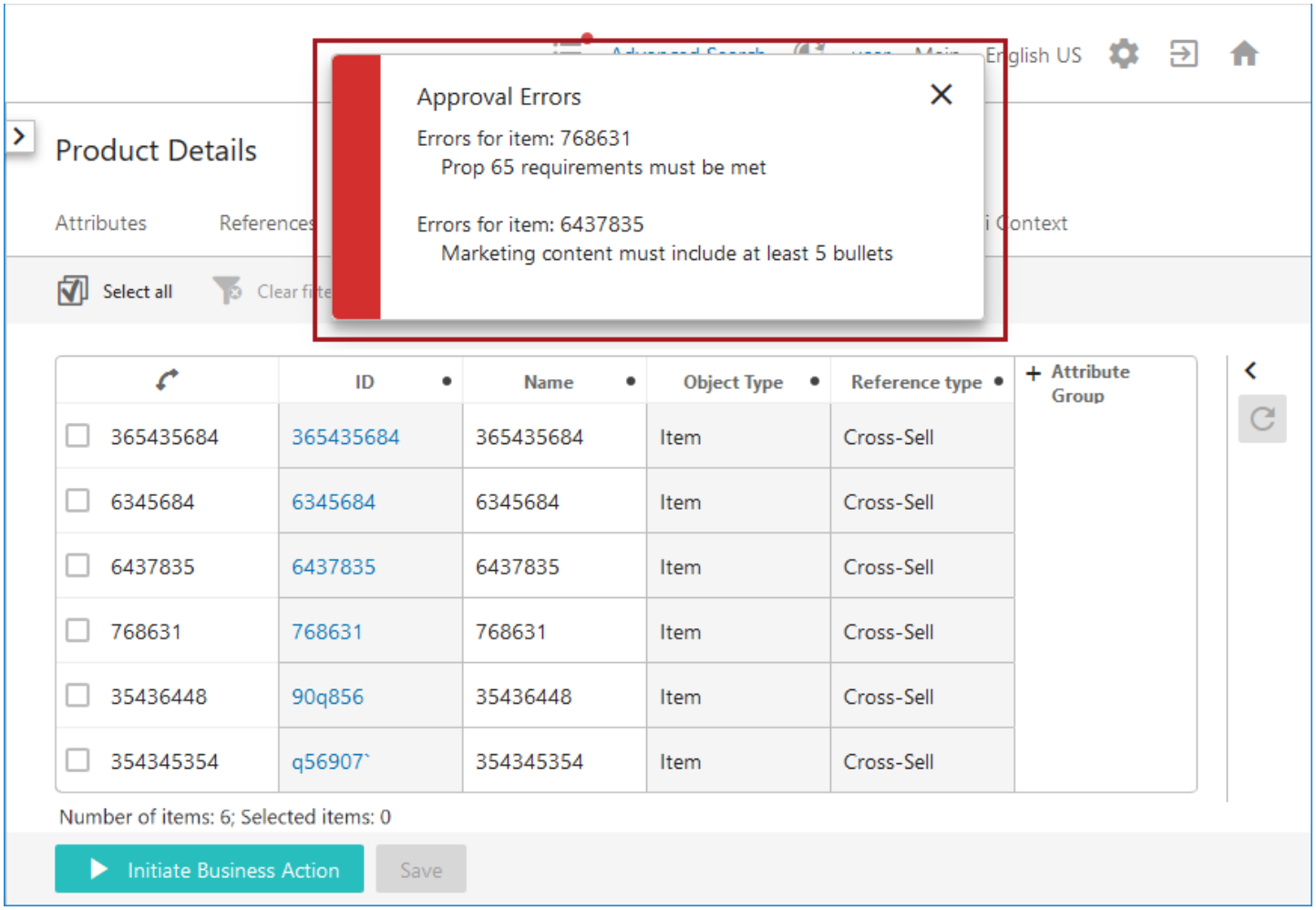
5. **Result**. Now when a user has made changes to one or more references, the 'Approve' button will be enabled.



When the 'Approve' button is clicked with one or more references multi-selected, the button initiates a validation process. If no issues are detected with the approve action, a custom notification will display to that effect:



If the validation process detects issues with the approve action, a custom notification displays describing the items that could not be approved and why.


English US
Approval Errors
Errors for item: 768631
Prop 65 requirements must be met
Errors for item: 6437835
Marketing content must include at least 5 bullets
Product Details
Attributes
References
Context
Select all
ID
Name
Object Type
Reference type
+ Attribute Group
365435684 365435684 365435684 Item Cross-Sell
6345684 6345684 6345684 Item Cross-Sell
6437835 6437835 6437835 Item Cross-Sell
768631 768631 768631 Item Cross-Sell
35436448 90q856 35436448 Item Cross-Sell
354345354 q56907` 354345354 Item Cross-Sell
Number of items: 6; Selected items: 0
Initiate Business Action
Save

Run Business Action Use Case - Reparenting

This use case describes an application of the **Run Business Action** component in which a user wants to change the position of a classification node in the Web UI's Tree hierarchy from one parent node to another, a process called 'reparenting.' This use case illustrates the **Run Business Action**'s ability to incorporate a Node Picker into an input field. In the example described, the component is added as a button displaying at the bottom of a Node Details screen.

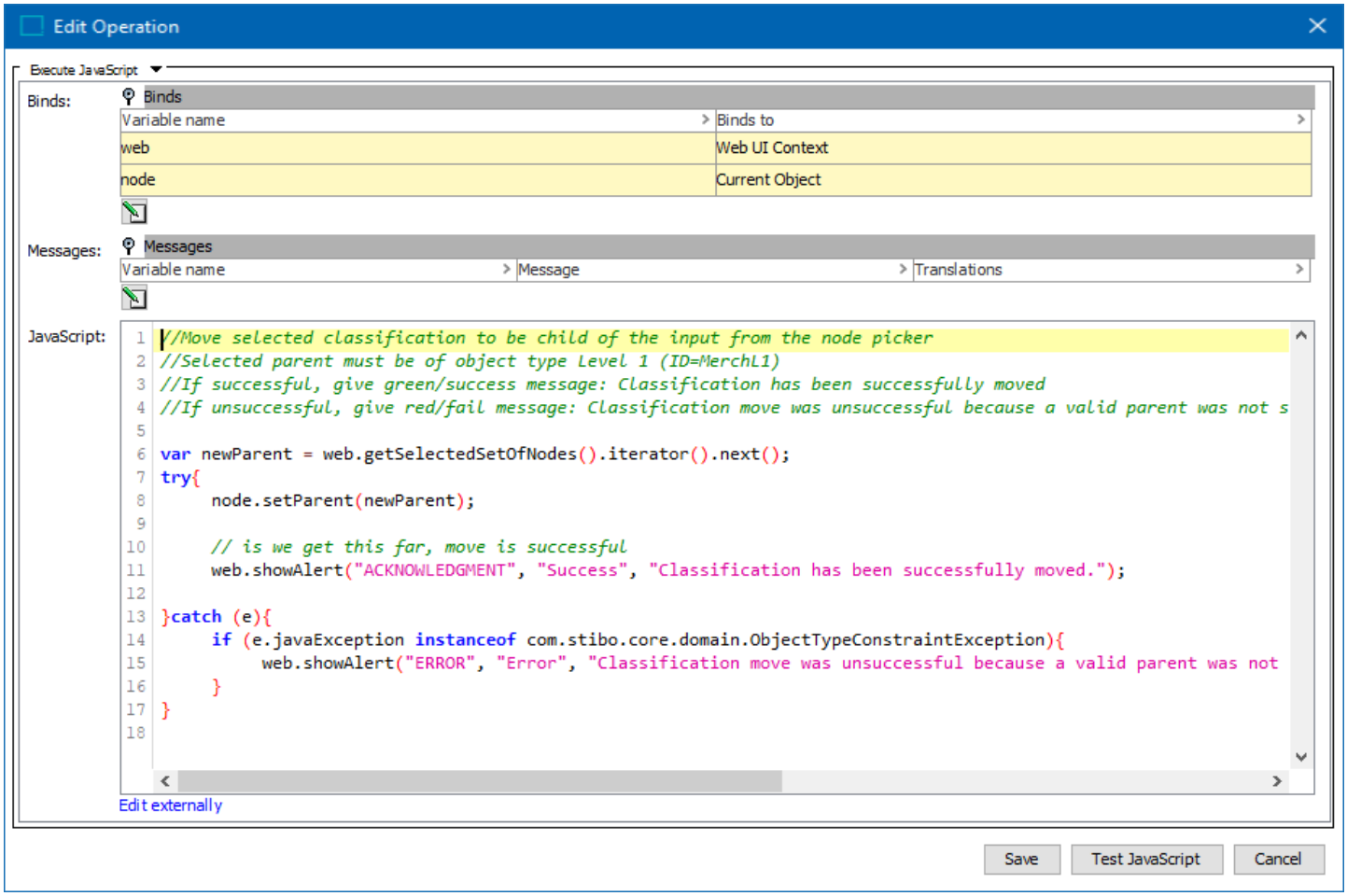
In the example described in this topic, the customer requires that a Classification node called 'SubCategory2' must be moved from its current position under 'Category 1' to a new position beneath 'Category 2.'

The configuration steps required to address this use case are described below:

1. **Review requirement and assess solution**. In this instance, the requirement is that users must be able to move a classification object from a child position under one parent to a different parent. To configure a solution to this requirement, a **Run Business Action** button must be added to the Node Details screen mapped to the classification object type that will require reparenting.
2. **Configure the business rule**. Directly below is a screenshot of the business rule, as it displays in workbench, that meets the above-described requirement. Beneath this screenshot is the text of the business rule that can be cut and pasted into the business rule editor in the workbench, and then edited by the user as needed.

   The binds required to enable this business rule are listed above the business rule itself. The bind that does the work of bringing the business rule into the **Run Business Action** component is the 'Web UI Context' bind. Regardless of the work the business rule is configured to do, the 'Web UI Context' bind must be included for the component to work.

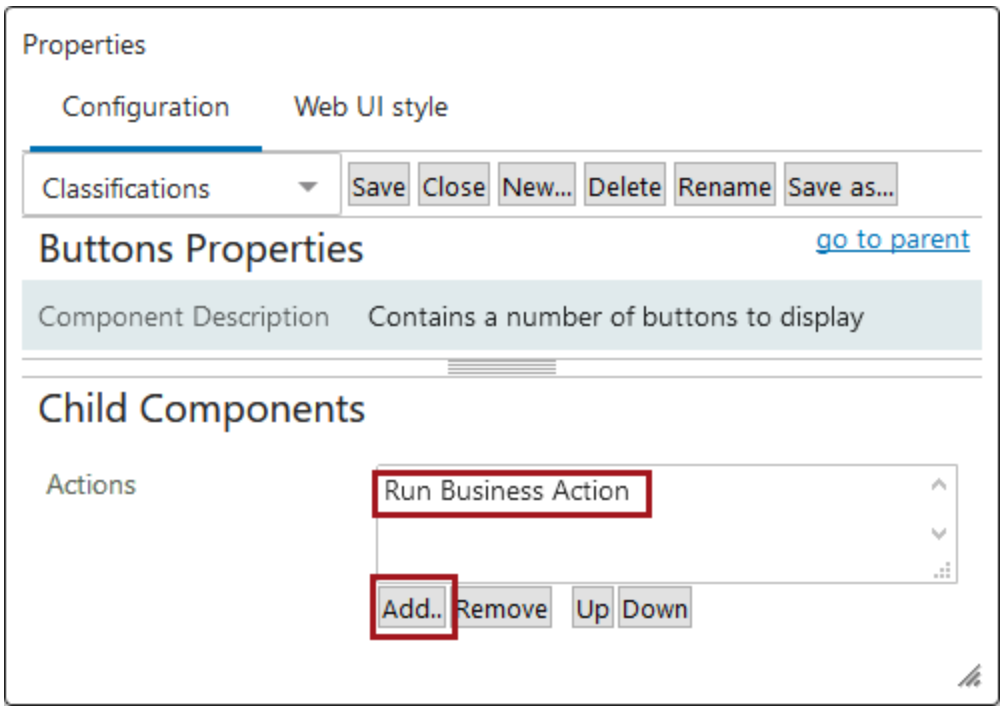
Additional guidance about how this business rule has been written displays in green text in the screenshot below.



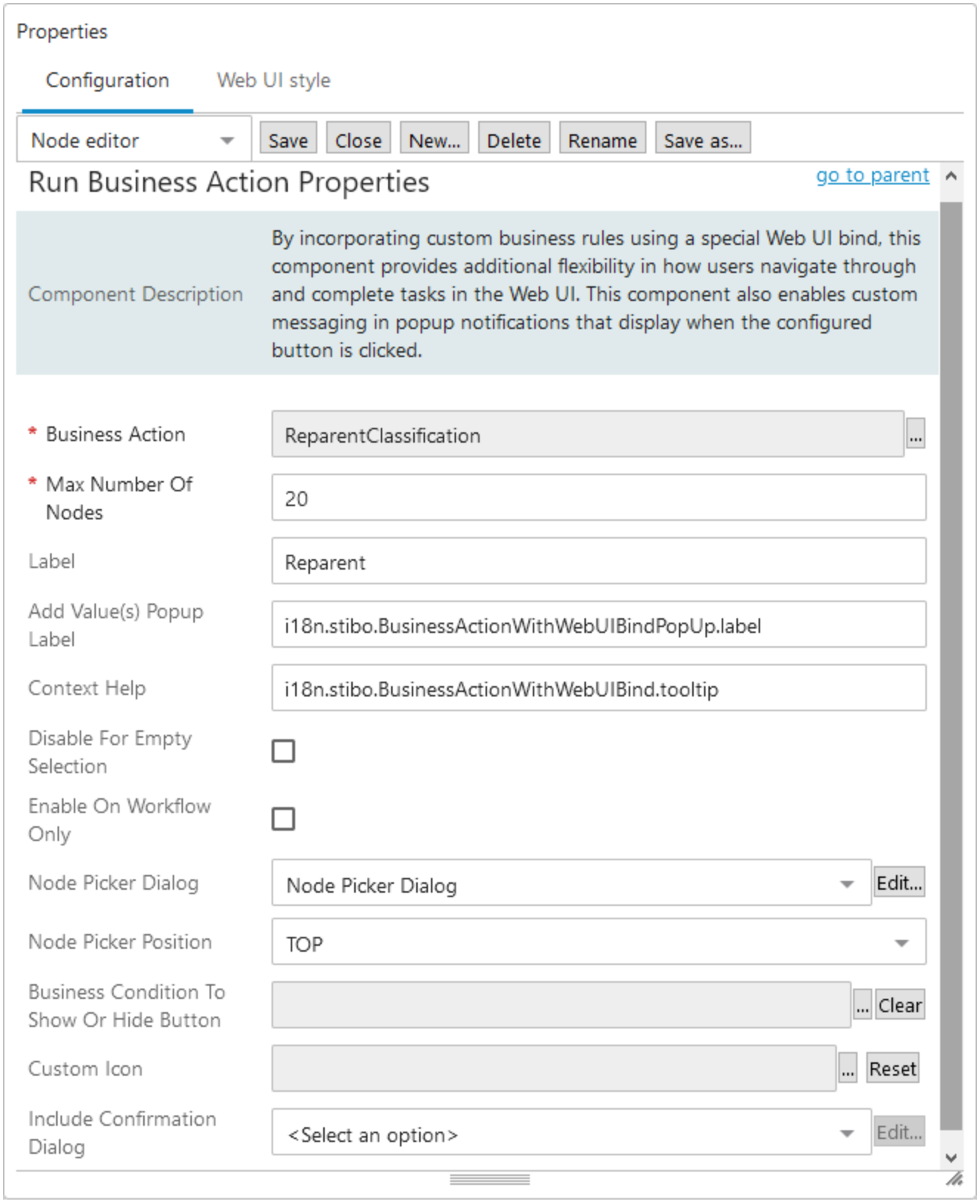
For a full JavaScript code example, refer to the online version of this topic.

3. **Add the button**. With the business rule created, users can now configure this component in the Web UI.

   Because the **Run Business Action** component should be accessible on any tab on the object, the button should be added to the 'Buttons' field located in the 'Child Components' section of the Node Details screen. Actions added display as buttons at the bottom of the Node Details screen.

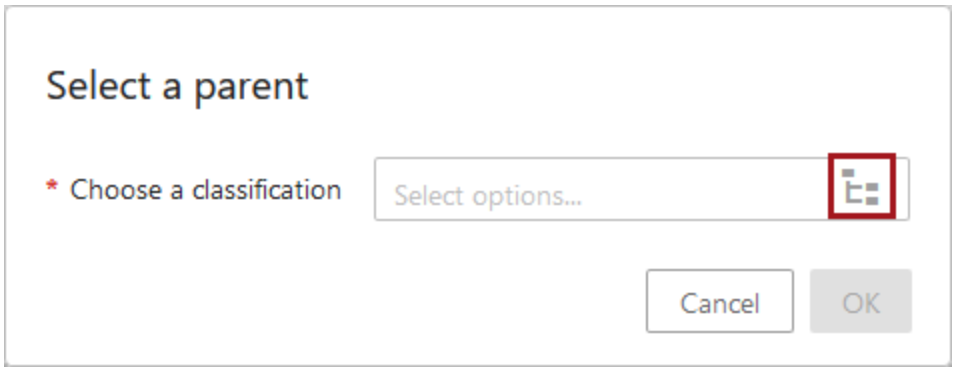


4. **Configure the button**. To configure the **Run Business Action** component as a button for this use case, review the bullets below:

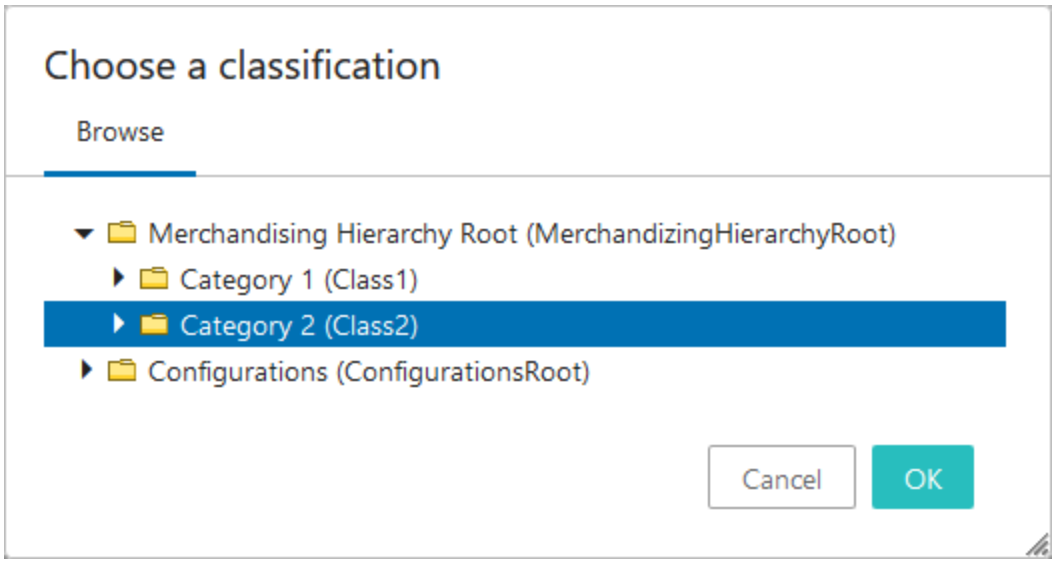

Properties
Configuration
Web UI style
Node editor
Save
Close
New...
Delete
Rename
Save as...
Run Business Action Properties
go to parent
Component Description
By incorporating custom business rules using a special Web UI bind, this component provides additional flexibility in how users navigate through and complete tasks in the Web UI. This component also enables custom messaging in popup notifications that display when the configured button is clicked.
* Business Action
ReparentClassification
* Max Number Of Nodes
20
Label
Reparent
Add Value(s) Popup Label
i18n.stibo.BusinessActionWithWebUIBindPopUp.label
Context Help
i18n.stibo.BusinessActionWithWebUIBind.tooltip
Disable For Empty Selection
Enable On Workflow Only
Node Picker Dialog
Node Picker Dialog
Edit...
Node Picker Position
TOP
Business Condition To Show Or Hide Button
Clear
Custom Icon
Reset
Include Confirmation Dialog
<Select an option>
Edit...

- On the 'Business Action' parameter, click the ellipsis button (...) to select the relevant business rule from a Node Picker. In this case, the business rule is titled 'Reparent Classification.'
- On the 'Label' parameter, add text that describes in one or two words what action clicking the button will execute. In this case, because the operative business rule is 're-parenting' the current node, the button label text is 'Reparent.'
- 'Enable On Workflow Only' should not be checked as this component's configuration does not touch on workflows.
- If a Node Picker component is written into the business rule, the 'Node Picker Dialog' parameter gives users the ability to fully configure the Node Picker component. Click the 'Edit...' button to the right of the field to begin configuration. For more information on configuring the Node Picker, refer to the **Node Picker** topic in this documentation.

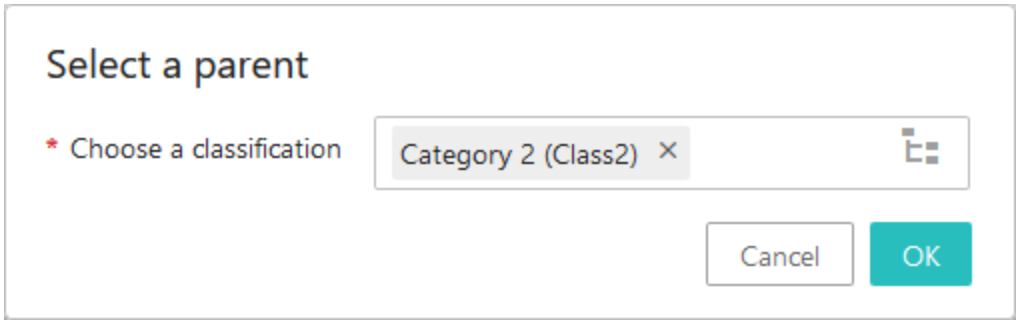
5. **Result**. Now, when a user stands on a classification node and clicks the 'Reparent' button, a user-input window will display. In this example, a single input field entitled 'Choose a classification' is available. Inside the field is a Node Picker icon. Click the icon to access the Node Picker.



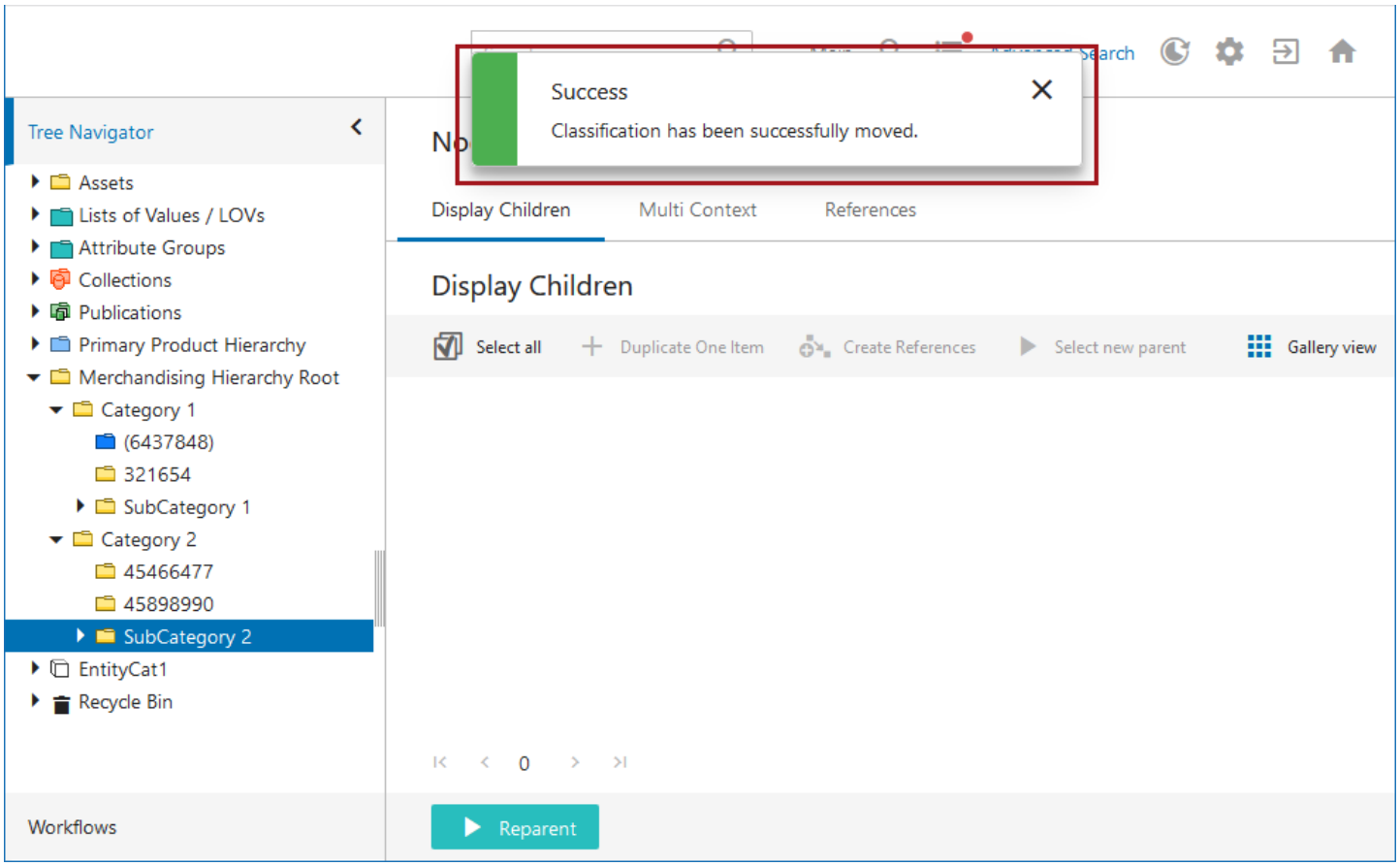
Using the Node Picker, the user can browse through the available classifications to decide under which node the current classification node should be moved. In this example, the classification 'SubCategory2' will be moved from its current parent, 'Category 1,' to a new parent, 'Category 2.' Once the desired destination classification has been selected, click 'OK.'



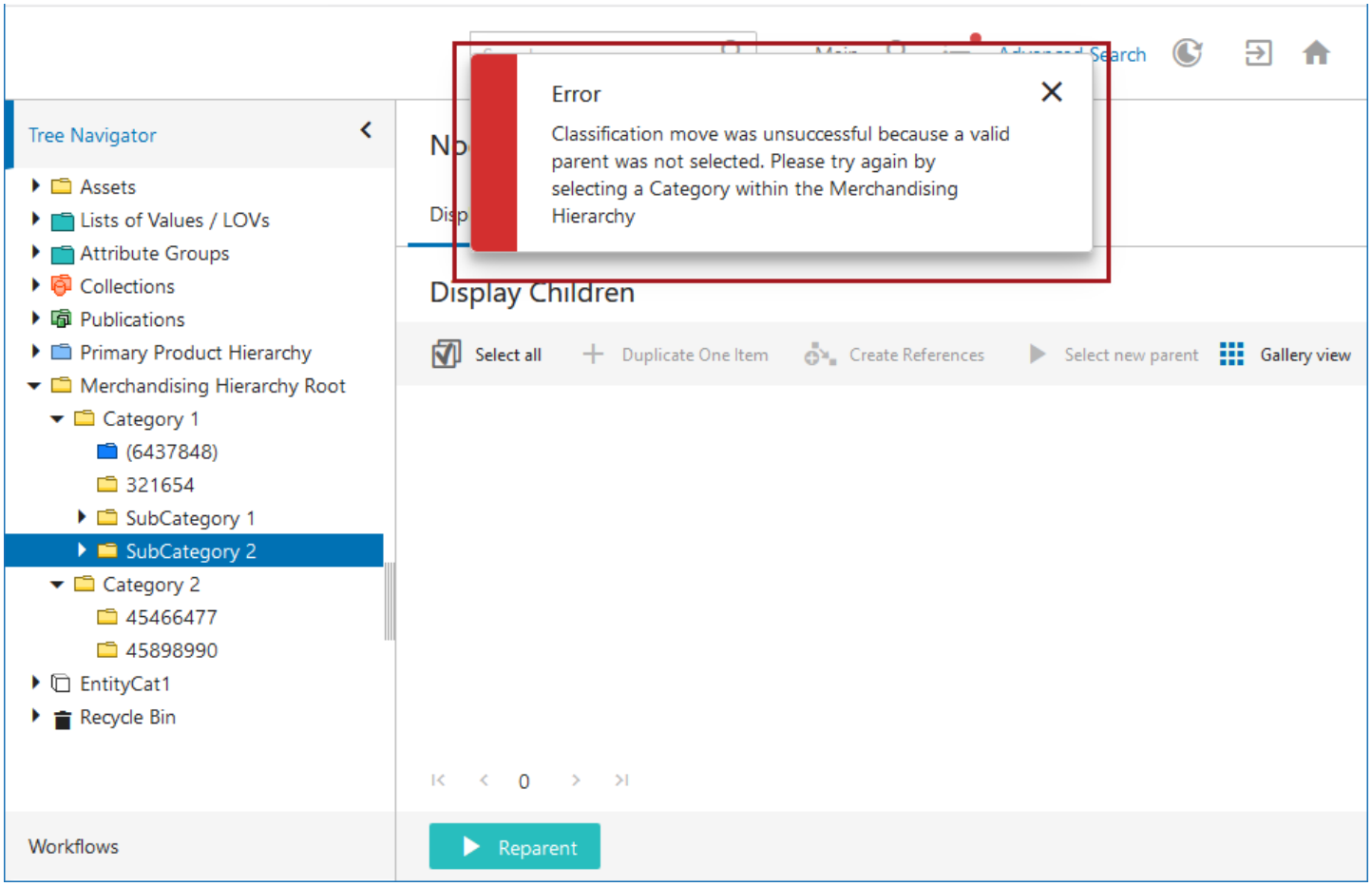
The selected destination classification will display in the 'Select a parent' dialog. Click 'OK'.



When the reparenting task is successful, the business rule is configured to display a popup message acknowledging a successful move from one classification to another.



When a reparenting action fails due to the user selecting an invalid destination classification, an error popup message displays with details specific to the error.


Error
Classification move was unsuccessful because a valid parent was not selected. Please try again by selecting a Category within the Merchandising Hierarchy
Tree Navigator
Assets
Lists of Values / LOVs
Attribute Groups
Collections
Publications
Primary Product Hierarchy
Merchandising Hierarchy Root
Category 1
(6437848)
321654
SubCategory 1
SubCategory 2
Category 2
45466477
45898990
EntityCat1
Recycle Bin
Workflows
Display Children
Select all
Duplicate One Item
Create References
Select new parent
Gallery view
0
Reparent

Run Business Action Use Case - Adding a Reference and Reference Metadata in the Same Action

This use case describes an application of the **Run Business Action** component in which a user wants to add metadata to a new reference linking a product to a supplier. This scenario makes use of the **Run Business Action**'s ability to display an input field that enables users to write data to the configured attributes. These input fields allow for the use of Node Pickers, List of Values (LOV) dropdowns, and date pickers, as examples.

Though in the example used to present this use case, the user-input window is enabling users to enter data that is written to the attribute, there are many ways to apply the user-input window that do not entail writing data to the attribute. For example, a **Run Business Action** component can use a bind tying the business rule to an LOV containing a list of workflow state names. By selecting a state and clicking **OK**, the business rule submits the object to the selected workflow state but adds no data to an attribute. As another example, a parameter in a configured user-input window might be 'Name.' Adding text in this field and submitting it, the business rule powering the **Run Business Action** component could create a new object with an auto-generated ID and the user-submitted name but would not write the submitted 'Name' value to the attribute bound in the business rule.

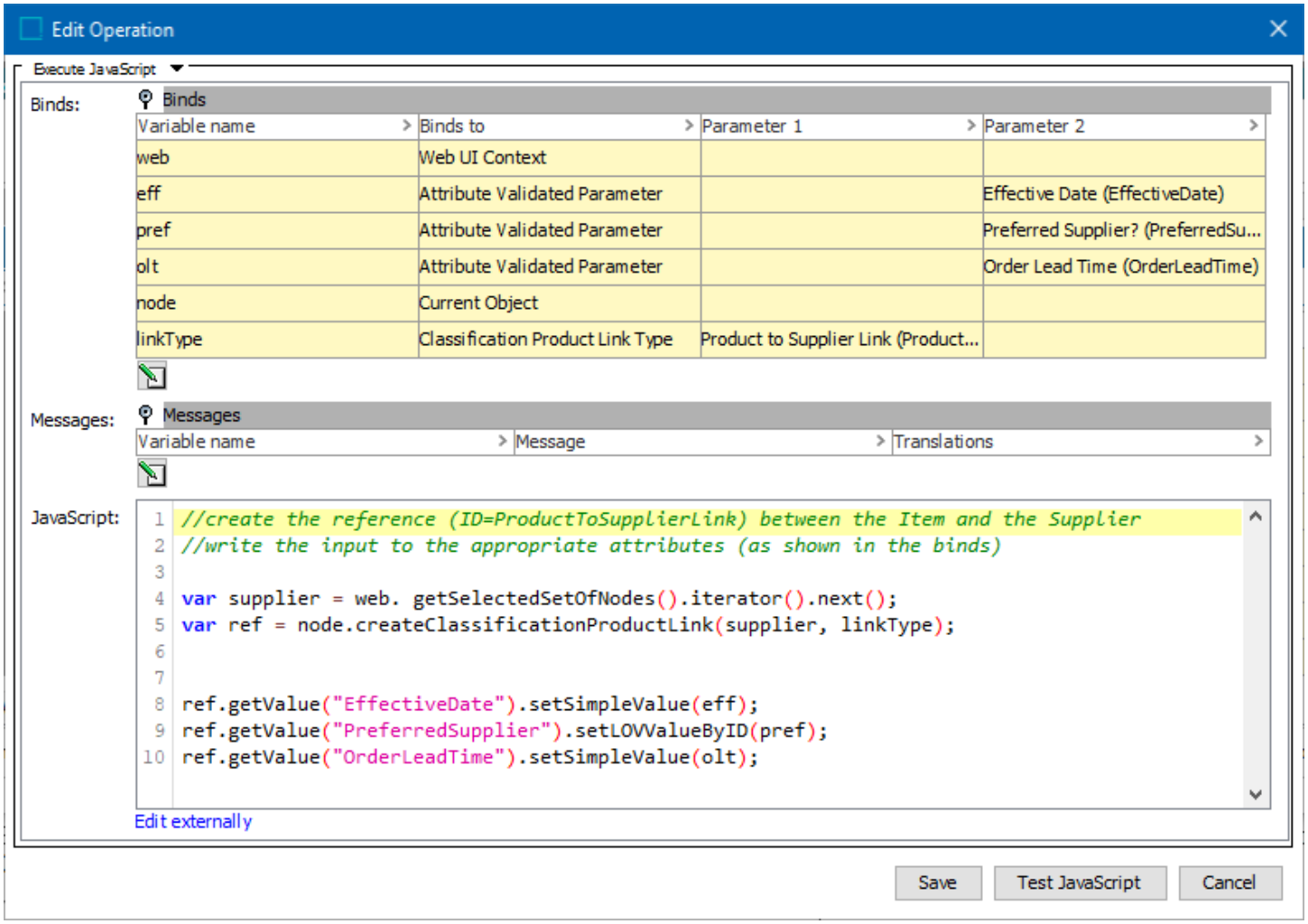
In this use case, however, the customer wants to add a reference to a supplier named 'Alpha,' and then populate that new reference with metadata all in the same action, which entails writing data to attributes. In this example, the component is added as a button displaying at the bottom of a Node Details screen.

The configuration steps required to address this use case are described below:

1. **Review requirement and assess solution**. In this instance, the requirement is that a user must be able to add a reference of the type 'Product to Supplier' to a product object in the Web UI. Further, the user must be able to add metadata to that reference in the same action in which the reference is created. The metadata values that must be added are a supplier (a Node Picker component is required), how much lead time is required (a free text field), a designation of 'Preferred' for the supplier (an LOV with 'Yes' or 'No' as the selectable values), and an effective date (which uses a Date Picker component). To configure a solution for this requirement, a **Run Business Action** button must be added to the Node Details screen mapped to the product object type to which the user must add references to suppliers.
2. **Configure the business rule**. Directly below is a screenshot of the business rule, as it displays in the workbench, that meets the above-described requirement. Beneath this screenshot is the text of the business rule that can be cut and pasted into the business rule editor in the workbench, and then edited as needed.

   The binds required to enable this business rule are listed above the business rule itself. The bind that does the work of bringing the business rule into the **Run Business Action** component is the 'Web UI Context' bind. Regardless of the work the business rule is configured to do, the 'Web UI Context' bind must be included for the component to work.

   Additional guidance about how this business rule has been written displays in green text in the screenshot below.



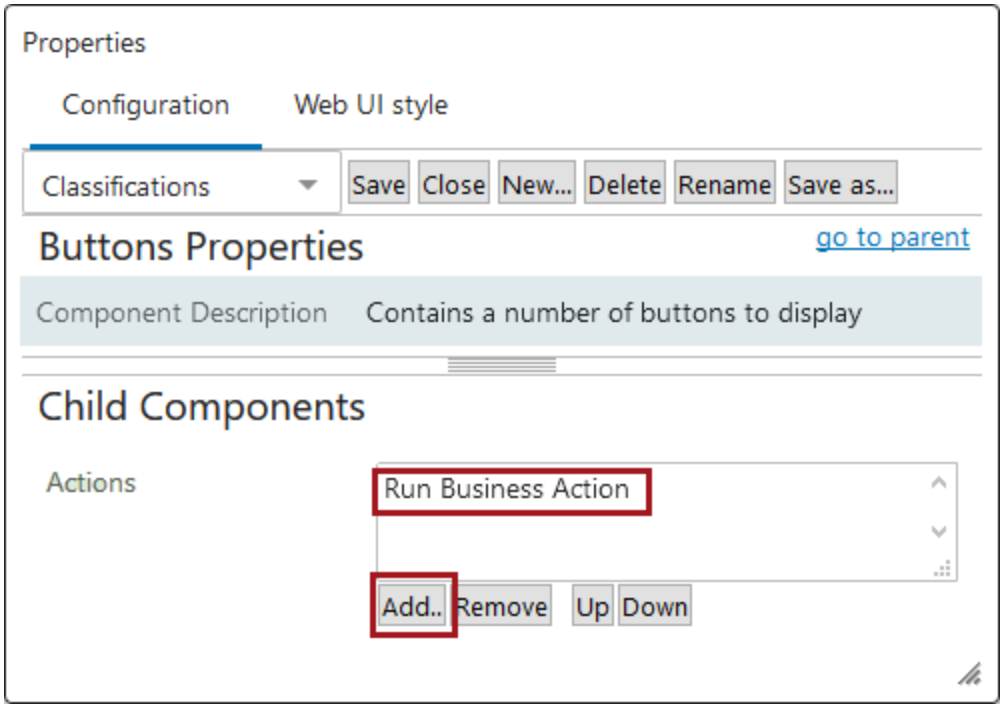
For a full JavaScript code example, refer to the online version of this topic.

```
    var supplier = web. getSelectedSetOfNodes().iterator().next();
    var ref = node.createClassificationProductLink(supplier, linkType);

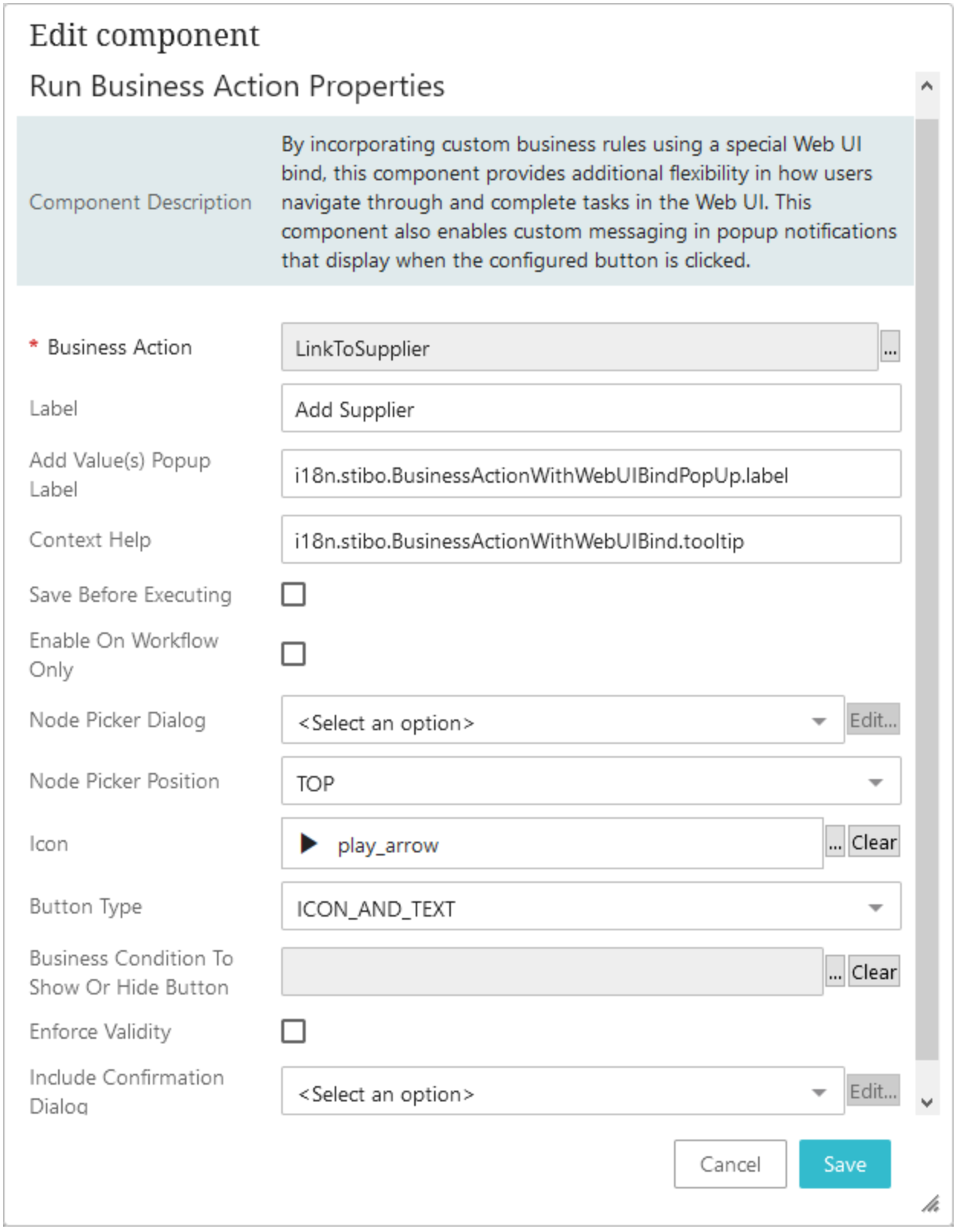

    ref.getValue("EffectiveDate").setSimpleValue(eff);
    ref.getValue("PreferredSupplier").setLOVValueByID(pref);
    ref.getValue("OrderLeadTime").setSimpleValue(olt)
```

3. **Add the button**. With the business rule created, users can now configure this component in the Web UI.

Because the **Run Business Action** component should be accessible on any tab on the object, the button should be added to the 'Buttons' field located in the 'Child Components' section of the Node Details screen. Actions added display as buttons at the bottom of the screen.

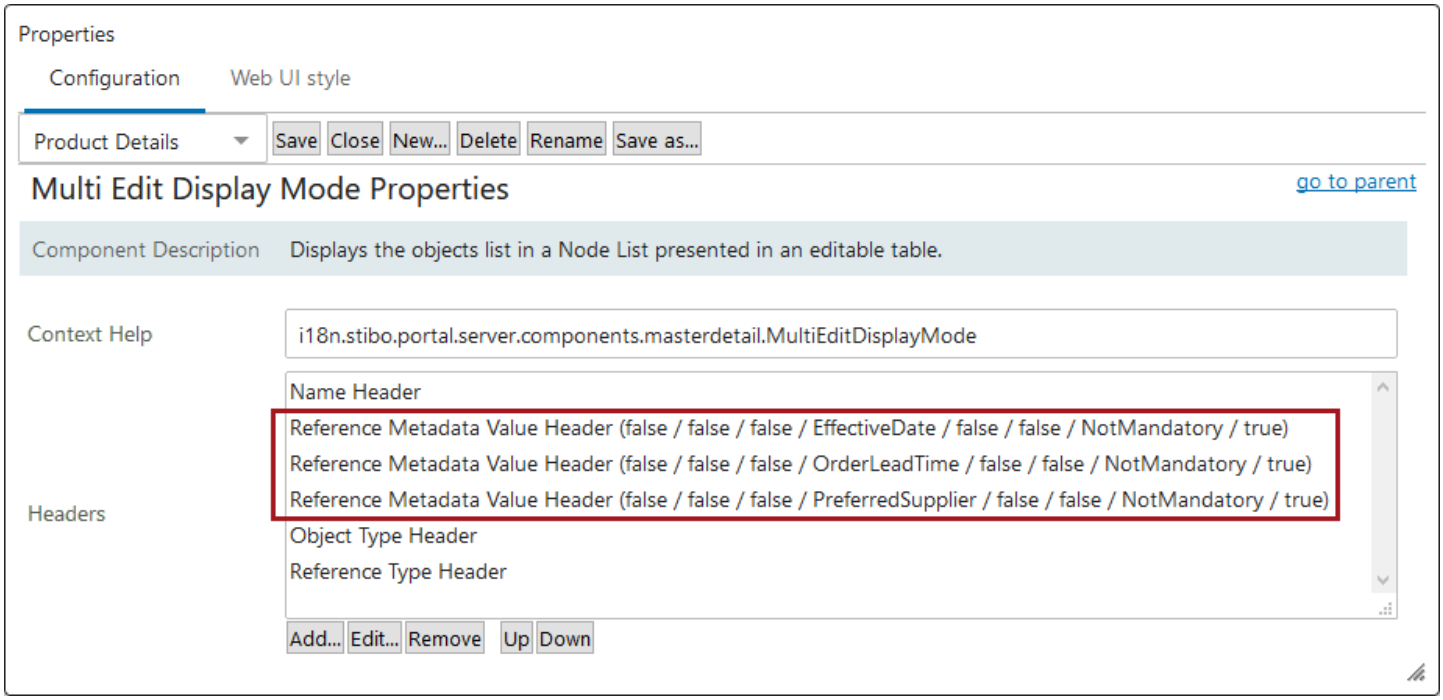


4. **Configure the button**. To configure the **Run Business Action** component as a button for this use case, review the bullets below:

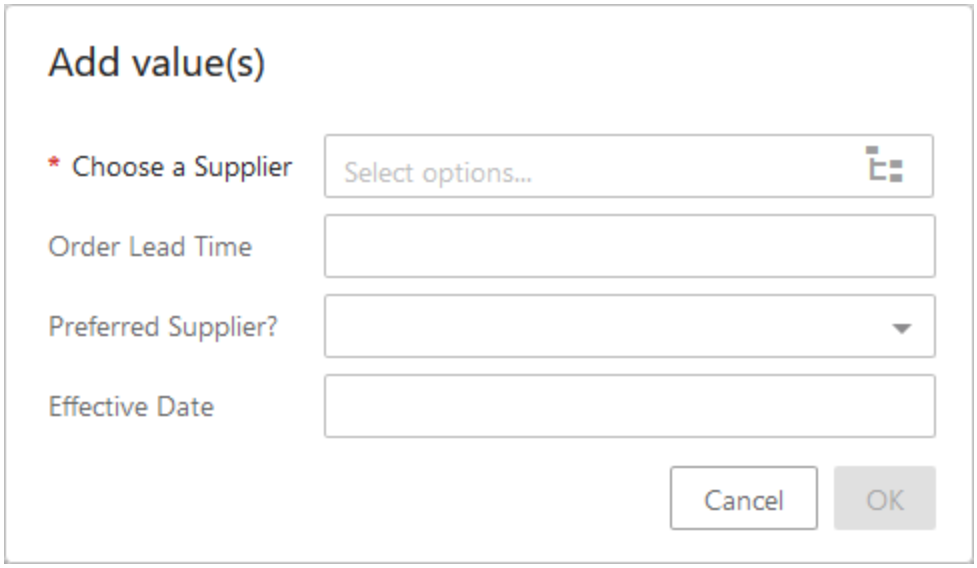

Edit component
Run Business Action Properties
Component Description
By incorporating custom business rules using a special Web UI bind, this component provides additional flexibility in how users navigate through and complete tasks in the Web UI. This component also enables custom messaging in popup notifications that display when the configured button is clicked.
* Business Action
LinkToSupplier
Label
Add Supplier
Add Value(s) Popup Label
i18n.stibo.BusinessActionWithWebUIBindPopUp.label
Context Help
i18n.stibo.BusinessActionWithWebUIBind.tooltip
Save Before Executing
Enable On Workflow Only
Node Picker Dialog
<Select an option>
Edit...
Node Picker Position
TOP
Icon
play_arrow
Clear
Button Type
ICON_AND_TEXT
Business Condition To Show Or Hide Button
Clear
Enforce Validity
Include Confirmation Dialog
<Select an option>
Edit...
Cancel
Save

- On the 'Business Action' parameter, click the ellipsis button (...) to select the relevant business rule from a Node Picker. In this case, the business rule is titled 'LinktoSupplier.'
- On the 'Label' parameter, add text that describes what action clicking the button will execute. This text will display on the button itself. In this case, because the operative business rule enables the user to add a reference to a supplier, the button label text is 'Add Supplier.' Adding only one or two short words is recommended, but approximately 72 characters will display if a longer, more meaningful description is required. If more description is required, consider adding explanatory content to the 'Context Help' parameter as all text added will display in a small popup when the cursor is placed over the button. It is important to note that the 'Button Type' parameter should be set to either 'ICON_AND_TEXT' or 'TEXT' for the 'Label' text to display. If 'ICON' is selected, only the icon image selected in the 'Icon' parameter will display on the button.
- 'Enable On Workflow Only' should not be checked as this component's configuration for this use case does not touch on workflows.
- If a Node Picker component is written into the business rule, the 'Node Picker Dialog' parameter gives users the ability to fully configure the Node Picker component. Click the 'Edit...' button to the right of the field to begin configuration. For more information on configuring the Node Picker, refer to the **Node Picker** topic in this documentation.
- Select 'Top' or 'Bottom' from the 'Node Picker Position' dropdown to determine where in the user-input window the Node Picker field will display. Selecting 'Top' puts the parameter featuring the Node Picker at the top of the user-input window, while selecting 'Bottom' places it at the bottom of the user-input window.
- The other parameters in the 'Run Business Action Properties' window in the designer are not expressly relevant to this use case. For more information on these parameters, refer to the **Configuring the Run Business Action Component** topic.

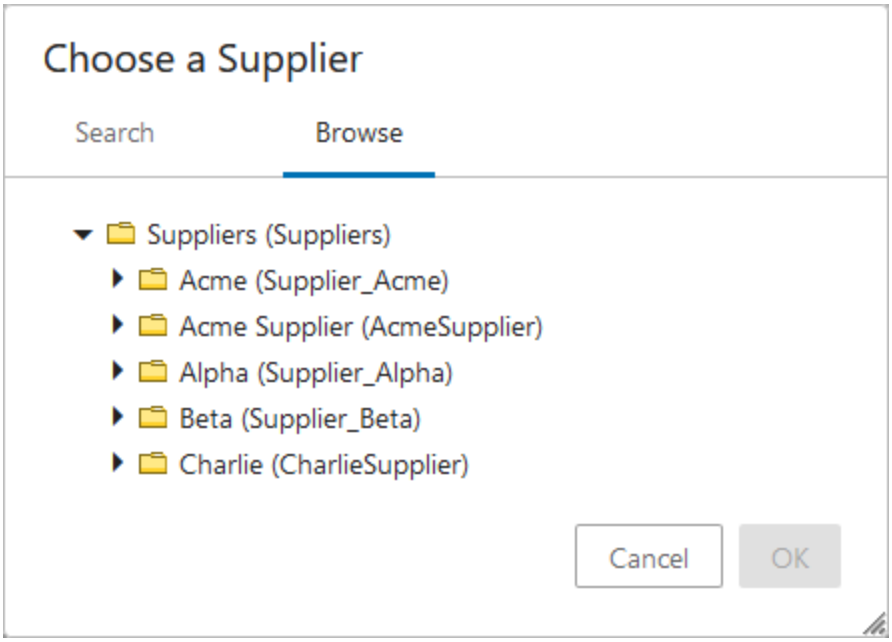
5. **Configure display of reference metadata**. For this example, the references created via the **Run Business Action** component are configured to display on their own tab on the mapped screen. In this case, the configuration has been built like this: Node Details > Multi Reference component > Node List > Multi Edit Display Mode. The attributes built into the relevant business rule are selected as Reference Metadata Value Headers in the 'Headers' field.



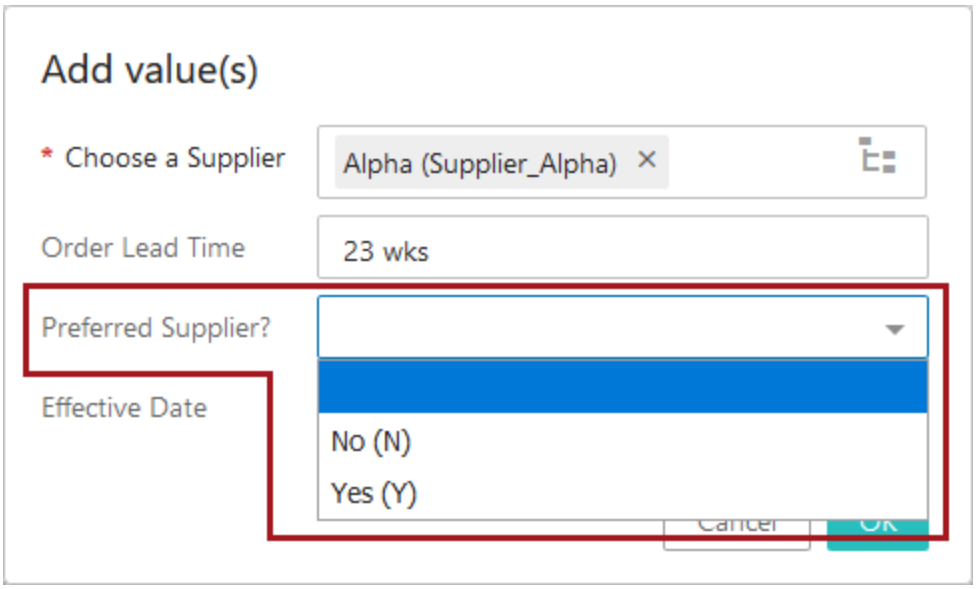
6. **Result**. When all is properly configured, users standing on a product object in the Web UI can click on the 'Add Supplier' **Run Business Action** button, which will result in display of a user-input window, like the one shown in the screenshot below:



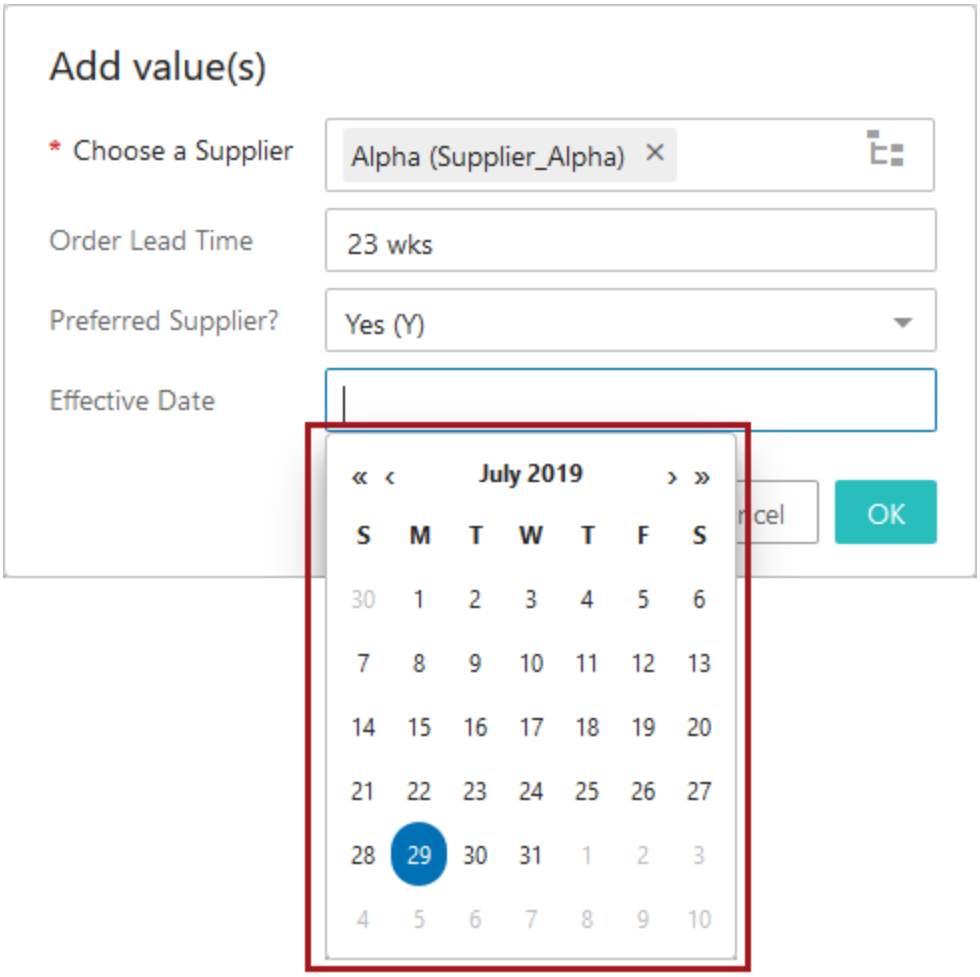
- The 'Choose a Supplier' field located at the top of the user-input window includes a Node Picker icon ( ). When the icon is clicked, a Node Picker displays that allows the user to search or browse one or more hierarchies to select the supplier to which a reference will be created. For this field, the supplier 'Charlie' is selected.



- The 'Order Lead Time' field is a free text field. For this field, the value '23 wks' is entered.
- The 'Preferred Supplier?' field is a 'No (N) ' Yes (Y)' LOV dropdown. For this field, the value 'No (N)' is selected.

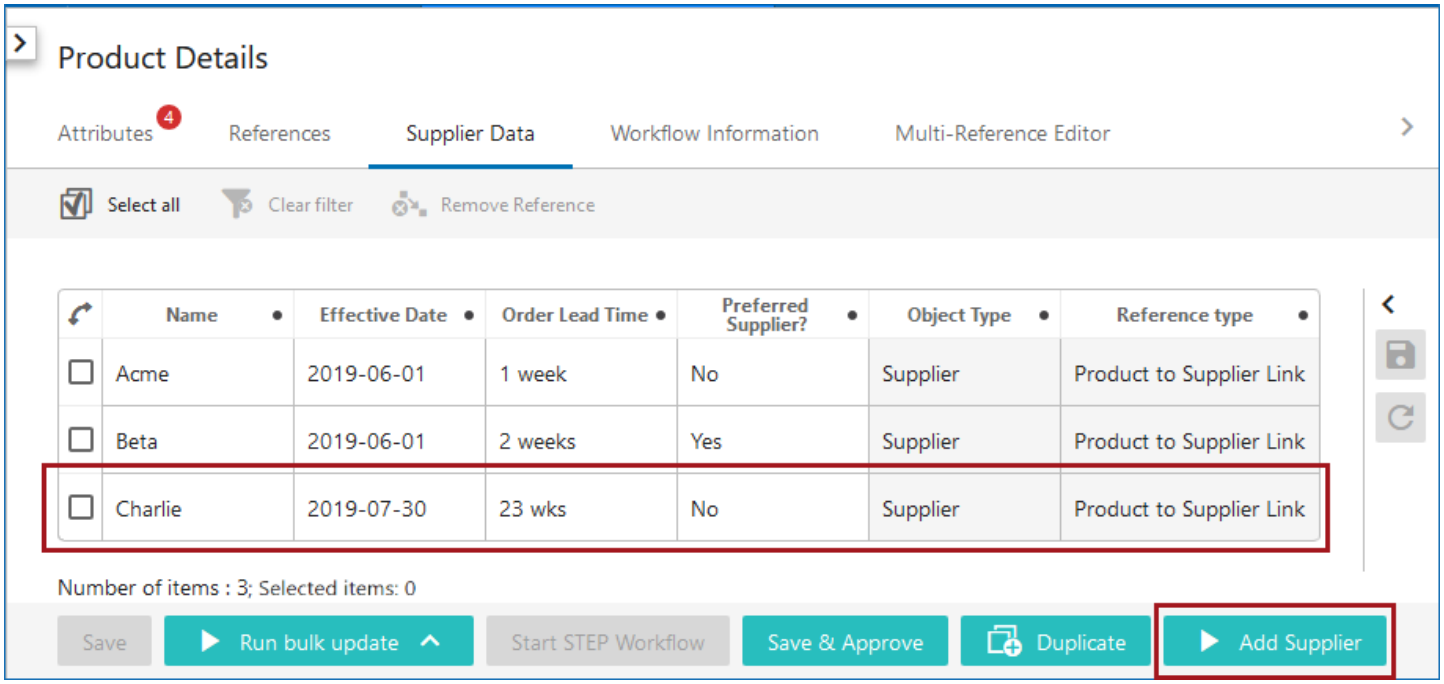


- The 'Effective Date' field displays a date picker when the user clicks in the field. For this field, the date of July 30, 2019 is selected.



- When all desired metadata values are entered, the user clicks 'OK'.

By viewing references in the 'Supplier Data' tab (configured in step four), users can confirm the reference added using the **Run Business Action** component has been created and populated with the metadata added in the user-input window.


Product Details
Attributes 4
References
Supplier Data
Workflow Information
Multi-Reference Editor
Select all
Clear filter
Remove Reference
Name
Effective Date
Order Lead Time
Preferred Supplier?
Object Type
Reference type
Acme
2019-06-01
1 week
No
Supplier
Product to Supplier Link
Beta
2019-06-01
2 weeks
Yes
Supplier
Product to Supplier Link
Charlie
2019-07-30
23 wks
No
Supplier
Product to Supplier Link
Number of items : 3; Selected items: 0
Save
Run bulk update
Start STEP Workflow
Save & Approve
Duplicate
Add Supplier

Multi Context Edit Component

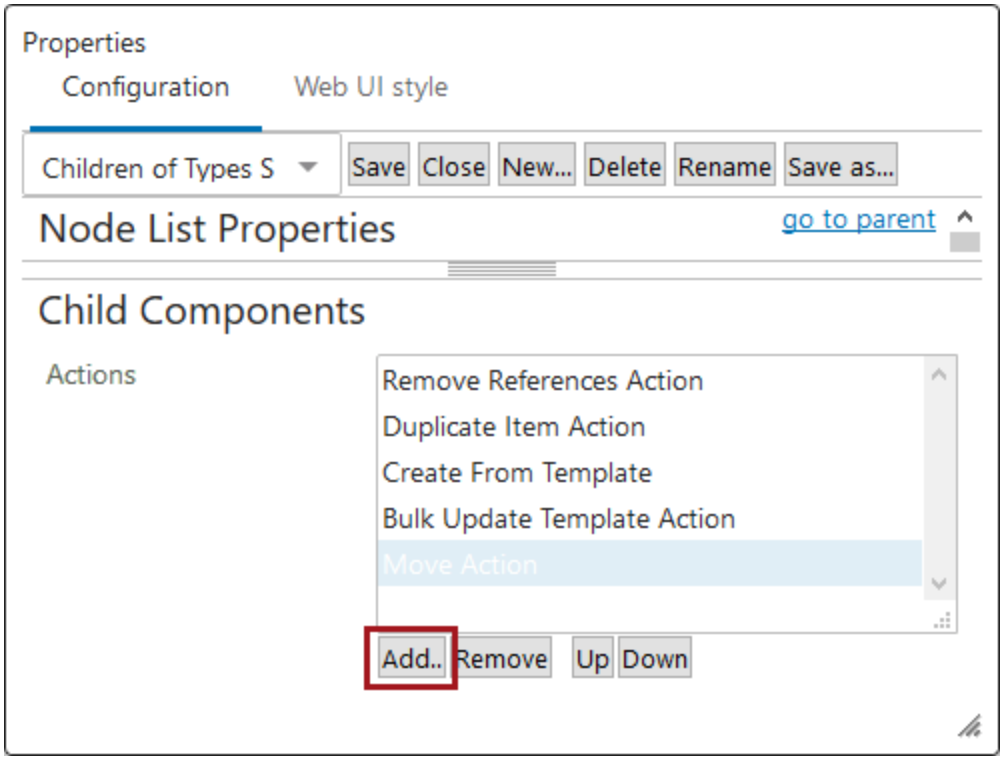
The Multi Context Edit component enables users to view information about one or more products in multiple contexts in a single, editable view. This component is available as a toolbar action for Node Lists, and only applies to objects of the product super type.

Note: The Multi Context Edit component is only available to users that have the 'multi-context-edit' component installed on their system. For more information, contact your Stibo Systems account manager or partner manager.

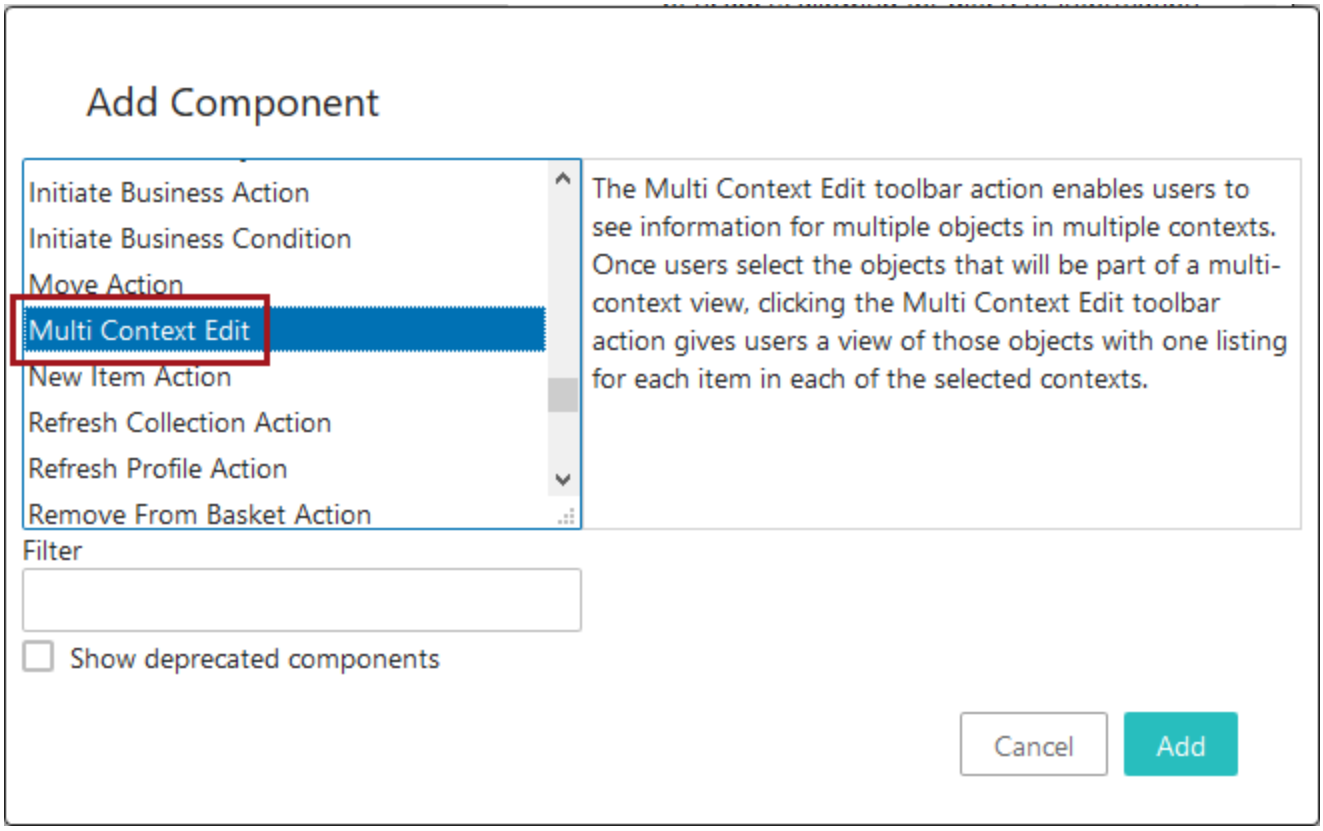
Configuring the Multi Context Edit Component

Follow the steps described below to add and configure the Multi Context Edit component as a toolbar action on a Node List.

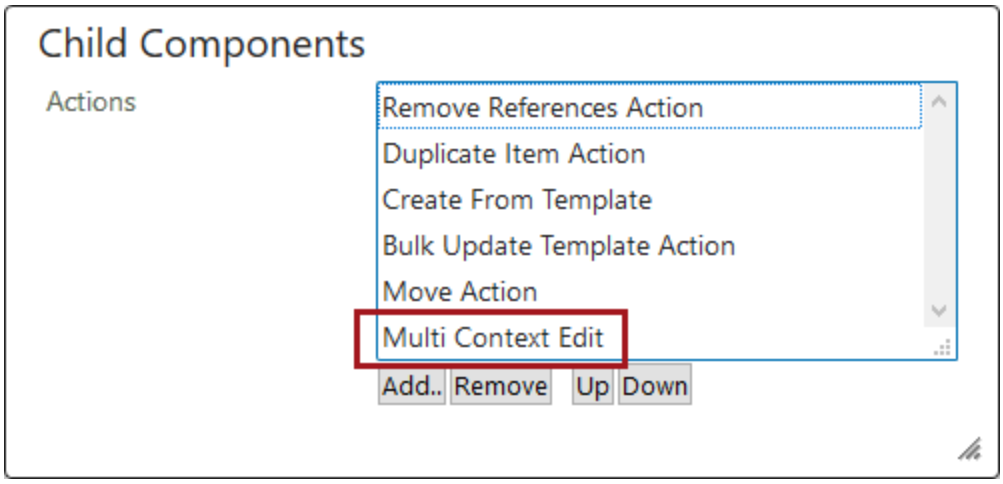
1. First, add the component. Under 'Child Components' on the 'Node List Properties' screen in the designer, click the 'Add' button under the field for 'Actions'.



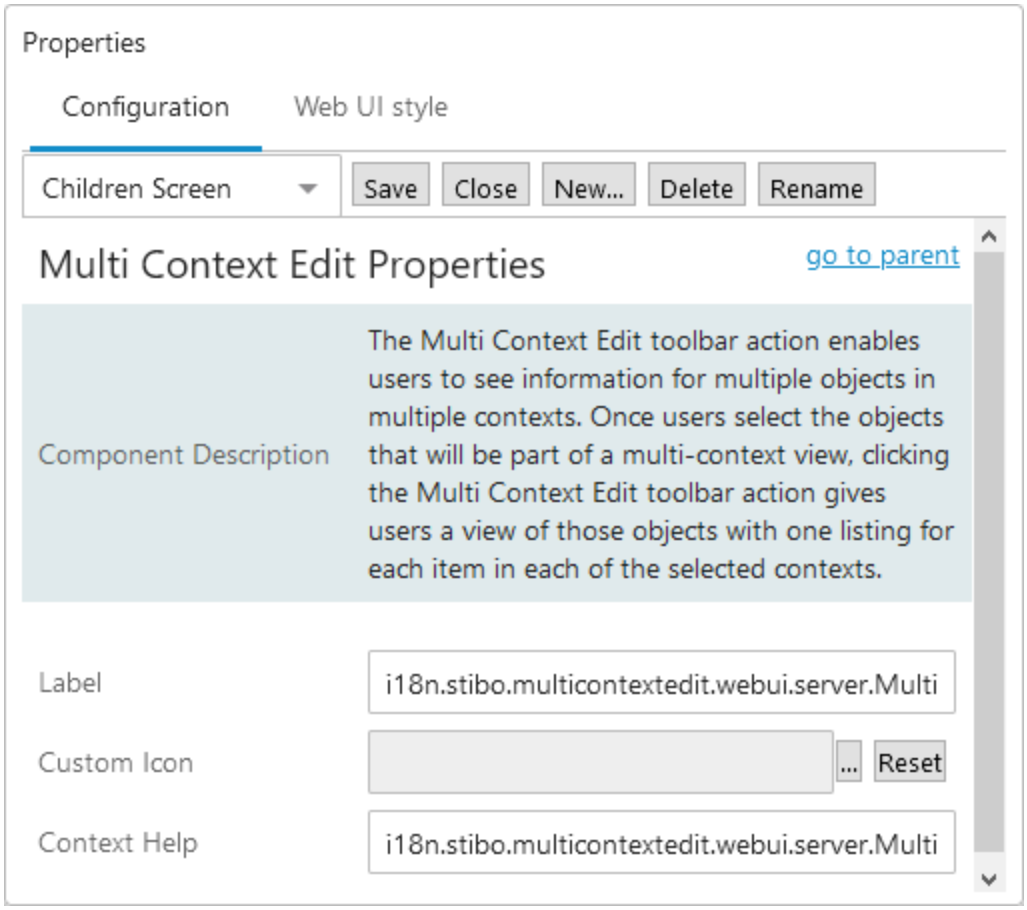
2. Then select 'Multi Context Edit' from the component list. Click 'Add'.



3. Once added to the list of actions for the Node List, double-click the Multi Context Edit component to configure.



4. The configuration of the Multi Context Edit component is limited, allowing users to customize the button label, icon, and help text.



To make changes to the default button label or context help, add the custom text to the relevant fields. If nothing is added, the 'Label' default will display as 'Multi Context Editor' and the 'Context Help' default will display as 'Click to enter Multi Context Edit Mode'.

This is how the button will display at the top of the Node Editor screen:

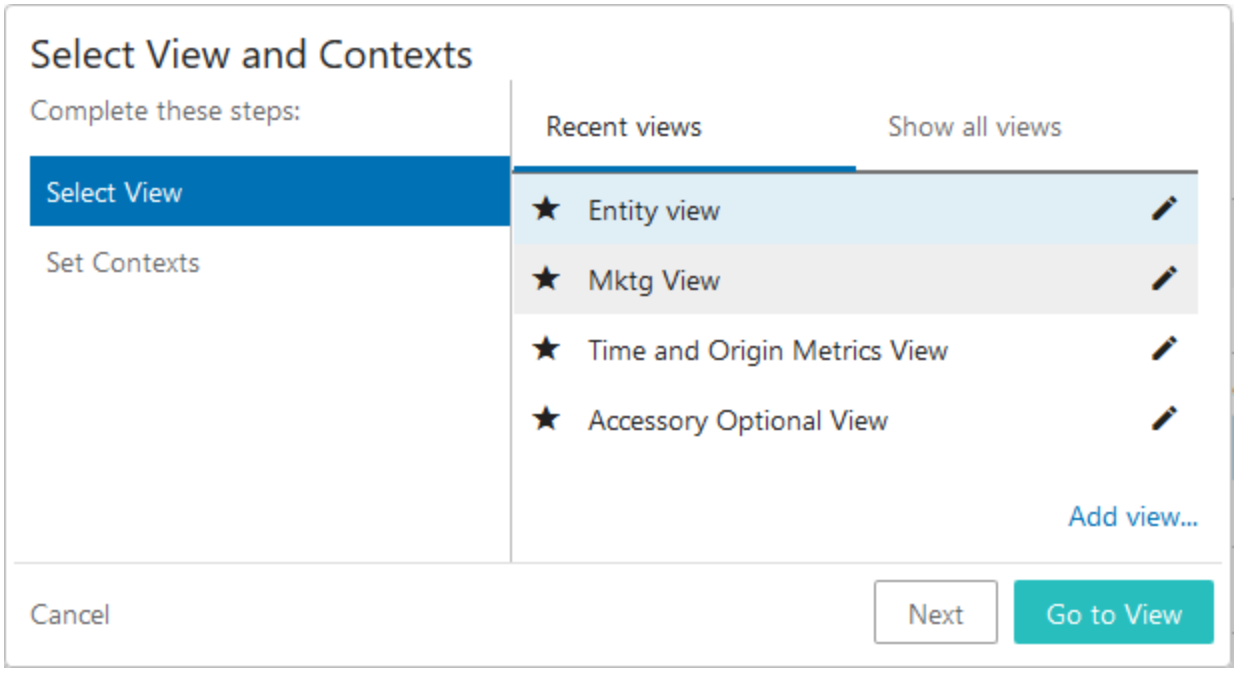


To make adjustments to the button icon, users may select a new icon. For more information on selecting new toolbar action icons, refer to the **Action Button Configuration on a Node List** topic in the **Web User Interfaces** documentation.

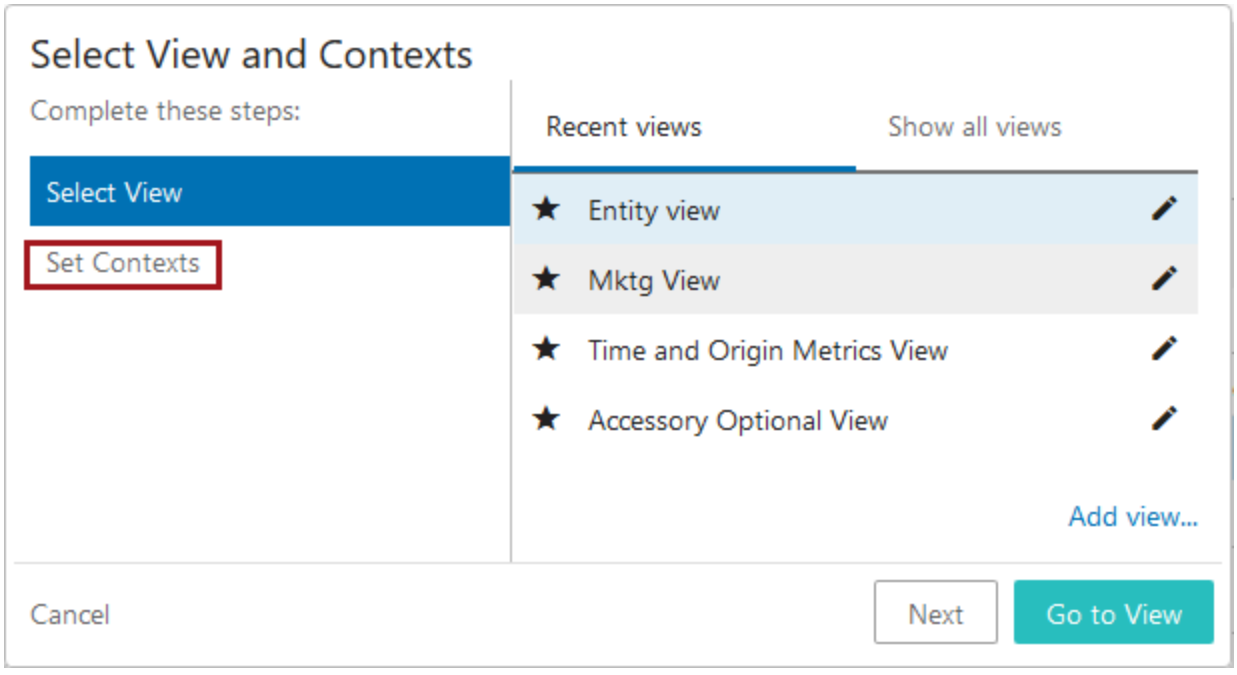
Configuring the Multi Context Edit view

The Multi Context Edit button will not display until one or more products have been chosen from the Node List. When clicked, a view-configuration window displays. In this window, users decide which headers and which contexts will display.

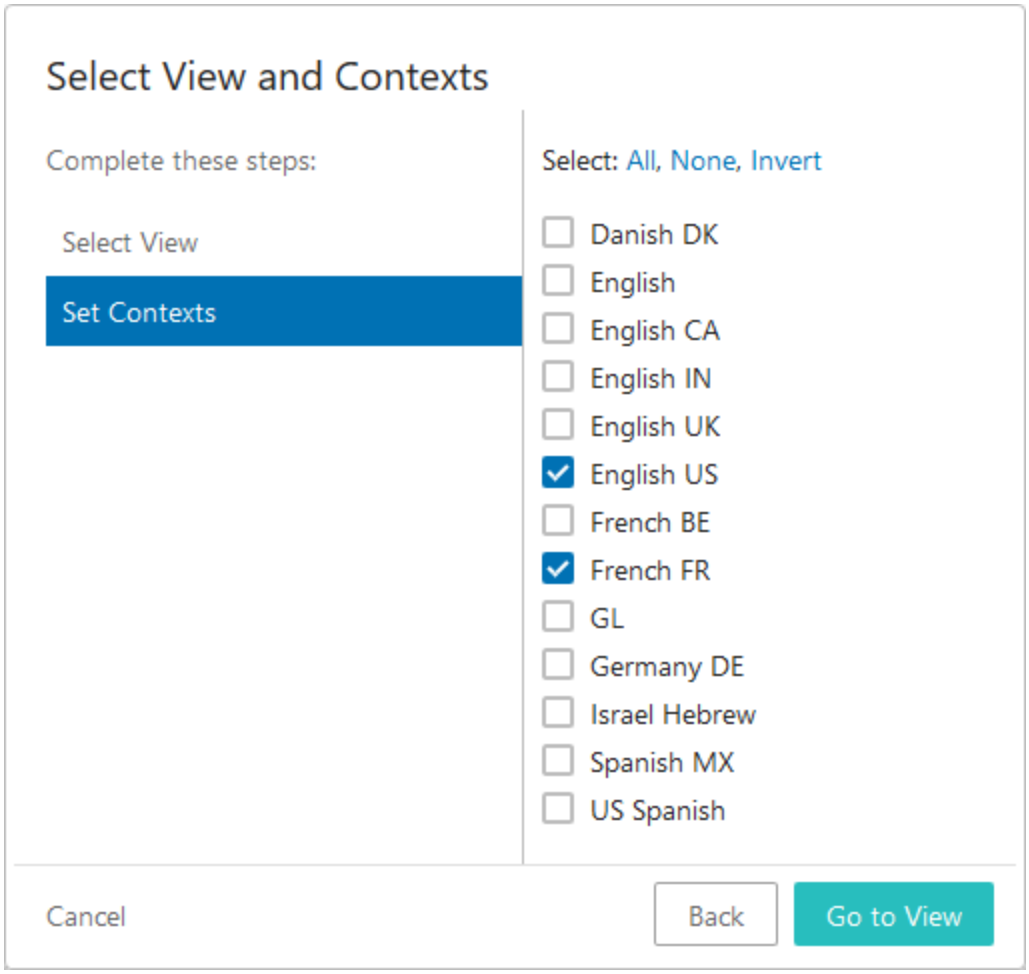
Follow the steps below to design the view that will display for the Multi Context Edit in the 'Select View and Contexts' screen.



1. Select the view. The view selection functionality in the Multi Context Edit component is similar to that of the user configurable view component, which is accessible on Multi Edit Display Modes. In addition to allowing users to create new views, the Multi Context Edit component allows users to add and edit shared views created in the user configurable view component. Information related to how to create new views or apply existing ones can be found in the **User Configurable Views** topic in the **Web User Interfaces** documentation.
2. Select contexts. To move into the context selector section of the view configuration, users may either click the 'Set Contexts' option, found on the left-hand side of the window, or the 'Next' button in the lower right-hand side of the window.



3. In the 'Set Contexts' section, all configured contexts for the system will display beside a checkbox.



When a check is placed beside a context, the view will display one listing in the table for each of the selected products in that checked context. For example, if two products were selected in the Node List, and two contexts were selected in this screen, four rows would display in the Multi Context Edit view, each product appearing once for each context.

Above the context list are three additional selection options: 'All', 'None', and 'Invert'. When a user clicks 'All', all contexts are selected. Clicking 'None' deselects all active selections. 'Invert' simultaneously deselects all selections and selects all unchecked boxes.

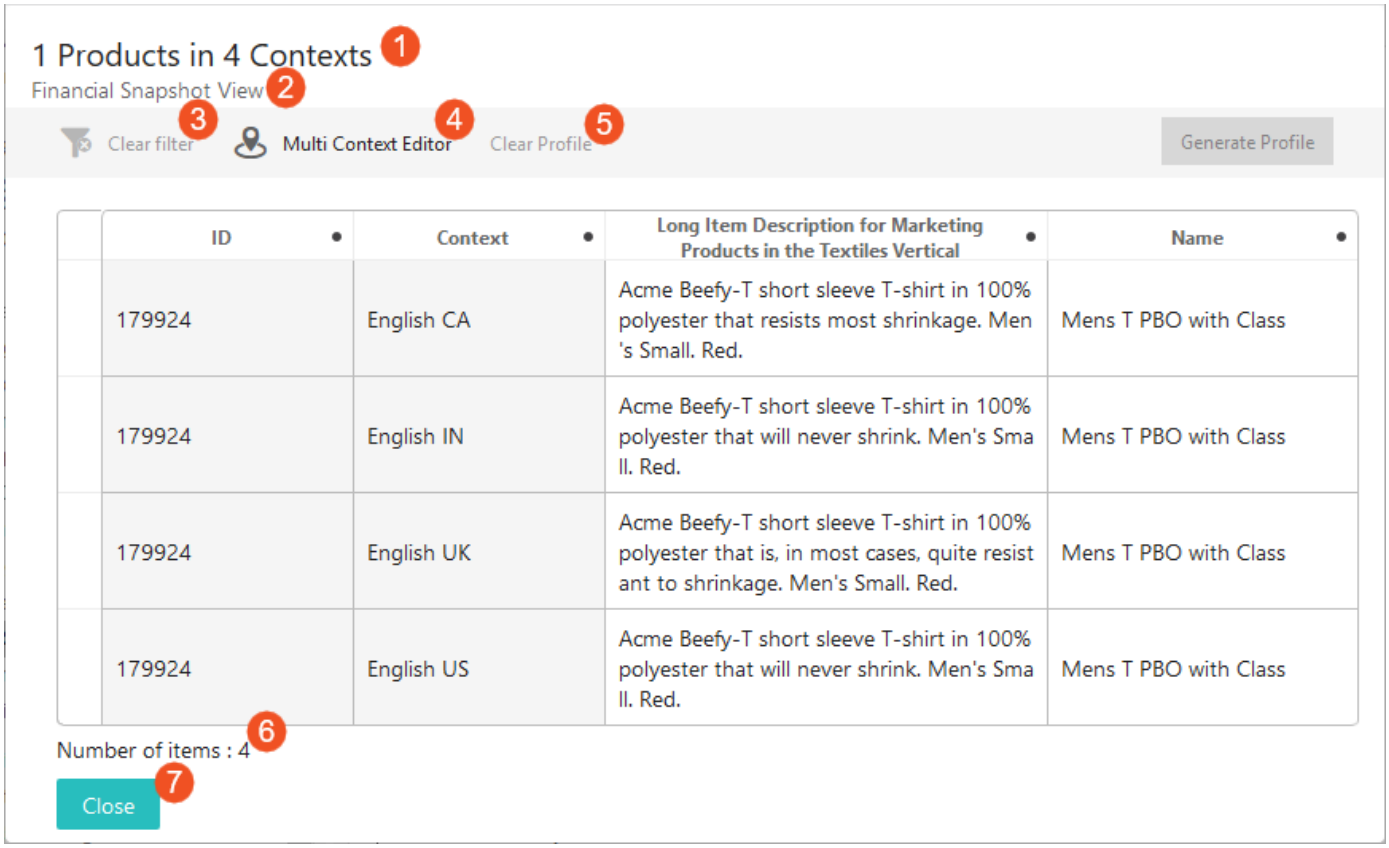
When the view is set as needed, click the 'Go to View' button to enter the Multi Context Edit view.

By default, the last view and context combination used will already be applied when entering the 'Select View and Contexts' window. It is important to note that the 'Go to View' button will not be activated until a view and at least one context has been selected.

Using Multi Context Edit

The view generated by the Multi Context Edit component is a full-screen overlay superimposed over the Node List. The Node List cannot be edited while the overlay is active. In the screenshot below, a single item has been selected for four language contexts, 'English CA' (Canada), 'English IN' (India), 'English UK(Great Britain), and 'English US' (United States).

In the screenshot below, numbers have been added beside the various elements contained in the Multi Context Edit component. Each numbered item in the list below corresponds to the numbered element in the screenshot.



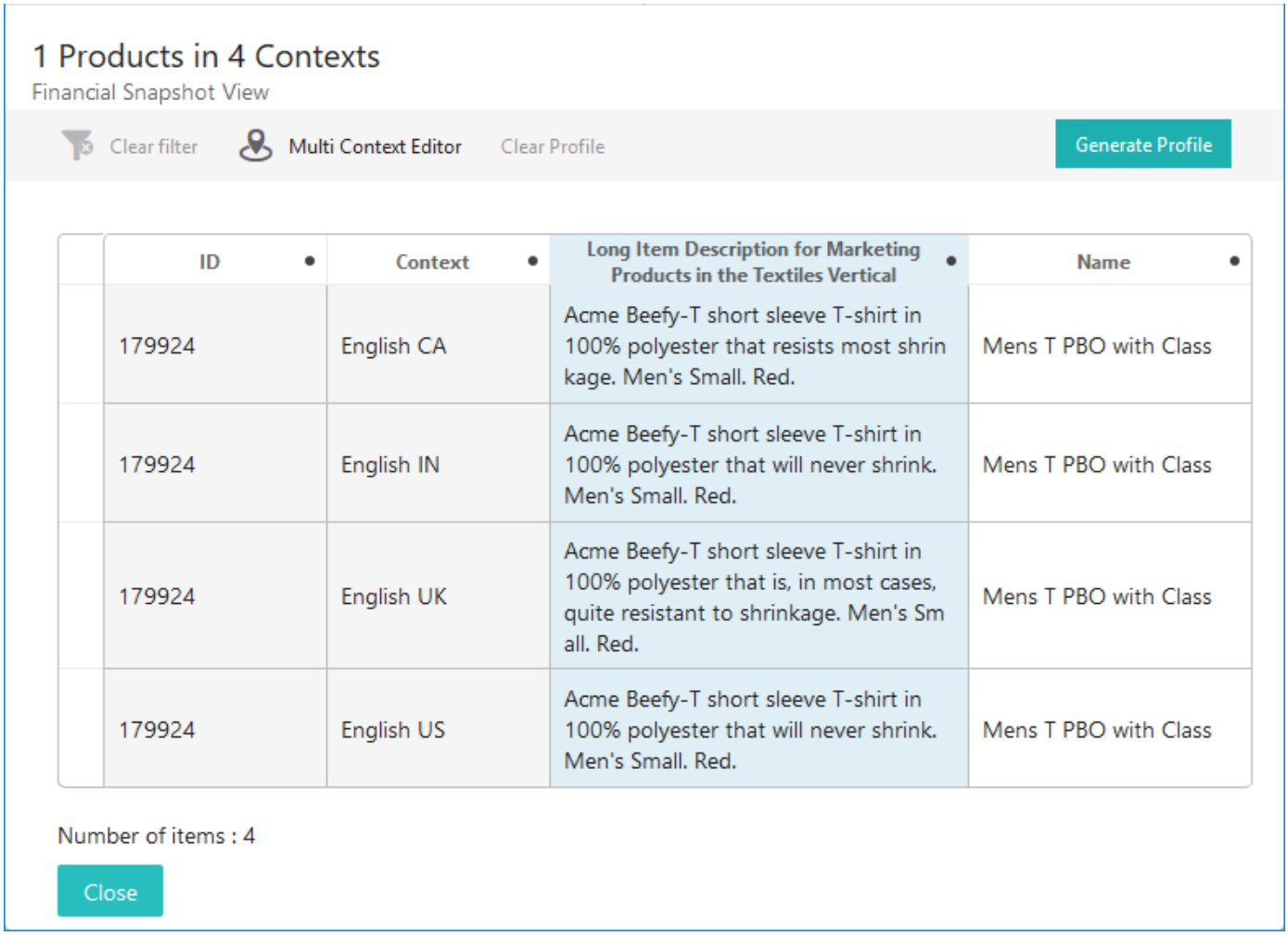
1. **Multi Context Edit display readout** - Describes how many products have been selected for display as well as the number of contexts.
2. **View name** - Displays the name of the selected view.
3. **Clear filter** - Any filtering applied to any of the columns will be cleared when clicking this button.
4. **Multi Context Edit button** - Returns the user to the view configurator without fully exiting the Multi Context Edit view mode.
5. **Clear Profile** - If a profile has been run on any of the columns in this view, clicking this button clears the shading the profile applies that differentiates between cell content that is local for the context and which is not. The button name also changes from 'Show Profile' to 'Generate Profile'.
6. **Number of items** - Lists the total number of rows included in the view.
7. **Close** - Clicking the 'Close' button closes the Multi Edit Context view and returns the user to the Node List.

Data profiling using Multi Context Edit

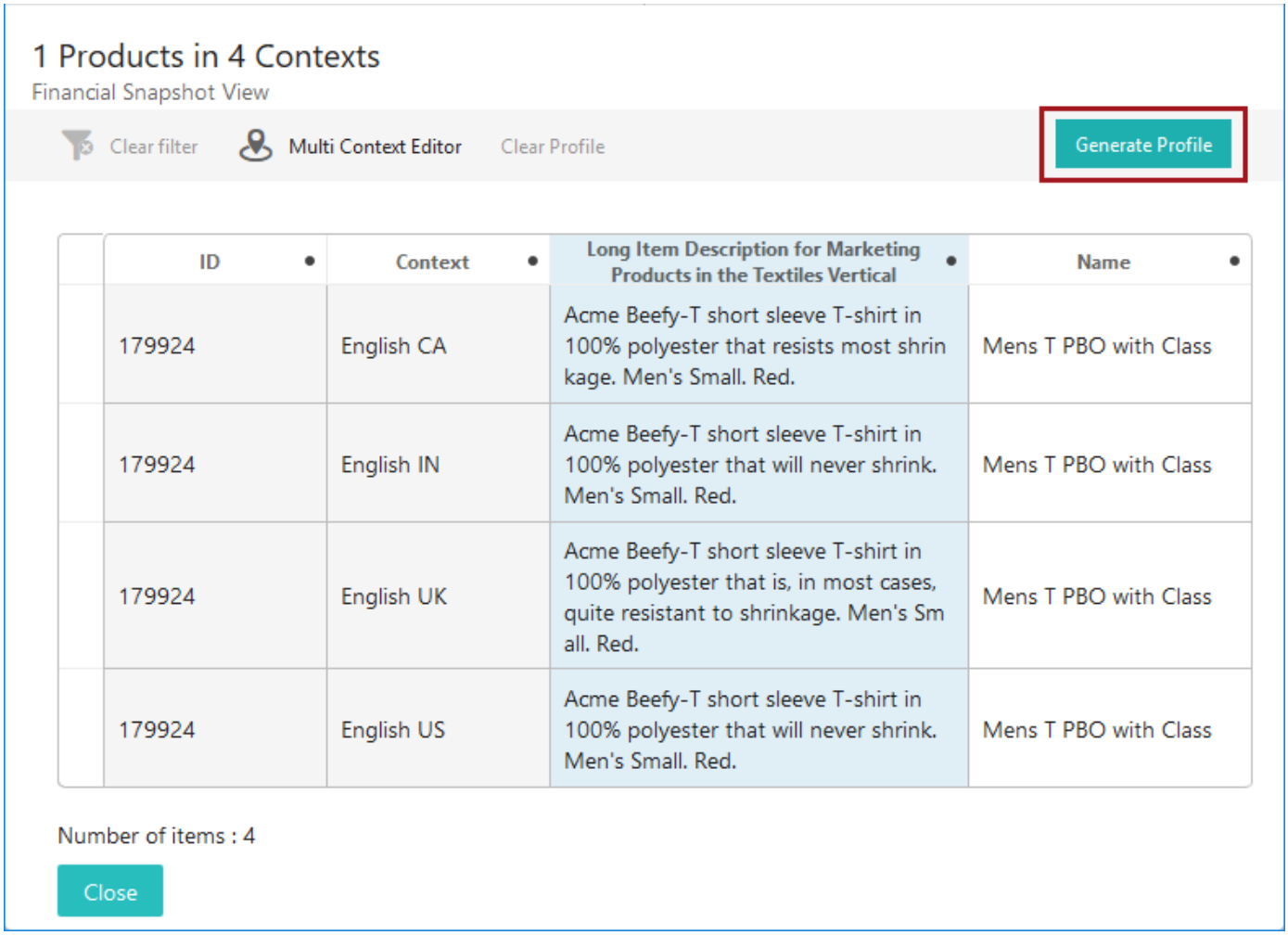
The central feature of the Multi Context Edit view is the ability to create a data profile on the displayed data. Follow the steps described below to generate a data profile on the data collected in a Multi Context Edit view.

1. Select the attribute columns that will be included in the data profile. It is important to note that only attribute columns will work with the data profiling feature. If aspects (like 'ID', 'Name', or 'Object Type') or references are selected, for example, these columns will be ignored in the data profile.

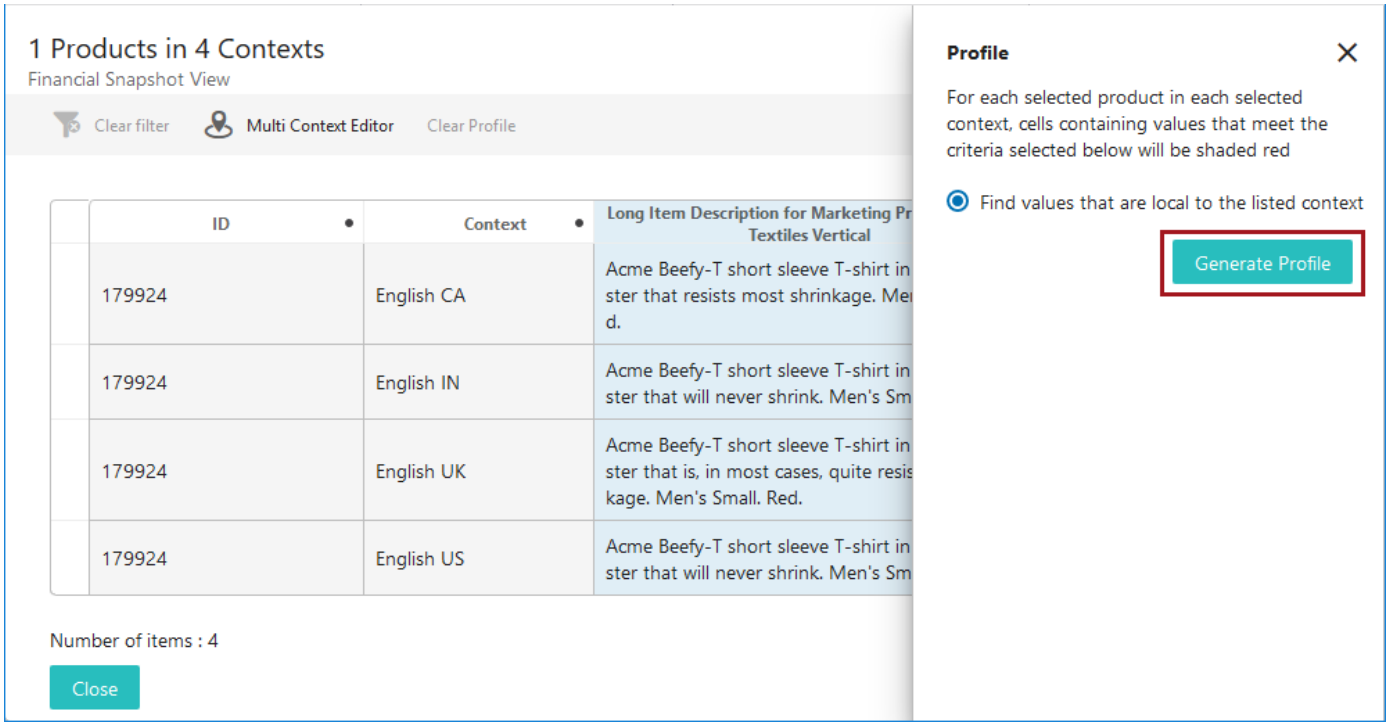
   To select a column, click the column header. The column will be shaded blue when selected. In this example, the column 'Long Item Description for Products in the Textiles Vertical' has been selected.



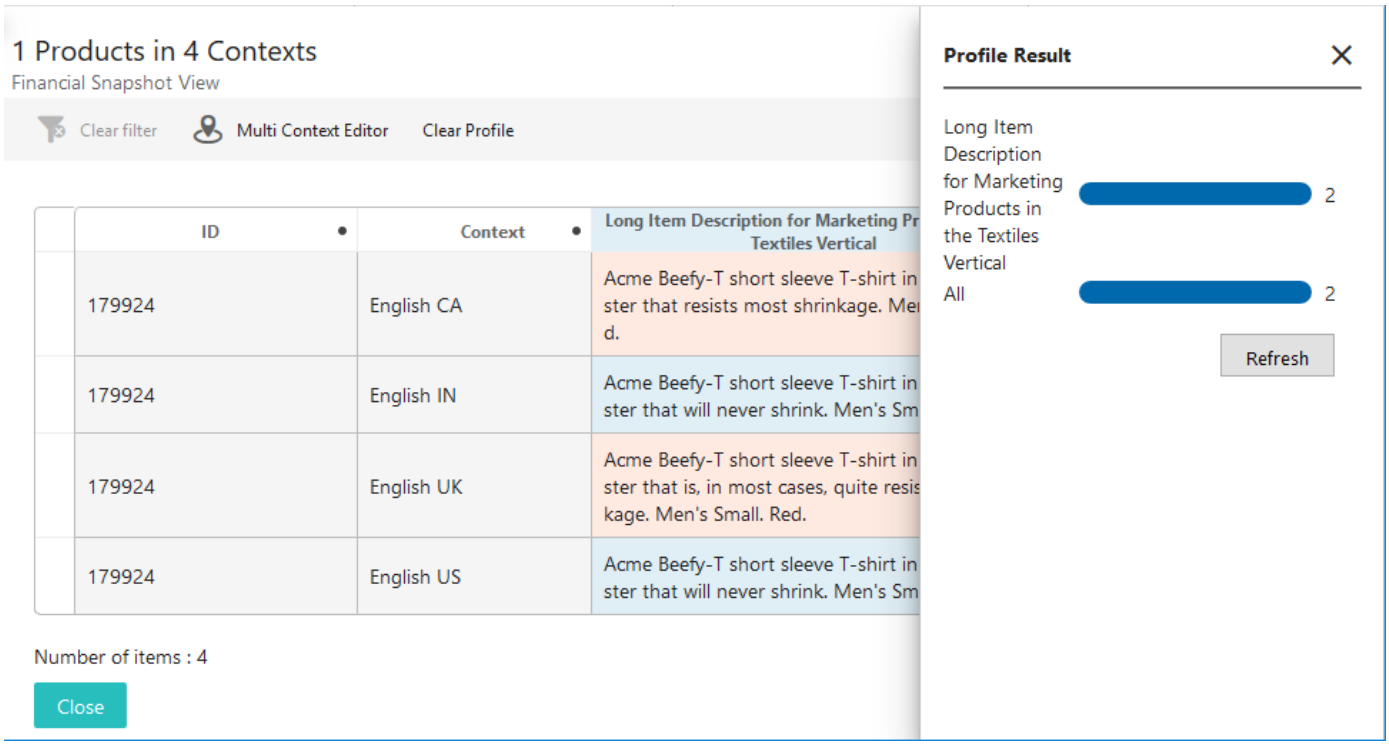
2. Click the 'Generate Profile' button in the upper left hand corner of the screen.



3. Select the data profile criteria that should be applied to the selected columns. The available option is 'Find values that are local to the listed context'. When the radio button for that option is clicked, click the 'Generate Profile' button.



4. A Profile Result panel displays the results of the data profile. The screenshot below shows the column that was profiled with the product's attributes that are local for the listed context shaded red, those that are not local to the context remaining blue-shaded.



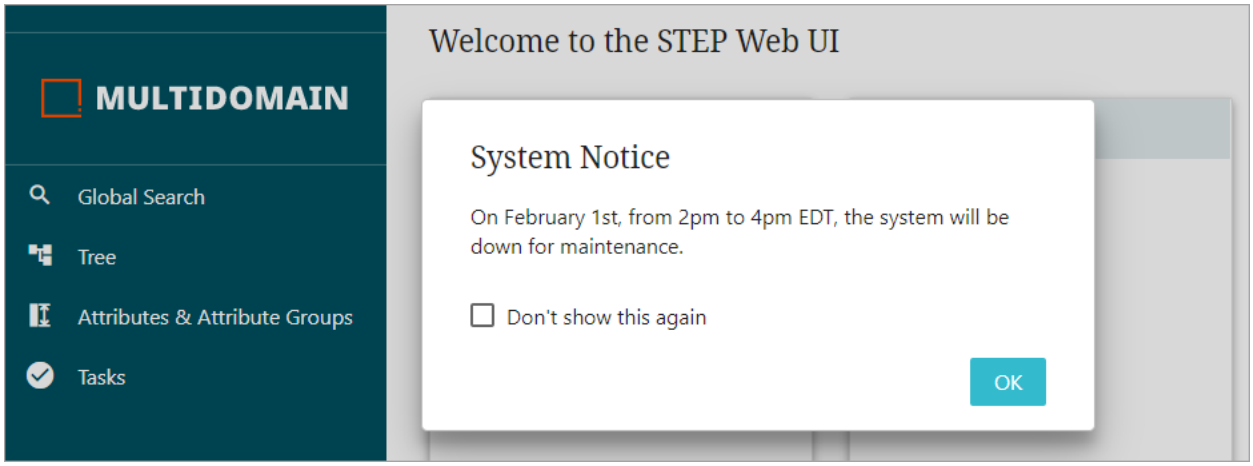
The 'Profile Result' includes the name of the attribute column that was profiled with the number of contexts that met the criteria, in this case, which attributes were local to the context. Below the attribute is an 'All' metric that shows the number of all cell content for all selected columns that met the criteria. The 'Refresh' button allows users to re-run the same data profile action if the user believes additional changes were made since the last data profile was generated.

It should be noted that selecting a large number of objects coupled with a large number of contexts can create performance issues when rendering. The system gives admins the ability to display a warning when the number of nodes selected exceeds a configured maximum by adding the property MultiContextEdit.RecommendedMaximumNumberOfNodes=1000 in the sharedconfig.properties file. This property directs the system to display a warning message to the user if more than 1,000 nodes (a combination of objects and contexts) are set to display in the Multi Context Edit component. The '=1000' is the maximum that aligns with Stibo Systems' recommended practices, but can be set higher or lower, depending on customer requirements.

Adding Announcements

STEP enables users to add announcement messages to the screens after the user successfully logs in to their Web UIs. For instance, if an administrator wants to inform all Web UI users that the system will be down for maintenance, the administrator can create a message, either plain text or HTML, that will appear on that Web UI's screen.

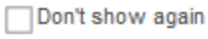
Below is a sample plain text announcement message to demonstrate the look / location of the announcement:



Plain text messages are automatically styled by the announcement feature, but HTML files can be styled based on the preferences of the announcement message's designer, such as font, font size, and color.

If the message is longer than the allowed announcement box, a scroll bar will display beside the announcement message allowing users to scroll through the entirety of the message.

One additional feature of the announcement component is a 'Don't show again' checkbox that appears in the lower left-hand corner of all announcement messages.



Users who have read the announcement message appearing on their Web UI login page can check this box, ensuring the message does not appear on their login screen again, at least in its current form. If the announcement is amended in any way, the announcement message displays again on the Web UI users' screens, and they can again check the 'Don't show again' checkbox.

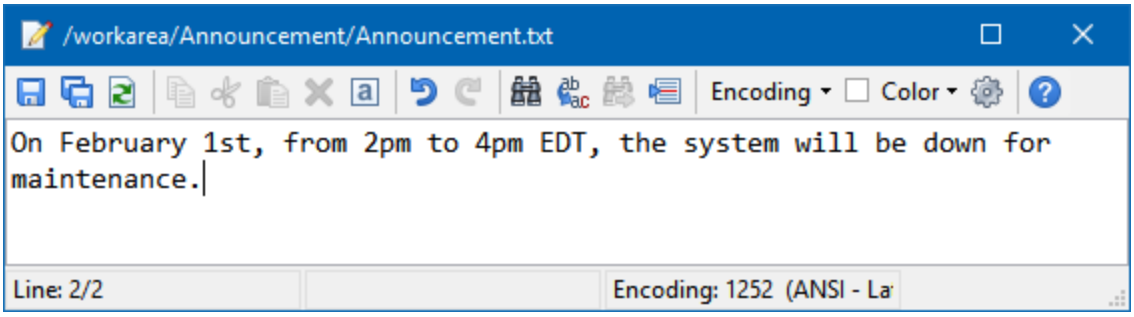
Announcement messages can be added to as many Web UIs as are configured on a given STEP system. This gives the administrators the ability to be targeted in their messaging to users. For instance, administrators can post one message to a Web UI used by suppliers and a different message to a Web UI used by marketers.

Configure the Announcement Feature

The announcement message file can be added to a Web UI's login page by adding properties to the sharedconfig.properties file located on the application server.

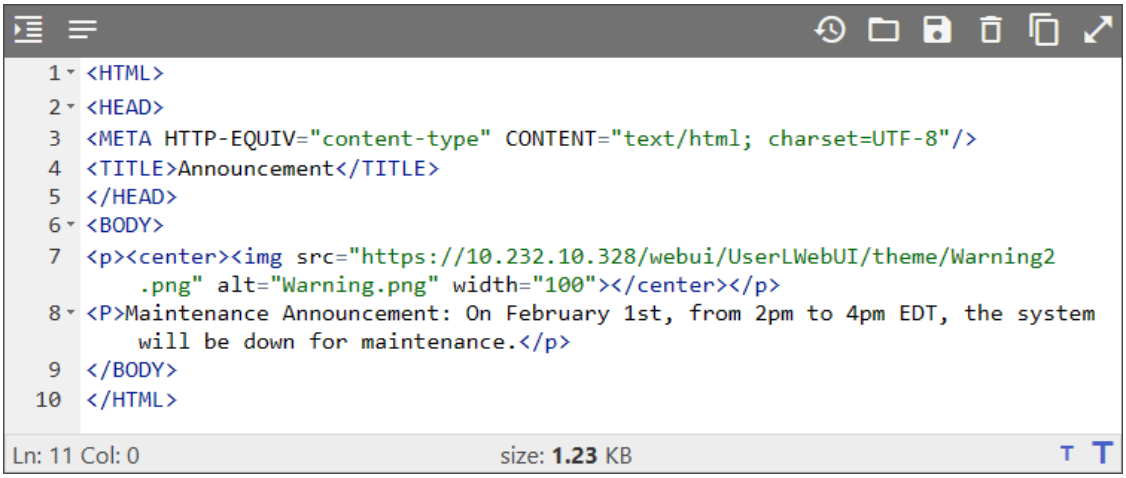
1. Create an announcement message file using one of these methods:

- For TXT files (which cannot be customized), enter a simple plain text message in the file as shown in this example:



- For HTML files (which allow for a more designed message and can include styling and images), provide valid HTML code as shown in the image below:

Important: To use images in your messaging, contact your Stibo Systems representative to activate the necessary license for each system using an announcement with an image. Customers should use caution and be aware that the option of customizing the layout of Web UI through a custom CSS file, overriding the existing classes, is not supported. Customizations could cause issues for customers with each feature release and/or patch update.



- For HTML files that include an image:
  - Save the image to a location on the application server.
  - Include the image elements as needed in the HTML.

  For example, the asset displayed on the sample announcement above, and the image string text (on line 7 beginning with <img src=) is defined in the following list:

  - **https://10.323.10.328/webui/UserLWebUI/theme** is the IP address of the application server where the announcement is configured.

- **Warning2.png** (following the IP address) is the name of the asset / image used for the announcement.
- **alt=** is the asset name value that will show if the physical asset from the IP address is not available.
- **width=** (and/or **height=** which is not shown above) determines the overall size of the asset / image displayed in the announcement.

2. Add your TXT or HTML announcement file to the application server and note the location. If the file does not transfer over to the application server with the extension of TXT or HTML, add it manually.

> **Note:** When creating multiple announcements for a series of Web UIs, recommended practice is to create a folder structure strictly for announcements.

3. On the application server in the sharedconfig.properties file, add the following case-sensitive properties for each Web UI displaying an announcement, regardless of the announcement file type (TXT or HTML):

- `WebUI.Announcement.Folder=[path]` - replace *[path]* with the location of the announcement message on the application server.
- `WebUI.Announcement.ID.[Web UI ID]=[filename]` - replace *[Web UI ID]* with the ID of the Web UI that will display the message, and replace *[filename]* with the name of the announcement file.

> **Note:** Recommended practice is to locate the relevant Web UI in the System Setup tab, copy the Web UI STEP ID exactly as it appears in STEP, and then paste it into the property.

In the following TXT announcement example, it indicates that the Supplier Web UI will display the Announcement.txt which has been saved to the /workarea/Announcement folder on the application server.

```
WebUI.Announcement.Folder=/workarea/Announcement
WebUI.Announcement.ID.SUPPLIER_WEB_UI=Announcement.txt
```

In this HTML announcement example, the Customer Web UI will display the Announcement.html which has been saved to the /workarea/Announcement folder on the application server.

```
WebUI.Announcement.Folder=/workarea/Announcement
WebUI.Announcement.ID.CUSTOMER_WEB_UI=Announcement.html
```

> **Important:** Each Web UI that will display a message must have both properties added to the sharedconfig.properties file, even when the same message is used. In the below screenshot, for example, three Web UIs that display the same announcement, so six entries are required in the sharedconfig.properties file.

```
WebUI.Announcement.Folder=/workarea/Announcement
WebUI.Announcement.ID.MARKETING_WEB_UI=Announcement.txt

WebUI.Announcement.Folder=/workarea/Announcement
WebUI.Announcement.ID.SUPPLIER_WEB_UI=Announcement.txt

WebUI.Announcement.Folder=/workarea/Announcement
WebUI.Announcement.ID.CUSTOMER_WEB_UI=Announcement.txt
```

4. For an HTML announcement file that includes an asset / image, the following additional configuration is required:
   - **Refer to step 1 for information on licensing / support involved in using images in the announcements.**
   - On the application server, add the following required case-sensitive property `Portal.Theme.Root=[path]` - replace *[path]* with the location of the announcement image on the application server.

     In this HTML announcement example, the image to be displayed in the Announcement.html has been saved to the /workarea/Announcement1 folder on the application server.

     ```
     Portal.Theme.Root=/workarea/Announcement1
     ```

5. Save the modified sharedconfig.properties file and execute a stop / start of the STEP system. Allow a few minutes for the announcement message to appear on the designated Web UI.

> **Note:** Once the announcement message is displaying on the Web UI login page, changes saved to the announcement file itself will display on the Web UI instantaneously.

Address Typeahead

In the Web UI, users who work with address data can use the Address Typeahead functionality to add and update reliable address data by integrating with Loqate, Google Places, or another address search service. Starting to type an address in the Address Typeahead field displays suggestions of matches found by the configured address search service. Choosing an option from the suggestion list automatically populates all address attributes under the Address Typeahead search field with an address validated by the external service.

Setup includes a Global Representation, and once configured, Address Typeahead is available for selected address attributes on entity objects that are included in the Web UI via Node Details screen components.

Note: Address Typeahead is available on systems with the activated Address Validation Service commercial license. Contact your account manager or partner manager to begin the process of enabling licenses for your system.

Stibo Systems is a reseller of the Loqate solution, commercially licensing the Loqate software along with its reference data. For information on obtaining and deployment of the three variations of the Loqate address standardization service, contact your Stibo Systems account manager or partner manager. Additional support information and deployment instructions can be found on the Loqate website. Users must have a Loqate account already set up to access the additional support section on the Loqate website.

Search the web for information on address search services, for example:

- Loqate - https://www.loqate.com/en-us/address-verification/address-capture/

  Customers can receive an API key with a free trial account. Contact your Stibo Systems account manager or partner manager to purchase a Loqate license through Stibo Systems.

  For information on using Loqate with STEP, refer to the Loqate Integration topic in the Data Integration documentation.

- Google Places - https://developers.google.com/maps/documentation/places/web-service/search-find-place

Important: All functionality is documented in this section, however, the functionality available in your Web UI depends on your address search service. For example, Google Places does not offer the drill-down feature that is available with Loqate. Review the API documentation provided by your address search service to determine the data available for display in your Web UI.

Review the following topics to understand the configuration, usage, and troubleshooting:

- Understanding Address Typeahead
- Understanding JSON Paths in Address Typeahead
- Workbench Initial Setup for Address Typeahead

- Workbench Configure Address Typeahead
- Web UI Configure and Use Address Typeahead

Understanding Address Typeahead

Though the Address Typeahead functionality is accessed in the Web UI, configuration begins in the workbench.

This topic provides an overview of the configuration process and the integration pattern between STEP and the address search service.

Overall Configuration Process

The following steps are recommended to correctly configure the Address Typeahead functionality:

1. Complete the steps defined in the **Workbench Initial Setup for Address Typeahead** topic:
   - Create a REST gateway integration endpoint (GIEP) for the address search service.
   - **Test the GIEP** for expected results.
   - Enable the step.0.log logging.
   - Configure the Address Component Model.
   - Configure the Address Typeahead Value Type 'Basic Object Type' with desired parents.
   - Create an instance of the Address Typeahead setup object.
2. Complete the steps defined in the **Workbench Configure Address Typeahead** topic:
   - Review the **Understanding JSON Paths in Address Typeahead** topic for information on supplying the required JSON Paths in the configuration.
   - Add initial attempts on the configuration parameters or edit the default settings provided by a file import.
3. Complete the steps defined in the **Web UI Configure and Use Address Typeahead** topic:
   - Configure the Web UI to display the address typeahead search field.
4. **Test the suggestion functionality** as follows:

> **Note:** Consider the following when testing suggestion functionality:
>
> - When the Address Typeahead configuration unexpectedly results in responses from the address search service without suggestions, use the debug logging features in an effort to identify the problem. If you cannot resolve the problem by modifying the request URL, for Loqate, create an issue in the customer support portal for Stibo Systems support, which triggers interaction with the Loqate support process. For other address search providers, contact the provider directly for assistance.
> - When a request returns an HTTP error code, the exact URL is written on the Gateway integration endpoint (GIEP) setup entity in workbench. To review the error, on the System Setup tab, display the GIEP editor, and click the Error Log tab.

- Type text into the Web UI address search field.
- Review errors in the step.0.log for the suggestion functionality.
- Correct issues in the Address Typeahead setup entity configuration.
- Repeat until all suggestion issues are resolved.

5. **Test the selection functionality** as follows:
   - Type text into the Web UI address search field and choose an option.
   - Review errors in the step.0.log for the selection functionality.
   - Correct issues in the Address Typeahead setup entity configuration.
   - Repeat until all selection issues are resolved.
6. **Test the error handling functionality** as follows:
   - Modify the configuration to provoke an error in the Web UI; for example, use an invalid license key in the workbench configuration.
   - Type text into the Web UI address search field.
   - Review errors in the step.0.log for the error handling functionality.
   - Correct issues in the Address Typeahead setup entity configuration.
   - Repeat until all error handling issues are resolved.
7. Disable the step.0.log logging, as defined in the **Workbench Initial Setup for Address Typeahead** topic.

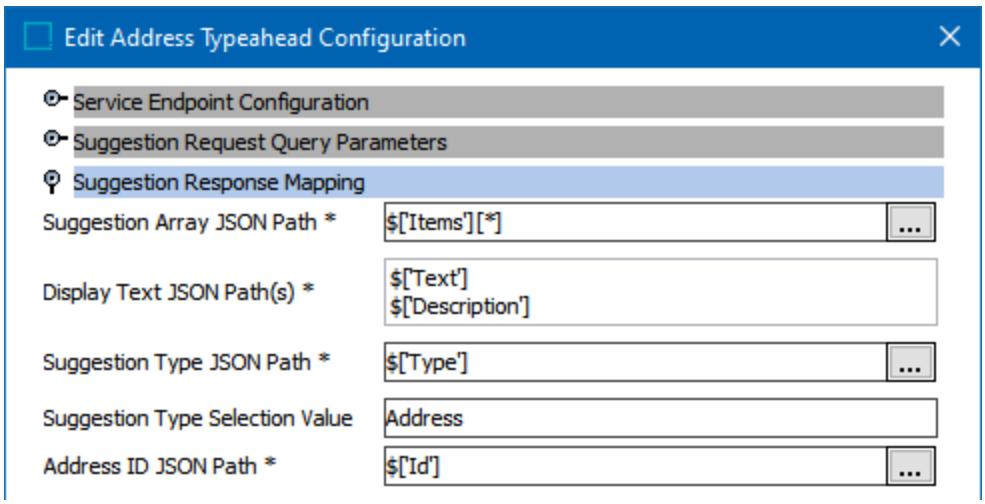
Integration Pattern

When configured, the following describes how STEP integrates with an address search service.

1. In the Web UI, the user inputs search text.
2. A suggestion request is made to the address search service.
3. In the Web UI, suggestion responses are presented to the user.
4. In the Web UI, the user selects from the suggestions.
5. The selection details are requested from the address search service.
6. The selection response is mapped to attributes via the Address Component Model.
7. In the Web UI, selection details are updated on attributes displayed. The user must manually save the data if required.

Understanding JSON Paths in Address Typeahead

The Address Typeahead functionality includes configuration in the workbench that uses JSON Path syntax, which is described in the **JSON Path Structure** section below.



For the Suggestion Response Mapping flipper, configuration uses two-level mapping to handle the array that contains nested Suggestion Response records and the individual fields within the array. This mapping is described in the **Two-Level Mapping Functionality** section below.

The complete workbench configuration is described in the **Workbench Configure Address Typeahead** topic.

JSON Path Structure

JSON Paths are used to query the JSON response document for both address typeahead suggestion and selection responses. While in the address typeahead configuration editor, the user adds JSON Paths for fields in the Suggestion Response Mapping flipper, the Selection Response Mapping JSON Paths flipper, and the Error Handling flipper.

The JSON Path query language is similar to XPath for XML. JSON Paths indicate the path to a specific element in the JSON response which is extracted and displays in the Address Typeahead for the Web UI.

You can mix two types of JSON Path notation when expressing a path for address typeahead:

- Dot notation - $.Items.*
- Bracket notation - $['Items'][*]

Although the bracket notation is used in the address typeahead configuration editor examples, both notations produce the same results.

A JSON Path uses operators to create an expression for the path to a JSON document element.

For example, within an Address Typeahead configuration, the following operators (among others) can be used to extract data from the JSON selection response document.

Operator	Description
`$`	Represents the root node of a JSON structure, whether it is an object or an array.
`@`	Represents the current node being processed. Typically, this is used as part of input expressions for predicates. In row 2 in the table below, suppose that the current node includes the types of countries array and the required data is the short name from the current node.
`*`	Wildcard; expresses all elements within the specified scope. For instance, `Items[*]` indicates all nodes inside a parent `Items` array.
`['property']`	Selects the specified property in a parent object.
`[n]`	Selects the `n`th element from an array. Indexes are 0-based.
`[?(expression)]`	Filter expression, selects all elements in an object or array that match the specified filter. Returns a list.
`!`	Negates inside a filter.
`||`	Logical OR; used to combine multiple filter expressions.
`&&`	Logical AND; used to combine multiple filter expressions.
`in`	Checks if the left-side value is present in the right-side list. Similar to the SQL 'IN' operator. String comparison is case-sensitive.

An example of combining these operators for one of the JSON paths in the typeahead configuration is:

```
[?('locality' in @.types || (!'locality' in @.types && 'postal_town' in @.types))]
```

This example results in returning items that either have locality in types or they do not have locality but have postal town values.

Examples of JSON Path and Results

The **Google Places** suggestion and selection queries included below run for the specified URLs.

The following table includes a description of the data extracted from the URL, the JSON Path, and the results.

No	Data Extracted	JSON Path	Result
1	The array of predictions. In this example, there are 5	`$['predictions'][*]`	All array elements under the Predictions
2	The Latitude (line 40 in selection response)	`$['result']['geometry']['location']['lat']`	56.10813
3	The ISO code (line 22 from selection response)	`$['result']['address_components'][?('country' in @.types)]['short_name']`	["DK"]
4	The City (line 13 from selection response)	`$['result']['address_components'][?('locality' in @.types || (!'locality' in @.types && 'postal_ town' in @.types))]['long_name']`	["Højbjerg"]

Suggestion Request URL

https://maps.googleapis.com/maps/api/place/autocomplete/json?input=axel&types=address&language=en&sessiontoken=a1552fc1-03d6-4eb8-a405-e230596f245f&key=[hidden API Key in use]


```
{
"predictions": [
{
"description": "Axel-Springer-Straße, Berlin, Germany",
"matched_substrings": [
{
"length": 4,
"offset": 0
}
    ],
    "place_id":
"EiZBeGVsLVNwcmluZ2VyLVN0cmHDn2UsIEJlcmxpbiwgR2VybWFueSIuKiwKFAoSCdU8j9HXUahHEakSx1FDHkw1EhQKEgkBWQM_N06oRxFwO15bRiAhBA",
    "reference":
```

```
    "EiZBeGVsLVNwcmluZ2VyLVN0cmHDn2UsIEJlcmxpbiwgR2VybWFueSIuKiwKFAoSCdU8j9HXUahHEakSx1FDHkw1EhQKEgkBWQM_N06oRxFwO15bRiAhBA",
        "structured_formatting": {
        "main_text": "Axel-Springer-Straße",
        "main_text_matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
        ],
        "secondary_text": "Berlin, Germany"
        },
        "terms": [
        {
        "offset": 0,
        "value": "Axel-Springer-Straße"
        },
        {
        "offset": 22,
        "value": "Berlin"
        },
```

```
        {
        "offset": 30,
        "value": "Germany"
        }
        ],
        "types": [
        "route",
        "geocode"
        ]
        },
        {
        "description": "Axeltorv, Copenhagen Municipality, Denmark",
        "matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
        ],
        "place_id":
    "EipBeGVsdG9ydiwgQ29wZW5oYWdlbiBNdW5pY2lwYWxpdHksIERlbm1hcmsiLiosChQKEgmBtxjNDVNSRhEW0gaMWQTS0xIUChIJiflw5SJTUkYRQk2g-SoIpbQ",
        "reference":
```

```
    "EipBeGVsdG9ydiwgQ29wZW5oYWdlbiBNdW5pY2lwYWxpdHksIERlbm1hcmsiLiosChQKEgmBtxjNDVNSRhEW0gaMWQTS0xIUChIJiflw5SJTUkYRQk2g-SoIpbQ",
        "structured_formatting": {
        "main_text": "Axeltorv",
        "main_text_matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
        ],
        "secondary_text": "Copenhagen Municipality, Denmark"
        },
        "terms": [
        {
        "offset": 0,
        "value": "Axeltorv"
        },
        {
        "offset": 10,
        "value": "Copenhagen Municipality"
        },
```

```
        {
        "offset": 35,
        "value": "Denmark"
        }
        ],
        "types": [
        "route",
        "geocode"
        ]
        },
        {
        "description": "Axel Dahlströms torg, Gothenburg, Sweden",
        "matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
        ],
        "place_id":
    "EilBeGVsIERhaGxzdHLDtm1zIHRvcmcsIEdvdGhlbmJ1cmcsIFN3ZWRlbiIuKiwKFAoSCd82W4nY8k9GEZ0tttpBe
    MWmEhQKEglN7hrAYmJFRhE89fwlwqmKxQ",
        "reference":
```

```
    "EilBeGVsIERhaGxzdHLDtm1zIHRvcmcsIEdvdGhlbmJ1cmcsIFN3ZWRlbiIuKiwKFAoSCd82W4nY8k9GEZ0tttpBeMWmEhQKEglN7hrAYmJFRhE89fwlwqmKxQ",
        "structured_formatting": {
        "main_text": "Axel Dahlströms torg",
        "main_text_matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
        ],
        "secondary_text": "Gothenburg, Sweden"
        },
        "terms": [
        {
        "offset": 0,
        "value": "Axel Dahlströms torg"
        },
        {
```

```
        "offset": 22,
        "value": "Gothenburg"
        },
        {
        "offset": 34,
        "value": "Sweden"
        }
        ],
        "types": [
        "route",
        "geocode"
        ]
        },
        {
```

```
0
1
2         "description": "Axel-Springer-Platz, Hamburg, Germany",
1
1
2         "matched_substrings": [
2
1
2         {
3
1
2         "length": 4,
4
1
2         "offset": 0
5
1
2         }
6
1
2         ],
7
1         "place_id":
2     "EiVBeGVsLVNwcmluZ2VyLVBsYXR6LCBIYW1idXJnLCBHZXJtYW55Ii4qLAoUChIJYSiZoRCPsUcRFsBQT-6D-
8     IgSFAoSCbkTGH6DYbFHEaA61nvyPSYE",
1         "reference":
2     "EiVBeGVsLVNwcmluZ2VyLVBsYXR6LCBIYW1idXJnLCBHZXJtYW55Ii4qLAoUChIJYSiZoRCPsUcRFsBQT-6D-
9     IgSFAoSCbkTGH6DYbFHEaA61nvyPSYE",
1
3         "structured_formatting": {
0
1
3         "main_text": "Axel-Springer-Platz",
1
1
3         "main_text_matched_substrings": [
2
1
3         {
3
1         "length": 4,
```

```
        "offset": 0

        }

        ],

        "secondary_text": "Hamburg, Germany"

        },

        "terms": [

        {

        "offset": 0,

        "value": "Axel-Springer-Platz"

        },

        {

        "offset": 21,

        "value": "Hamburg"
```

```
        },
        {
        "offset": 30,
        "value": "Germany"
        }
        ],
        "types": [
        "route",
        "geocode"
        ]
        },
        {
        "description": "Axel Kiers Vej, Højbjerg, Denmark",
        "matched_substrings": [
```

```
        {
        "length": 4,
        "offset": 0
        }
        ],
        "place_id": "EiJBeGVsIEtpZXJzIFZlaiwgSMO4amJqZXJnLCBEZW5tYXJrIi4qLAoUChIJSYk_
    2y9ATEYR0fNhoFR6Dq8SFAoSCWE6wmVeQExGEVHw4kPhFeHp",
        "reference": "EiJBeGVsIEtpZXJzIFZlaiwgSMO4amJqZXJnLCBEZW5tYXJrIi4qLAoUChIJSYk_
    2y9ATEYR0fNhoFR6Dq8SFAoSCWE6wmVeQExGEVHw4kPhFeHp",
        "structured_formatting": {
        "main_text": "Axel Kiers Vej",
        "main_text_matched_substrings": [
        {
        "length": 4,
        "offset": 0
        }
```

```
        ],
        "secondary_text": "Højbjerg, Denmark"
        },
        "terms": [
        {
        "offset": 0,
        "value": "Axel Kiers Vej"
        },
        {
        "offset": 16,
        "value": "Højbjerg"
        },
        {
```

```
        "offset": 26,
        "value": "Denmark"
        }
        ],
        "types": [
        "route",
        "geocode"
        ]
        }
        ],
        "status": "OK"
        }
```


After selecting the 'Axel Kiers Vej, 8270 Højbjerg, Denmark' suggestion (with ID: place_id=EiJBeGVsIEtpZXJzIFZlaiwgSMO4amJqZXJnLCBEZW5tYXJrIi4qLAoUChIJSYk_2y9ATEYR0fNhoFR6Dq8SFAoSCWE6wmVeQExGEVHw4kPhFeHp) from the **Suggestion Request URL** above, the **Selection Request URL** below produces the following **JSON Path Response**.

Selection Request URL

https://maps.googleapis.com/maps/api/place/details/json?types=address&language=en&sessiontoken=9f08e2d7-6df3-437b-b009-d7fa699b0dea&place_id=EiJBeGVsIEtpZXJzIFZlaiwgSMO4amJqZXJnLCBEZW5tYXJrIi4qLAoUChIJSYk_2y9ATEYR0fNhoFR6Dq8SFAoSCWE6wmVeQExGEVHw4kPhFeHp&key=[hidden API Key in use]

JSON Path Response


```
{
"html_attributions": [],
"result": {
"address_components": [
{
"long_name": "Axel Kiers Vej",
"short_name": "Axel Kiers Vej",
"types": [
"route"
    ]
    },
    {
    "long_name": "Højbjerg",
    "short_name": "Højbjerg",
    "types": [
    "locality",
    "political"
    ]
    },
    {
    "long_name": "Denmark",
```

```
        "short_name": "DK",
        "types": [
        "country",
        "political"
        ]
        },
        {
        "long_name": "8270",
        "short_name": "8270",
        "types": [
        "postal_code"
        ]
        }
        ],
        "adr_address": "<span class=\"street-address\">Axel Kiers Vej</span>, <span class=\"postal-
    code\">8270</span> <span class=\"locality\">Højbjerg</span>, <span class=\"country-
    name\">Denmark</span>",
        "formatted_address": "Axel Kiers Vej, 8270 Højbjerg, Denmark",
        "geometry": {
        "location": {
        "lat": 56.10813,
```

```
        "lng": 10.162714

        },

        "viewport": {

        "northeast": {

        "lat": 56.10947898029151,

        "lng": 10.1640629802915

        },

        "southwest": {

        "lat": 56.10678101970851,

        "lng": 10.1613650197085

        }

        }

        },

        "icon": "https://maps.gstatic.com/mapfiles/place_api/icons/v1/png_71/geocode-71.png",

        "icon_background_color": "#7B9EB0",

        "icon_mask_base_uri": "https://maps.gstatic.com/mapfiles/place_api/icons/v2/generic_
    pinlet",

        "name": "Axel Kiers Vej",

        "place_id": "EidBeGVsIEtpZXJzIFZlaiwgODI3MCBIw7hqYmplcmcsIERlbm1hcmsiLiosChQKEglJiT_
    bL0BMRhHR82GgVHoOrxIUChIJYTrCZV5ATEYRUfDiQ-EV4ek",

        "reference": "EidBeGVsIEtpZXJzIFZlaiwgODI3MCBIw7hqYmplcmcsIERlbm1hcmsiLiosChQKEglJiT_
    bL0BMRhHR82GgVHoOrxIUChIJYTrCZV5ATEYRUfDiQ-EV4ek",

        "types": [
```

```
        "route"

        ],

        "url":
    "https://maps.google.com/?q=Axel+Kiers+Vej,+8270+H%C3%B8jbjerg,+Denmark&ftid=0x464c402fdb3f
    8949:0xaf0e7a54a061f3d1",

        "utc_offset": 120,

        "vicinity": "Højbjerg"

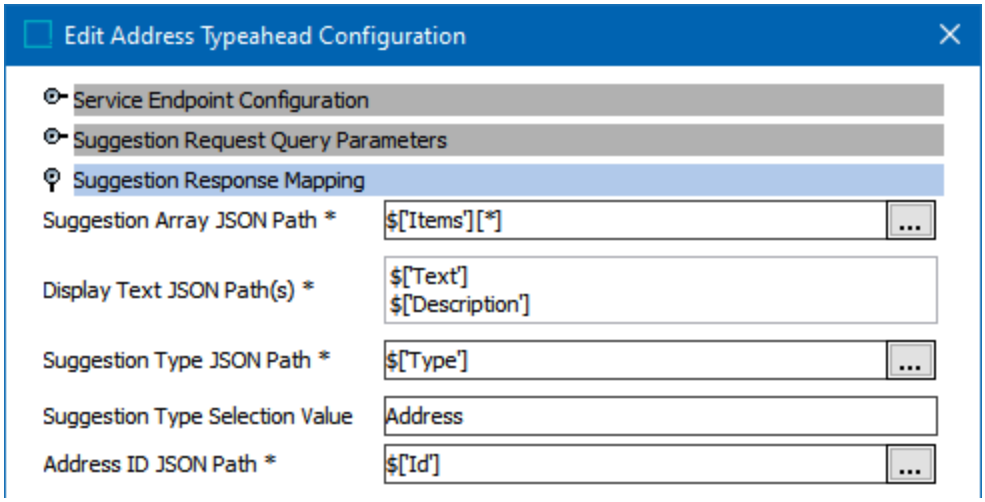
        },

        "status": "OK"

        }
```

Two-Level Mapping Functionality

Unlike the other configuration flippers, the Suggestion Response Mapping flipper uses two-level mapping to handle the array that contains nested Suggestion Response records and the individual fields within the array.



The first-level mapping includes the 'Suggestion Array JSON Path' query **$[‘Items’][*]**. This mapping creates a new JSON document behind the scenes which is used to extract all data and present transformed records in a human-readable format.

These parameters are used for the second-level mapping:

- The **Display Text JSON Path** parameter displays a typeahead suggestion.
- The **Suggestion Type JSON Path** and the **Suggestion Type Selection Value** parameters are required to display a typeahead suggestion if the value is an address or request further data if the value is a street.
- The **Address ID JSON Path** is required for the service to provide the full address after a suggestion is chosen.

When a suggestion response array includes a list of multiple values, indicating multiple suggestions, the configuration requires two (2) JSON Paths, one for the Text field and one for the Description field. This allows the Web UI to present the Display Text as Text and Description values, concatenated with ', ' (comma and a space). The comma separator cannot be manually changed.

Note: Google Places does not use multiple paths.

Example of Concatenation of Multiple Values

The following JSON suggestion response array for Loqate includes two (2) records:

```
{"Items":[{"Id":"DK|TT|B|12080001900753|6","Type":"Address","Text":"Elmevej
6","Highlight":"0-7,8-9","Description":"4863 Eskilstrup"},

{"Id":"DK|TT|B|12080000210081|6","Type":"Address","Text":"Elmevej 6","Highlight":"0-
7,8-9","Description":"4050 Skibby"}]}
```

For these records, two suggestions (display texts) are returned as shown below:

- Elmevej 6, 4863 Eskilstrup
- Elmevej 6, 4050 Skibby

Example of Two-Level Mapping

The following is a JSON response payload extracted from the first-level JSON Path from the suggestion endpoint which is a record of arrays containing three (3) nested records:

```
{"Items":[
  {
     "Id":"DK|TT|DAN|SYDDANMARK-RUDKUDKØBING—LØNKILDEVEJ",
     "Type":"Street",
     "Text":"Lønkildevej",
     "Highlight":"0-3",
     "Description":"5900 Rudkøbing - 41 Addresses"
  },
  {
     "Id":"DK|TT|DAN|SJÆLLAND-ROSKILDE--LØNBJERGPARKEN",
     "Type":"Street",
     "Highlight":"0-3",
```

```
    "Description":"4000 Roskilde - 33 Addresses"
  },
  {
    "Id":"DK|TT|DAN|SJÆLLAND-ROSKILDE--LØNBJERGTOFTEN",
    "Type":"Street",
    "Text":"Lønbjergtoften",
    "Highlight":"0-3",
    "Description":"4000 Roskilde - 10 Addresses"
  }
  ]}
```


To retrieve the necessary elements, the system creates a second-level JSON document (shown below) to extract the data. The system iteratively checks each record in the array in the JSON document to extract data to be transformed to ID, Display Text, and Type for each suggestion and displayed in the Web UI.

- Display Text JSON Path: **$['Text']**
- Suggestion Type JSON Path: **$['Type']**
- Address ID JSON Path: **$['Id']**


```
[
  {
    "Id":"DK|TT|DAN|SYDDANMARK-RUDK\\u00D8BING--L\\u00D8NKILDEVEJ",
    "Type":"Street",
    "Text":"L\\u00F8nkildevej",
    "Highlight":"0-3",
    "Description":"5900 Rudk\\u00F8bing - 41 Addresses"
  },
  {
    "Id":"DK|TT|DAN|SJ\\u00C6LLAND-ROSKILDE--L\\u00D8NBJERGPARKEN",
    "Type":"Street",
    "Highlight":"0-3",
    "Description":"4000 Roskilde - 33 Addresses"
  },
  {
    "Id":"DK|TT|DAN|SJ\\u00C6LLAND-ROSKILDE--L\\u00D8NBJERGTOFTEN",
    "Type":"Street",
    "Text":"L\\u00F8nbjergtoften",
    "Highlight":"0-3",
    "Description":"4000 Roskilde - 10 Addresses"
  }
  ]
```


The system applies the JSON paths to every record.

For the first record shown above, the transformed data is:

- Display Text (concatenation by comma / space of Text + Description): **Lønkildevej, 5900 Rudkøbing - 41 Addresses**
- Suggestion Type: **Street**
- Address ID: **DK|TT|DAN|SYDDANMARK-RUDKØBING—LØNKILDEVEJ**

For the second record shown above, the transformed data is:

- Display Text (concatenation by comma / space of Text + Description field): **No Display Text**
- Suggestion Type: **Street**
- Address ID: **DK|TT|DAN|SJÆLLAND-ROSKILDE--LØNBJERGPARKEN**

For the third record shown above, the transformed data is:

- Display Text (concatenation by comma / space of Text + Description field): **Lønbjergtoften, 4000 Roskilde - 10 Addresses**
- Suggestion Type: **Street**
- Address ID: **DK|TT|DAN|SJÆLLAND-ROSKILDE--LØNBJERGTOFTEN**

Note: When text is missing from the response, it results in an error message in the Web UI. This can happen with every property data field inside a record. For example, the second record above is missing a value for Display Text.

Workbench Initial Setup for Address Typeahead

Although the Address Typeahead functionality is used in the Web UI, configuration begins in the workbench.

The Address Typeahead configuration uses a Basic Object Type to define how the Web UI Address Typeahead functionality connects with the external address search service.

Follow the steps in each section below to complete the initial setup in workbench:

- Configure a Gateway Integration Endpoint
- Configure Error Reporting on the Log
- Configure the Address Component Model
- Configure Setup Entity
- Create an Address Typeahead Configuration Object

When the initial setup is complete, configure the Address Typeahead Configuration as defined in the **Workbench Configure Address Typeahead** topic.

Configure a Gateway Integration Endpoint

A REST Gateway Integration Endpoint (GIEP) is required to communicate with the address search service.

As defined in the **Configuring a Gateway Integration Endpoint - REST** topic in the **Data Exchange** documentation, configure a GIEP:

- Configure the **Server URL** parameter via the sharedconfig.properties file to add the URL for the API used by your address search service.
- Complete the other parameters as required.
- Enable the GIEP.

Configure Error Reporting on the Log

Admin users can enable additional entries in the step.0 log for troubleshooting issues with the Address Typeahead configuration. For more information on the step.0 log, refer to the **Logs** topic in the **Administration Portal** documentation.

Important: Although the URL is encoded by the REST gateway integration endpoint before it is used, the URL is not encoded when written in the step.0.log.

To enable the logging:

1. Determine the logging required. Logging can be enabled separately for suggestion and selection service endpoints:

- com.stibo.address.typeahead.logging.suggestionservice
- com.stibo.address.typeahead.logging.selectionservice

2. In the sharedconfig.properties file on the STEP application server, set the case-sensitive **Log.Level** property for the service endpoints to determine the level of detail included in the step.0 log. No logging is included by default.

   Logging output levels include:

   - FINE: Outputs request and response information.
   - FINER: Adds output for each JSON Path mapping.
   - SEVERE: Outputs the same as FINER, plus the exceptions encountered.

   For example:

   ```
   Log.Level.com.stibo.address.typeahead.logging.suggestionservice=FINER
   Log.Level.com.stibo.address.typeahead.logging.selectionservice=SEVERE
   ```

   In this example, for the suggestion service, the log is set to include output requests, response information, and JSON Path mapping. While the selection service will also log exception errors.

3. Restart the application server to apply the change.

Once troubleshooting is concluded, it is advised to remove the additional logging.

To disable the logging:

1. In the sharedconfig.properties file on the STEP application server, remove the **Log.Level** properties for the suggestion and selection services.
2. Restart the application server to apply the change.

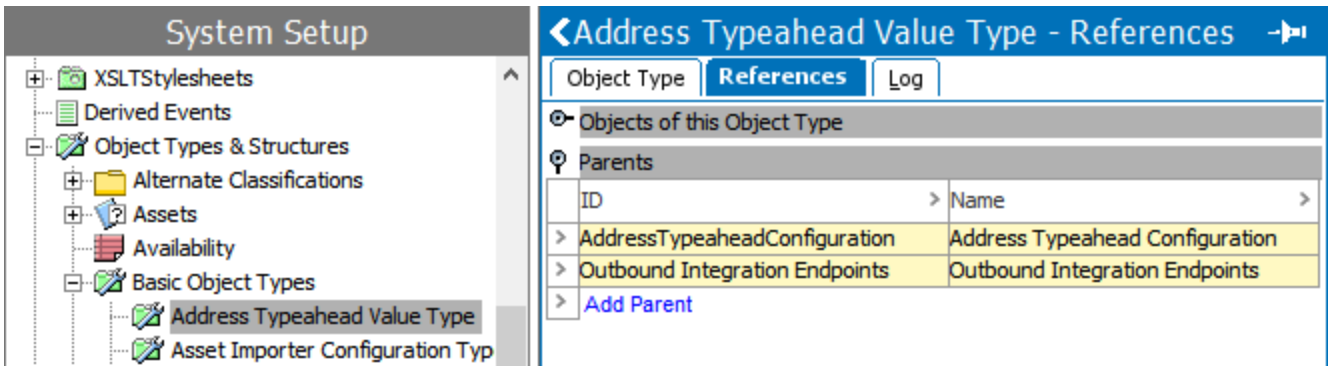
Configure the Address Component Model

Only attributes that are included as fields in the Address Component Model can use the Address Typeahead functionality. Although the parameters on the component model Description column include the 'Loqate' label, for Address Typeahead, these parameters are also used with Google Places and other address search services.

For details on configuring the component model, refer to the **Address Component Model** topic in the **Data Integration** documentation.

Configure Setup Entity

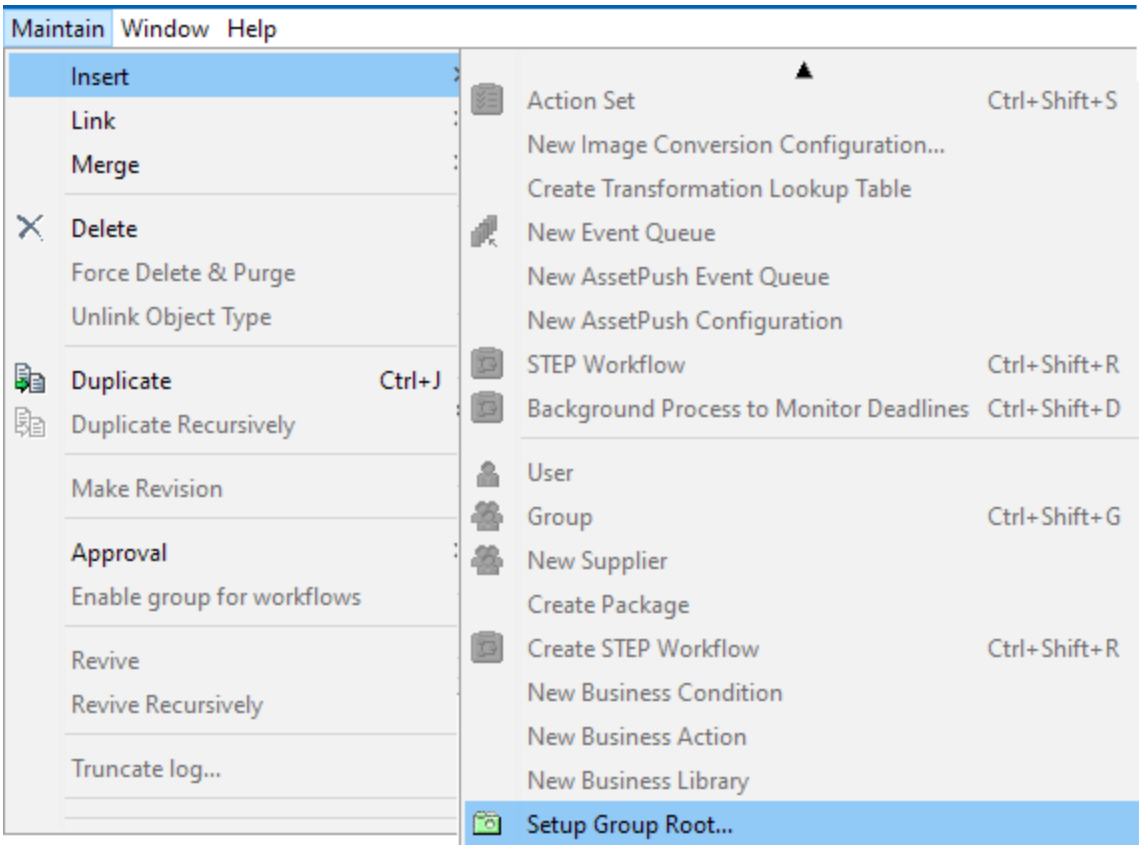
Review your System Setup tab to determine if the Address Typeahead Configuration is already valid for a setup group type. Validity is determined by the Parents references and indicates the setup group types that can hold an Address Typeahead Configuration. The name of the nodes on your system are not required to match the one in the image below.



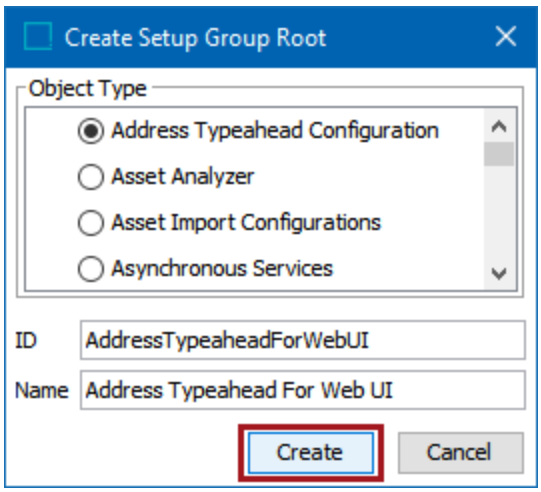
If no parents are displayed on your system or if the setup group type you want to use is not displayed, configure the setup as follows:

1. Create a new Address Typeahead Configuration setup entity.

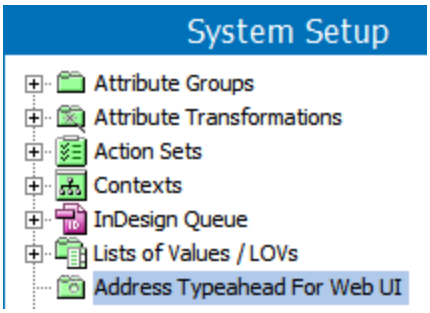
   - In System Setup, click any setup group node, click the **Maintain** menu, expand the **Insert** menu option, and scroll down to select the **Setup Group Root** option at the bottom of the list.



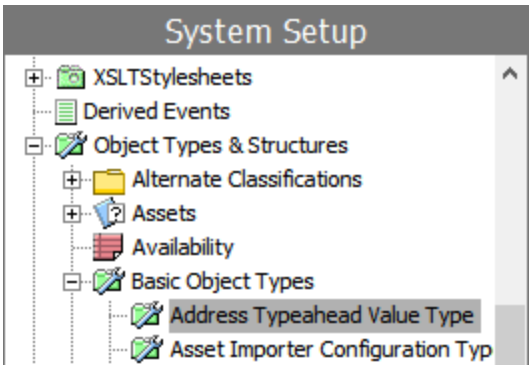
   - In the Create Setup Group Root dialog, select the radio button for the **Address Typeahead Configuration**, add an **ID**, a **Name**, and click the **Create** button.



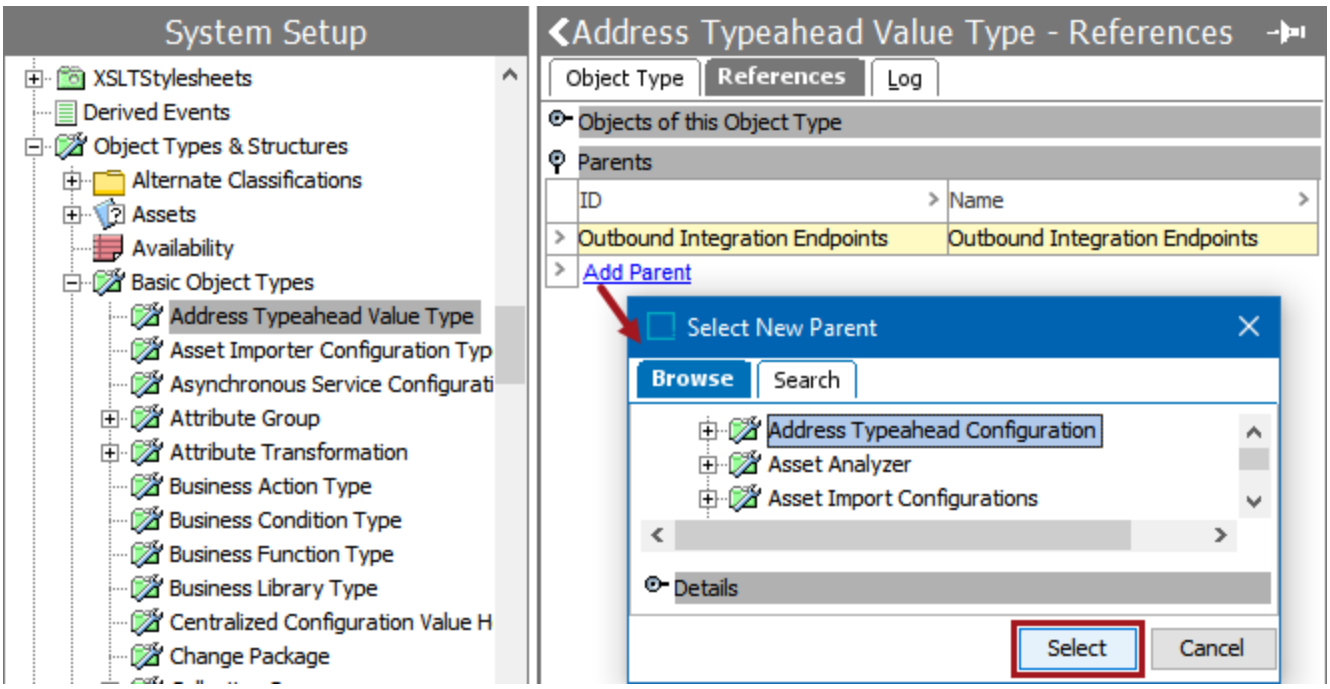
The new Setup Group Root displays in System Setup.



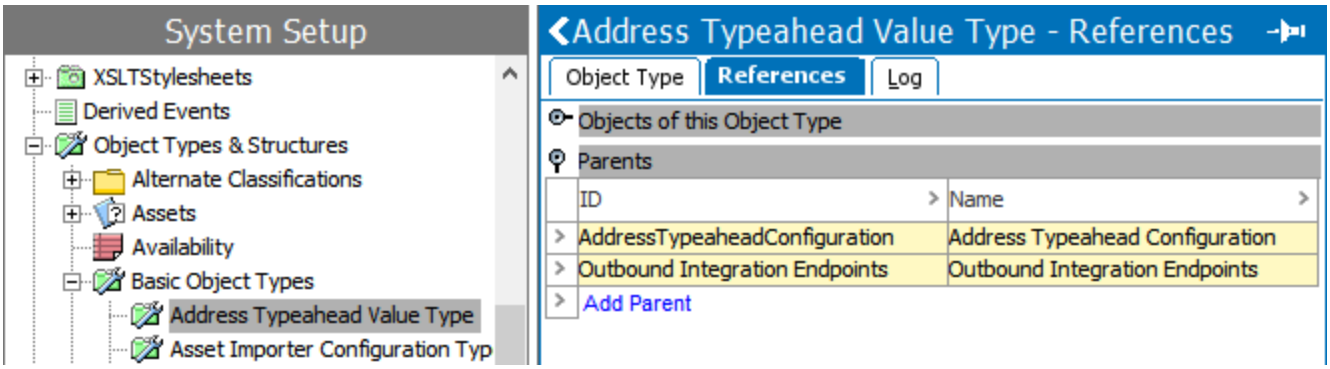
2. Link the Address Typeahead Configuration object type to a Setup Group Type.
   - In System Setup, expand the Object Types & Structures node and expand the Basic Object Types node.



   - Select the **Address Typeahead Configuration** object type to display the editor, click the **References** tab and open the **Parents** flipper. Click the **Add Parent** link and browse or search to select the desired setup group type. Click the **Select** button.



The new setup group type is displayed in the Parents flipper.



Create an Address Typeahead Configuration Object

Use the following steps to create a new Address Typeahead Configuration to contain the necessary JSON Paths for integration with the address search service. Using a Default Address Typeahead Configuration for Loqate or Google Places supplies default JSON Path values for the configuration object that can be edited or removed. Creating a new configuration may be necessary for other address search services.

Default Address Typeahead Configuration

To add a default configuration via STEPXML:

1. Click the **Copy** button on the XML file below for either Loqate or Google Places.

Loqate Default Configuration

```
<STEP-ProductInformation ContextID="Context1" WorkspaceID="Main" UseContextLocale="false">
  <SetupEntities>
    <SetupEntity
ID="loqate" UserTypeID="AddressTypeaheadValueType" Selected="true" Referenced="true">
      <SetupGroupLink SetupGroupID="AddressTypeaheadConfiguration"/>
      <Name>loqate</Name>
      <Configuration>
H4sIAAAAAAAAAI1V72/TMBD9Xyo+oWn9sUlICJC6bqDA2Mo6+MDoh2t8Sw2uHc721oD43zk3bdJGrpJv8d177+x3znl
i9KPMPIGTRr/928vA4TMUiXaYlcErLXIjteu97l2b35weC0H3RY6wRBAfkqtp76RnfZahDfApuCVDJ5A7T9gPQgSpk0
/Yfy+16D8NT4eD/k9r9Nnpsw1UVJi2MO/QkUT+YPbogA25/ITFF49UTIFghUxiEY5VSV5uyljLRe7NL9SH8AqiQGceM
oylb0lmUu+BOPZ1xmtPamqse5TrXR2gdHkoYUuNe1w7RqxgPavsskf2IkgqJcyzDm7z1idGO5AaKRExRpU+6MUdpobE
mAgC5sXDDz8YjF4lDle2/Jw/vJyHYtLmCoqwv49214iHihDiWzyDd9FLtCnJPNTZJef7xcMVqdVqMQ7XYofw2e4qfAP
lg8Pbw4dWll+JiEgmohascDGXEsGI1HjtqEismRiBx3wZzLfRSQUf1VWkzr3bbm7YKnHNjRnGyaNO5COVzzqRz+Lk80
7k8zg5pNr5sEDV4F94qYTUWSt5B7zh/jU0JtIdvc512xjU5JWd7NrxWOWQaRcYi5XUY0KISFxijlqgdtcmBdXlJDcos
+XCeFoaI46pzRwhulatGQ8ELYCKEt9Qu6UMtPyzmfodXFrloJseh1G4MOtW9vT2wqxv/GqB1FCYOX5i2vlknqROm+52
tCH2Q5bU0LF2F2PmbfmbI3W/3VEH/KLzb7KHbah8l3m7i9wtUGEM1mTF7Xd+MxjDyuhsb4lEhi55oG6mdGwUR+tcBVp
dYqPymccIP6Ox9yYuEnlvTtruKHiLXcF3aI3yB8/Zvzf8Lkr37j9GADBDJQkAAA==</Configuration>
    </SetupEntity>
  </SetupEntities>
</STEP-ProductInformation>
```

Google Places Default Configuration

```
<STEP-ProductInformation ContextID="Context1" WorkspaceID="Main" UseContextLocale="false">
  <SetupEntities>
    <SetupEntity
ID="google" UserTypeID="AddressTypeaheadValueType" Selected="true" Referenced="true">
      <SetupGroupLink SetupGroupID="AddressTypeaheadConfiguration"/>
      <Name>google</Name>
      <Configuration>
H4sIAAAAAAAAALVWbW8TMQz+K6Xiw0AI9oJAQryNbkKFMQqd+MCoTu7Fu4blklPibD0Y/x3fa7O1pVrLvqyr/fjxE9uN0zP
6TCbeAkmjX/3uJkB4CXlfEyaV8VCLzEhN3Rfd98YkCveFsCd5hjBBEO/7h4Puo67zSYKugA+AJgwFTyY2aaaQ8MlPZ3QBQo
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```

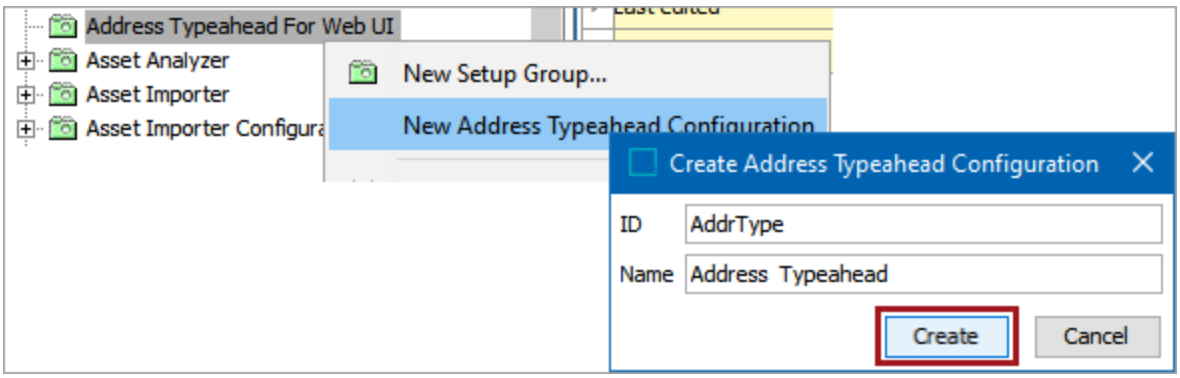
```
7+9vSeAj88JSh1g48l1WlfxSp15YkgK02FbGrdIAYOElUoJc6n3K+oeawep0fbFkohZub9ibKzYtxYK1/3TQuPu88yikGWp
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ek837zvSMwICSo72i5tDVZ00aFfNoNGpqi/Jmq/qvpqu+dKTuvH1cdvxBQ+EmxlKkWc1Ma9njumU7KyQsj9ytyhSa9uZNT+
dNRzwhK7KeGZsCEYqoLsENCe+8VELqJCDvSco3LqcyMSgmmqtn5+qqs3VvFai0PKv+dupJ4V8iqIj4RzLfpLZLyuhkUZN6V
Xvvfkz+KWDz/CBSqaWj4mK+wAgsQqTwAlW0e3tNB5ihFpzmqG7ExvKcHzdNrWXtbCBrSBaRgtH8bBPQ8le5lAJzcUmPzTSw
DImX2B0We41TtYe55SVRxR2zY+PzWOMJ11V+7NNxuY03nJCSLNIl2xpa/Di4sjYeVt6SqXRr1OS7zDbOX99oMa+vWwlQPI7
kV+68BA1vzuaumvHFEGz3xgoU8HPK/55AJ7MEaK2xB7zVy5fCgldBCYhSLh+/xm7EfaqsIx4vS8KWP4kCJ7eCfGsf/XnJzy
RJr/8C1eOMkB0LAAA=</Configuration>
    </SetupEntity>
  </SetupEntities>
</STEP-ProductInformation>
```

2. Create a new file and paste the copied XML code into the file.
3. Edit the XML code to match your system. For example, the context ID in these files is 'Context1'. To create this setup entity object for a different context, edit the file to match the desired context ID. Change the value for the setup entity ID, setup group ID, and name as desired.
4. Save the file locally with an 'XML' file extension.
5. Import the saved XML file to STEP. For details on STEPXML imports, refer to the **Creating a Data Import** topic in the **Data Exchange** documentation.
6. Modify the new setup entity to meet your needs as defined in the **Workbench Configure Address Typeahead** topic.

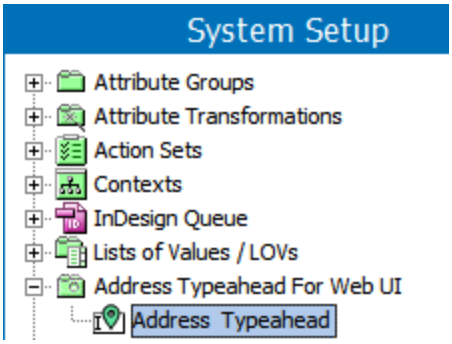
Blank Address Typeahead Configuration

To add a blank instance of an Address Typeahead Configuration:

1. Right-click a valid setup group root node and select **New Address Typeahead Configuration**.
2. Add an **ID**, a **Name**, and click the **Create** button.



The new Setup Group Root is displayed in System Setup below the selected node.



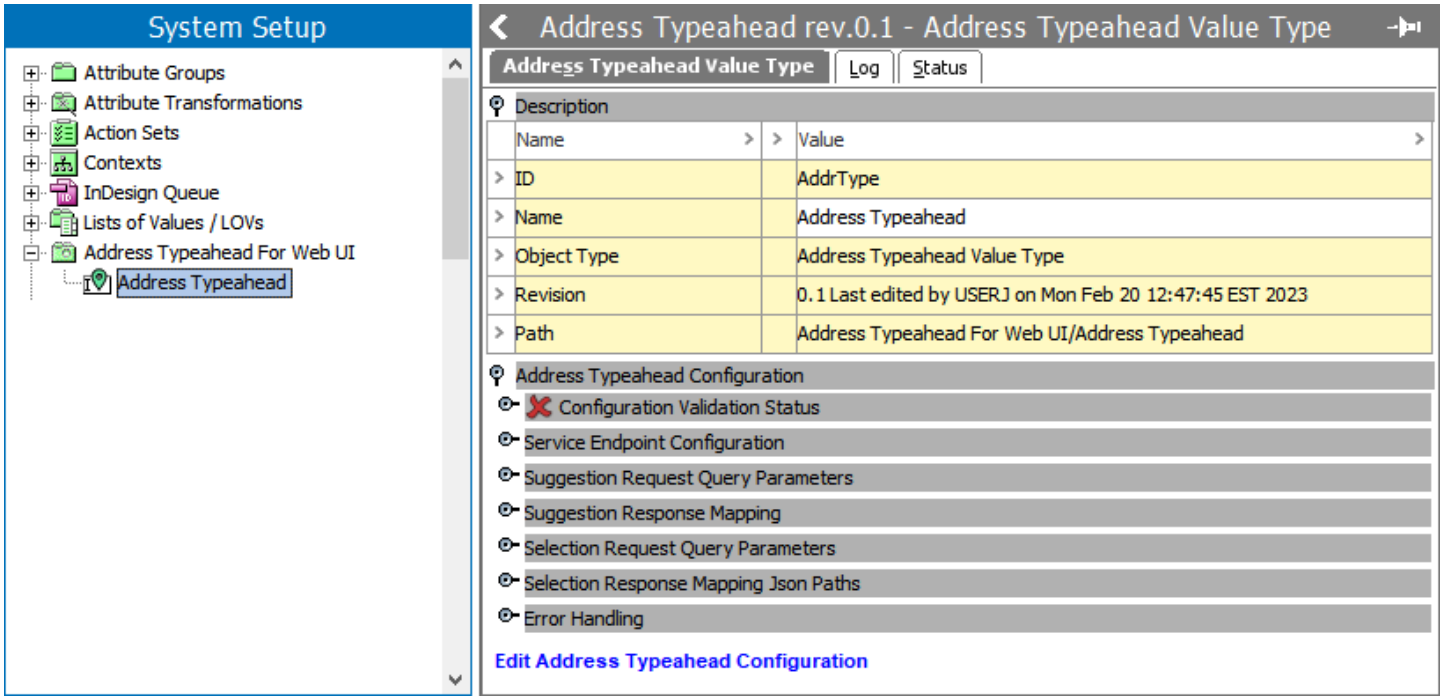
3. Continue with configuration as defined in the **Workbench Configure Address Typeahead** topic.

Workbench Configure Address Typeahead

Configuring the Address Typeahead functionality in the Web UI starts in the workbench. Setting up the functionality involves supplying JSON Path expressions to handle requests and responses for suggestions and selections. JSON Path (also written 'JSONPath') expressions are used to query JSON by specifying the path to an element (or set of elements) in a JSON structure. For more information, refer to the **Understanding JSON Paths in Address Typeahead** topic.

A one-time setup is required to configure Address Typeahead, as defined in the **Workbench Initial Setup for Address Typeahead** topic.

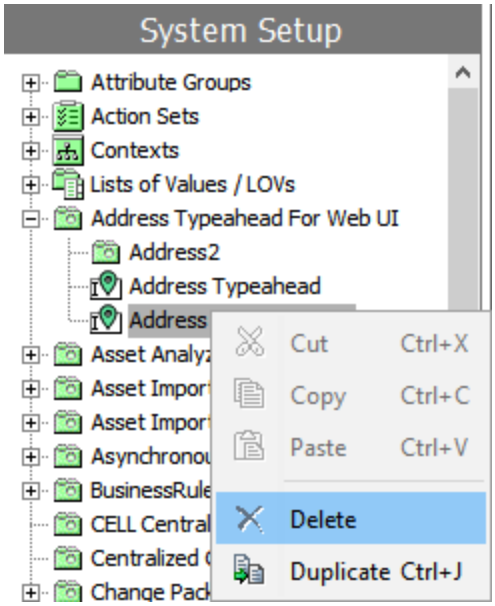
Important: Before starting the workbench setup, obtain or verify that you have purchased an active key from your address search service. This key is required within the Address Typeahead configuration.



The Address Typeahead Value Type object includes the following tabs:

- The Address Typeahead Value Type tab includes the Description flipper with the same parameters typically displayed on any object. Only the Name can be edited. The additional flippers within the Address Typeahead Configuration flipper are defined in the Configuration Parameters section.
- The Log tab lists changes and other events relevant to the object. Examples of changes or events listed on the Log tab are when a user or import creates a configuration, a user or import modifies a configuration, or when a revision is revived or purged.
- The Status tab includes revisions made to the configuration and allows a user to revert to a previous revision. Hidden Values and Diagnostics are available as necessary.

To remove an unnecessary Address Typeahead Value Type object, right-click the object and click the **Delete** option.



Configuring Address Typeahead includes:

- Resolving issues identified in the Configuration Validation Status flipper.
- Supplying the data required in the Configuration Parameters.
- Resolving issues identified by the JSON Path Evaluator.

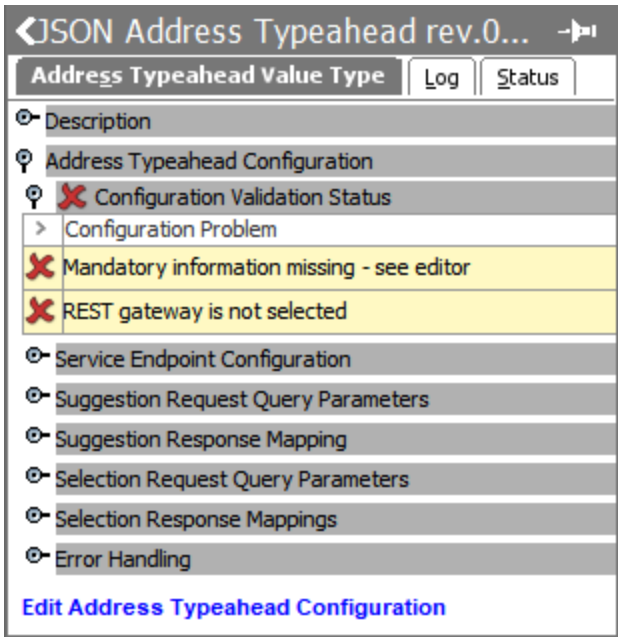
When the workbench configuration is complete, proceed with configuration in the Web UI, as defined in the **Web UI Configure and Use Address Typeahead** topic.

Configuration Validation Status

Configuration validation is run without accessing the external REST service, but it identifies items that should be resolved to avoid issues when the external REST service is accessed.

Errors are reported in the Configuration Validation Status flipper, in the configuration editor (including the JSON Path Evaluator dialog), and also in the step.0 log based on configured logging output levels (as defined in the **Workbench Initial Setup for Address Typeahead** topic).

Errors Reported on the Flipper



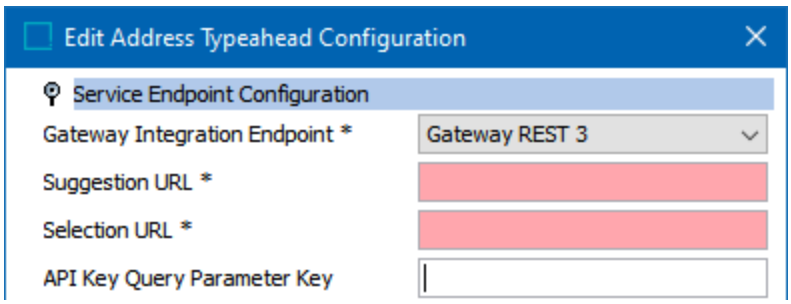
On the Configuration Validation Status flipper:

- A green checkmark (✔) indicates that the configuration is error-free and is ready to be used.
- A red x (✘) indicates that the configuration has errors, such as missing mandatory fields, invalid JSON Path syntax, or the REST gateway was deleted. While the configuration can be saved, the errors must be corrected before the configuration can be used in the Web UI.
- A yellow checkmark (✔) indicates that the configuration has warnings, such as the selected REST gateway is not enabled. While the configuration can be saved, the warnings must be corrected before the configuration can be used in the Web UI.

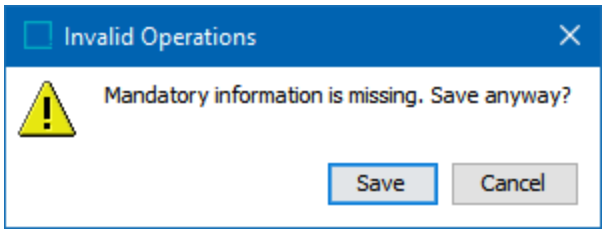
Click the **Edit Address Typeahead Configuration** link to make corrections on the Edit Address Typeahead Configuration dialog defined in the Configuration Parameters section.

Errors Reported on the Configuration Editor

On the Edit Address Typeahead Configuration dialog, mandatory parameters are indicated with an asterisk (*) and also display with a red background once the user exits a mandatory field without a value or when the configuration is saved with missing mandatory information.



To save the configuration with missing information for additional work later, click the **Save** button on the Edit Address Typeahead Configuration dialog and then click the **Save** button on the Invalid Operations dialog.



When adding a JSON Path on the configuration parameters editor or within the JSON Path Evaluator, the following errors are identified:

- Invalid JSON Path syntax that fails the compiler.

  For example: `$['Items'`

  In this scenario, the final bracket is missing and should be corrected as `$['Items']`

- Invalid JSON Path syntax displays a 'Suggested Change' when available.

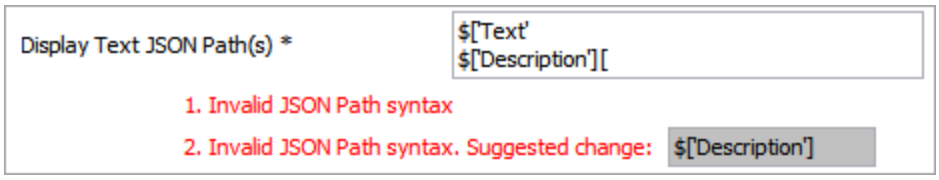
  For example, typing: `$['Items'][0][`

  displays the message: `Invalid JSON Path syntax. Suggested Change: $['Items'][0]`

  Consider the suggestion and correct the syntax. While the suggestion is a valid JSON Path expression, also consider that additional text may be necessary to produce the desired result, such as `$['Items'][0][*]`

  Suggested Changes are not displayed for JSON Path expressions that filter results via a conditional statement. Using the '?' character, is an example of this.

When applicable on a multi-value editor, both messages can display.



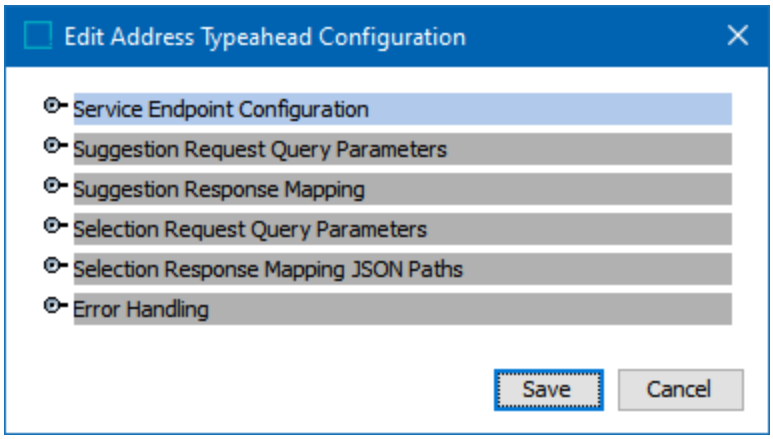
Refer to the JSON Path Evaluator section for additional troubleshooting assistance.

Configuration Parameters

After clicking the link to edit the configuration, the Edit Address Typeahead Configuration dialog displays. The configuration can be saved with incomplete data, allowing the user to continue configuration in multiple sessions if necessary.

JSON Paths are used to query the JSON response document for both address typeahead suggestion and selection responses. While in the address typeahead configuration editor, the user adds JSON Paths for fields in the Suggestion Response Mapping flipper, the Selection Response Mapping JSON Paths flipper, and the Error Handling flipper. For details on JSON Paths, refer to the **Understanding JSON Paths in Address Typeahead** topic.

Configuration Flippers

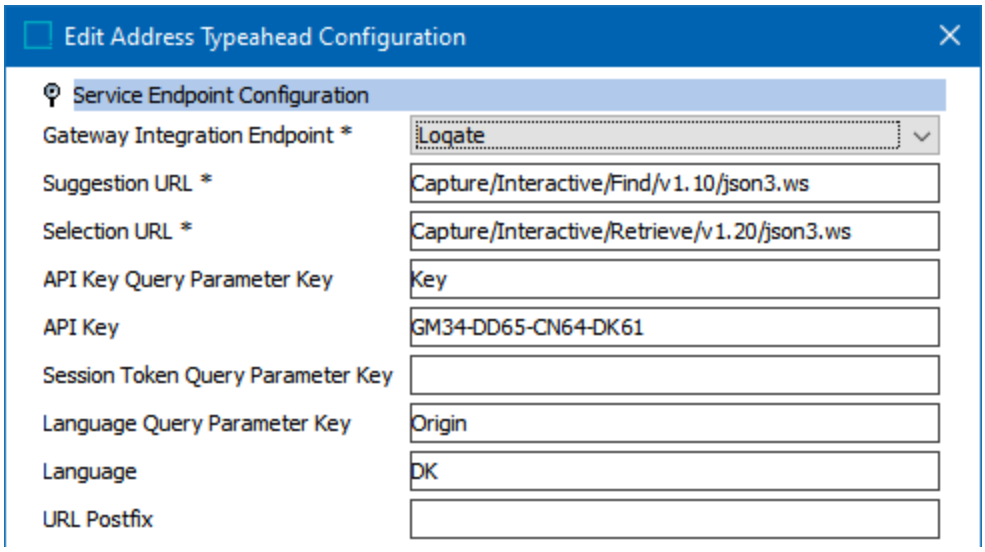


Refer to the following sections for details on the parameters in each of the flippers:

- Service Endpoint Configuration
- Suggestion Request Query Parameters
- Suggestion Response Mapping
- Selection Request Query Parameters
- Selection Response Mapping JSON Paths
- Error Handling

Note: In the following sections, 'service' refers to your address search service, such as Loqate, Google Places, or another address service. Parameters that are required for all services are indicated with an asterisk. Additional parameters are used as available from the selected address search service.

Service Endpoint Configuration



Use this flipper to add the REST call to the address search service, as defined below:

- **Gateway Integration Endpoint** – mandatory; use the dropdown to select an existing GIEP. If needed, create a new endpoint as defined in the **Gateway Integration Endpoints** topic of the **Data Exchange** documentation.
- **Suggestion URL** – mandatory; the suggestion endpoint URL from the service. This is also used for drill-down functionality, available when using Loqate.
- **Selection URL** – mandatory; the selection endpoint URL from the service. This is also used for drill-down functionality, available when using Loqate.
- **API Key Query Parameter Key** – the key for the API Key in the request URLs.
- **API Key** – the key to authenticate with the service. While the key is visible in this configuration, it is not included in the URLs written in the log or in validation responses.
- **Session Token Query Parameter Key** – the query parameter key for session tokens in the request URL. Session tokens are used by the service to charge per transaction. If no value is specified, no session token is sent in either the suggestion or selection requests.

  Session tokens update after a selection request, upon reloading the Web UI screen, and when error responses from either suggestion or selection requests are generated. For more information, refer to the online help for your selected address search service.
- **Language Query Parameter Key** – key for the language parameter on the service.
- **Language** – indicates a specific language. Refer to your address service provider's documentation for details on how defining a language impacts your searches as regional or international.
- **URL Postfix** – extension of a URL (not encoded) used to target specific parameters on the service. Consider the following about the URL Postfix encoding:

- The REST Gateway Endpoint encodes every character inserted in this parameter according to the HTML URL encoding standards. This means that text added in the URL Postfix parameter must not be manually encoded to avoid 'double encoding.'

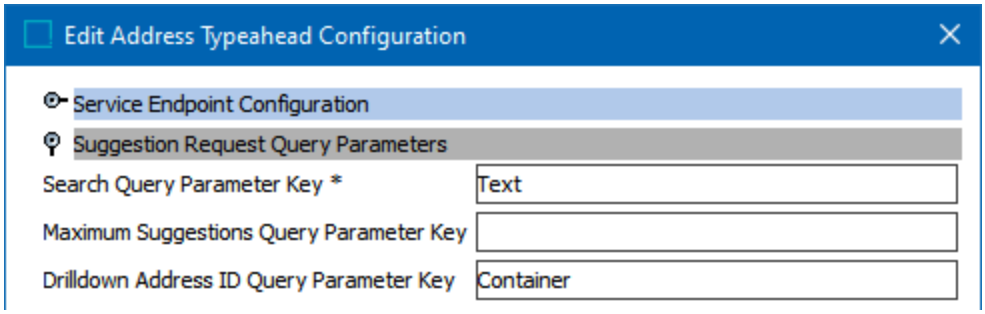
  For example, the system encodes the text 'Street=Main Street' to 'Street=Main%20Street'. If the user is unaware of the automatic encoding and attempts to manually encode the URL to 'Street=Main%20Street', the system then encodes it again, which results in double encoding to 'Street=Main%25%32%%30Street'. Double encoding results in unexpected results from the address search service.

- The '&' character is interpreted as a property separator by the URL encoding, and therefore, using it as a character in the property value breaks the request.

  For example, the property value 'Street=Main Street&Third' is interpreted as two different properties which may result in an unexpected response.

Refer to the documentation for your address search service to identify available parameters. For Loqate, refer to https://www.loqate.com/resources/support/apis/Capture/Interactive/Find/1.1/.

Suggestion Request Query Parameters

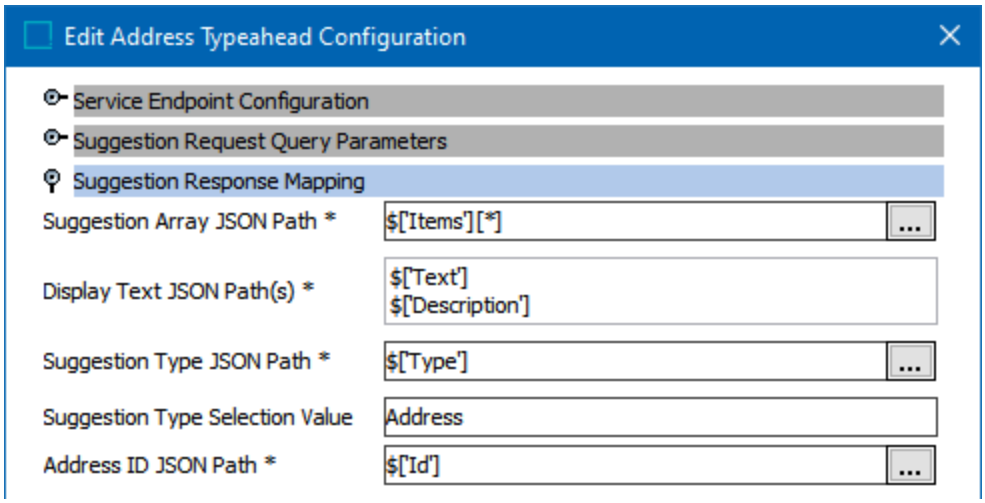


Use this flipper to add the information defined below:

- **Search Query Parameter Key** – mandatory; targets the Suggestion URL identified under the Service Endpoint Configuration flipper. Add the key for the query parameter that contains the value of the text the user types into the address input box in the Web UI.
- **Maximum Suggestions Query Parameter Key** – targets the maximum suggestions received from the Suggestion URL identified under the Service Endpoint Configuration flipper. This represents the query key for the specific parameter.
- **Drilldown Address Container ID Query Parameter Key** – the parameter key when the suggestion from the service was not 'address', which identifies the drill-down parameter on the service, if available. Drill-down is an expanded menu that displays when multiple responses are available from a search. Drill-down is available in Loqate, but is not available in Google Places. Refer to your address search service for availability.

  This parameter is used when the 'Suggestion Type Selection Value' in the 'Suggestion Response Mapping' flipper (below) is not 'Address.' For Loqate, use the 'Container' key; for Google Places, leave this field blank since drill-down is not available.

Suggestion Response Mapping

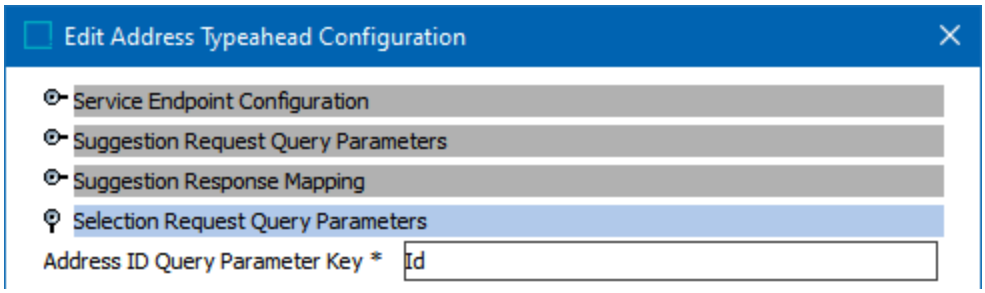


For information on the **Two-Level Mapping Functionality** used in this flipper, refer to the **Understanding JSON Paths in Address Typeahead** topic.

Use this flipper to add the information defined below:

- **Suggestion Array JSON Path** – mandatory; extracts the suggestion record array.
- **Display Text JSON Path(s)** – mandatory; extracts the text displayed in the Address Typeahead. Ordering of a list of paths can be added, removed, and changed via a dialog.
- **Suggestion Type JSON Path** – mandatory; extracts the type of the suggestion response item, set as:
  - street - to display the drill-down in the Web UI and use the ID to search in the container parameter described above to allow a selection.
  - address - to display the final address as a suggestion, which can be selected.
- **Suggestion Type Selection Value** – add either the text 'Address' or 'Drilldown' to define the type of data displayed in the Address Typeahead suggestion (second level record on the array). 'Drilldown' functionality is available for Loqate.
- **Address ID JSON Path** – mandatory; extracts the ID value from the suggestion response array. This is necessary once a suggestion is selected to invoke the selection endpoint and return either an address or street (container concept)

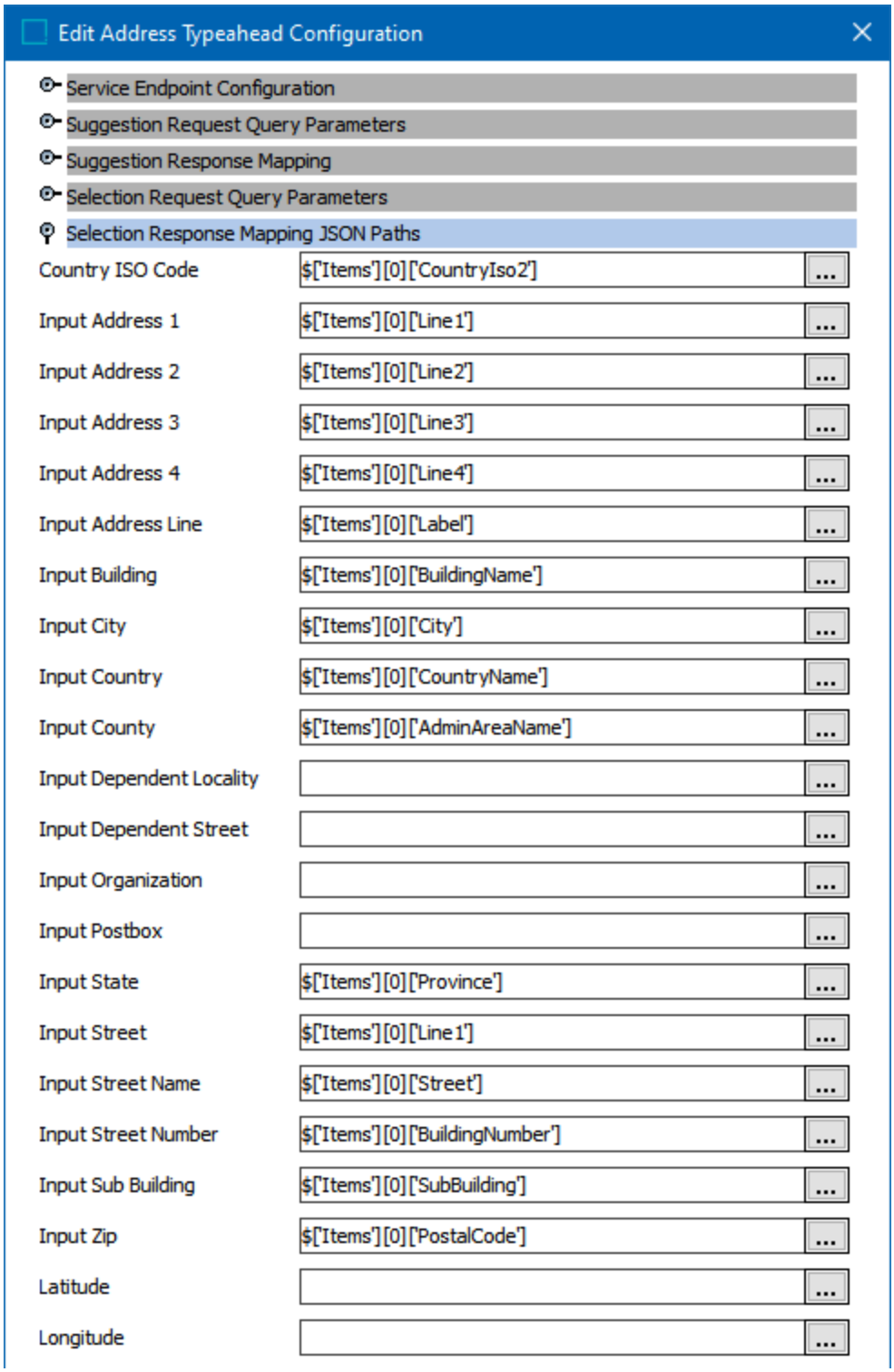
Selection Request Query Parameters



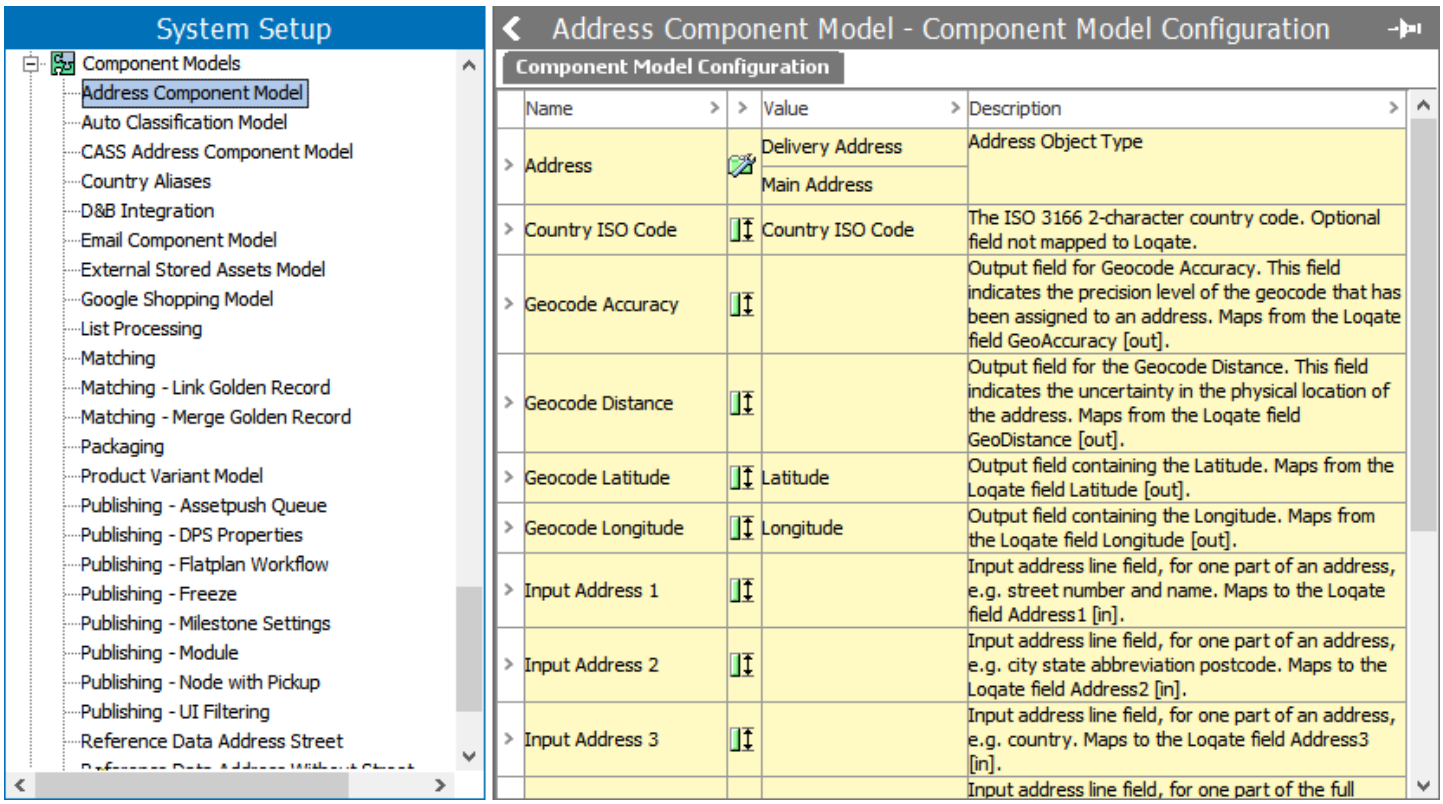
Use this flipper to add the information defined below:

- **Address ID Query Parameter Key** – mandatory; parameter to invoke the selection endpoint. Once the user selects a suggestion, this endpoint requests the same ID to the service to return the full data for that specific address.

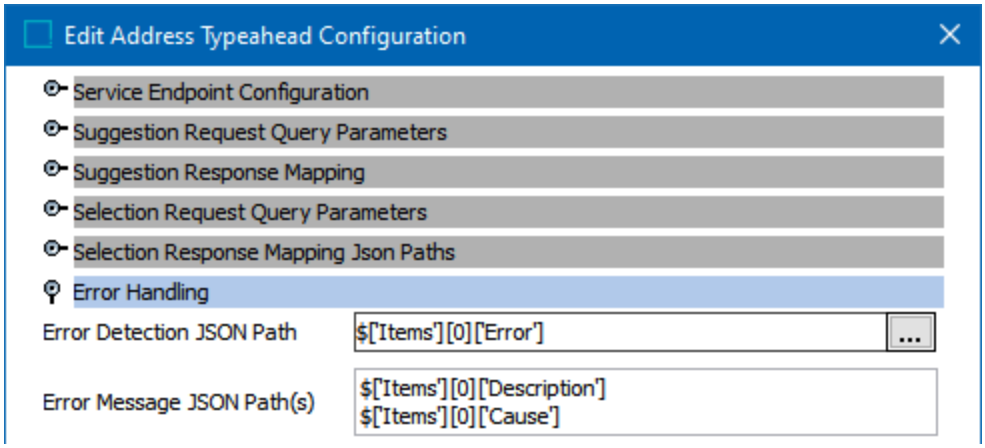
Selection Response Mapping JSON Paths



Use this flipper to map a JSON Path to the related Address Component Model fields to extract data from the service, as shown in the image above.



Error Handling



Use this flipper to add the information defined below:

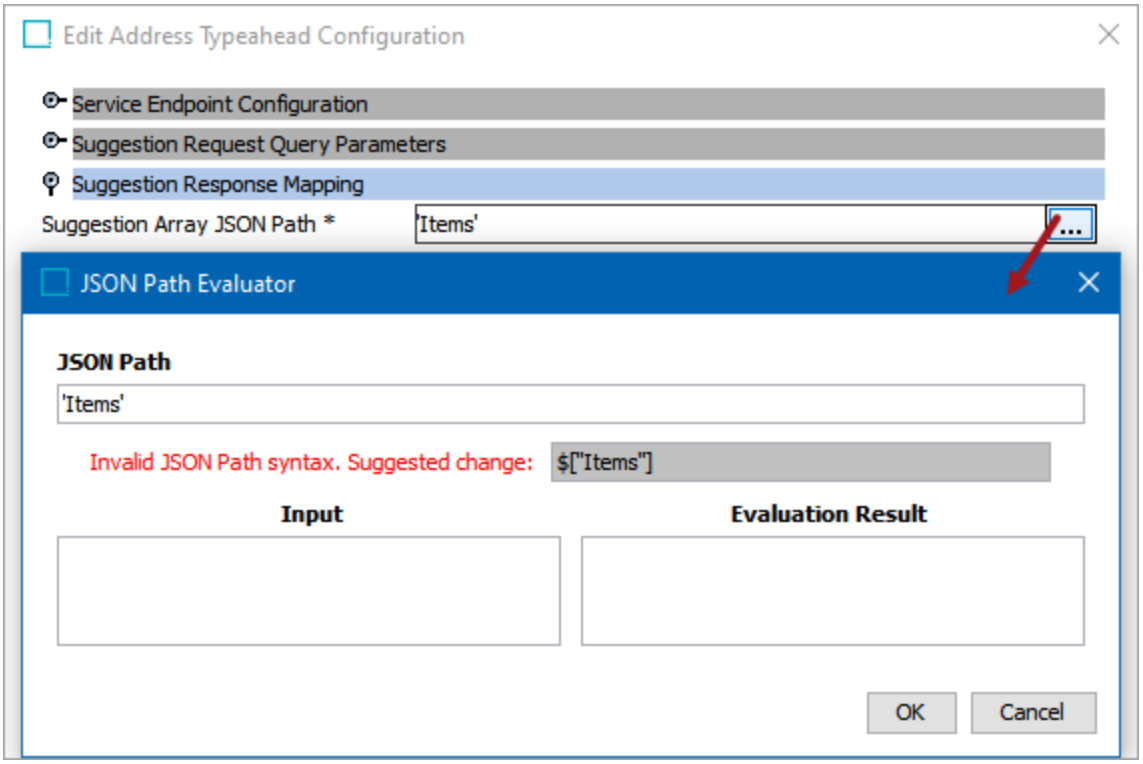
- **Error detection JSON Path** – when the response contains a value for this JSON Path, it is considered an error response.
- **Error message JSON Path(s)** – extracts JSON error messages to display in the Web UI. The order and messages can be edited within a dialog. Multiple messages are concatenated with the <br/> tag for display in the Web UI.

JSON Path Evaluator

For each JSON Path parameter on the configuration, use the JSON Path Evaluator to test the JSON Path expression against the input and report invalid syntax. Resolve the reported errors in the input to ensure successful configuration.

To use the evaluator:

1. Click the ellipsis button (...) on a JSON path parameter to display the JSON Path Evaluator dialog.



2. The **JSON Path** is displayed.
   - For invalid syntax scenarios, an error is displayed as well as suggested corrections when available.
   - Correct the JSON Path if necessary. To use the suggestion, copy the text and paste it into the JSON Path field.
3. Paste the document intended for processing into the **Input** field to evaluate against the JSON Path and display results in the **Evaluation Result** field.
   - '**No results**' is displayed on the Evaluation Result field if:

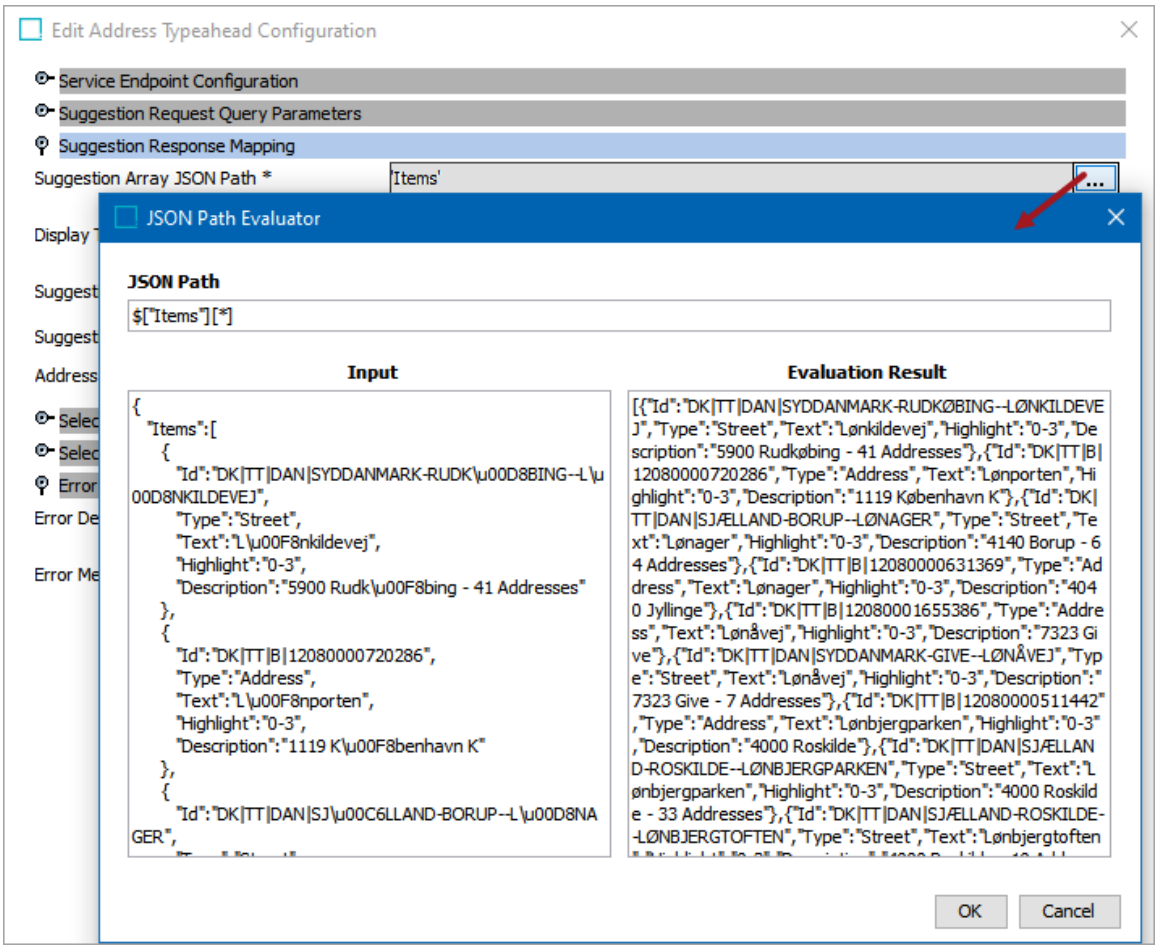
     The JSON Path does not accommodate the Input document. For example, when the JSON Path includes 'Item' but the Input includes 'Items' or when the JSON Path is blank.

     The Input document is invalid. Use an online tool to test the validity of the JSON document.

- Since the Input document is the same for all JSON Path fields, the document is retained and displays when testing all JSON Paths from the editor while the Address Typeahead Value Type object is being edited. The Input document is not saved in the Input field once the user leaves the object.

4. If necessary, modify the JSON Path to process the Input accurately.

   - Click **OK** to save the update to the configuration.
   - Click **Cancel** to leave the configuration unchanged.



Web UI Configure and Use Address Typeahead

Configuration for the Address Typeahead functionality begins in the workbench (defined in the **Workbench Initial Setup for Address Typeahead** topic) but also includes Web UI configuration as defined in this topic.

Limitations

The Address Typeahead functionality applies only to:

- **Node Details Screen** with the **Follow Single Reference** component configured
- **Initiate Item Screen**

In both cases, the Address Typeahead only works for:

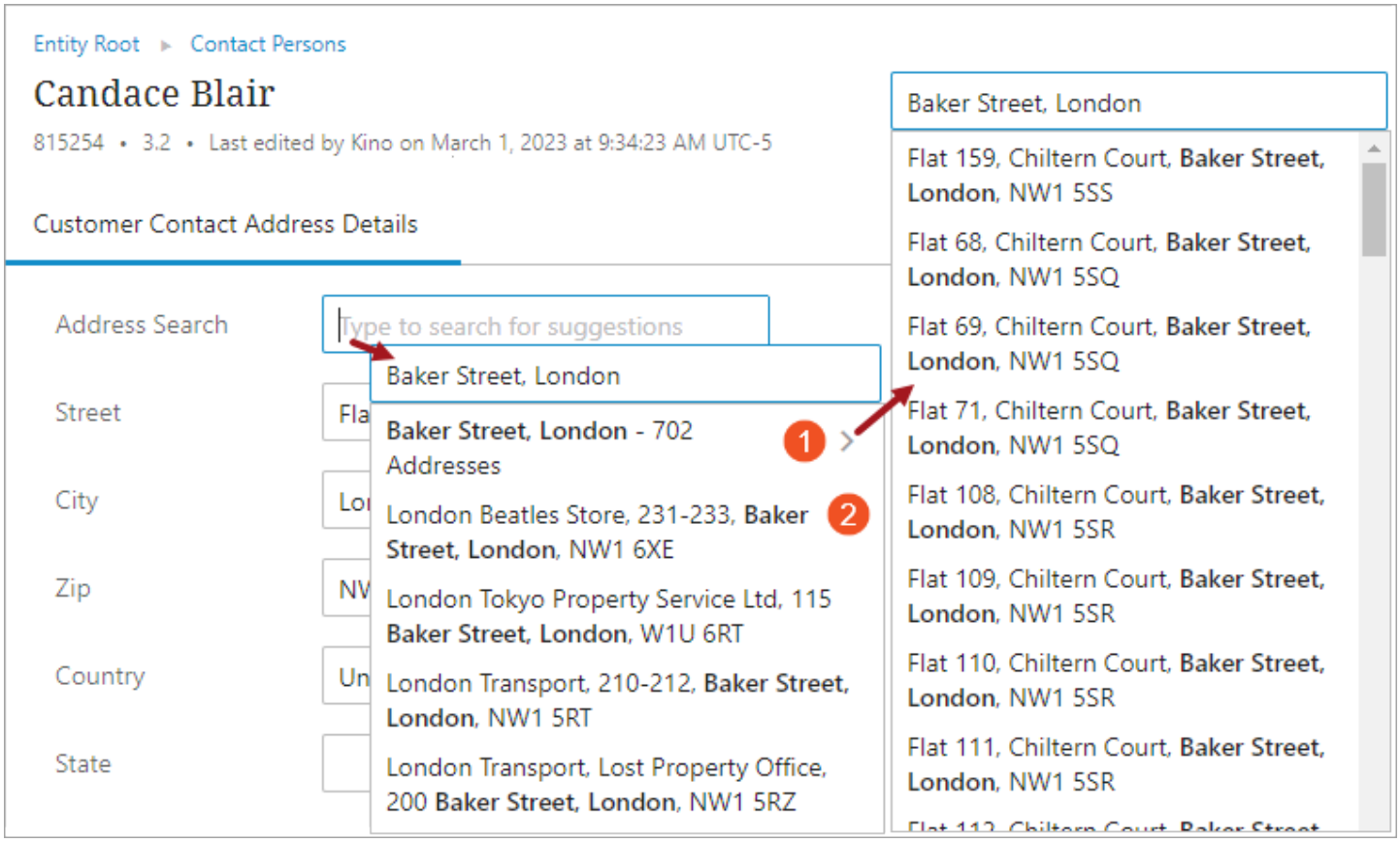
- value components directly on the screen
- value components in the 'Store Single Referenced Target' component (as defined in the **Find Existing** topic)

Address Typeahead functionality does not work for both components at the same time.

When multiple address typeahead fields are added on different tab pages, for example, all address typeahead instances share the same results.

Using Address Typeahead

In the Web UI, Address Typeahead displays possible matches provided by an address search service for configured address attributes. Choosing an option from the suggestion list ensures that the address has been validated by the external address search service.



- Address Typeahead fields are indicated by the gray text 'Type to search for suggestions'.
- After typing two characters into the field, suggestions are displayed.

  In the suggestions list, the characters typed are displayed in bold text, while the additional characters are shown in typical text.

  Addresses are displayed in the sort order provided by the search service.

  - Suggestions with multiple potential matches (available with Loqate via the drill-down functionality) are displayed with a > and the number of entries is included, such as the two rows on number 1 in the image above, where 702 specific addresses are available.

    From the drill-down menu, to return to the initial list of matches, press the 'Esc' key on your keyboard or any other key to further define your address search.
  - Individual matches are included and can be selected, such as the row on number 2 in the image above.
  - Click an address from a results list to update the available address attributes.

    Clicking outside of the address search box without making a selection retains the search text but does not update the address fields.

Configuring Address Typeahead

The Address Typeahead option can be configured for specific screens or for all screens that include the selected address attributes.

Prerequisites

The Address Typeahead displays for address attributes when the attribute is:

- Valid for an entity.
- Set as Validation Base Type = 'Text'.
- Included as an 'Input' field in the **Address Component Model** (as defined in the **Data Integration** documentation).

The Address Typeahead can be applied to a **Node Details Screen** using the following components:

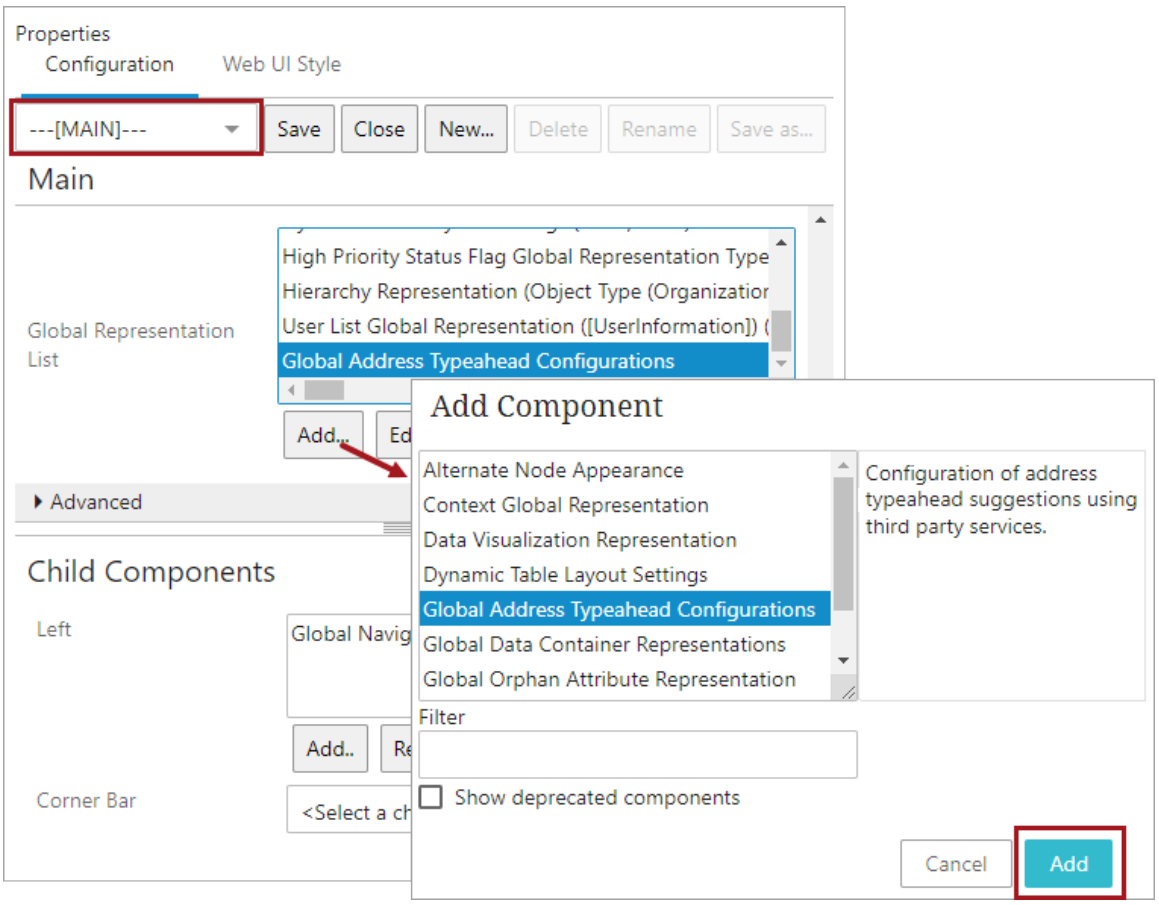
- **Node Editor Component**, which allows displaying information and details about a selected object as a child component on a Node Details screen.
- **Follow Single Reference** on an **Initiate Item Screen**, which allows using Find Existing when onboarding objects.
- **Follow Single Reference**which allows editing a source object and a referenced object without navigating away from the source object on a Node Editor via a Rows child component.
- **Grouping Component**, which allows displaying or hiding the address typeahead based on a value entered on a source attribute on a Node Editor via a Rows child component.
- Value Section on **Tab Pages**, which allows displaying or hiding a section of values on a tab page of a Node Editor via a Rows child component.

Note: The Address Typeahead search box is hidden when the applied attribute is hidden or read-only.

Configuration

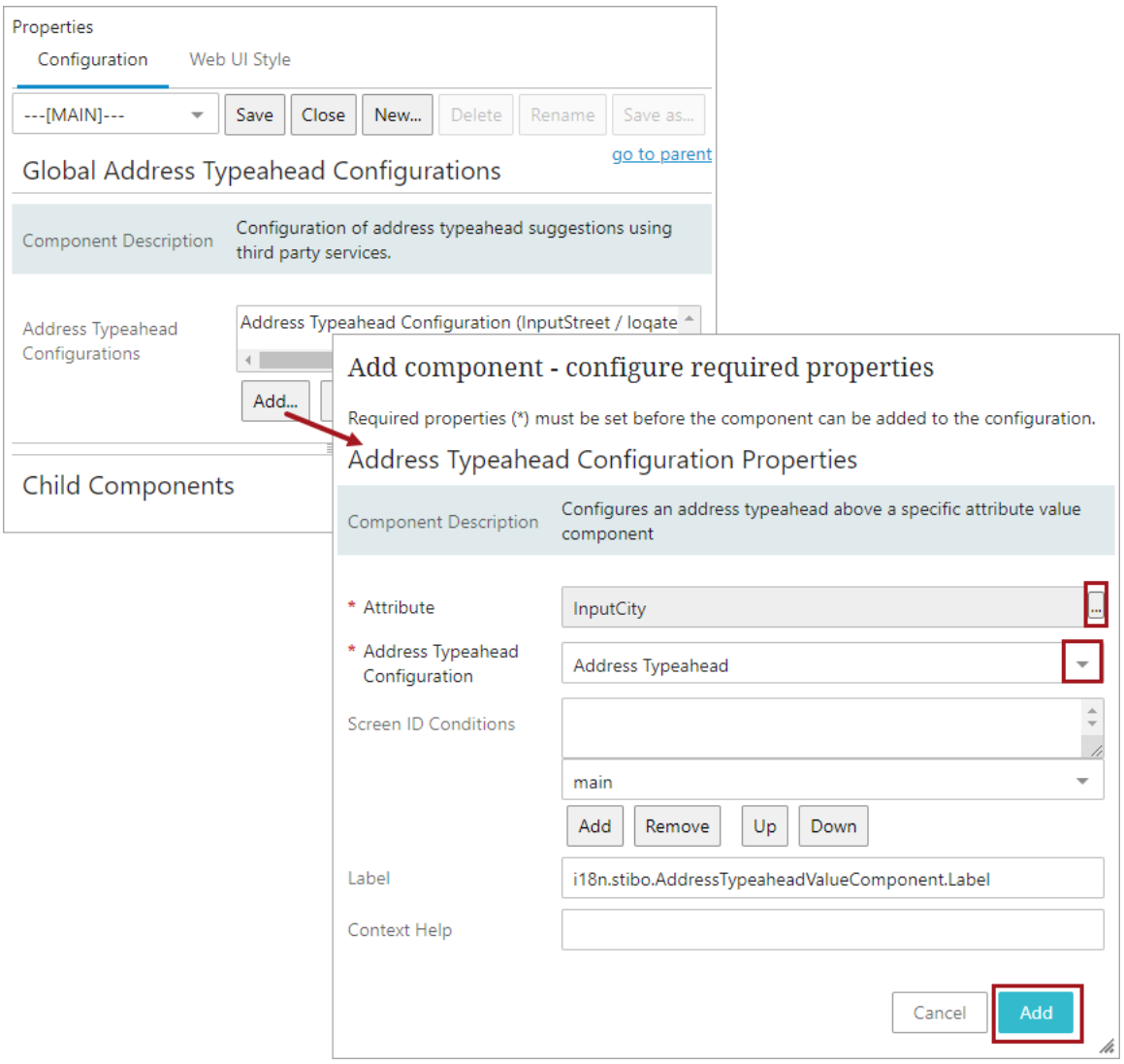
For attributes that meet the **Prerequisites** above, use these steps to configure the Address Typeahead option.

1. Create a Global Address Typeahead Configurations representation. For more information, refer to the **Main Properties** topic.



- Open the designer and select the **[MAIN]** option from the dropdown.
- On the Global Representation List parameter, click the **Add** button.
- On the Add Component dialog, select **Global Address Typeahead Configurations**, and click the **Add** button.
- While the **Global Address Typeahead Configurations** is selected in the Global Representation List, click the **Edit** button to open the Global Address Typeahead Configurations dialog.

2. Configure the Address Typeahead Configurations parameter to identify an attribute and a typeahead service:



- Click the **Add** button to open the Address Typeahead Configuration Properties dialog.
- For the required **Attribute** parameter, click the ellipsis button (...) to select an attribute. The address typeahead 'Address Search' field displays above the selected attribute.
- For the required **Address Typeahead Configuration** parameter, from the dropdown, select the relevant Address Typeahead Configuration. The options in this dropdown were created during configuration in the workbench.
- For the optional **Screen ID Conditions** parameter, if needed, select screens that should display the Address Typeahead, or leave this parameter blank to display for all screens that include the selected attribute.
- For the optional **Label** parameter, if needed, supply a different label text, or to display the 'Address Search' text, leave the default.

- For the optional **Context Help** parameter, add text to assist the user while on the Address Search parameter. This text is displayed below the Address Search field.
- Click the **Add** button to close the properties dialog.

Although it is possible to add multiple Address Typeahead Configurations when mapped to different screens, this configuration is not common.

Advanced Search

Creating and performing searches in Advanced Search can be a complex process for users with limited knowledge about the underlying data structure in STEP. For that reason, Advanced Search functionality in the Web UI is readily accessible for all kinds of users, including end users with limited STEP experience.

Advanced Search topics in online help include a mix:

- Advanced Search Initial Configuration
- Restricting and Sharing Advanced Searches
- Using Advanced Search

The topics listed below cover more information on Advanced Search configurations, going beyond the basic setups described in the introductory material.

- Mapping Task List to Workflow State
- Using Advanced Search with Workflow Tasks

Advanced Search Initial Configuration

Advanced Search allows users to find specific data using search criteria that can be combined with other search criteria. Adding search operators (And, Or, and Not) further allows users to find the most relevant information to meet their needs.

The Advanced Search link can be added to the Web UI homepage for convenient user access. In addition, the search criteria panel itself is configurable so Web UI designers can present users with criteria relevant to their range of tasks.

Adding Advanced Search to the Homepage

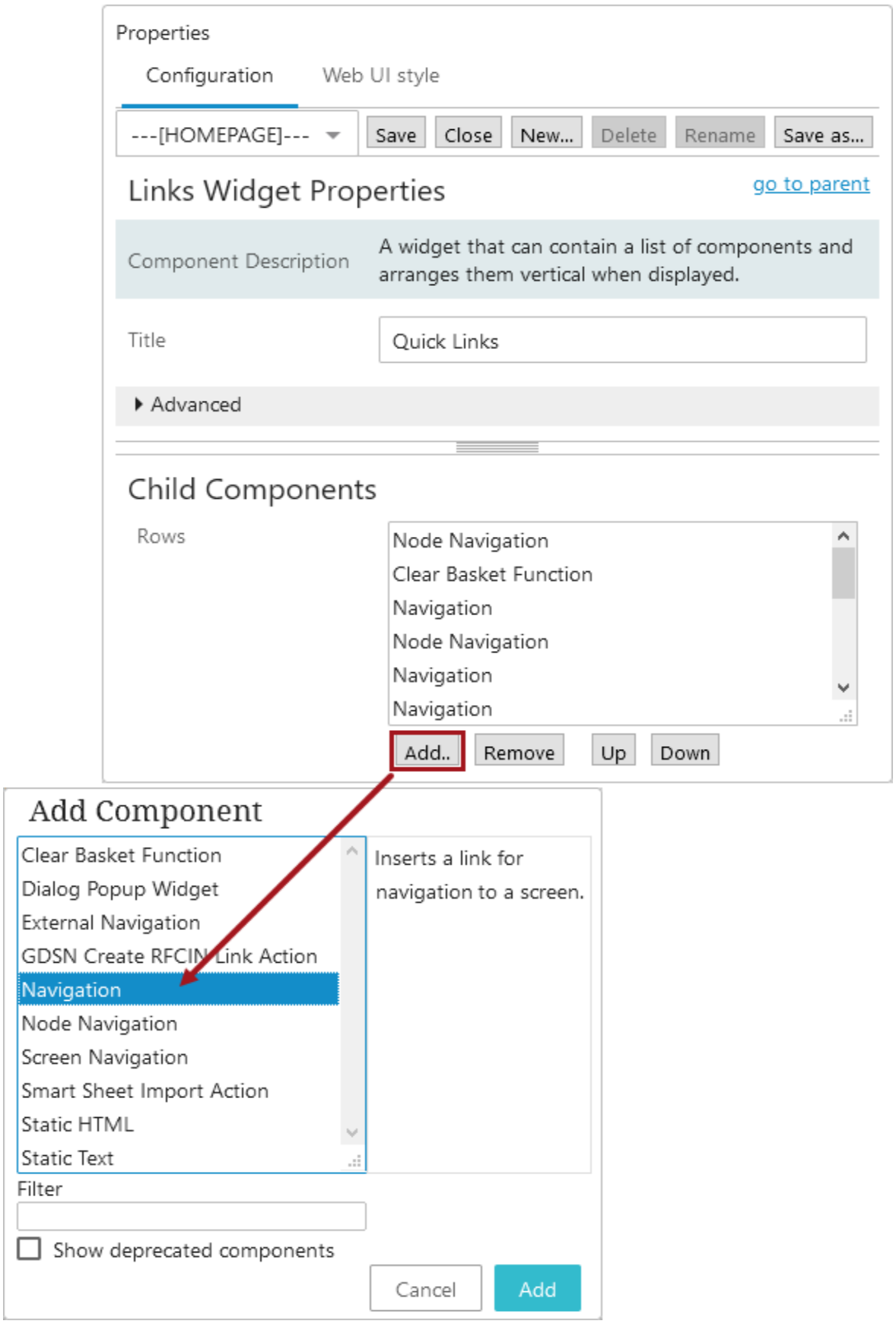
To add a link to Advanced Search on the homepage:

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Enter design mode.
3. The link must now be configured to display in the **Links Widget**.

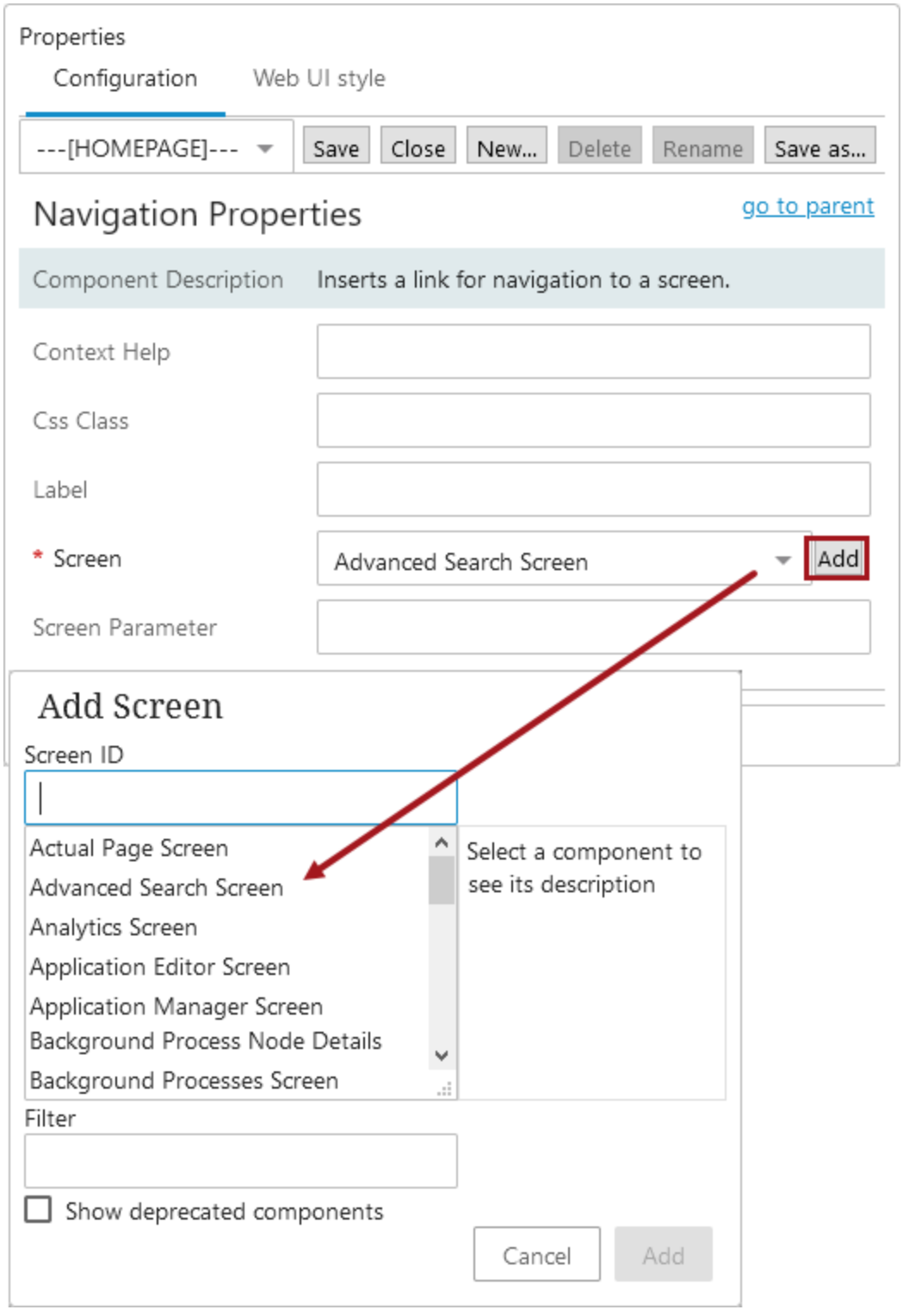
   Select HOMEPAGE from the screen dropdown in the designer and select the Links Widget in the applicable Widget Grid (found under Home Page Properties > Child Components > Content).

   If the Links Widget has never been configured to display on the Homepage, it will need to be added to a Widget Grid. Details on how to do this can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

4. Within Links Widget Properties, go down to the Child Components section and click the Add button.

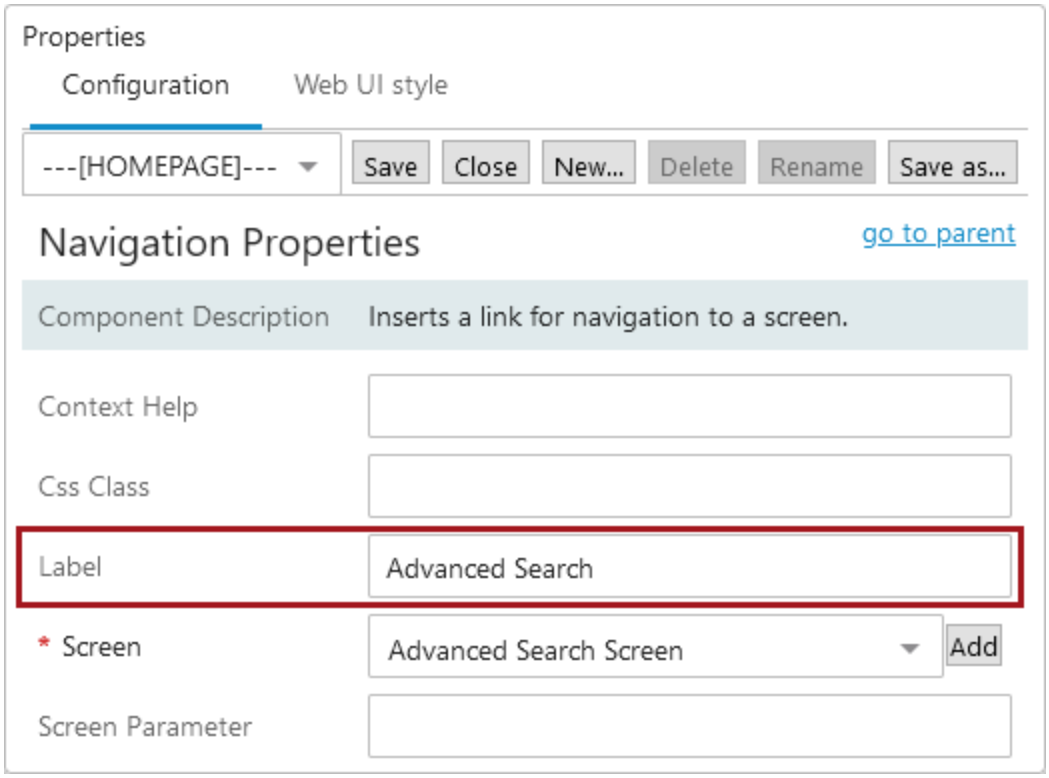

Properties
Configuration
Web UI style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
Links Widget Properties
go to parent
Component Description
A widget that can contain a list of components and arranges them vertical when displayed.
Title
Quick Links
Advanced
Child Components
Rows
Node Navigation
Clear Basket Function
Navigation
Node Navigation
Navigation
Navigation
Add..
Remove
Up
Down
Add Component
Clear Basket Function
Dialog Popup Widget
External Navigation
GDSN Create RFCIN Link Action
Navigation
Node Navigation
Screen Navigation
Smart Sheet Import Action
Static HTML
Static Text
Inserts a link for navigation to a screen.
Filter
Show deprecated components
Cancel
Add

5. Choose the Navigation component and click Add.
6. On the Navigation properties screen, click the Add button to the right of the *Screen* field.
7. Select 'Advanced Search Screen' and input a Screen ID. Click Add.

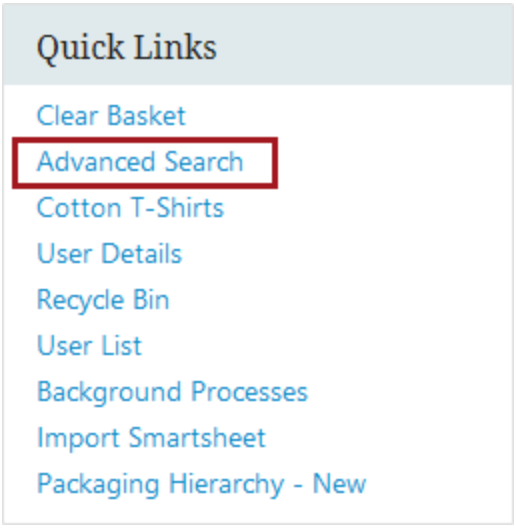


The Screen ID you use should be something descriptive (e.g., Advanced Search or Search Advanced) since this will be the name shown on any design component list in the Web UI. Screen IDs cannot be reused and must be unique.

8. Fill in the Label field with the name that will show on the links widget, then click Add.



9. You can move the Links widget Child Components up and down based on your preference for how they show on the homepage.
10. Click Save in the Properties Configuration dialog box.
11. The Advanced Search link will now show under Quick Links and is identified by the name you gave the link in Step 8.

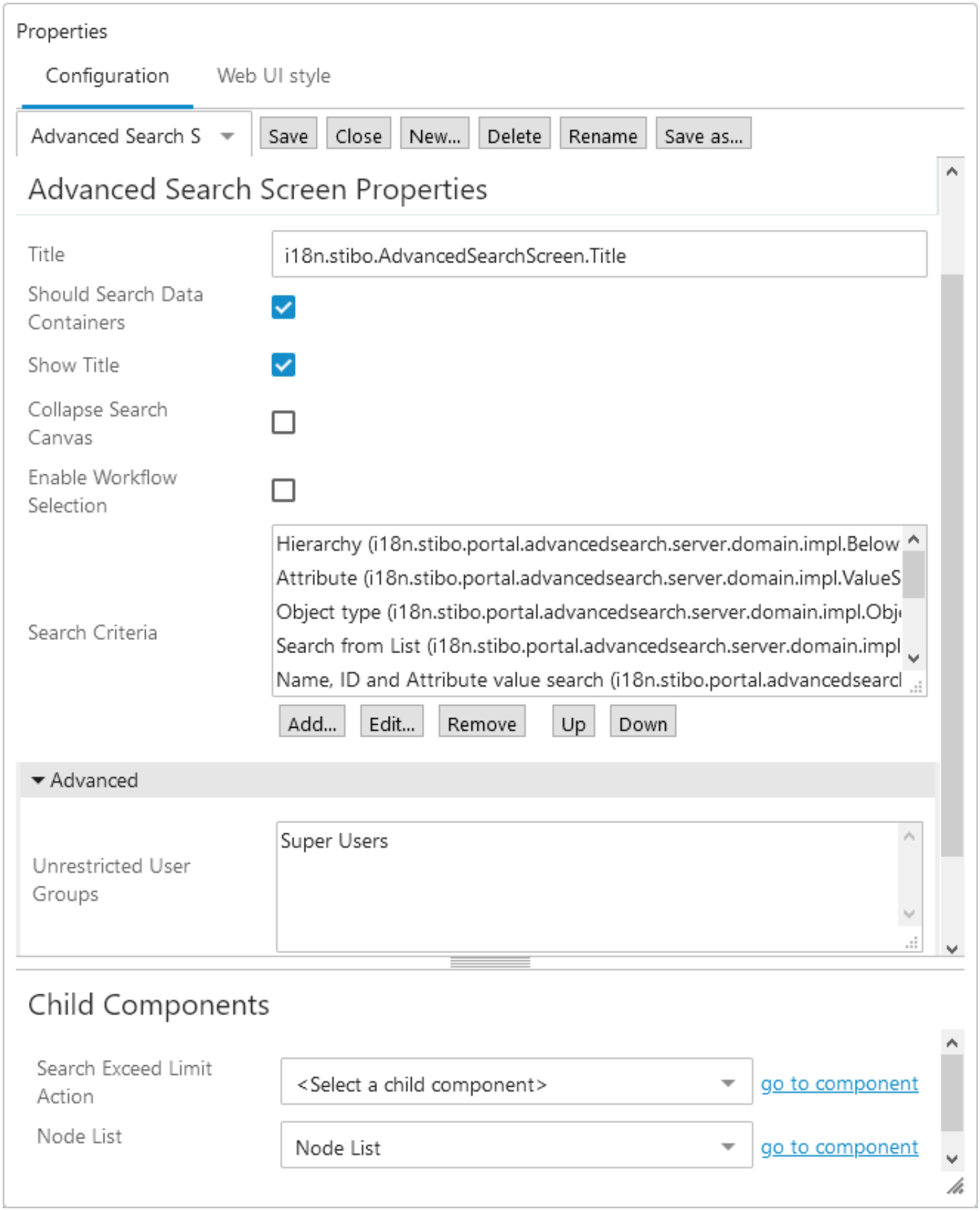


Note: Additional information regarding Web UI Designer (entering design mode, selecting screens to edit, and more) can be found in the **Web User Interfaces** / **Getting Started** documentation.

Editing Advanced Search Screen Properties

Admin users can configure Advanced Search to better meet their data / job needs. This includes modifying existing search criteria for a better user experience (e.g., relabeling a criteria with a more descriptive title), and removing unused search criteria to lessen the risk of unintended and unrestricted searches.

Advanced Search properties can be edited at any time. However, it is best to configure the properties early on. Removing search criteria later may impact searches you have already built and saved. If removed, a criterion remains accessible through a saved search. However, the criterion will say 'No Title' and be unidentifiable to the end user.


Properties
Configuration
Web UI style
Advanced Search S
Save
Close
New...
Delete
Rename
Save as...
Advanced Search Screen Properties
Title
i18n.stibo.AdvancedSearchScreen.Title
Should Search Data Containers
Show Title
Collapse Search Canvas
Enable Workflow Selection
Search Criteria
Hierarchy (i18n.stibo.portal.advancedsearch.server.domain.impl.Below
Attribute (i18n.stibo.portal.advancedsearch.server.domain.impl.ValueS
Object type (i18n.stibo.portal.advancedsearch.server.domain.impl.Obj
Search from List (i18n.stibo.portal.advancedsearch.server.domain.impl
Name, ID and Attribute value search (i18n.stibo.portal.advancedsearcl
Add...
Edit...
Remove
Up
Down
Advanced
Unrestricted User Groups
Super Users
Child Components
Search Exceed Limit Action
<Select a child component>
go to component
Node List
Node List
go to component

1. Log in to the Web UI. Again, user must have privileges to edit Web UI configurations.
2. Navigate to the Advanced Search screen (set up using the instructions above) and enter design mode from that page. Or, alternatively, enter design mode on the Homepage and use the screen dropdown to select the Advanced Search screen ID.
3. Edit the **Title**, if desired. Placeholders can be used in conjunction with, or in place of, that text to automatically insert workflow-specific information into the screen title. These placeholders ({WorkflowID}, {WorkflowState}, {WorkflowName}, and {StatusFlag}) can be used individually or together and display exactly what the name implies. The placeholders are ideal for identifying workflow information when accessing the Advanced Search screen via a Status Selector (Homepage / Sidebar) widget selection, and also when the search criteria is collapsed upon entering the screen.
4. Enable the **Should Search Data Containers** parameter, if desired. When enabled, the search shall also include data containers in its results.
5. Leave the **Show Title** parameter enabled if the Advanced Search Screen should display the title. Disable the parameter to hide the title and its associated white space.
6. Enable the **Collapse Search Canvas** parameter, if desired. When enabled, the search canvas where search criteria can be dragged and dropped to, is collapsed (not showing) when the screen is loaded. The tab with Search Criteria and/or My Searches is also removed from the screen.

   This can be beneficial to users who use Advanced Search as a results screen when clicking on a task within a Status Selector. If the user already knows the search criteria being used to return the results, then there may be no need to review the criteria each time they navigate to the Advanced Search page.

7. The **Enable Workflow Selection** does not need to be enabled for setting up and running standard Advanced Searches.

   However, if clicking on an object ID in the Advanced Search results set should route users to different display screens based on the workflow and state tasks are in, then read more about the required setup for Forwarding Switch Screens in the **Mapping Task List to Workflow State** section of the **Using a Web UI** documentation.

8. Search criteria can be added (Add), removed (Remove), reordered (Up / Down), and renamed (Edit) to meet specific needs. This organization is done in the **Search Criteria** value field, and allows an admin user to limit the number of search criteria (if some are unused) and rename all of the search criteria with more indicative titles to help end users better understand the intended use. Some criteria can be pre-configured to always use certain nodes, and it may be best to have more than one of these pre-configurable criteria set up. Search criteria is described in detail in the **Adding and Modifying Search Criteria** section of this topic, below.
9. Click the Advanced heading to display the **Unrestricted User Groups** parameter. Initially, it is okay to leave this field blank. If there are no groups added, then all users will get access to the configured Advanced Search interface.

   More details about restricting and sharing searches can be found in **Restricting and Sharing Advanced Searches** section of the **Using a Web UI** documentation.

Adding and Modifying Search Criteria

The available Search Criteria are listed below along with a description of each. The default criteria titles are shown, but these can be changed to something more meaningful to the end user.

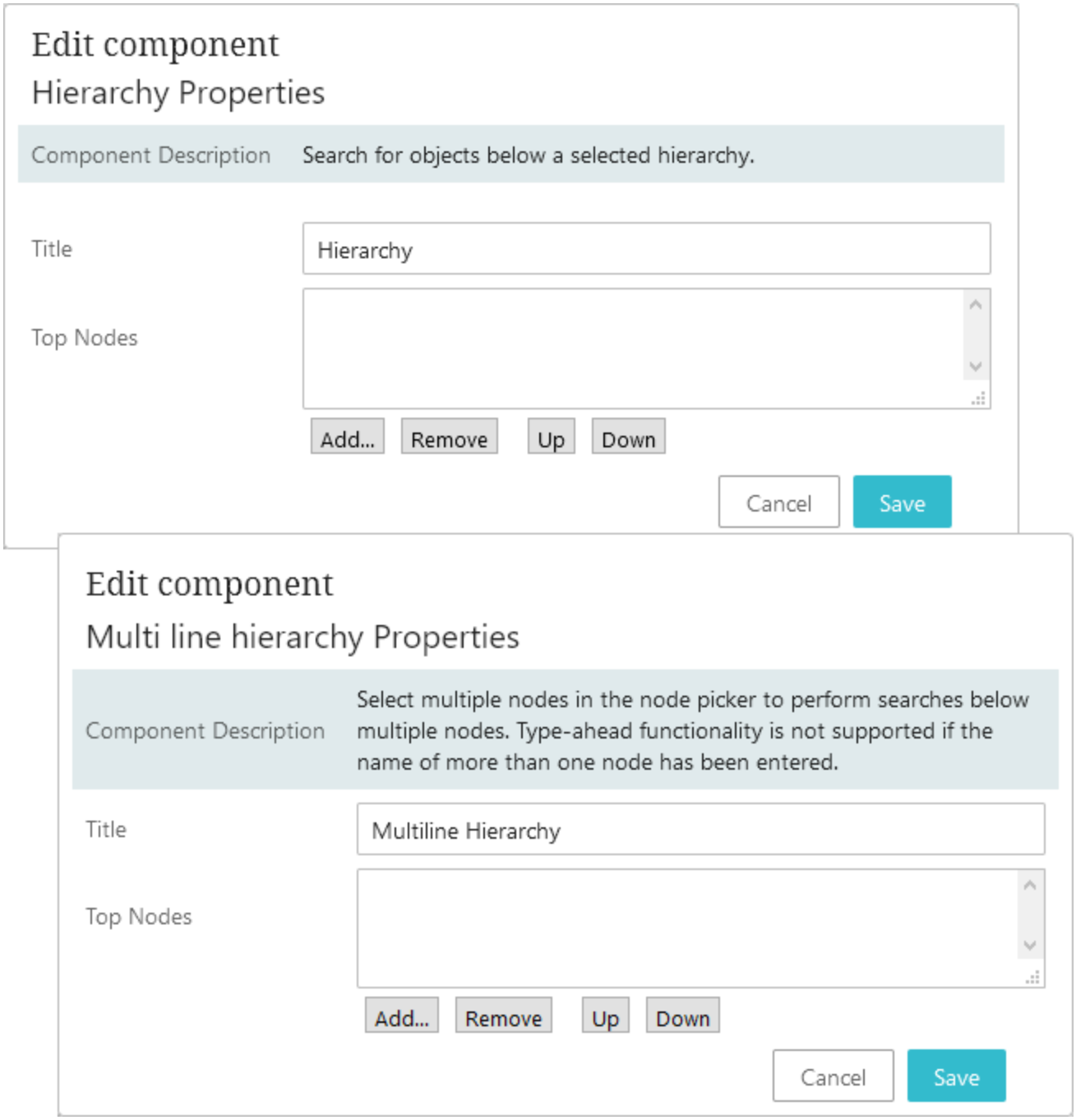
- **Hierarchy** and **Multiline Hierarchy**

  Search objects at or below a STEP Workbench Tree tab hierarchy node.

  Using the Top Nodes section, these criteria can be configured to specify the exact data locations (hierarchy nodes) under which a user can search. Also, there can be more than one instance of the Hierarchy and Multiline Hierarchy under each set of search criteria. Each instance can point to different top nodes.

  The Hierarchy search allows you to search under one node at a time. If the object you are looking for can be found under different nodes, the Multiline Hierarchy criteria can be used. Using the Multiline Hierarchy search criterion can make even highly specific searches less complex and easier to define.

  Click on the Add button next to Top Nodes, and then click on a node by expanding / collapsing the folder structures as needed, or manually type in a selection (under Search). When picking multiple nodes, press the control button on your keyboard and click on each node (Ctrl+click). Save your choices and continue editing other search criteria or save the properties and exit out of design mode.



- **Attribute**

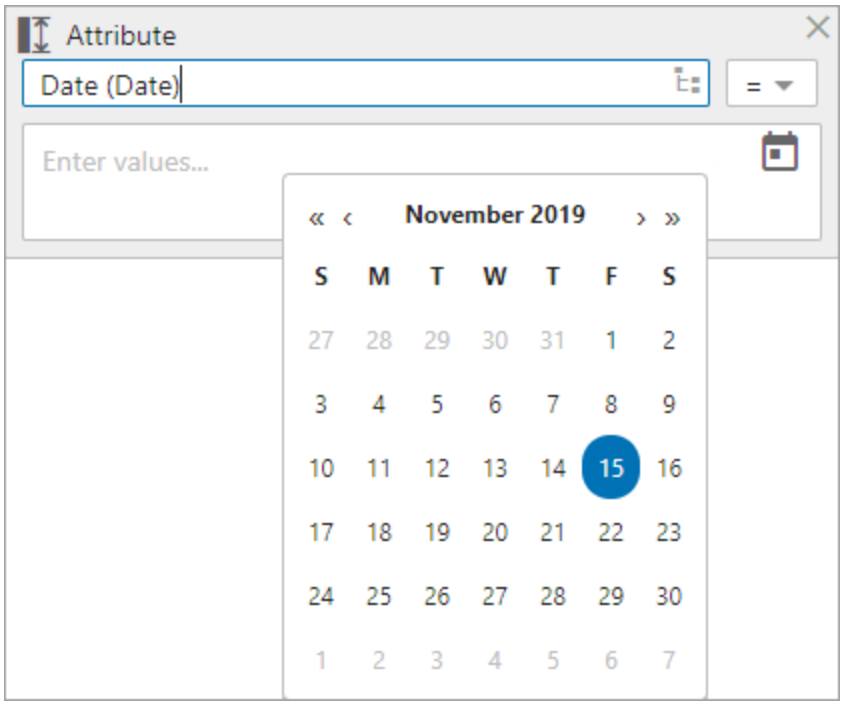
  Search or browse attributes to determine which one you want to search. Attributes include metadata, category-specific attributes, business rules, and bound (to a STEP attribute) Workflow Variables. Once an attribute is selected, choose an operator, and then enter a value. Most operators allow you to search for specific attribute values, but there are also operators that allow you to search for empty attribute value fields.



The Attribute criteria can be configured to restrict which attributes can be selected to a set of pre-selected attribute groups. When clicking the Node Picker button in the topmost field ( ), users may either browse through the hierarchy for the desired attribute, or search for it. If the attribute selection has been restricted, only the configured attribute groups will display in the 'Browse' tab, and only attributes from those configured attribute groups can be selected using the 'Search' tab.

Note: The seven operators to choose from are less than (<), less than or equal to (≤), greater than (>), greater than or equal to (≥), equal to (=), search for missing values in current context (!), and search for missing values in all contexts (!!).

If a referenced attribute has a 'Date,' 'ISO Date,' or 'ISO Date and Time' validation base type, a date picker displays, allowing a user to select a date value.



Wildcards

Two different wildcards can be used in any manual entry fields. These wildcards allow users to perform searches on partial text strings. The wild cards are asterisk (*) and question mark (?). The asterisk (*)

represents any number of characters in a string, and the question mark represents exactly one character. Wildcard characters can go at the beginning, end, or middle of a search.

Examples of wildcard character usage are shown under the **Name, ID and Attribute value search** section of this documentation.

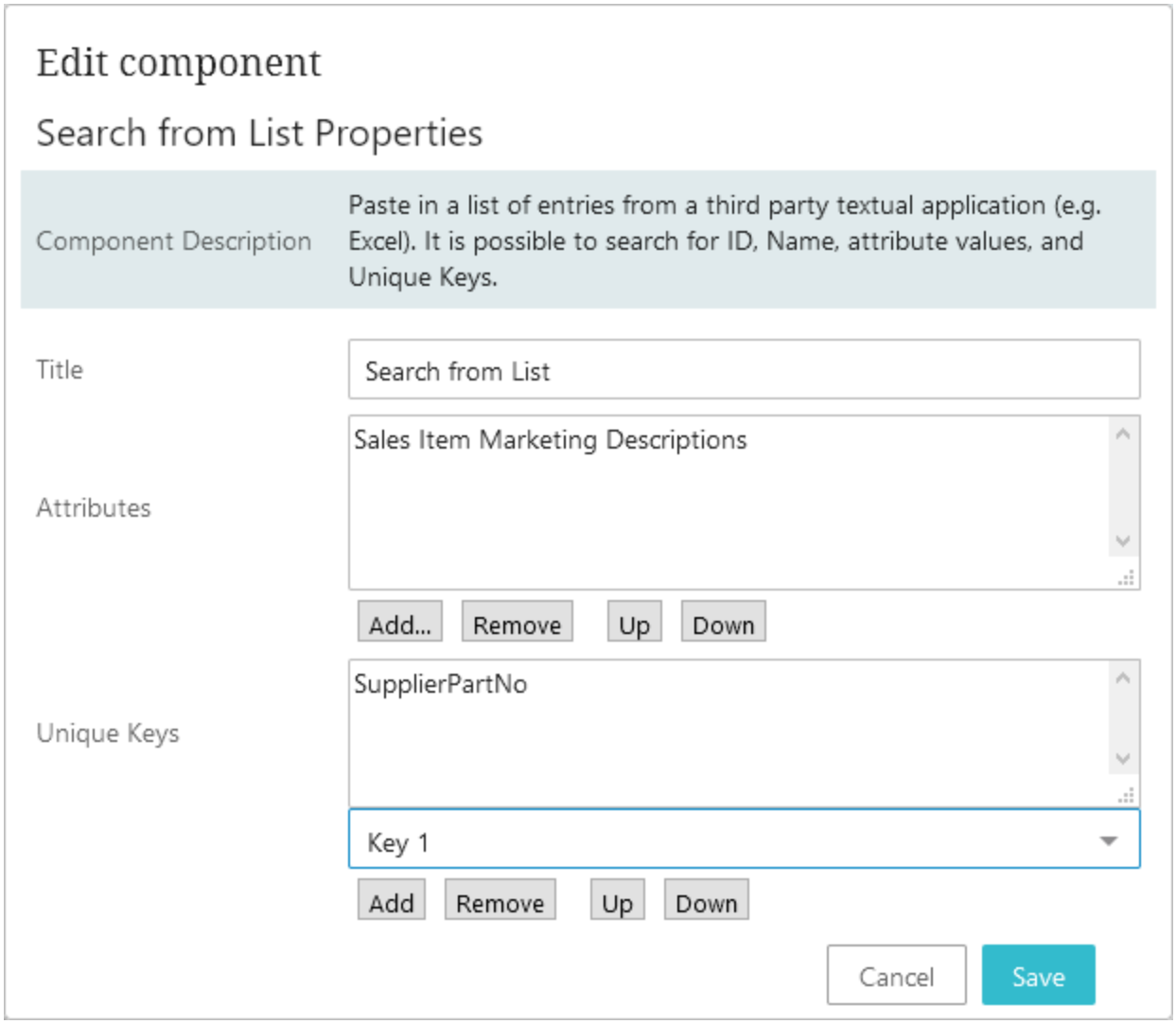
- **Object type**

  Search through attributes, users, classifications, products, assets, entities, and other object types. These objects are maintained through the STEP Workbench, on the System Setup tab, and under the Object Types & Structures folder. Start typing in the field or drill down through the hierarchy to make a node selection.

- **Search From List**

  Users may input a list of IDs and Names to search rather than searching through all system objects. Data can be entered manually or by pasting in data from another source such as an Excel spreadsheet or Smartsheet. Searches can be based on lists of IDs, names, attribute values, or unique keys.

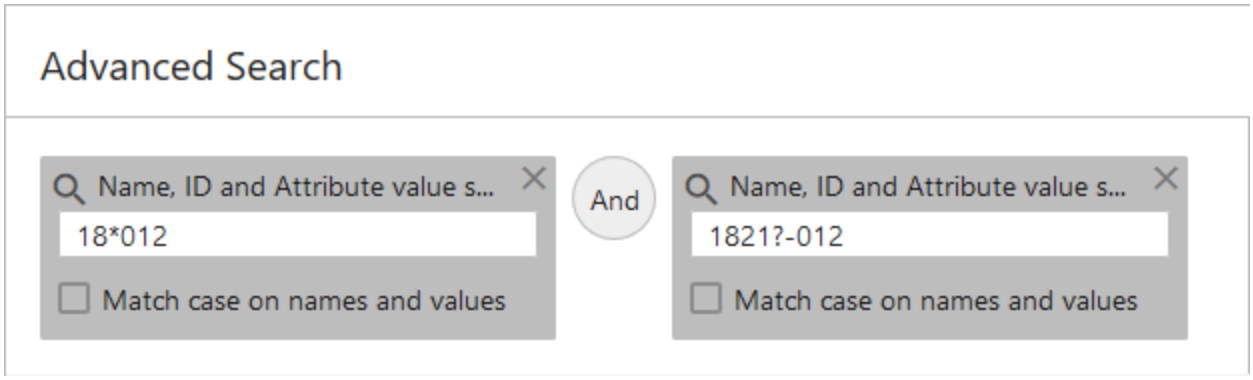
  As an example, a product manager may own a certain set of SKUs. They only want to work with those objects, so they put in their list and (or set up the properties to) use that data - combining, if desired, with other search criteria - to identify specific projects needing work (e.g., in a particular workflow state or having a missing value for a mandatory attribute).



- **Name, ID and Attribute value search**

  Search names, IDs, and attribute values. This parameter is very similar to the Search tab functionality in STEP Workbench.

  Also, similar to the Attribute criterion, wildcard characters (* and ?) may be used when searching. Check the 'Match case on names and values' option if applicable.



- **Approval status**

  This criterion is used to identify objects that are not currently approved. These include classifications, products, images and documents, and entities setup to be Workspace revisable. There are three options to use: 'Never approved or modified in main,' 'Never approved,' or 'Modified in Main.'

- **Missing mandatory entries**

  Search for product attributes and reference types that are required but missing. The mandatory attribute or reference type must be set as mandatory using standard methods. The Missing mandatory entries search works the same in Web UI as it does in STEP Workbench. Both are driven by Workbench mandatory settings.

  This means that any attribute values marked as mandatory in just the Web UI (and not in STEP Workbench) will not show in the results. Also, mandatory workflow states and transitions will not show in the search results either.

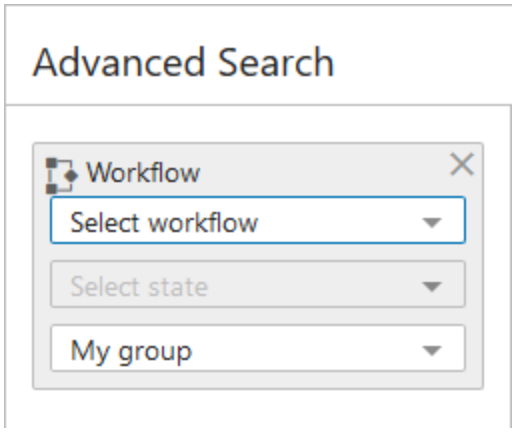
  In workbench, mandatory items have a red checkmark on the validation base icon to the right of the attribute / reference name. For example:  .

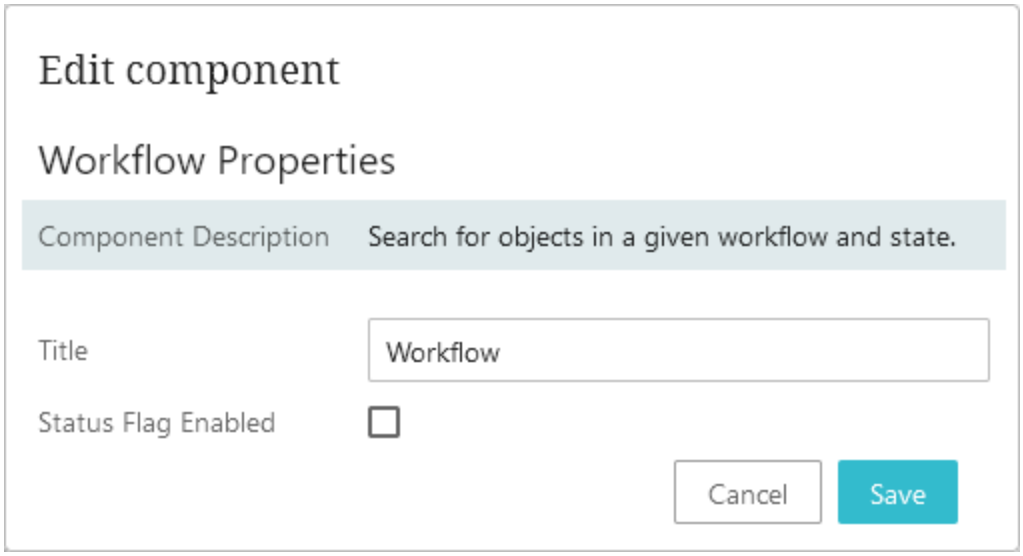
- **Workflow**

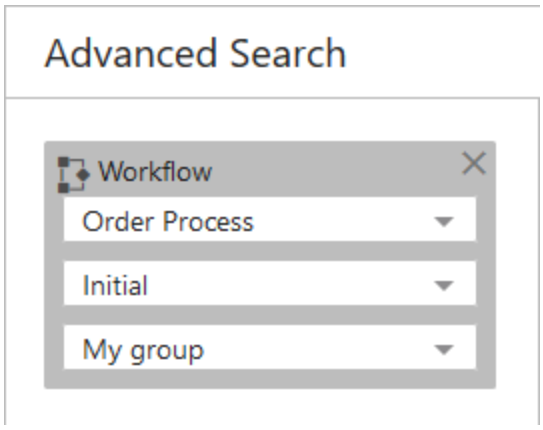
  Workflows can be monitored using this criterion. Click on each dropdown menu and select a workflow, workflow state, state assignee, and status flag (if applicable and configured to display).

  Choosing the '[any State]' state option allows for you to search the entire workflow, if choosing a specific state is not preferred. Choosing 'All' under the assignee field will allow for a broader search. Users may want to refine the search to review only workflow tasks that are directly applicable to them or their group.

  A status flag dropdown can be added to the Workflow criterion by checking the 'Status Flag Enabled' parameter within the Advanced Search Workflow Properties. When doing a search with the Workflow criterion, the status flag selector can be left as 'All status flags' if desired, or may be populated to restrict the search to only tasks with specific status flags applied.







When accessing the Advanced Search screen via a workflow selection, make note of the default screen behavior, with the third bullet being *key* to this functionality:

- The Advanced Search screen is configured as the result screen for a Status Selector (Homepage / Sidebar) widget
- A Status Selector task selection has been made
- The Workflow criteria is removed from, or not initially configured as one of, the valid Search Criteria selections through the Advanced Search Screen Properties

When users make a task selection in the widget operating under this scenario, the workflow criteria fields display on the screen (as long as the search canvas is not collapsed). The search criteria values are read-only, and the workflow criteria cannot be removed from the search area. Privileged users can add / remove additional criteria to do more focused searches, but the user is always left with the original workflow search criteria that they began with. This allows for end users to focus on their tasks without any concern that they may inadvertently take action on tasks that they do not own.

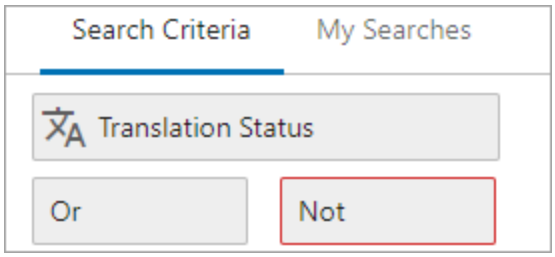
When accessing Advanced Search via any other method (e.g., a link in the Quick Links widget), the screen behavior is as expected.

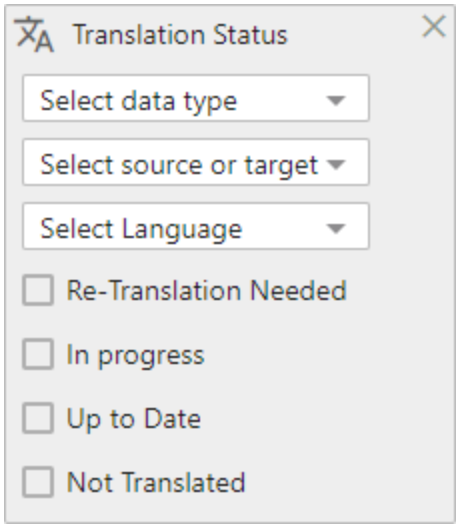
- **Translation Status**

  The Translation Status criterion allows users to:

  - Perform an advanced search for the translation status of Products, Classifications, Assets, Attributes, or List Of Values
  - Choose a language and specify that language as the source or target
  - Choose one or more of the provided filters to narrow down their search results

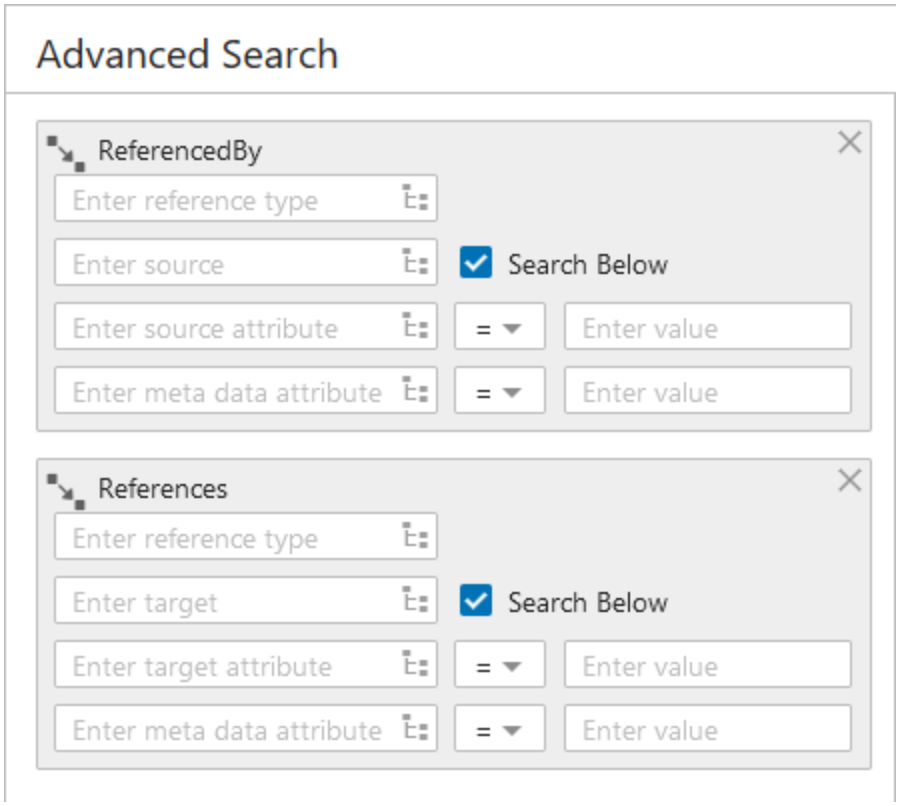
  For more information regarding translations, refer to the **Translations** topic.





- **Referenced By** and **References**

  The Referenced By and References criteria work similarly. The 'Referenced By' search criteria will return target objects. The 'References' search criteria will return source objects. Both options require a reference type selection to begin. Reference types are setup in the STEP Workbench System Setup tab in the Reference Types folder.



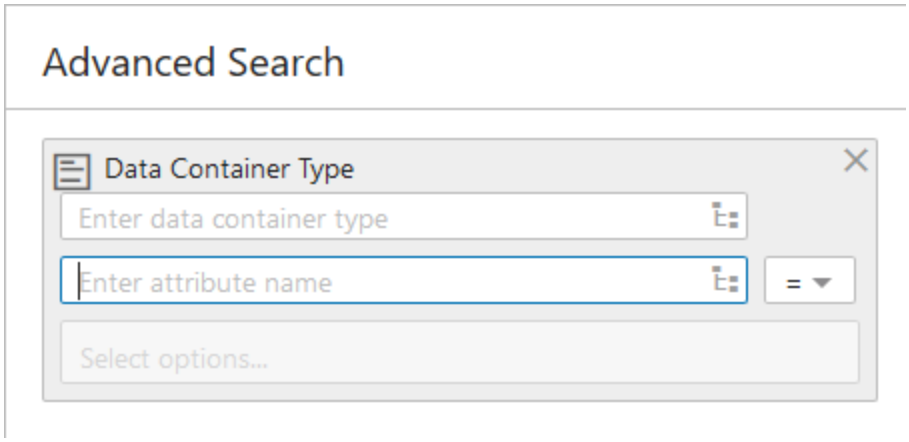
Once a reference type is entered, no additional options need to be filled in to start a search. Use the information at a high level or fill in the other values to drill down further. Select a reference source under Referenced By and a target under References, or locate reference objects based on attributes and attribute values residing on the target or source object. Plus enter specific attributes, values to search reference metadata. For searches using either the source / target attribute or metadata search criteria, users may also select the appropriate search operators when refining the search to include values: less than (<), less than or equal to (≤), greater than (>), greater than or equal to (≥), and equal to (=).

Users may also populate the 'Enter Source' or 'Enter Target' fields with collections. This enables Advanced Search users to further refine a collection, itself a pre-refined group of objects, to create a granular search result.

Additionally, by checking the 'Search Below' box found in both the 'References' and 'ReferencedBy' criteria (as found in the screenshot above), users can expand the search to include any nodes beneath the node selected in the 'Enter source' (ReferencedBy) or 'Enter target' (References) field. This results in a search result that includes reference objects either referencing or referenced by the children of the specified object.

- **Data Container Type**

  The data container criterion enables users to search either for entity objects for which specific data container types have been made valid, or for entities that may have specific attributes and attribute values linked via a data container.



  The data container criterion enables a few different kinds of searches.

  - Search by data container type, which will display all entities for which a data container has been added to the data container type being searched.
  - Search by attribute name / attribute value to view entity objects that have any data containers populated with a specific value or values.
  - Search a combination of both of the searches listed above: data container type and attribute name / attribute value.

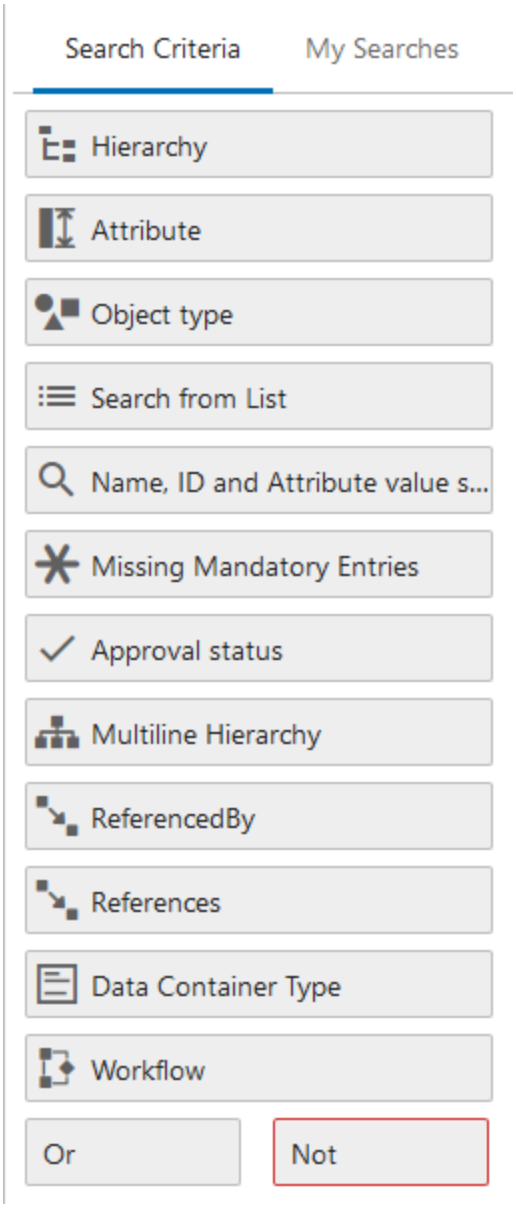
Important: *Any criteria with a dropdown menu allows for a user to click on the dropdown and make a choice. No manual typing can be done in those fields. Any place the Node Picker icon ( ) shows, click on it to*

expand the options and select / search nodes. Users may also start typing in any of those value boxes to view a list of available choices.

Completed Search Criteria

The next screenshot shows an example of what the Search Criteria looks like under Advanced Search. The criteria properties have not been renamed in this example and each criteria is only used once.

Note: The 'Or' and 'Not' operator fields are standard and cannot be removed or renamed.



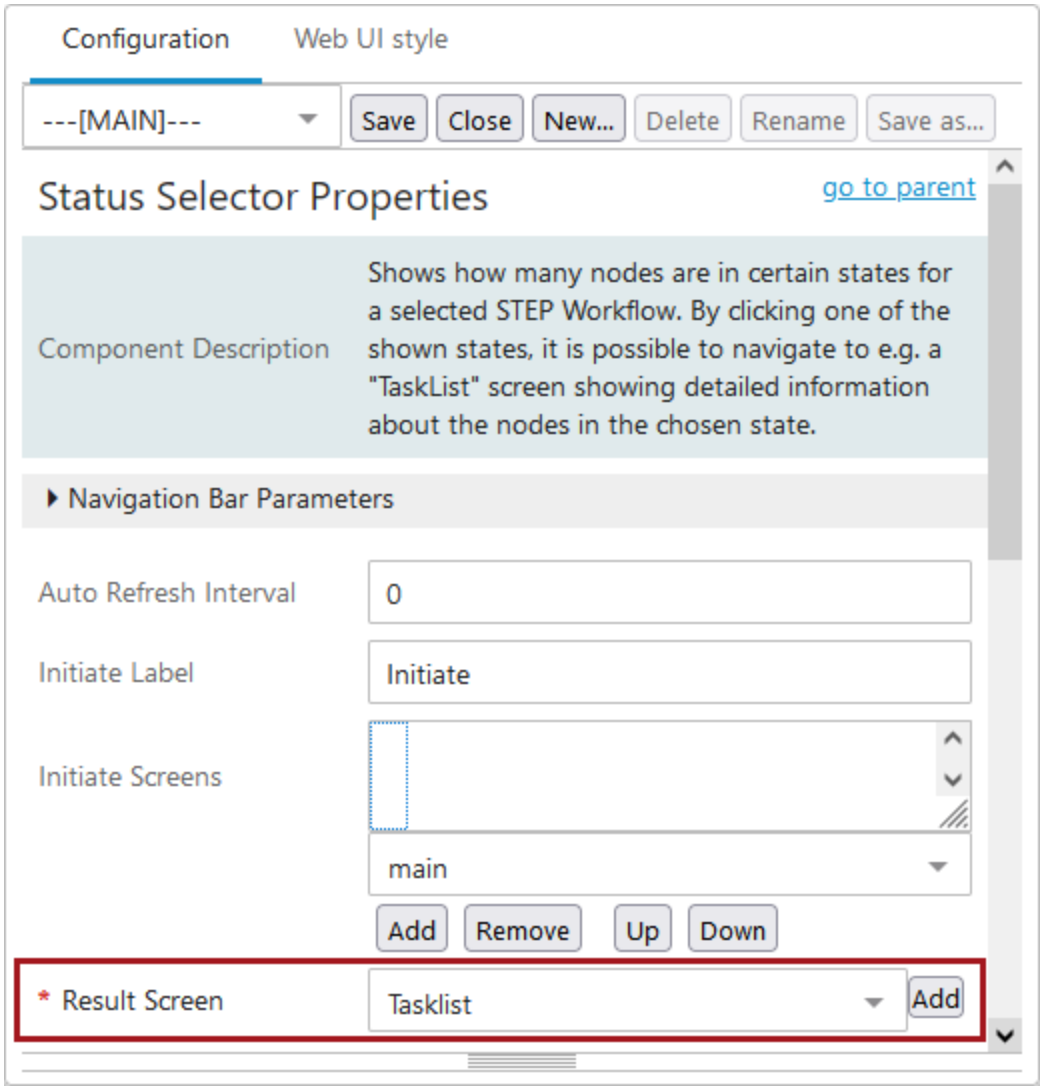
Advanced Search is now set up and ready for use.

Mapping Task List to Workflow State

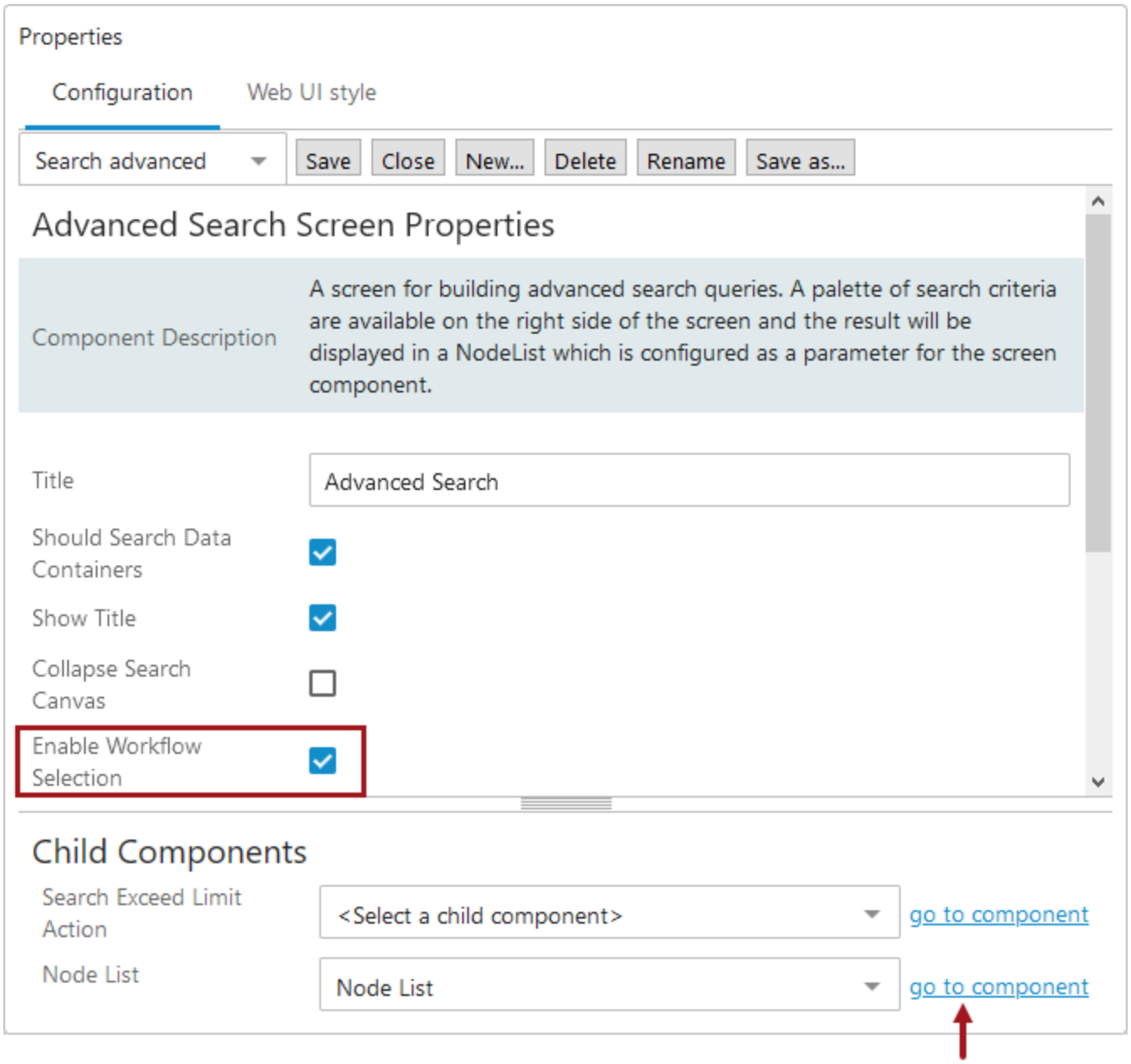
When properly configured, a user clicking on an object in an Advanced Search Task List will be routed to a specific screen designated for display of objects in the particular workflow and state that the object is currently in.

What follows is an example that a user can utilize as a starting point to complete their own configuration. The directions and screenshots are designed under the assumption that the user has already set up all the screens required.

1. Log in to the Web UI and enter design mode.
2. Navigate through the properties to get to the Status Selector you will be editing (either Status Selector child component via the Main Properties or the Status Selector Homepage Widget). For more information, refer to the **Status Selector in the Global Navigation Panel** in the **Web User Interface** documentation. The **Results Screen** for the applicable Status Selector should be set up to go to the Advanced Search screen. If not, make the selection and click Save.



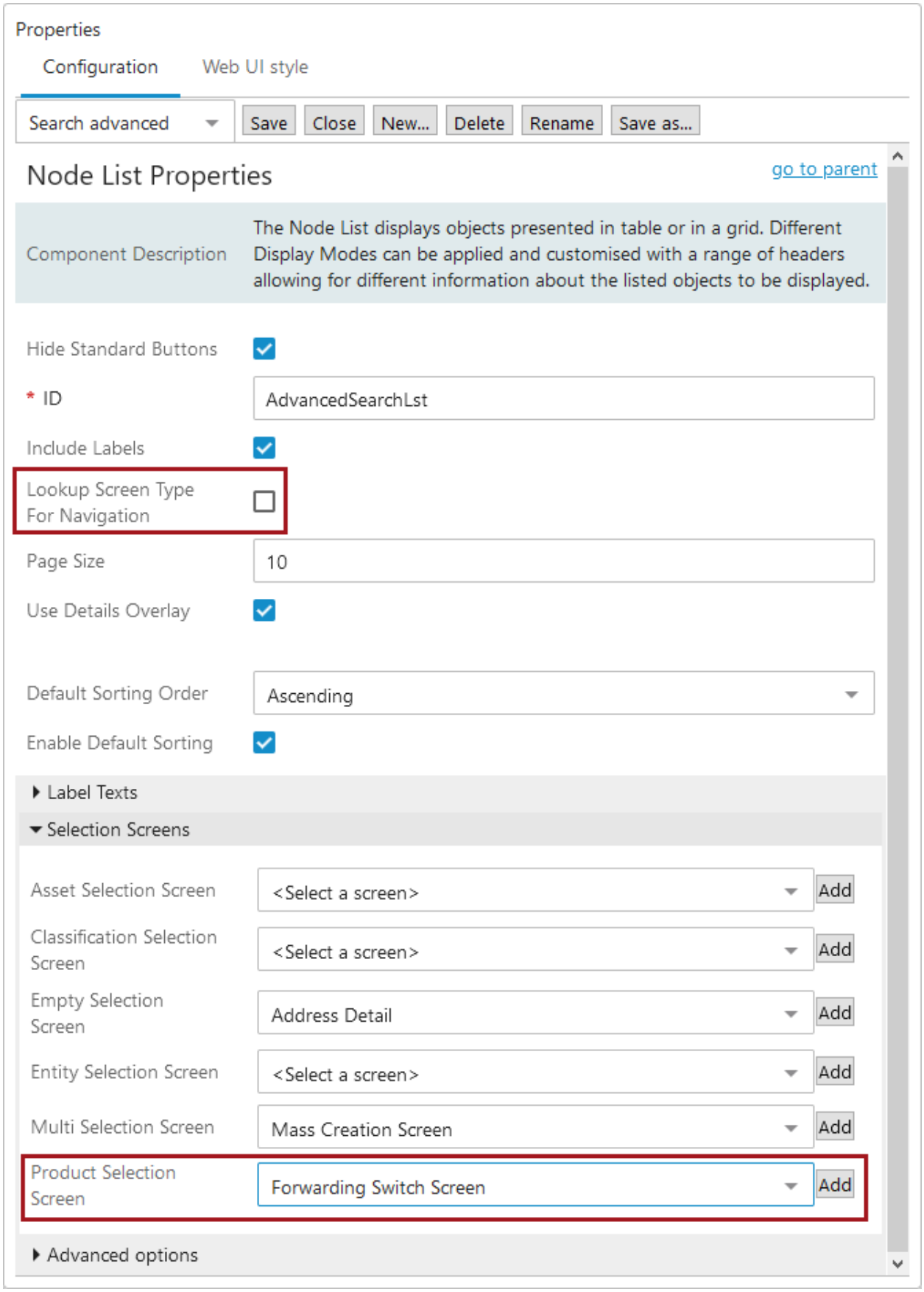
3. Select the Advanced Search Screen ID from the dropdown (it is Search advanced in the example below). Click the checkbox for the **Enable Workflow Selection** parameter in the Advanced Search Screen Properties. Save the selection before going on to the next step.



4. Stay on the Advanced Search Screen Properties screen, and click on the Node List 'go to component' link.
5. On the Node List properties screen, disable / **uncheck** the Lookup Screen Type For Navigation parameter. Save these changes.

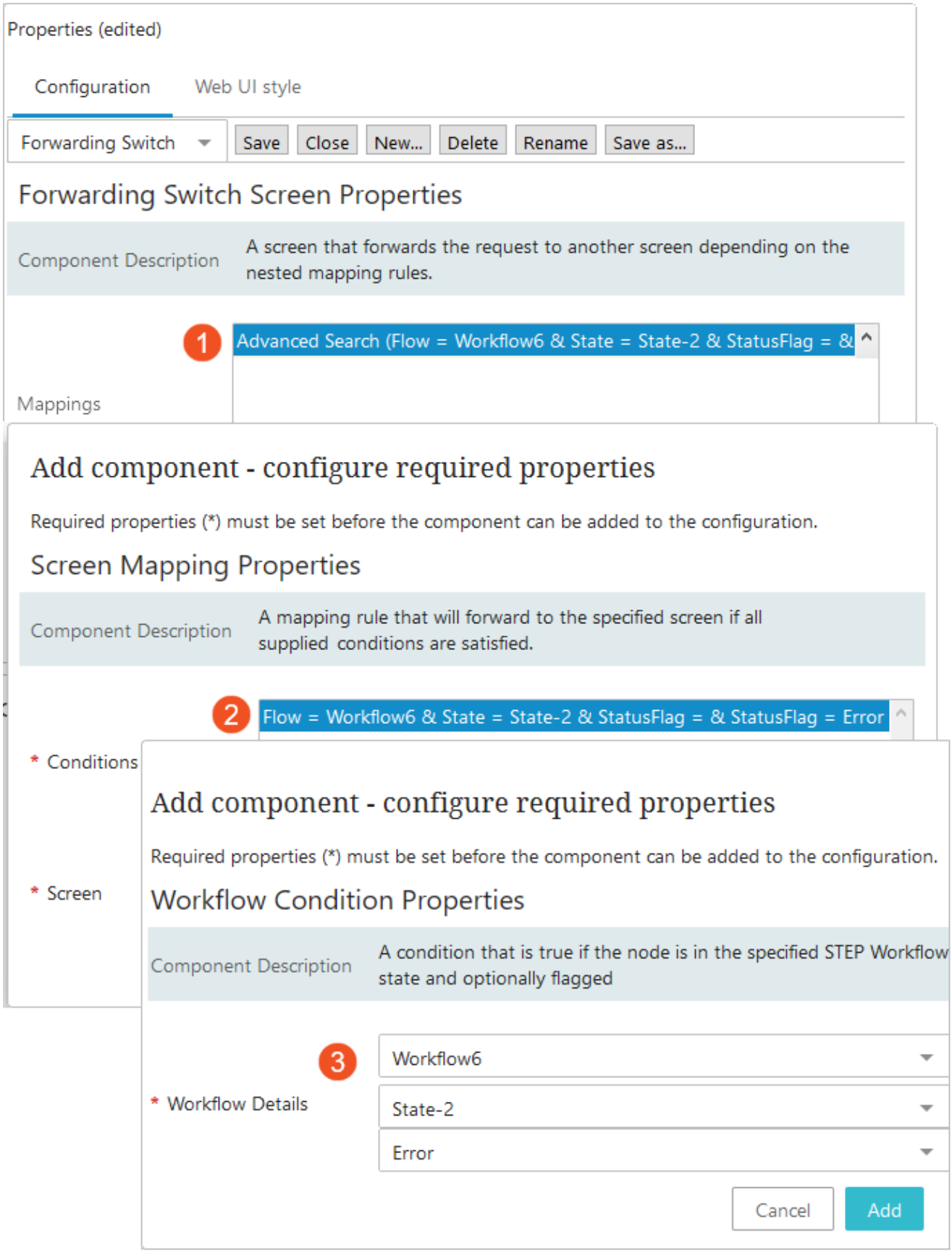
   - If Lookup Screen Type For Navigation is **unchecked**, then the object screen selection that is defined under Selection Screens will be used as a target screen (e.g., Asset Selection Screen, Classification Selection Screen, Product Selection Screen, and Entity Selection Screen).

- If Lookup Screen Type For Navigation is checked, then the screen mappings that are defined in the Main Properties screen are used when selecting the object from the Node List.


Properties
Configuration
Web UI style
Search advanced
Save
Close
New...
Delete
Rename
Save as...
Node List Properties
go to parent
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Hide Standard Buttons
* ID
AdvancedSearchLst
Include Labels
Lookup Screen Type For Navigation
Page Size
10
Use Details Overlay
Default Sorting Order
Ascending
Enable Default Sorting
Label Texts
Selection Screens
Asset Selection Screen
<Select a screen>
Add
Classification Selection Screen
<Select a screen>
Add
Empty Selection Screen
Address Detail
Add
Entity Selection Screen
<Select a screen>
Add
Multi Selection Screen
Mass Creation Screen
Add
Product Selection Screen
Forwarding Switch Screen
Add
Advanced options

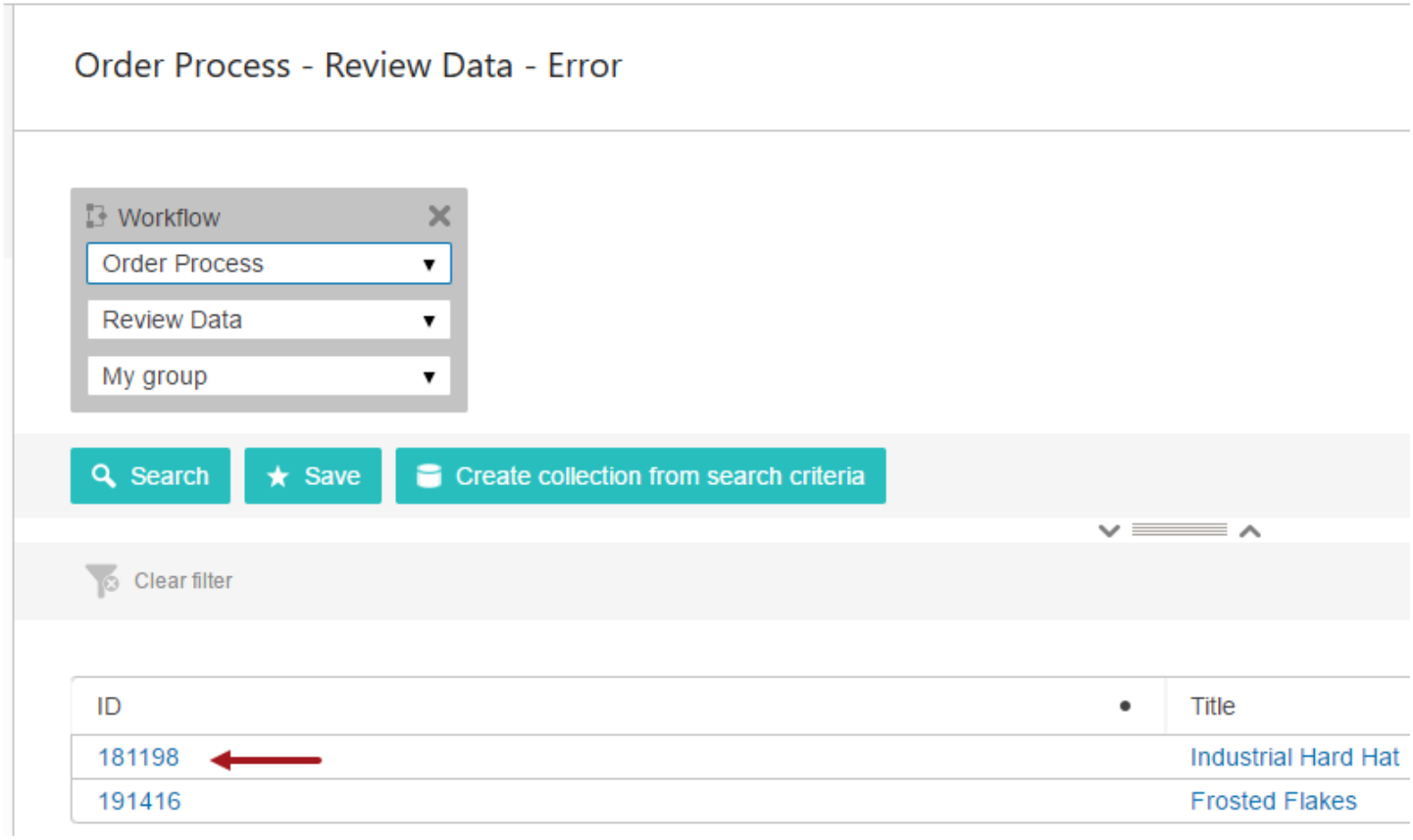
6. Select a Forwarding Switch Screen from the Product Selection Screen dropdown. Save the Node List Properties.
7. From the screen dropdown selector (to the left of the Save button), pull up the properties for the screen designated as the Product Selection Screen. In this example, it is the Screen_TaskList2_Forwarding screen.
8. In the Forwarding Switch Screen Properties, define the workflow condition that should show on the screen when selecting an object link within a Node List.
   - Click Add to add a mapping. This will open Screen Mapping Properties.
   - On Screen Mapping Properties, under the Conditions field, click Add.
   - Select 'Workflow Condition' from the component list and click Add.
   - Make a State and Workflow selection. Click Add again. Users should continue mapping any additional workflow states, if applicable, that will be going to the *same* screen. When done, click the dropdown for the Screen parameter and make a selection. Click Add.
   - Save the Forwarding Switch Screen Properties.
   - Repeat the steps in the previous bullets as needed.
   - Save any additional changes and close Web UI Designer.

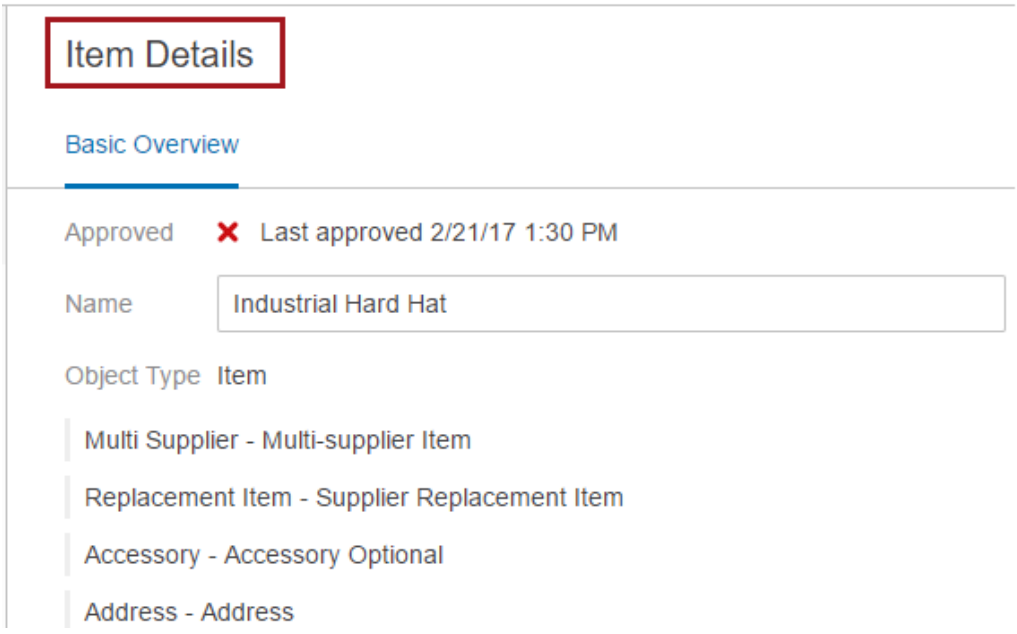
Important: If mapping is set up for one state in a workflow displayed using a Status Selector, mappings should be set up for all displayed states of the workflow to avoid end users receiving a 'No mapping found' message when clicking on an object ID in the results set.


Properties (edited)
Configuration
Web UI style
Forwarding Switch
Save
Close
New...
Delete
Rename
Save as...
Forwarding Switch Screen Properties
Component Description
A screen that forwards the request to another screen depending on the nested mapping rules.
1
Advanced Search (Flow = Workflow6 & State = State-2 & StatusFlag = &
Mappings
Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Screen Mapping Properties
Component Description
A mapping rule that will forward to the specified screen if all supplied conditions are satisfied.
2
Flow = Workflow6 & State = State-2 & StatusFlag = & StatusFlag = Error
* Conditions
Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
* Screen
Workflow Condition Properties
Component Description
A condition that is true if the node is in the specified STEP Workflow state and optionally flagged
3
Workflow6
* Workflow Details
State-2
Error
Cancel
Add

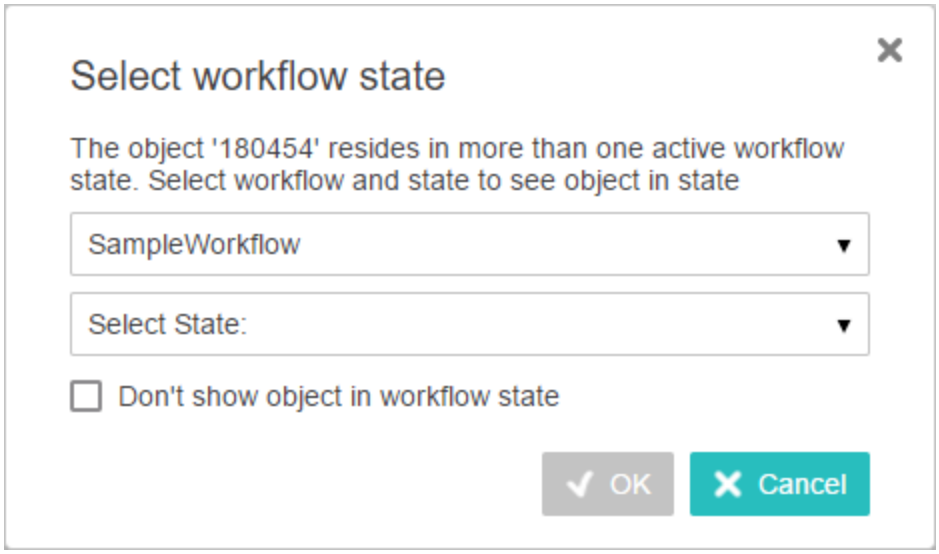
The result is that when a user clicks on the a workflow state on the Status Selector, the results are shown in an Advanced Search Task List. When a user clicks on the ID for an object in the results set, the screen is redirected to the forwarding screen that is specified by the workflow condition.

In the example shown in the screenshots, when a user clicks on the Review Data state on the Status Selector, the result is shown in the Advanced Search Task List. When the user clicks on of the ID links, the screen in this example is redirected to an Items Details screen. Refer to the screenshots that follow.





If an object is in more than one workflow, or in multiple states in the same workflow, a 'Select workflow state' dialog appears for the user to specify the state they would like to view the object in. Users need to make a selection or selections using the dropdowns that are active / available. The top dropdown is for workflow selection, and the bottom dropdown is for state selection.



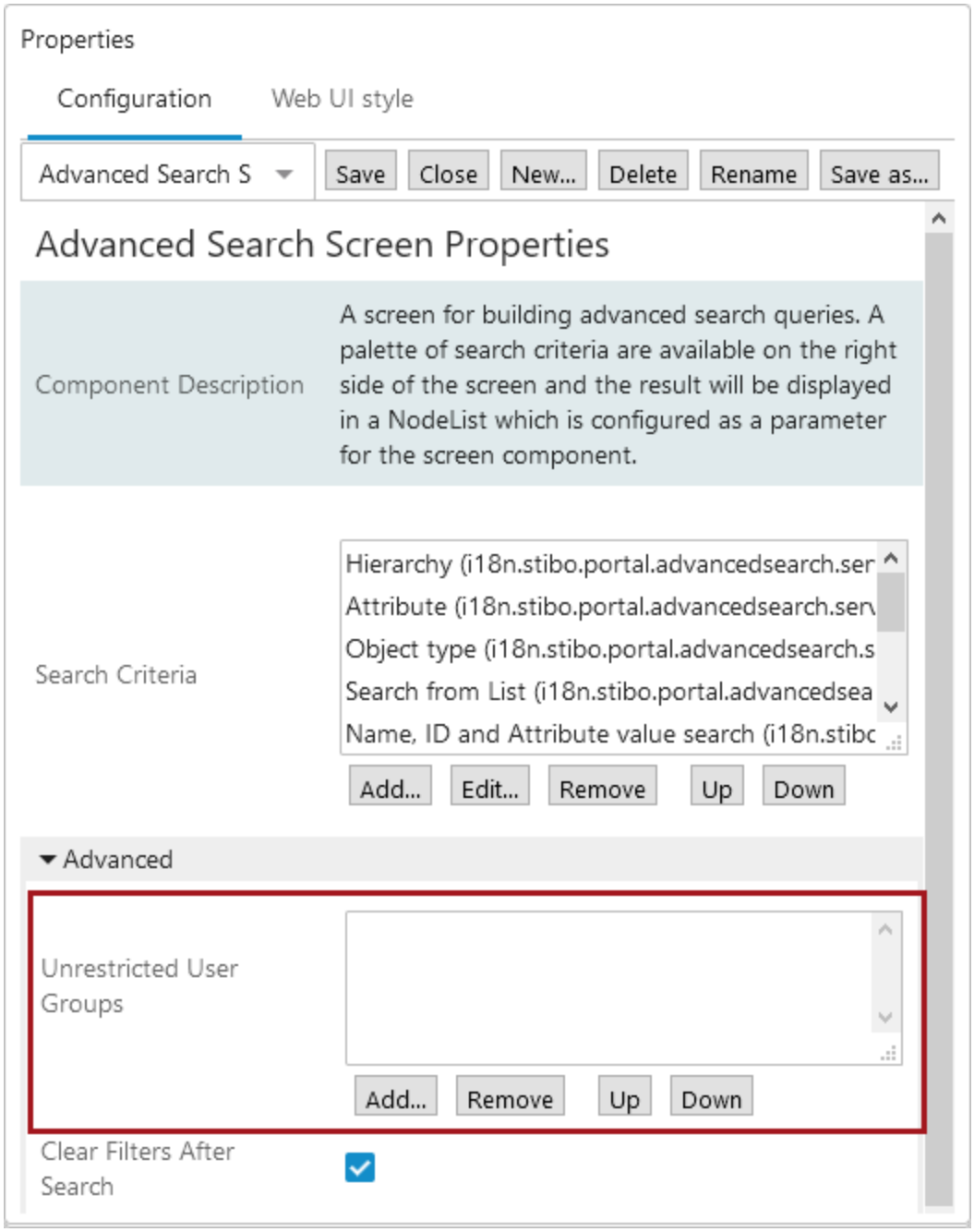
Once selections are made, the user clicks OK and is then redirected to the designated screen for the selected workflow state.

Restricting and Sharing Advanced Searches

Creating and performing searches in Advanced Search can be a complex process for users with limited knowledge about the underlying data structure in STEP. For that reason, users with 'unrestricted access' (administrators) are able to pre-configure an Advanced Search in the Web UI and share it with other users. Experienced users can tailor Advanced Search to specific purposes and share with end users who do not have as much STEP experience.

Restricting User Groups

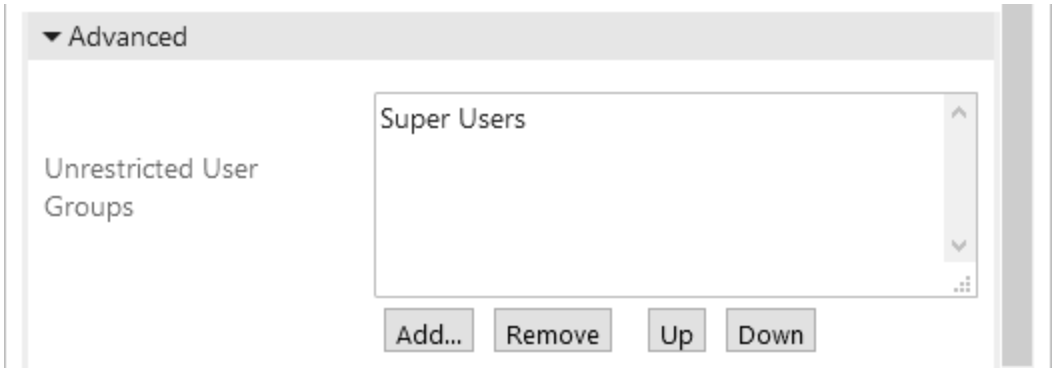
1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Click the design mode launch button  found on the homepage (in the user widget).
3. Click the Advanced Search link (e.g., if configured to display in the Quick Links widget) or navigate to the screen using the dropdown in the Web UI Designer window.



4. Click Add under **Unrestricted User Groups** and pick the applicable node from the selection menu.

   The admin - or anyone who will be creating and sharing the saved searches - needs to be added to the Unrestricted User Groups. All other groups are considered to be restricted and, therefore, cannot create and save Advanced Searches themselves.

5. In the next screenshot, the 'Super Users' group has been given Unrestricted User Group rights. This means that a member of the Super Users group will be setting up / sharing searches.

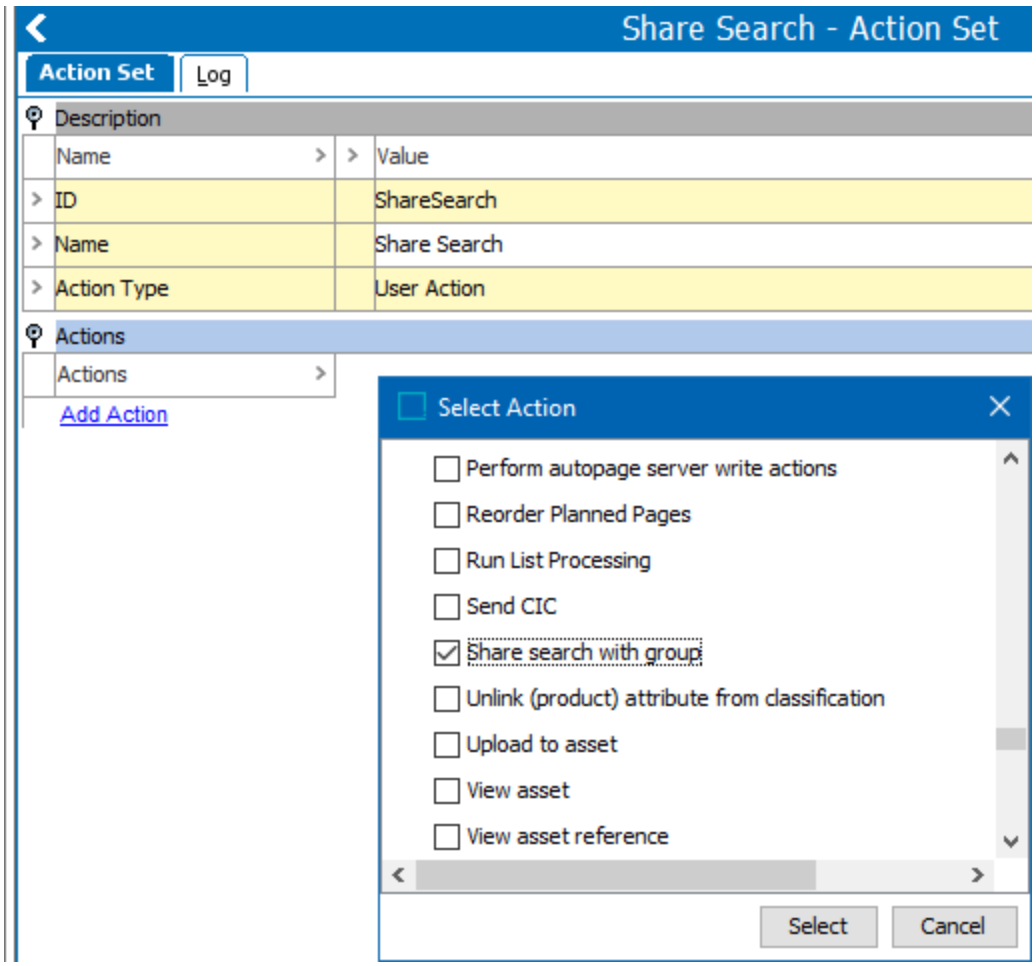


Important: If there are no groups added as Unrestricted User Groups, everyone will get access to the Advanced Search tab and the criteria. However, users who are not privileged to share searches will not be able to save searches. As soon as a group is added as an Unrestricted User Group, all other groups become restricted users until added as unrestricted. It is best to drop the Web UI admin group into this selection to avoid any issues that may come up if users with limited STEP experience try an all-encompassing search using large amounts of data.

Applying a Share Search Action Set

First, a 'Share search with group' action will need to be created if it does not already exist as a standalone item or as part of an existing Action Set.

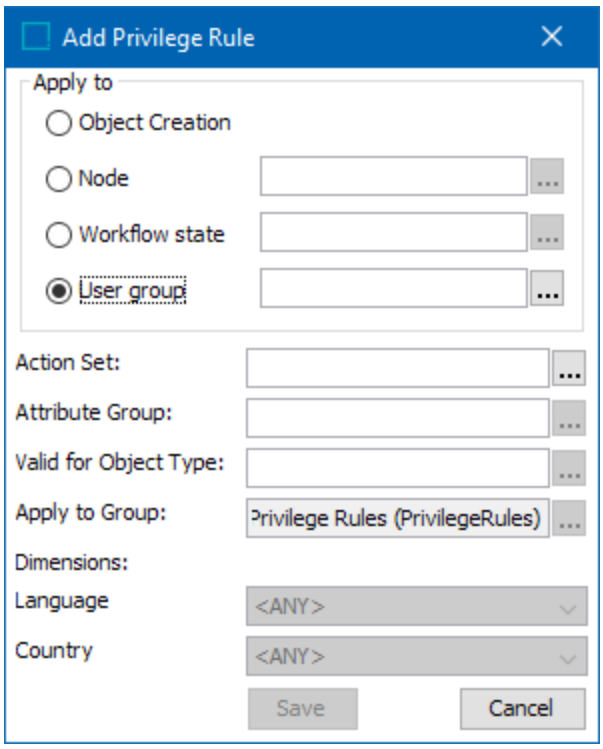
1. Go to **System Setup** in the STEP Workbench.
2. Under Action Sets, right-click User Actions and add a New Action Set.
3. Type in an ID and Name then click Create. In this example, the name is 'Share Search.'
4. Click on the new action set that was just created. Go to the Action Set tab.
5. Click on the Add Action link and select 'Share search with group.'



Next, the user or group that has unrestricted Advanced Search Web UI access, typically Web UI administrators, will need to have updated Privilege Rules before being able to share pre-configured searches.

In the following example, Super Users is the unrestricted group. And Buyer Group is the user group that will be able to access the shared search(es).

6. Under **System Setup** in the STEP Workbench, go to Users & Groups. Click on the group that will have unrestricted privileges in the Web UI Advanced Search configuration.
7. On the Privilege Rules tab, click on Add Privilege found under User Privileges (expand the flipper, if needed). Specify the user or group that the admin will share searches with (in the Apply to User group section). For Action Set, pick the action set that was created in Step 3 (Share Search). The user group with unrestricted privileges should be listed for Apply to Group.



Important: The 'Privilege' to share pre-created searches should be added to the group who will be setting up the searches and sharing them, not to the user or group who will receive the shared searches.

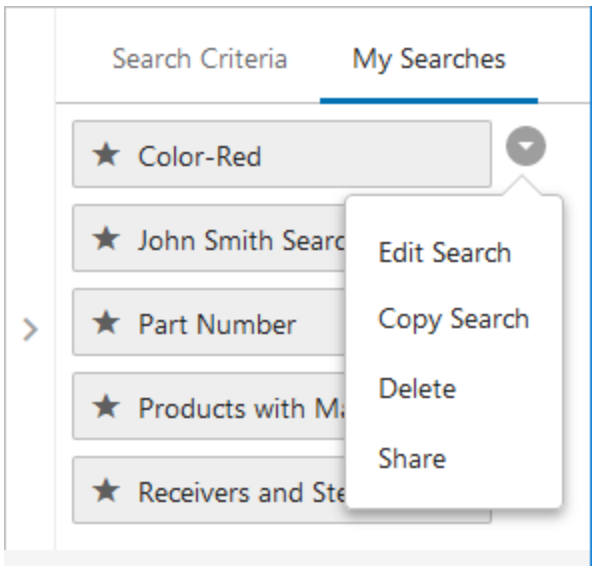
8. Click Save.

   Setup in the STEP Workbench is now complete.

   The group or groups designated as Unrestricted User Groups may run searches and also create searches, save them, and share with the user(s) designated in the Workbench as privileged users.

Sharing Saved Searches

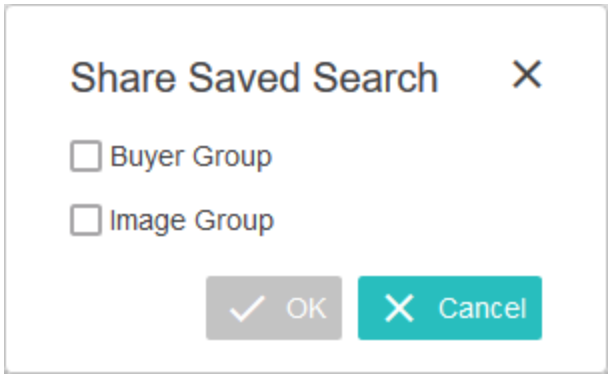
The administrator (unrestricted user) will need to log in to the Web UI to create an Advanced Search or access an existing saved search. Saved searches can only be shared with the privileged users. Refer to the 'Applying a Share Search Action Set' section in this documentation.



To share a saved search, the administrator (a member of the Unrestricted User Group) can click on the downward arrow icon, , to the right of each saved search to view the options available:

- Edit Search- change the pre-configured search name and resave, or edit the description field.
- Copy search - make a copy of an existing search that can then be edited and renamed
- Delete - remove the saved search from the list
- Share - make the saved search available for a (privileged) user

When the Share link is clicked, a menu of available users / groups is shown.



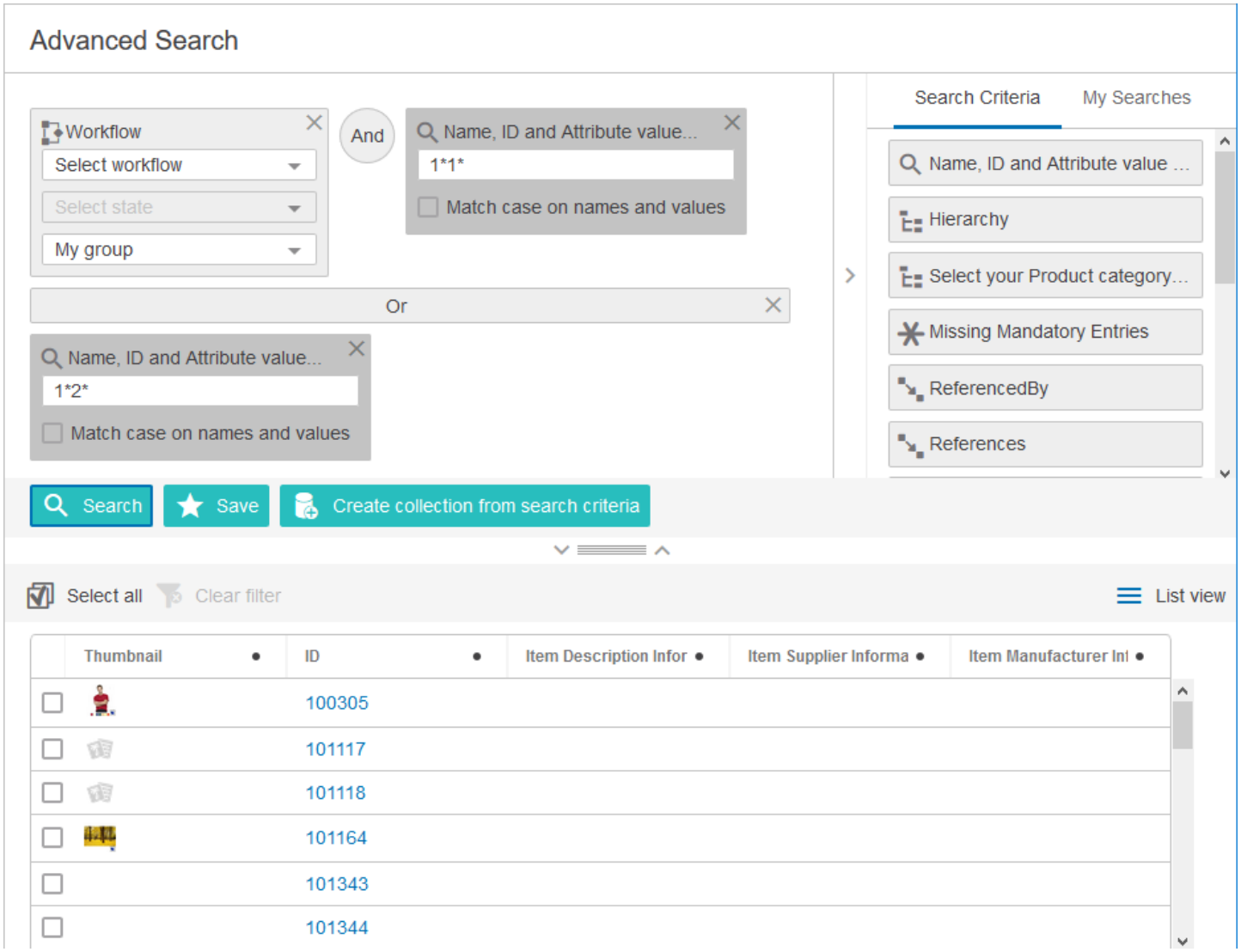
Make a selection and click **OK**. The user / group picked will have the saved search available under the Advanced Search My Searches tab the next time they access and/or refresh their Advanced Search page.

Note: Depending on user privileges, if there are no users or user groups available to share with, the 'Share' option in the dropdown will not display, or when selected, the user will view an informative dialog display stating there are no user groups.



User groups without explicit access to create, share, save, and maintain advanced searches will experience a more simplistic and user friendly layout when they access the Web UI Advanced Search. End users who receive shared searches will not, for instance, refer to the 'Search Criteria' tab display in Advanced Search. They will only view the 'My Searches' tab. In addition to increasing usability, this also reduces the risk of broad searches being unintentionally performed and depleting system resources.

End users cannot change or move the parameters of a saved search. However, they may change the values within a search, even if the search is already pre-configured with values.



Considerations and Limitations

- Unrestricted user groups will view two tabs - 'Search Criteria' and 'My Searches.' Restricted users who have been set up to receive shared searches will only have the 'My Searches' tab.
- Only one search can be used at a time. Saved searches cannot be combined on the screen in any way.
- End users may receive shared searches from multiple administrators.
- Administrators cannot view saved searches by others unless one admin shares with another or shares with the entire admin group. The admin group or a particular admin user would need to be set up to receive searches. For more information, refer to the **Advanced Search Initial Configuration** topic in the **Web User Interfaces** documentation. If one admin shares a search with another admin / admin group, the shared search can only be copied (not deleted, renamed, or shared) by the receiving admin user(s).
- If an administrator deletes a saved search from their own account, the search is deleted across the board. End users will no longer find that search under the 'My Searches' tab.
- If an administrator edits and overwrites a saved search on their own account and that search has previously been shared with other users, then the search will also be overwritten for those users. The updated criteria will be visible the next time the saved search is opened.

Using Advanced Search

Once Advanced Search has been configured (e.g., criteria renamed, unused criteria removed, hierarchy nodes pre-selected and added), the search is ready to use.

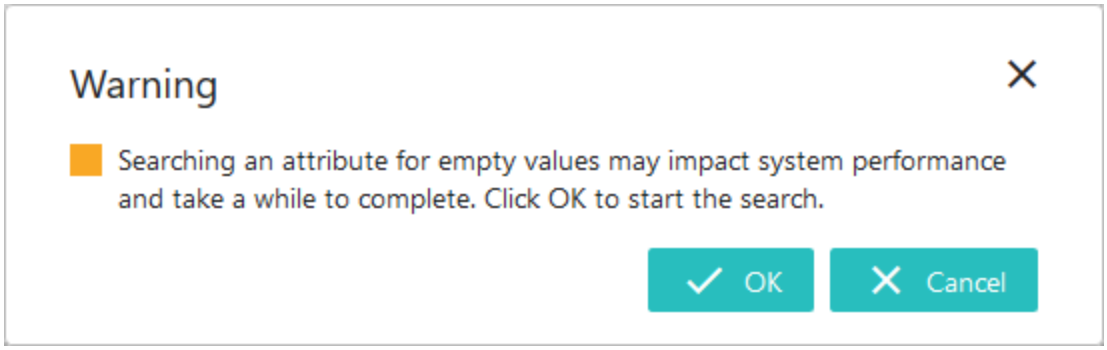
Performing an Advanced Search

Drag and drop each search criteria button and operator button over to left side of the page. Or click on each search criteria button to build the search. Building search queries visually helps the user better understand the data.

Building a Search Query

1. Choose the Search Criteria by dragging and dropping each search criterion over to the left side of the screen or by clicking the desired search criteria button.
2. Click / drag and drop the Or and Not Exclude operators as needed. The default operator is And.
3. When all the criteria are set up, click 'Search'. Results will show at the bottom of the page. The 'Search' button will display as gray-shaded when the search area is either blank or if the added search elements are insufficient to initiate a search. When a search has been built that will allow a search to be initiated, the 'Search' button will display with the configured 'Accent' color, which can be set in the designer's Web UI style tab.
4. Users may save any search by clicking 'Save'. More information on saving new searches and using existing searches is available later in this same topic.
5. Users may create a collection from the search results by clicking the 'Create collection' button. More information on this functionality is available in the **Creating a collection from search results** section of this topic.
6. Users may clear all search criteria and operators from the search area by clicking 'Clear.'

Note: Using the Attribute criterion for searching (! and !! operators) attributes that have empty values is an easy way to identify objects in STEP that are not yet complete. It is important to note that performing these searches can be time consuming depending on the number of attribute values being searched and the complexity of the assembled search criteria. Because of this, when starting an empty-value search (either alone or with other criteria), users are presented with a message asking them to confirm that they want to move ahead given the potential resource and time constraints. When the end user clicks OK, the search is performed. The maximum number of search results returned is 10,000. This value can be edited to be less than 10,000 via the Portal.MaxResultCount config property, which can be set on the server by advanced users or by Stibo Systems technical support.



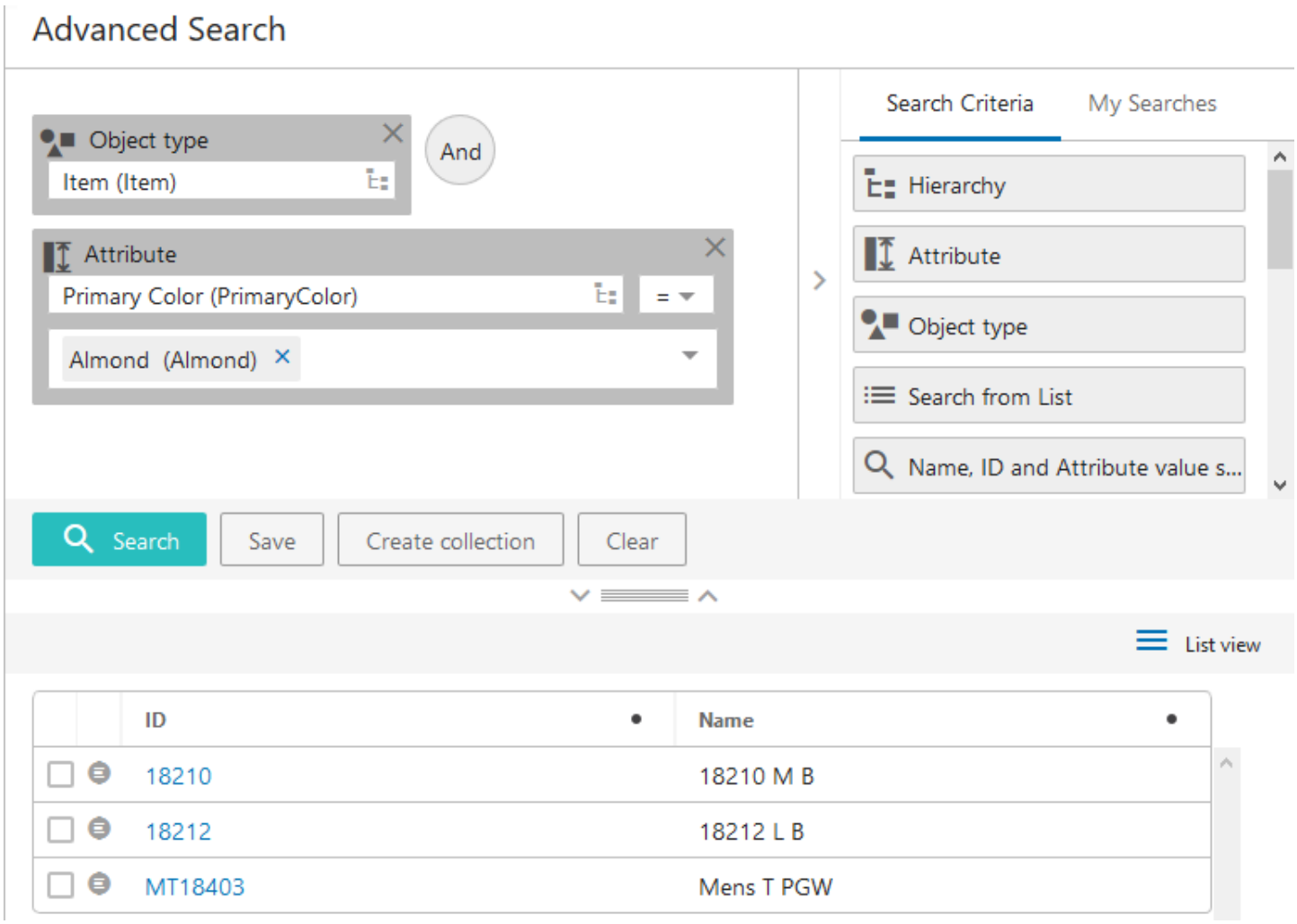
Examples

The following examples with screenshots that show basic searches with different operators: **And**, **Or**, and **Not**. The example screenshots do not show every search criteria available. For more information on adding / removing criteria shown to users, refer to **Advanced Search Initial Configuration** in the **Web User Interfaces** documentation.

Example 1: Object type (Item) **And** Attribute (Primary Color)=Almond

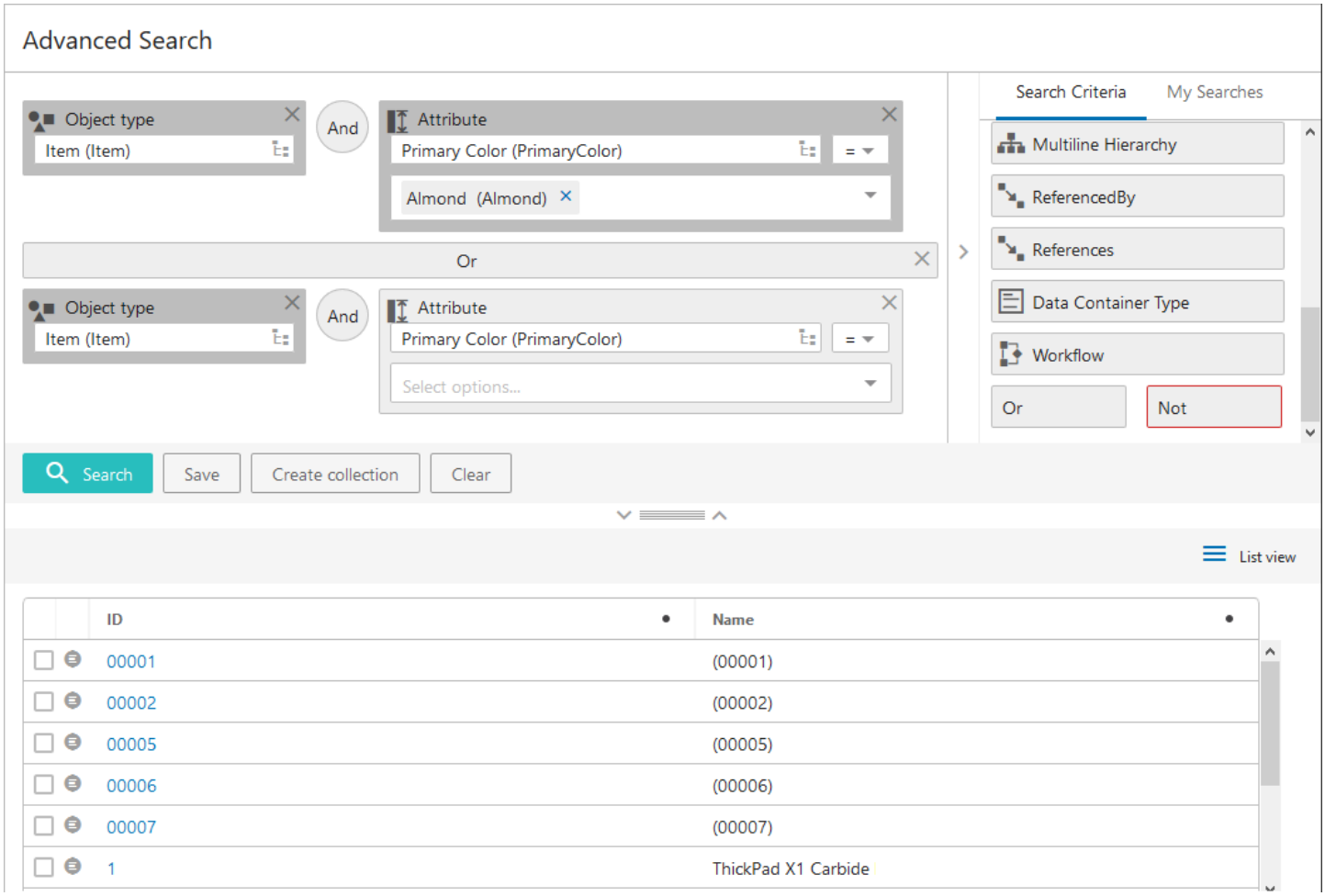
Results include items that have the color 'Almond' as an attribute value.

While only one value is being searched, multiple values can be searched at one time (if applicable to the search). And, if searching an LOV-based attribute, users can use the dropdown to access the actual list of values to enter an attribute value.



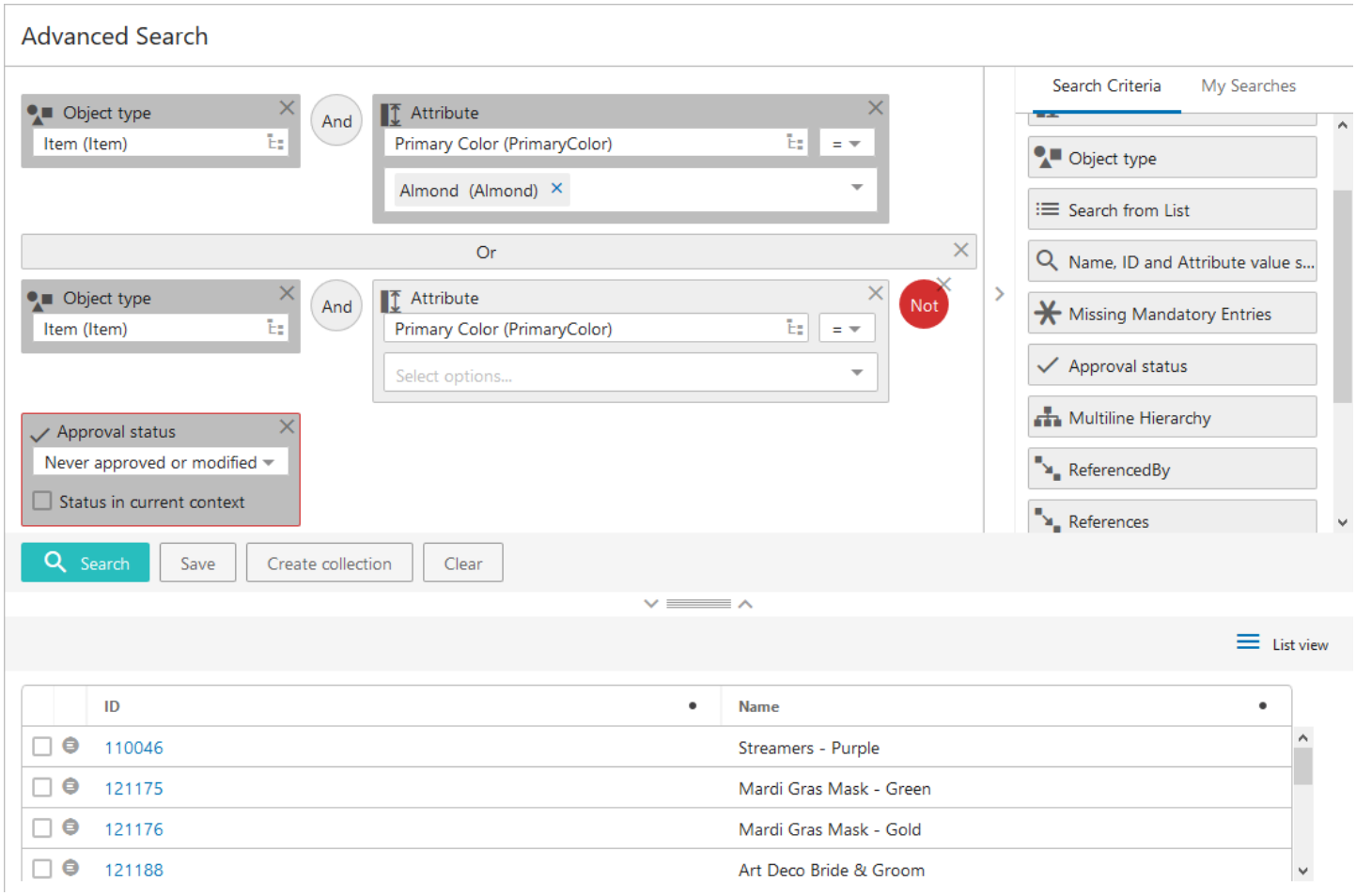
Example 2: [Object type (Item) **And** Attribute (Primary Color=Almond)] **Or** [Object type (Item) **And** Attribute (Primary Color=Apricot)]

The search pulls items that have the primary color 'Almond' as an attribute value and combines those results with items that have the primary color 'Apricot' as an attribute value.



Example 3: [Object type (Item) **And** Attribute (Primary Color=Almond)] **Or** [Object type (Item) **And** Attribute (Primary Color=Apricot)] **Not** Approval status (Never approved or modified)]

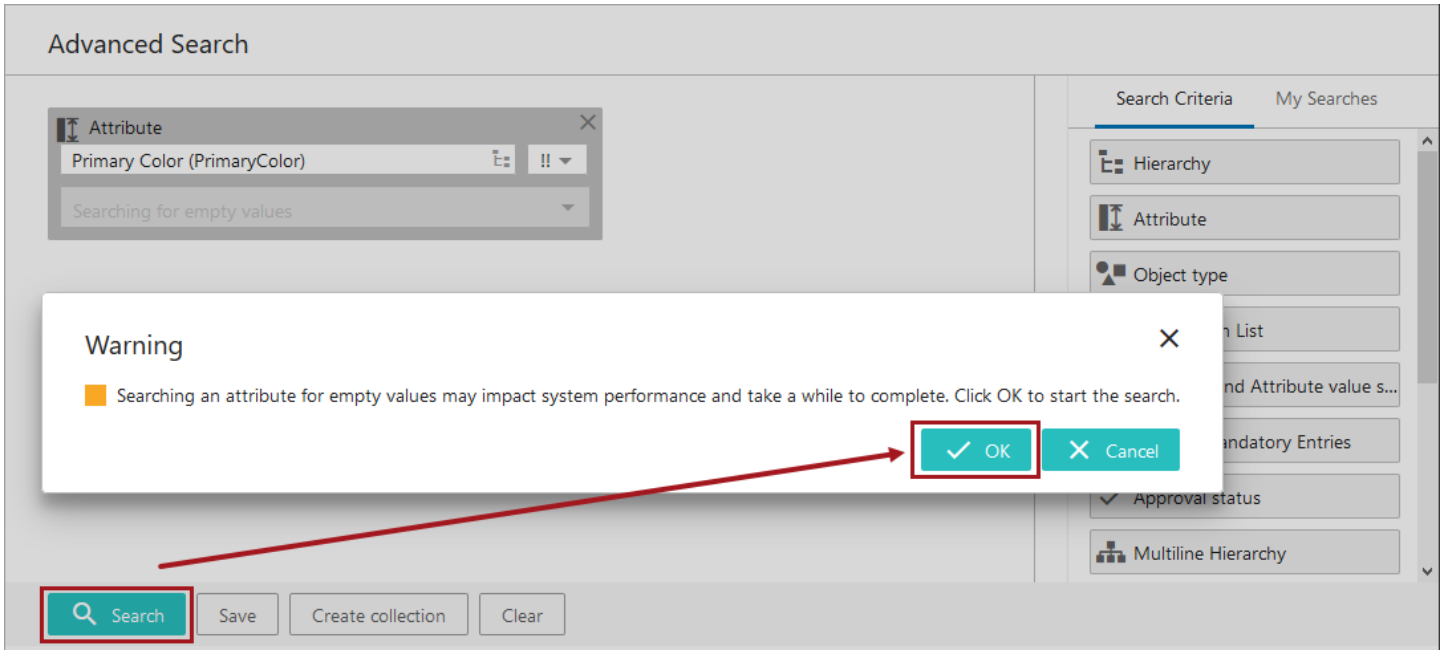
The search pulls items that have the primary color 'Almond' as an attribute value. It combines those results with items that have the primary color 'Apricot' as an attribute value, with any object types that have never been approved excluded from the Item / Primary Color= Apricot results.

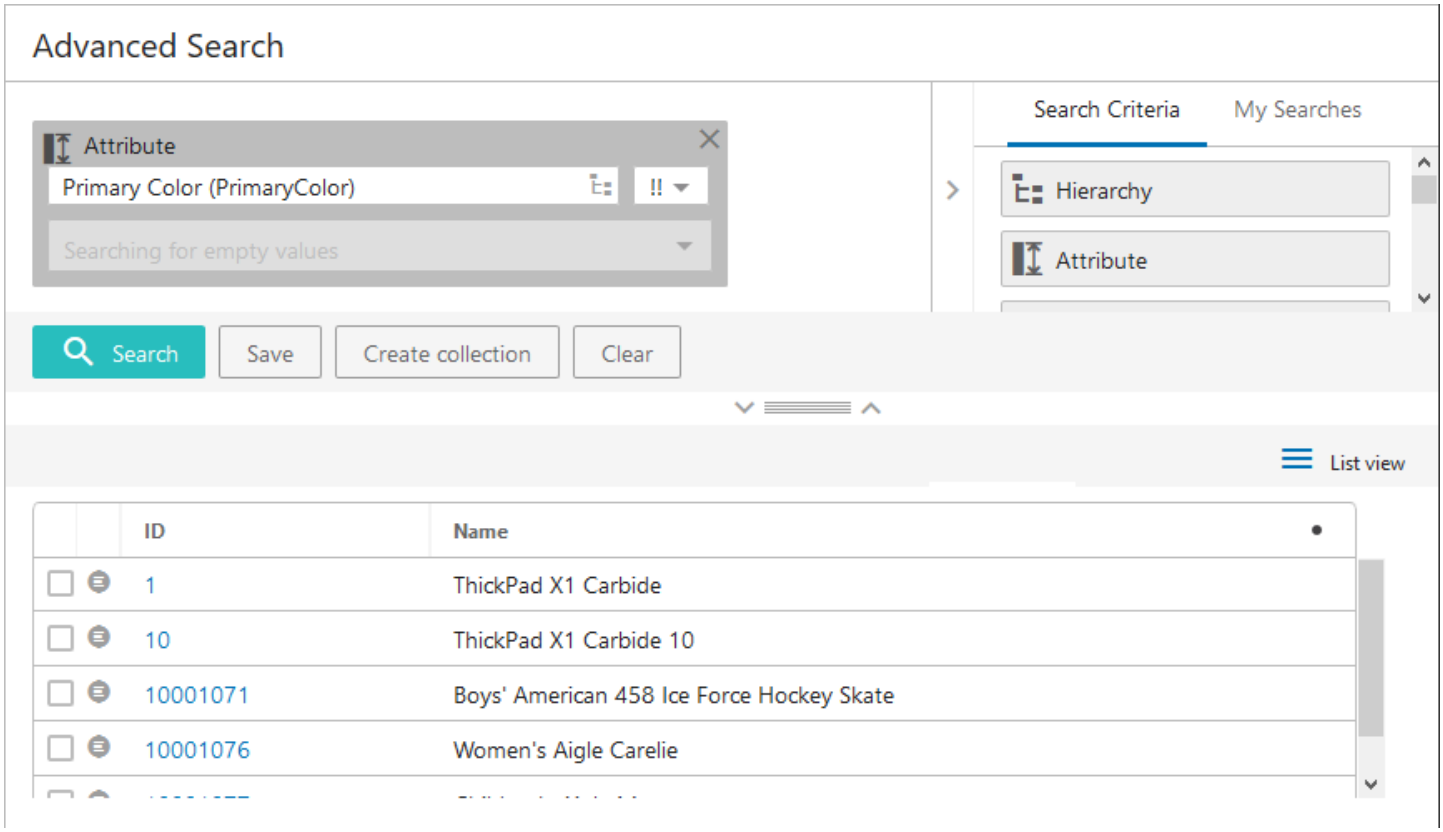


In Example 3, if the user also wants to exclude unapproved object types from the Item / Primary Color=Almond portion of the query, they would go back and add the **Not** operator and the 'Approval status (Never approved)' criteria in front of the **Or** operator.

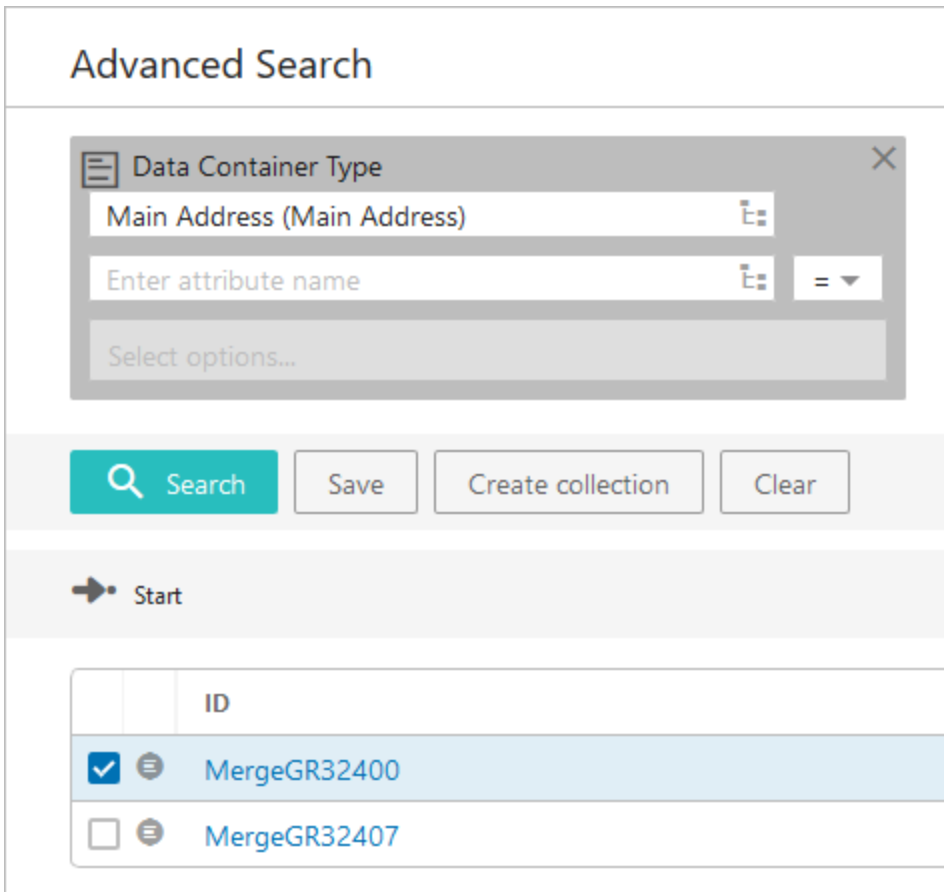
Example 4: Empty value search for [Attribute (Primary Color)]

The search pulls objects that do not have a value for the Primary Color attribute within the current context (English US). A warning dialog is presented upon clicking the Search button. After pressing OK to confirm you want to continue, the search will process.



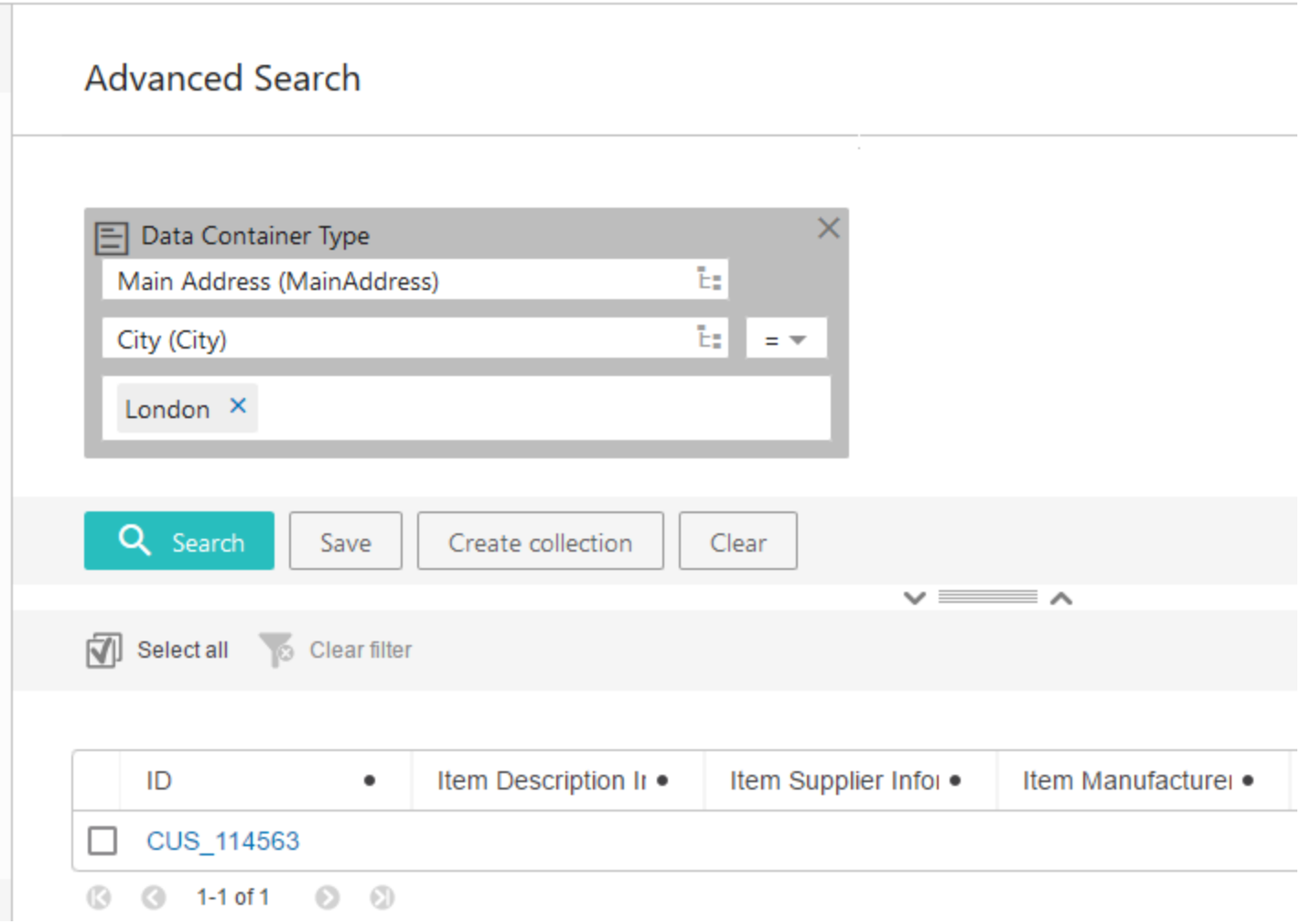


Example 5.1: Data Container Type search for [Main Address]



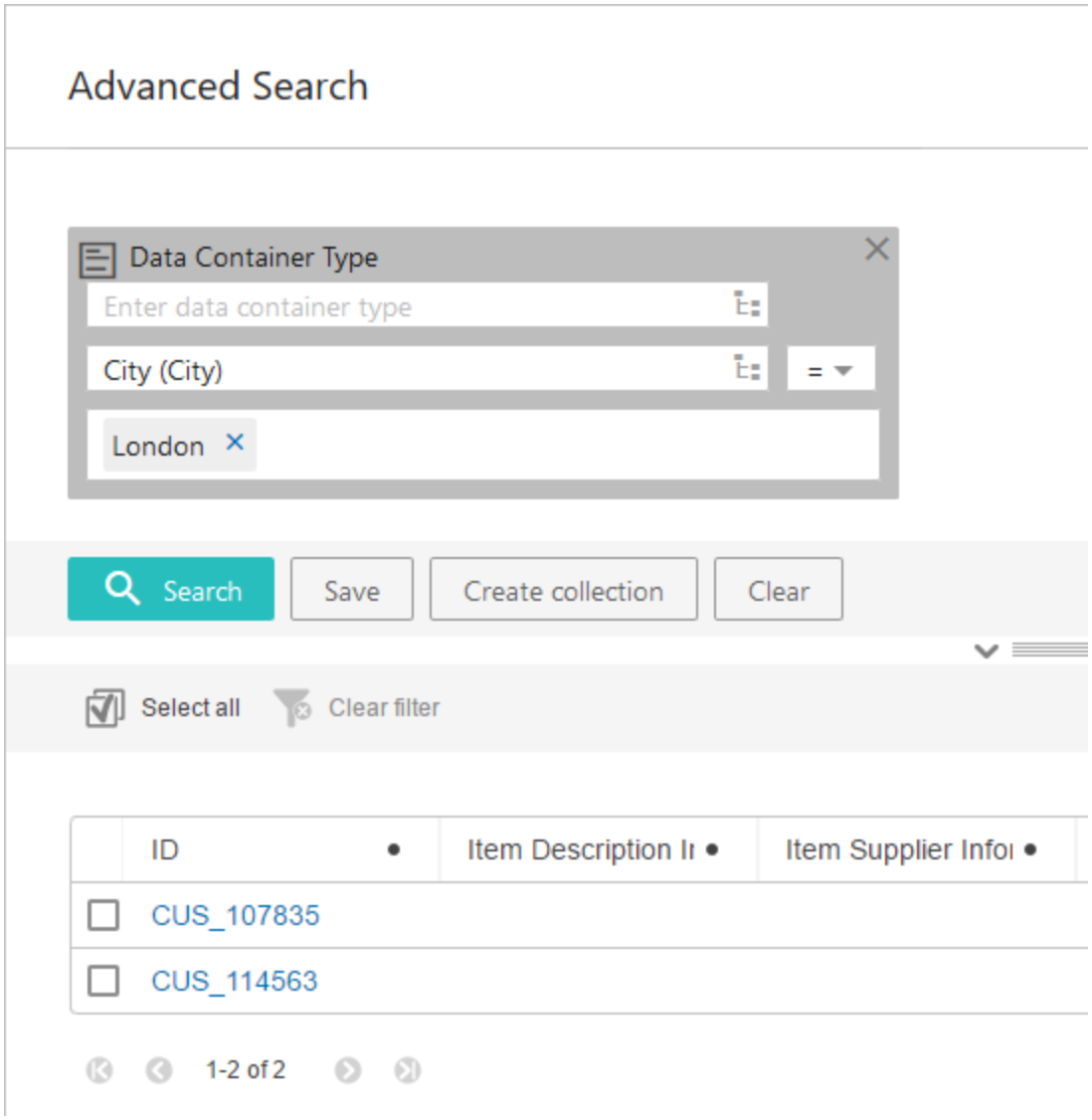
By clicking the Node Picker icon ( ) in the 'Enter data container type' field (in the screenshot above, the data container type 'Main Address (MainAddress)' displays in this field), users may either browse through or search for the data container types that have been created in the system. Once a selection is made and **Search** is clicked, a list of all applicable entities for which a data container has been created / added of the data container type specified will populate.

Example 5.2: Data Container Type search for [MainAddress] and [Attribute (City)]



Users may narrow the search further by also selecting an attribute linked to a data container of the specified data container type. To execute this kind of search, users must select an attribute by clicking the Node Picker icon in the 'Enter attribute name' field, or by typing the attribute into the field. Once the user makes their attribute selection, selects a search operator (equals (=), in this example), enters an attribute value, and then clicks **Search**, a list of all entities that have a data container added of the type specified, which also contain the selected attribute / attribute value combination, will populate.

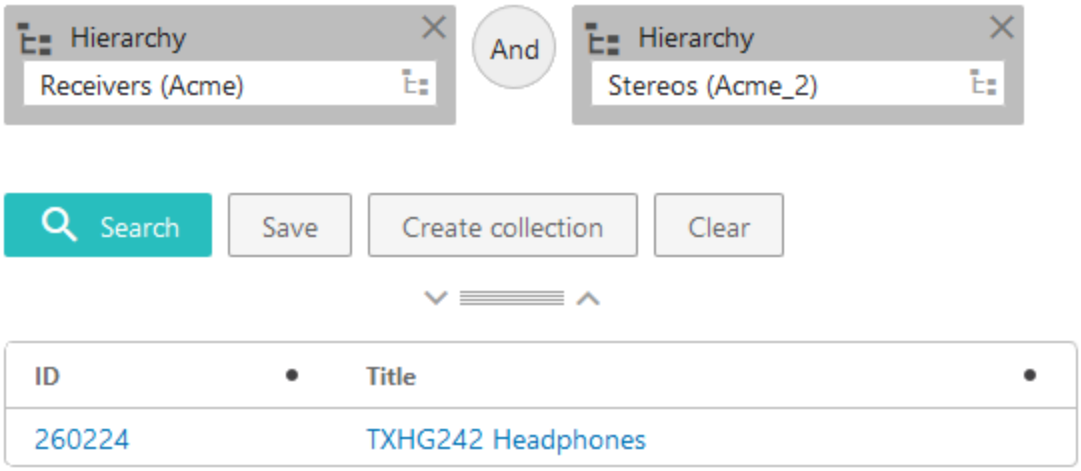
Example 5.3: Data Container Type search for [Attribute (City)]



Users can elect to search for attribute values that exist in attributes contained in any data container, irrespective of type. To execute this kind of search, user must select an attribute by clicking the Node Picker icon in the 'Enter attribute name' field, or by typing the attribute into the field. Once the user makes their attribute selection, selects a search operator ('less than or equals (≤)', in this example), enters an attribute value in the 'Select options' field, and then clicks **Search**, a list of all entities with an attribute value that matches the value specified for the selected data container-linked attribute will populate. By leaving the 'Enter data container type' field blank, the user is searching for attribute values within any existing data container.

Example 6: Searching for objects linked to different classifications

To find products linked in two different classifications, add a [Hierarchy] search criteria to the search panel, and set it to the first classification to be searched. In this example, the classification is 'Receivers (Acme)'. Then add a second [Hierarchy] search criteria, and set it to the second classification to be searched, which is 'Stereos (Acme_2)'. Then click ' Search'.



When this search is run, only those objects linked to both classifications will display in the results. In this example, the only product linked to both classifications is 'TXHG242 Headphones'.

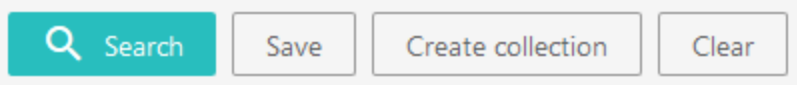
Note: When a user clicks on the 'x' to remove a 'Not' or 'Or' operator symbol, the system changes it to 'And'. To entirely remove a particular operator, remove the search parameters that come after that operator.

Building searches within the Web UI is very similar to the functionality found within the STEP Workbench Search tab. For additional information on this process, refer to the **Navigating and Searching** section of the **Getting Started** documentation.

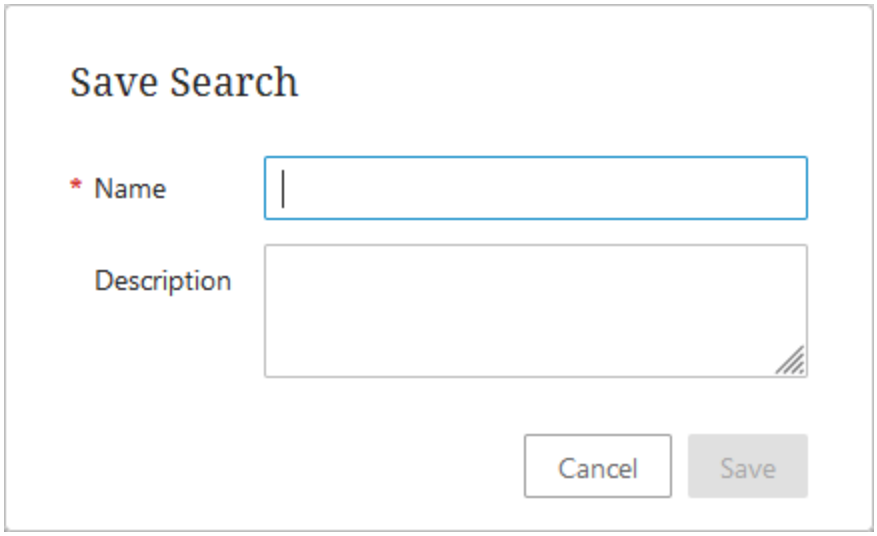
Saving a Search

When an Advanced Search is built, a user may want to save the search to use again. Searches can be saved once parameters have been added. There is no need to run a search before saving it. However, it is a good idea to make sure the designated criteria are set up effectively and meet data / business needs prior to saving.

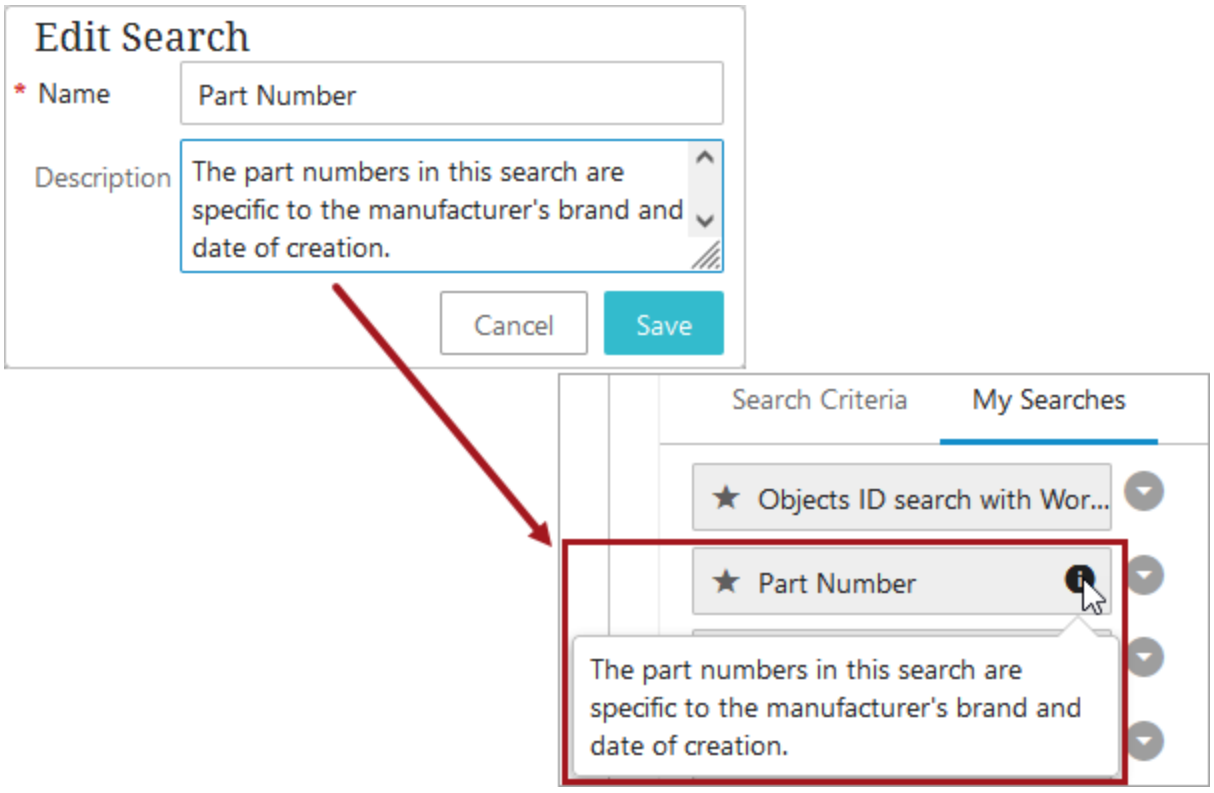
Values may be pre-populated for each search parameter prior to saving.



Click Save, name the search, and add a description if needed. Press OK to save it.



If a description was added, an information icon displays next to the name. The information icon only displays when a description is present.

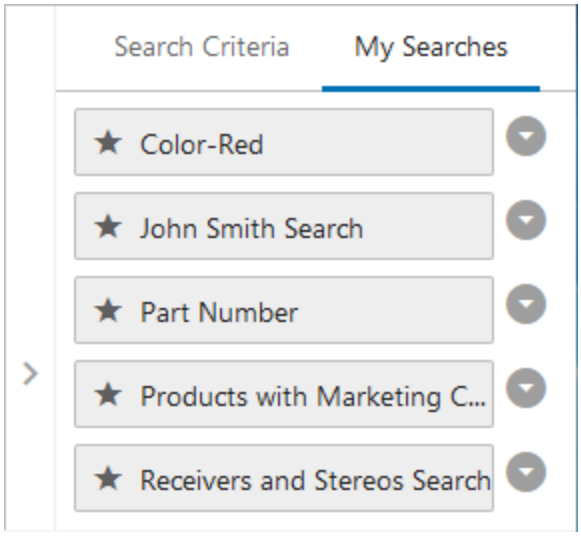


If saving a new search using a name that is already used by an existing saved search, an overwrite notification will appear and require user action. If overwriting a search that has been previously shared, the search is overwritten for all users.



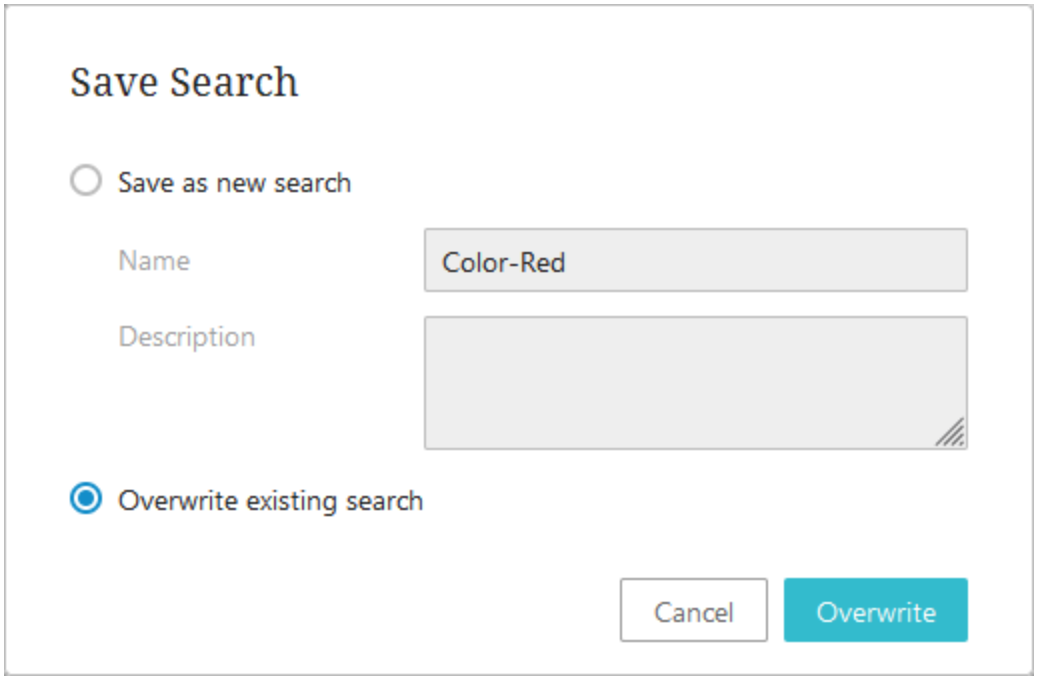
Using Saved Searches

Access saved searches by clicking on the 'My Searches' tab.



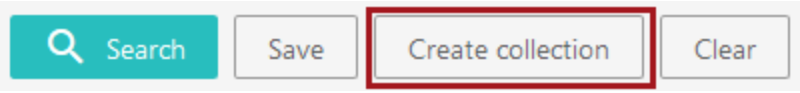
To initiate a saved search, drag and drop any of the saved searches listed under the 'My Searches' tab from the right side of the screen into the search area. Users may also click on the desired search to bring the configured criteria into the search area. To complete the search, click 'Search'. The results will show at the bottom of the page. If no results are returned, a zero (0) will display at the bottom left-hand corner of the page.

Users in unrestricted user groups can overwrite existing saved searches within Advanced Search. After opening an existing saved search from the My Searches tab, modifying it, and then clicking the Save button, a notification dialog appears in which the user can choose save the search with a new name or overwrite the existing search. If the search is overwritten and has previously been shared with other users, then the search will also be overwritten for those users.

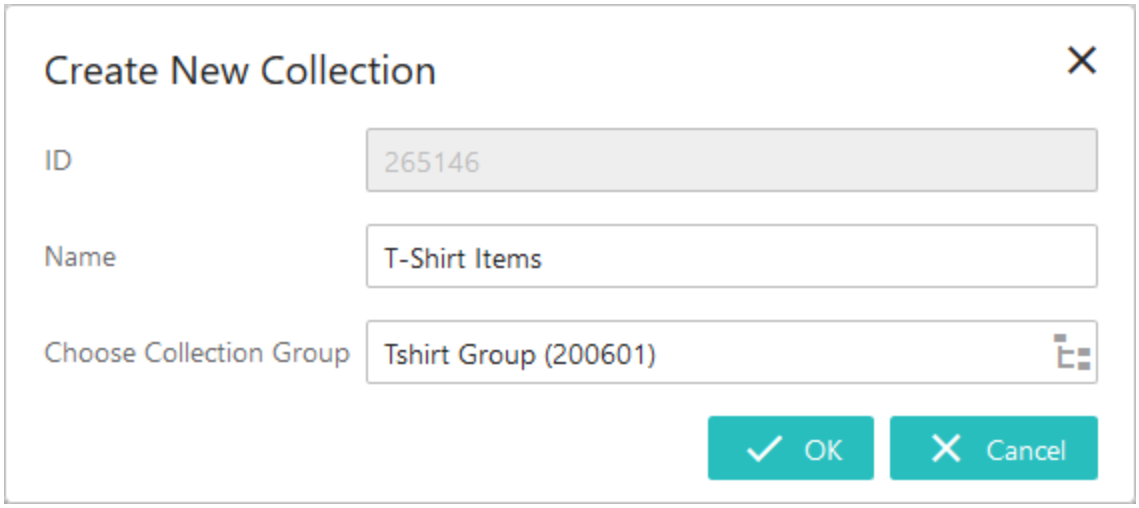


Creating a collection from search results

The Advanced Search screen enables users to create collections from the generated search results by clicking the 'Create collection' button.



Following a completed search with one or more generated results, users may create a collection that includes all items in the search result. When a user clicks 'Create collection', a 'Create New Collection' window displays:



- **ID** -- In this field, a read-only automatically generated ID displays.
- **Name** -- Users can select the name for the new collection.
- **Choose Collection Group** -- By either typing the name of the collection group in the field or by selecting it from a Node Picker after clicking the hierarchy icon, users must select the collection group into which the new collection will be added.

Once the fields are filled out, click 'OK' and the objects contained in the search results will be saved as a collection.

For more information on collections, refer to the **Collections** section of the **Getting Started** documentation.

Collapsible splitter feature

The individual panels on the Advanced Search screen are collapsible and expandable through the use of a collapsible splitter feature, which consists of a drag handle element and two arrows, one pointing up and one down. This feature is shown below:



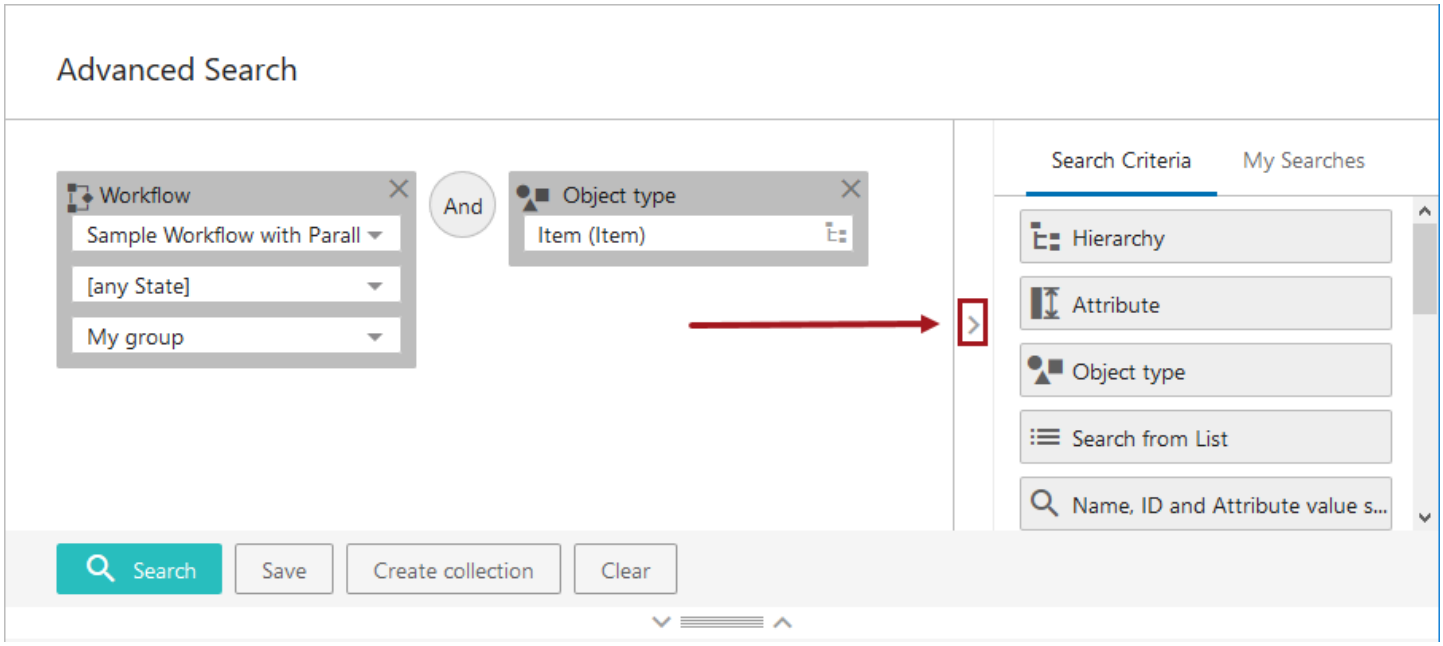
When the screen is configured with a horizontal split panel, the drag handle divides the panels / components on the screen. To the left of the drag handle is a down arrow, and to the right, an up arrow.

Clicking the up arrow removes the main component (Advanced Search build / criteria) from display, providing more screen space to focus on the Node List. This is useful if the user wants to focus on the results set only. For example, a user may choose to display the results set in Multi Edit Display Mode to make edits and no longer needs to view the criteria or the way the search was built.

Clicking the down arrow returns the hidden component back to the screen display.

Similarly, if the user first clicks the down arrow, the child component is hidden from display so the user can focus on using the criteria and setting up an Advanced Search.

Note: By default, the collapsible splitter is typically in the middle of the screen and the Search Criteria panel / tab is automatically displayed once a user is on the Advanced Search screen. However, if the Advanced Search Task List is used as a result screen for any Status Selector Homepage Widget, the criteria panel is collapsed and the splitter moves up under the search criteria used in the search. This allows more room to view the Task List once a user gets on the Advanced Search page. The Search Criteria panel can be expanded by clicking the arrowhead on the right of the screen (shown expanded in the following screenshot) and the splitter can manually be dragged down to expand the Search Criteria list and area, if desired.



Considerations and Limitations

- Unrestricted user groups will view two tabs - 'Search Criteria' and 'My Searches.' Restricted users who have been set up to receive shared searches will only have the 'My Searches' tab. Read more in the **Restricting and Sharing Advanced Searches** section of the **Web User Interfaces** documentation.
- Only one search can be used at a time. Saved searches cannot be combined on the screen in any way.
- Non-admin users cannot change or move the parameters of a saved search. However, they may change the values within a search, even if the search is already pre-configured with values.
- When a Node List contains more than the configured number of objects (the default maximum being 5,000), sorting and filtering is disabled. This is because when Node Lists contain more than the configured maximum for display, all objects above that maximum will not display. Because sorting and filtering actions applied to the displayed objects will not also apply to non-displayed objects, sorting and filtering is disabled. For example, if an advanced search result contains 10,000 results, and the user clicks a header to sort and filter the Node List based on the values in the column, it will not be obvious that all objects after 5,000 are not included in the filtering, and so the resulting list will not be accurate. When users initiate sorting and filtering on a Node List with more than the configured maximum number of objects, an informational dialog displays that reads, 'Sorting and filtering on this subset of data would display inaccurate results, so they have been disabled.' This restriction is applied to all display modes that support sorting and filtering, i.e., Multi Edit, Table, and Compare views.

Asset Handling in Web UI

In Web UI, assets can be created and maintained in a variety of ways, including via components configured on a product or asset node, or through the Asset Importer widget.

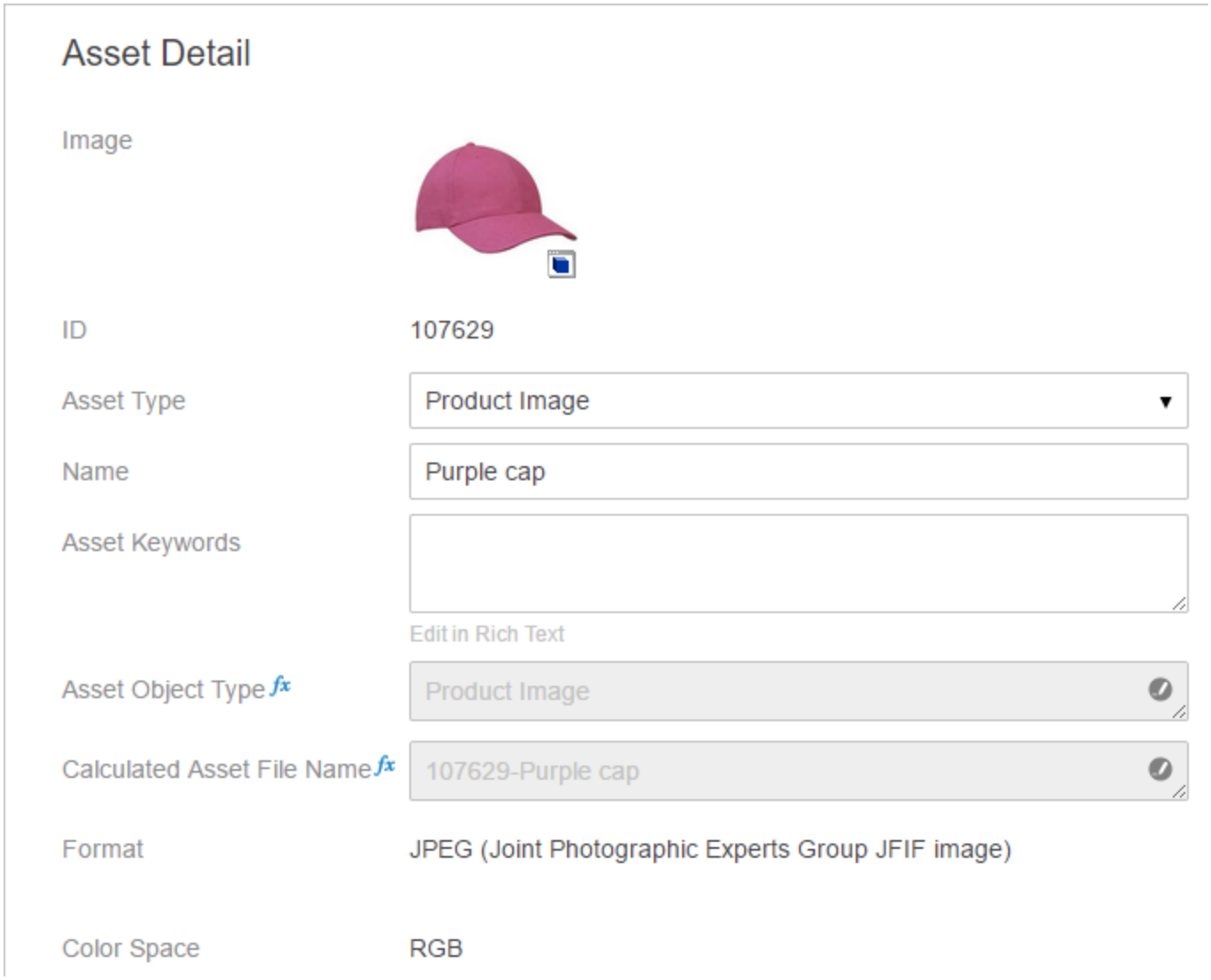
Assets can be handled via the following components / functionality:

- Asset Representation
- Referenced Asset Representation
- Asset Importer Widget
- Asset Previews in Web UI
- Thumbnail Header
- Asset Groups

This documentation assumes that the user is familiar with Asset Pushes. For more information, refer to the **Asset Push** topic in the **Digital Assets** documentation.

Asset Representation

The Asset Representation component displays a visual depiction of the asset, ranging from a thumbnail to a full-size image, that represents the currently selected asset. With this component, users can easily replace or delete asset content.



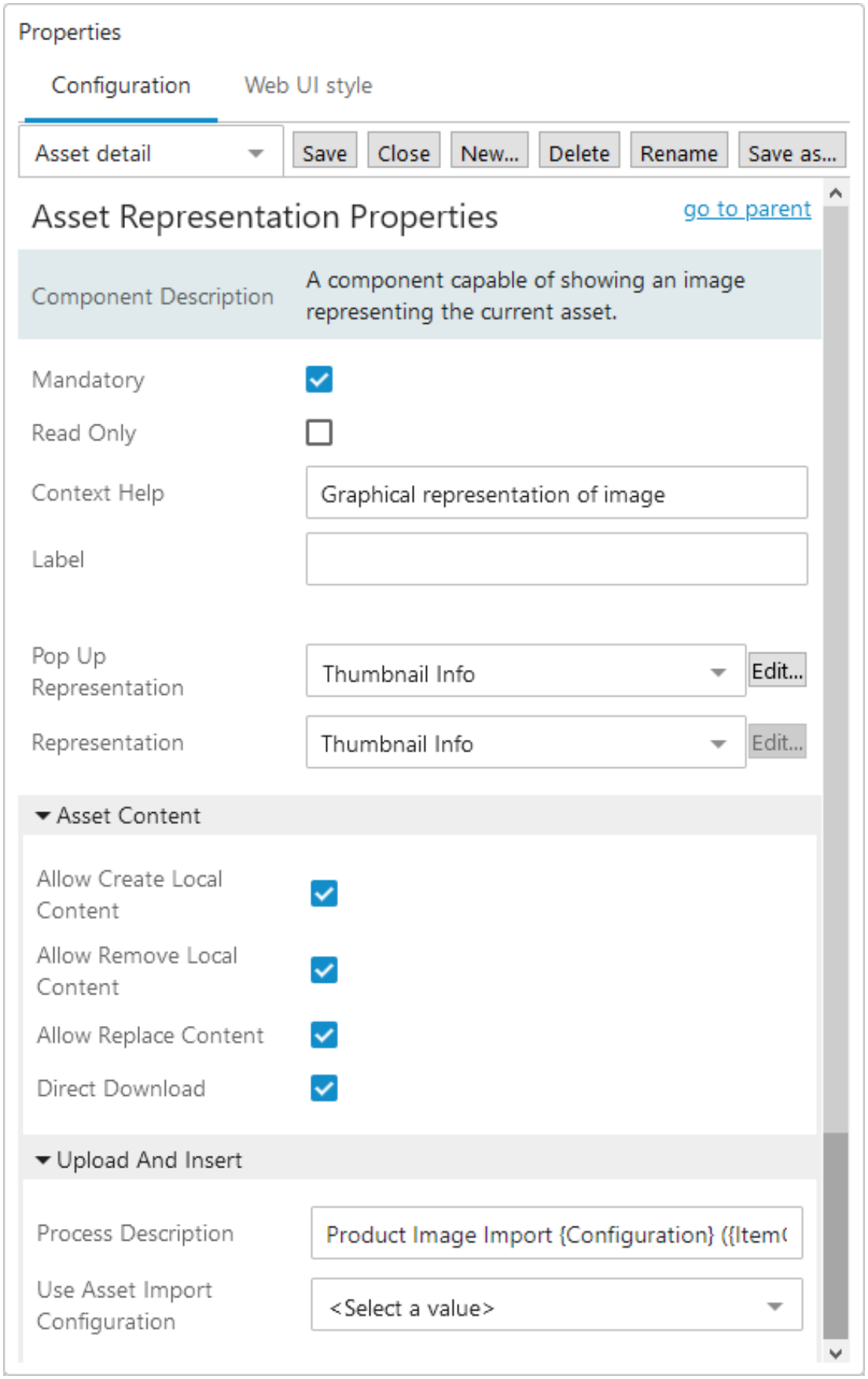
Note: Prior to the 9.0 release, this component was called the 'Asset Image Value' component. Users who have the 'Asset Image Value' component configured when upgrading to 9.0 will need to revisit the configuration to enable the 'Download' button on the asset. Where this button displayed by default in pre-9.0 versions, 'Direct Download' is a configurable setting for this component as of 9.0.

Prerequisites

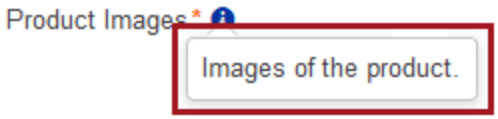
It is expected that anyone configuring the Asset Representation component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring Asset Representation

A number of configuration options are available for this component, including options to delete and replace asset content, directly download the asset, apply an asset import configuration, and more.


Properties
Configuration
Web UI style
Asset detail
Save
Close
New...
Delete
Rename
Save as...
Asset Representation Properties
go to parent
Component Description
A component capable of showing an image representing the current asset.
Mandatory
Read Only
Context Help
Graphical representation of image
Label
Pop Up Representation
Thumbnail Info
Edit...
Representation
Thumbnail Info
Edit...
Asset Content
Allow Create Local Content
Allow Remove Local Content
Allow Replace Content
Direct Download
Upload And Insert
Process Description
Product Image Import {Configuration} ({Item(
Use Asset Import Configuration
<Select a value>

1. **Mandatory:** Checking the box for this parameter indicates that content must be added to the asset.
2. **Read Only:** Check the box for this parameter to make the component read only. In this state, the component cannot be used to replace or remove asset content.
3. **Context Help**: In this parameter, enter the help text that will display when the user clicks the help icon to the right of the field label.



4. **Label**: In this parameter, enter a label for this field. The label appears before the asset thumbnail of the node details screen. In the example image below, the label was configured in design mode to display 'Product Images.'



5. **Pop Up Representation**: In this parameter, specify how to present the image representing the current asset by selecting a sub-component from the dropdown. This sub-component displays in a pop-up window when the asset thumbnail is clicked.

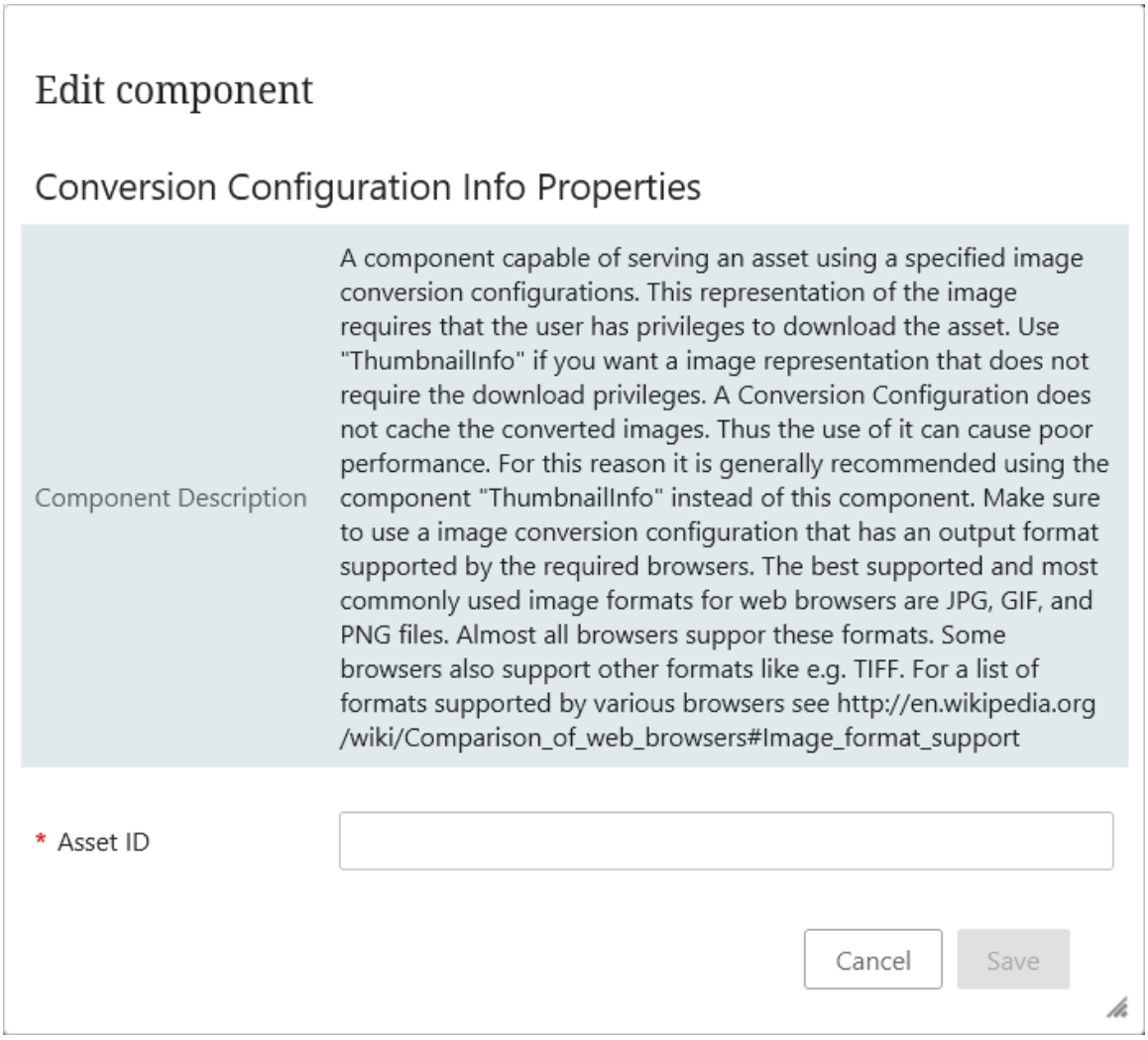
   Valid sub-components include: 'ConversionConfigurationInfo,' 'ConversionScriptInfo,' 'NoConversionInfo,' 'PipelineInfo,' and 'ThumbnailInfo' which are all described below in further detail.

   - **Conversion Configuration Info**: Selecting this component shows the image with the predefined conversion configurations in a pop up window. For example, if there is a need to view the selected asset in grayscale view / less resolution view / in any converted format, this pop-up representation can be used.

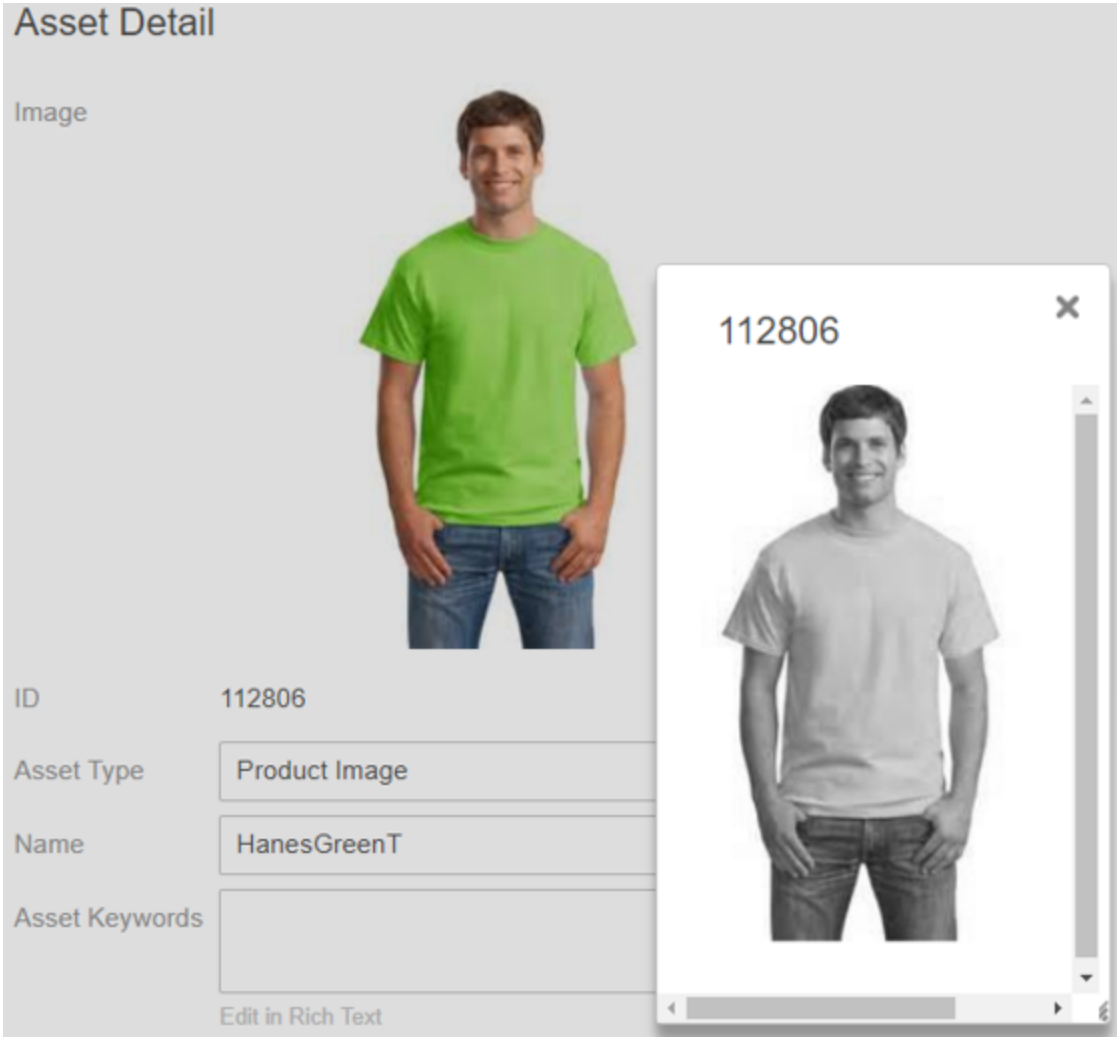
     To enable this, the user should have created an image conversion configuration, and the ID of the image conversion configuration should be known. For more information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

     This representation of the image also requires that the user has privileges to download the asset. A Conversion Configuration does not cache the converted images. Thus the use of it can cause poor performance. For this reason it is generally recommended to use the component 'Thumbnail Info' instead of this component.

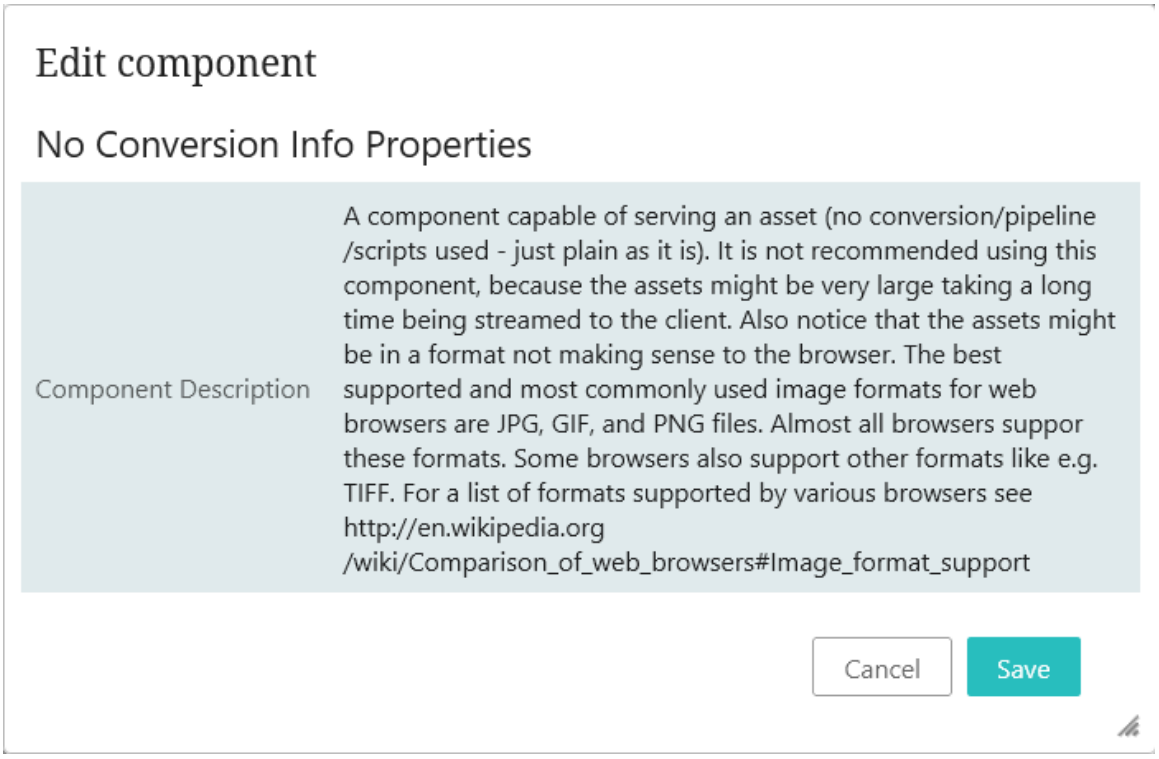
     - **Asset ID**: (Mandatory) ID of the required Image conversion configuration.



Below is an example of the asset image with the pop up view converted into grayscale.



- **No Conversion Info Properties**: Selecting this component will let the user view the image in a pop-up window, same as the original image is, without any conversions / change in asset (no conversion / pipeline / scripts used). No configuration is necessary.

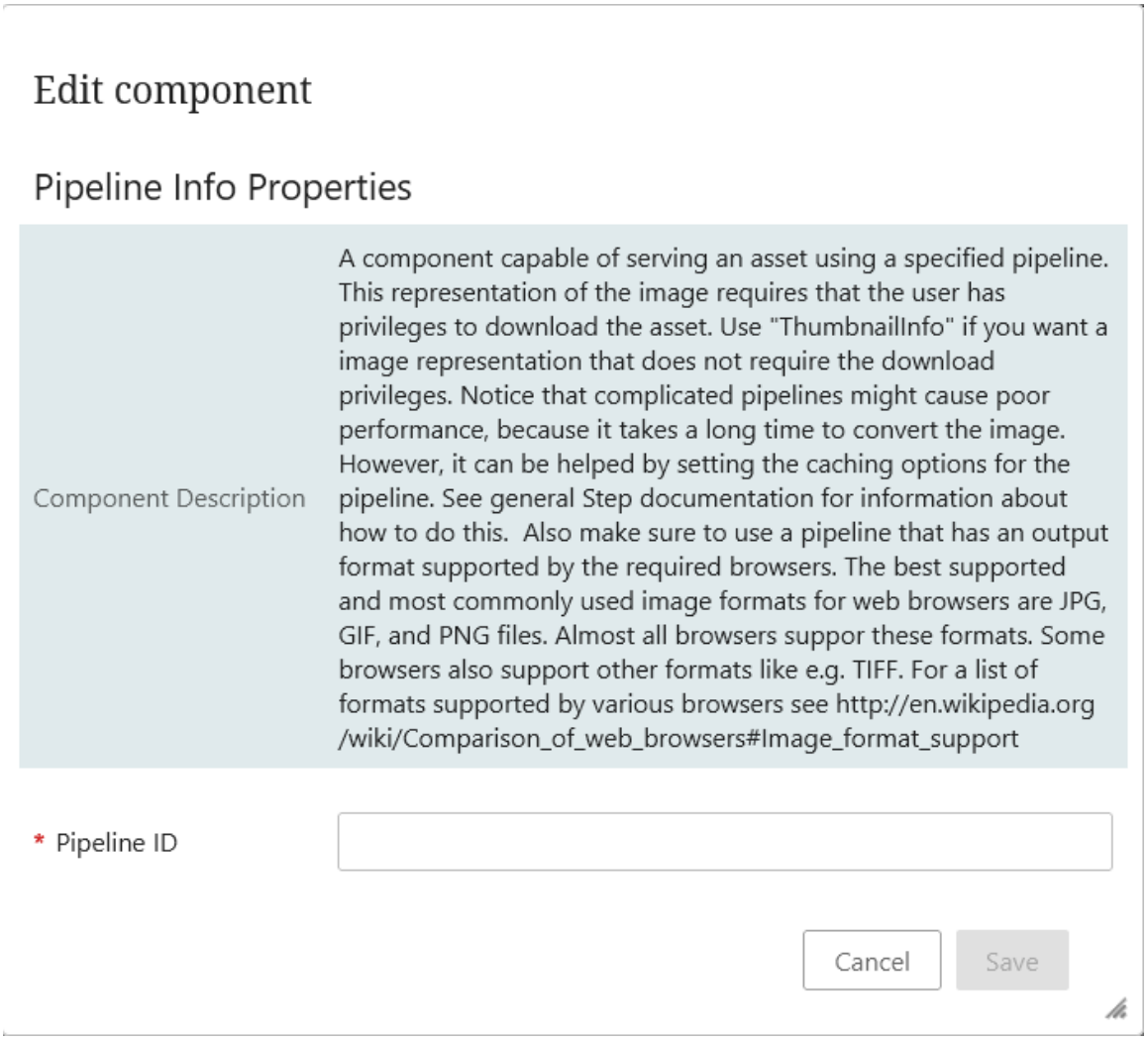


It is not recommended to use this component, because if the asset is very large it can take a long time to render. Further, the assets might be in a format incompatible with the browser being used.

- **Pipeline Info**: A component capable of serving an asset using a specified pipeline. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want a image representation that does not require the download privileges.

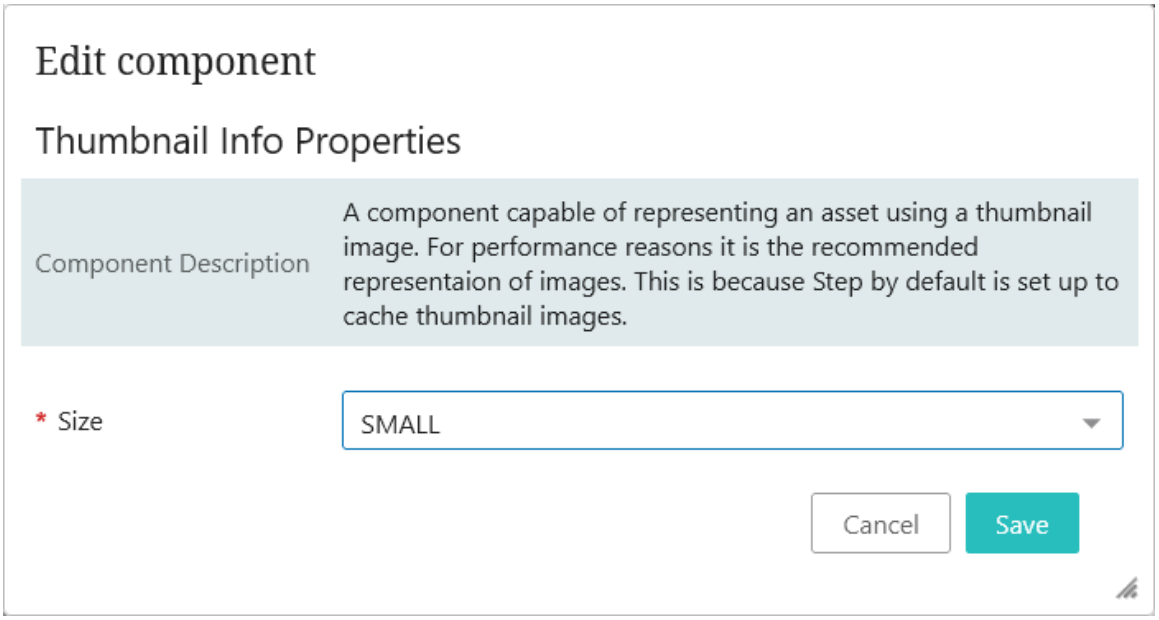
  Notice that complicated pipelines might cause poor performance, because it takes a long time to convert the image. However, this delay can be shortened by setting the caching options for the pipeline. Ensure you use a pipeline that has an output format supported by the required browsers. For more pipeline information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

  In the designer, 'Pipeline ID' is the only field that needs to be set.



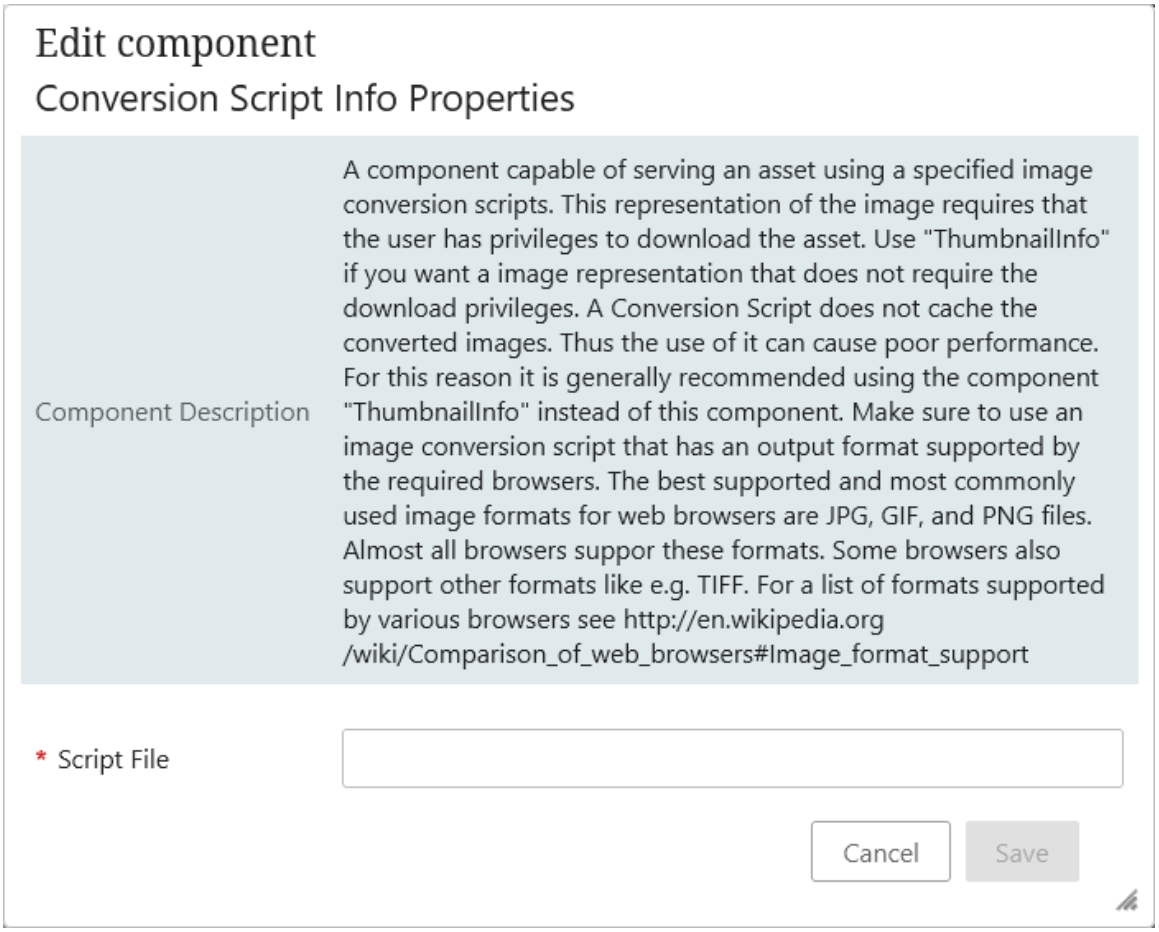
- **Thumbnail Info**: Selecting this component will let the user view the image in a pop up window using a thumbnail image. For performance reasons, this is the recommended representation of images. This is because the default is set up to cache thumbnail images.

  The 'Size' field is the only mandatory field for configuration. The user can choose the size of the thumbnail, as either SMALL, MEDIUM, or FULL. Note that while using the FULL option, the images are not cached in this version, and this require users to have download privileges.



- **Conversion Script Info**: A component capable of serving an asset using a specified image conversion scripts. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want an image representation that does not require the download privileges. A Conversion Script does not cache the converted images, thus the use of it can cause poor performance. For this reason it is generally recommended using the component 'ThumbnailInfo' instead of this component. Make sure to use an image conversion script that has an output format supported by the required browsers.

  The only mandatory field for configuration is the 'Script file.'

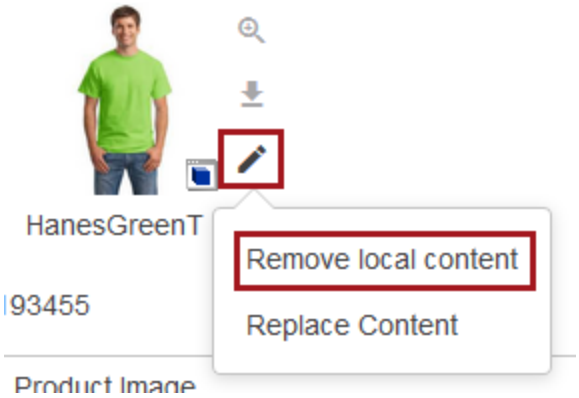


6. **Representation**: In this parameter, specify how to present the image representing the current asset by selecting a sub-component from the dropdown.

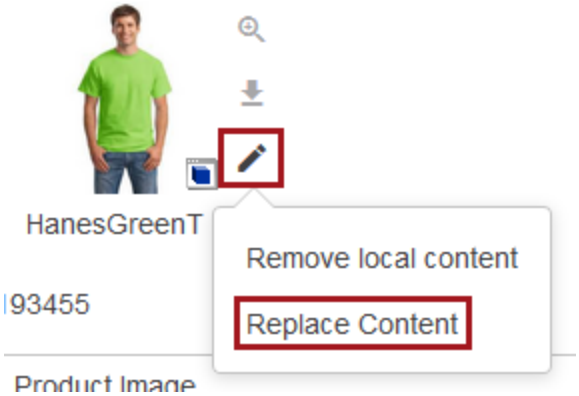
   Valid sub-components include: 'ConversionConfigurationInfo', 'ConversionScriptInfo', 'NoConversionInfo', 'PipelineInfo', and 'ThumbnailInfo'. The sub components work the same way as explained in the above component Pop Up Representation.

The following parameters display in the 'Asset Content' section of the Asset Representation properties screen in the designer. These parameters determine which icons display to the right of the thumbnail, and which options are available when those icons are clicked:

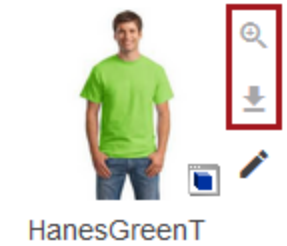
7. **Allow Create Local Content**: For this parameter, check the box to enable users to copy the asset from the global context to the local context.
8. **Allow Remove Local Content** : For this parameter, check the box to add a 'Remove local content' option to the 'Edit asset' button ( ) dropdown. This button allows users to delete local asset content for a specific context. Note that this option is only available if assets are set as dimensionally dependent.



9. **Allow Replace Content:** For this parameter, check the box to add a 'Replace Content' option to the 'Edit asset' button ( ) dropdown. This button allows users to replace asset content. If assets are set as dimensionally dependent, and 'Create Local Content' has been enabled, and the asset has been made local, replacing the content will only change the content for the asset in the currently selected context. Otherwise replacing the asset changes the content in all contexts.



10. **Direct Download**: For this parameter, check the box to add both a 'Download' button ( ) and a magnifying glass icon ( ) to the right side of the asset thumbnail display. When this is enabled, assets can be downloaded by clicking the 'Download' button, or viewed in a new browser tab by clicking the magnifying glass icon.



The following parameters display in the 'Upload and Insert' section of the Asset Representation properties screen in the designer. These parameters control how assets can be added using this component:

11. **Process Description**: In this parameter, create a template for the background process description. The template contains placeholders that are populated when the background process is started. The available placeholders include:

    - **[Configuration]**: The asset importer configuration.
    - **[ItemCount]**: The number of files to import.

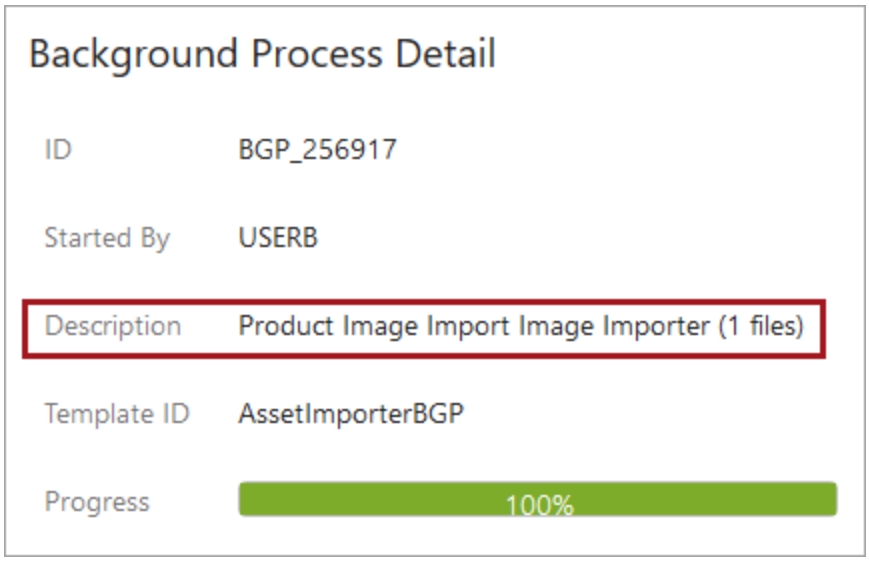
    The default template is: **{Configuration} ({ItemCount} files)**. This template displays in this field automatically.

    Below is a sample template as it might appear in the designer. The elements that make up the template are divided and numbered. The description of each element is listed below the screenshot.

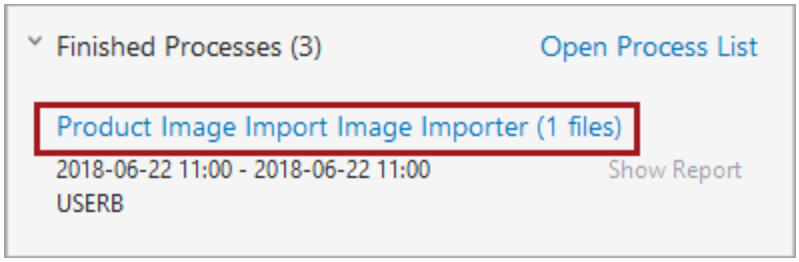


    1. Additional text added by an admin user to further define the background process for the end user. Any text may be added.
    2. This placeholder will cause the name of the asset import configuration selected in the 'Use Asset Import Configuration' parameter to display in the background process description. In this example, the name of the asset import configuration is 'Image Importer.'
    3. This placeholder will cause the number of imported files to display in the background process description. In this example, one file is being imported.

    Using this example template, the background process description will display like this in the background process screen:



And like this in the 'Recent background processes' side panel:



Any values added to the Process Description field will only be applied to a background process if the 'Asset Import Compatibility Mode' setting on **Users & Groups** is set to 'Advanced,' and an import configuration has been selected for the 'Use Asset Import Configuration' parameter (described below).

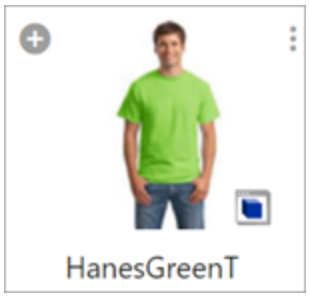
12. **Use Asset Import Configuration**: In this parameter, select an asset importer configuration to use from the dropdown. This configuration will be applied when any asset content is imported via this component.

    Any asset import configuration selected for this parameter will be applied to imported assets provided the 'Asset Import Compatibility Mode' setting on **Users & Groups** is set to 'Advanced.'

    For more information on using asset importer configurations with this component, refer to the **Asset Importer in Web UI** section of the **Asset Importer** documentation.

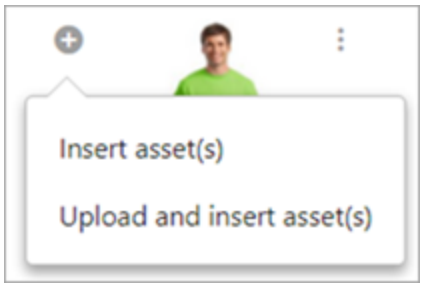
Referenced Asset Representation

The Referenced Asset Representation component displays one or multiple thumbnails that represent the asset or assets linked to the currently selected product, and allows for the creation of additional asset references on the product.



With the Referenced Asset Representation component, users can:

- Upload new assets or add existing assets to the product by clicking the 'plus' ( ) button. When clicked, two options are made available via the dropdown: 'Insert asset(s)' and 'Upload and insert asset(s)'. 'Insert asset(s)' allows users to add one or multiple existing assets to the product via a node selector. 'Upload and insert image(s)' allows users to import one or multiple assets via a file selector, and if necessary, specify an object type, and a classification folder where the assets will be saved.



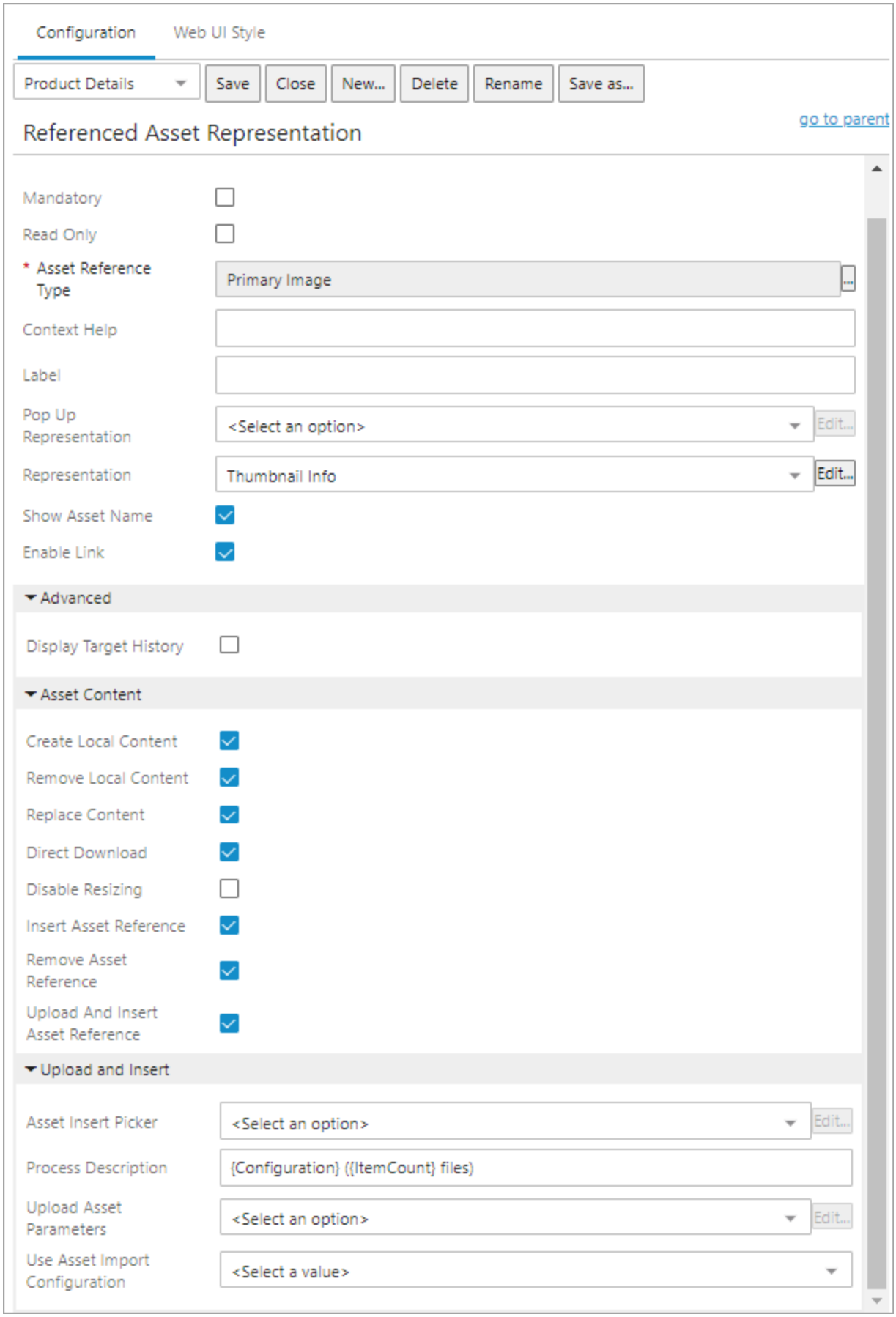
- Open the asset content in a new browser tab by clicking the View asset button.

Prerequisites

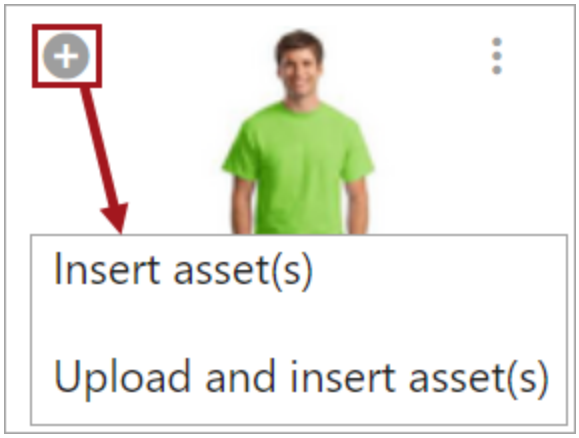
It is expected that anyone configuring the Referenced Asset Representation component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring Referenced Asset Representation component

Included in the configuration settings for this component are options to predefine a classification folder into which assets can be imported, and to specify the reference type for those assets. What follows is a comprehensive list of all configuration options available for this component.

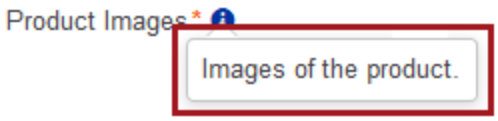

Configuration
Web UI Style
Product Details
Save
Close
New...
Delete
Rename
Save as...
Referenced Asset Representation
go to parent
Mandatory
Read Only
* Asset Reference Type
Primary Image
Context Help
Label
Pop Up Representation
<Select an option>
Edit...
Representation
Thumbnail Info
Edit...
Show Asset Name
Enable Link
Advanced
Display Target History
Asset Content
Create Local Content
Remove Local Content
Replace Content
Direct Download
Disable Resizing
Insert Asset Reference
Remove Asset Reference
Upload And Insert Asset Reference
Upload and Insert
Asset Insert Picker
<Select an option>
Edit...
Process Description
{Configuration} ({ItemCount} files)
Upload Asset Parameters
<Select an option>
Edit...
Use Asset Import Configuration
<Select a value>

1. **Mandatory:** Checking the box for this parameter indicates that at least one asset must be referenced by the product.
2. **Read Only:** Check the box for this parameter to make the component read-only. In this state, the component cannot be used to upload, insert, or remove asset references. When unchecked, meaning users may make changes, a plus icon (⊕) displays. This is the 'Add' button. When the 'Add' button is clicked, a dropdown displays that allows users to either 'Insert asset(s)' or 'Upload and insert asset(s).' 'Insert asset(s)' allows users to link one or multiple assets already present in STEP to the product via a node selector. 'Upload and insert image(s)' allows users to import one or multiple assets that are not in STEP via a file selector and, if necessary, specify a classification folder where the non-STEP assets will be saved in STEP.



Further, when the 'Read Only' parameter is checked, the 'Remove asset content', 'Remove local content' and 'Replace content' does not display, which means that all options are dependent on 'Read Only' parameter.

3. **Asset Reference Type:** For this parameter, click the ellipsis button (...) and specify the reference type that should be used when linking assets to the product via the node selector. This field is mandatory.
4. **Context Help:** In this parameter, enter the help text that will display when the user clicks the help icon to the right of the field label.



5. **Label:** In this parameter, enter the label that will display for this field in the Web UI. Defaults to 'Image.'



6. **Pop Up Representation**: In this parameter, specify how to present the image representing the current asset by selecting a sub-component from the dropdown. This sub-component displays in a pop-up window when the asset thumbnail is clicked.

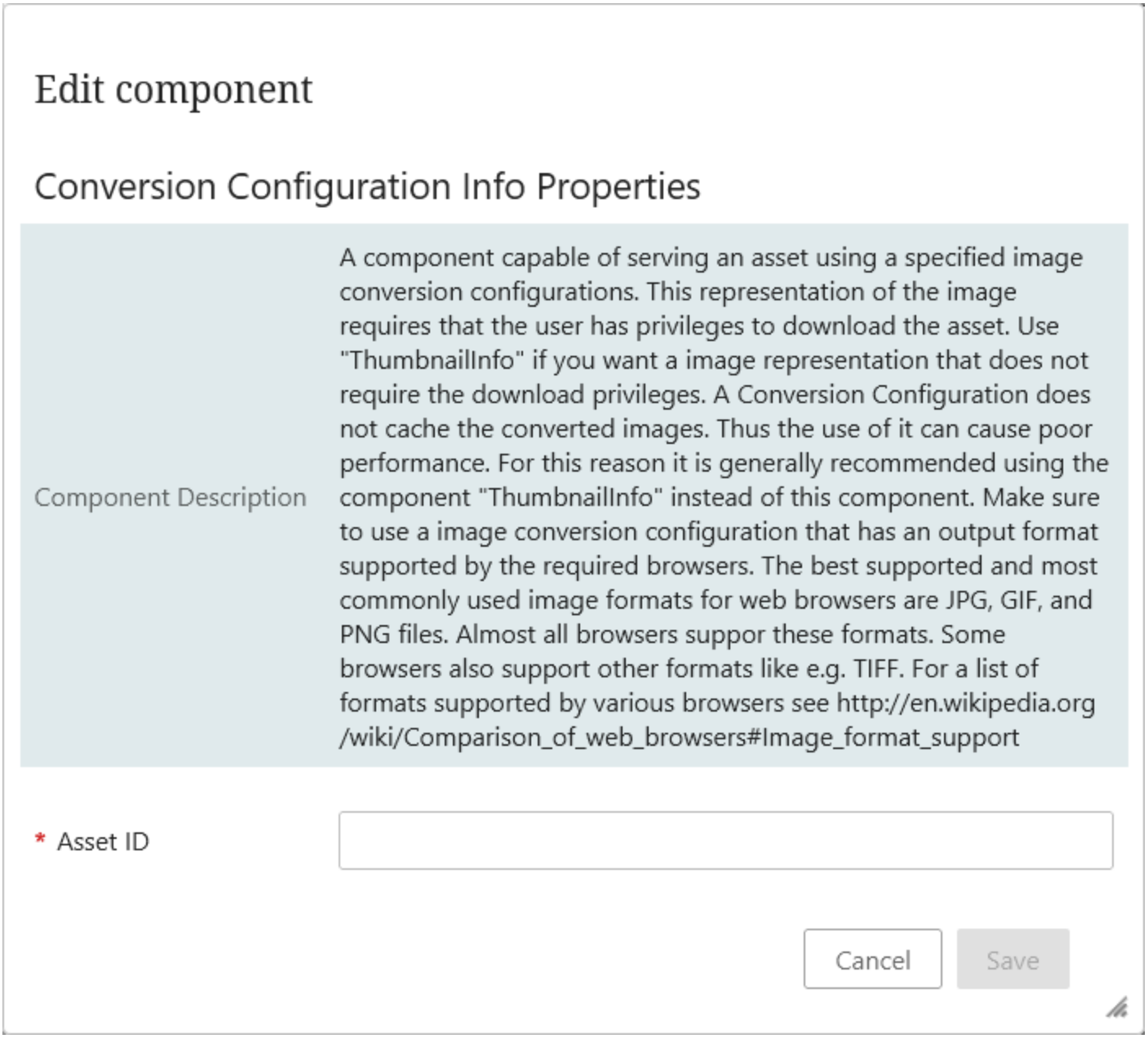
   Valid sub-components include: 'ConversionConfigurationInfo,' 'ConversionScriptInfo,' 'NoConversionInfo,' 'PipelineInfo,' and 'ThumbnailInfo' which are all described below in further detail.

   - **Conversion Configuration Info**: Selecting this component shows the image with the predefined conversion configurations in a pop up window. For example, if there is a need to view the selected asset in grayscale view / less resolution view / in any converted format, this pop up representation can be used.

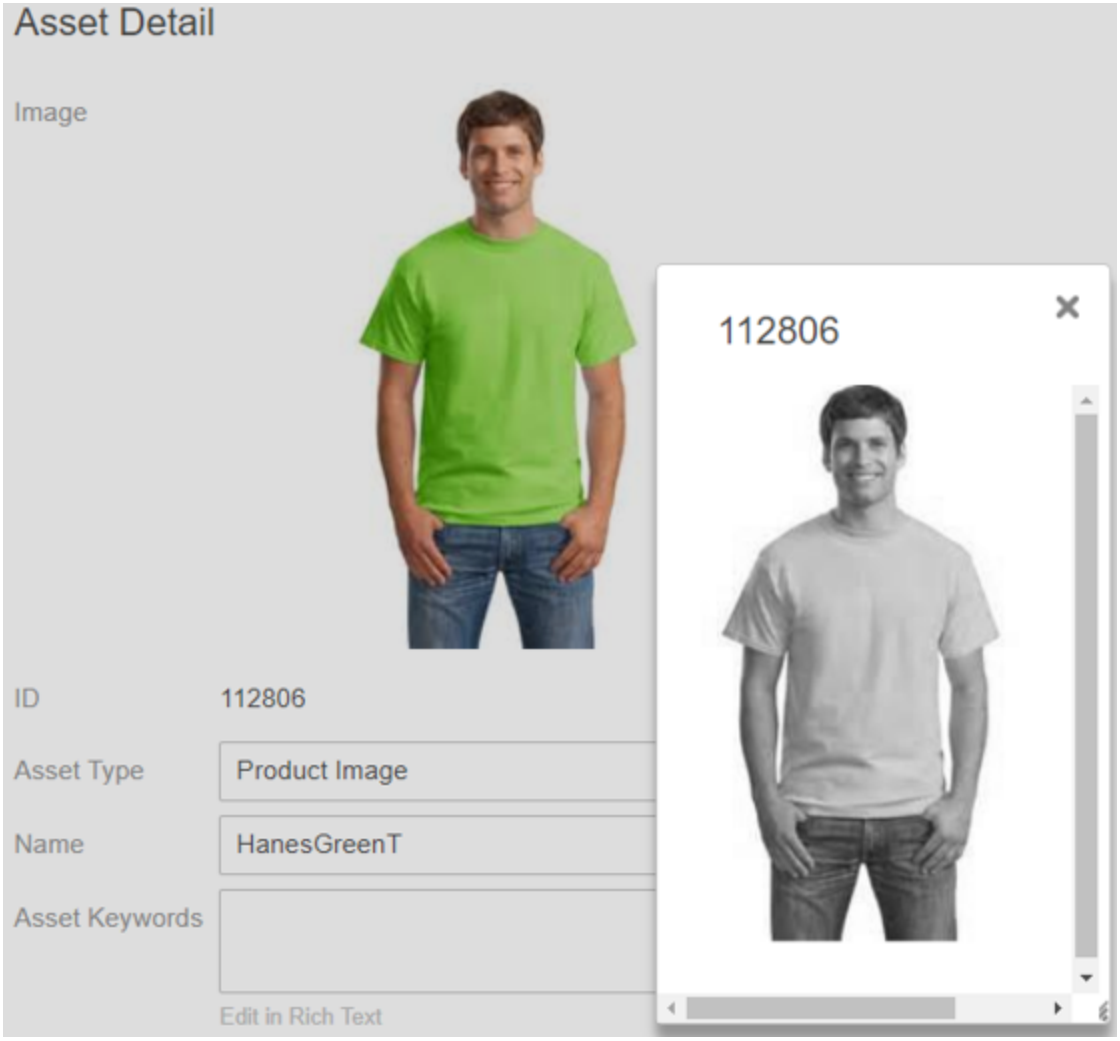
     To enable this, the user should have created an Image conversion configuration, and the ID of the Image conversion configuration should be known. For more information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

     This representation of the image also requires that the user has privileges to download the asset. A Conversion Configuration does not cache the converted images. Thus the use of it can cause poor performance. For this reason it is generally recommended using the component 'Thumbnail Info' instead of this component.

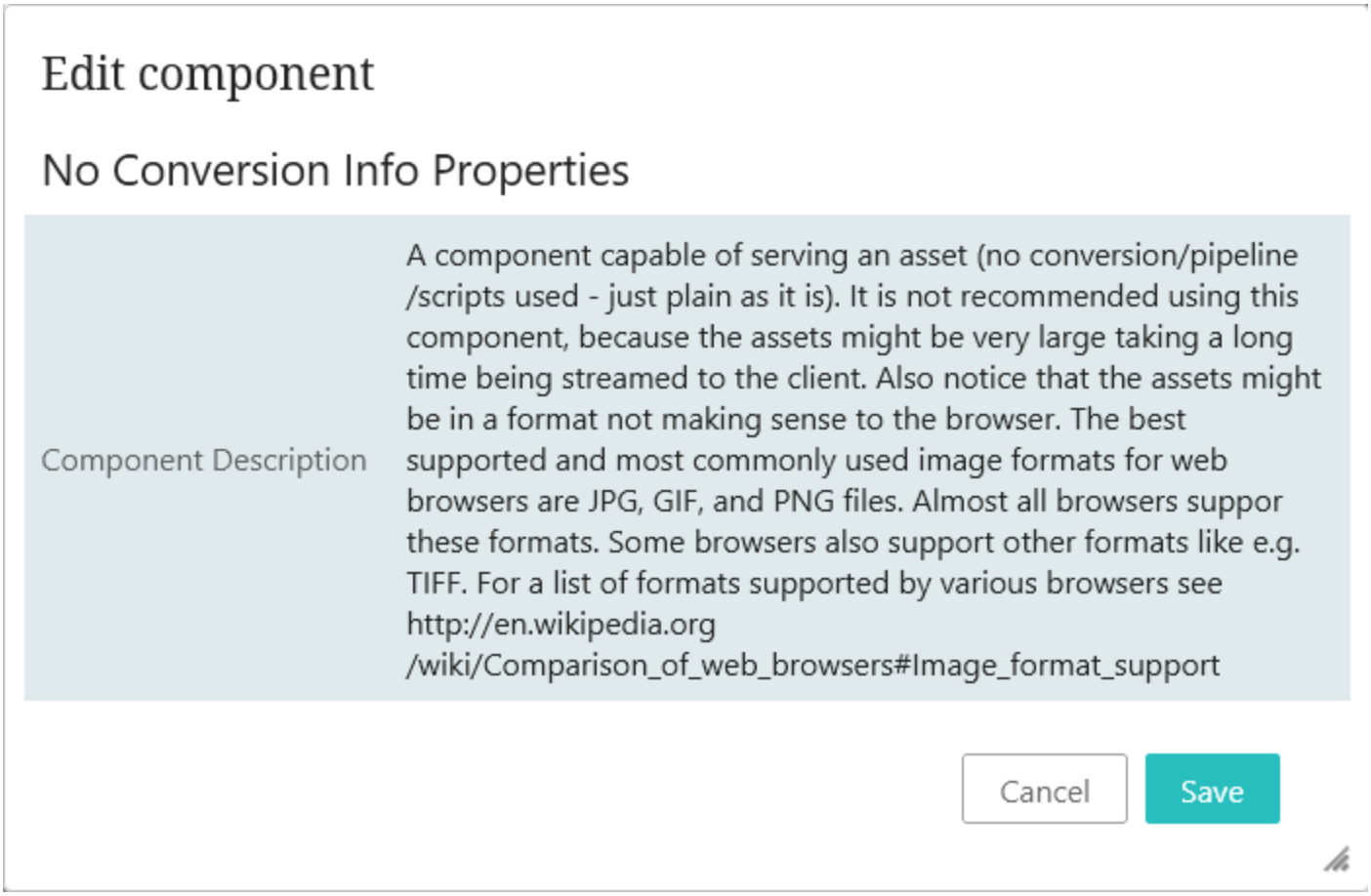
   - **Asset ID**: (Mandatory) ID of the required Image conversion configuration.



Below is an example of the asset image with the pop up view converted into grayscale.



- **No Conversion Info Properties**: Selecting this component will let the user view the image in a pop up window, same as the original image is, without any conversions / change in asset (no conversion / pipeline / scripts used). No configuration is necessary.

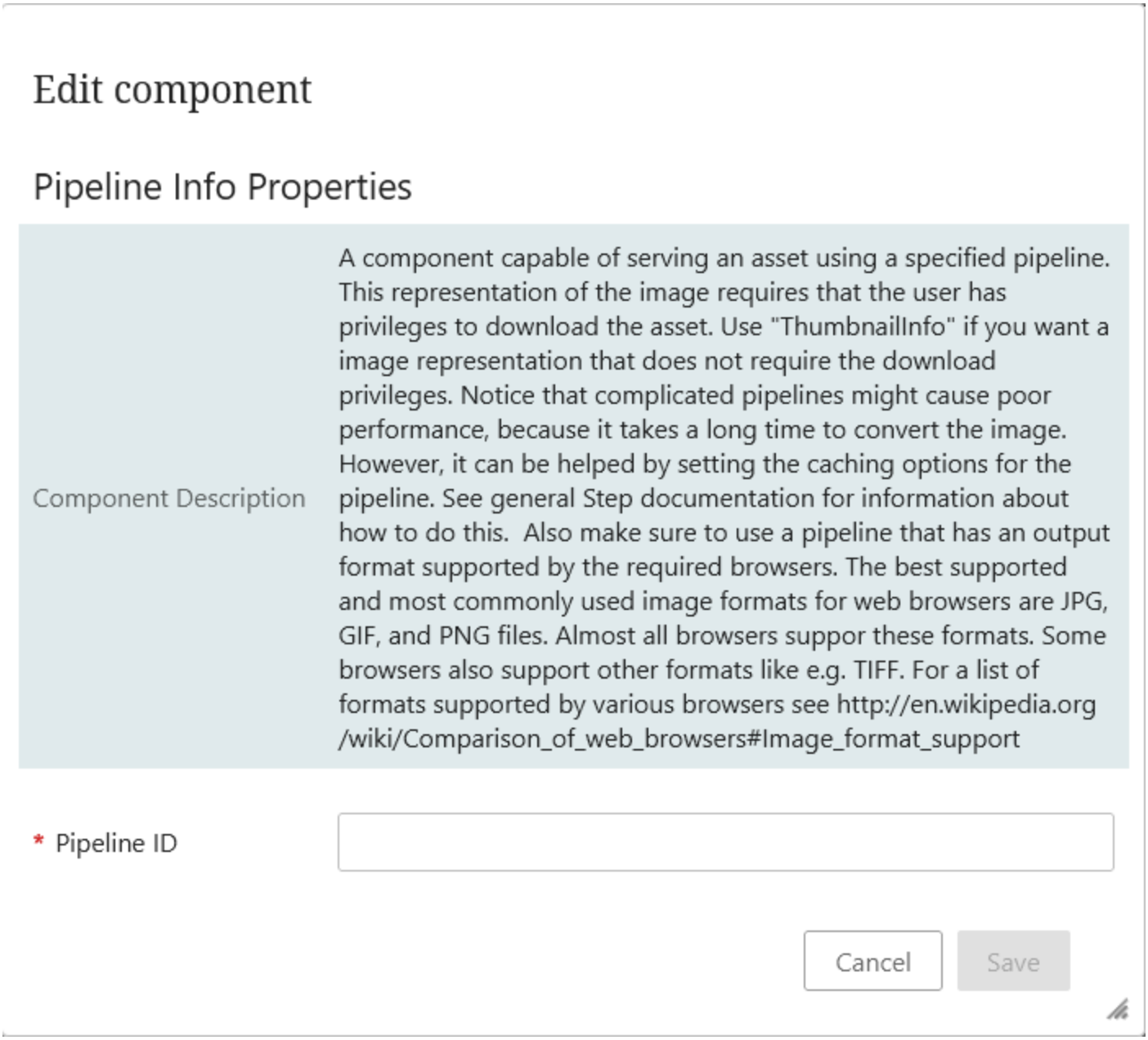


It is not recommended to use this component, because if the asset is very large it can take a long time to render. Further, the assets might be in a format incompatible with the browser being used.

- **Pipeline Info**: A component capable of serving an asset using a specified pipeline. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want a image representation that does not require the download privileges.

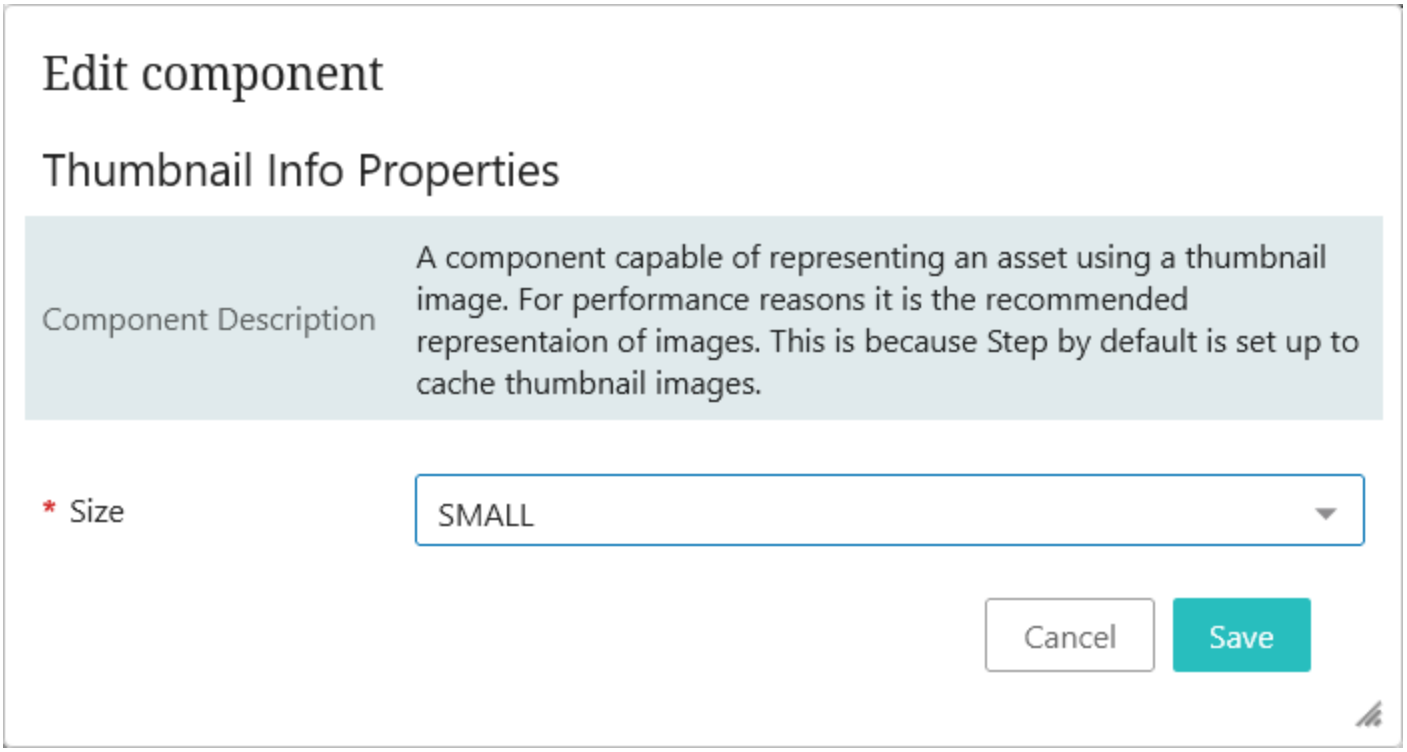
  Notice that complicated pipelines might cause poor performance, because it takes a long time to convert the image. However, this delay can be shortened by setting the caching options for the pipeline. Ensure you use a pipeline that has an output format supported by the required browsers. For more pipeline information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

  In the designer, 'Pipeline ID' is the only field that needs to be set.



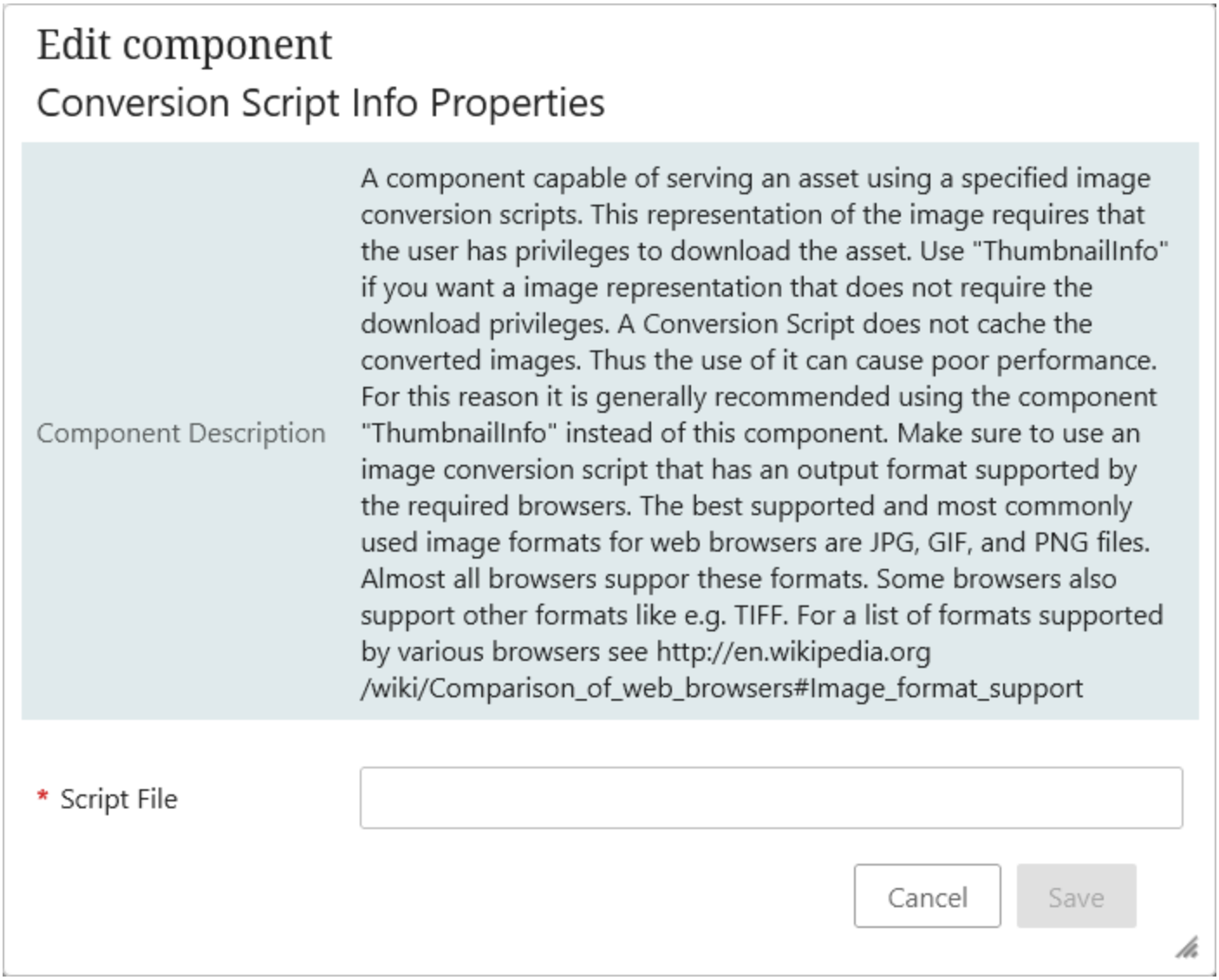
- **Thumbnail Info**: Selecting this component will let the user view the image in a pop up window using a thumbnail image. For performance reasons, this is the recommended representation of images. This is because the default is set up to cache thumbnail images.

  The 'Size' field is the only mandatory field for configuration. The user can choose the size of the thumbnail, as either SMALL, MEDIUM, or FULL. Note that while using the FULL option, the images are not cached in this version, and this require users to have download privileges.



- **Conversion Script Info**: A component capable of serving an asset using a specified image conversion scripts. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want an image representation that does not require the download privileges. A Conversion Script does not cache the converted images, thus the use of it can cause poor performance. For this reason it is generally recommended using the component 'ThumbnailInfo' instead of this component. Make sure to use an image conversion script that has an output format supported by the required browsers.

  The only mandatory field for configuration is the 'Script file.'



7. **Representation**: In this parameter, specify how to present the image representing the current asset by selecting a sub-component from the dropdown.

   Valid sub-components include: 'ConversionConfigurationInfo', 'ConversionScriptInfo', 'NoConversionInfo', 'PipelineInfo', and 'ThumbnailInfo'. The sub-components work the same way as explained in the above component Pop Up Representation.

8. **Show Asset Name**: This determines whether the image name displays beneath the asset thumbnail. When the box for this parameter is checked, the image name will display. When the box is unchecked, the image will not display.

The following parameters display in the 'Asset Content' section of the Referenced Asset Representation properties screen in the designer. These parameters determine which icons display to the right of the thumbnail, and which options are available when those icons are clicked:

9. **Enable Link**: In this parameter, the user can navigate to the pre-configured screen showing the details of the asset. This allows users to inspect additional details and/or metadata, and also provides consistency across the UI as most places allow a clickable navigation link.
10. **Display Target History**: When enabled, you will be able to view the history icon and access the 'Target history' pop-up. By clicking on the hyperlinked Target values, you will navigate to the configured screen for that target object.
11. **Create Local Content**: When checked, the 'Make content local' option will be available in the menu that displays when the vertical ellipsis button is clicked. This option allows users to set a new asset as the local content in the current context.
12. **Remove Local Content** : When this parameter is checked, the 'Remove local content' option will be available in the menu that displays when the vertical ellipsis button is clicked. This option allows users to delete local asset content from a specific context.
13. **Replace Content**: When checked, the 'Replace content' option will be available in the menu that displays when the vertical ellipsis button is clicked. This option allows users to replace the asset content with newly imported content in the current context.
14. **Direct Download**: When checked, a 'Download asset' option will be available in the menu that displays when the vertical ellipsis button (located to the right of the asset thumbnail) is clicked. This option allows the user to download the referenced asset.
15. **Insert Asset Reference**: When checked, the menu accessed by clicking the button (located to the left of the asset thumbnail) will include the 'Insert Asset Reference' option. By enabling this option, users can insert an asset reference.

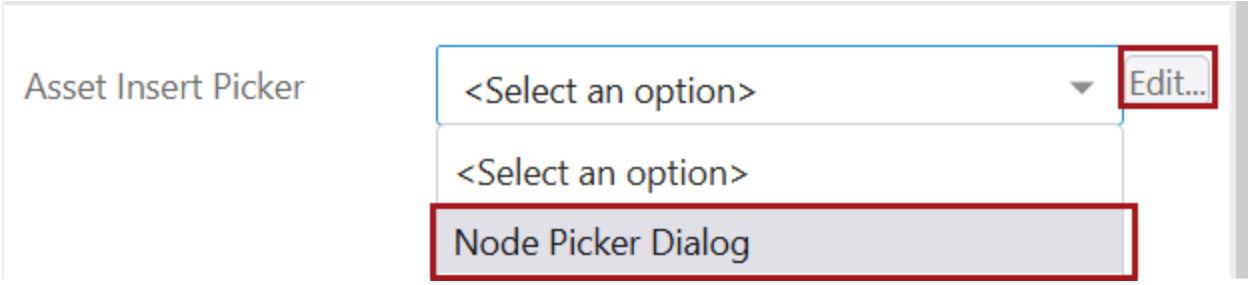
    Note: If 'Read Only' is also checked, the button will not display, and this option will not be accessible.

16. **Remove Asset Reference**: When checked, the menu accessed by clicking the vertical ellipsis button (located to the right of the asset thumbnail) will include the 'Remove asset reference' option. By enabling this option, users with the 'Delete asset reference User Action' privilege can remove the asset reference.
17. **Upload and Insert Asset Reference**: When checked, the menu accessed by clicking the button (located to the left of the asset thumbnail) will include the 'New Asset Upload and Insert Reference' option. By enabling this option, users can upload new assets to STEP and insert a reference to that asset.

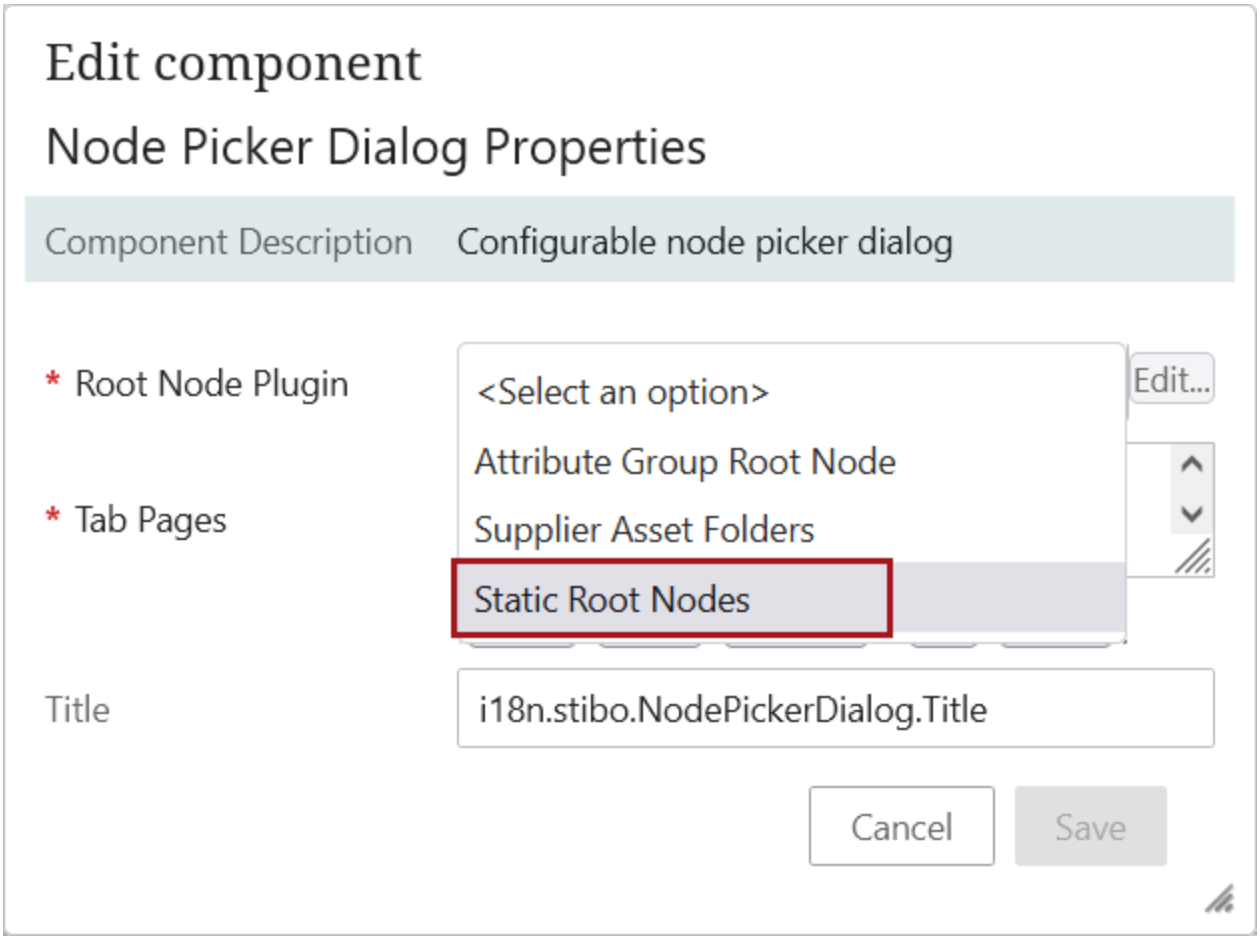
    Note: If 'Read Only' is also checked, the button will not display, and this option will not be accessible.

The following parameters display in the 'Upload and Insert' section of the Referenced Asset Representation properties screen in the designer. These parameters control how assets can be brought in using this component:

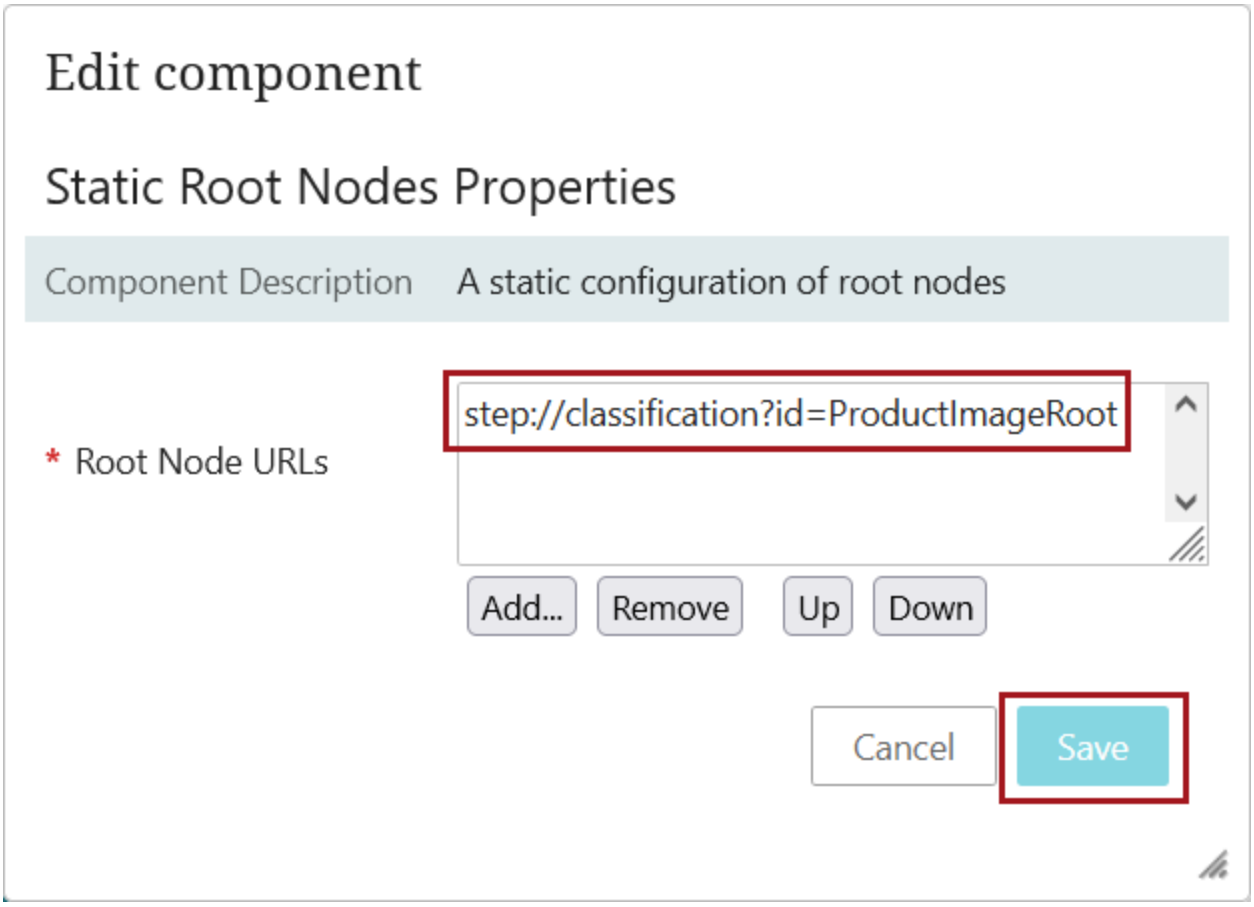
18. **Asset Insert Picker**: Configuration of this parameter enables users to configure which nodes are available when selecting a new asset reference.
    - First, select the 'Node Picker Dialog' option from the dropdown. Then click the 'Edit...' button.



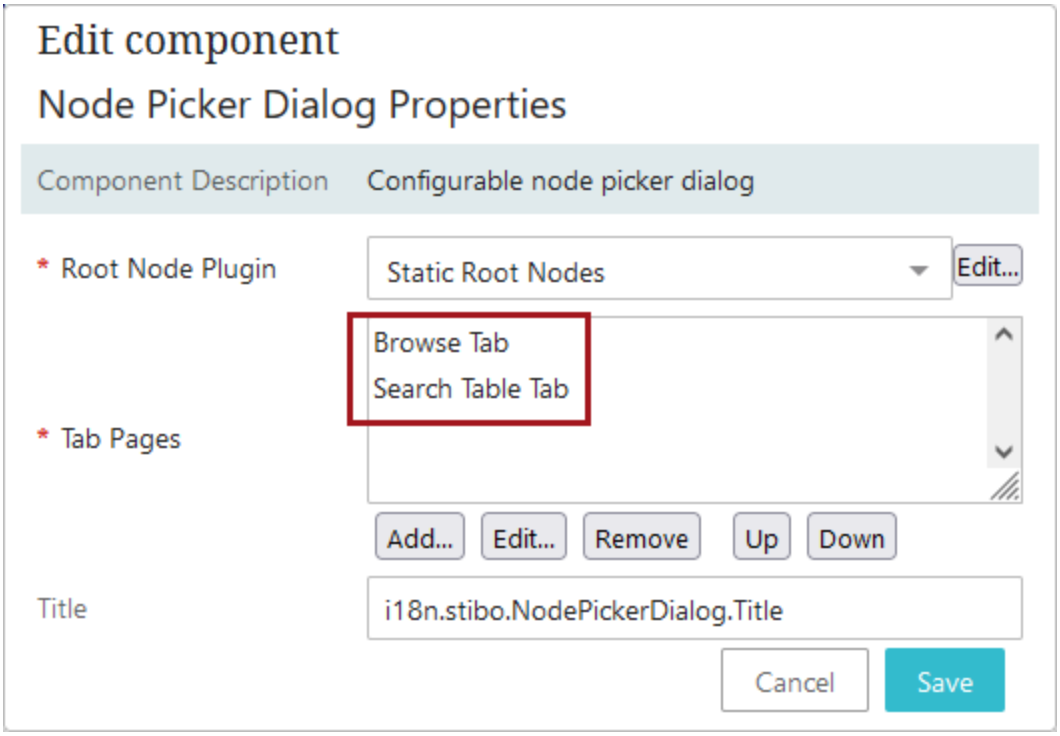
- Second, select the appropriate root node from the dropdown. For this example, 'Static Root Nodes' is selected.



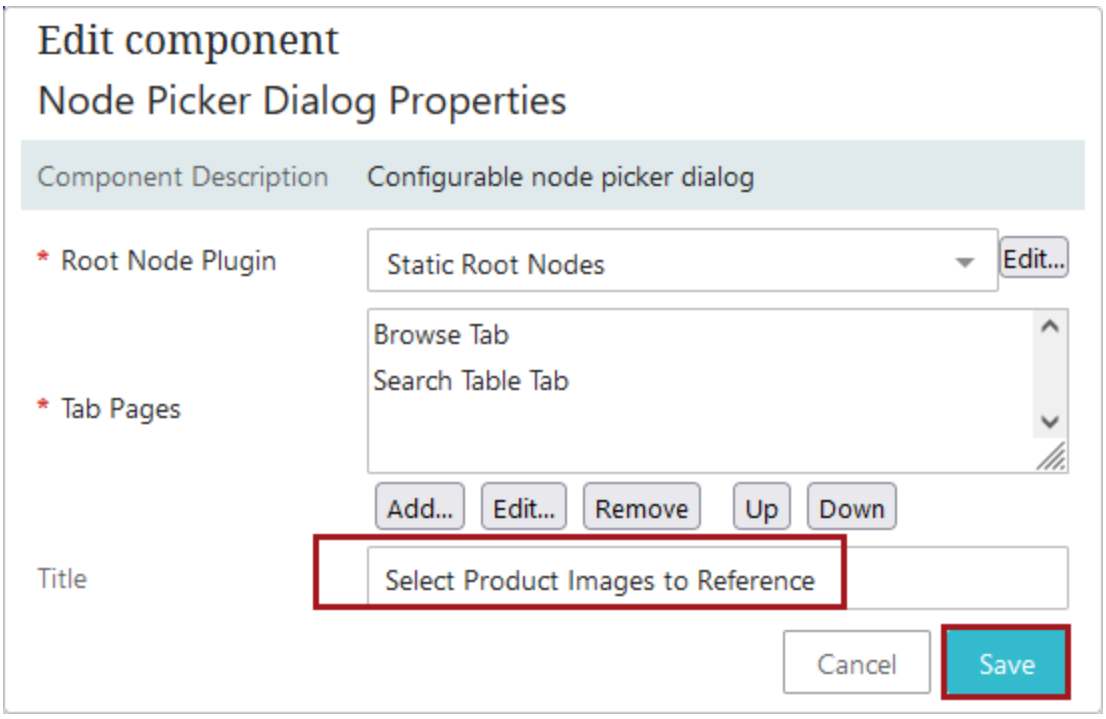
- In the 'Static Root Nodes Properties' dialog that displays, click 'Add...' and then select the node or nodes that should display when a user is selecting assets to reference. Then click 'Save.'



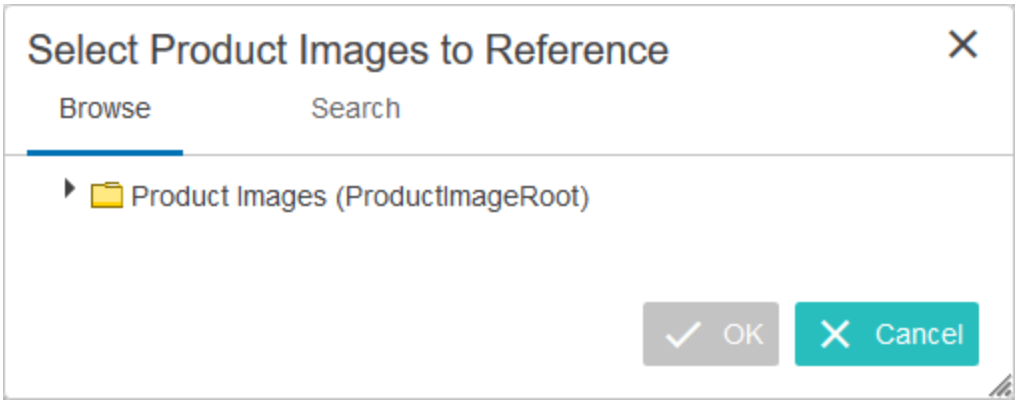
- Then, in the 'Tab Pages' field, click 'Add...' to select the tabs that will display in the Node Picker. Common choices are 'Browse' and 'Search.'



- In the 'Title' tab, add any text that should display as the title for the Node Picker. If no text is added, the title defaults to 'Select Node(s).'



- When configured, the Node Picker will display like this when the 'Insert Asset(s)' option is selected from the dropdown that displays when the ⊕ is clicked.



14. **Process Description**: In this parameter, create a template for the background process description. The template contains placeholders that are populated when the background process is started. The available placeholders include:

    - **[Configuration]**: The asset importer configuration.
    - **[ItemCount]**: The number of files to import.

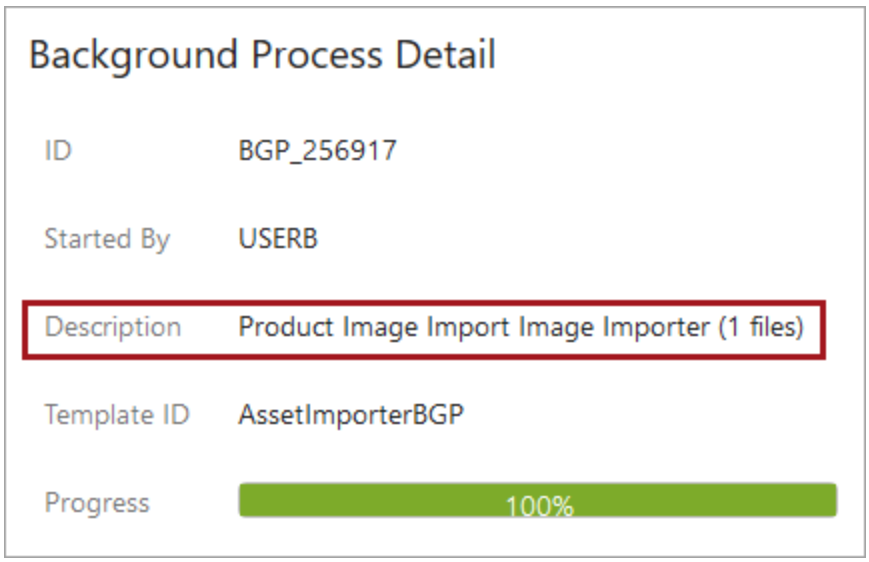
    The default template is: **{Configuration} ({ItemCount} files)**. This template displays in this field automatically.

    Below is a sample template as it might appear in the designer. The elements that make up the template are divided and numbered. The description of each element is listed below the screenshot.

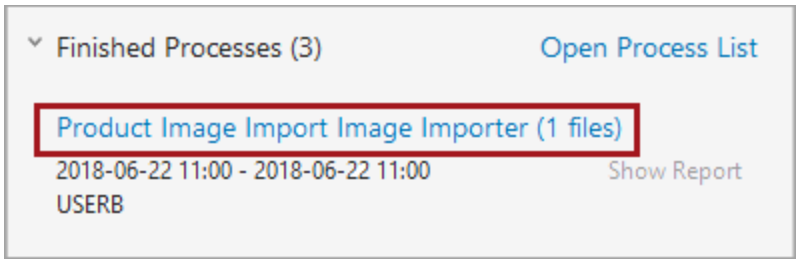


    1. Additional text added by an admin user to further define the background process for the end user. Any text may be added and will display first in the resulting description.
    2. This placeholder will cause the name of the asset import configuration selected in the 'Use Asset Import Configuration' parameter to display in the background process description. In this example, the name of the asset import configuration is 'Image Importer.'
    3. This placeholder will cause the number of imported files to display in the background process description. In this example, one file is being imported.

    Using this example template, the background process description will display like this in the background process screen:



And like this in the 'Recent background processes' side panel:



Any values added to the Process Description field will only be applied to a background process if the 'Asset Import Compatibility Mode' setting on **Users & Groups** is set to 'Advanced,' and an import configuration has been selected for the 'Use Asset Import Configuration' parameter (described below).

15. **Upload Asset Parameters**: If import parameters are required, select 'Upload Asset Parameters' from the dropdown in this field.

    For more information on configuring this parameter, refer to the 'Upload Asset Parameters Configuration' section at the end of this topic.

    For more information on using asset importer configurations with this component, refer to the **Asset Importer in Web UI** section of the **Asset Importer** documentation.

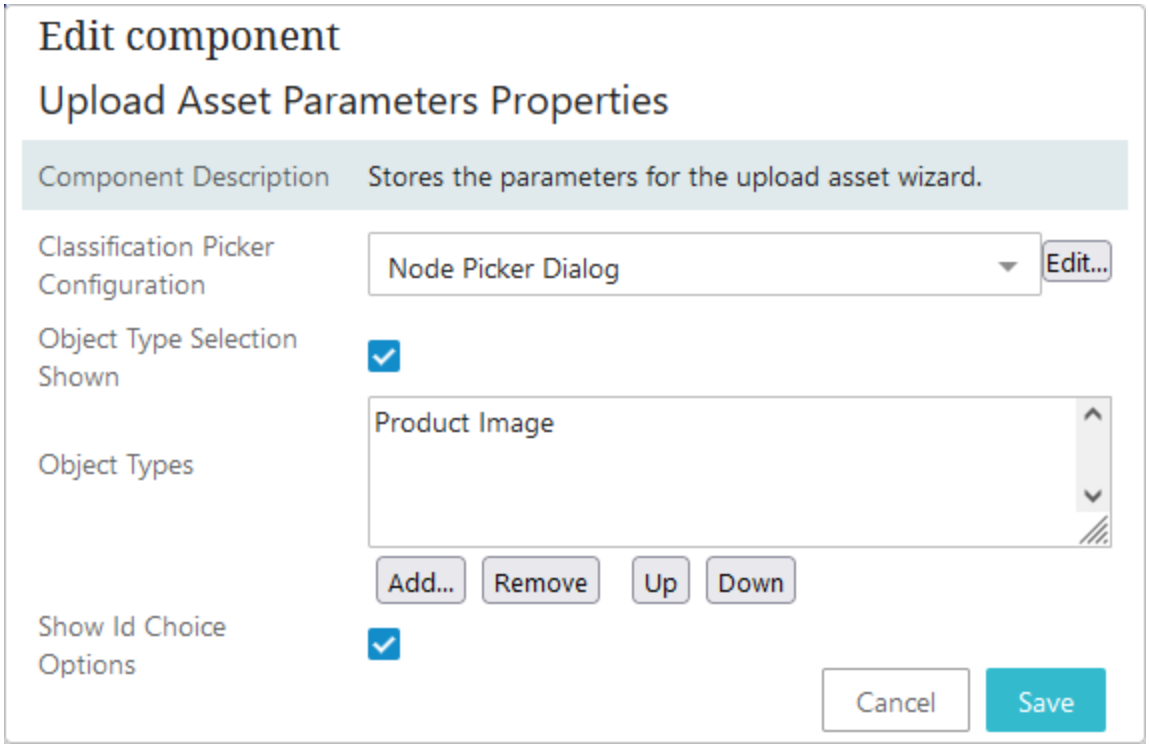
16. **Use Asset Import Configuration**: In this parameter, select an asset importer configuration to use from the dropdown. This configuration will be applied when any asset content is imported via this component.

    Any asset import configuration selected for this parameter will be applied to imported assets provided the 'Asset Import Compatibility Mode' setting on **Users & Groups** is set to 'Advanced.'

    For more information on using asset importer configurations with this component, refer to the **Asset Importer in Web UI** section of the **Asset Importer** documentation.

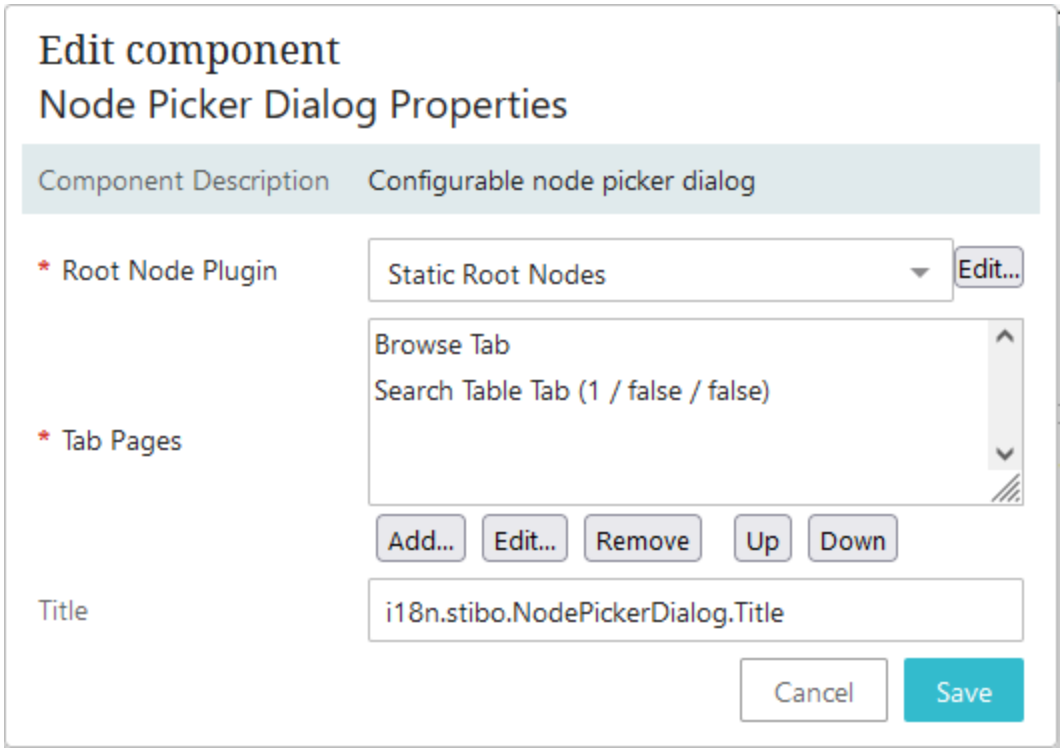
Upload Asset Parameters Configuration

1. To set upload parameters for the component, click the **Edit...** button next to the Upload Asset Parameters field.
2. The 'Upload Asset Parameter Properties' dialog appears.

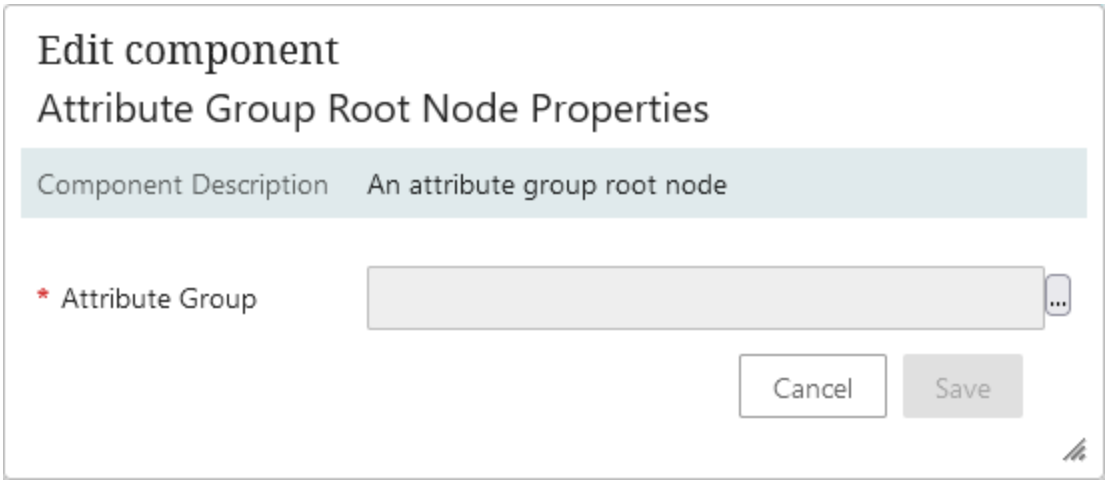


3. In the 'Classification Picker Configuration' parameter, select 'Node Picker Dialog' to enable a node picker that prompts the user to specify which classification folder to upload assets to. This is an optional parameter.

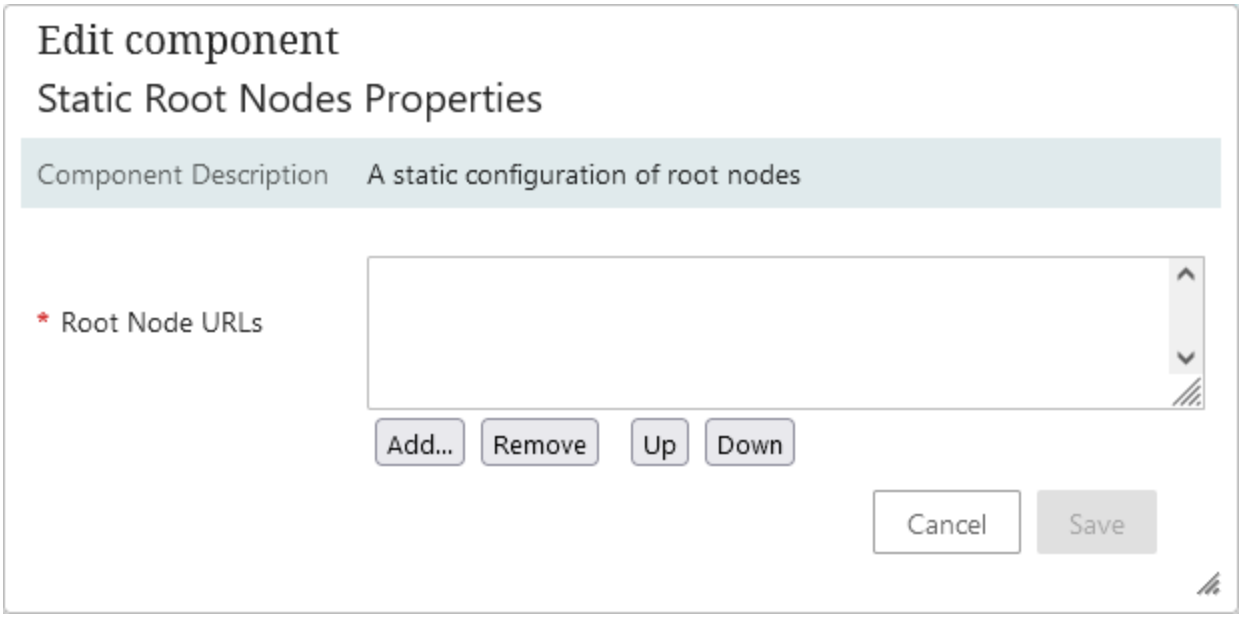
   When selected (or when you click the **Edit...** button) the Node Picker Dialog Properties window appears.



- **Root Node Plugin**: In this parameter, select the plugin that provides the relevant root nodes from the dropdown. The three options include 'Attribute Group Root Node', 'Supplier Asset Folders', and 'Static Root Nodes', and may require additional configurations of their own. This is a mandatory field.
- If **Attribute Group Root Node** is selected, specify an attribute group to act as top root node for the node picker dialog via the 'Attribute Group' parameter. Click **Save** when the selecting is made.



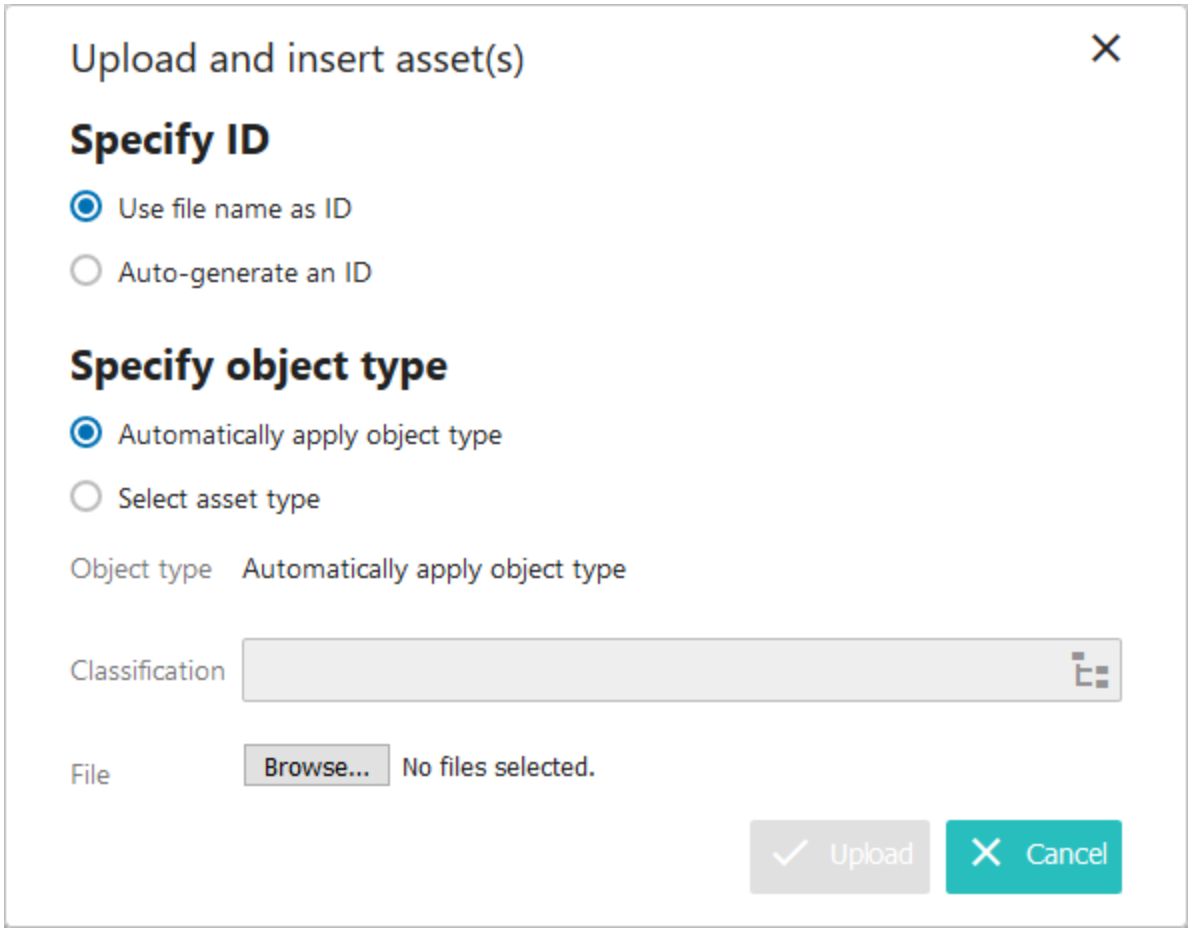
- If **Static Root Nodes** is selected, specify the root nodes the node picker will use via the 'Root Node URLs' parameter.



- **Tab Pages**: In this parameter, use the **Add...** (or **Edit...**) button to specify which tab pages should be available in the node picker dialog. This is a mandatory field.
- **Title**: In this parameter, enter a title for the dialog. This is an optional field.

4. **Object Type Selection Shown**: In this parameter, check the box to add two radio buttons to the dialog which allow users to choose whether to manually specify the object type of the asset, or have the system detect it automatically. This is an optional field.
5. **Object Types**: In this parameter, specify the valid object types for imported assets via the **Add...** button. Object types listed appear as options when manually specifying the object type of an asset. If no object types are specified, all asset object types will be listed. If only one single object type is valid as target type for the reference type, then this will be used in place of content detection based on MIME type. Object Types is an optional field that requires 'Object Type Selection Shown' to be enabled.
6. **Show Id Choice Options**: In this parameter, check the box to add two radio buttons to the dialog which allow users to choose whether to use Filename as the ID, or Auto ID. This is an optional field.

   When configured, clicking the ⊕ will bring up a dialog that may resemble the screenshot below, dependent on how the options described above were configured:


Upload and insert asset(s)
Specify ID
Use file name as ID
Auto-generate an ID
Specify object type
Automatically apply object type
Select asset type
Object type
Automatically apply object type
Classification
File
Browse...
No files selected.
Upload
Cancel

Asset Thumbnail Component

The Asset Thumbnail component displays thumbnails of all assets linked to the currently selected product.



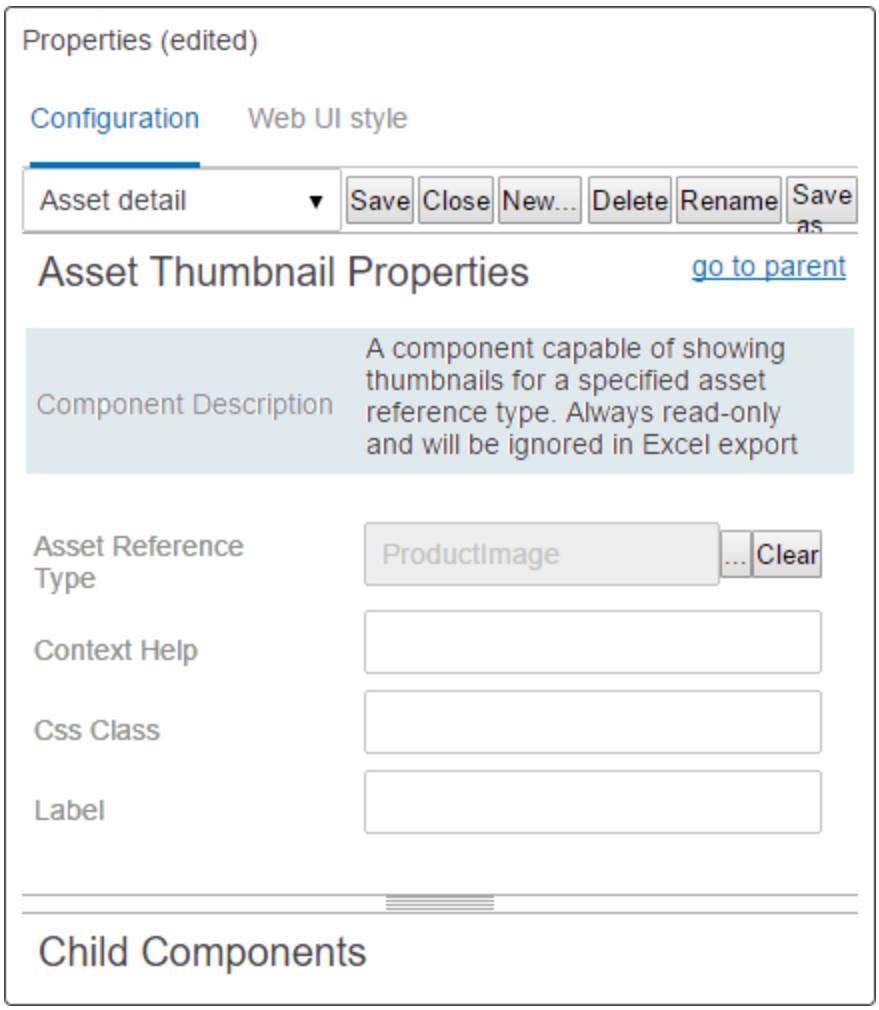
Important: This component has been withdrawn and will be removed in a future release. The Referenced Asset Representation Component is the recommended component to use when configuring display of a referenced asset's thumbnail on a selected product. For more information on this component, refer to the **Referenced Asset Representation Component** section of the **Web User Interfaces** documentation.

Prerequisites

It is expected that anyone configuring the Asset Thumbnail component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring Asset Thumbnail Component

The only configuration option that impacts the functionality of this component is the 'Asset Reference Type' parameter.



1. **Asset Reference Type:** For this parameter, click the ellipsis button (...) and specify the reference type of the assets to be displayed by this component via the node selector.
2. **Context Help:** In this parameter, enter the context help displayed for the field.
3. **Css Class:** In this parameter, enter an optional name of a CSS-style to be set as the primary style for the component.
4. **Label:** In this parameter, enter a label for this field. When no label is entered, 'AssetThumbnail' displays.

Asset Importer Widget

The Asset Importer Widget offers users a simple method of importing assets from the Web UI Homepage. Multiple asset importer configurations can be mapped to the same widget, which are accessed individually by dragging and dropping files into the appropriate area on the widget or by clicking on the **Select File** button for the corresponding configuration.



Before this widget can be used, ensure that the Asset Importer functionality has been enabled and that there are configurations available on the system.

For more information on enabling Asset Importer, refer to the **Asset Importer Initial Setup** section of the **Asset Importer** documentation.

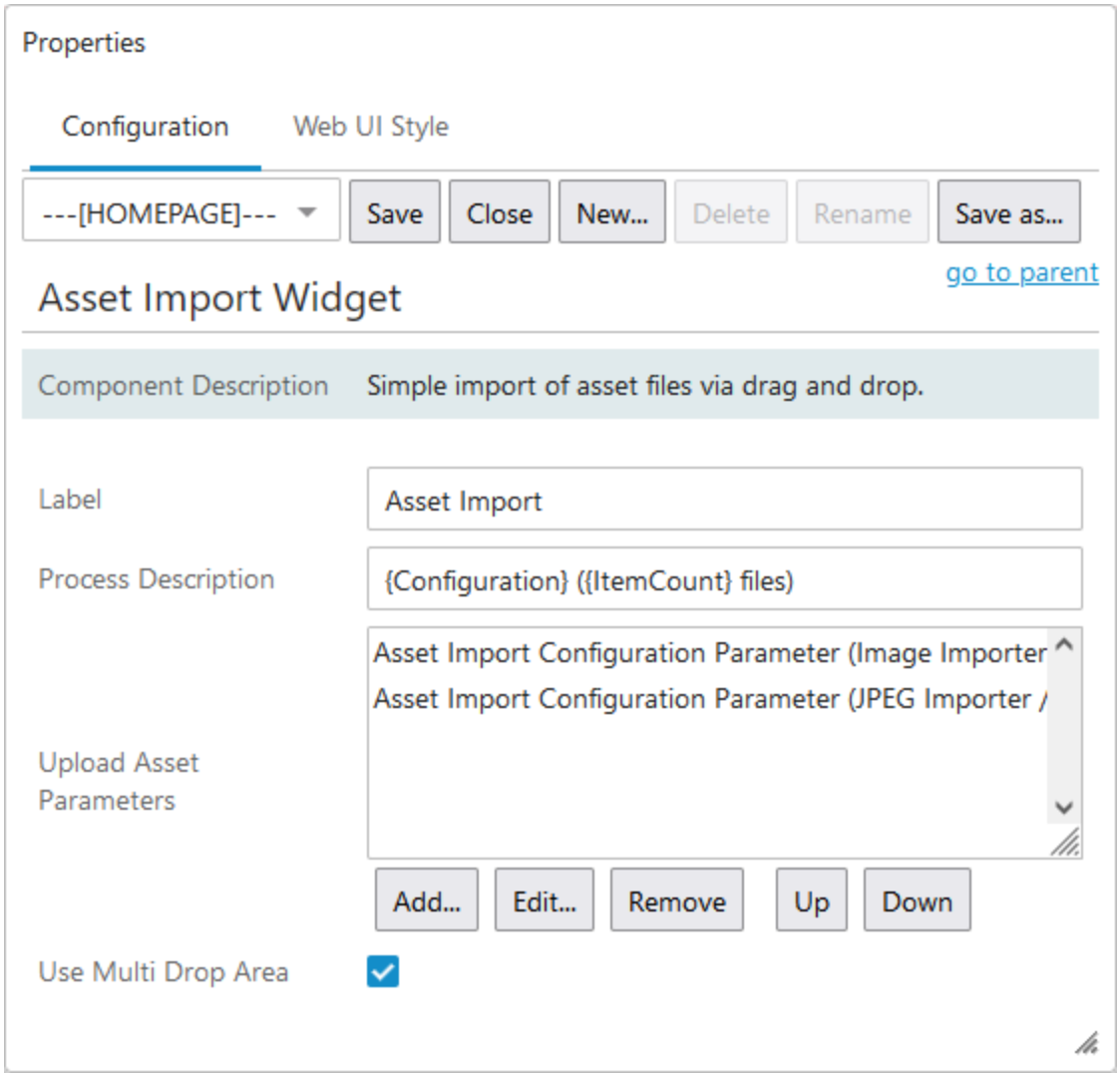
For more information on creating asset importer configurations, refer to the **Asset Importer Configuration Overview** section of the **Asset Importer** documentation.

Configuration

It is expected that anyone configuring the Asset Importer Widget is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

For information on adding a widget to the homepage, refer to **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

1. When configuring the Asset Importer Widget for the Homepage, there are four optional parameters to consider; Label, Process Description, Upload Asset Parameters, and Use Multi Drop Area.



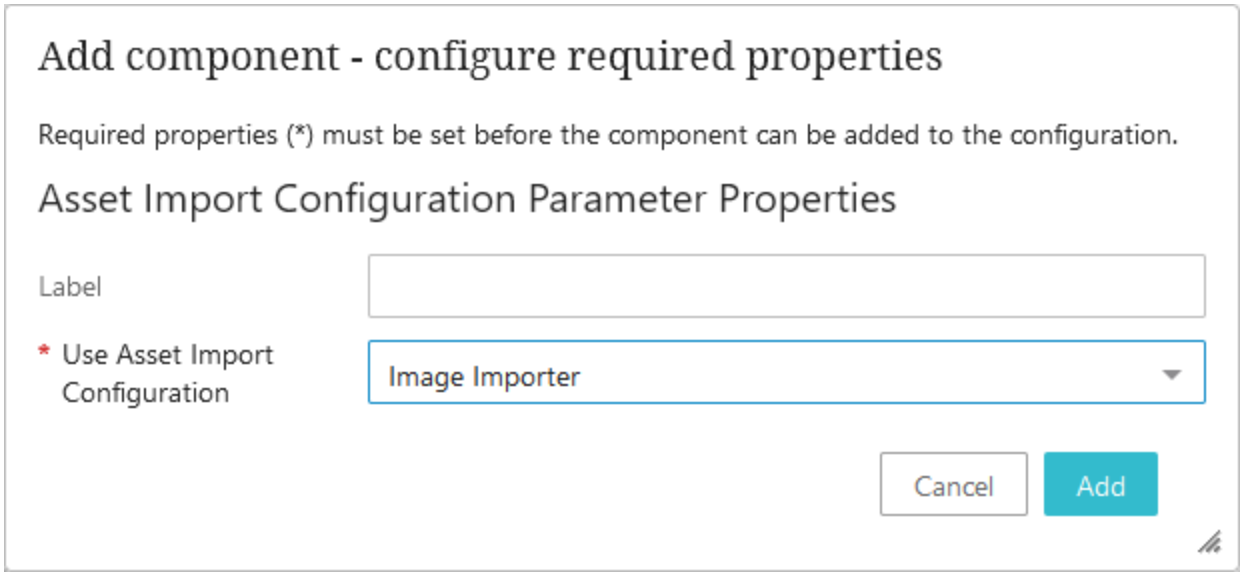
2. In the 'Label' parameter, enter a label for the widget.
3. In the 'Process Description' parameter, create a template for the background process description. The template may contain a number of place holders that are expanded when the background process is started.

   Available placeholders include:

   - **[Action]**: The name of the action.
   - **[Configuration]**: The asset importer configuration.
   - **[ItemCount]**: The number of files to import.
   - **[ImportFile]**: The name of the file(s) in a comma separated list.

4. In the 'Upload Asset Parameters' field, click **Add** (and follow the below steps) to map an asset import configuration to the widget. If no selections are made, the user will be prompted to specify which configuration to use among all those present on the system upon import.

- In the dialog that appears, enter a label for the area in which the configuration will reside.
- Select the desired Asset Configuration.
- Click **Add** when finished.



5. In the 'Use Multi Drop Area' parameter, check the box to enable multiple drop areas on the widget. Each of these drop areas represent an individual asset importer configuration that was specified in the above step. If unchecked, the widget will have one large drop area, that when used, will prompt you to select a configuration from those specified in the previous step.

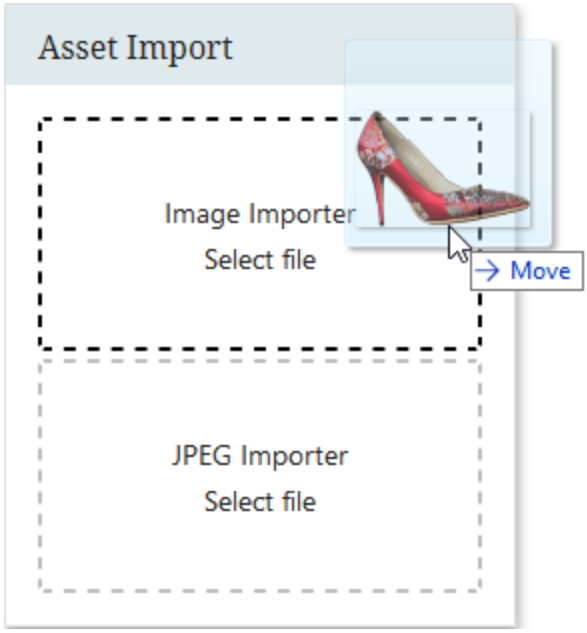
Note: It is recommended to leave the box unchecked if you want to map many different configurations to the same widget.

Importing Assets

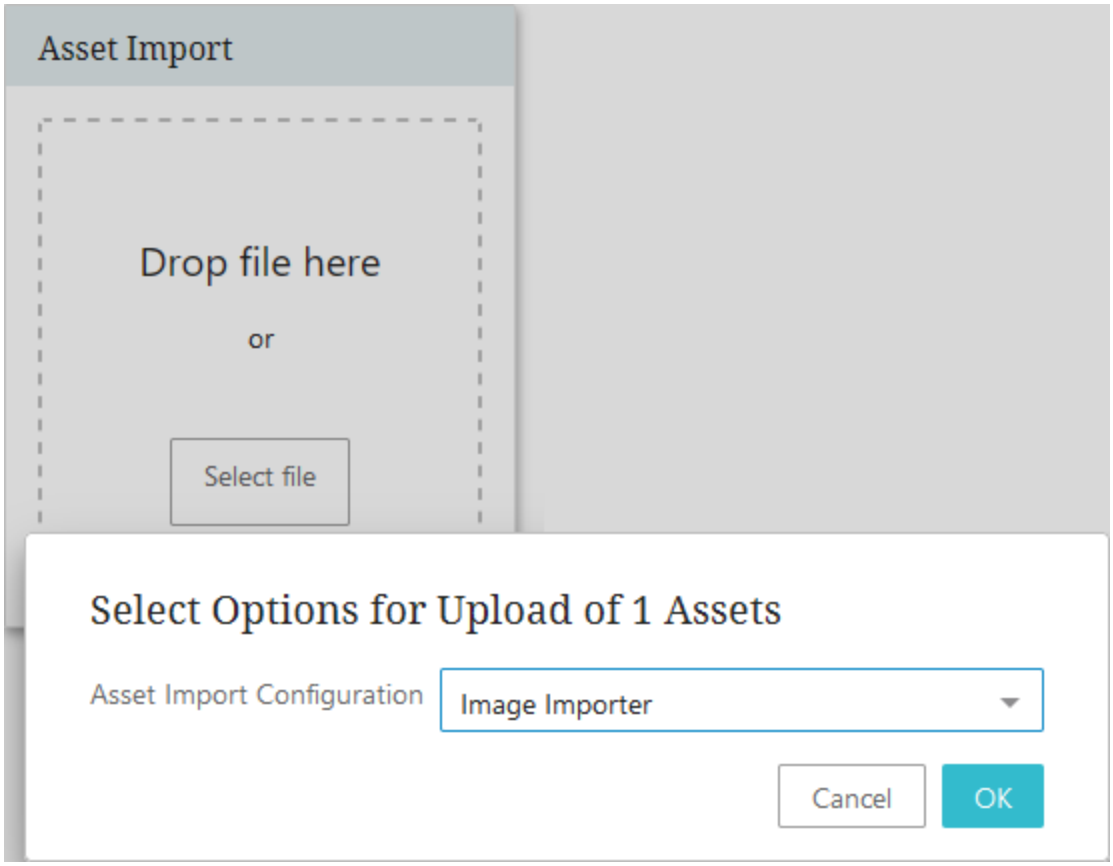
Once the widget is configured, assets can be easily uploaded by either dragging and dropping the relevant file into the widget drop area or by clicking on the **Select File** button for the corresponding configuration.

Drag and drop

Files can be dragged and dropped directly into the widget.

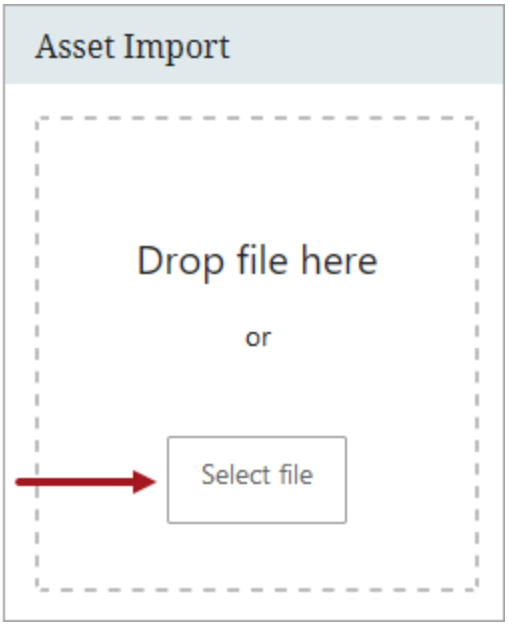


If 'Use Multi Drop Area' is not configured, the user will be prompted to select a configuration. Once a selection is made, click **OK** and the import will initiate.

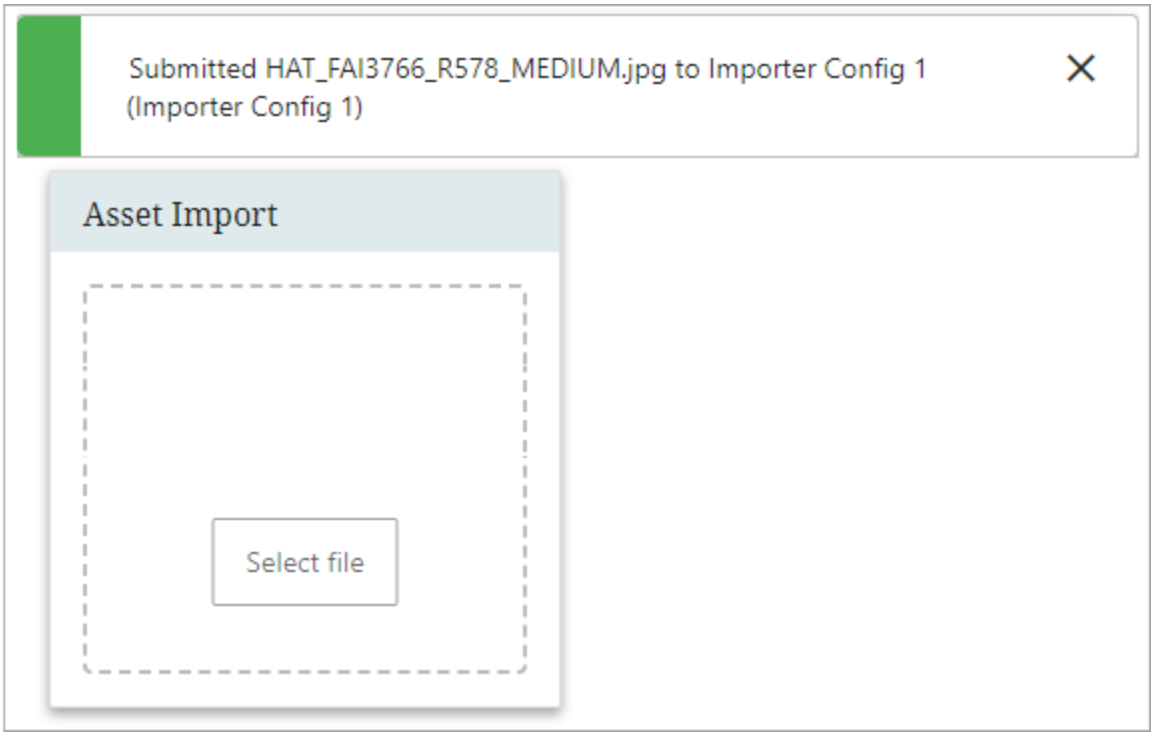


'Select file' option

In addition to drag and drop, users can click **Select file** for the corresponding importer configuration.



You are provided a notification on screen submission of the asset file.



Asset Previews in Web UI

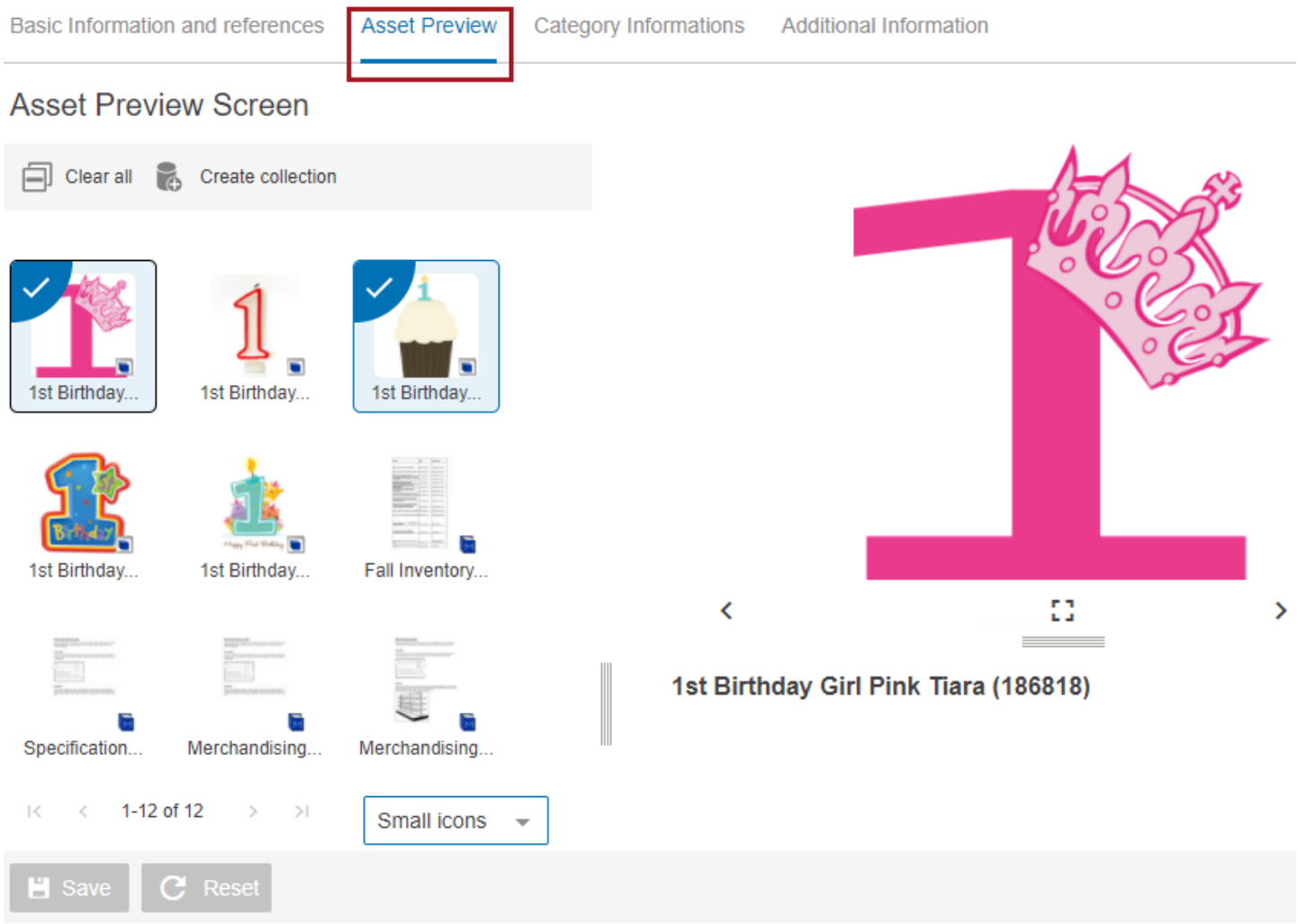
Full-screen previews of image assets, PDFs, Microsoft Office documents, and video files are available in two locations in Web UI: the **Asset Preview Screen** and the **Asset Representation** component. The Asset Preview Screen is used to view previews of referenced assets linked to product object nodes. The Asset Representation component provides these previews when viewing assets themselves.

Important: Refer to the **Considerations and Limitations** section at the bottom of this topic for important information.

Asset Preview Screen

The Asset Preview Screen supports configurable and enhanced asset previewing capabilities such as full-screen image previews and scrollable previews of Office and PDF documents, as well as viewable previews of video files. The types of references displayed on this screen are configurable in the designer by admin users. It is typically configured as a Sub Screen Tab Page on Node Details pages for product objects.

The below screenshot shows a sample Asset Preview Screen and the preview displayed when viewing image assets. Linked assets are displayed as thumbnails in the left-hand panel. The sizing of these thumbnails is controlled by selecting one of the three thumbnail size selector icons that appear below the thumbnails. When a thumbnail is selected, a larger preview of the asset appears in the right-hand panel. Below the asset preview, a configurable selection of description attributes that are valid for the selected asset object type can be added.



Using the Asset Preview Screen

To navigate between assets, click on the left and right arrow icons directly beneath the asset preview in the right panel. Alternatively, you may use the left and right arrow keys on your keyboard.

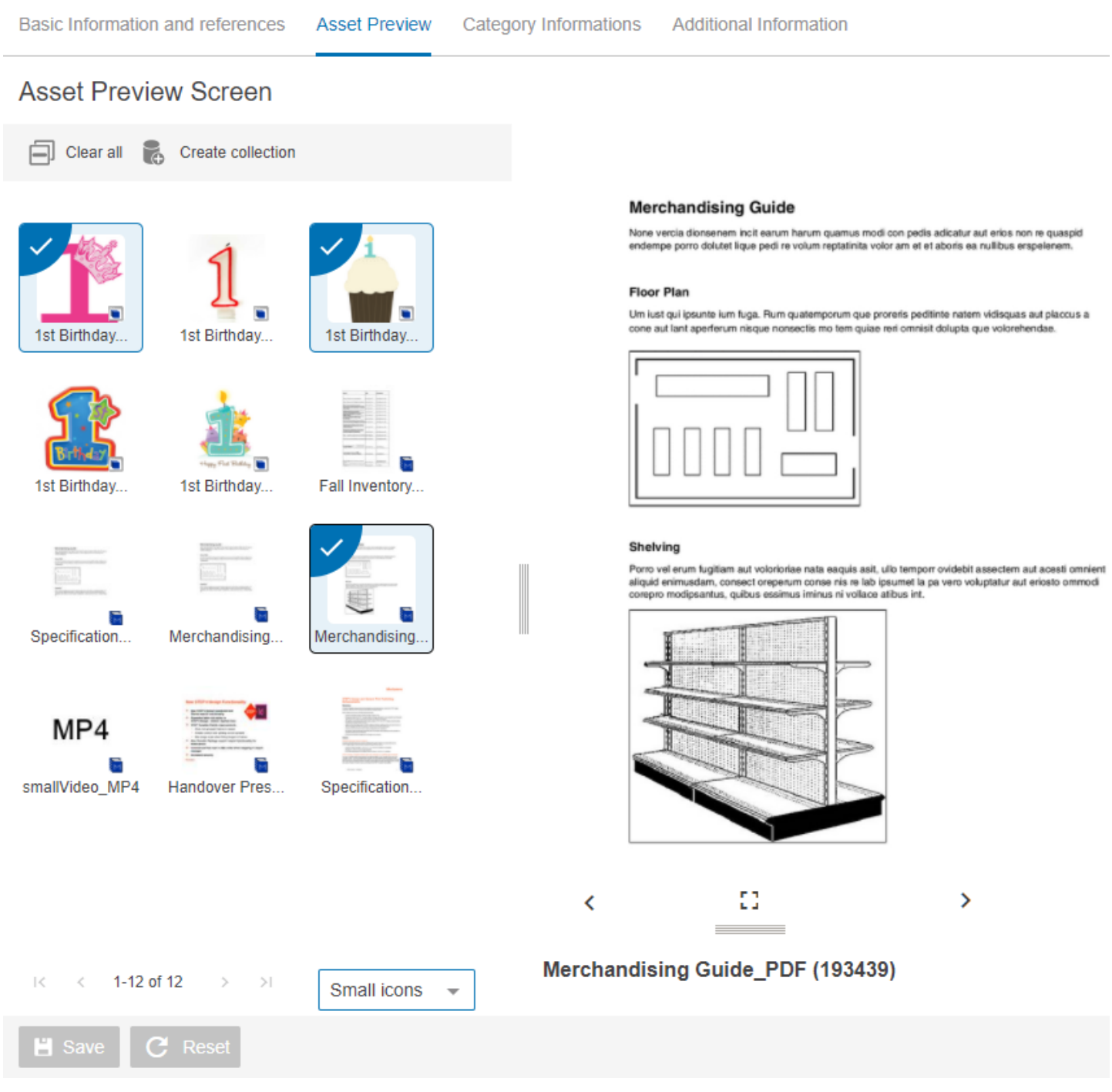
To resize the preview, move the horizontal drag handle below the preview up or down, and/or move the vertical drag handle left or right. To view a full-screen preview (pictured below), click on the 'full screen' icon below the preview.


1st Birthday Girl Pink Tiara (186818)
1st Birthday - Girl
1st Birthday Girl Tiara
ategory Informations
Additional Information
Packaging Hierarchy
Status
References
1st Birthday...
1st Birthday Girl Pini

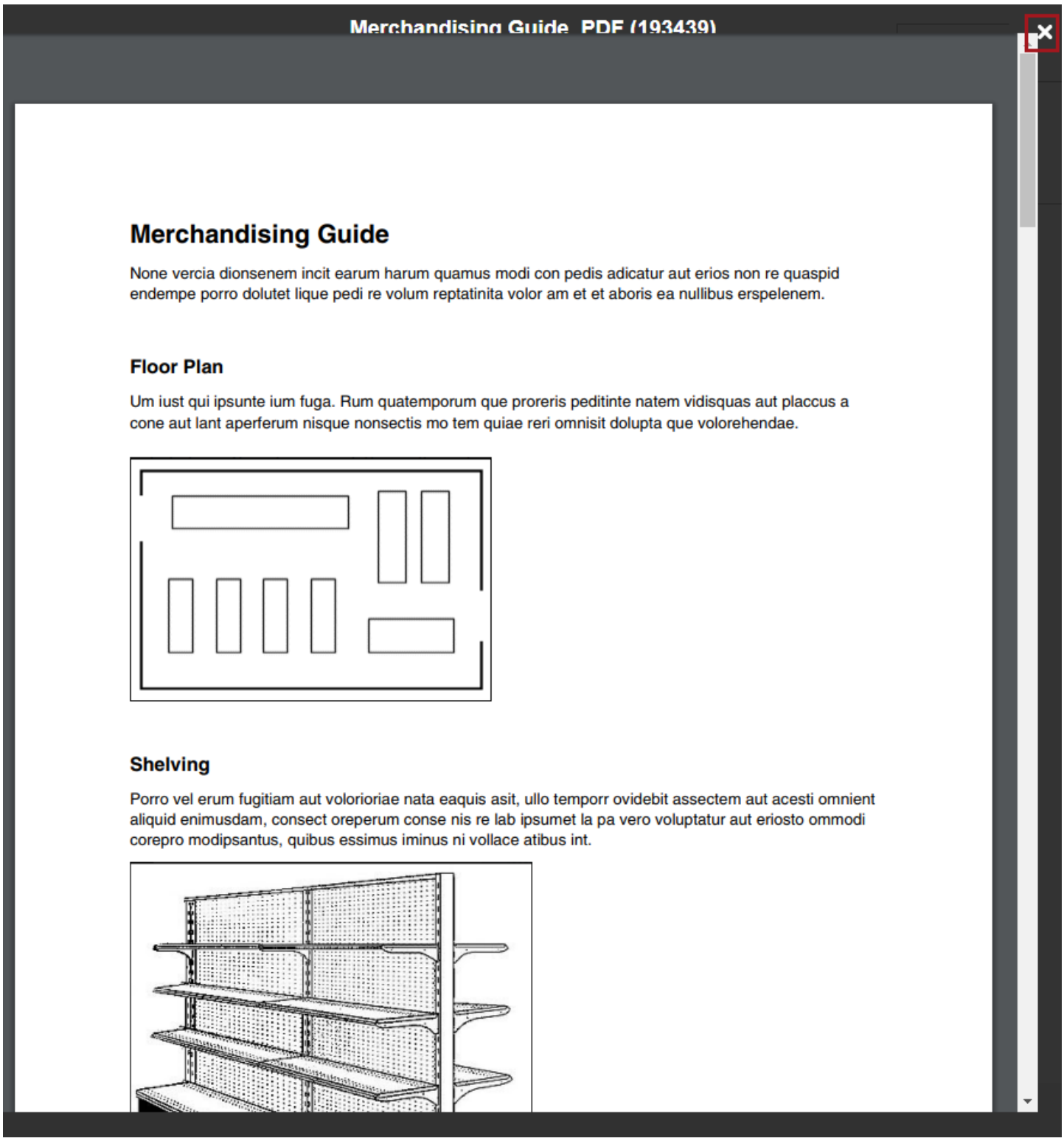
Previews of PDF, Microsoft Office, and Video Files

Previews of PDFs, Microsoft Office documents (Word, PowerPoint, and Excel), and video files (such as MP4s) work in the same fashion on the Asset Preview Screen as previews of standard image assets, though with additional dynamic functionality.

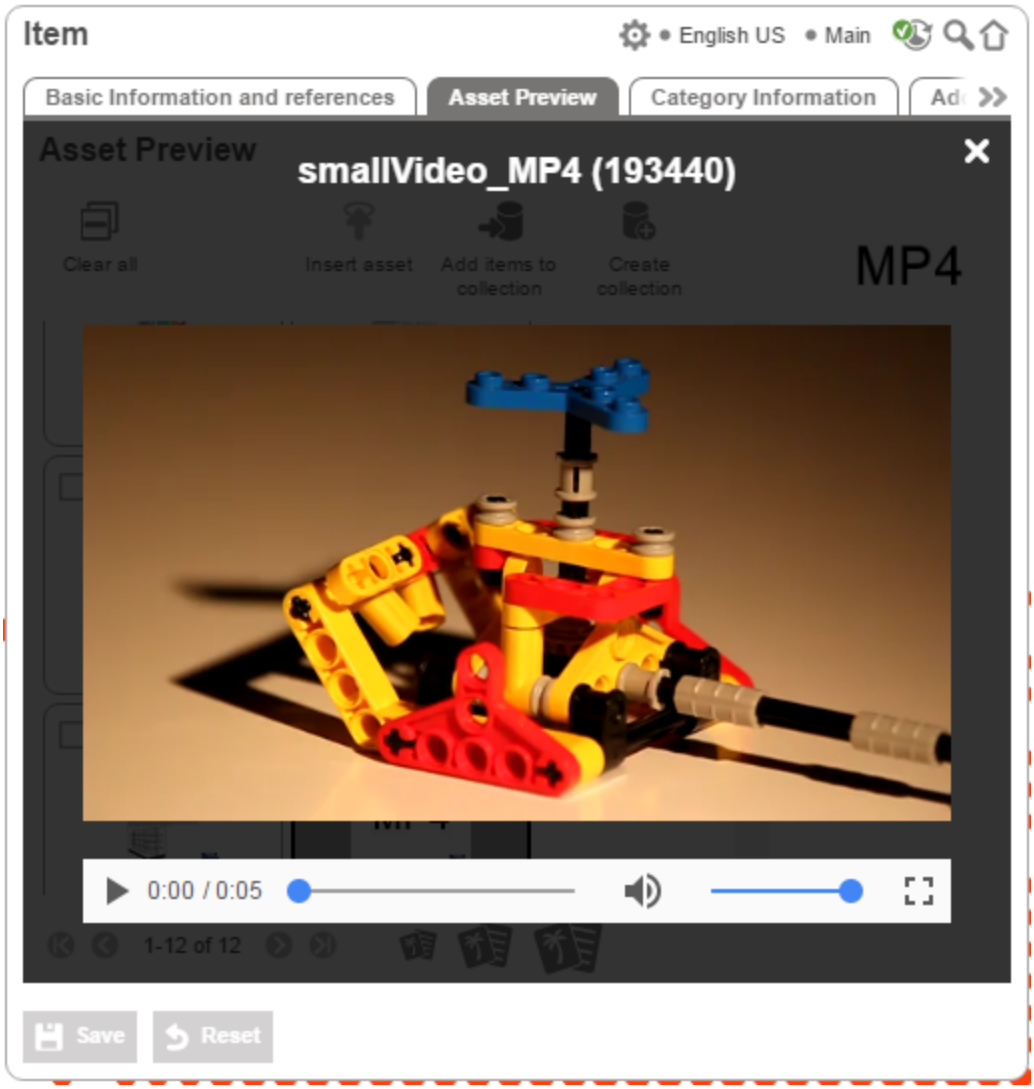
First-page thumbnails for **MS Office** and **PDF** documents display in the thumbnail gallery in the left-hand panel. For **Excel**, the thumbnail representation is of the first sheet of the workbook. Selecting a thumbnail will generate a larger preview of the first page / first sheet in the right panel. Pictured below is a preview of a PDF document.



Click the full-screen icon below the asset to view a full-screen readable and scrollable preview of the entire document. Click outside of the displayed item or on the X button in the upper right corner to close the image.



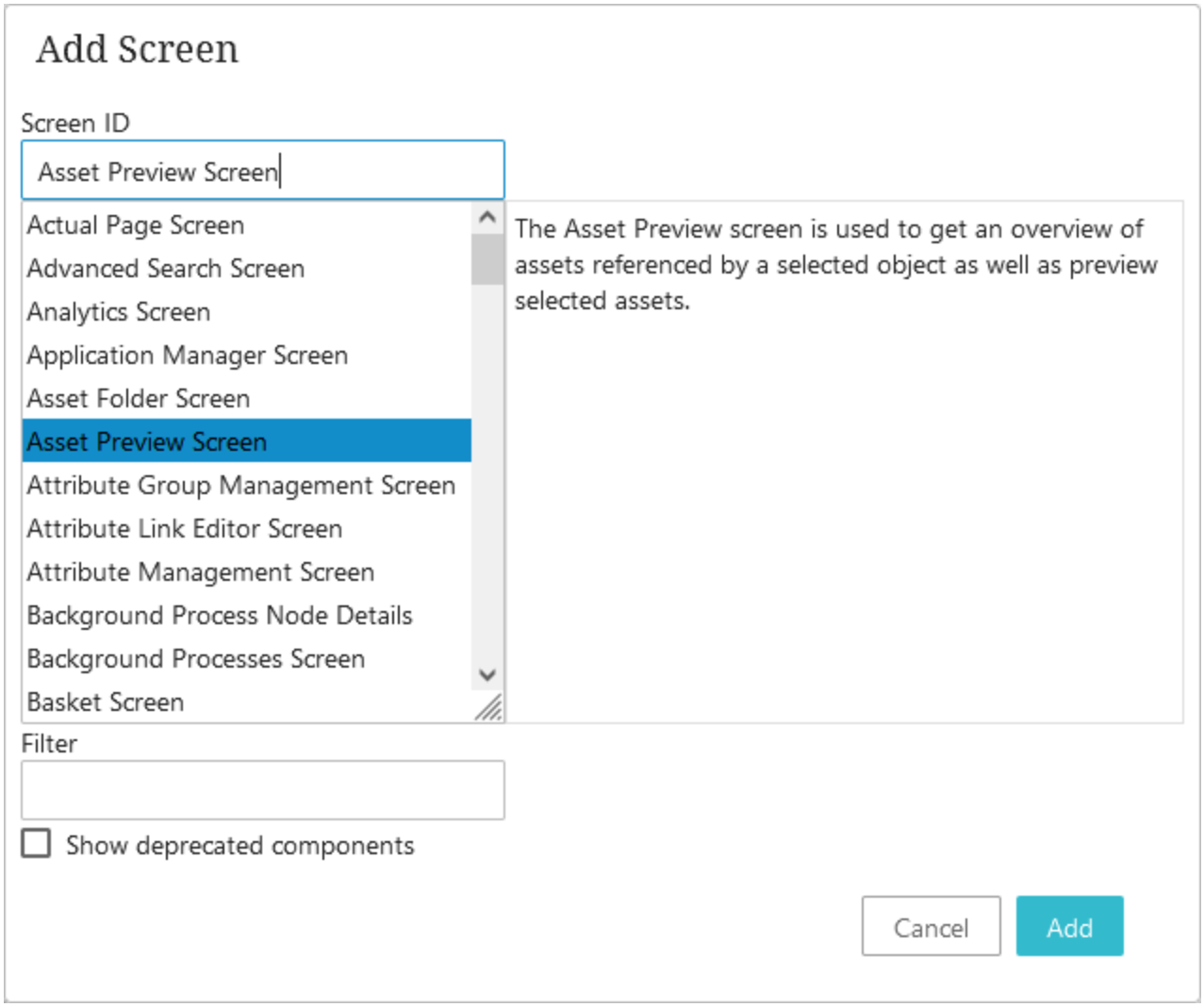
Video files display a generic thumbnail and right-panel preview, but once the magnifier icon is clicked, the video displays in a full-screen, playable preview.



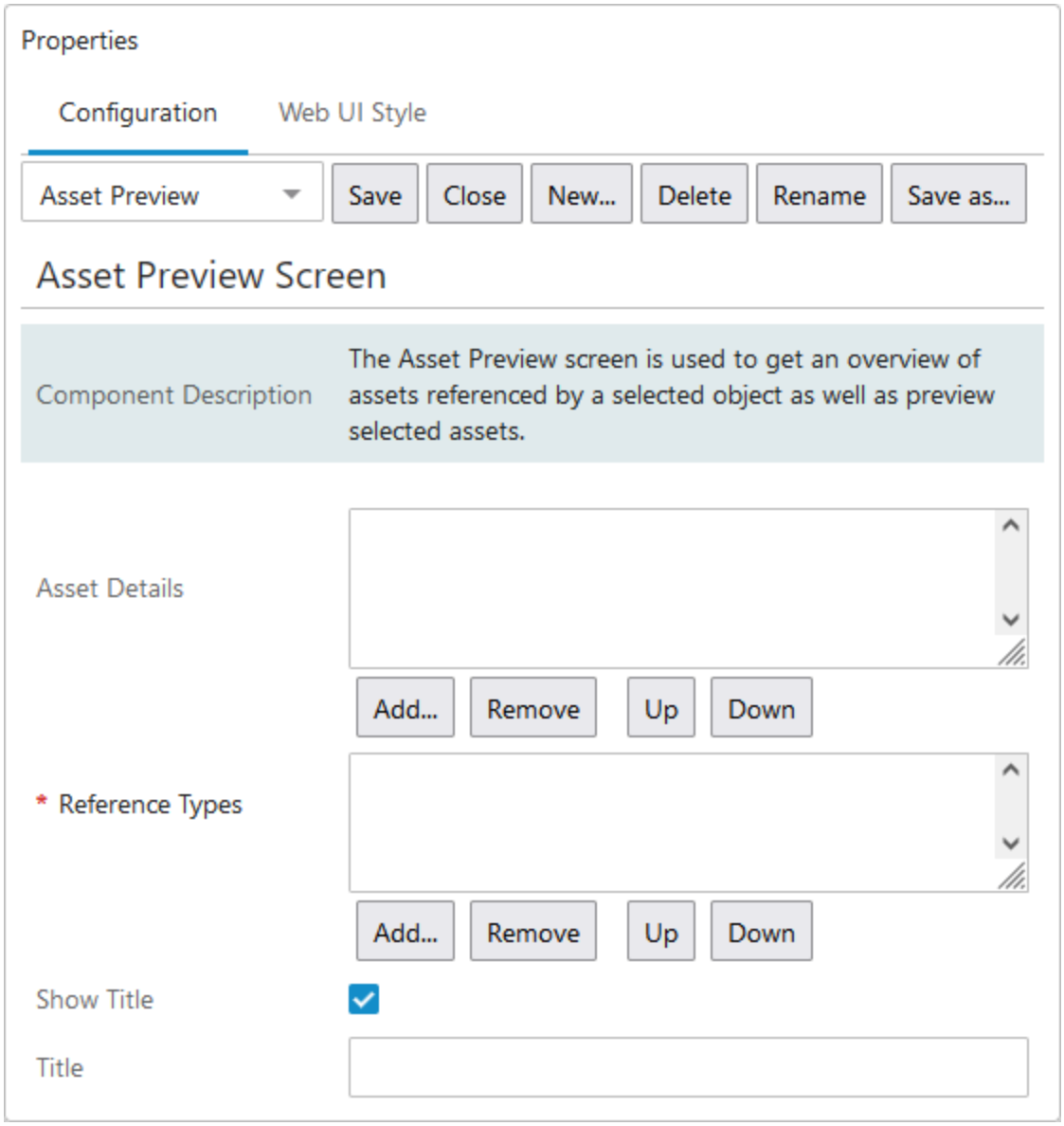
Creating an Asset Preview Screen

In order to create an Asset Preview Screen, a new screen must be created using the Asset Preview screen type.

1. Open the Designer and click on **New**. An **Add screen** dialog displays.
2. Select **Asset Preview Screen** from the list, then enter an ID for the new screen in the **Screen ID** field. (In this example, the ID provided for the screen is Asset Preview Screen.)



3. The **Asset Preview Screen Properties** dialog displays.



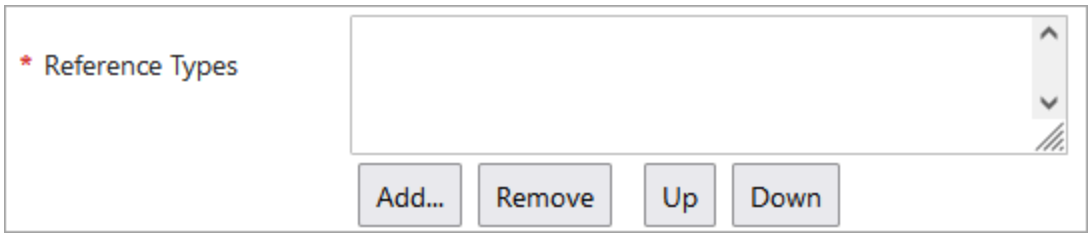
4. In the **Asset Details** field, click **Add...** to launch the Select Node(s) dialog for attributes and attribute groups.
5. Browse to or search for the metadata attributes or attribute groups that you would like to display beneath the asset preview in the right-hand panel. (Typically, these will be system attributes such as asset.size, asset.extension, and asset.filename, as shown in the following screenshot.) Hold Shift or Ctrl to multi-select while making your choices.
6. Click **OK** to complete and close the Select Node(s) dialog.



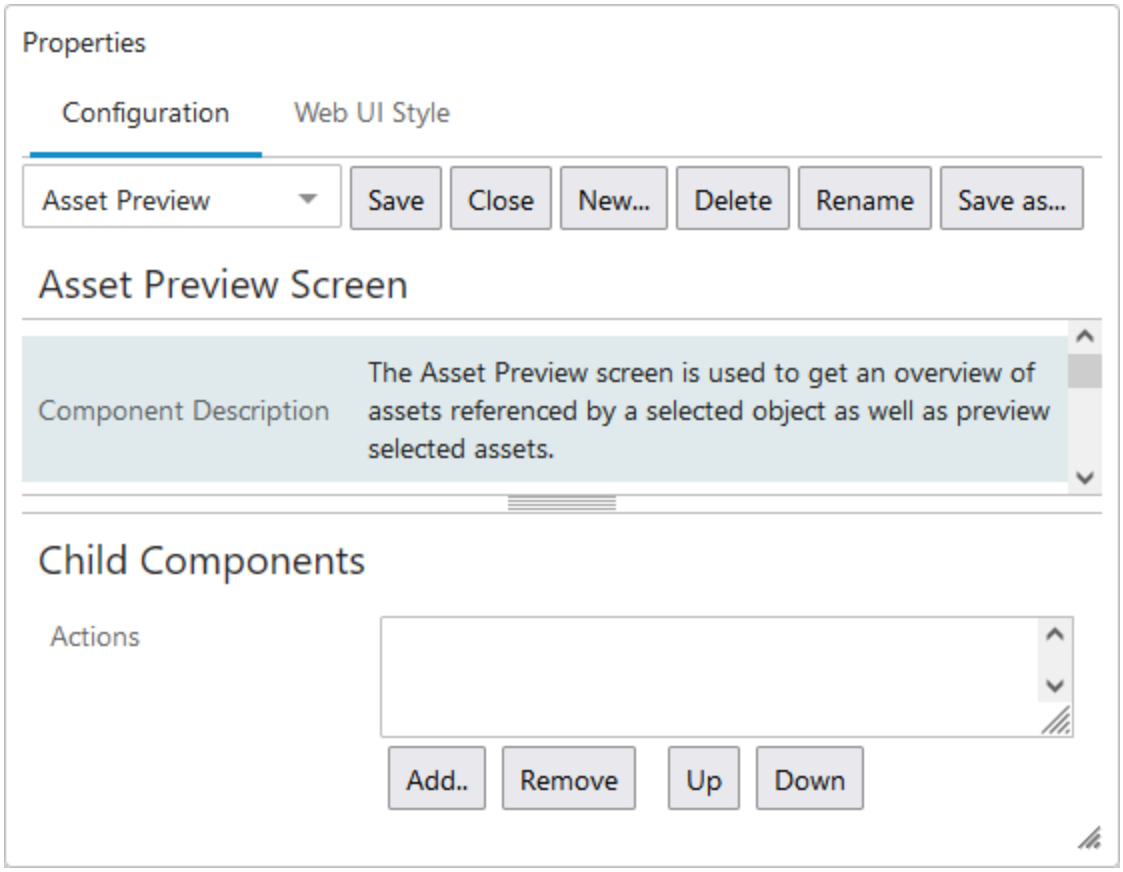
1st Birthday Girl Pink Tiara (186818)

Category	Classification 1 root | Assets | Product Images
Asset Object Type	Product Image
Get Inherited Pub Group Value	N/A
Object Type	Product Image
Get Inherited Publication Value	N/A
FirstPageNumber	0
LastPageNumber	0
Parent	1st Birthday Girl Pink Tiara
Asset Keywords	1st birthday, birthday girl, child birthday, tiara
Qty Of Items	1

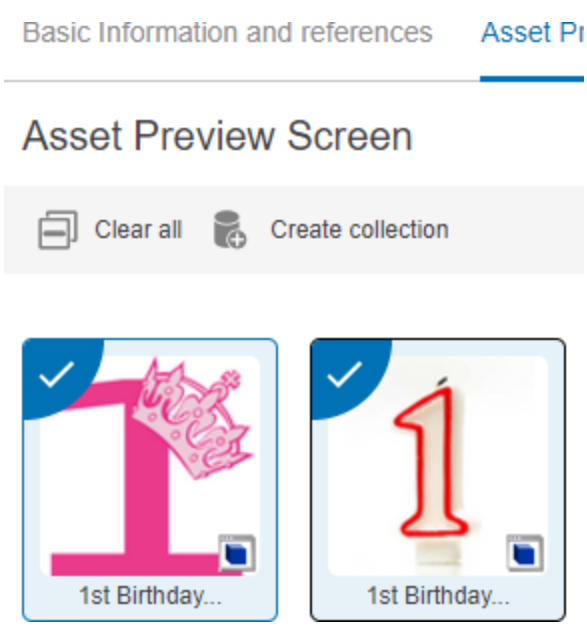
7. In the mandatory **References Types** field, click the **Add...** button to launch the Select Node(s) dialog for choosing the reference types.



8. Browse to or search for the asset reference types that you would like to display on the Asset Preview screen. Hold Shift or Ctrl to multiselect while making your choices.
9. Click **OK** to complete and close the Select Node(s) dialog.
10. Leave the Show Title parameter enabled if the Asset Preview Screen should display the title. Disable the parameter to hide the title and its associated white space.
11. If a title should display, determine if the default title should remain, or if a custom title is necessary. The default title will display as 'Asset Preview' on the screen in the top left corner (an example is shown in step 13)
12. The Asset Preview Screen Properties dialog closes and users can add any needed Actions under the Child Components.



13. Under **Child Components**, select the actions to display above the gallery of asset thumbnails (left panel of the Asset Preview screen) when assets are selected. In this example, there is the 'Create Collection Action.'



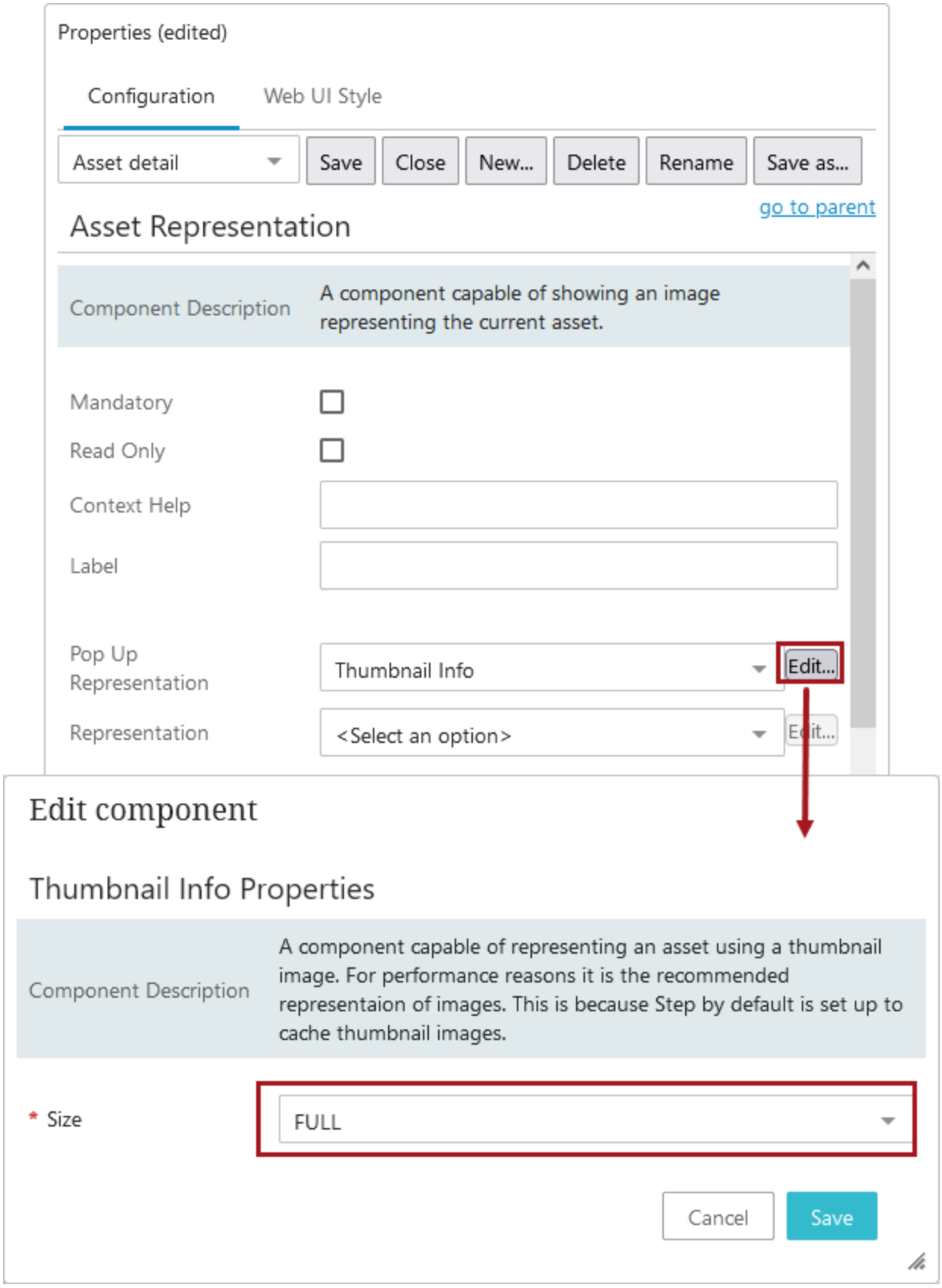
14. In the designer, click **Save** to save all configurations, then click **Close** to exit the designer.

Previews Using the Asset Image Value and Asset Mid Sized Components

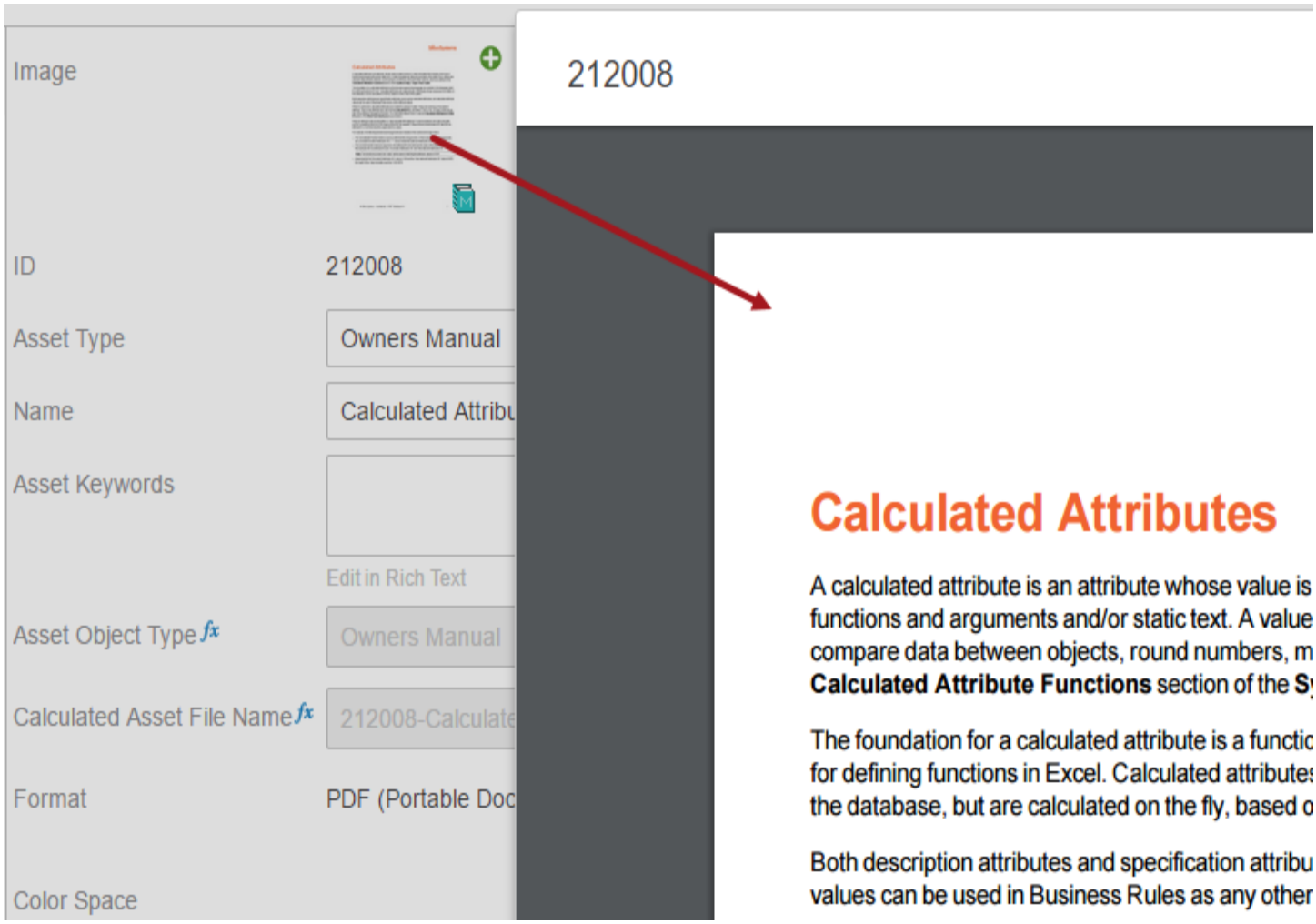
Asset Representation can also be configured to view large and scrollable previews of referenced assets, PDF, and Microsoft Office documents, as well as playable previews of video assets.

Asset Image Value

The Asset Representation component can be configured to view large, scrollable previews of assets by setting the **Pop Up Representation** parameter to FULL.


Properties (edited)
Configuration
Web UI Style
Asset detail
Save
Close
New...
Delete
Rename
Save as...
go to parent
Asset Representation
Component Description
A component capable of showing an image representing the current asset.
Mandatory
Read Only
Context Help
Label
Pop Up Representation
Thumbnail Info
Edit...
Representation
<Select an option>
Edit...
Edit component
Thumbnail Info Properties
Component Description
A component capable of representing an asset using a thumbnail image. For performance reasons it is the recommended representaion of images. This is because Step by default is set up to cache thumbnail images.
* Size
FULL
Cancel
Save

When the asset thumbnail is clicked, the full-size popup representation displays a scrollable preview (or, in the case of a video asset, a playable preview).



Considerations and Limitations

- The Asset Preview Screen can only be used on product object nodes; it cannot be configured to view referenced assets on classification or entity nodes.
- A PDF reader plugin must be activated in your browser in order to display previews of PDFs, MS Office documents, and video files.
- Document previews (regardless of Web UI component) may not always be accurate down to fonts, image placement, etc., but they provide users the option to review the contents of the documents to ensure that they are the correct assets for the product in question.
- Though not strictly required for image previews to function, it is highly recommended to enable asset caching functionality in order to optimize performance when loading screens with large numbers of images. This ensures that the various image sizes used by the preview components are cached and available on-demand. For more information on asset caching, refer to the **Event Processors** section of the **System Setup** documentation.

- Enhanced and scrollable Office document and PDF previews are only available on STEP systems in which a portable version of LibreOffice, the third-party library that STEP uses to generate the previews, has been installed. LibreOffice is not installed as part of STEP, and to use the functionality, customers will need to do their own install of LibreOffice. Users also need the Office Preview (officepreview) add-on component installed on their system to use LibreOffice.

  Important: After the 'officepreview' component is installed, the package specific to your system must be installed via command:

  Linux: `sudo yum -y install libreoffice-core.x86_64 libreoffice-calc.x86_64 libreoffice-impress.x86_64 libreoffice-writer.x86_64`

  Windows: Download and install the latest LibreOffice version from https://www.libreoffice.org/download/download/ for Windows (64-bit).

  Also, the property `LibreOffice.Native=[path]` needs to be added to the sharedconfig.properties file with the path value being where LibreOffice is installed.

  The LibreOffice distribution is approximately 700 MB on Linux and 500 MB on Windows. Because this installation takes up such a large amount of disk space, it is optional. Without the installation, asset previews of Office and PDF documents will function as follows: a plain DOCX thumbnail will display for Word documents and a generic 'image' thumbnail will display for PDFs. Limited popup preview functionality will be available for the first page of PDF documents, and configurations can be applied to open PDFs in a new browser tab, but Office documents can still only be downloaded to the users' local computer.

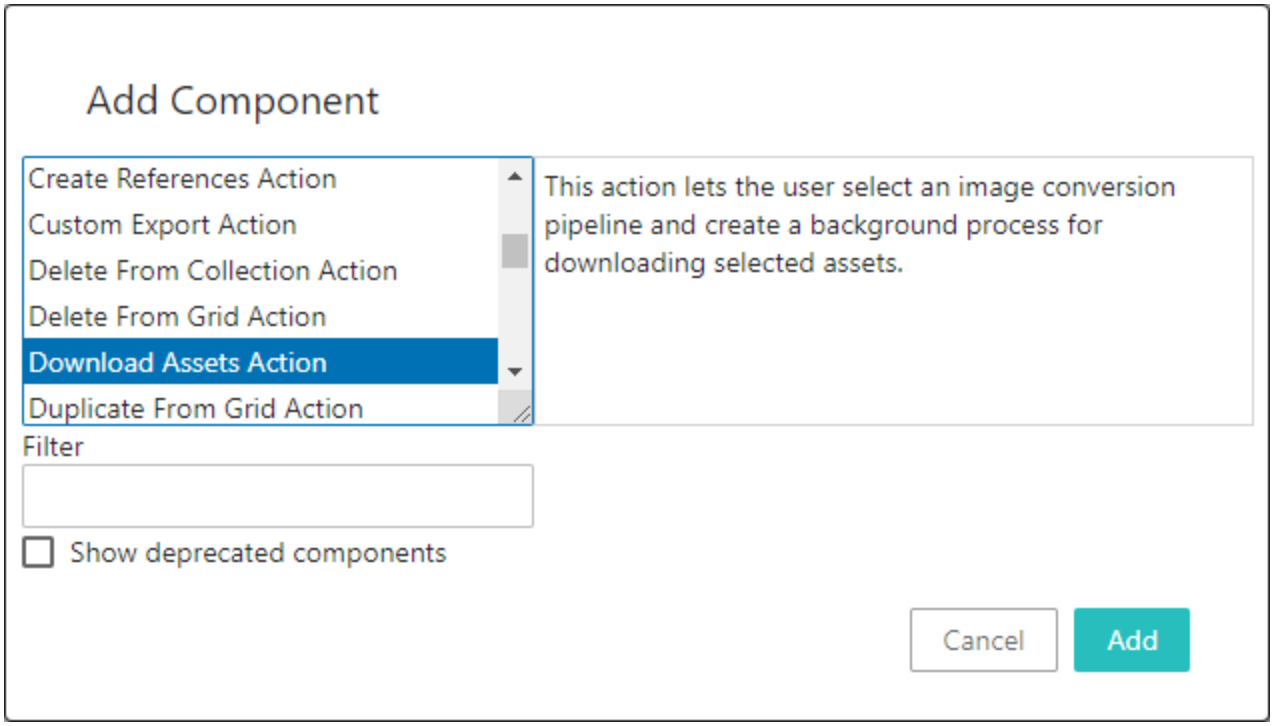
- When using LibreOffice for asset previews, users may experience some Word documents that do not open and/or that do not render exactly like they would render in Microsoft Word. This functionality is for user convenience, and since STEP uses LibreOffice, STEP cannot be guaranteed to make an accurate display of the document as it would look in Word or in print.
- MS Office, PDF, and video assets uploaded to the STEP system before the installation of the LibreOffice patch will not present enhanced previews. Only documents uploaded to the STEP system after the LibreOffice installation will have the appropriate document preview / thumbnail.

Download Assets Action

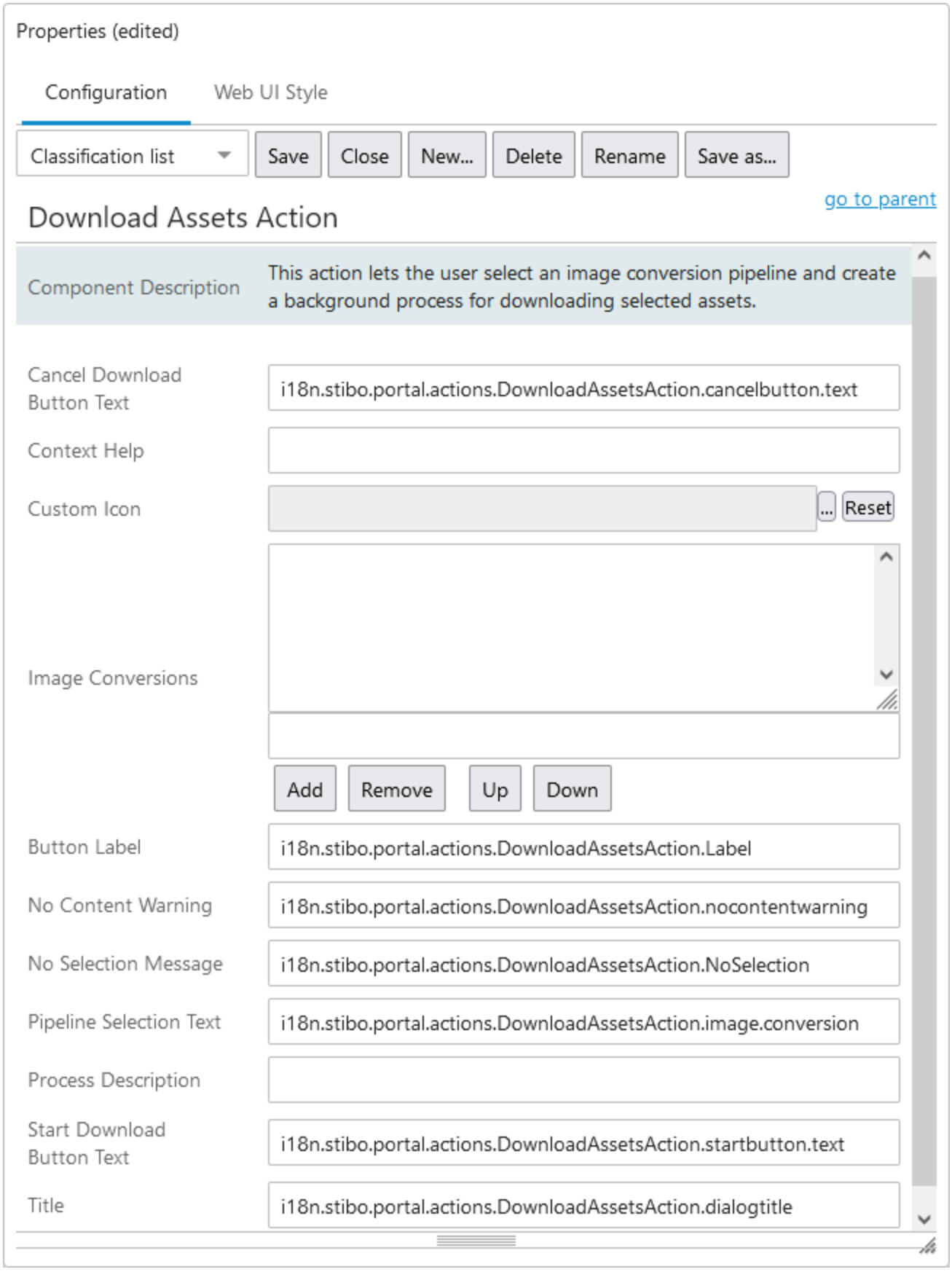
The Download Assets Action is a Web UI component that can be added to Node Lists under Actions. When used, selected assets in a Node List will be exported to the local machines. It is possible to add custom Image Conversions when the action is selected.

Configuration

The Download Assets Action is added to the Node List like all other actions. For information on this process, refer to the **Node List Component** topic in this documentation.



When the Download Assets Action is added, the following fields may be configured as a user wishes. None of the fields are mandatory.


Properties (edited)
Configuration
Web UI Style
Classification list
Save
Close
New...
Delete
Rename
Save as...
go to parent
Download Assets Action
Component Description
This action lets the user select an image conversion pipeline and create a background process for downloading selected assets.
Cancel Download Button Text
i18n.stibo.portal.actions.DownloadAssetsAction.cancelbutton.text
Context Help
Custom Icon
...
Reset
Image Conversions
Add
Remove
Up
Down
Button Label
i18n.stibo.portal.actions.DownloadAssetsAction.Label
No Content Warning
i18n.stibo.portal.actions.DownloadAssetsAction.nocontentwarning
No Selection Message
i18n.stibo.portal.actions.DownloadAssetsAction.NoSelection
Pipeline Selection Text
i18n.stibo.portal.actions.DownloadAssetsAction.image.conversion
Process Description
Start Download Button Text
i18n.stibo.portal.actions.DownloadAssetsAction.startbutton.text
Title
i18n.stibo.portal.actions.DownloadAssetsAction.dialogtitle

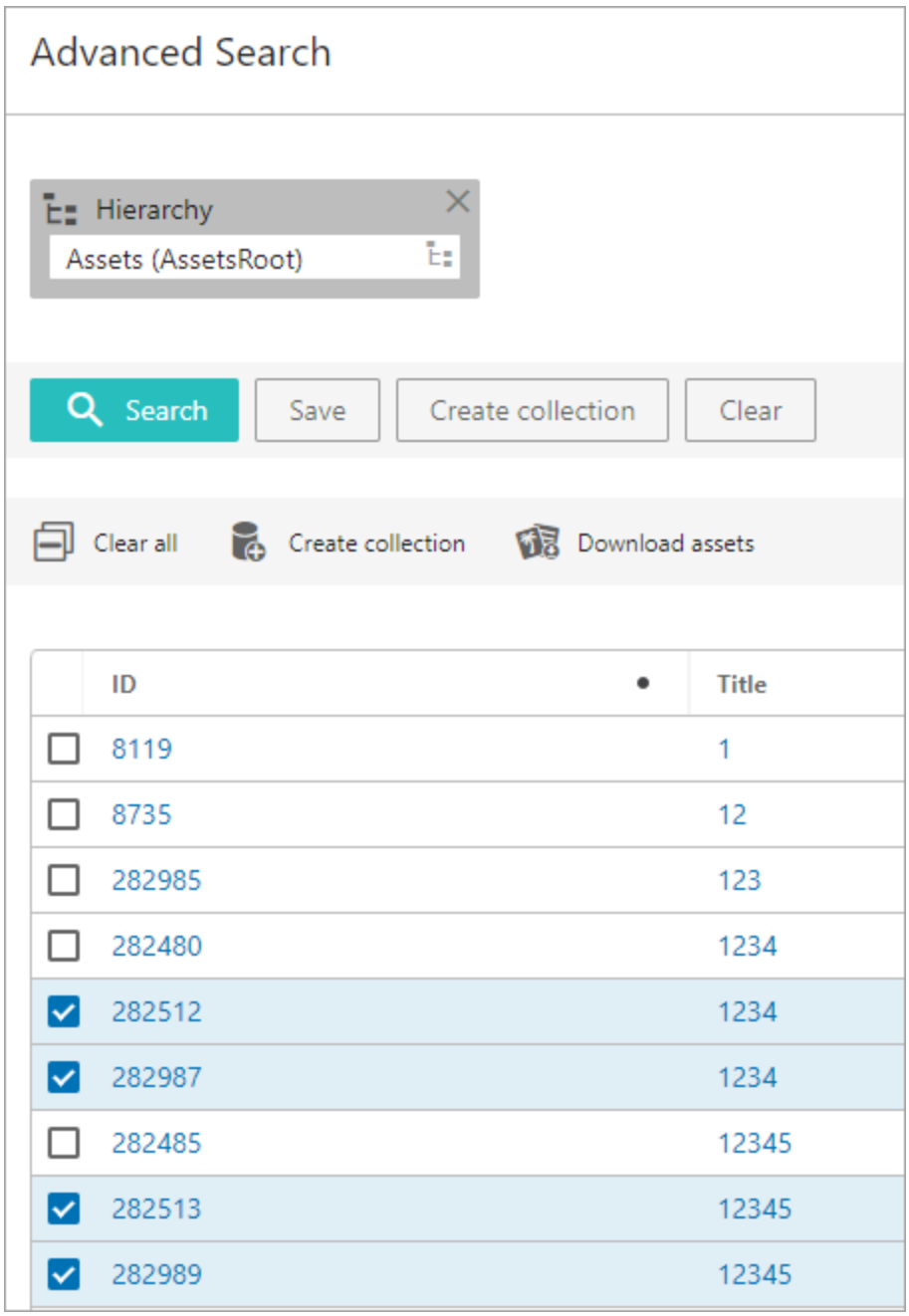
- **Cancel Download Button Text** - The text in this field will display where the Cancel button is. By default, it says 'Cancel.'
- **Context Help** - This field's text can be used to provide information for users of the action.
- **Custom Icon** - This option is if users want to select a special icon for the Download Assets Action.
- **Image Conversions** - This field allows users to specify the desired conversion configurations. If none are set, all associated with the system are shown. The user has to manually add the IDs of the conversion configuration

Note: The image conversion pipelines are created in the workbench. For more information on this process, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

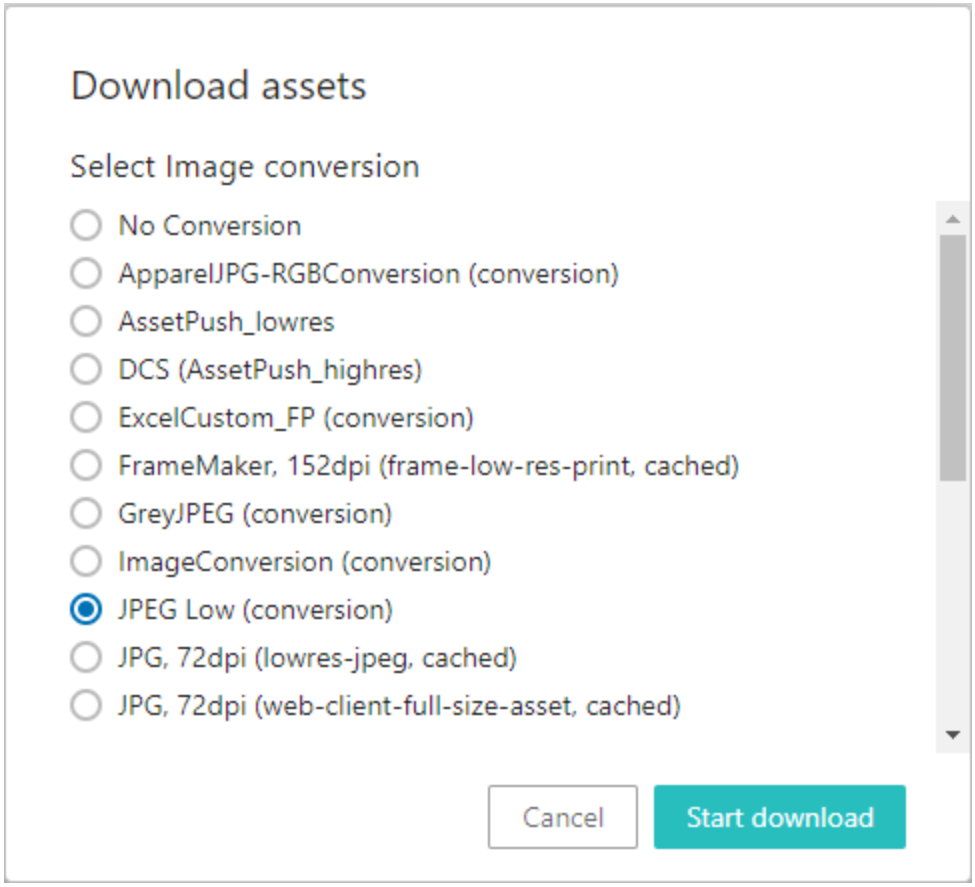
- **Button Label** - This field will populate the download assets action hover text.
- **No Content Warning** - This field is for scenarios when a selected collection is empty of content.
- **No Selection Message** - This is a customized warning message if no items were selected when pressing the action button.
- **Pipeline Selection Text** - This field is the text for the image conversion selection.
- **Process Description** - This field's text give insight for the user with how the action will process the downloads.
- **Start Download Button Text** - This field's text is the Start Download button's text. The default value is 'Start Download.'
- **Title** - The text in this field will be the name of the dialog for the action.

Use Example

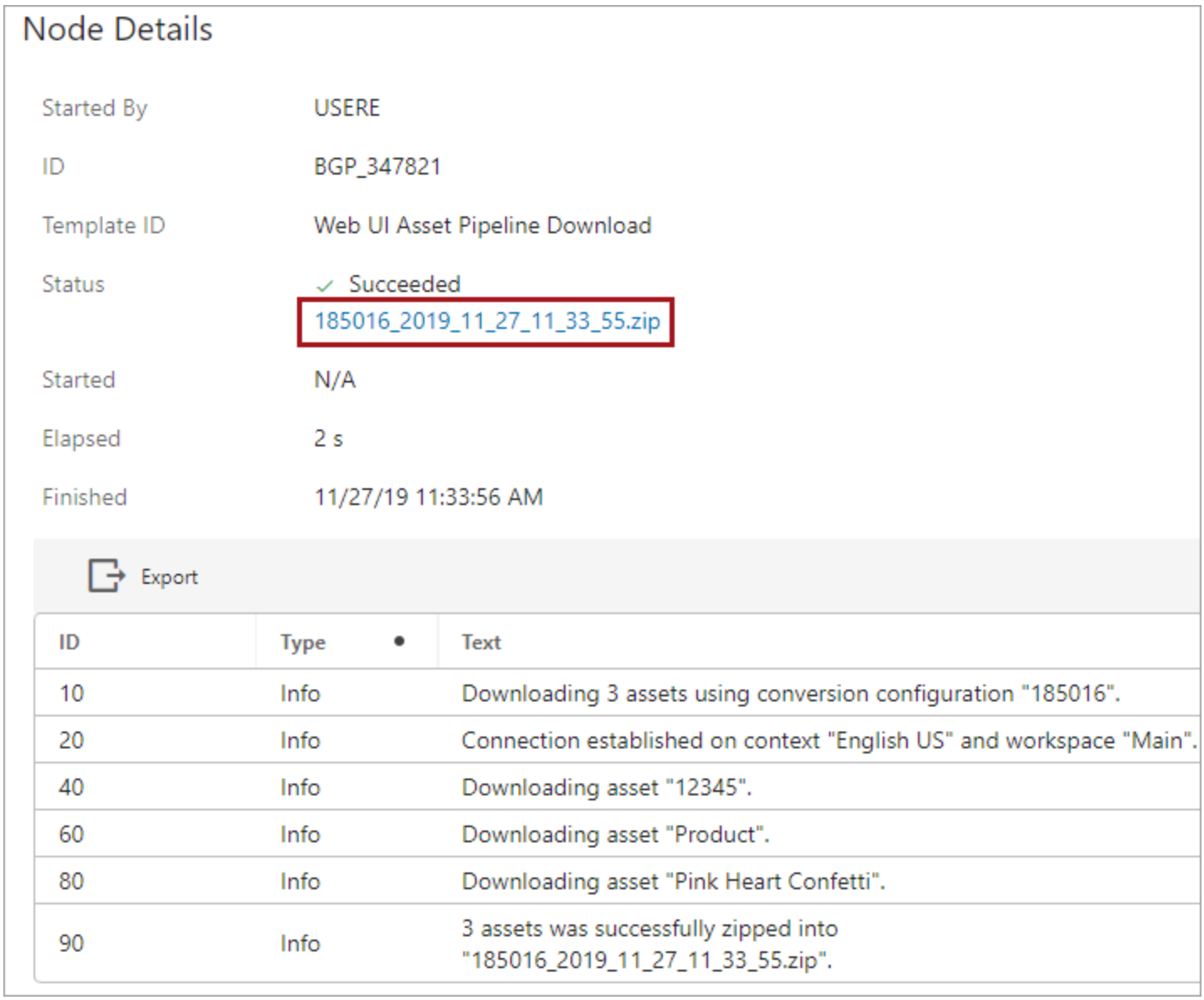
One practical example is adding the Download Assets Action button to an Advanced Search screen. In the following example, the Asset Roots hierarchy is searched.



Any number of the assets are selected, and then, the Download Assets action is selected and a conversion option is available in the dialog. It is not required, and the current format of the images in the system will be downloaded when 'Start Download' is selected.



On the background processes screen, the process is shown to finish with a link available to download the zipped package of assets.

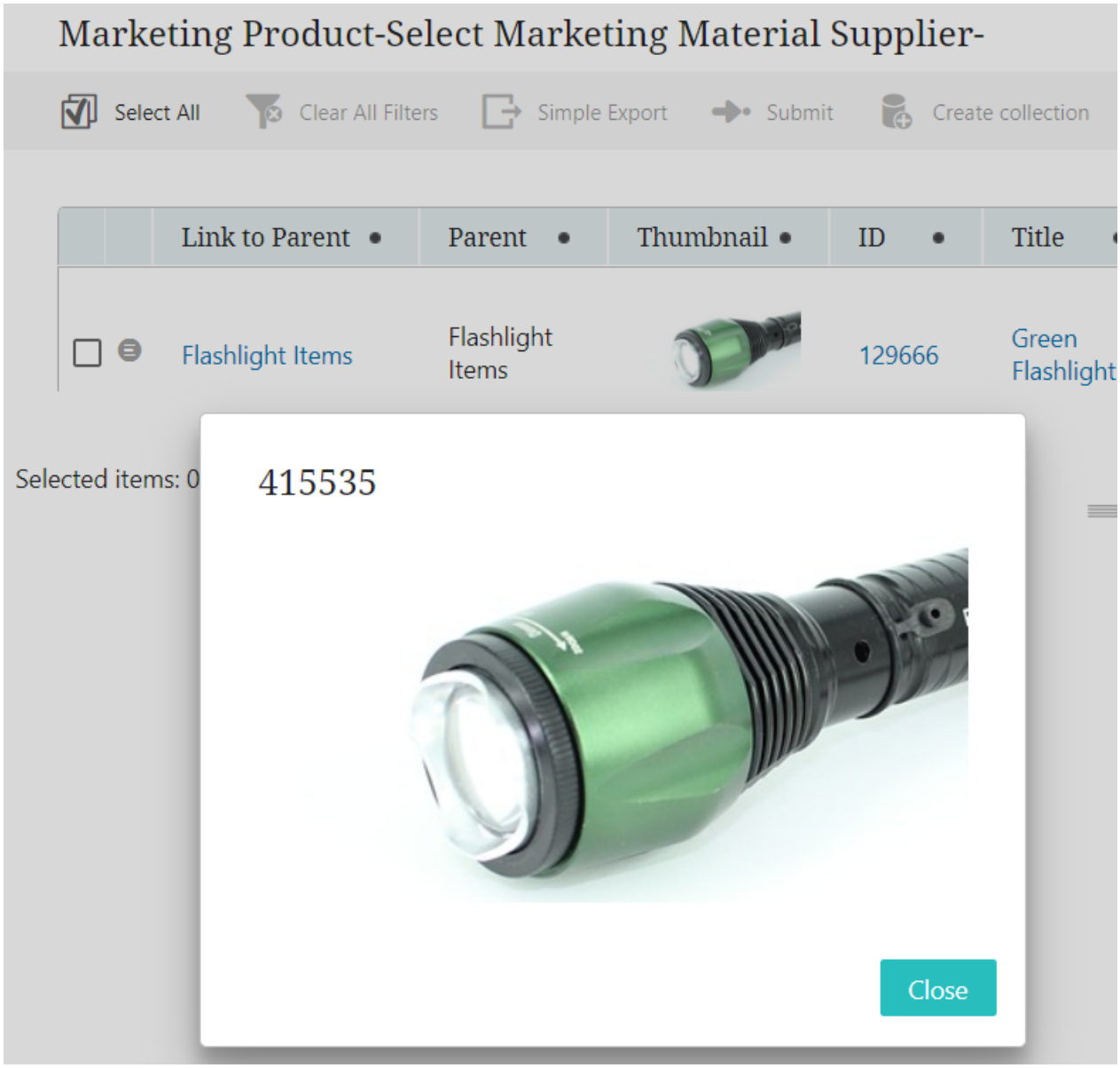


Note: If the advanced search result contains both assets and non-asset objects, and if the user selects any of the assets along with the non-asset objects to download, the 'Download Assets' button would not be activated. This button is only for downloading the assets and selection should be of only asset Object types. When downloading the assets in this manner, a Background Process Node Detail screen must be configured. If no IDs are associated with Background Processes in the Web UI instance, then an error will display. For more information, refer to the **Background Process Node Detail Screen** topic in this documentation.

Thumbnail Header

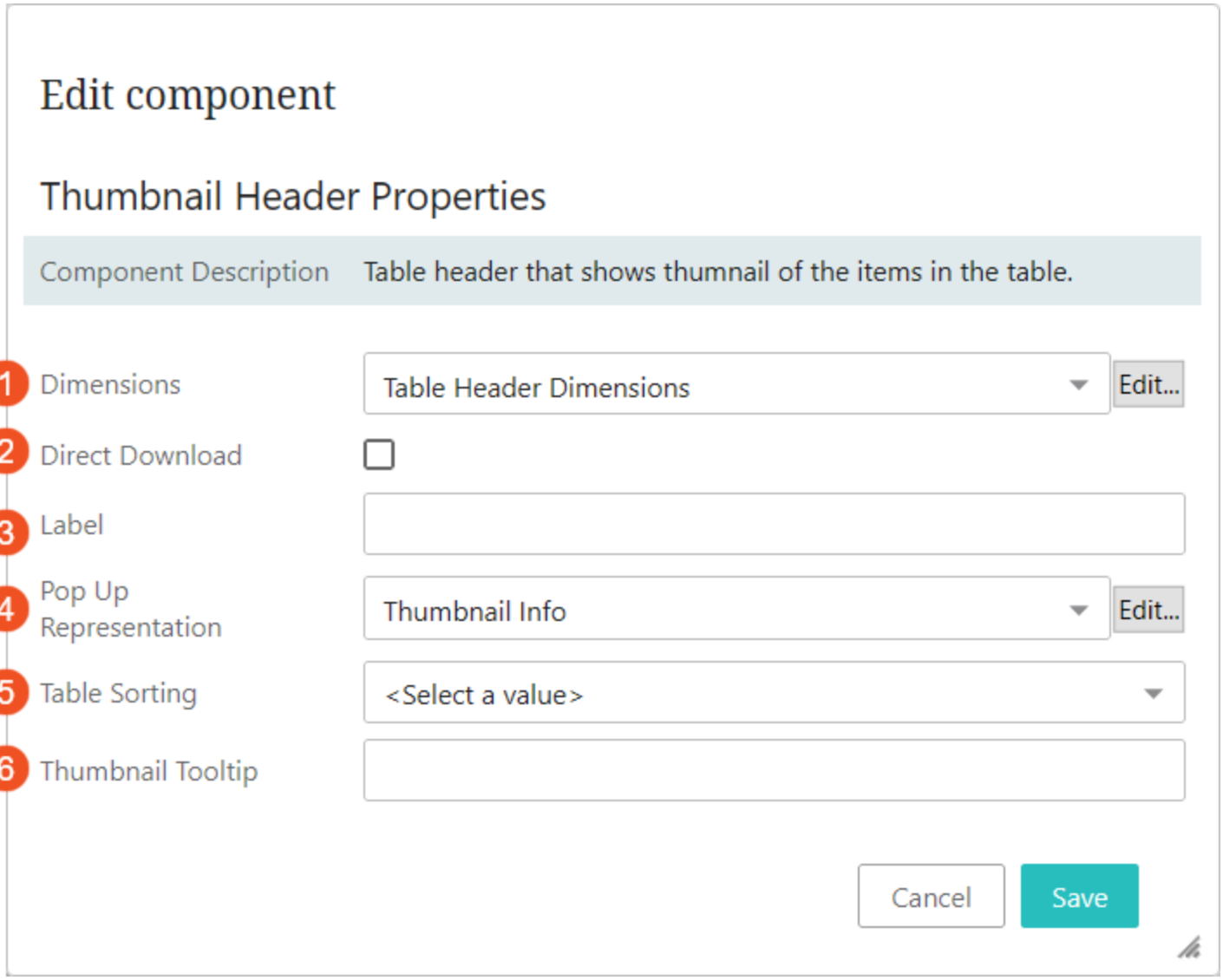
The Thumbnail Header can be added to a Node List screen to display a referenced image in the table.

The Thumbnail Header can be added to a Node List screen to display a referenced image in the table. If left unconfigured, by default it will render a popup when clicked.



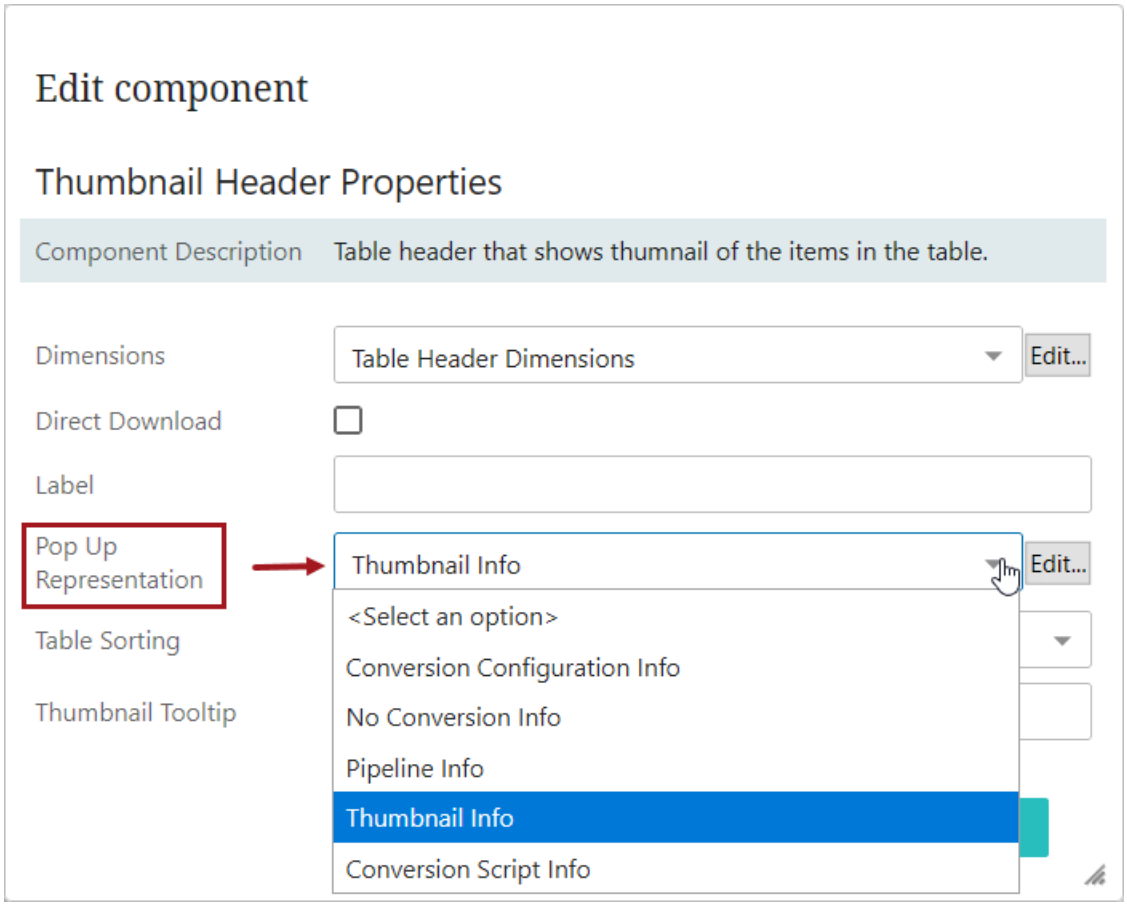
For more information on how to configure the Thumbnail header for specific needs, refer to the sections below.

Thumbnail Header Configuration



Described below are the six parameters that enable users to configure a Thumbnail Header component:

1. **Dimensions**: Specify the height and width of the header cell. These dimensions will only be applied when the header is used within the Multi Edit Display Mode.
2. **Direct Download**: When the box is checked, users can click the thumbnail image to download the image. When checked, the download process overrides any handling specified in the 'Pop Up Representation' parameter.
3. **Label**: In this parameter, enter the label that will display as the column header. If no value is entered, the label defaults to 'Thumbnail.'
4. **Pop Up Representation**: In this parameter, specify how to present the image representing the current asset by selecting a sub-component from the dropdown. This sub-component displays in a pop-up window when the asset thumbnail is clicked.



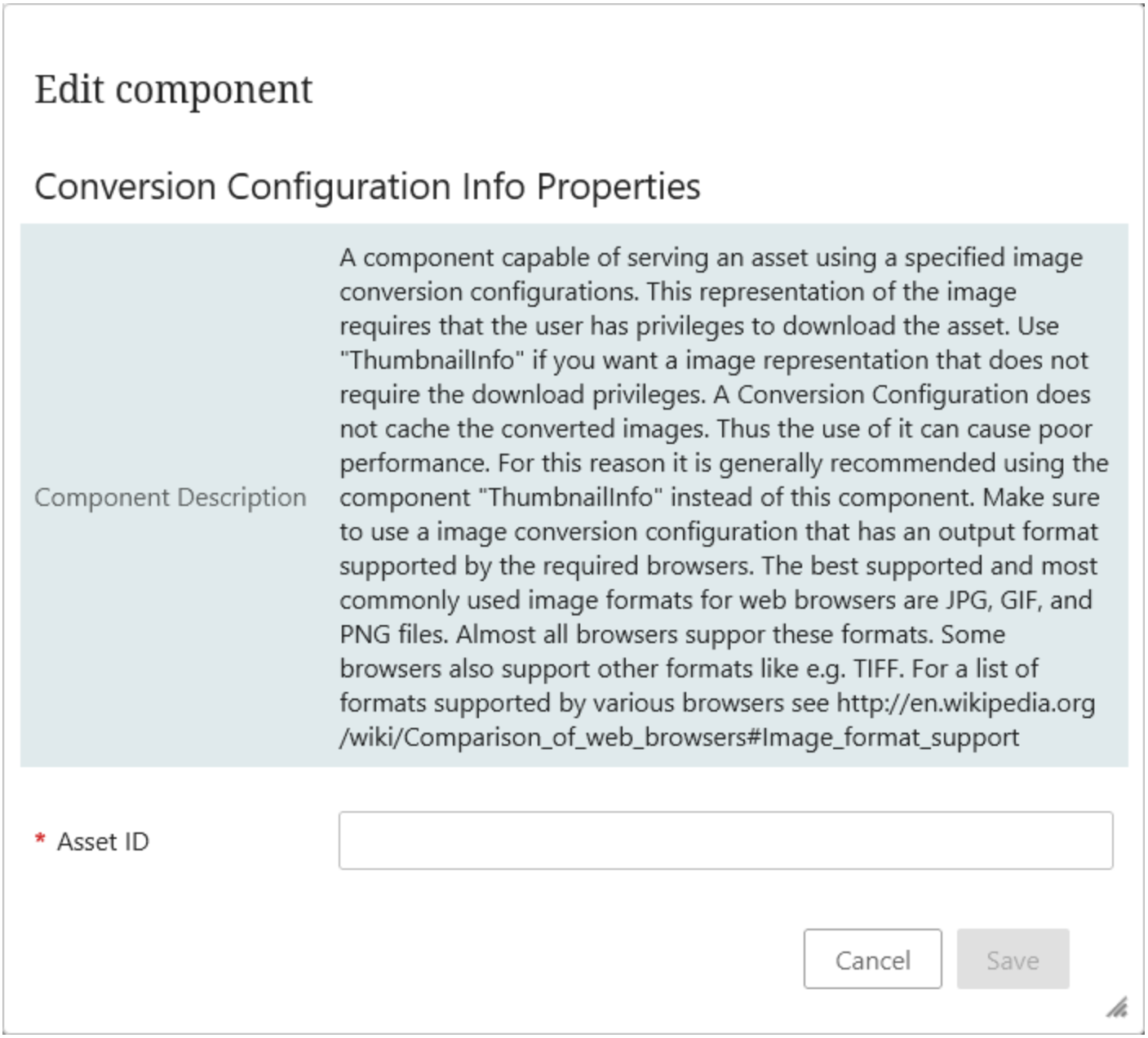
Valid sub-components include: 'ConversionConfigurationInfo,' 'ConversionScriptInfo,' 'NoConversionInfo,' 'PipelineInfo,' and 'ThumbnailInfo' which are all described below in further detail.

- **Conversion Configuration Info**: Selecting this component shows the image with the predefined conversion configurations in a pop up window. For example, if there is a need to view the selected asset in grayscale view / less resolution view / in any converted format, this pop up representation can be used.

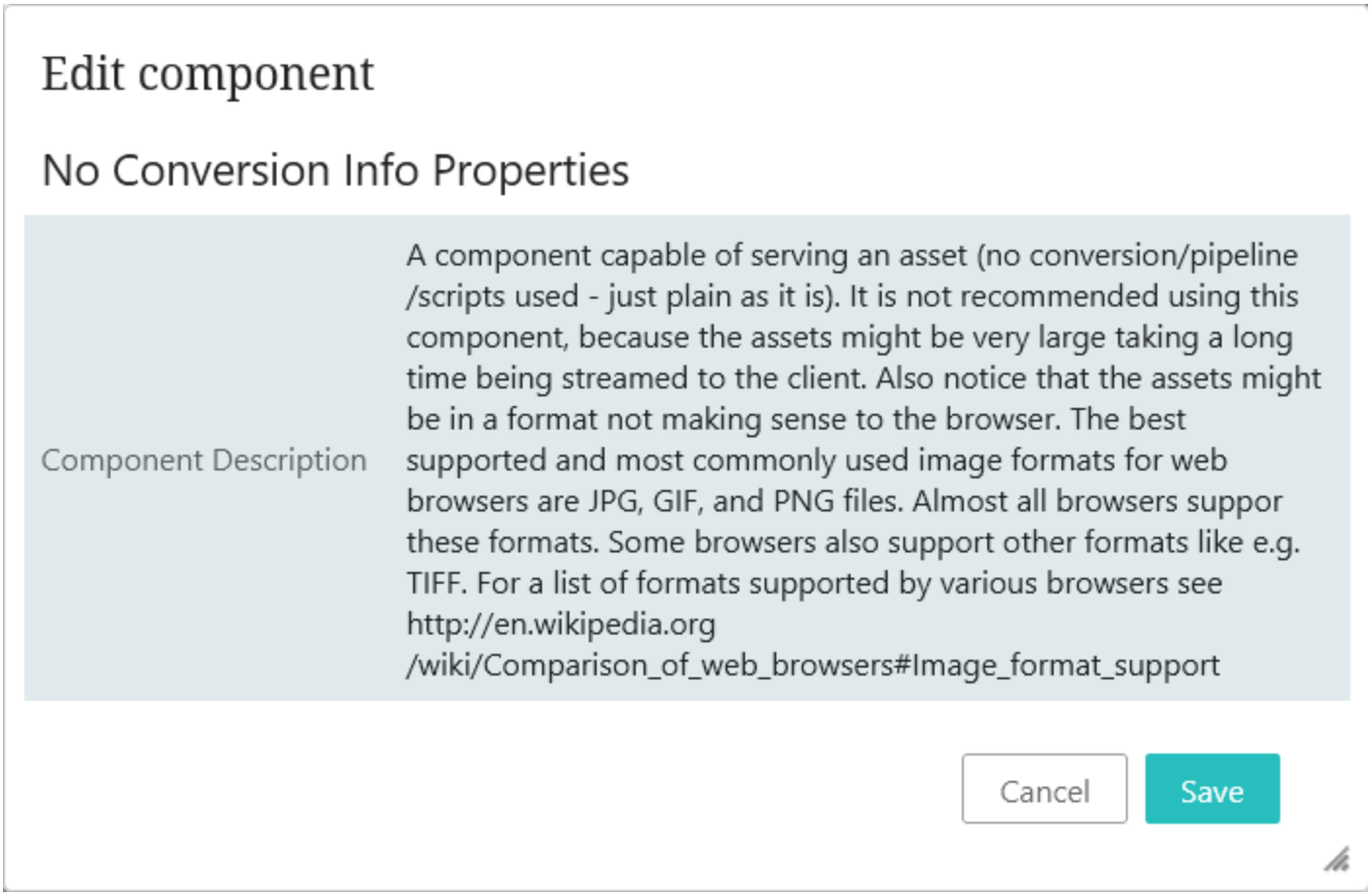
  To enable this, the user should have created an Image conversion configuration, and the ID of the Image Conversion configuration should be known. For more information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

  This representation of the image also requires that the user has privileges to download the asset. A Conversion Configuration does not cache the converted images. Thus the use of it can cause poor performance. For this reason it is generally recommended using the component 'Thumbnail Info' instead of this component.

- **Asset ID**: (Mandatory) ID of the required Image conversion configuration.



- **No Conversion Info Properties**: Selecting this component will let the user view the image in a pop up window with no conversions or changes to the asset (i.e., no conversion / pipeline / scripts used). No configuration is necessary.

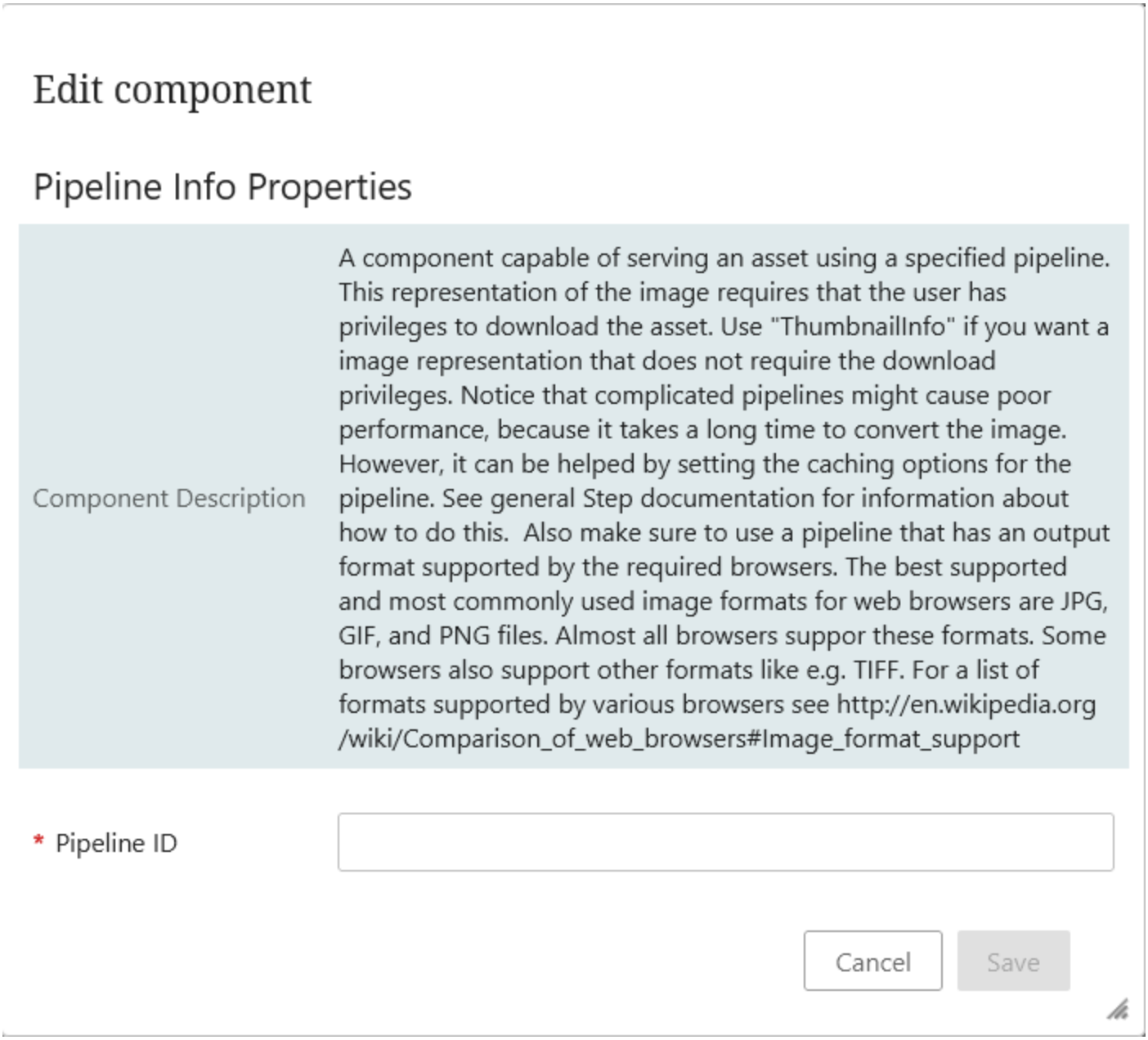


It is not recommended to use this component, because if the asset is very large it can take a long time to render. Further, the assets might be in a format incompatible with the browser being used.

- **Pipeline Info**: A component capable of serving an asset using a specified pipeline. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want an image representation that does not require the download privileges.

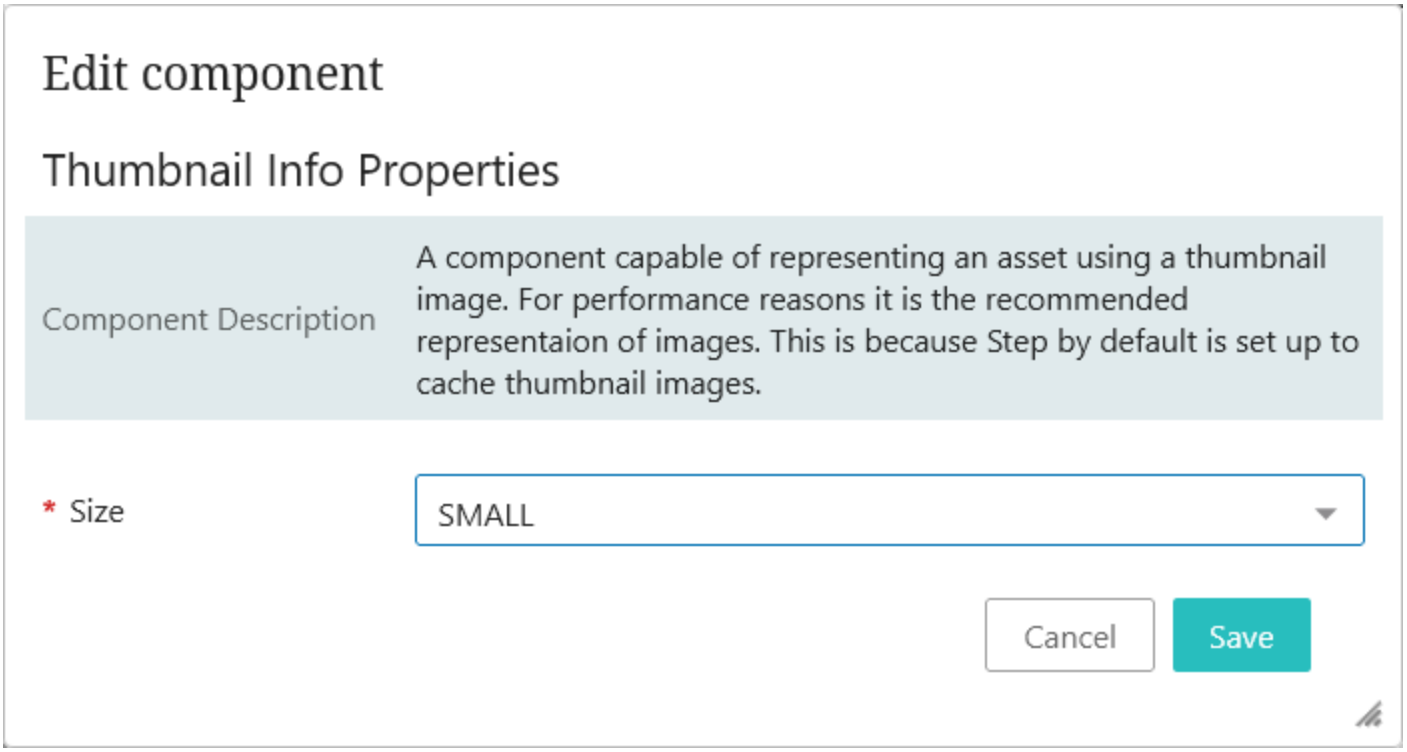
  Notice that complicated pipelines might cause poor performance, because of the system resources required to convert the image. However, this delay can be shortened by setting the caching options for the pipeline. Ensure you use a pipeline that has an output format supported by the required browsers. For more pipeline information, refer to the **Image Conversion Configuration** topic in the **Digital Assets** documentation.

  In the designer, 'Pipeline ID' is the only field that needs to be set.



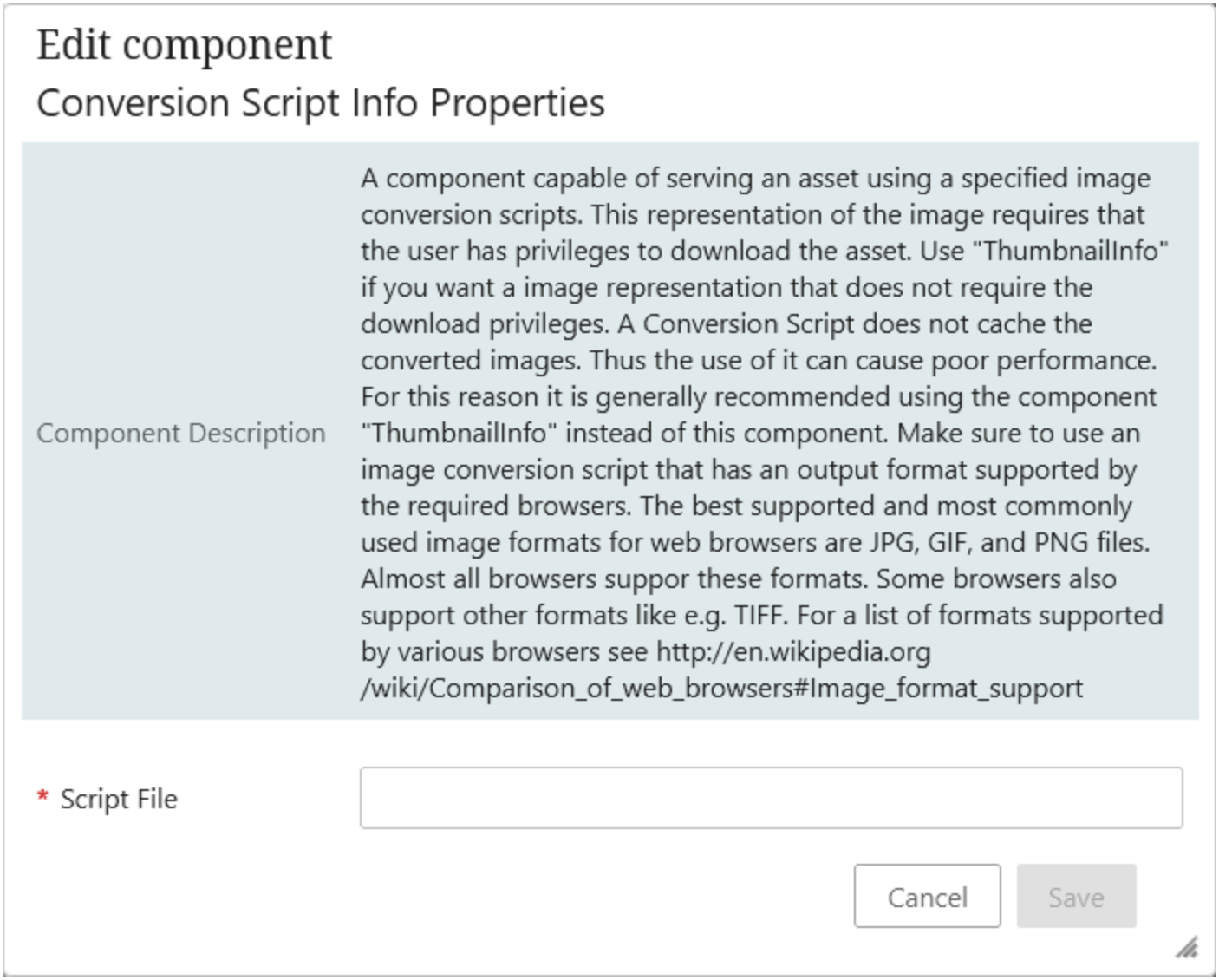
- **Thumbnail Info**: Selecting this component will let the user view the image in a pop up window using a thumbnail image. For performance reasons, this is the recommended representation of images. This is because the default is set up to cache thumbnail images.

  The 'Size' field is the only mandatory field for configuration. The user can choose the size of the thumbnail as either SMALL, MEDIUM, or FULL. Note that while using the FULL option, the images are not cached in this version, and requires users to have download privileges.



- **Conversion Script Info**: A component capable of serving an asset using a specified image conversion scripts. This representation of the image requires that the user has privileges to download the asset. Use 'ThumbnailInfo' if you want an image representation that does not require the download privileges. A Conversion Script does not cache the converted images, thus the use of it can cause poor performance. For this reason it is generally recommended using the component 'ThumbnailInfo' instead of this component. Make sure to use an image conversion script that has an output format supported by the required browsers.

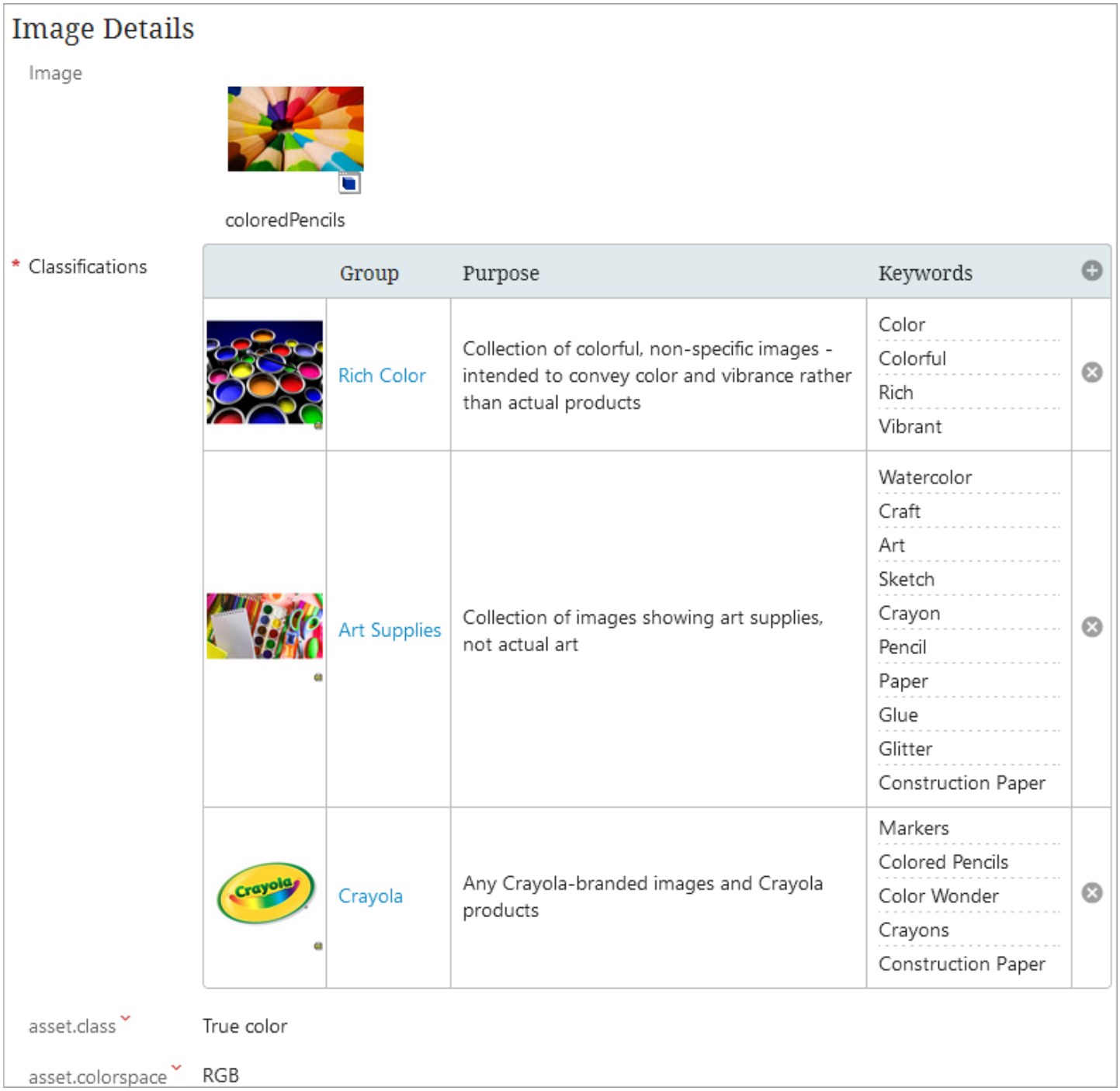
  The only mandatory field for configuration is the 'Script file.'



5. **Table Sorting**: If no other sorting is applied on any other header, the table will be sorted by the selected sort option. None, Ascending, and Descending are the available sort options.
6. **Thumbnail Tooltip**: In this parameter, enter the help text that will display when the user hovers the cursor over the thumbnail. If no value is entered, the name of the referenced object will display.

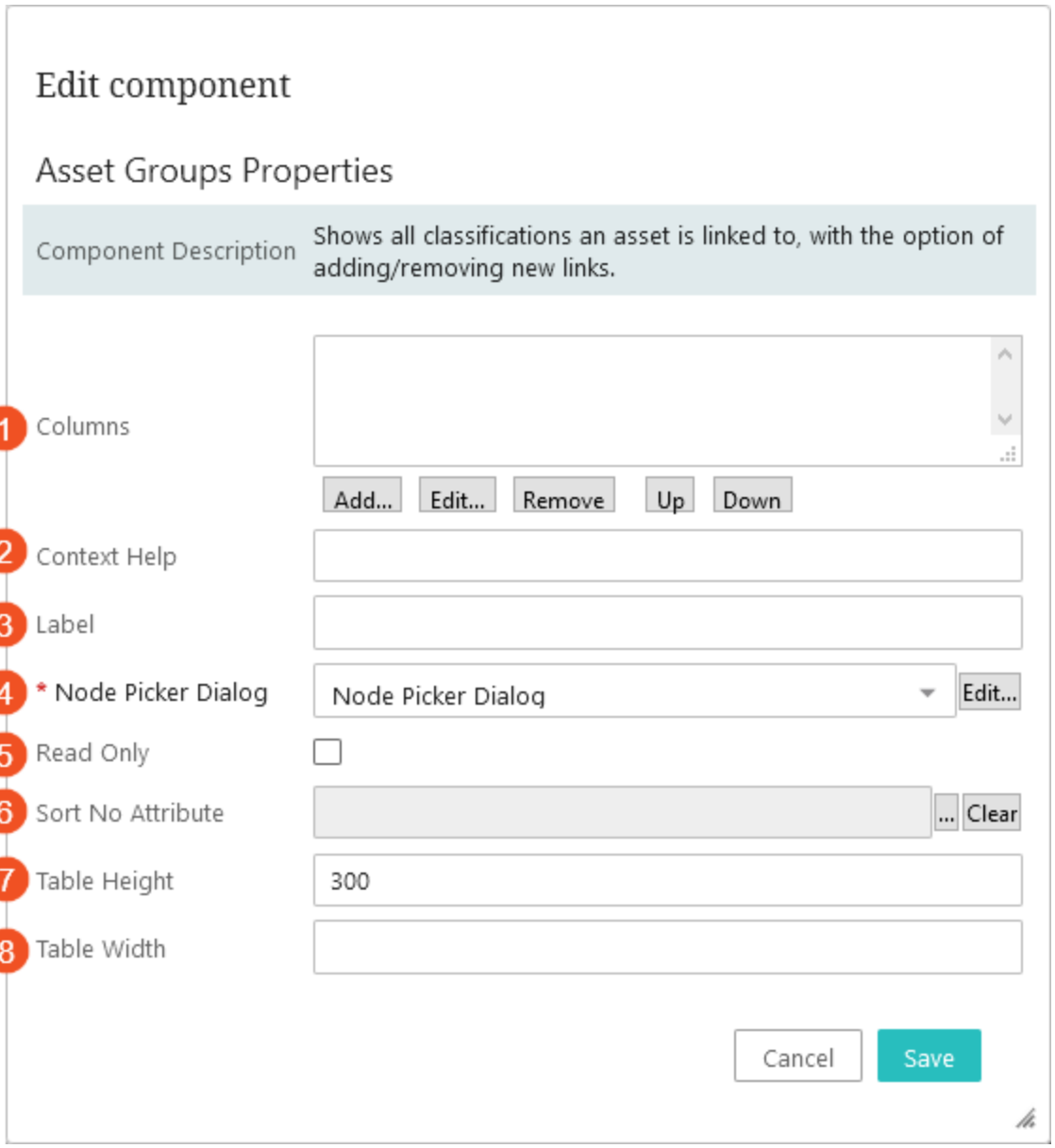
Asset Groups

The Asset Groups component, which is applied to a Node Editor, is used to view the classification(s) an asset belongs to, add it to new classifications, remove it from classifications, view and edit metadata on the classifications the asset is linked to, and navigate to a linked classification from the asset. This component enables asset curators to freely categorize assets and organizing them best for their business. Below is an example of a configured Asset Group.

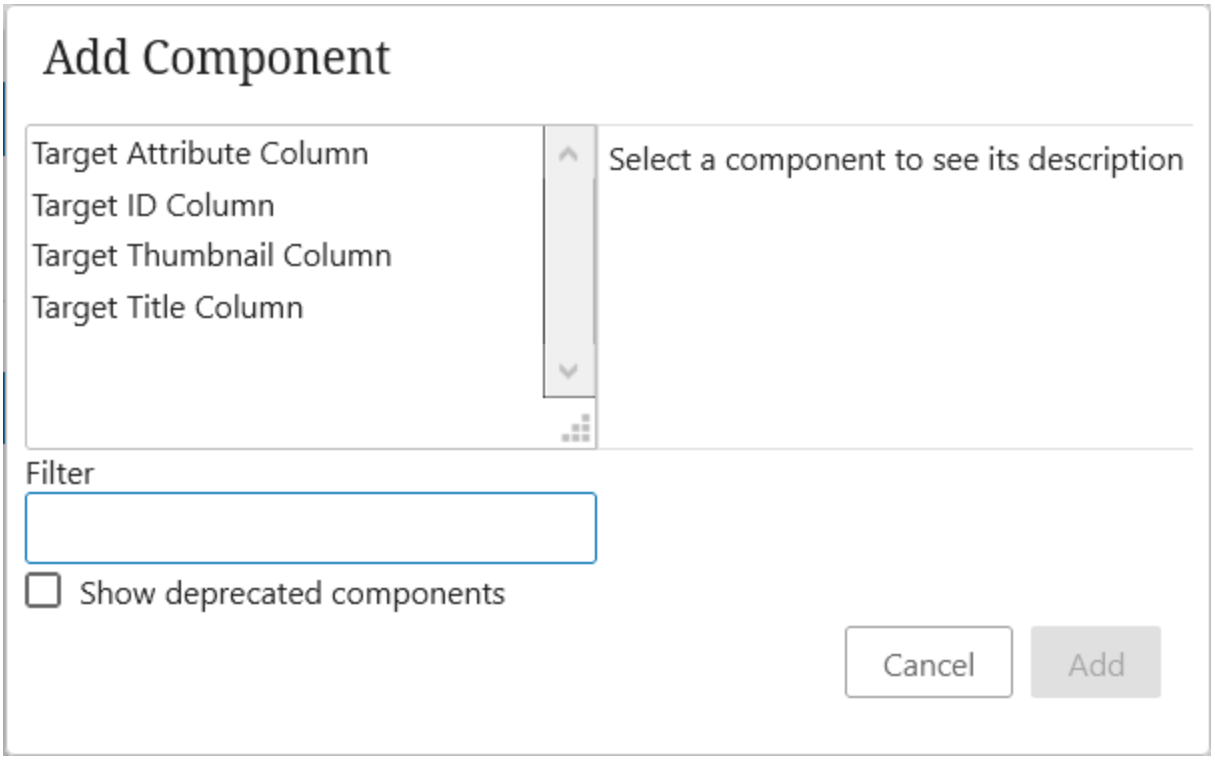


Asset Groups Setup

The only mandatory field for setting up Asset Groups is the Node Picker Dialog. Setup for Asset Groups are as followed:



1. **Columns:** There are four columns that can be added as needed.



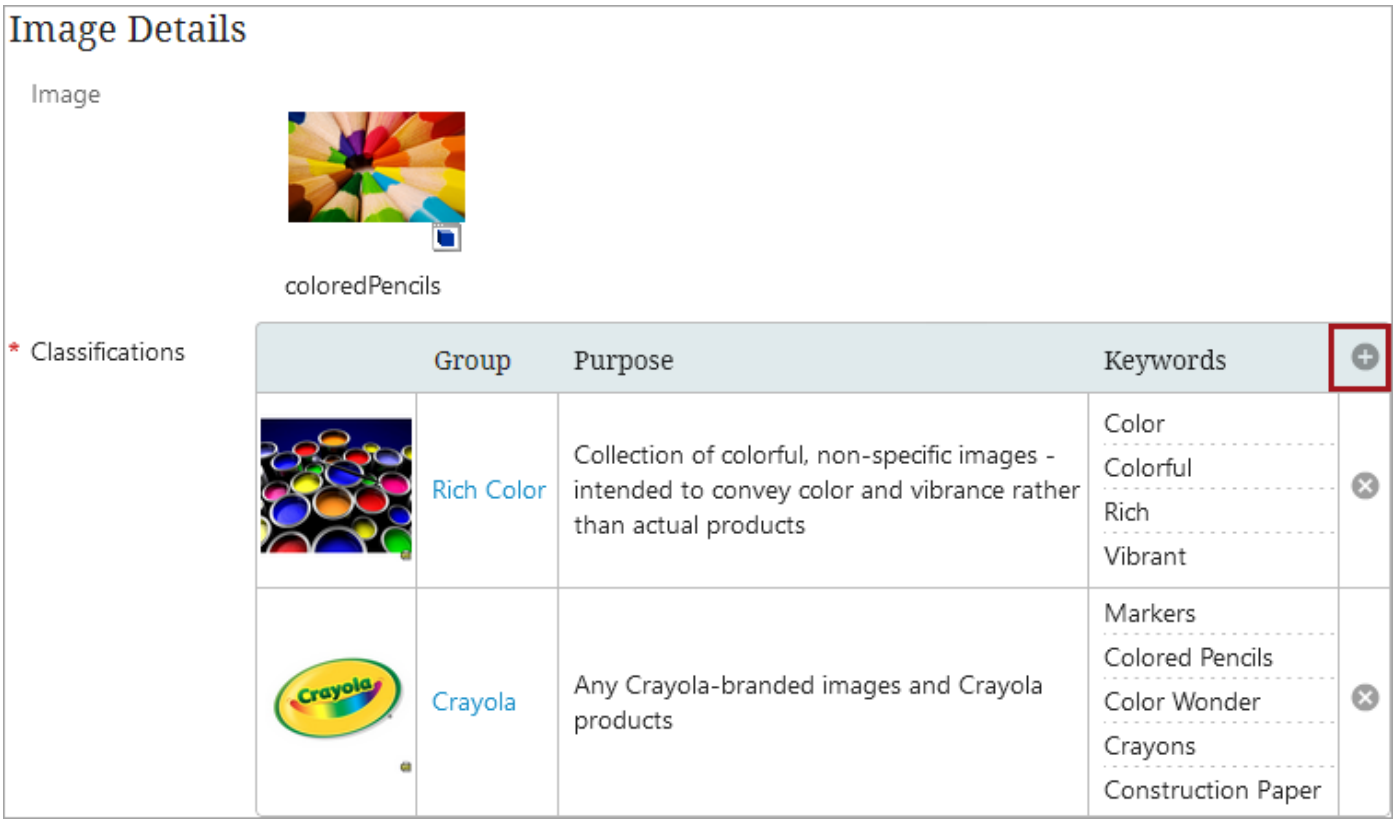
   - **Target Attribute Column**: Displays the attribute from the target. Depending on privileges and how this attribute was created, the user can edit the metadata on this attribute.
   - **Target ID Column**: Displays the ID of the target classification.
   - **Target Thumbnail Column**: Displays the primary image that was configured to display with this target classification.
   - **Target Title Column**: Displays the target classification title.
2. **Context Help**: Optional help text to display to the user.
3. **Label**: The name given to the Asset Group in Web UI when displaying the classifications the asset is linked to.
4. **Node Picker Dialog**: This field is mandatory. It is a customizable picker that is used to find new classifications.
5. **Read Only**: If enabled, the classifications and the values displayed by the Asset Group component can not be modified.
6. **Sort No Attribute**: If set, the order of the classifications is based on and defaults to this numeric attribute.
7. **Table Height**: The maximum height of the table before scrolling. If not specified, it will default to 300 Pixel.

8. **Table Width**: An optional width in pixels for the component. If no value is provided, or the provided value is equal to or below zero, it will span the primary frame.

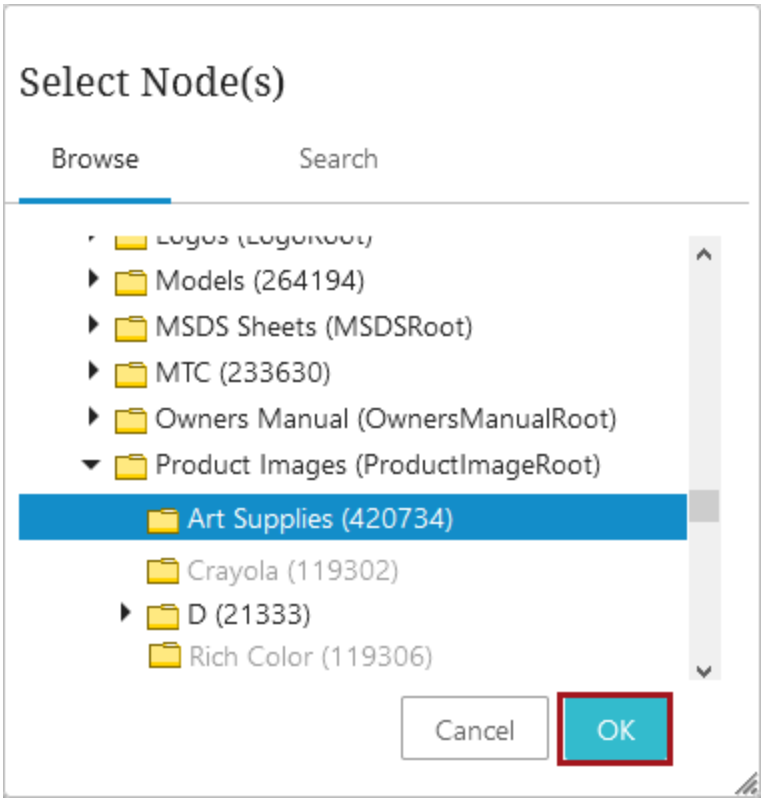
Using Asset Groups

Once you have Asset Groups configured, navigate to the desired asset and locate the Asset Group.

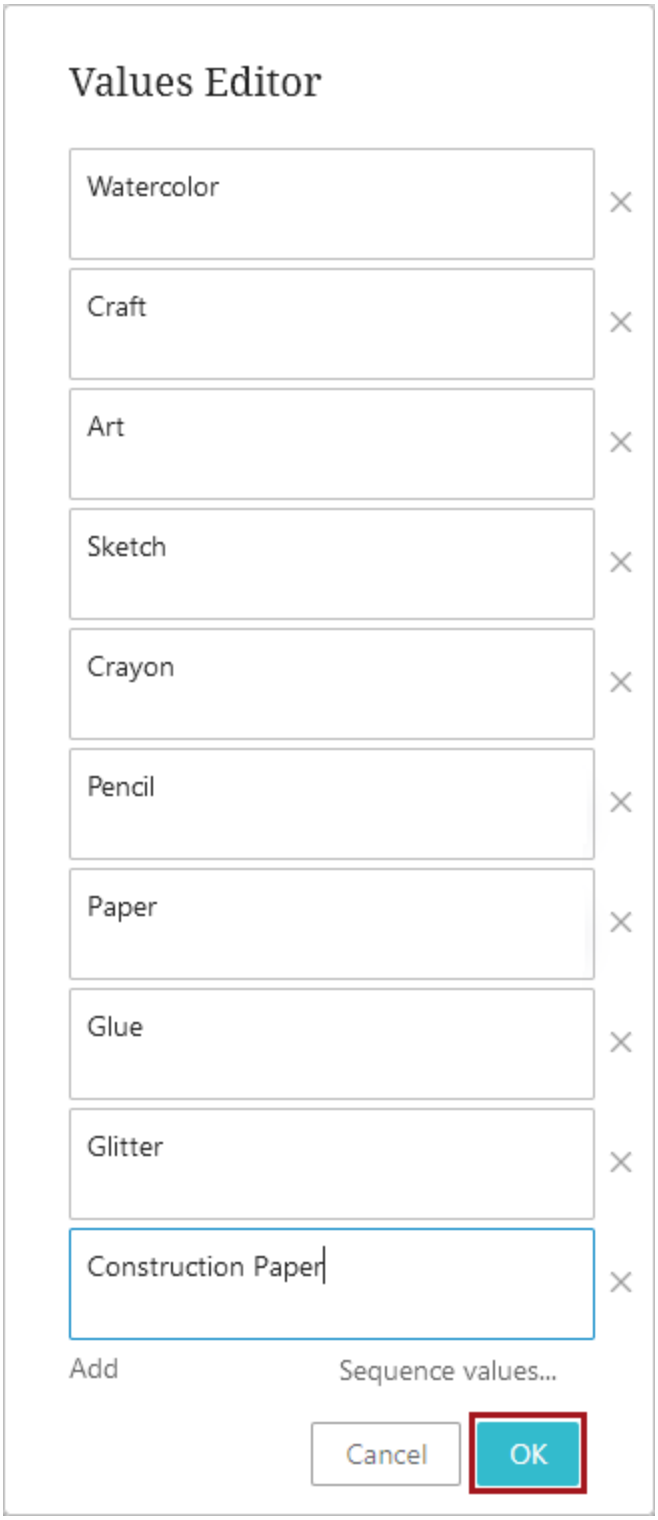
1. In this example, 'Classifications' is the title of the Asset Group. To add a classification, click on the plus sign.



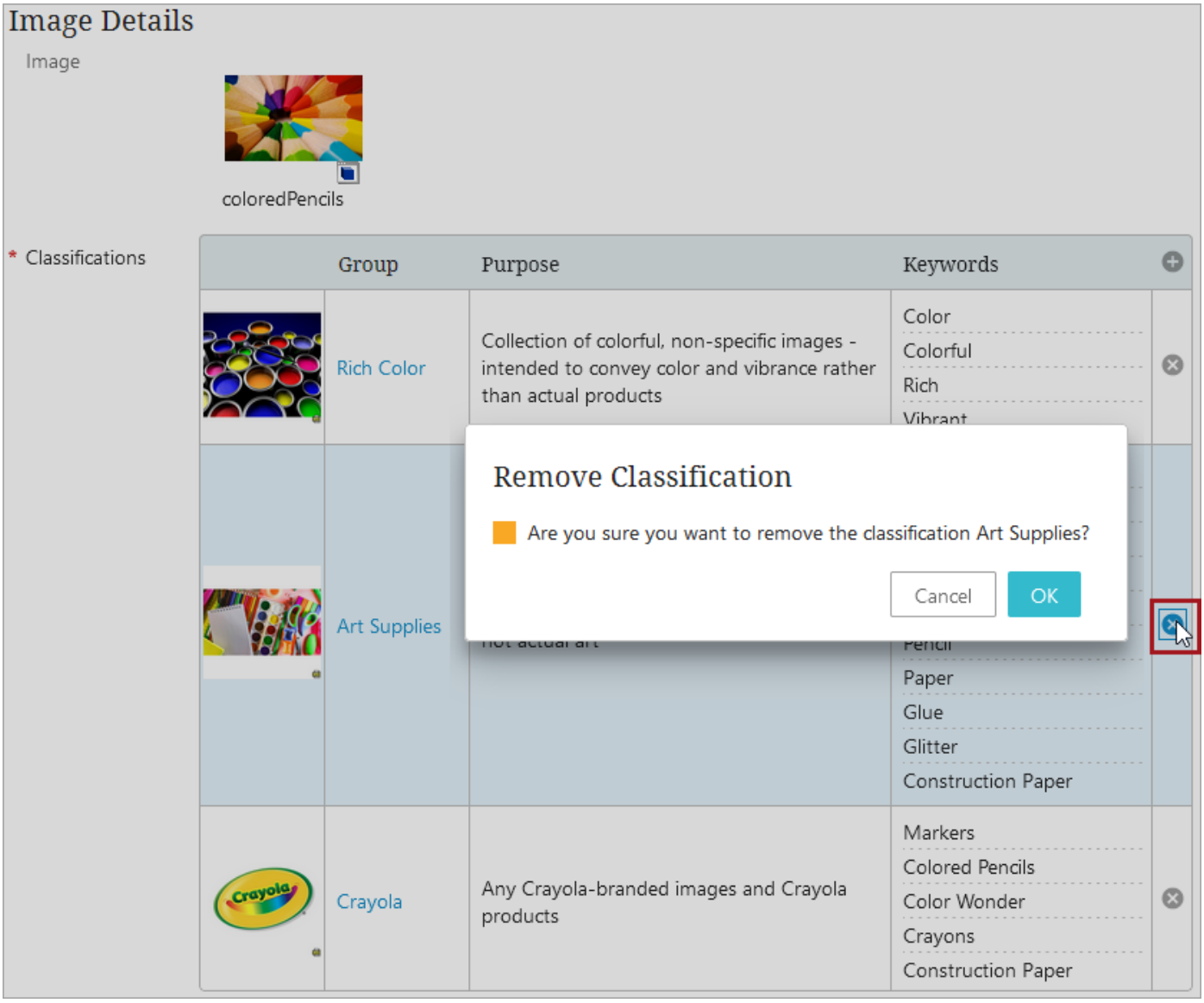
2. Navigate via the Node Picker to select the desired classification folder, and click **OK**. Click **Save** on the Node Editor to save any changes.



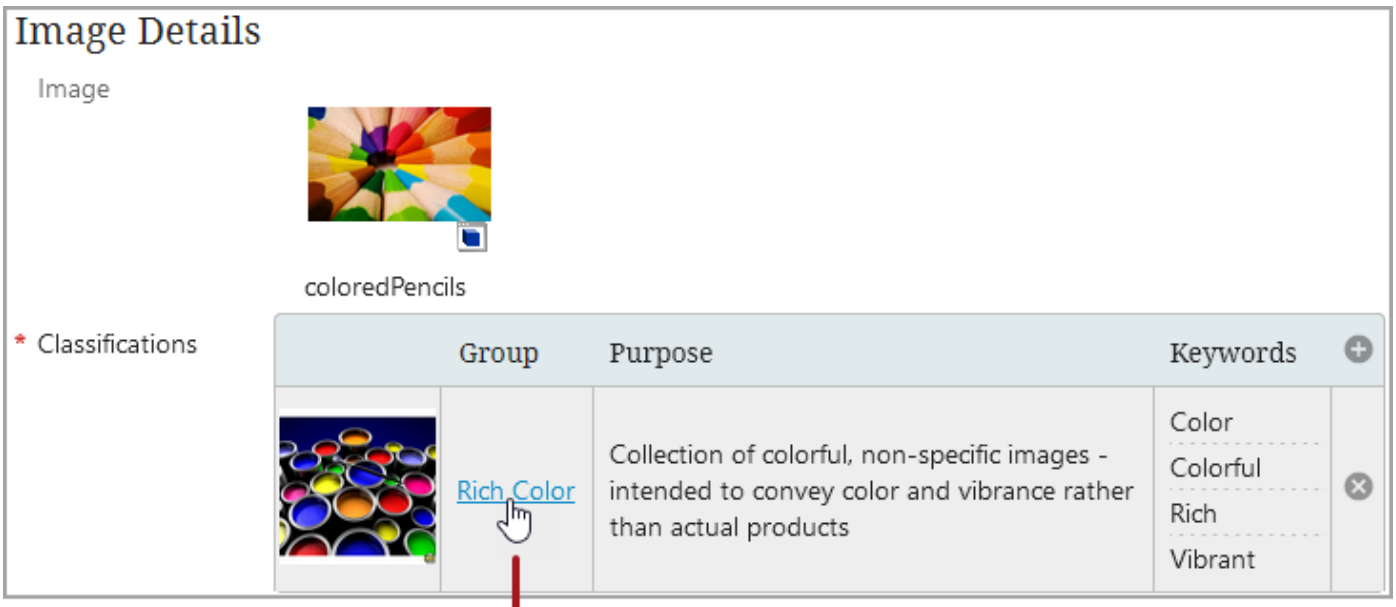
3. Once added, edit any necessary fields by double-clicking inside of the cell. If prompted, click **OK**, and then click **Save** on the Node Editor to save changes.

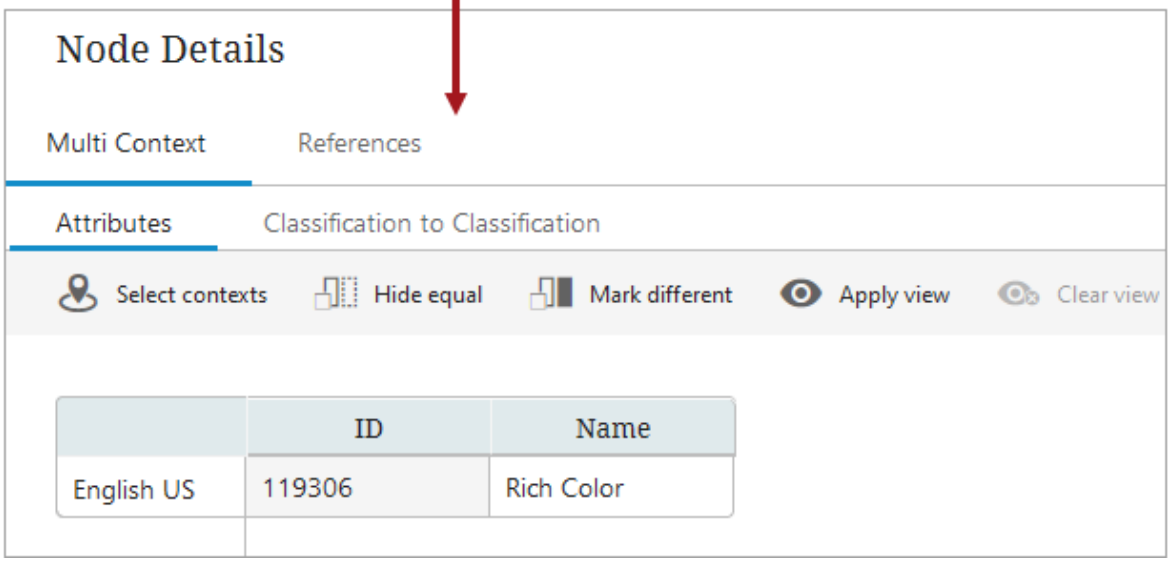


4. To delete an asset from a classification group, click on the '**x**.' A popup will appear asking to confirm the deletion of the classification. Once deleted, click **Save** on the Node Editor to save changes.



5. To navigate to one of the classifications from the asset group component, click on either the ID or title of the desired classification. In this example, the ID is being selected.


Image Details
Image
coloredPencils
* Classifications
Group
Purpose
Keywords
Rich Color
Collection of colorful, non-specific images - intended to convey color and vibrance rather than actual products
Color
Colorful
Rich
Vibrant


Node Details
Multi Context
References
Attributes
Classification to Classification
Select contexts
Hide equal
Mark different
Apply view
Clear view
ID
Name
English US
119306
Rich Color

Attribute and LOV Creation and Maintenance in Web UI

Attributes and Lists of Values (LOVs) can be managed in the Web UI. This section of the documentation describes how to configure and work with attribute and LOV management functionality in the Web UI.

Attributes, attribute groups, LOVs, and LOV groups can be created and maintained in the Web UI by accessing one of four screens: the **Attribute Group Management screen**, **Attribute Management screen**, **List of Values Group Management screen**, and **List of Values Management screen**. These screens are described in the sub-topics available below this one.

To enable these screens, users must first add them to the Web UI and make them accessible via the Global Navigation Panel.

For more information on adding screens, refer to the **Design Mode Basics** topic.

For more information on the Global Navigation Panel, refer to the **Global Navigation Panel** topic.

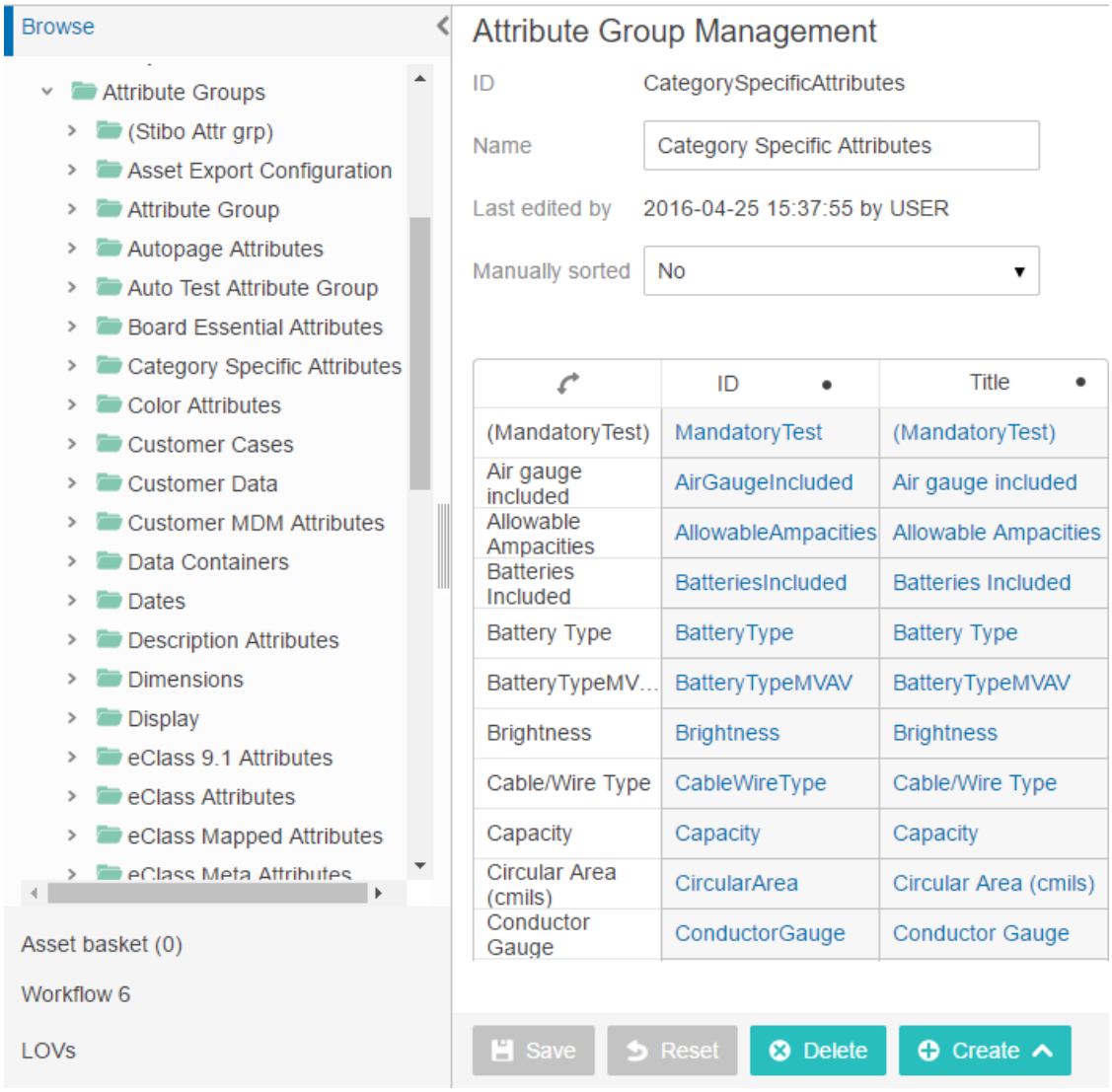
Considerations and Limitations

The intent of these components is to provide access for management of attributes and LOVs in Web UI. With that in mind, some of the more advanced features available in workbench are unavailable, or available in a reduced manner, within the Web UI.

- A calculated attribute editor available in the workbench is not provided in the Web UI.
- The Web UI does not have capacity for managing changes to attributes that conflict with and/or impact existing data values for the attribute.
- As with all STEP functionality, the ability to create and maintain attribute and LOV objects requires the user to have privileges to do so.

Attribute Group Management Screen

By using the **Attribute Group Management screen** in the Web UI, users are able to create attributes and create and configure attribute groups.



Configuring the Attribute Group Management Screen

Before configuring the screen, it is assumed that the general configuration alluded to in the **Attribute and LOV Creation and Maintenance in Web UI** topic documentation has been completed. This would include creating the screen, mapping the screen, and making the screen accessible in a Global Navigation Panel.

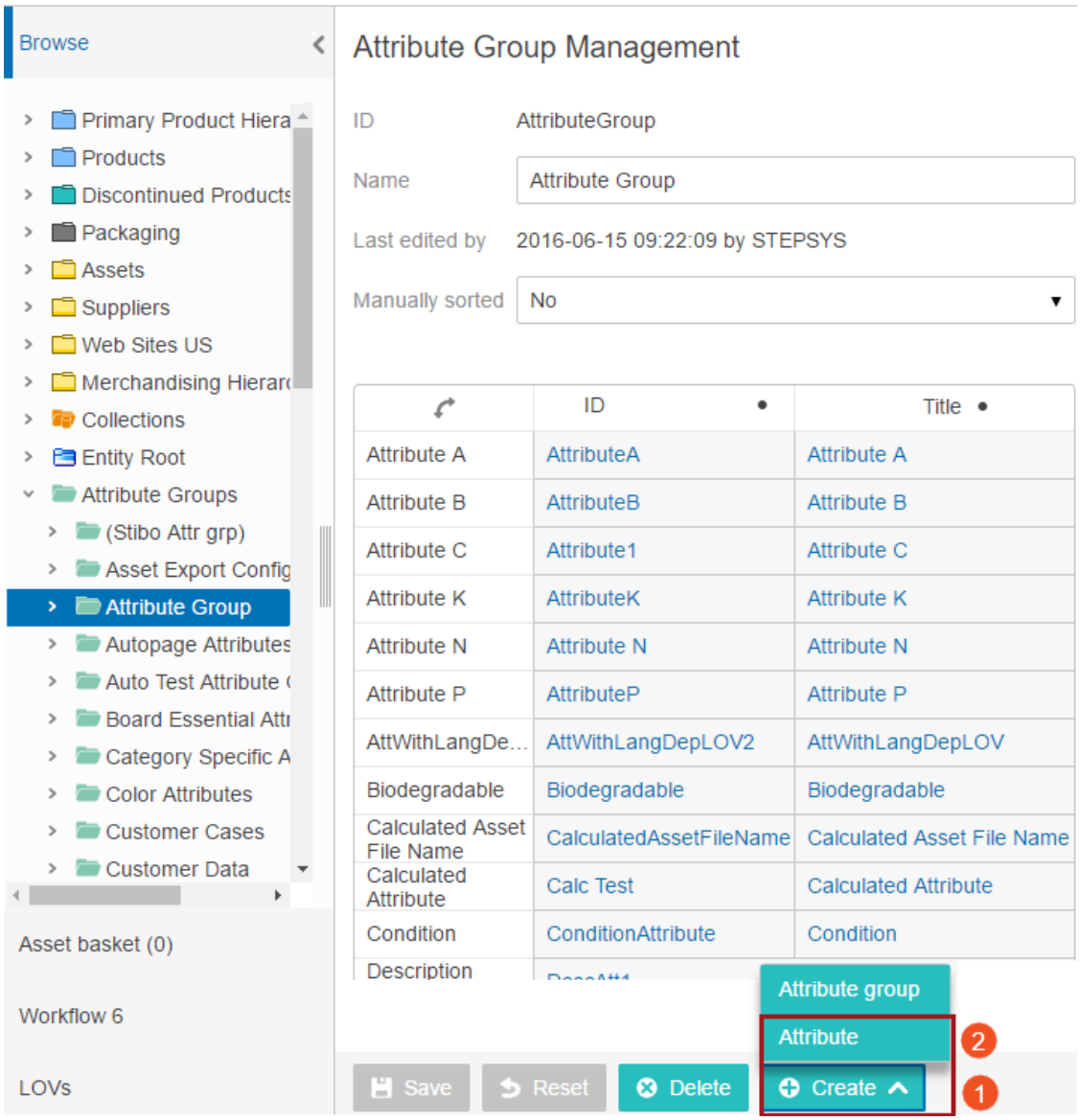
Using the Attribute Group Management Screen

The following sections describe how to work with attributes and attribute groups within the **Attribute Group Management screen**.

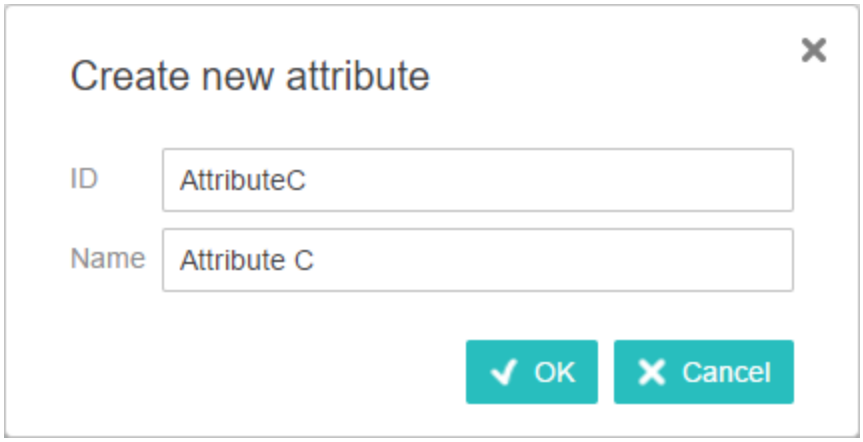
Creating Attributes

To create a new attribute in Web UI in the **Attribute Group Management screen**, follow these steps:

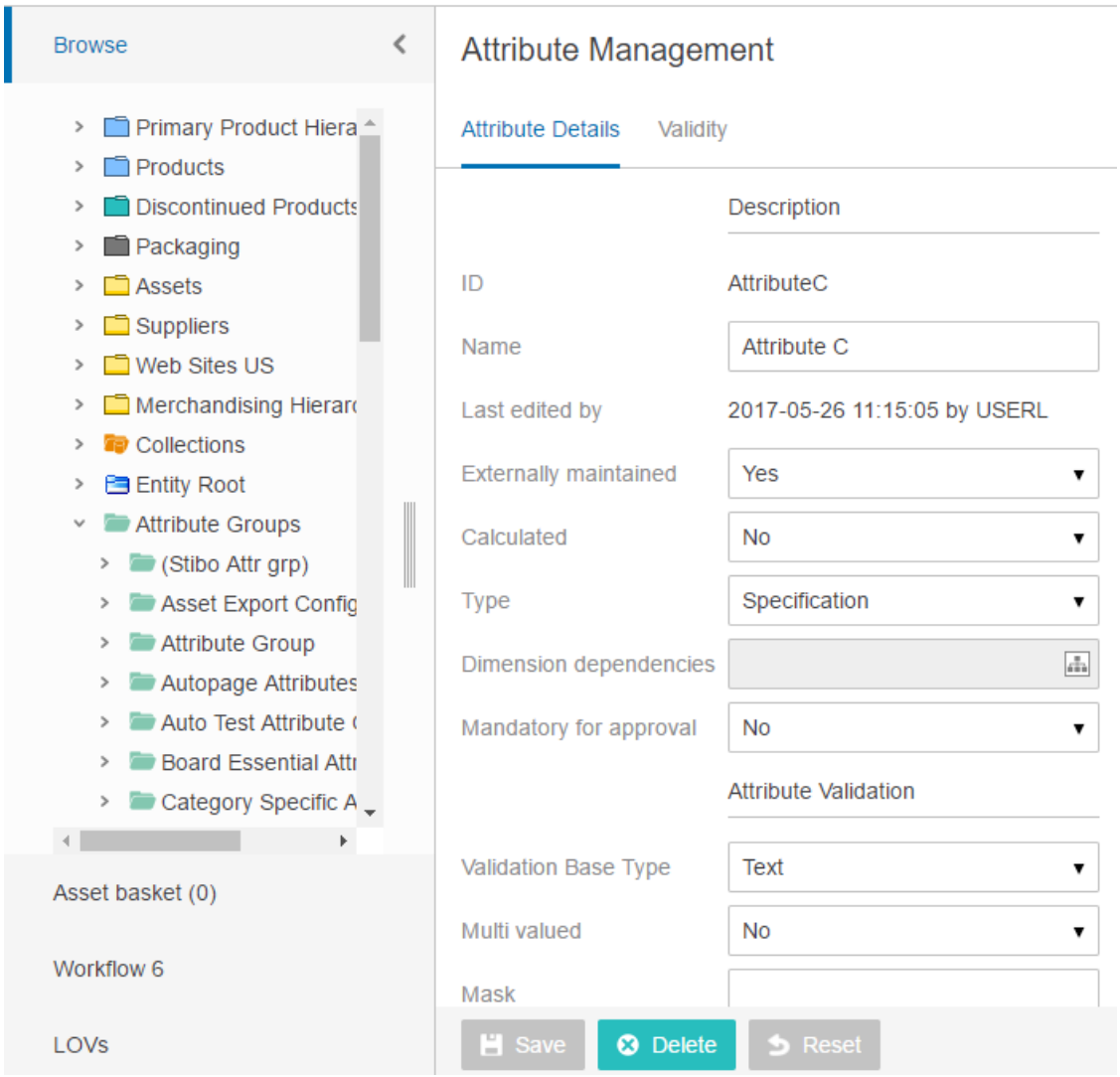
1. In the **System Setup** tree, select the attribute group into which you would like to add your attribute. At the bottom of the **Attribute Group Management screen**, click the **Create** button and then select **Attribute**.



2. In the **Create new attribute** window, add the ID and Name of the attribute and then click **OK**.



3. The **Attribute Management screen** then displays. This is where you will view and edit the newly created attribute.

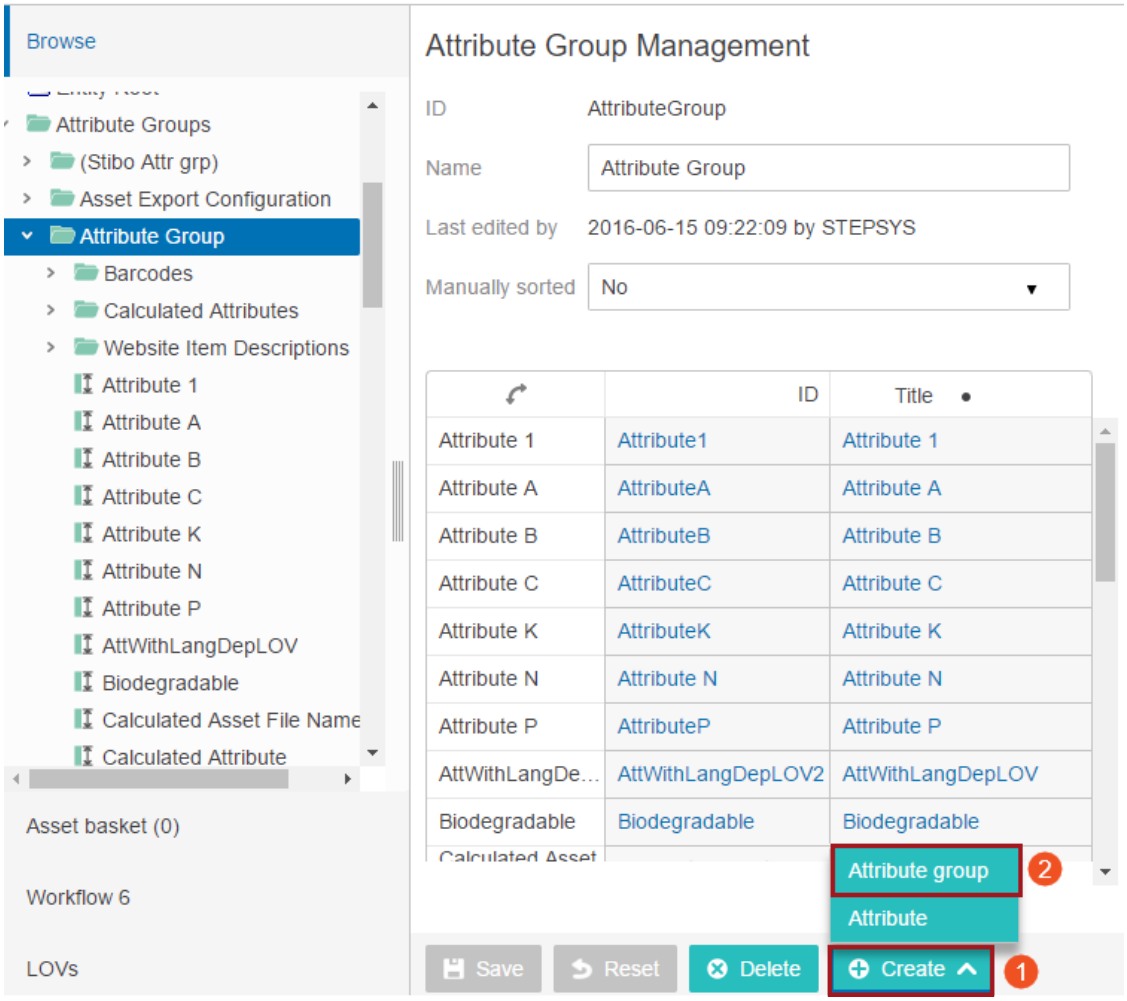


4. To edit and configure the attribute, follow the instructions outlined in the **Attribute Management screen** topic.

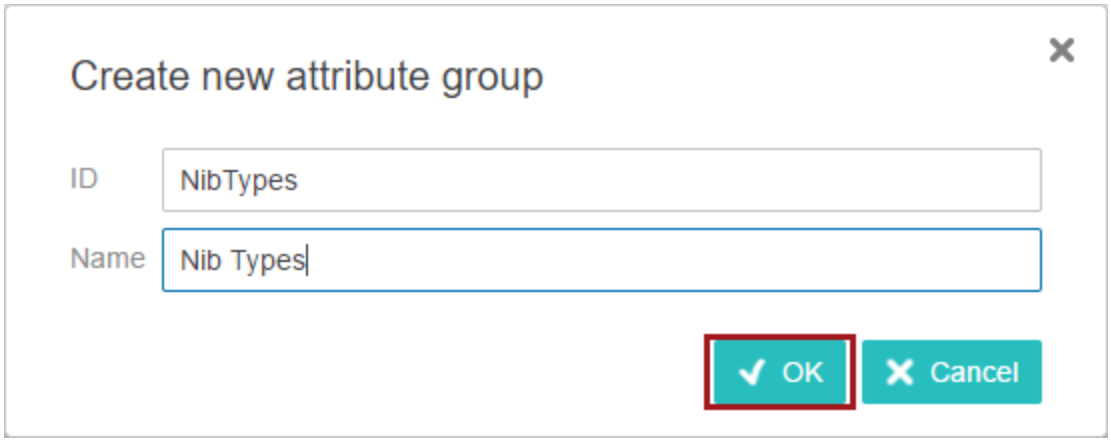
Creating Attribute Groups

To create a new attribute group in the Web UI, follow these steps:

1. Select either the topmost level of the attribute group hierarchy (parent node) or another attribute group in which you would like to nest your new attribute group. The **Attribute Group Management screen** displays.
2. At the bottom of the **Attribute Group Management screen**, click **Create** and then select **Attribute group**.



3. In the **Create new attribute group** window that displays, add an ID and Name for the attribute group and then click **OK** to close the window.



4. The new attribute group is created.

> **Note:** An attribute group can only be created as a child of a higher-level (parent) attribute group. An attribute group cannot be created when an attribute is selected. An attribute group cannot be created within a parent attribute group when 'Manually sorted = Yes' is set on the parent attribute group.

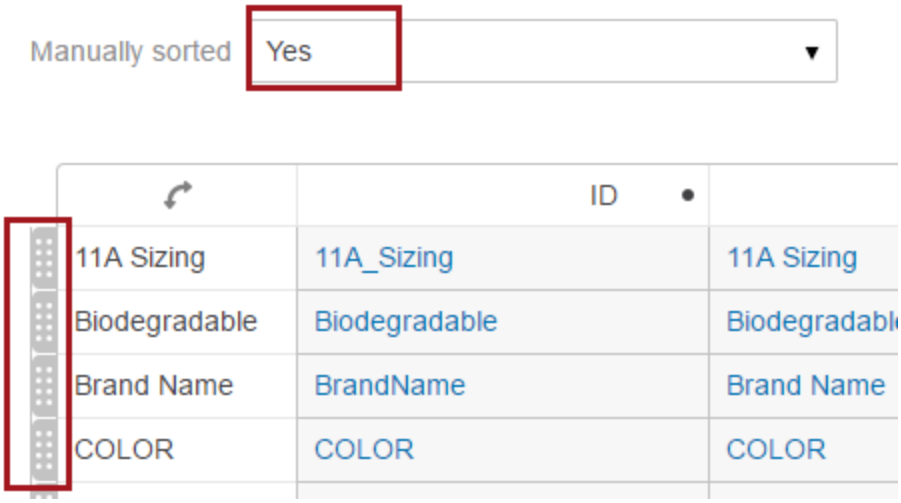
Maintaining Attribute Groups

In addition to attribute group creation, the **Attribute Group Management screen** also enables you to edit the names of attribute groups, delete attribute groups, and manually reorder attributes.

- **Edit:** To edit the name of an attribute group, make the required changes to the attribute group in the **Name** field and then click the Save button.
- **Delete:** To delete an attribute group, select the attribute group to be deleted in the left navigation area, and then click the Delete button.

> **Important:** Only empty attribute groups can be deleted. Attribute groups that contain attributes cannot be deleted until the child attributes have been deleted or moved into another attribute group.

- **Manually sort:** To manually sort attributes in an attribute group, first select **Yes** for **Manually sorted** and then click the **Save** button. 'Drag handles' appear to the left of each attribute. Click and hold an attribute's drag handle, then drag to move it to its new location.



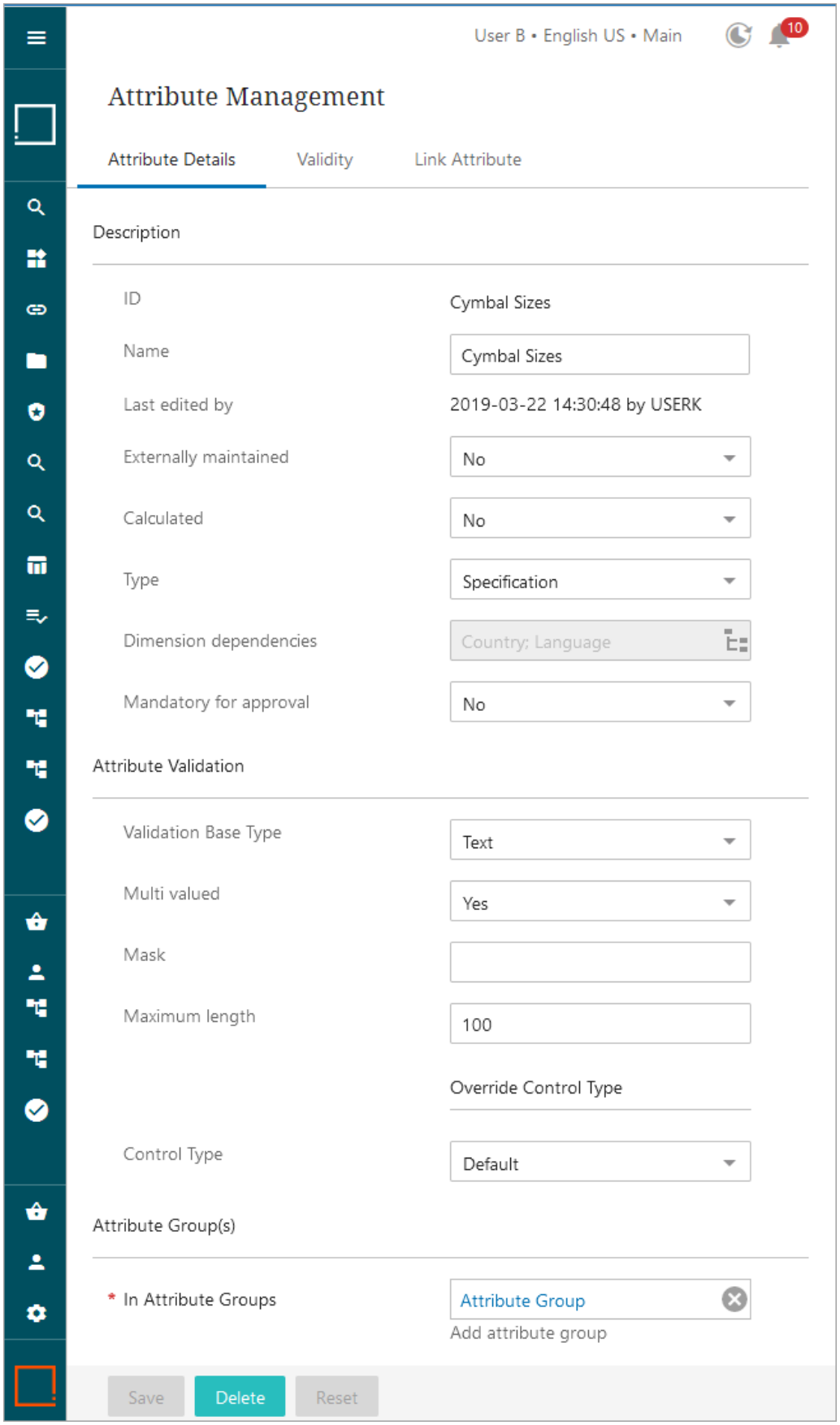
The **Manually sorted** for attribute groups cannot be set to **Yes** for existing attribute groups in the below cases:

- If an attribute group contains sub attribute groups
- If an attribute group contains tag groups
- If an attribute group contains reference types

Attribute Management Screen

By using the **Attribute Management screen** in Web UI:

- Users can edit and configure existing attributes
- Users can efficiently manage how each attribute value should display and/or behave across all Web UI screens without requiring screen-by-screen setup in the designer


User B • English US • Main
10
Attribute Management
Attribute Details
Validity
Link Attribute
Description
ID
Cymbal Sizes
Name
Cymbal Sizes
Last edited by
2019-03-22 14:30:48 by USERK
Externally maintained
No
Calculated
No
Type
Specification
Dimension dependencies
Country; Language
Mandatory for approval
No
Attribute Validation
Validation Base Type
Text
Multi valued
Yes
Mask
Maximum length
100
Override Control Type
Control Type
Default
Attribute Group(s)
* In Attribute Groups
Attribute Group
Add attribute group
Save
Delete
Reset

Using the Attribute Management screen

Once configured and mapped, the Attribute Management screen is displayed when a user has selected an attribute via navigation in the Global Navigation Panel. Three tabs display on the Attribute Management screen by default: **Attribute Details**, **Validity**, and **Link Attribute**.

Attribute Details tab

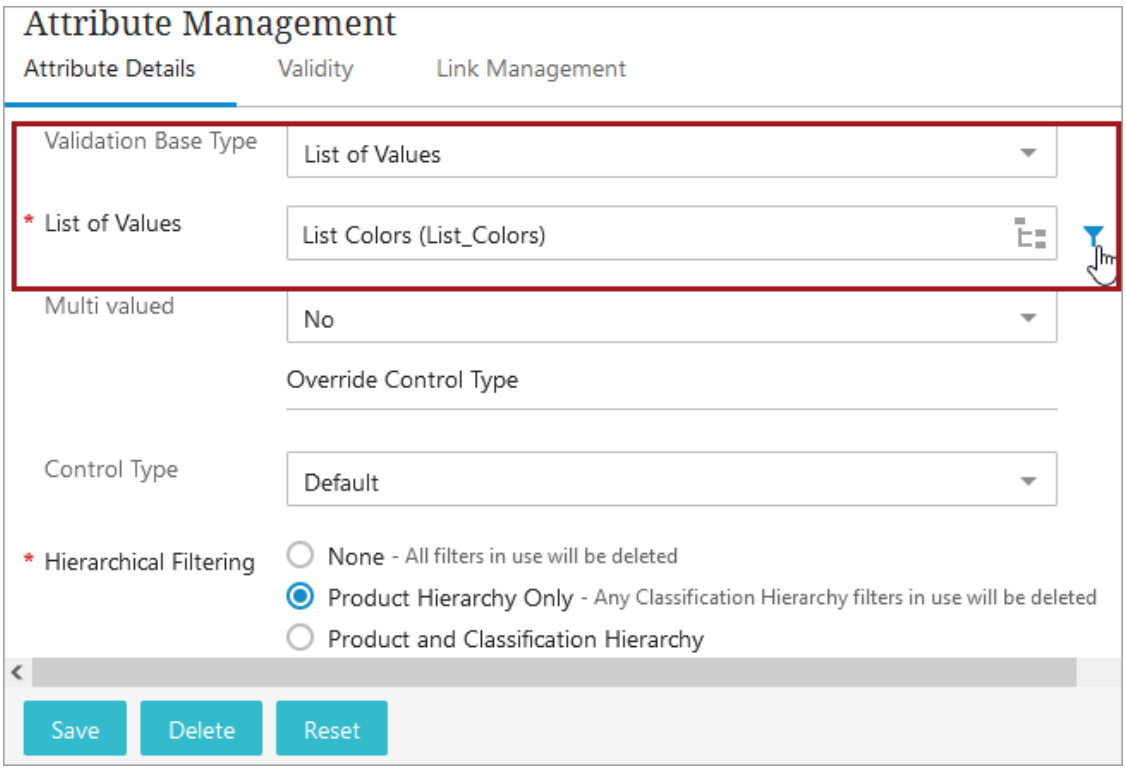
On this tab the user is able to edit and configure an existing attribute, including its default control type and the attribute group(s) to which it belongs. Attribute definitions can be either configured or modified in this tab. Following below are the default parameters available on the Attribute Details tab:

Description section

- **ID** - The ID of the attribute. Non-editable.
- **Name** - The Name value of the attribute.
- **Last edited by** - A timestamp of the last edit to the attribute, followed by the ID of the user who made the change. Non-editable.
- **Externally maintained** - By setting this to 'Yes' or 'No,' users can determine whether the attribute is internally maintained, i.e., maintained within STEP, or externally maintained, i.e., maintained outside of STEP. For more information about externally maintained attributes, refer to the **Externally Maintained Attributes** topic in the **System Setup** documentation.
- **Calculated** - By setting this parameter to 'Yes' or 'No,' users determine whether an attribute is calculated or manually maintained. For more information on calculated attributes, refer to the **Calculated Attributes in Web UI** topic in the **Web User Interfaces** documentation.
- **Type** - Determines whether the attribute is a 'specification'-type attribute, or a 'description'-type attribute. For more information on the definitions of these types of attributes, refer to the **Specification Attributes** topic and the **Description Attributes** topic , both of which are located in the **System Setup** documentation.
- **Dimension dependencies** - Displays which dimension dependencies have been applied to the attribute. The dimensions can be edited in this field. For more information on dimension dependencies, refer to the **Dimension Dependent Attributes** topic in the **System Setup** documentation.
- **Mandatory for approval** - Determines whether the attribute is mandatory, meaning any object to which the attribute is linked cannot be approved without first adding a value to that attribute.

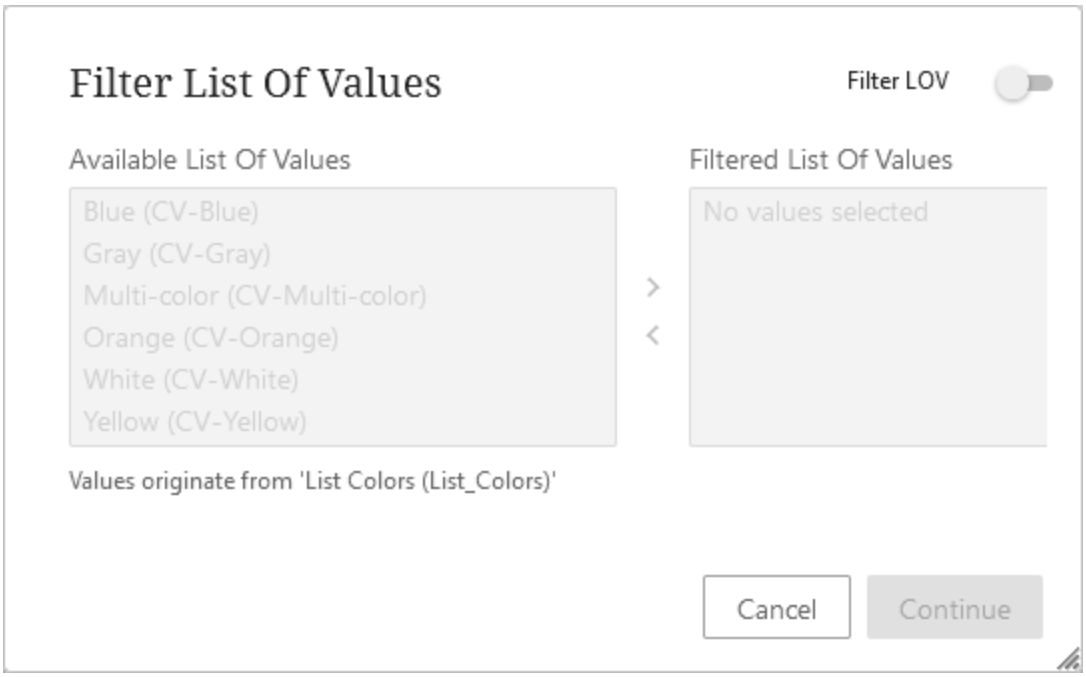
Attribute Validation section

- **Validation Base Type** - Determines the data type applied to the attribute. Text, integer, number, date, or List of Values (LOV) are examples of validation base types.
    - If 'List of Values' is selected for **Validation Base Type**, the mandatory parameter, **List of Values**, will display. Select the appropriate List of Values. If the LOV linked to the attribute contains more values than are necessary for the user to choose from, users can filter which values in the LOV are available to select from through filtering.



To filter:

1. Click the **Filter List of Values** button, , next to the List of Values parameter to open the filter dialog.

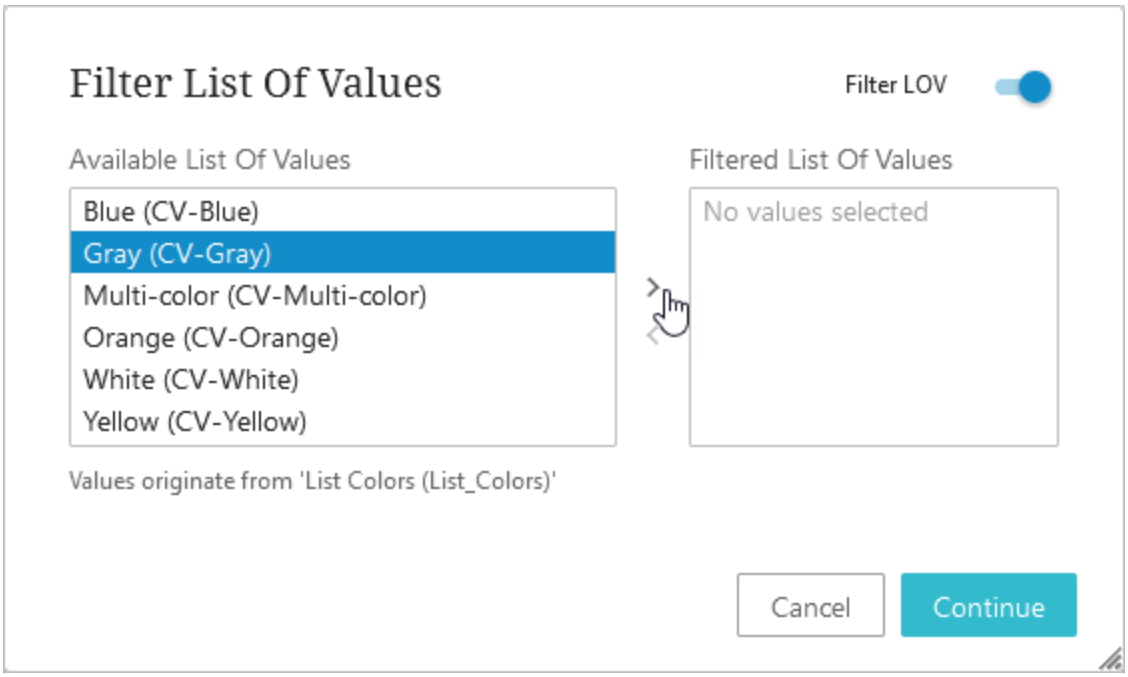


2. Click the **Filter LOV** toggle to move it to the right to turn on filtering. Clicking it again will turn it back off.



> **Note:** If filtering is no longer desired, turning the filter off will not clear or reset any previously filtered lists should the lists need to be used again later. Edits to filter lists can only be made when filtering is enabled.

3. Select one value or multiple values, and click the center arrows to move them from one side to the other.



> **Note:** You cannot select values from both sides and move them at the same time.

4. Click **Continue** to close the dialog.
5. Click **Save** to save all changes.

- **Multi valued** - When set to 'Yes,' the attribute can accept multiple values. When set to 'No,' the attribute can accept only one value.
- **Mask** - Allows users to set an input mask for attribute values. For more information on input masks, refer to the **Input Masks** topic in the **System Setup** documentation.

- **Maximum length** - Will display depending on how the 'Validation Base Type' parameter has been set. Users can set the maximum allowed number of characters for an attribute value in this field. Characters beyond the maximum configured in this field cannot be added.
- **Control Type** - Will display depending on how the 'Validation Base Type' parameter has been set. Set the attribute's control type. For instance, if the 'Validation Base Type' is set to 'Text', then the options for 'Control Type' are 'Rich Text,' 'Text Area,' and 'Text Box.' For more information about managing the control types in Web UI, refer to the **Override Control Type Rule** section of the **Main Properties Overview** documentation.

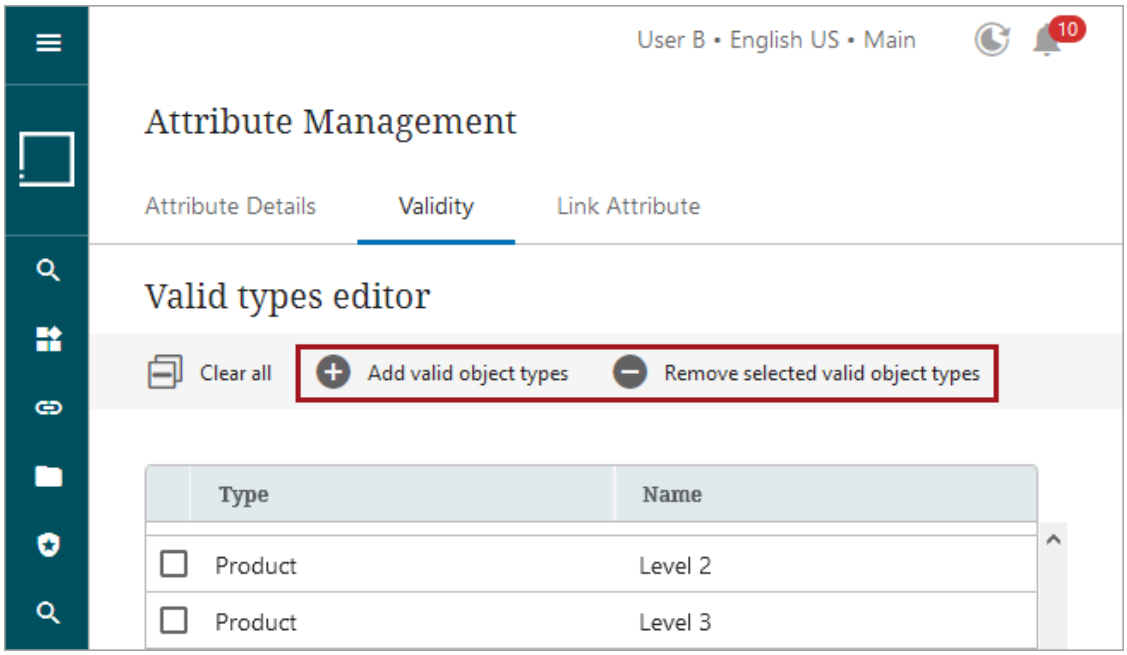
Note: There is an optional **Hierarchical Filtering** child component that can be added to enable users to set a filter on an LOV attribute used on a specific product, product family, or classification and defines which values are valid for certain areas within a hierarchy, based on references.

Attribute Group(s) section

- **In Attribute Groups** - Allows users to edit which attribute groups the attribute is included in. These attribute groups display in a single-column table, each group displaying in a row. Click the 'X' button found on the right side of each row to remove the attribute from the listed attribute group, or click the 'Add attribute group' button below the table to select a new attribute group to include the attribute in. All attributes must be included in at least one attribute group, so users will not be able to save their changes to the attribute if the 'In Attribute Groups' field is missing an attribute group.

Validity tab

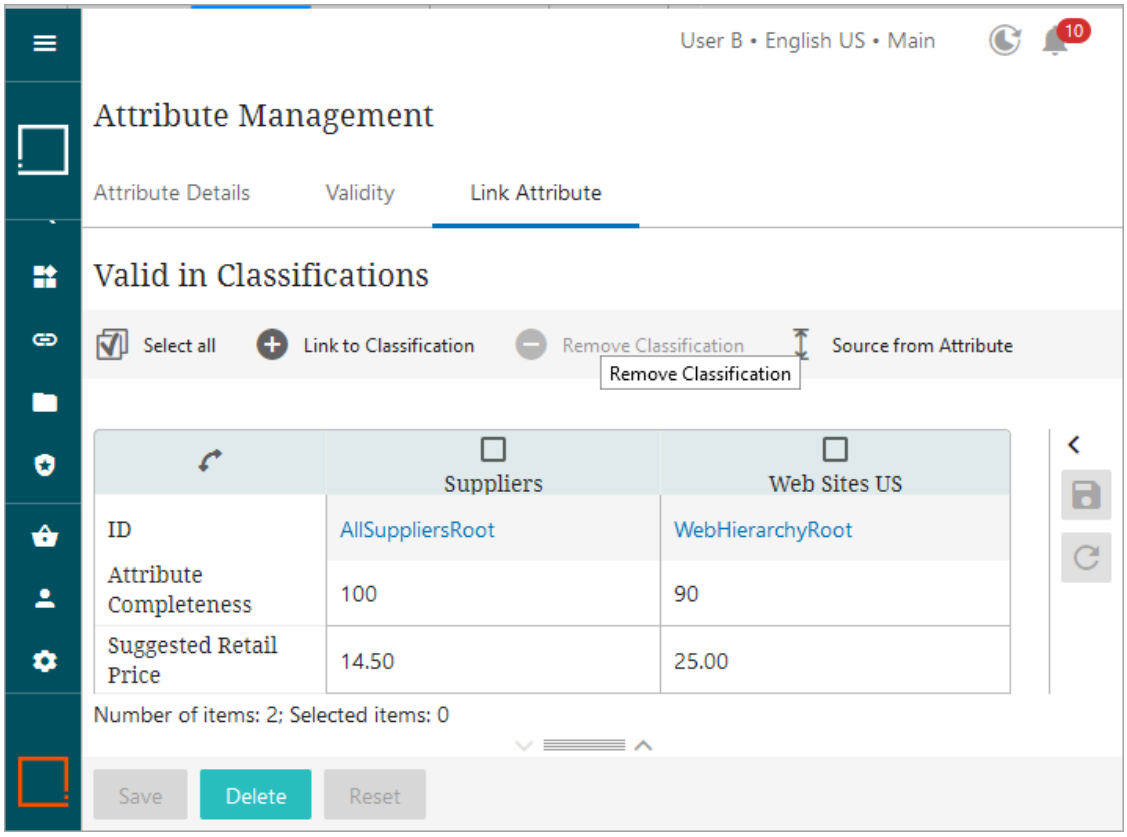
On this tab the user can configure which object types the attribute is valid for. The user can add or remove the desired object type using the standard configured actions – 'Add valid object types' and 'Remove selected valid object types.'



- To add valid object types, click on **Add valid object types action** and browse or search for the desired product object type.
- To remove selected valid object types, select the object types that need to be removed, and click on **Remove selected valid object types**.

Link Attribute tab

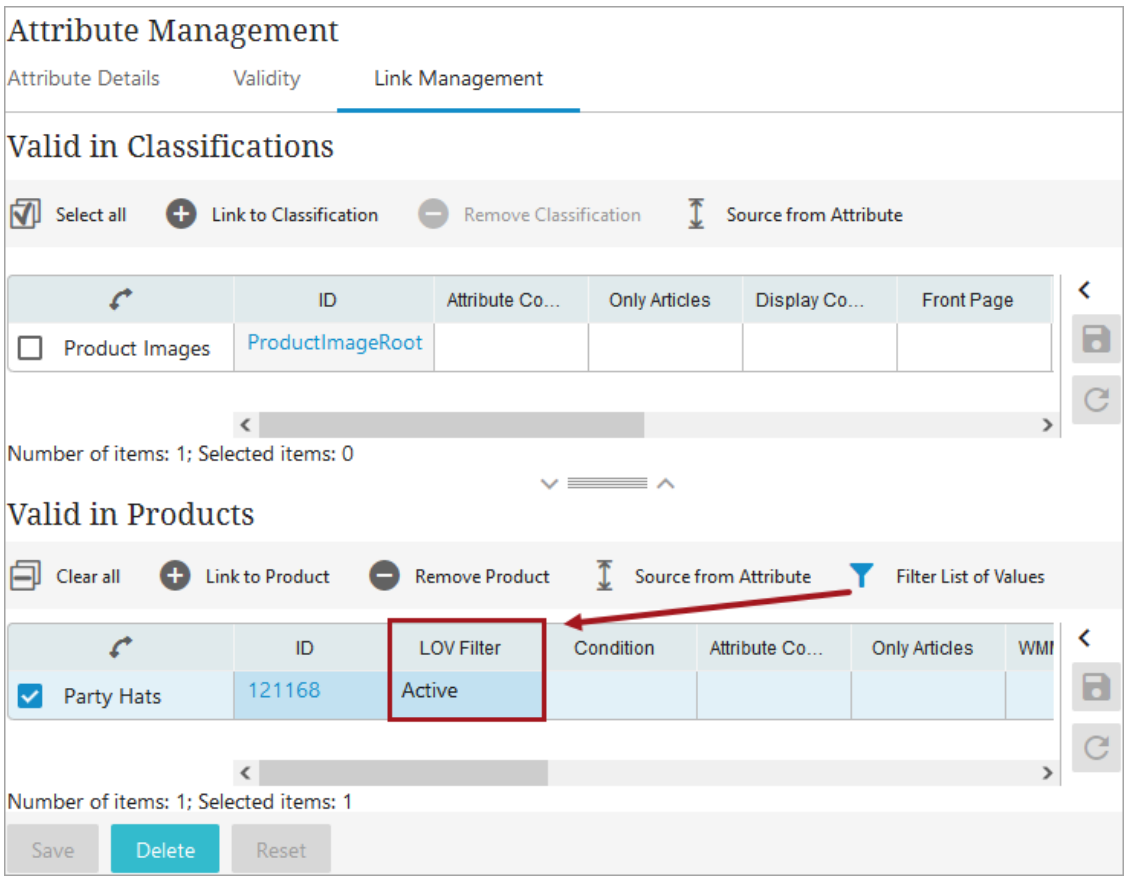
On this tab, users can link the attribute to a product or classification.



If the attribute is a List of Values attribute, and the Hierarchical Filtering was set to enable LOV filtering in either Product and Classification hierarchies or just Product hierarchies, a **Filter List of Values** action button will display in the appropriate table. Additionally, an **LOV Filter** column will display in the designated Classification and/or Product table to notify the user if filters are in use for any linked product(s) and/or classification(s).

Note: There is an optional Hierarchical Filtering child component that can be added to the Attribute Details tab to enable users to set a filter on an LOV attribute used on a specific product, product family, or classification and defines which values are valid for certain areas within a hierarchy, based on references.

If the LOV linked to the attribute contains more values than are necessary for the user to choose from, users can filter which values in the LOV are available to select from through filtering. These filters can be applied to a specific product, product family, or classification. In the example below, a product family called 'Party Hats' is selected, and filtering was applied to this product family, as indicated by the LOV Filter column.



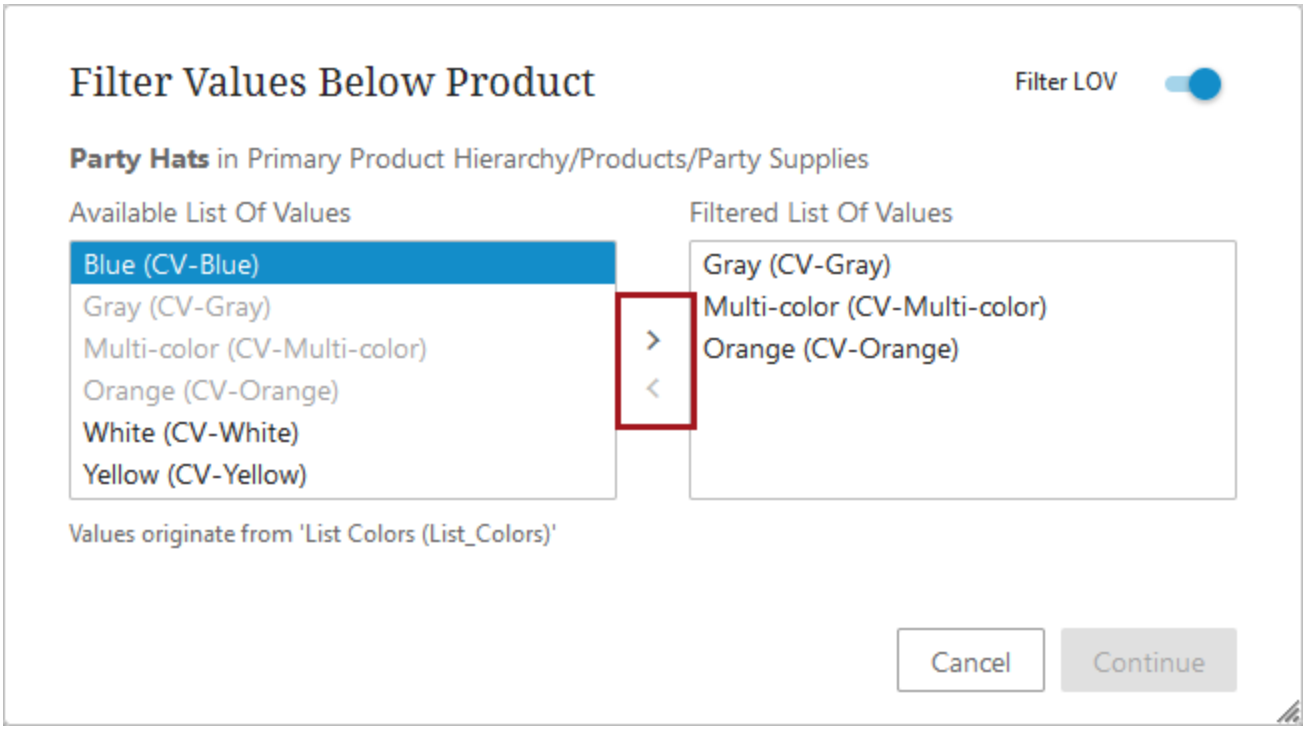
To set a filter:

1. Click the checkbox next to a linked product or classification. Filtering will not work if multiple checkboxes are selected.
2. Click on the **Filter List of Values** action button to bring up the filter dialog.
3. Click the **Filter LOV** toggle to move it to the right to turn on filtering. Clicking it again will turn it back off.



Note: If filtering is no longer desired, turning the filter off will not clear or reset any previously filtered lists should the lists need to be used again later. Edits to filter lists can only be made when Filtering is enabled.

4. Select values to display, either one at a time or multi select, and click the center arrows to move them from one side to the other.



Note: You cannot select values from both sides and move them at the same time.

5. Click **Continue** to close the dialog.
6. Click **Save** to save all changes.

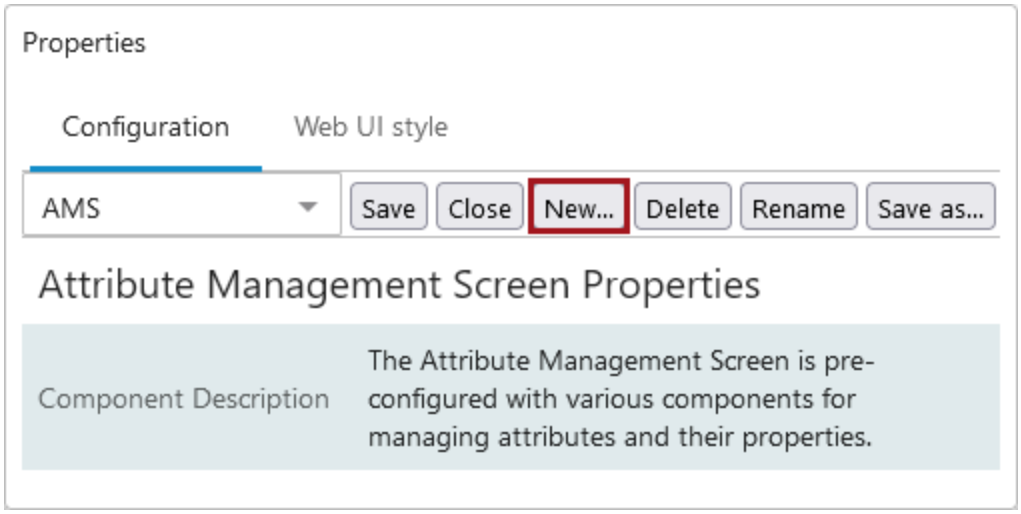
Functionality available on each tab is comparable to what is available in the workbench, though some advanced configuration options may not be available in the Web UI. For more information on creating attributes, refer to the **Creating Attributes** section of the **System Setup** documentation. For more information on linking an attribute to a product, refer to the **Linking Specification Attributes** topic in the **System Setup** documentation.

Configuring the Attribute Management screen

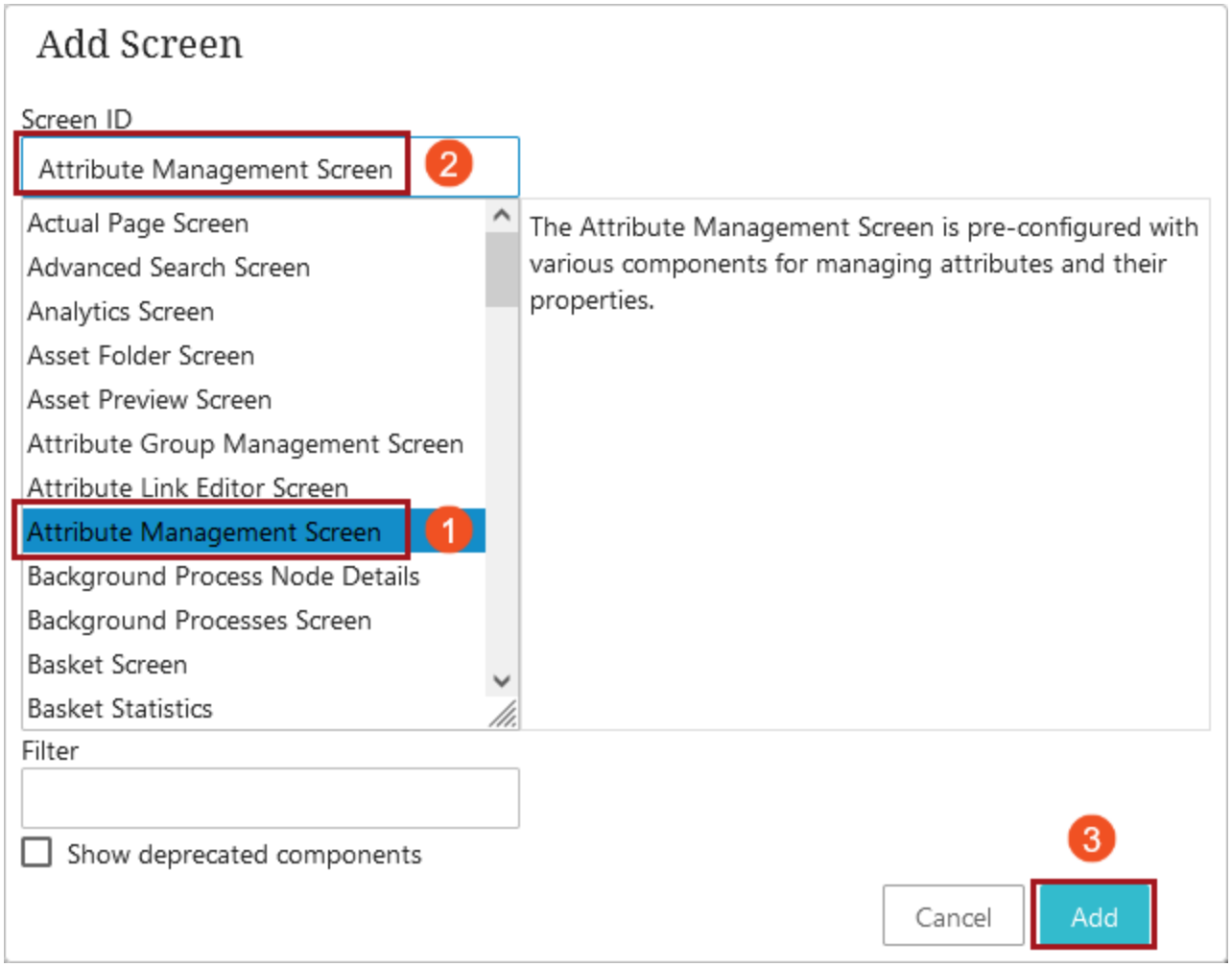
Before configuring the screen, it is assumed that the general configuration described in the **Attribute and LOV Creation and Maintenance in Web UI** section of the Web User Interfaces documentation has been completed.

To create the **Attribute Management screen**, follow the steps below.

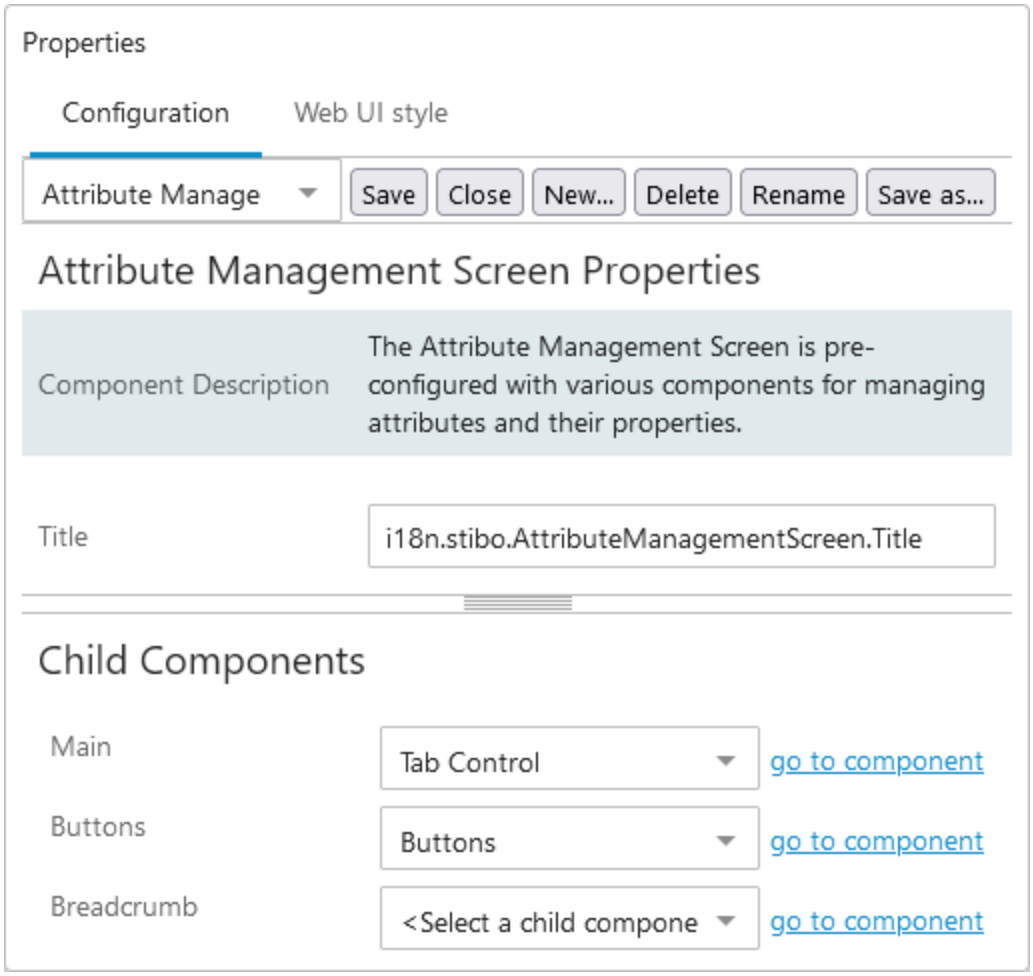
1. In the **Designer**, click the **New** button.



2. In the **Add screen** window, find **Attribute Management screen** in the list of screen names. Select it and then, in the **Screen ID** field, type the name you would like to give this screen in your Web UI. Unless there's a specific business need to change the name, it is simplest to copy the pre-configured screen name. Once the name's been added, click **Add**.



3. The screen comes pre-configured with the required child components, so additional configuration is not required.

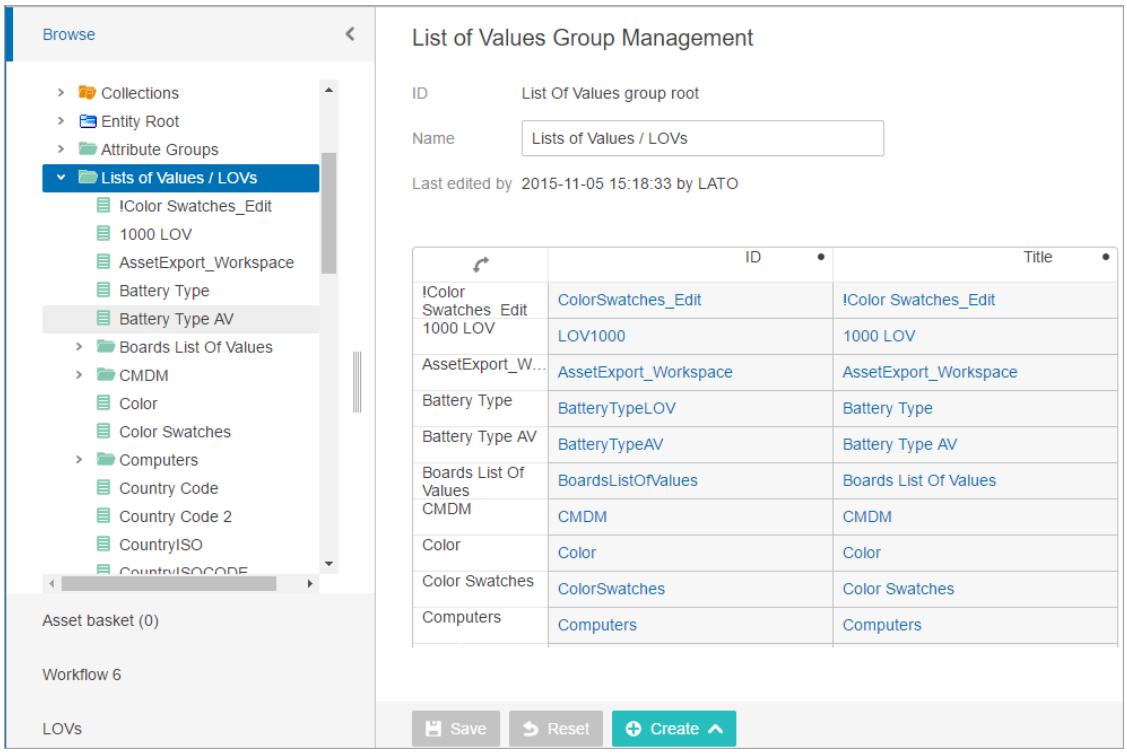


However, the screen is fully configurable and it is possible to add additional components, such as metadata attributes, using standard Web UI configuration options (e.g., addition and configuration of child components). Though possible, it is not recommended to remove the pre-configured components as it may compromise the user's ability to fully edit and maintain attributes.

4. Finally, as with all new screens, it must be mapped using the **Mappings** parameter in the **---[MAIN]---** dropdown in the Designer. The screen can be mapped using the **Object Type Condition** and selecting the **Attribute** node (under Basic Object Types > Attribute Group).

List of Values Group Management Screen

By using the **List of Values Group Management screen** in Web UI, users can create Lists of Values (LOVs) group and create and configure LOVs.

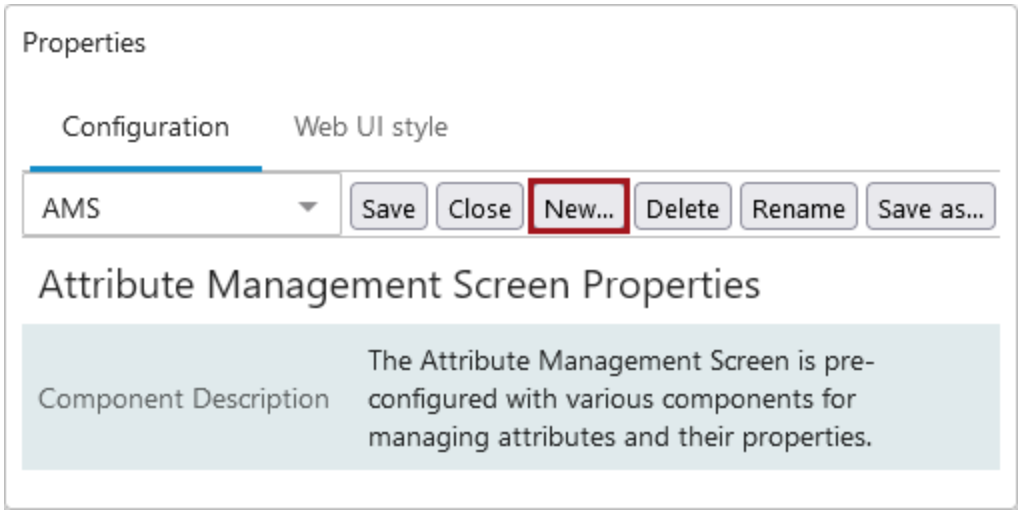


Configuring the List of Values Group Management screen

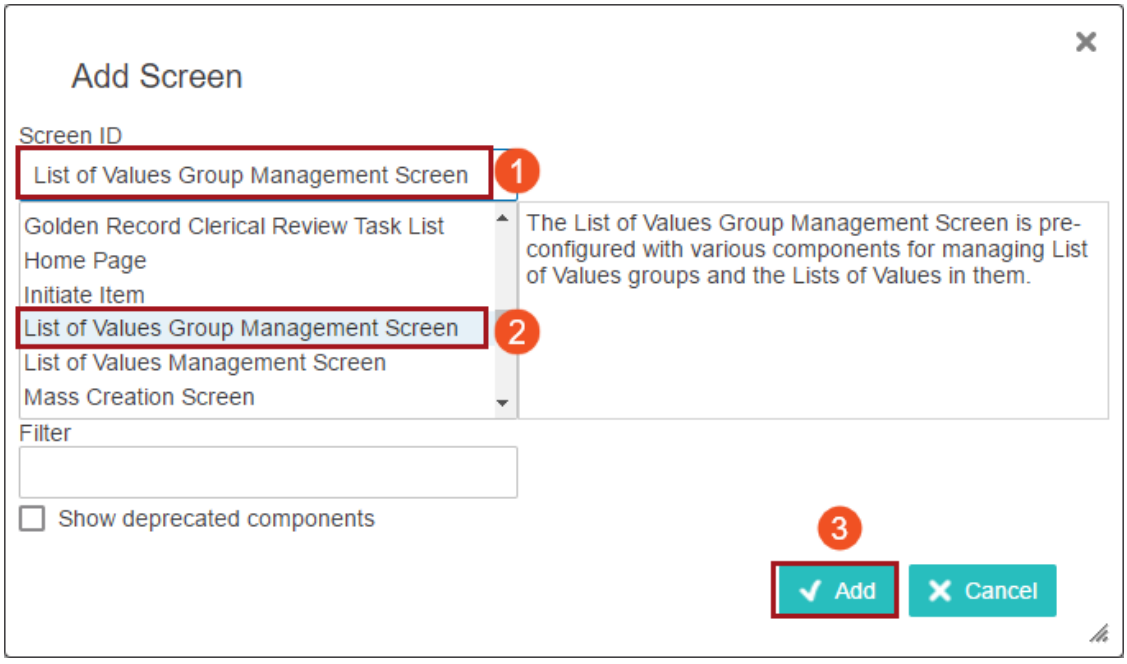
Before configuring the screen, it is assumed that the general configuration described in the **Attribute and LOV Creation and Maintenance in Web UI** section of the Web User Interfaces documentation has been completed so that users can access the screen via the Global Navigation Panel.

To create the **List of Values Group Management screen**, follow the steps below.

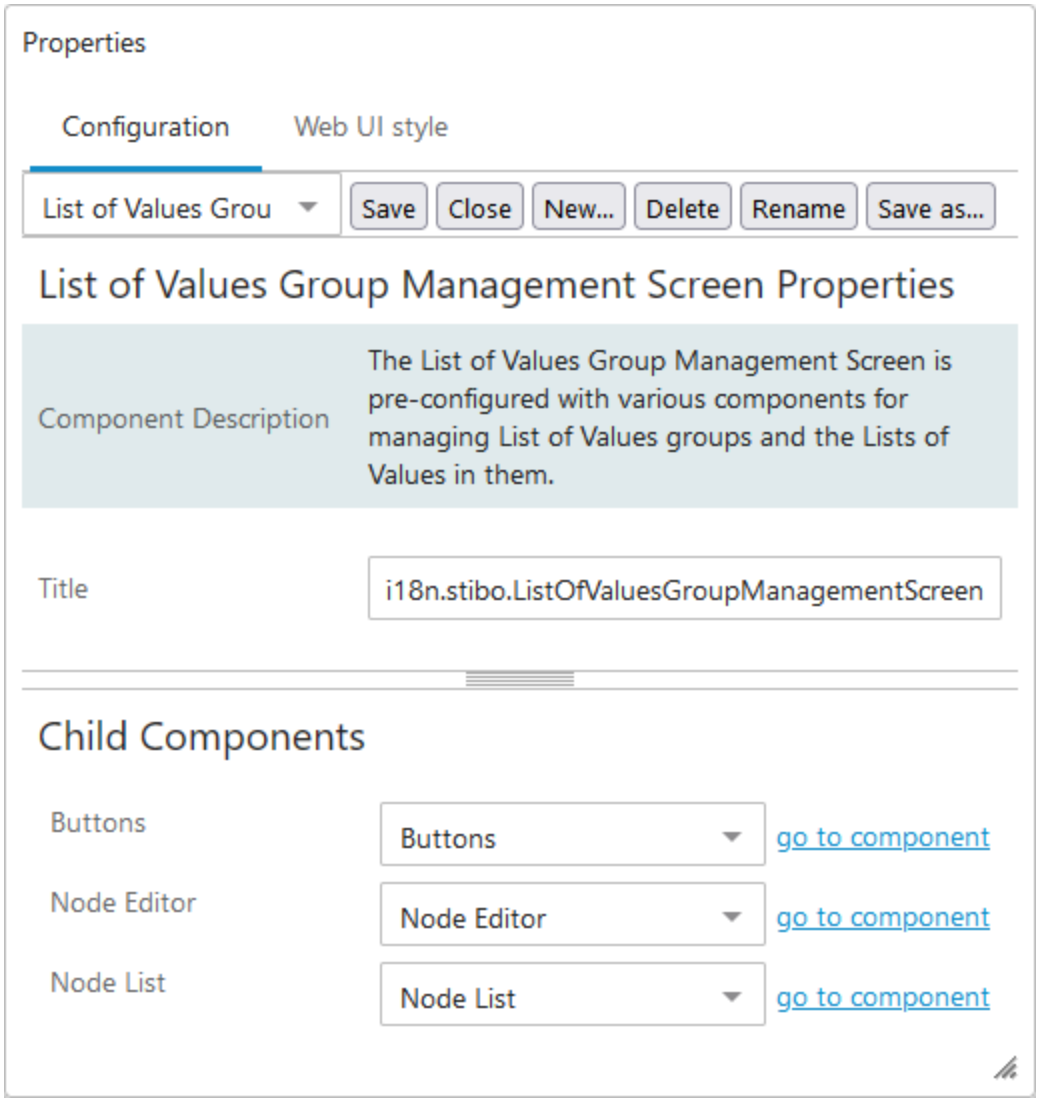
1. In the **Designer**, click the **New** button.



2. In the **Add screen** window, find **List of Values Group Management screen** in the list of screen names. Select it and then, in the **Screen ID** field, type the name you would like to give this screen in your Web UI. Unless there's a specific business need to change the name, it is simplest to copy the pre-configured screen name. Once the name's been added, click **Add**.



3. The screen comes pre-configured with all necessary child components so additional screen-specific configuration is not required.



However, as with all new screens, it must be mapped using the **Mappings** parameter in the **---[MAIN]---** dropdown in the Designer. The screen can be mapped using the **Object Type Condition** and selecting the **List Of Values Group Type** node (under Basic Object Types).

Using the List of Values Group Management screen

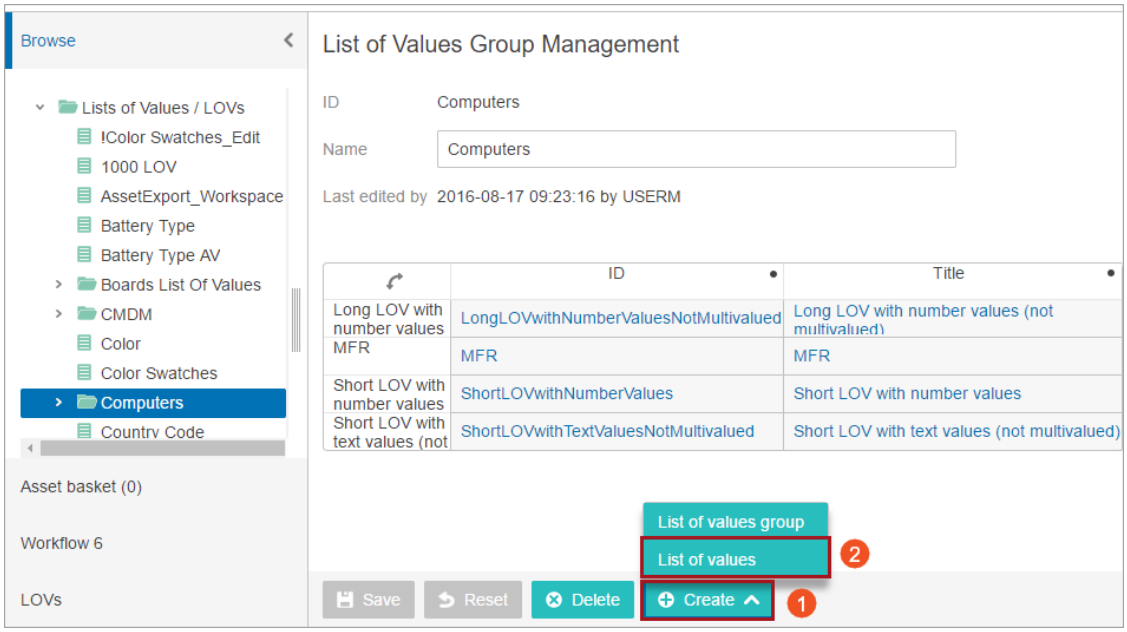
The following sections describe how to work with LOVs and LOV groups within the **List of Values Group Management screen**.

Creating Lists of Values

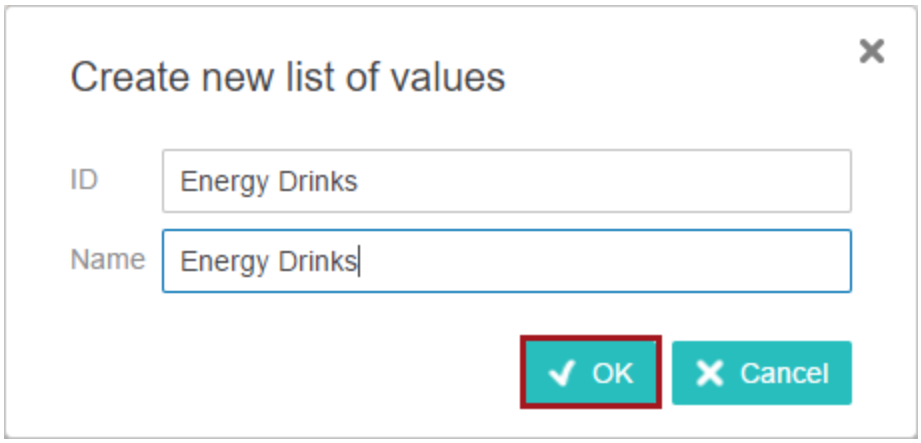
To create a new LOV in the **List of Values Group Management screen**, follow these steps:

1. In the **System Setup** tree (located in the left navigation **Global Navigation Panel**), select the LOV group into which you would like to add a new LOV. At the bottom of the **List of Values Group Management**

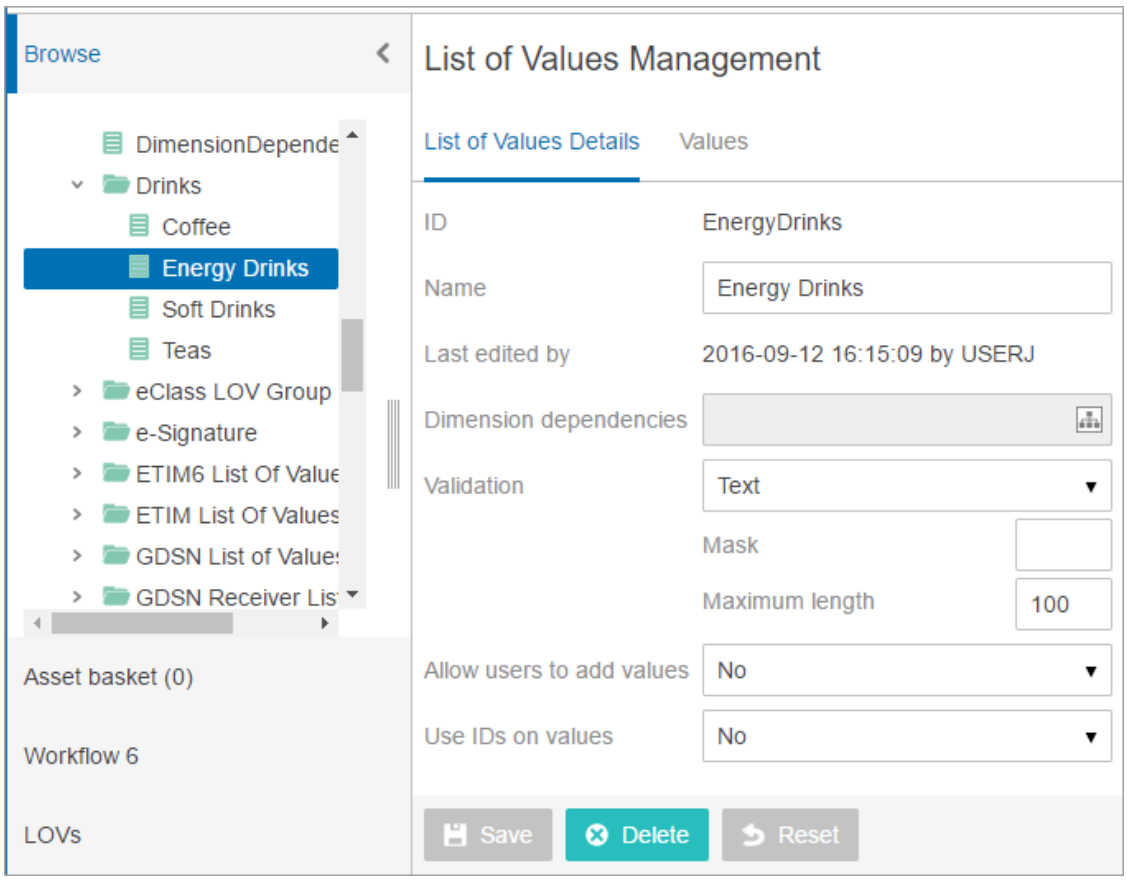
screen, click the **Create** button and then select **List of Values**.



2. In the **Create new list of values** window, add the **ID** and **Name** of the LOV and click **OK**. If no **Name** text is supplied, the value supplied for **ID** will automatically populate the **Name** field.



3. The **List of Values Management screen** will then display. This is where you will view and edit the newly created LOV.

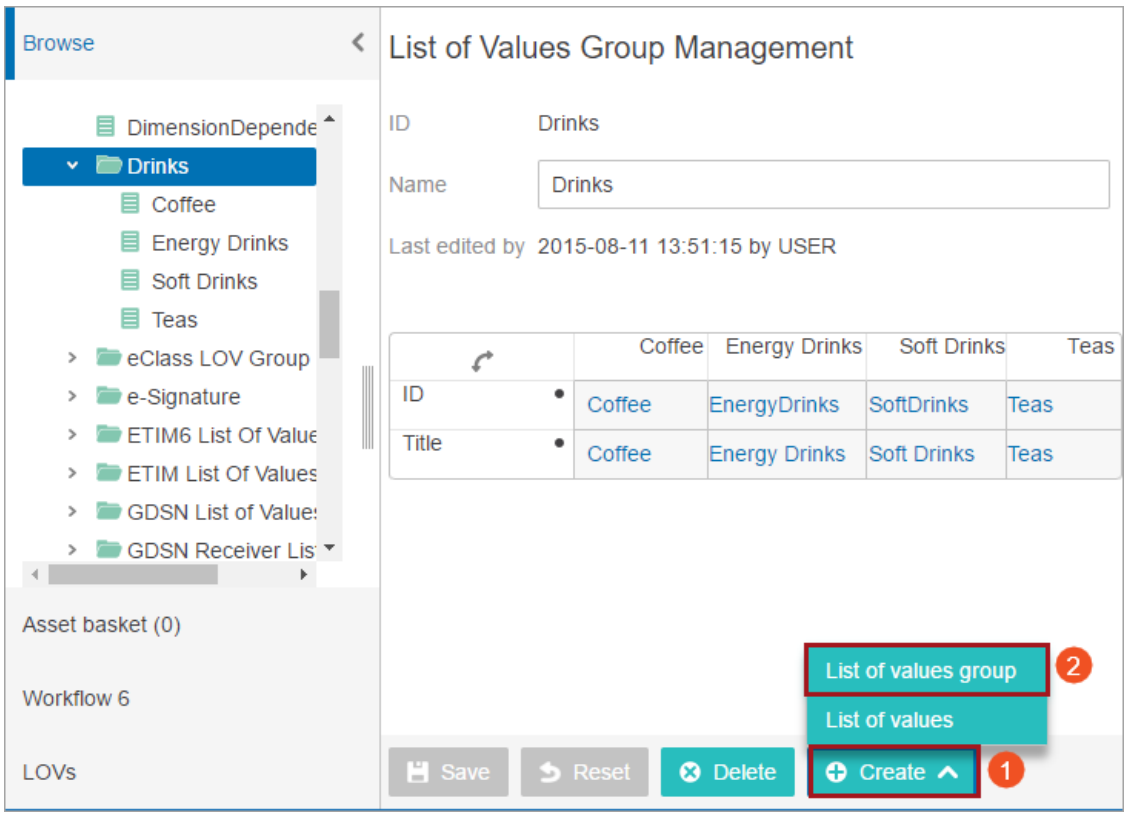


4. To edit and configure the LOV, follow the instructions outlined in the **List of Values Management screen** section of the **Web User Interfaces** documentation.

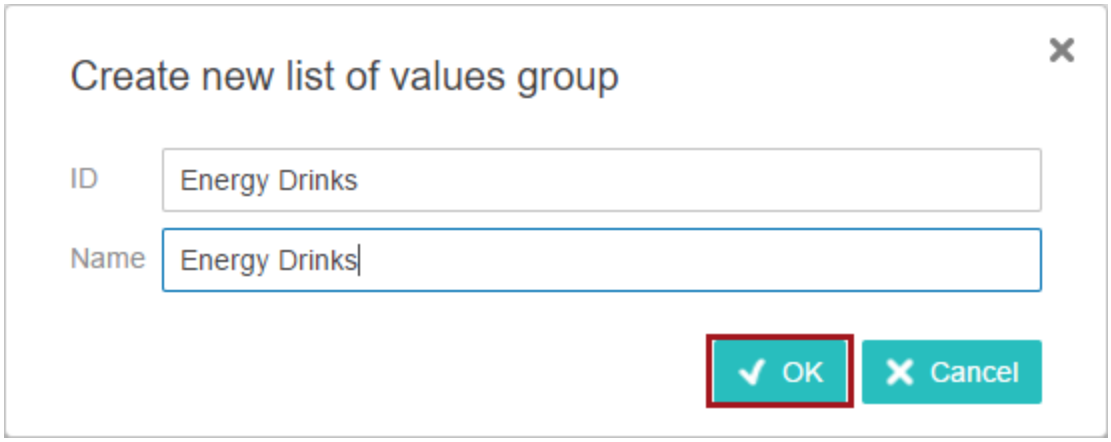
Creating List of Values Groups

To create a new LOV group in Web UI, follow these steps:

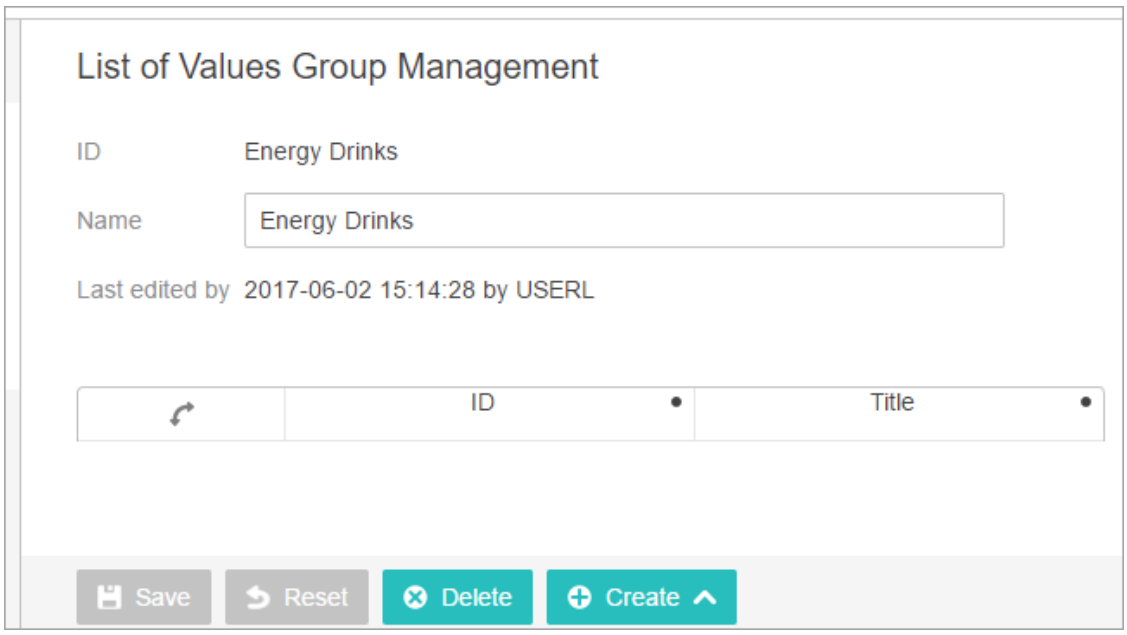
1. Select either the topmost level of the LOV group hierarchy (parent node) or another LOV group in which you would like to nest your new LOV group. Once selected, the **List of Values Group Management screen** will then display**.**
2. Click **Create** and then select **List of Values group**.



3. In the **Create new list of values group** window that then displays, add the desired **ID** and **Name** of the LOV group and click **OK**. As with creating LOVs, if no **Name** text is supplied, the value supplied for **ID** will automatically populate the **Name** field.



4. The new **List of Values group** is created.



Important: An LOV group can only be created as a child of a higher-level (parent) LOV group. An LOV group cannot be created when an LOV is selected.

Maintaining List of Values Groups

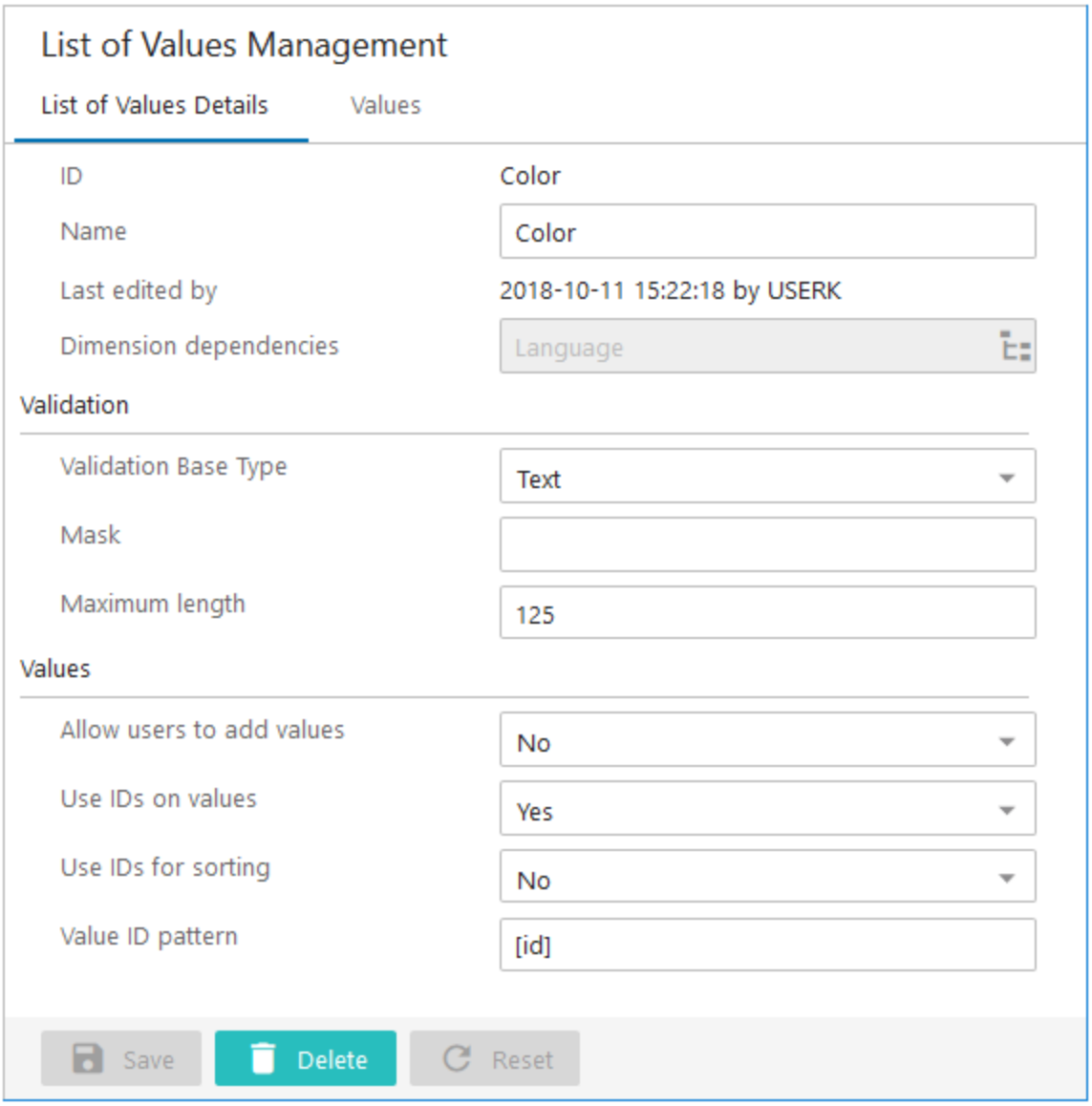
Users can edit and delete LOV groups while accessing the **List of Values Group Management screen**:

- **Edit:** To edit the name of the LOV group, make the required changes to the text in the **Name** field and then click the Save button.
- **Delete:** To delete an LOV group, select the LOV group to be deleted in the left navigation area, and then click the Delete button.

Important: Only empty LOV groups can be deleted. LOV groups that contain LOVs cannot be deleted until the child LOVs have been deleted or moved into another LOV group.

List of Values Management Screen

The **List of Values Management screen** enables users to edit and configure new and existing Lists of Values (LOVs), as well as add, edit, and delete LOV values in all configured contexts.

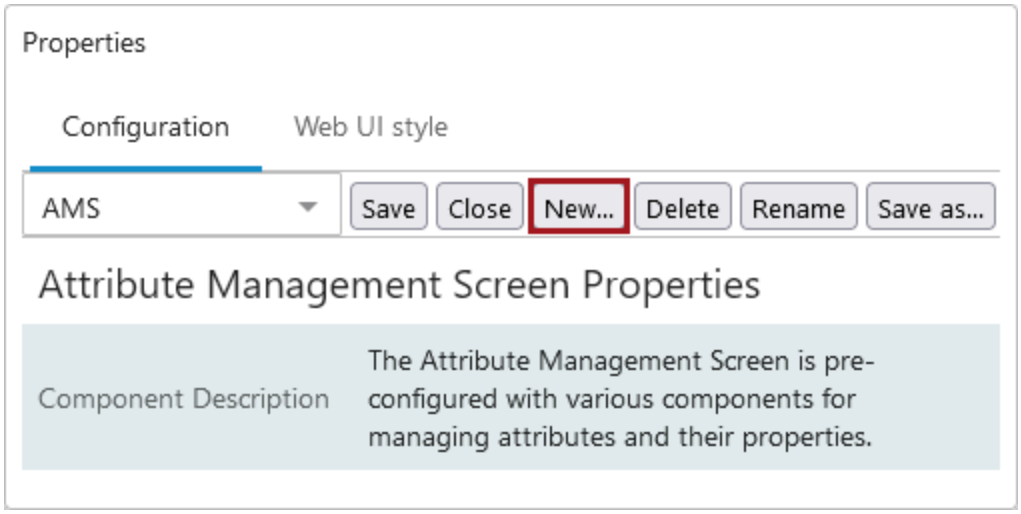


Configuring the List of Values Management screen

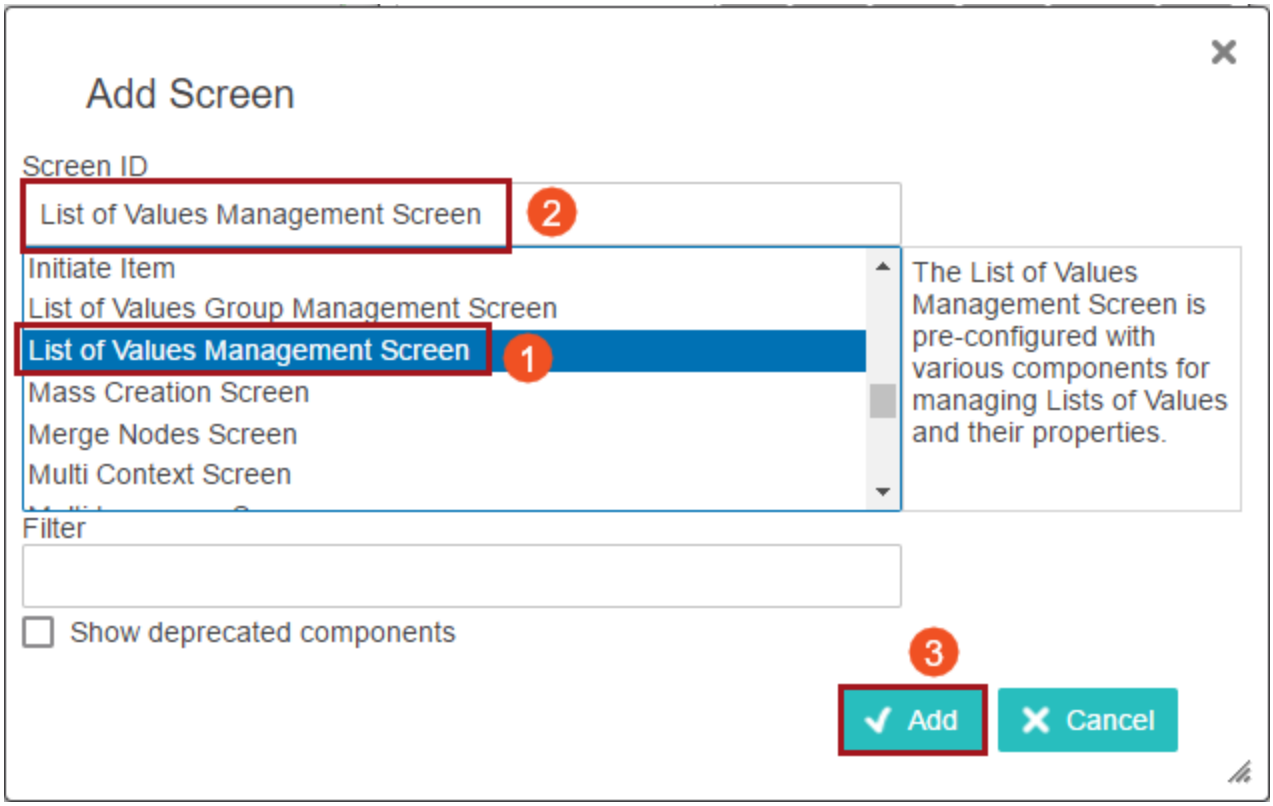
Before configuring the **List of Values Management screen**, it is assumed that the general configuration described in the **Attribute and LOV Creation and Maintenance in Web UI** section of the Web User Interfaces documentation has been completed so that users can access the screen via a Tree Navigator component within a Global Navigation Panel.

To create the **List of Values Management screen**, follow the steps below.

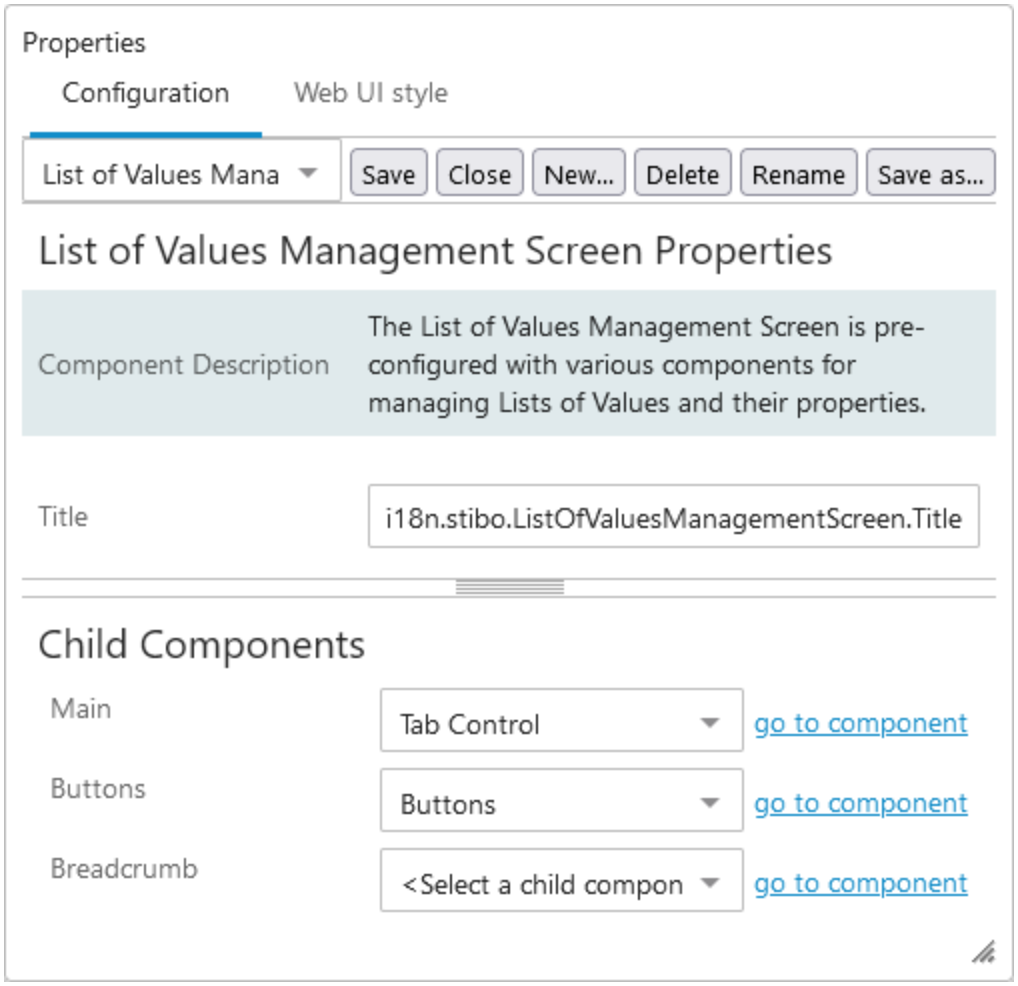
1. In the **Designer**, click the **New** button.



2. In the **Add screen** window, find **List of Values Management screen** in the list of screen names. Select it and then, in the **Screen ID** field, type the name that should display when choosing screens in the designer. Once the 'Screen ID' text has been entered, click **Add**.



3. The screen comes pre-configured with all necessary child components so additional screen-specific configuration is not required.

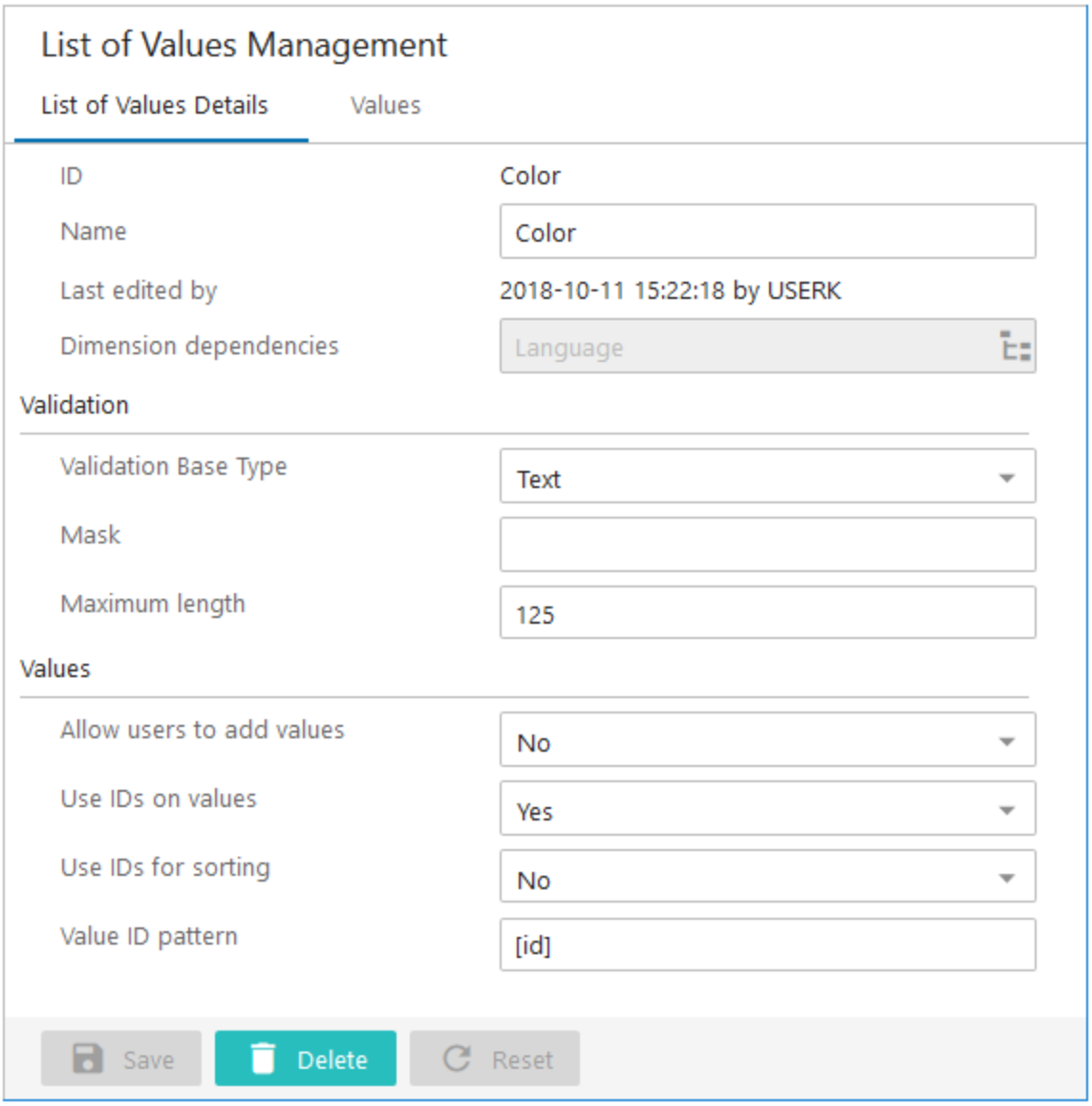


As with all new screens, the **List of Values Management screen** must be mapped using the **Mappings** parameter in the **---[MAIN]---** dropdown in the designer. For more information on mapping screens in the Web UI, refer to the **Mappings** topic in the **Web User Interfaces** documentation.

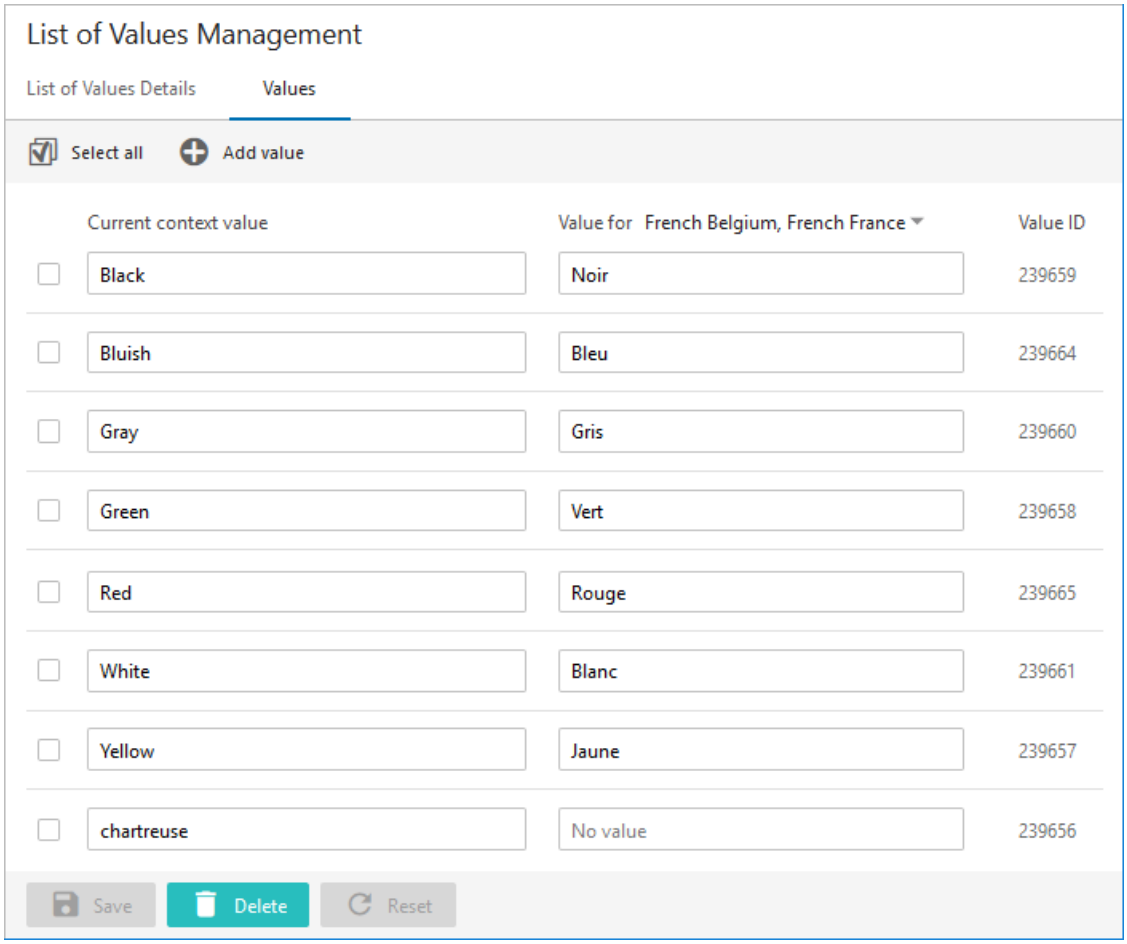
Using the List of Values Management screen

Two tabs display on the **List of Values Management screen**: **List of Values Details** and **Values**.

1. **List of Values Details tab**: On this tab, the user is able to edit and configure an LOV's settings. The parameters shown in the screenshot below represent the same LOV settings found on LOVs in the workbench. For information about creating LOVs and configuring the settings shown in this tab, refer to the **Creating an LOV** topic in the **System Setup** documentation.

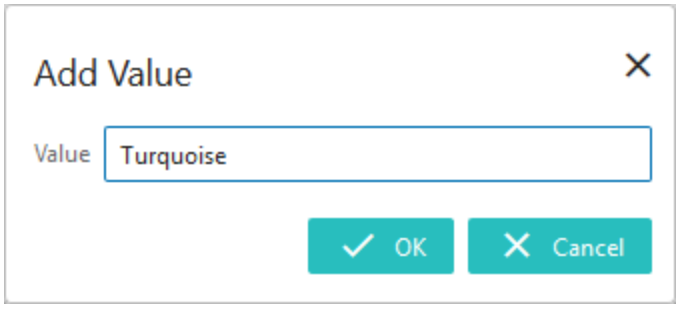


2. **Values tab**: On this tab users can manage an LOV's values in all contexts. Users can add, delete, and edit values on an LOV in the current context and one other context.

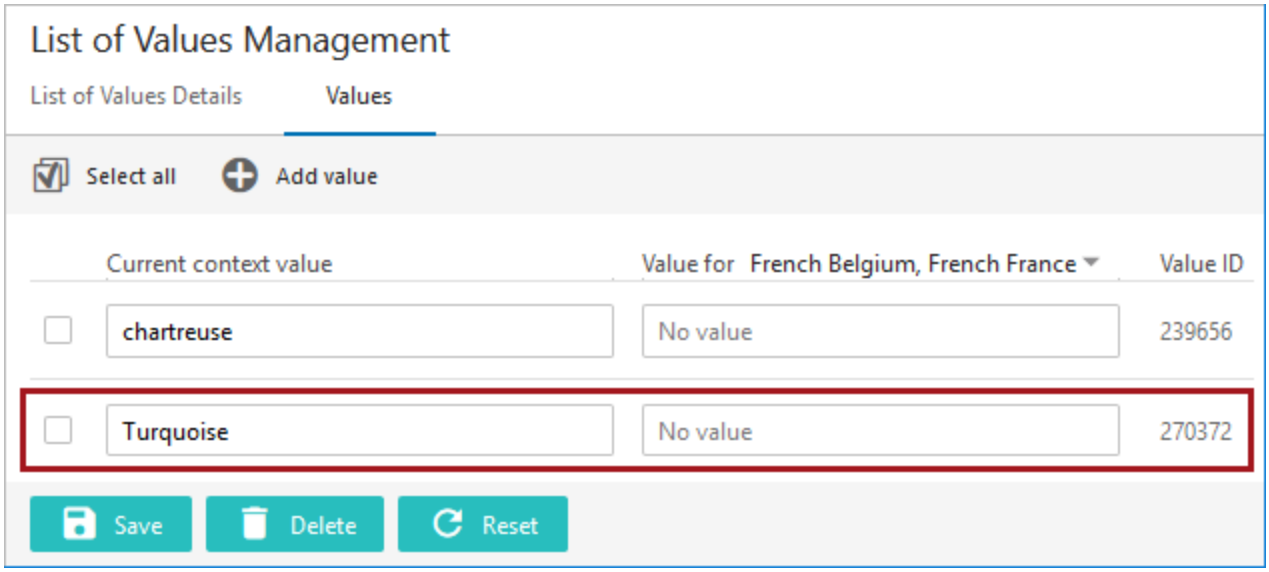


Add Value Action

1. Click on the 'Add value' action in the Values tab.
2. In the 'Add Value' dialog that displays, enter the desired LOV value and click 'OK'.



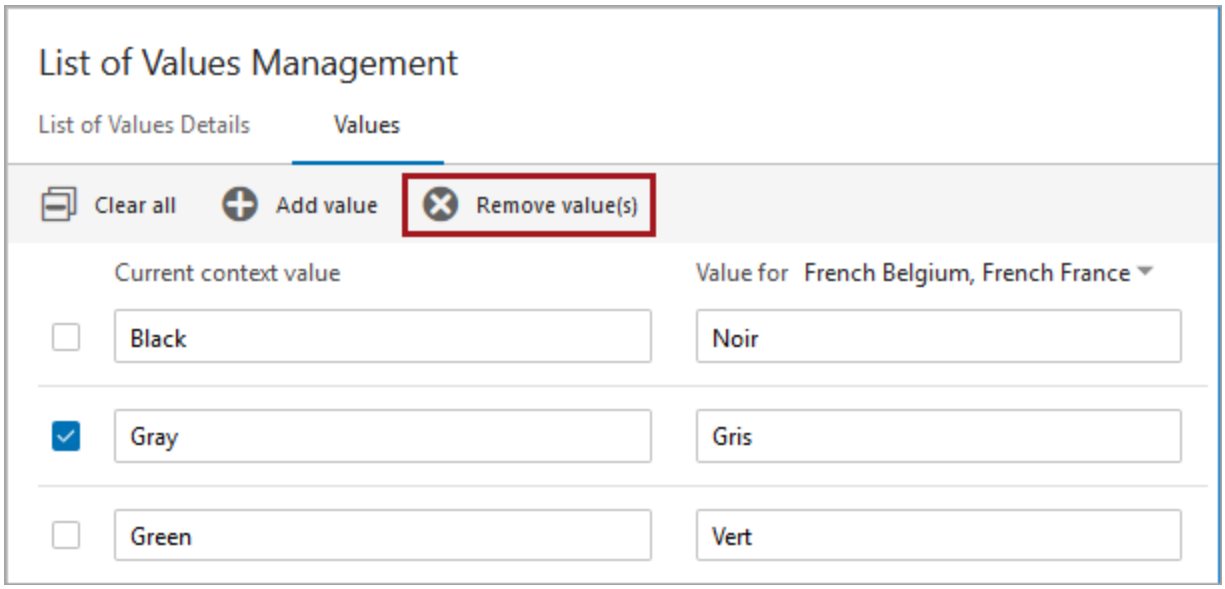
The value is added to the LOV.



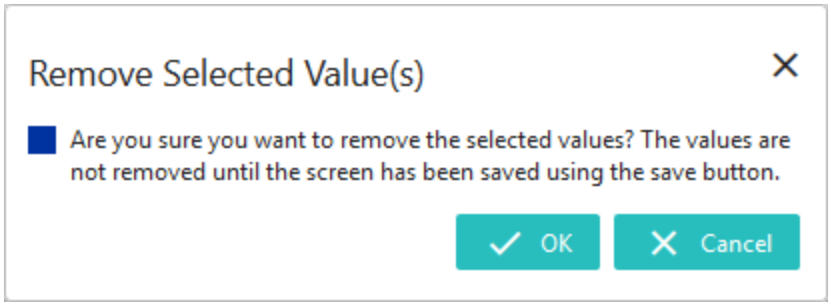
Note: If the 'Use IDs on values' option under the List of Values Details tab is enabled and set with a Value ID pattern, then an ID will be automatically added to the newly created value.

Remove value(s) action

The 'Remove value(s)' action is enabled when one or more LOV values are selected.



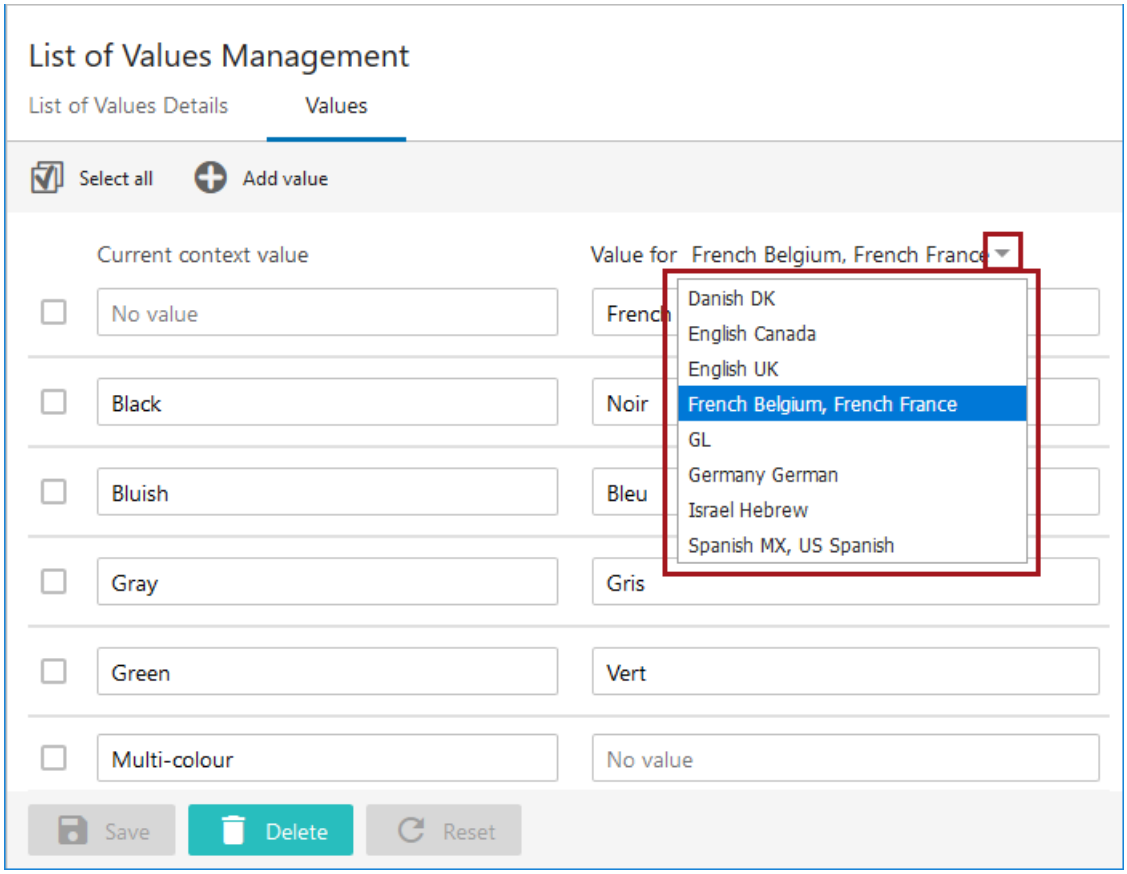
Once the 'Remove value(s)' action is clicked, a confirmation dialog will display. Click 'OK' to complete removal of the selected values.



Switching contexts

The List of Values Management screen's 'Values' tab supports management of an LOV's values in all configured contexts. The current context is displayed on the left column, and the selectable context is displayed in the right column. If the LOV is not dimension-dependent, only the left column will display.

At the top of the selectable context column is a dropdown. When engaged, all configured contexts are displayed in the dropdown. When a context is selected, the LOV values for the selected context will display. A field for each value shown in the current context will display. If the values are populated for the chosen context, those values will display. If empty, 'No value' will display in gray text in the field. To add or edit values in these fields, users can type the values directly into the field.



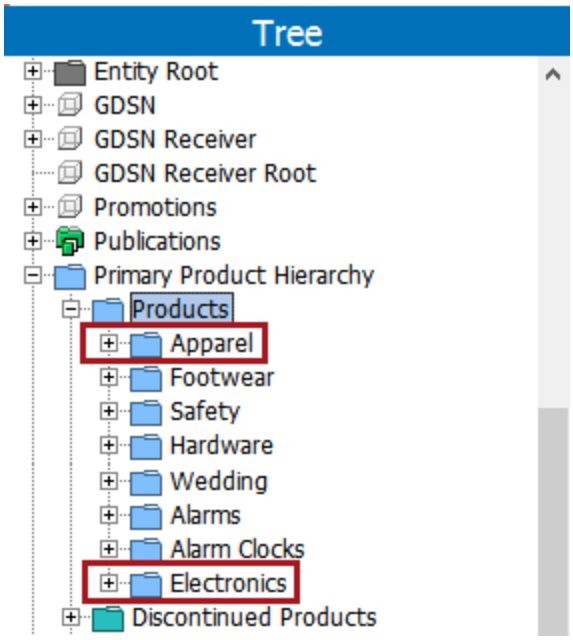
Important: In the right-hand 'Value for' column that displays the LOV for the second context, if a context is being viewed in which the LOV values do not reside natively on that context, but are instead inherited from a parent context, the fields will display with 'No value'. This is to provide the user with precise information with respect to which context the LOV values truly reside on.

For more information on creating and maintaining LOVs, refer to the **Creating an LOV** section of the **System Setup** documentation.

Attribute Link Editor Screen

The Attribute Link Editor screen provides users with a centralized view of information about attributes linked to a given object. One of the screen's primary uses is that it provides a view of all attributes under a parent object so that users may easily determine which are correctly linked into that position in the hierarchy, and which might be better linked elsewhere.

For example, looking at the Tree, let us say the attribute 'Battery size' is linked in the hierarchy to a parent object called Products, and made valid for the Sales Item object type. There are two child objects beneath Products called **Apparel** and **Electronics**.



Because the attribute 'Battery Size' is linked to Products, it will show on all Sales Items nested under Products. This means that 'Battery Size' will appear not only on all Sales Items under **Electronics**, but also on all Sales Items under **Apparel**, which would result in t-shirt products, for example, having 'Battery Size' listed among its attributes. Because it is not useful to have 'Battery Size' on Apparel Sales Items, a user may elect to use the functionality available in the Attribute Link Editor screen to unlink 'Battery Size' from **Products** and then link it directly to **Electronics**.

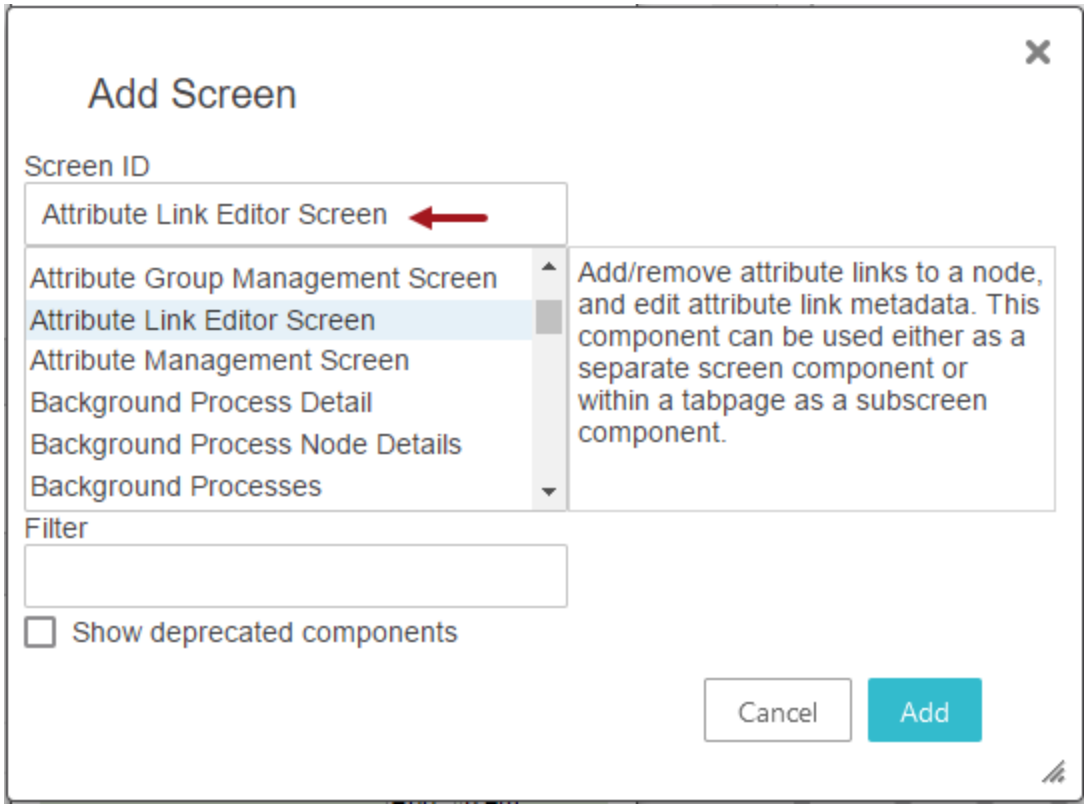
Topics on how best to configure this screen in Web UI and how an end user might use this screen are located in the **Configuring the Attribute Link Editor Screen** documentation and the **Editing Attribute Links in Web UI** documentation.

Configuring the Attribute Link Editor Screen

The Attribute Link Editor screen allows users to view, add, edit, and delete attribute links in Web UI. Configuration of this screen enables users to determine which metadata attributes are linked to the attributes on a given object, which buttons should display on the screen, and whether the screen should be read only for end users. The steps required to configure this screen are described in detail below.

Creating a New Attribute Link Editor Screen

Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Select 'Attribute Link Editor Screen' as the screen type (shown in the screenshot below).



At this point, either close the designer and configure the screen at a later time, or continue on with the steps in the next section.

Adding the Attribute Link Editor as a Sub Screen Tab

As with any screen, the Attribute Link Editor screen must be mapped appropriately in Main Properties > Mappings to enable end users to access the screen. As an alternative to mapping, the Attribute Link Editor screen can be added as a Sub Screen Tab Page on a Node Details screen. The Attribute Link Editor screen is particularly useful when linked to parent nodes in the blue (Product) hierarchy, as shown in the examples within this topic.

For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about sub screen tab pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

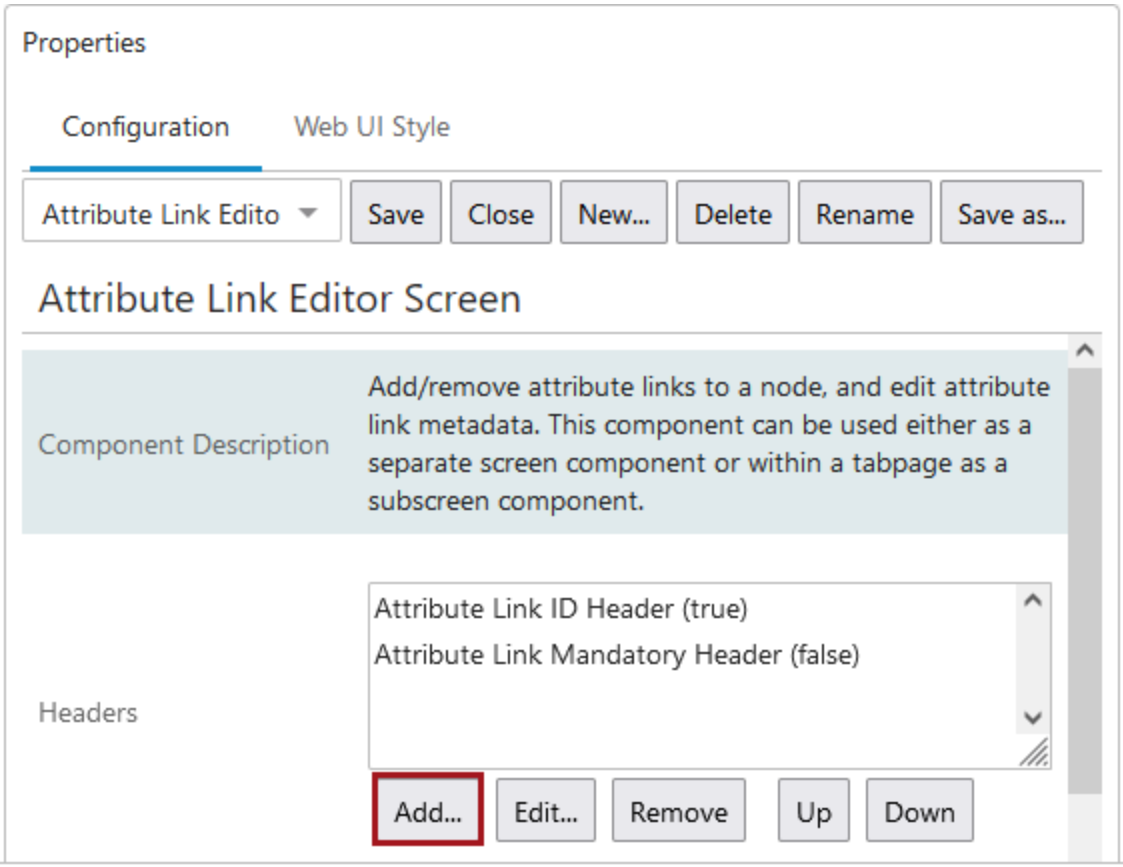
Configuring the Attribute Link Editor screen

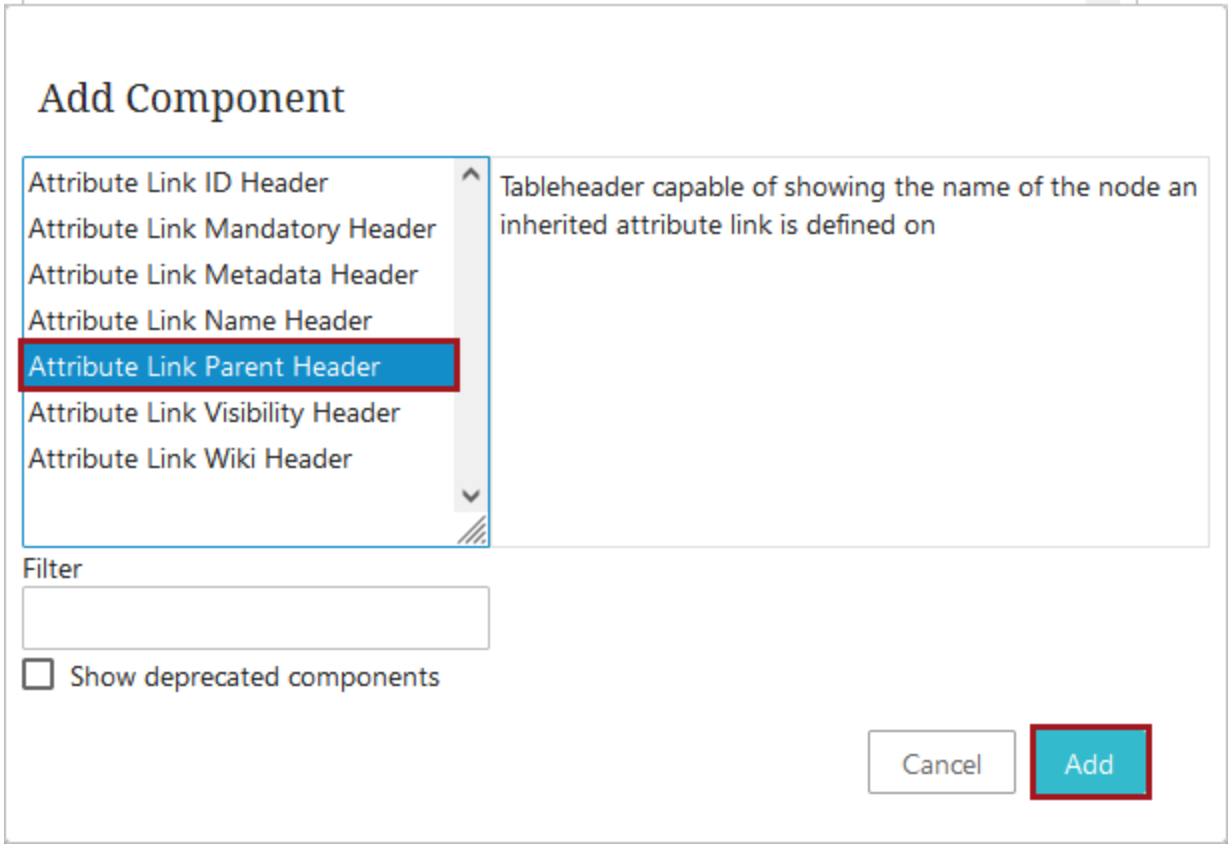
After adding the Attribute Link Editor as a sub screen tab page, the user can configure the Attribute Link Editor screen so that it will display according to the administrator's preferences. In this section of the guidance, we will touch on each configuration option available for this screen in the order they appear in the designer.

Determining the Metadata Attribute Columns

In the **Headers** field, users can determine which metadata attributes should appear alongside the attributes on an object.

Clicking the **Add...** button displays the Add Component dialog, which includes all the description attribute columns users can add to an Attribute Link Editor screen. Adding these columns can show users specific information about the attributes linked to the selected object.


Properties
Configuration
Web UI Style
Attribute Link Edito
Save
Close
New...
Delete
Rename
Save as...
Attribute Link Editor Screen
Component Description
Add/remove attribute links to a node, and edit attribute link metadata. This component can be used either as a separate screen component or within a tabpage as a subscreen component.
Headers
Attribute Link ID Header (true)
Attribute Link Mandatory Header (false)
Add...
Edit...
Remove
Up
Down

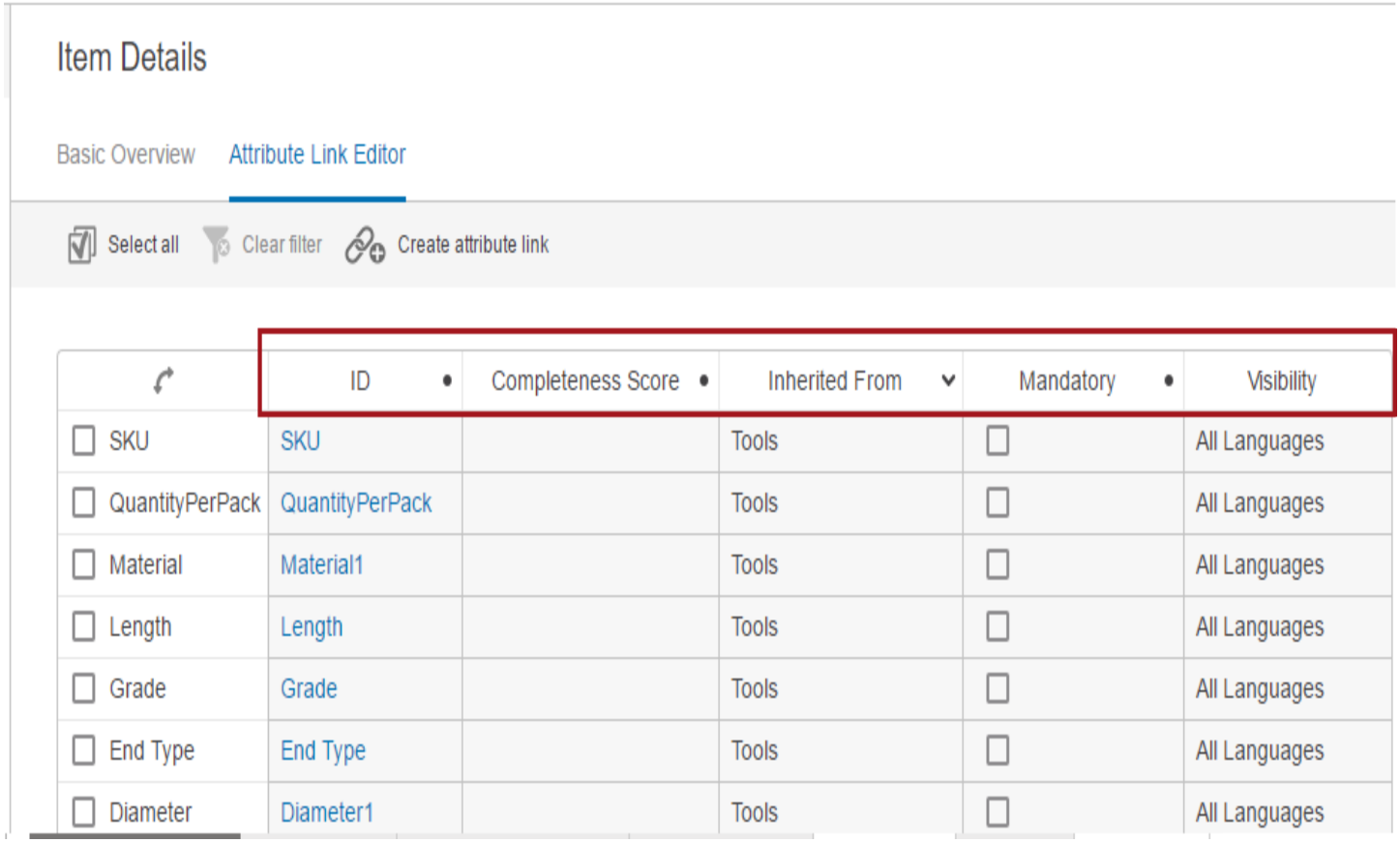

Add Component
Attribute Link ID Header
Attribute Link Mandatory Header
Attribute Link Metadata Header
Attribute Link Name Header
Attribute Link Parent Header
Attribute Link Visibility Header
Attribute Link Wiki Header
Tableheader capable of showing the name of the node an inherited attribute link is defined on
Filter
Show deprecated components
Cancel
Add

Each description attribute that displays in the table is, to a variable degree, configurable. For instance, all table headers can be changed to suit the administrator's preference. To configure the table headers, double click the relevant header listed in the Header field, and replace the default text in the Label field with the preferred text.

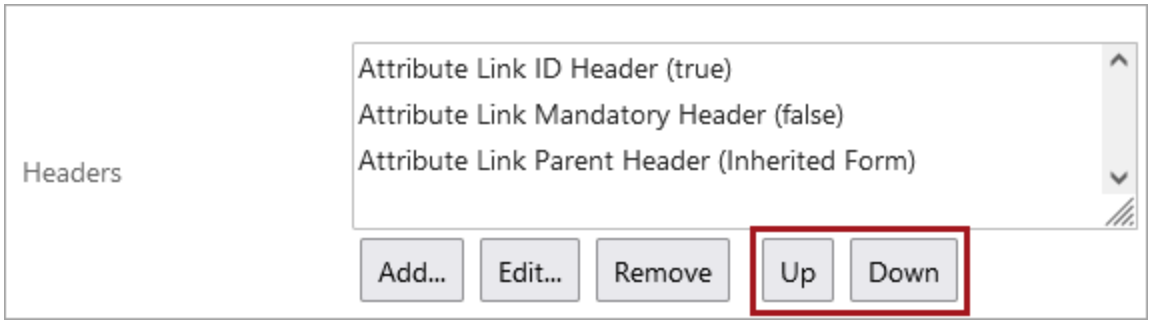
These are the description attributes (referred to below as headers) that you can add to the table in the Attribute Link Editor screen:

- Attribute Link ID Header – will display the STEP ID for the linked attribute.
- Attribute Link Mandatory Header – will display whether the linked attribute has been set to Mandatory. This header can be configured so that data appearing under this header can be set as Read Only, or it can be set so that users may adjust whether an attribute is mandatory or not.
- Attribute Link Metadata Header – enables the user to select any suitable description attribute to link to the object. In the Attribute Link Metadata Header Properties window that displays when you edit this column, the user can either search or browse the available attributes to identify the attribute to be linked. Some users may find it useful to create a series of customized metadata headers, each linking a specific attribute.
- Attribute Link Name Header – will display the name of the attribute linked to the selected object.
- Attribute Link Parent Header – will display the node in the hierarchy to which the attribute has been linked. If this cell has content, that means the attribute has been linked through inheritance into the selected object. If the cell is blank, that means that the attribute is linked directly to the selected object.
- Attribute Link Visibility Header – will display which contexts that attribute has been made visible for.
- Attribute Link Wiki Header – will display the information icon which can include the 'Go to Wiki' link.

If the user elects to add these columns, then the Attribute Link Editor screen might appear like this:



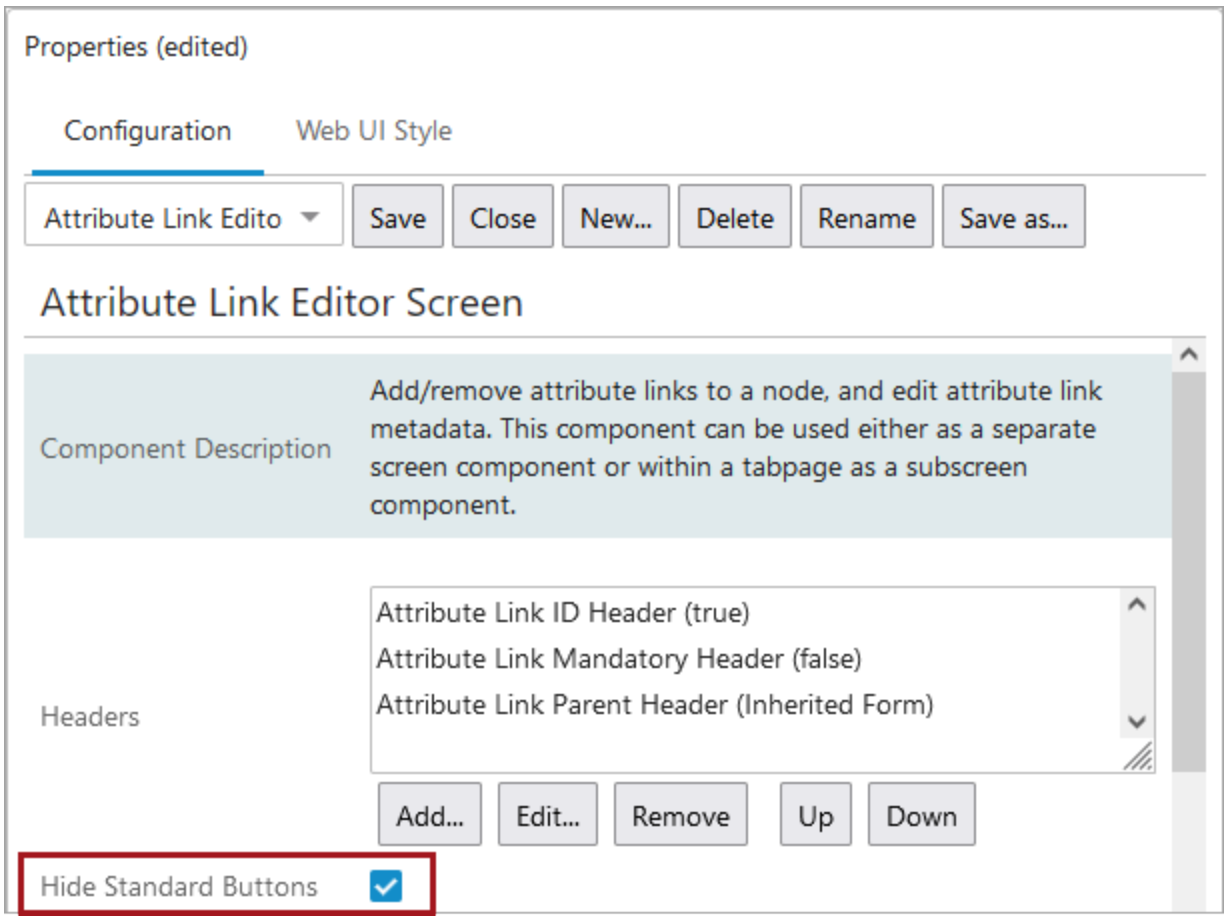
The columns will appear in the order in which the user adds them. The user may change the ordering by selecting the header in the designer and then moving the header up or down in the list using the **Up** and **Down** buttons.



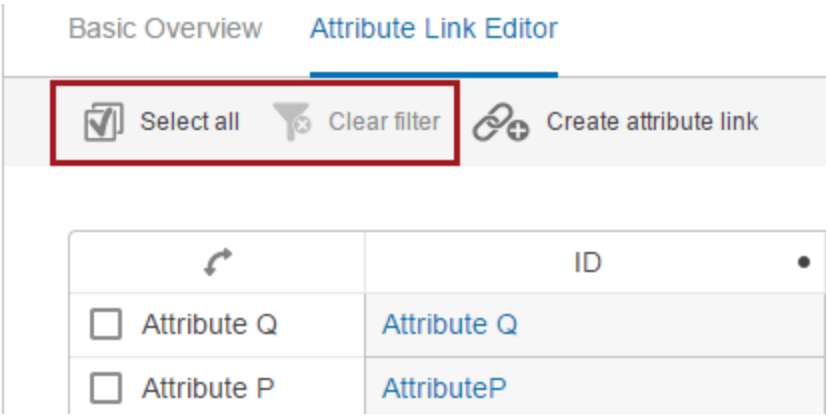
Important: Default properties for this screen, like toolbar actions and preset columns, will be applied to this screen to achieve two goals: one, to closely align the functionality with previous versions to aid backward compatibility, and two, to provide a starter configuration that can be easily adjusted to suit the customer's needs.

Configuring display of standard buttons

Checking the **Hide Standard Buttons** box will hide the Select all / Clear all button and the Clear filter / Apply filter buttons.



Leaving this box unchecked, as it is by default, means that the standard buttons will display to the upper left of the table.

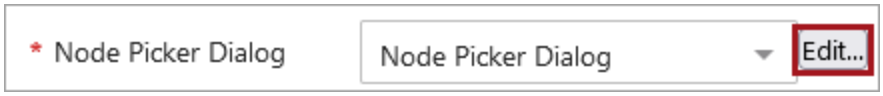


Configuration of Node Picker

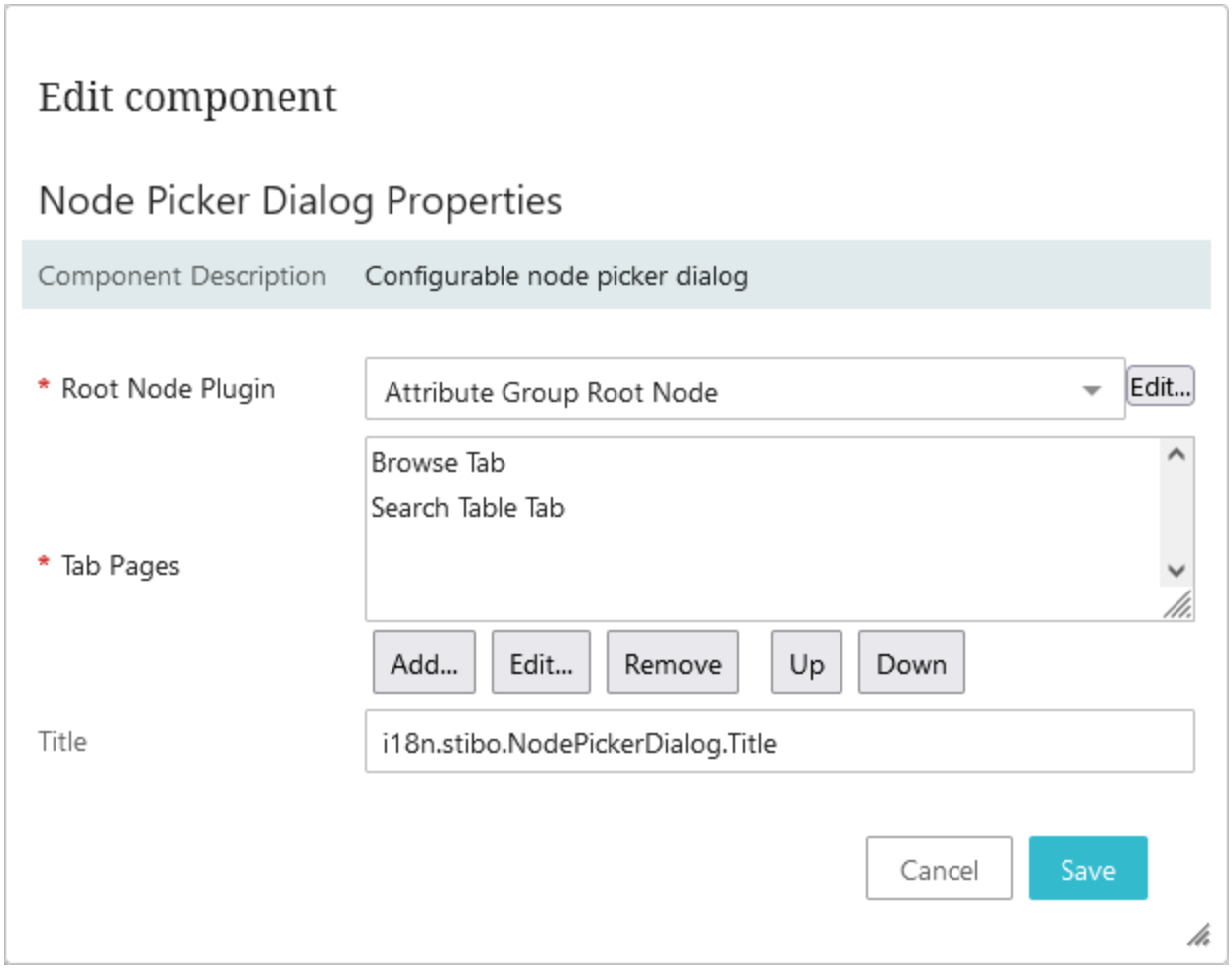
The Attribute Link Editor screen allows users to create a new attribute link on an object. For instance, it may be useful to link the attribute 'Battery Size' to the object Electronics. Doing so will cause the attribute to appear not only on Electronics, but on all objects that are children to Electronics.

The Node Picker Dialog field in the designer allows the user to configure the window that displays when a user working in the Attribute Link Editor screen clicks the **Create attribute link** button. Clicking this button allows the user to locate, either through a browse or search function, the attribute to which they want to link.

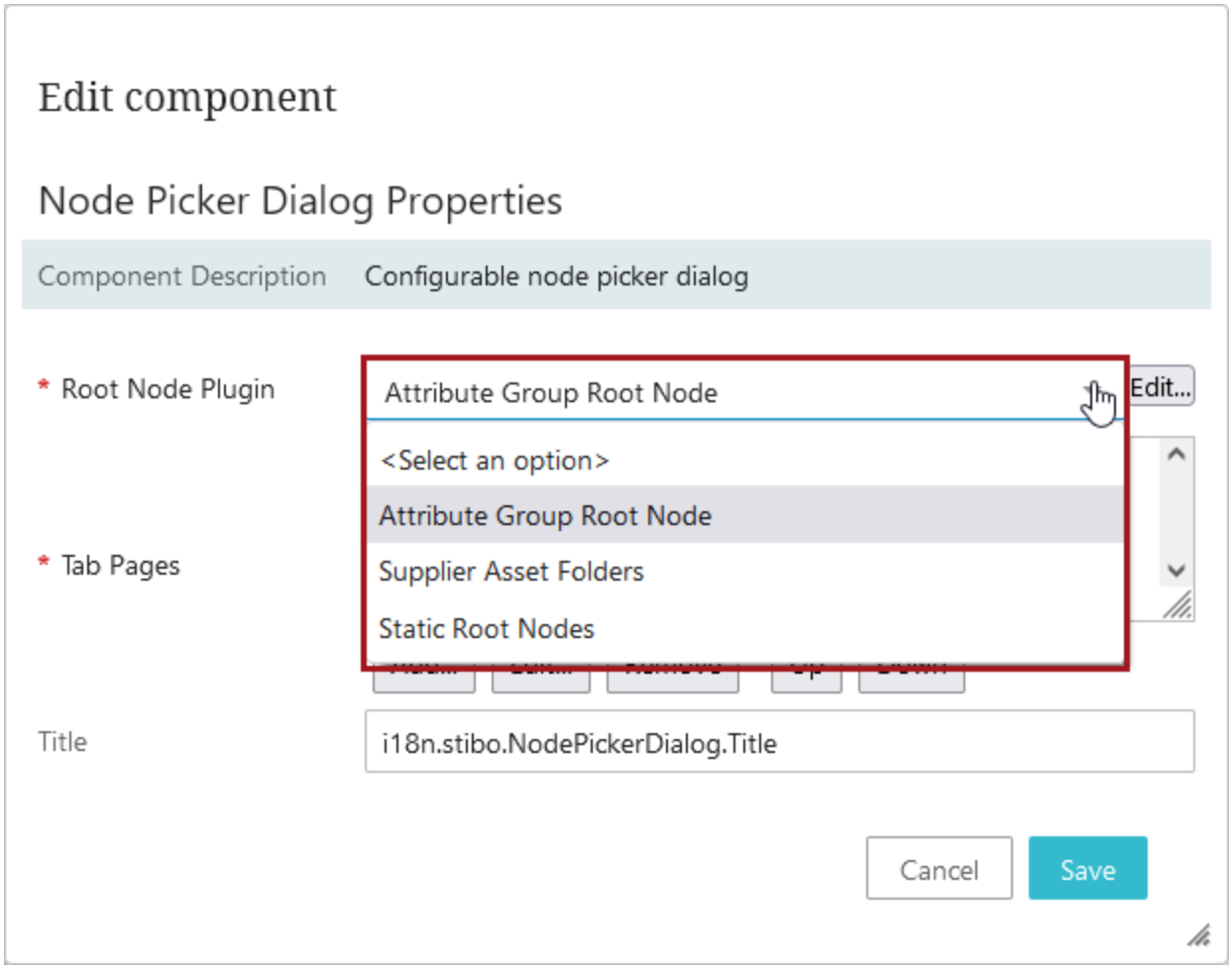
The Node Picker comes pre-configured but allows for additional changes. To configure the Node Picker, click the **Edit...** button beside the **Node Picker Dialog** field.



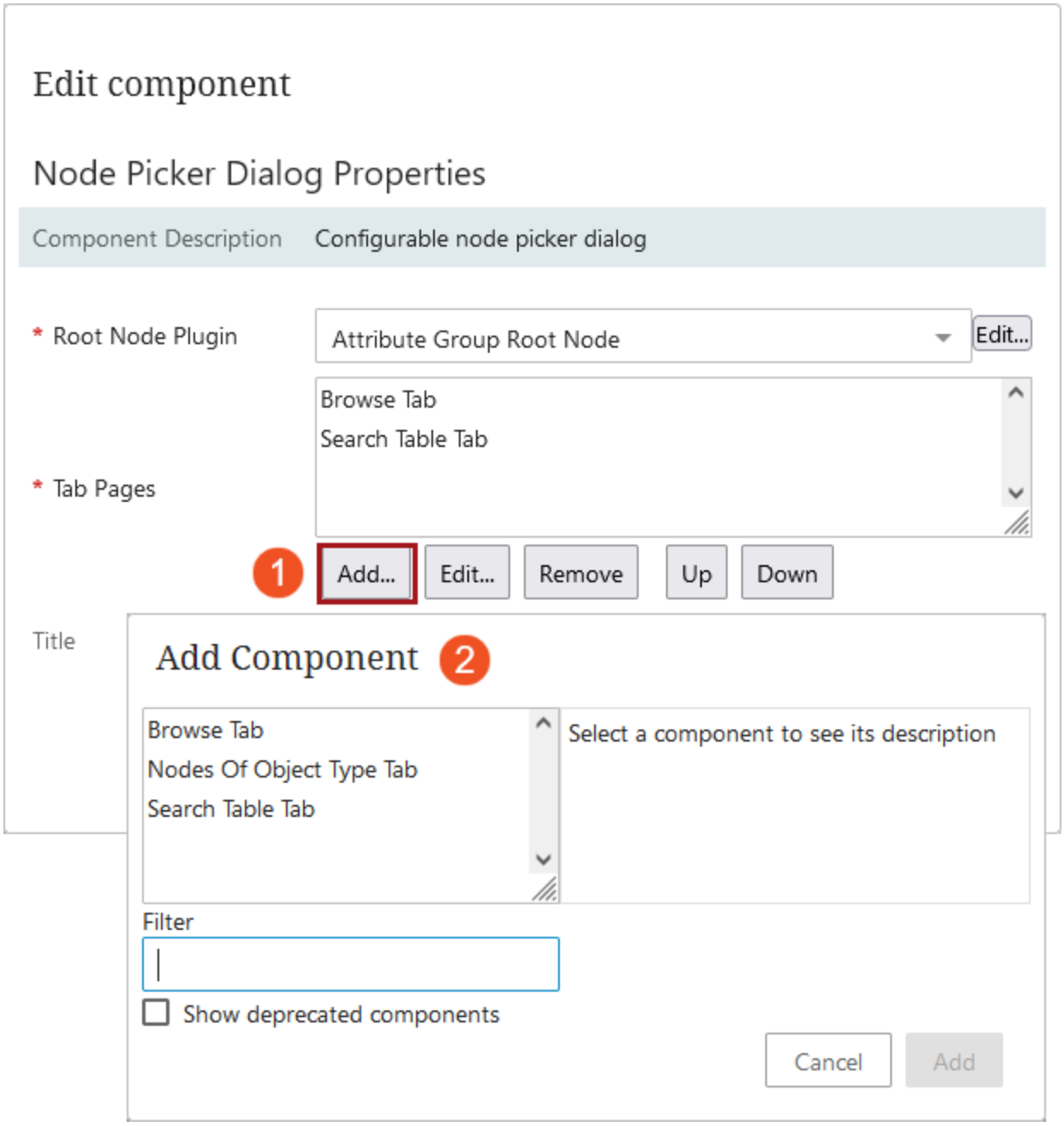
The Node Picker Dialog Properties window allows users to configure where the attributes can be selected (**Root Node Plugin**), and which methods the user may use to locate those attributes (**Tab Pages**).



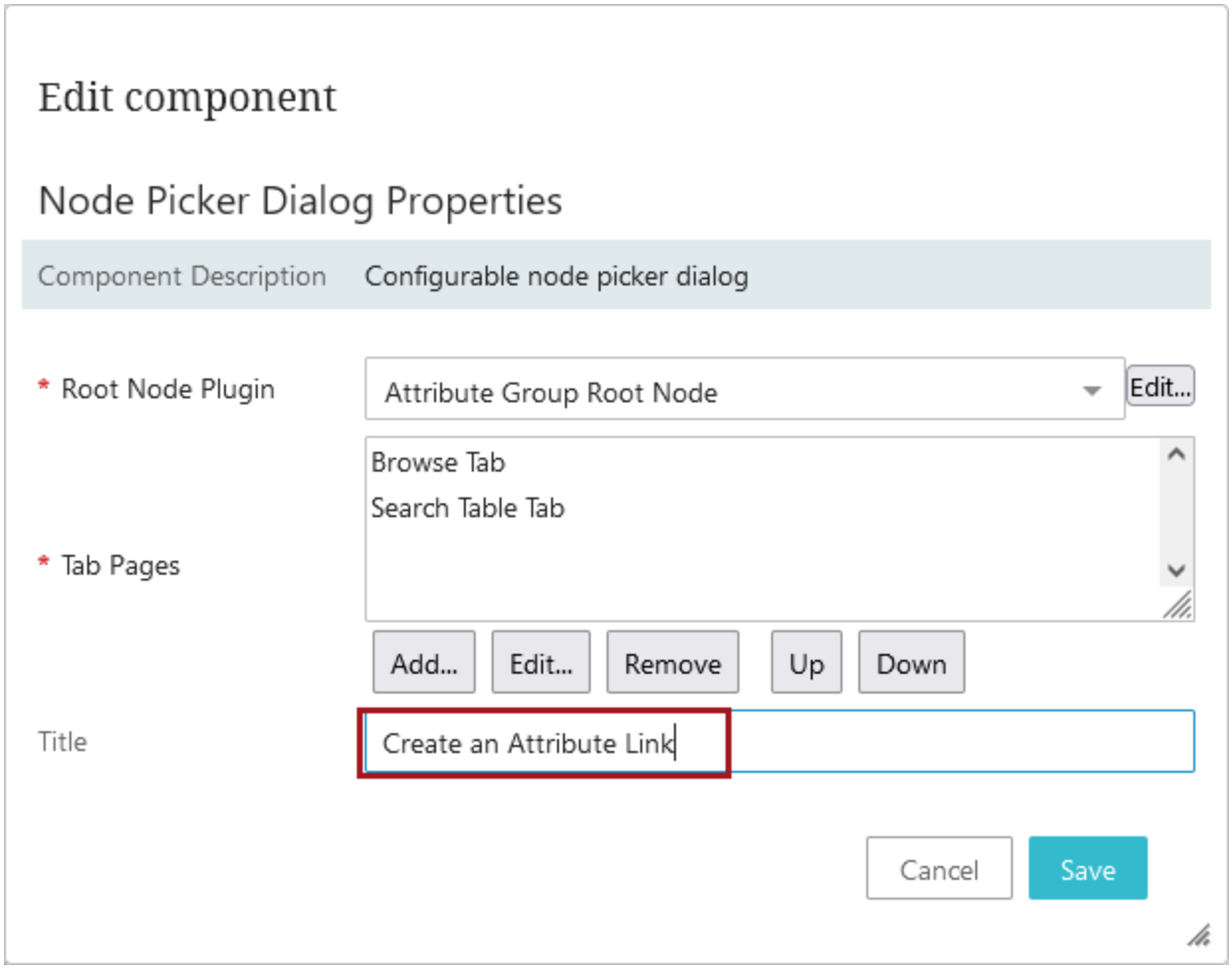
1. Root Node Plugin – allows users to select where in the hierarchy users of the Attribute Link Editor screen may select attributes when creating a new attribute link.



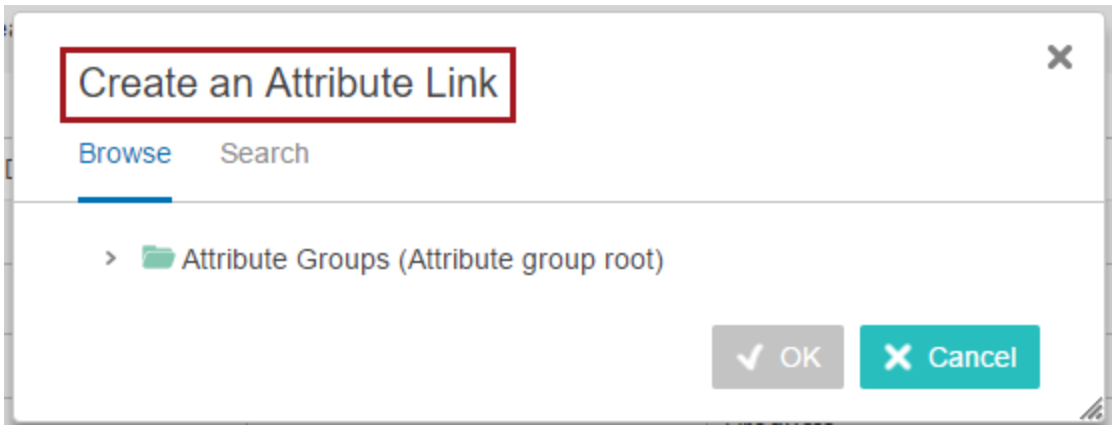
2. Tab Pages – allows users to configure the method of locating the attributes to link. It is recommended that users select the Browse Tab and Search Table Tab options. These allows users to search attributes by name (Search Table Tab), or to browse the existing attributes through manual navigation (Browse Tab).



Title – Add the text that will display at the top of the Node Picker window.

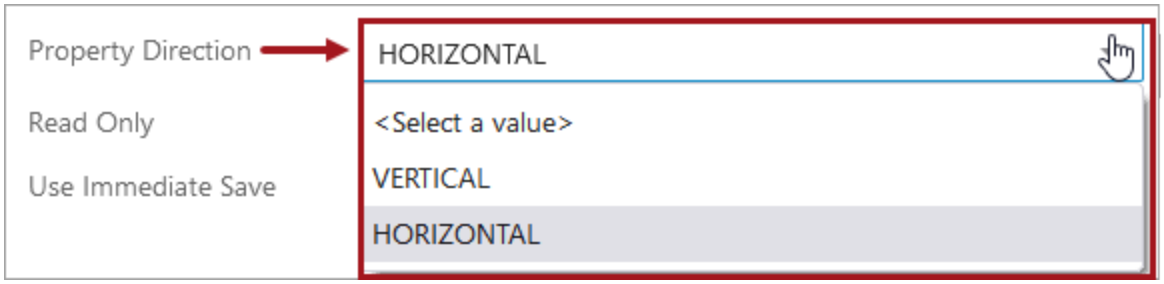


That text will display at the top of the Node Picker window when a user clicks the **Create Attribute Link** toolbar action. If no text is selected, the default title is **Select Node(s)**.



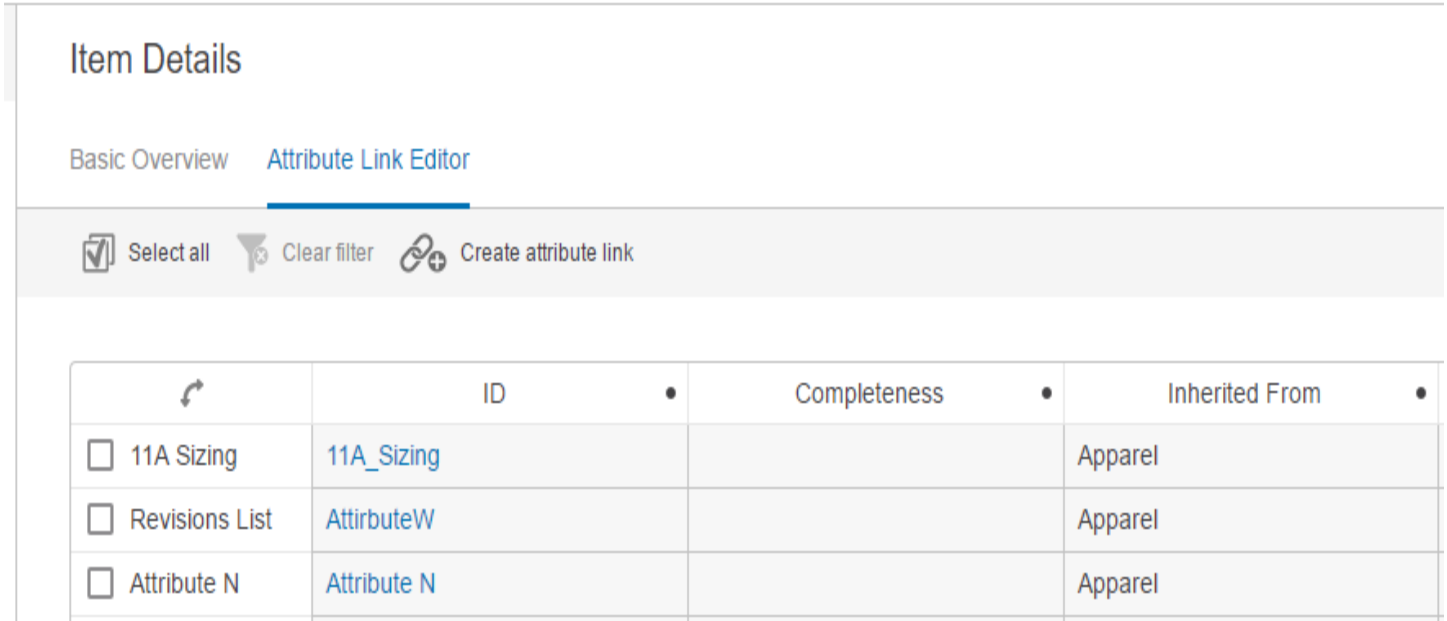
Configuring default orientation of table

Clicking the dropdown for the Property Direction field enables the user to determine how the table in the Attribute Link Editor screen will be oriented when they first open the Web UI.

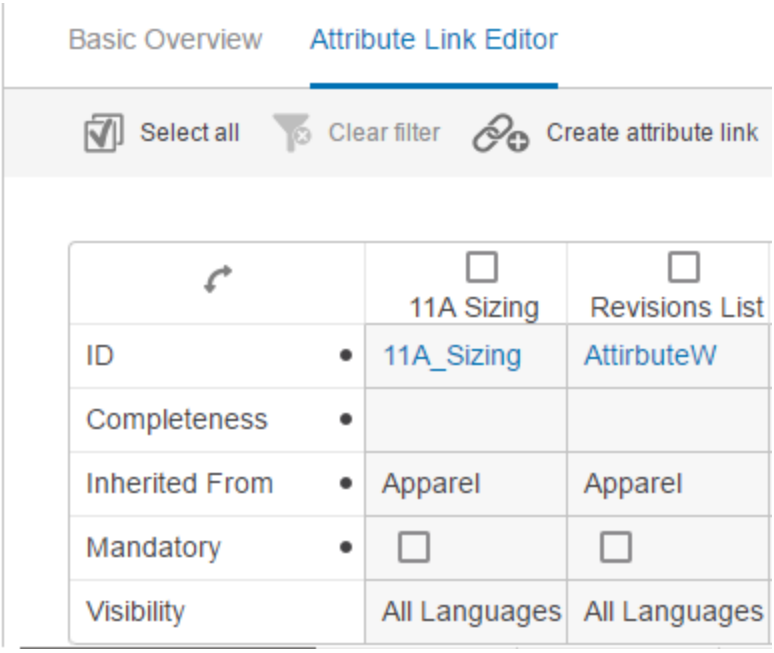


Selecting VERTICAL will show the table with the description attributes (name, ID, mandatory, etc.) appearing along the left side of the table. Selecting HORIZONTAL will display the metadata attributes along the top of the table.

Note the metadata attributes running along the top of the table in this example of a screen with the orientation set to HORIZONTAL:

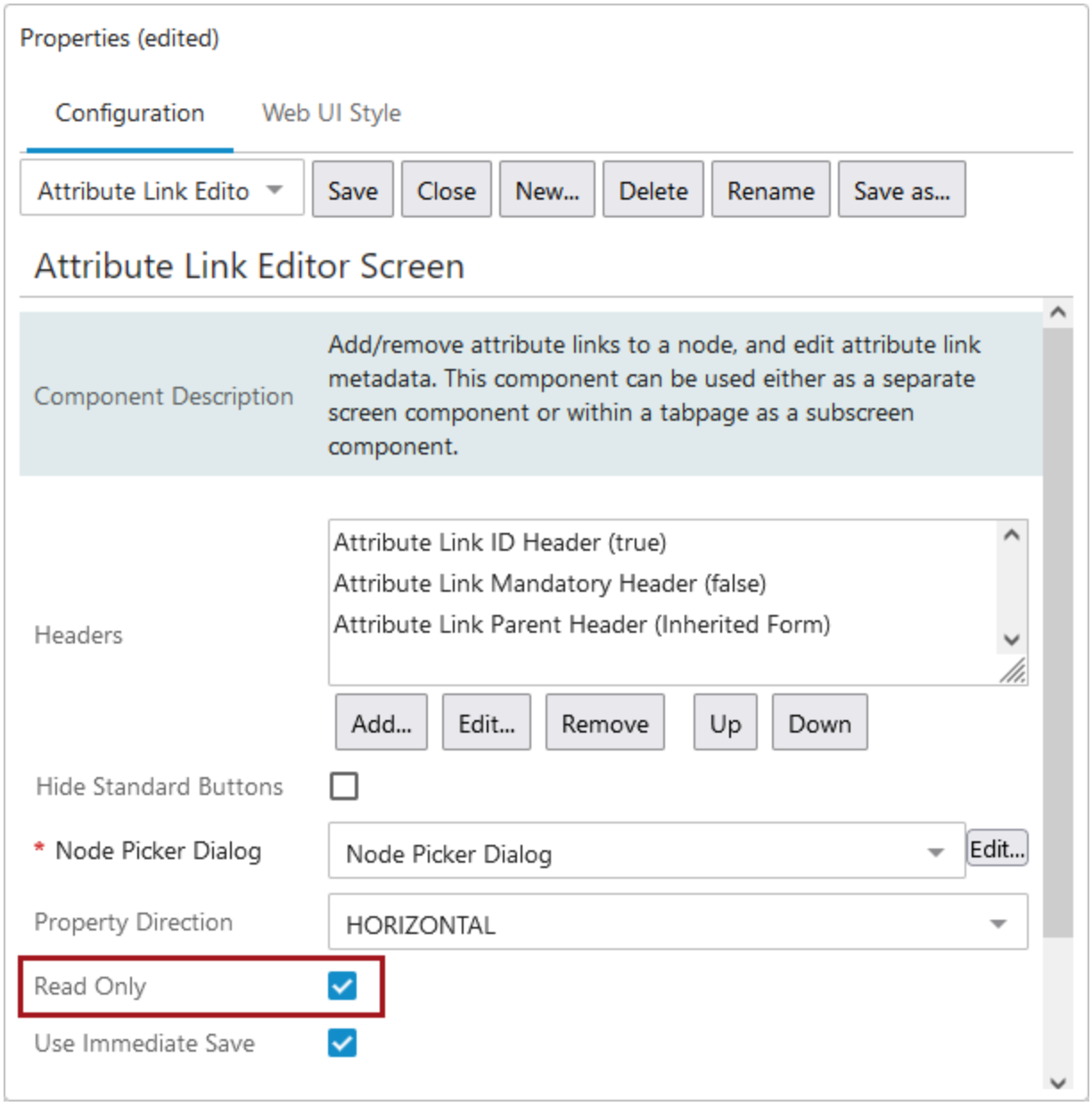


Note the metadata attributes running along the left side of the table in this example of a screen with the orientation set to VERTICAL:



Making the screen read only

If the administrator determines that the Attribute Link Editor screen should be configured as read only for end users, they may check the box for **Read Only**. Checking this box prevents editing of all attribute links displaying on the Attribute Link Editor screen.

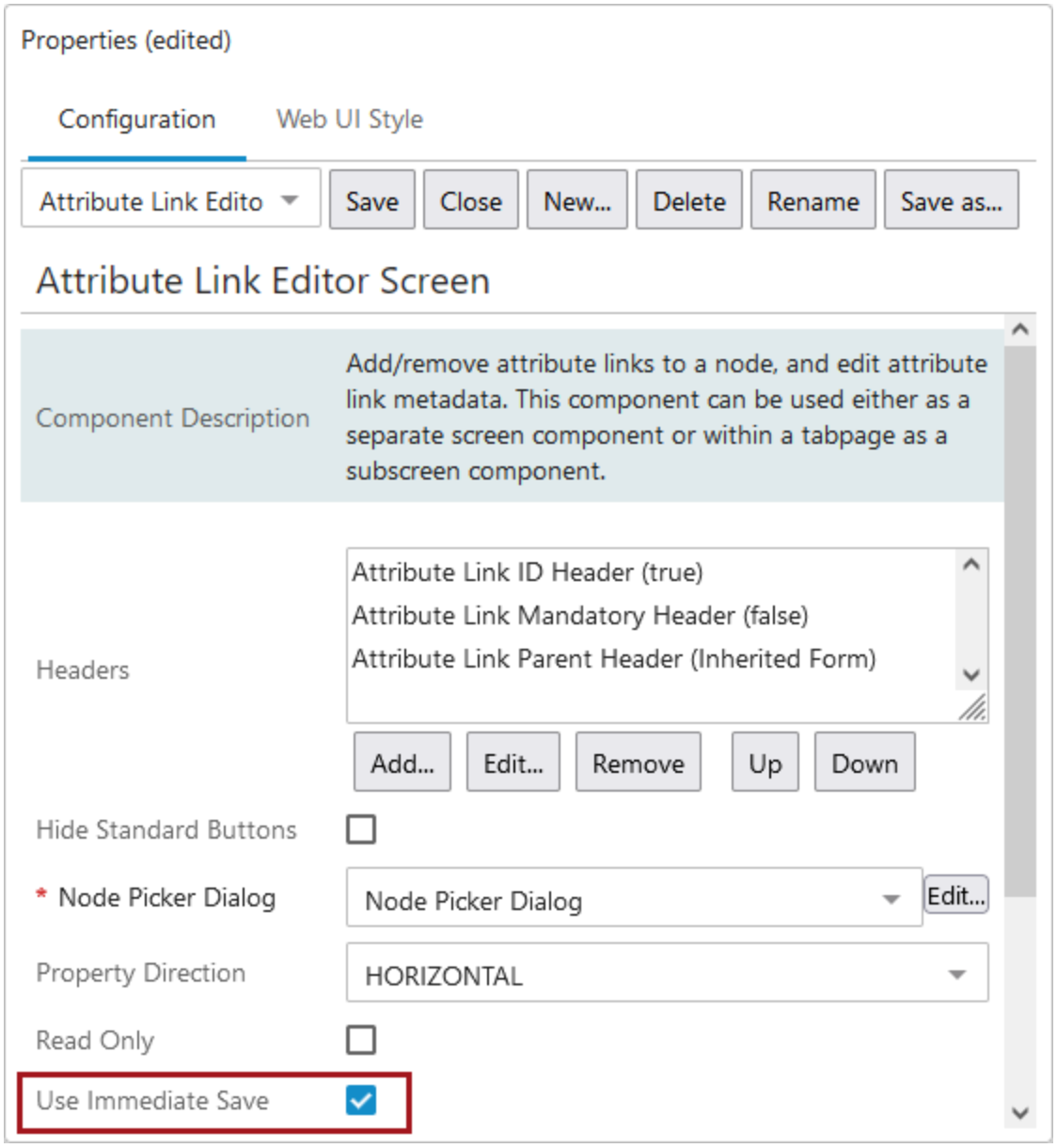


Note: Even if the Attribute Link Editor screen is set to Read Only, the attribute link buttons (Create, Make Local, Remove), if unhidden, are active and useable for any end user. To make the screen truly read only, the administrator should also hide the attribute link buttons. Information on how to do this is covered in the Configuring Display of the Attribute Link Buttons section of this topic.

Applying the auto-save feature

Checking the box for **Use Immediate Save** saves any value that has been added or modified the instant the user clicks out of the data field. This feature makes it less likely users will lose unsaved data when navigating away from the screen. Additionally, because users will no longer need to manually click a save button to save

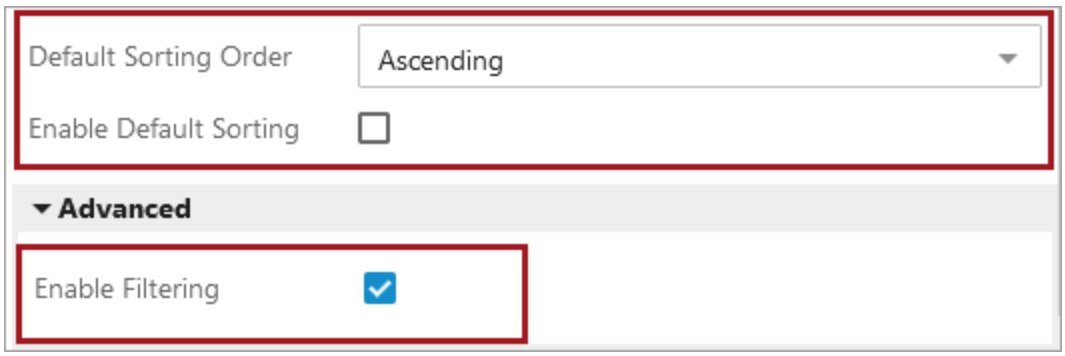
their data if the **Use Immediate Save** parameter is enabled, the Save button does not display on the screen. For details, refer to the **Auto-Save in the Web UI** topic.



Important: It is useful to note that if the user adds or modifies data and then either logs out of the Web UI or closes their browser without first clicking out of that field, that data will not be saved. Switching from one data field to another within the Attribute Link Editor screen is the sole trigger for the auto-save feature.

Configuring the default sorting and filtering

The Attribute Link Editor screen enables users to filter and sort the data appearing in the attribute link table.



When the Enable Default Sorting checkbox is checked, **Default Sorting Order** enables the user to determine whether the attributes in the attribute link table are sorted in ascending alphanumeric order (A - Z), or descending alphanumeric order (Z - A).

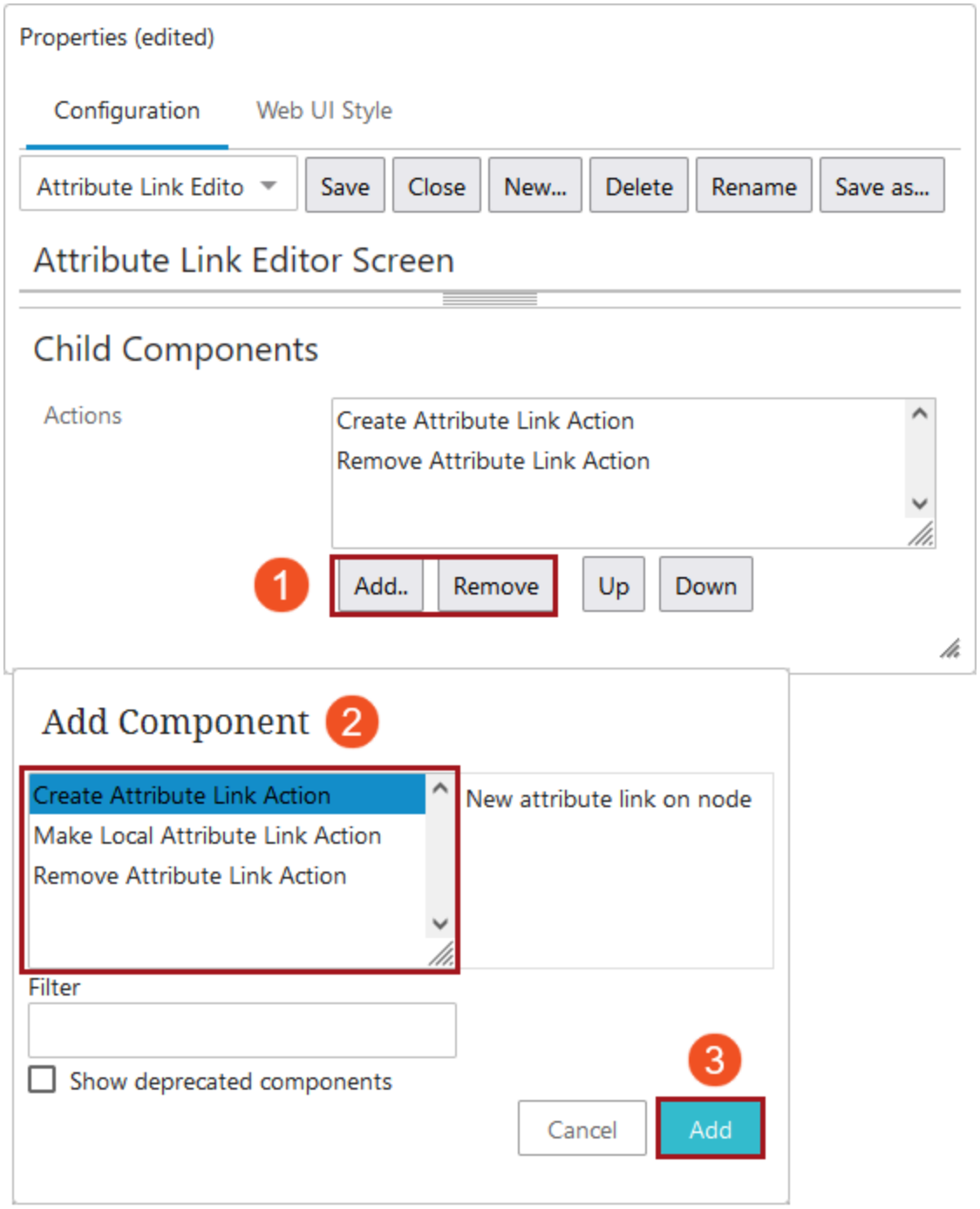
Note: Selecting (none) or no order, defaults to ascending alphabetical order.

When the **Enable Default Sorting** is unchecked, any selection the user makes in **Default Sorting Order** will not be implemented.

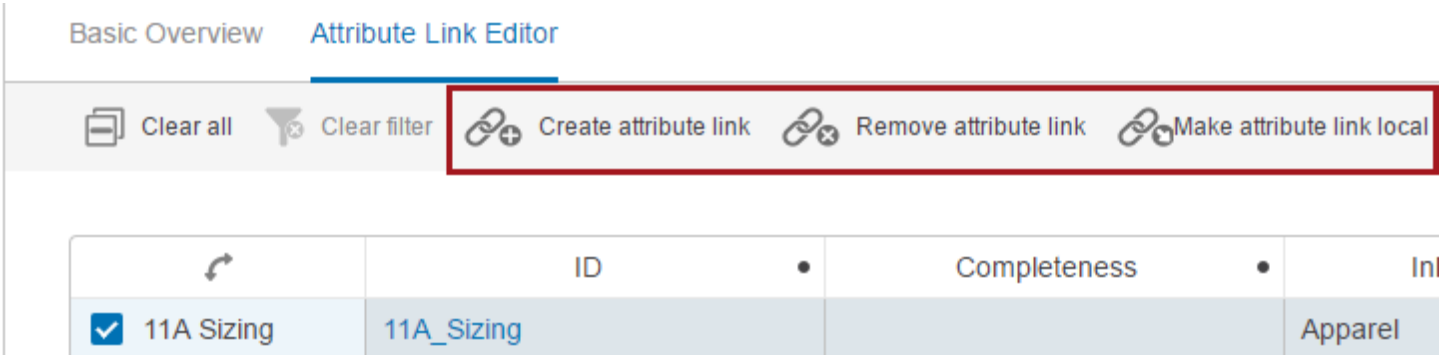
Under the collapsible **Advanced** title, the user may opt to **Enable Filtering**, as the default setting is set to 'off.' Checking this box activates the headers in the attribute link table so that, when clicked, a filtering menu displays that allows the user to adjust the display of data in a more granular way.

Configuring display of the attribute link buttons

Under Child Components is the **Actions** field. This field determines which toolbar actions display above the attribute link table on the Attribute Link Editor screen. Click the **Add..** button, and select Create Attribute Link Action, Make Local Attribute Link Action, or Remove Attribute Link Action. Multi-select is not an option, so to add all three, repeat the process for each.



For example, the following Attribute Link Editor screen displays all three buttons.



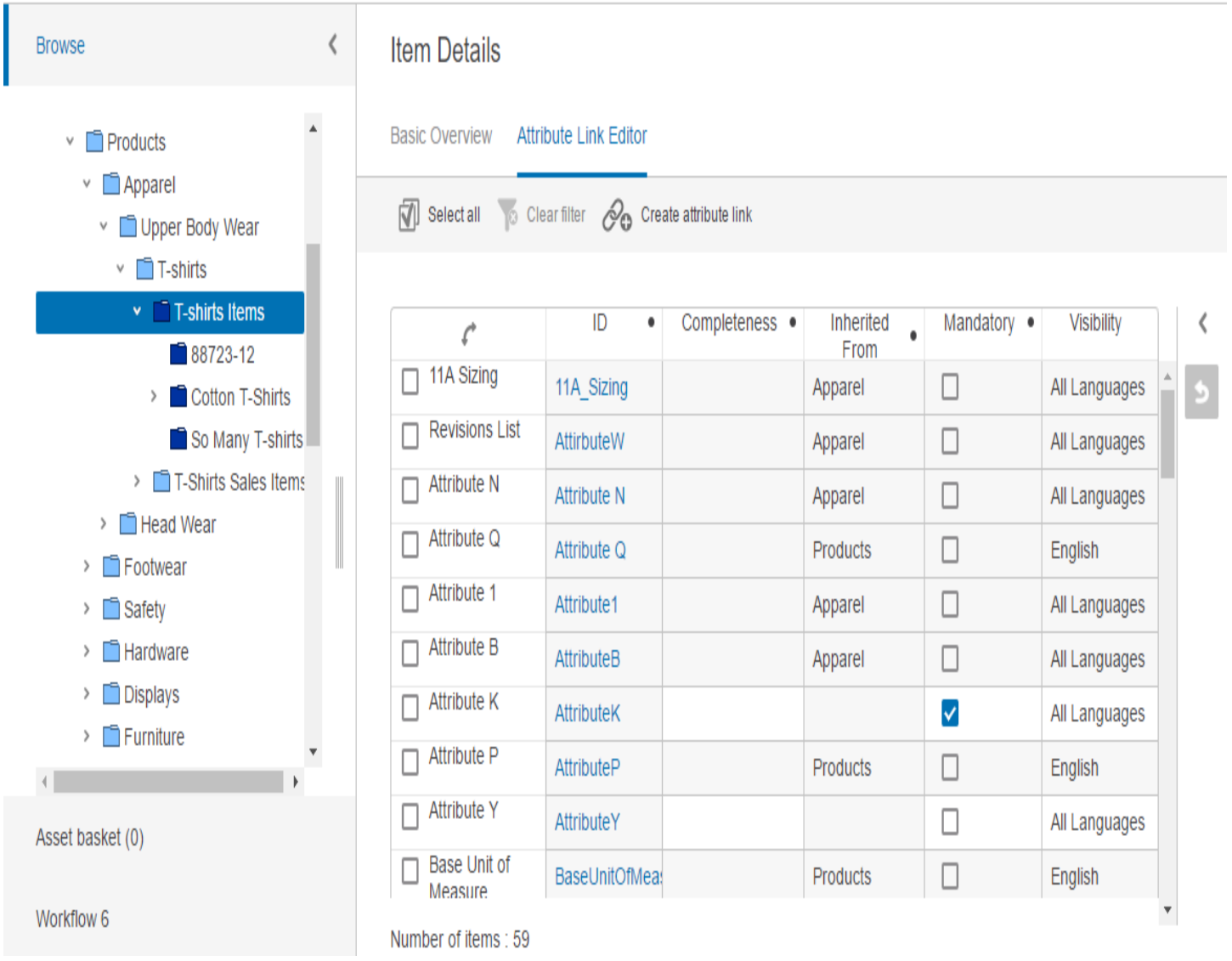
For information on using the Attribute Link Editor screen, refer to the **Editing Attribute Links in Web UI** documentation.

Editing Attribute Links in Web UI

This topic describes how users can best use the Attribute Link Editor screen in Web UI. For more information, refer to an overview of this screen's purpose by referencing the **Attribute Link Editor Screen** documentation, and for a detailed description of how to configure this screen, refer to the **Configuring the Attribute Link Editor Screen** documentation.

The Attribute Link Editor screen allows Web UI users to view information related to attributes linked to the object being viewed. In this topic, the various features available on the screen are described.

For reference, this is an example of one way to configure an Attribute Link Editor screen. The screen in the example has been added as a sub screen tab page on a Node Details screen.:

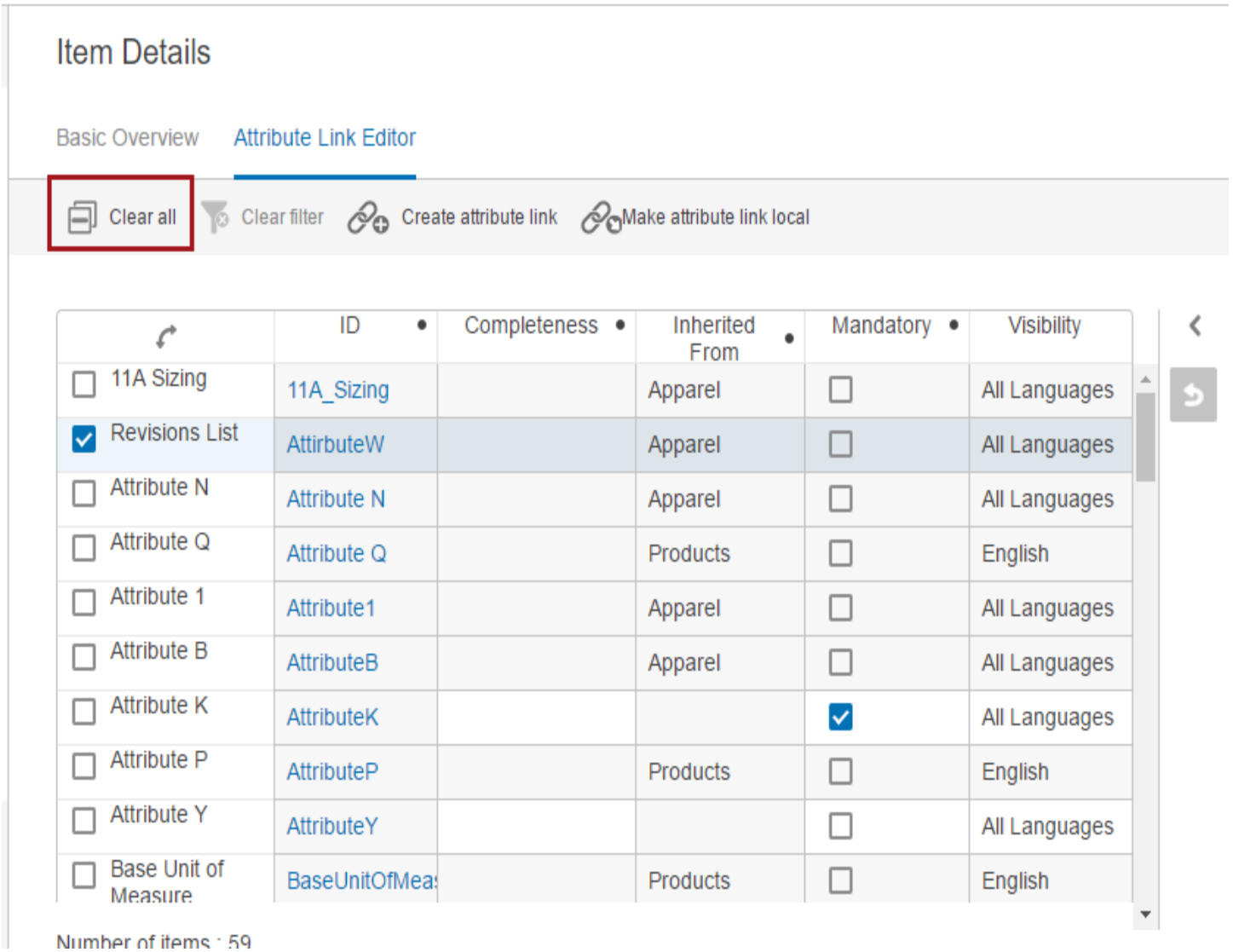


Select all / Clear all

The Select all / Clear all button displays dependent on whether the user has selected any of the object's listed attributes. They will not display at the same time.

- The Clear all button displays if one or more attributes are selected.
- The Select all button will only display if no attributes are selected.

The primary use of this button is to easily establish a selection of attributes that can either be made local using the Make Attribute Link Local action, or removed using the Remove Attribute Link action.

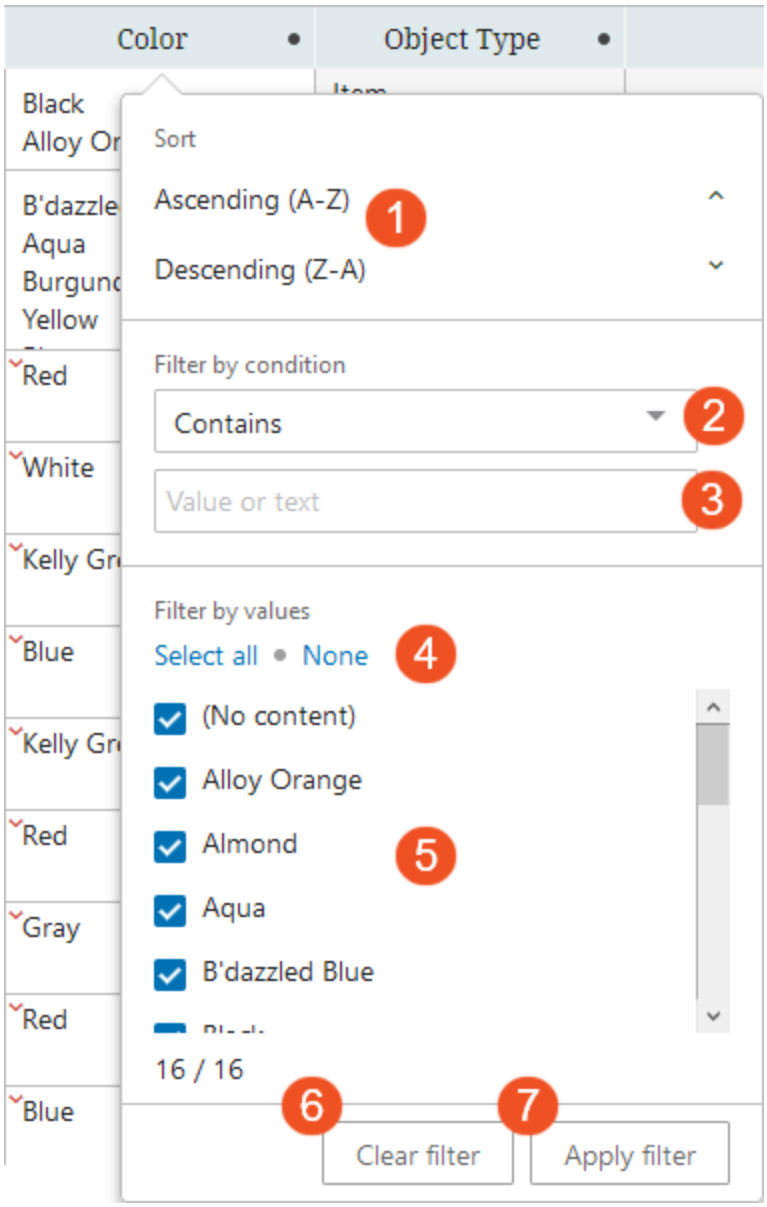


Enable Filtering

When the Enable Filtering option is selected on this component, the ability to filter based on attribute values is enabled.



To apply a filter, click anywhere in a column's header. This brings up the sorting and filtering window highlighted in the screenshot below:



Referencing the numbered elements in the above screenshot to the corresponding numbers in the list below, functionality in the filtering window enables users to:

1. Sort the attributes in either ascending (^) or descending (˅) alphabetic order.
2. Filter the linked attributes by a condition to show only attributes that:

- 'Begins with' - The filter value begins with one or a sequence of character.
- 'Contains' - The filter value contains one or a specific sequence of characters. This value may appear anywhere within a value string.
- 'Does not contain' - The filter value does not contain one or a specific sequence of characters, whether in a single-valued or multi-valued cell. This value may appear anywhere within a value string.
- 'Equals' - The filter value matches a precise set of characters.
- 'Include Only' - This filter option allows users to set a list of values separated by a delimiter, like commas, semicolons, pipes, tabs, or newlines, and if one or more of the items in the list matches, then those rows will be populated. If no items from the list are present in the column, then no results will display.
- 'Wildcard' - This filter value option will display attribute values containing a repeated set of characters that includes known variable characters that can be substituted with an asterisk '*' symbol. Wildcard may be used singularly or multiple times in a filter setting. For more information, refer to the **Wildcard in Searches** section of the **Searching Functionality** topic of the **Getting Started** documentation.

3. With any of the above filtering criteria in place, users may enter their search terms into the **Search** field. As characters are typed into this field, the blue-checked values that display in the filtering menu change to reflect a filtered list of attribute values culled from the column's full list of values. From these, users may select only those attributes they want to display by adding a check beside each.

   The default filter setting is 'Contains.' For the settings 'Begins with,' 'Equals,' and 'Wildcard,' if a user just deselects any value in the search list, then the filter will revert to a 'Contains' filter once it is applied. For the settings 'Begins with,' 'Contains,' 'Equals,' and 'Wildcard,' any values entered that do not meet the filter criteria are removed from the filtered selection. For the setting 'Does not contain,' any rows containing values that do meet the filter criteria are removed from the filtered selection.

   Note: If you are dealing with multi-valued attributes where more than one value is populated, then All Values for that attribute are considered when creating a filter. Excluding one value by a filter does not mean the attribute will necessarily be removed from the view.

4. Click the 'Select all' button to ensure all listed attribute values are checked. Click the 'None' button to deselect all attribute values. When users click 'None', the 'Apply filter' button is grayed out and cannot be selected until at least one of the attribute values is selected.
5. Users may also forgo the filtering and manually select from the full attribute list only those attributes they want to display by adding a check beside each. All values are checked by default.
6. Quickly clear any work you have done in the filtering window by clicking the 'Clear filter' button. The configuration you have applied remains in this filtering window, even if you clear the filter on the actual attribute link table. To clear all filtering, first clear the filter from the table, and then in the filtering window, click the 'Clear filter' button.
7. Apply the configured filter to the attribute link table by clicking the 'Apply filter' button.

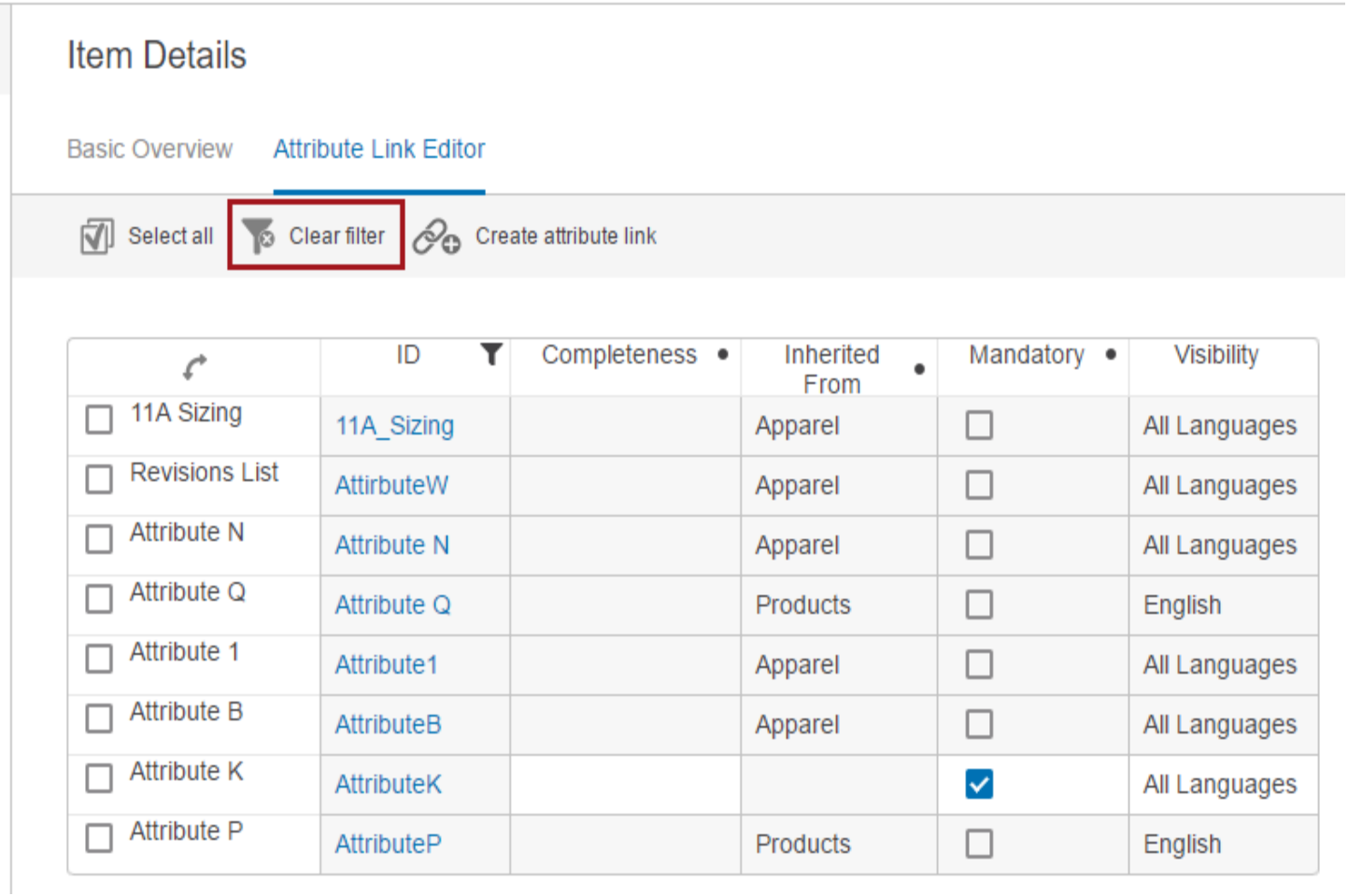
   Note: The sorting and filtering option applied in the attribute link editor screen of a product will be applicable only on the current selection. Once the user navigates to a different selection, sorting and filtering applied on the previous selection will be removed.

Note: When a Node List contains more than the configured number of objects (the default maximum being 5,000), sorting and filtering is disabled. This is because when Node Lists contain more than the configured maximum for display, all objects above that maximum will not display. Because sorting and filtering actions applied to the displayed objects will not also apply to non-displayed objects, sorting and filtering is disabled. For example, if an advanced search result contains 10,000 results, and the user clicks a header to sort and filter the Node List based on the values in the column, it will not be obvious that all objects after 5,000 are not included in the filtering, and so the resulting list will not be accurate. When users initiate sorting and filtering on a Node List with more than the configured maximum number of objects, an informational dialog displays that reads, 'Sorting and filtering on this subset of data would display inaccurate results, so they have been disabled.' This restriction is applied to all display modes that support sorting and filtering, i.e., Multi Edit, Table, and Compare views.

Clear Filter

The Clear Filter button is only active if a filter has been applied to the attribute link table.

If, in the designer, the configuration for the screen has been checked yes for Enable Filtering, then the attribute link table can be filtered column-by-column by clicking that column's header. This allows the user a wide array of ways to view their attribute link data. If the user has applied a filter to the data in this way, then the Clear Filter button is active and clickable.

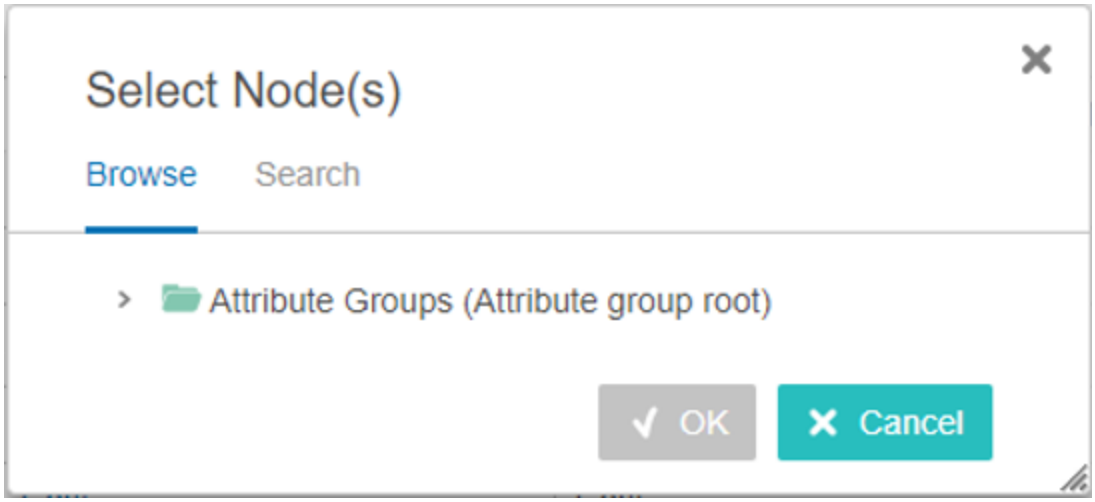


Configuring the Attribute Link Toolbar Actions

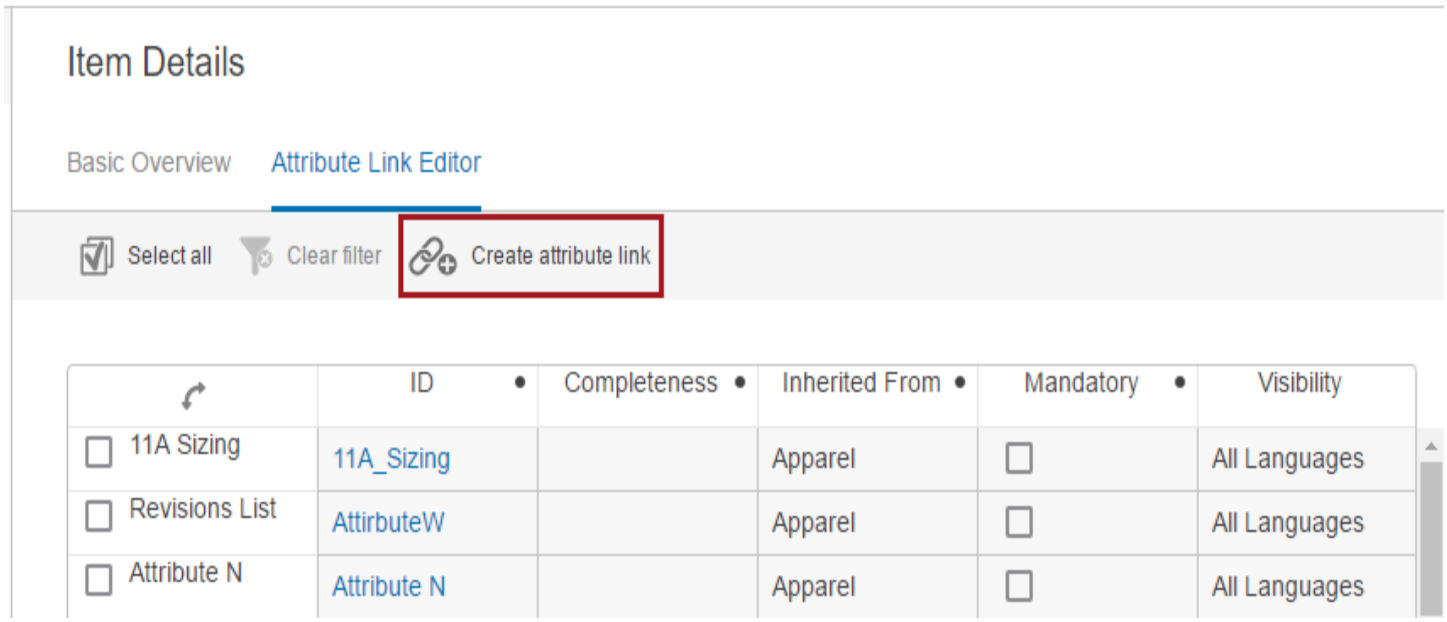
Toolbar actions are available that enables users to create new attribute links, make inherited attribute links local and, thus, editable, or remove attribute links from an object. Below is a list of those toolbar actions and the functions they perform. Users may view something different since the actions are set up by the administrator within the Attribute Editor Link Screen Properties.

Create Attribute Link

Clicking this toolbar action allows the user to link an attribute to the selected object. Dependent on how the Node Picker dialog is configured, a user may either search or browse the hierarchy to find the desired attribute.

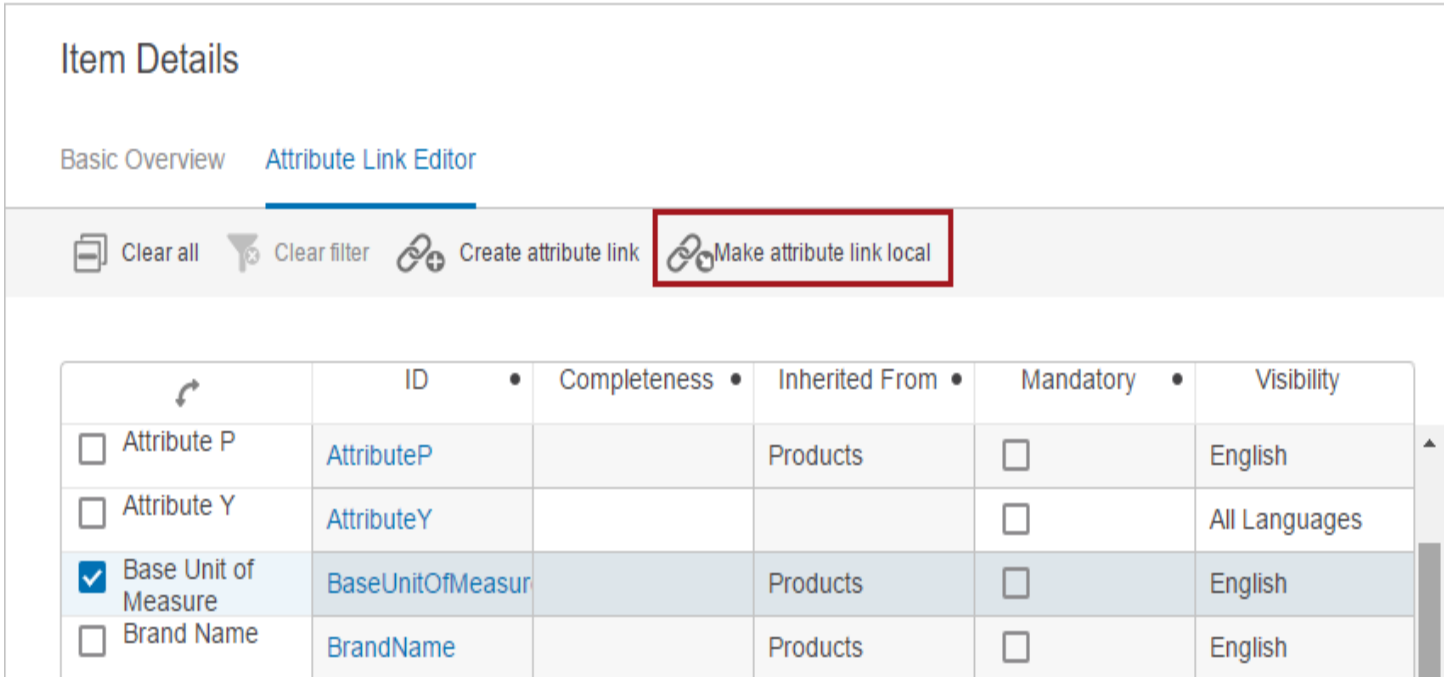


Information related to configuration of the Node Picker can be found in the Configuring the Attribute Link Editor Screen documentation.



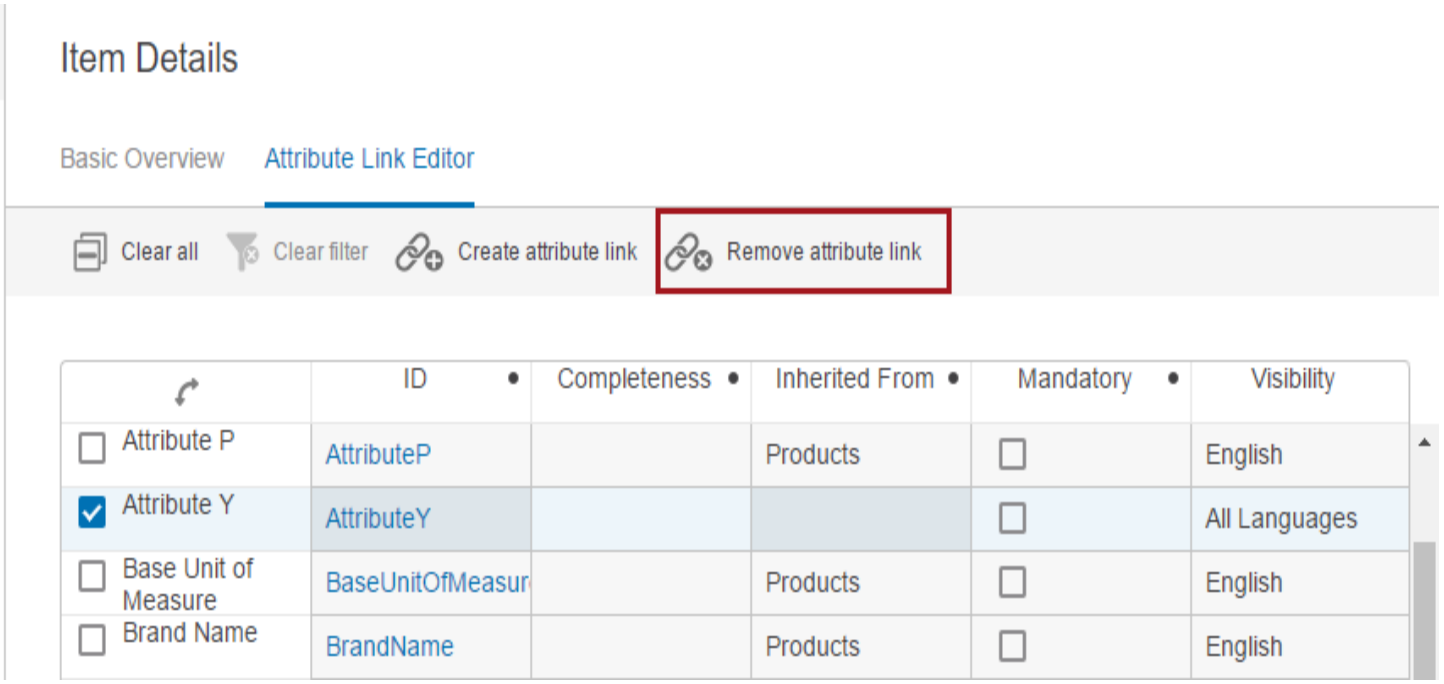
Make Attribute Link Local

When a user selects an attribute link, and the linked object is inheriting from a higher level, the Make Attribute Link Local toolbar action displays. Clicking this toolbar action allows the user to make the attribute link local and edit the link specific to the selected attribute.



Remove Attribute Link

When a user selects an attribute link and the selected attribute is linked directly to the object being worked on, the Remove Attribute Link toolbar action displays. Clicking the Remove Attribute Link toolbar action unlinks the attribute from the selected object and all its child objects.

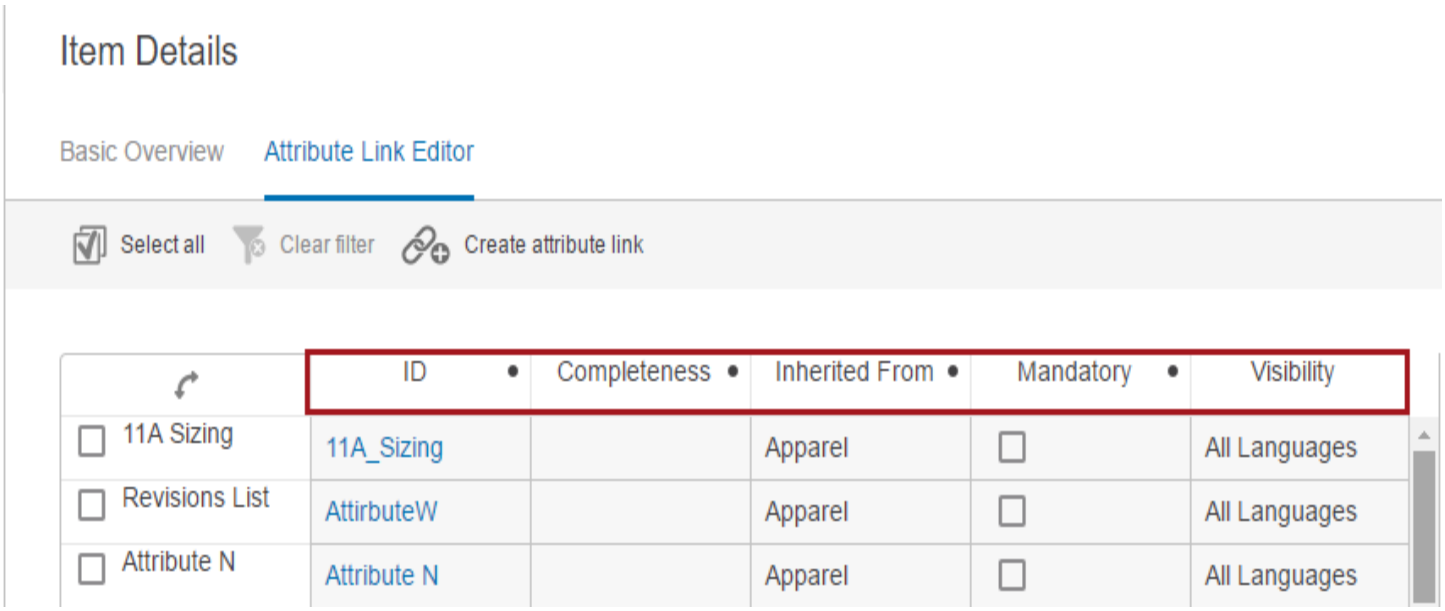


• Inheriting attribute links cannot be removed.

Note: Inheriting attribute links cannot be removed. Inheriting attribute links which are local links on the child level can be removed by clicking on Remove attribute link action. This then removes the local link, and allows the inheriting link to be in place.

Columns

There are a series of description attributes administrators can add to this screen and configure. When using the screen, you may view any of the headers displayed in the screenshot below, dependent on the configuration of your screen:



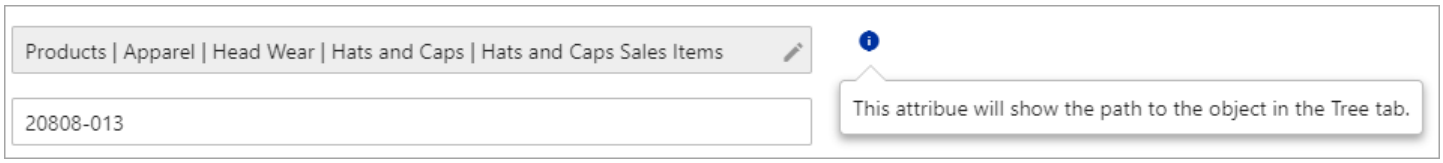
For more information on configuring these metadata attributes, refer to the Configuring the Attribute Link Editor Screen documentation.

Attribute Help Text in Web UI

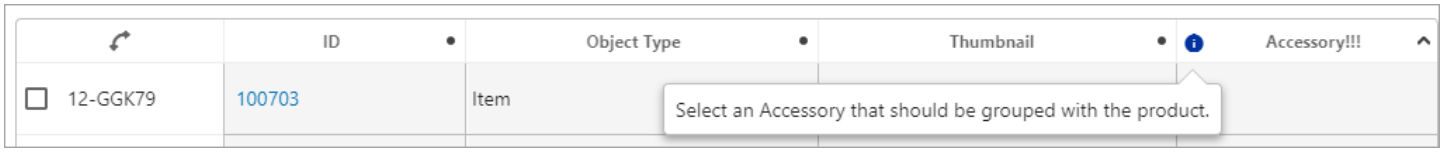
Help texts can be used to provide information to end users about an attribute and how it should be populated.

Help texts can be added to individual object editors (Node Editors) or to multi-object editors and grid views (Node Lists), as shown below.

Node Editor example:



Node List example:



Additionally, the information icon provides access to the 'Go to Wiki' link used to display Metadata Wiki pages when installed. For more information, refer to the **Wiki Metadata** topic in the **System Setup** documentation.

This section describes the steps necessary to provide attribute help texts in Web UI.

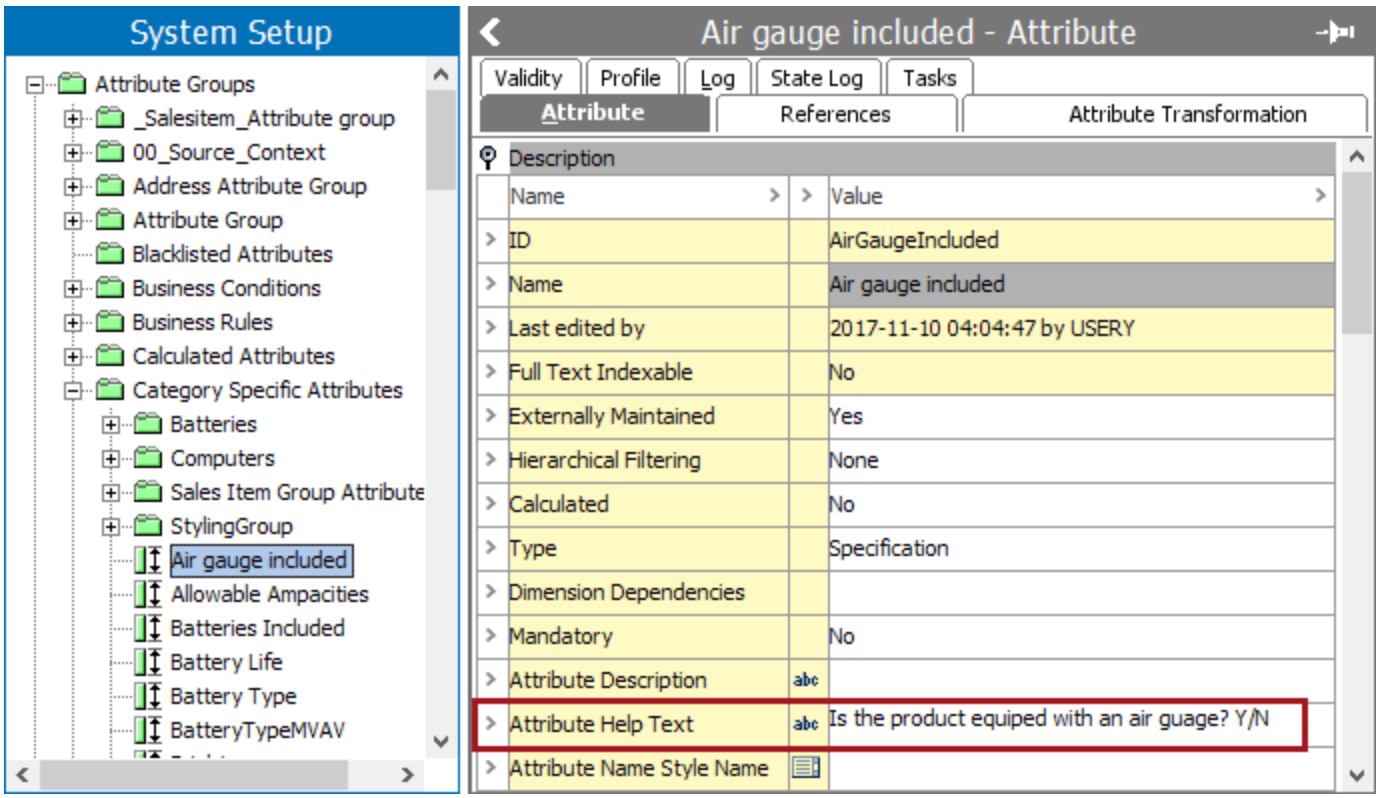
Prerequisites

To configure attribute help text, it is expected that the user has knowledge of System Setup functions and Web UI Designer.

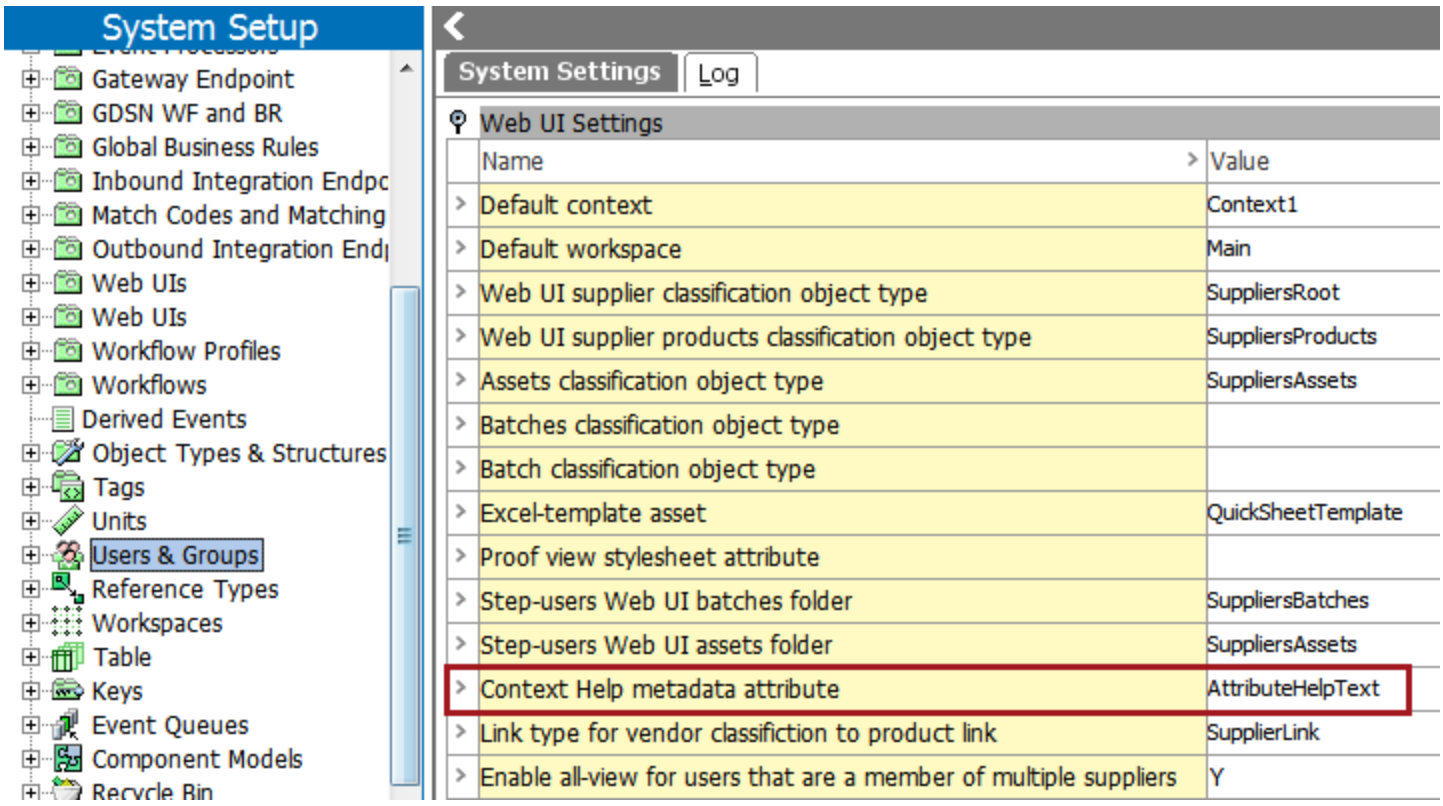
Attribute help texts can be entered individually in Web UI, per attribute and screen / component configuration, but this is a time-consuming process. Instead, it is recommended to apply global attribute help texts using the workbench, and then to provide local overrides in Web UI only as needed. For this approach, the system must first have a metadata attribute available to house the global help texts. Refer to the **Attribute Metadata on Attributes** section in the **System Setup** documentation for more information for instructions on how to complete this setup. Once complete, follow the below steps to enable attribute help text in Web UI.

Identify the metadata attribute used for help texts in System Settings

A metadata attribute must exist as valid on attribute object types, to be used to populate help text for individual attributes. For this example, an attribute with ID=AttributeHelpText is used. On any given attribute, text (and hyperlinks) can be populated in the help text attribute.

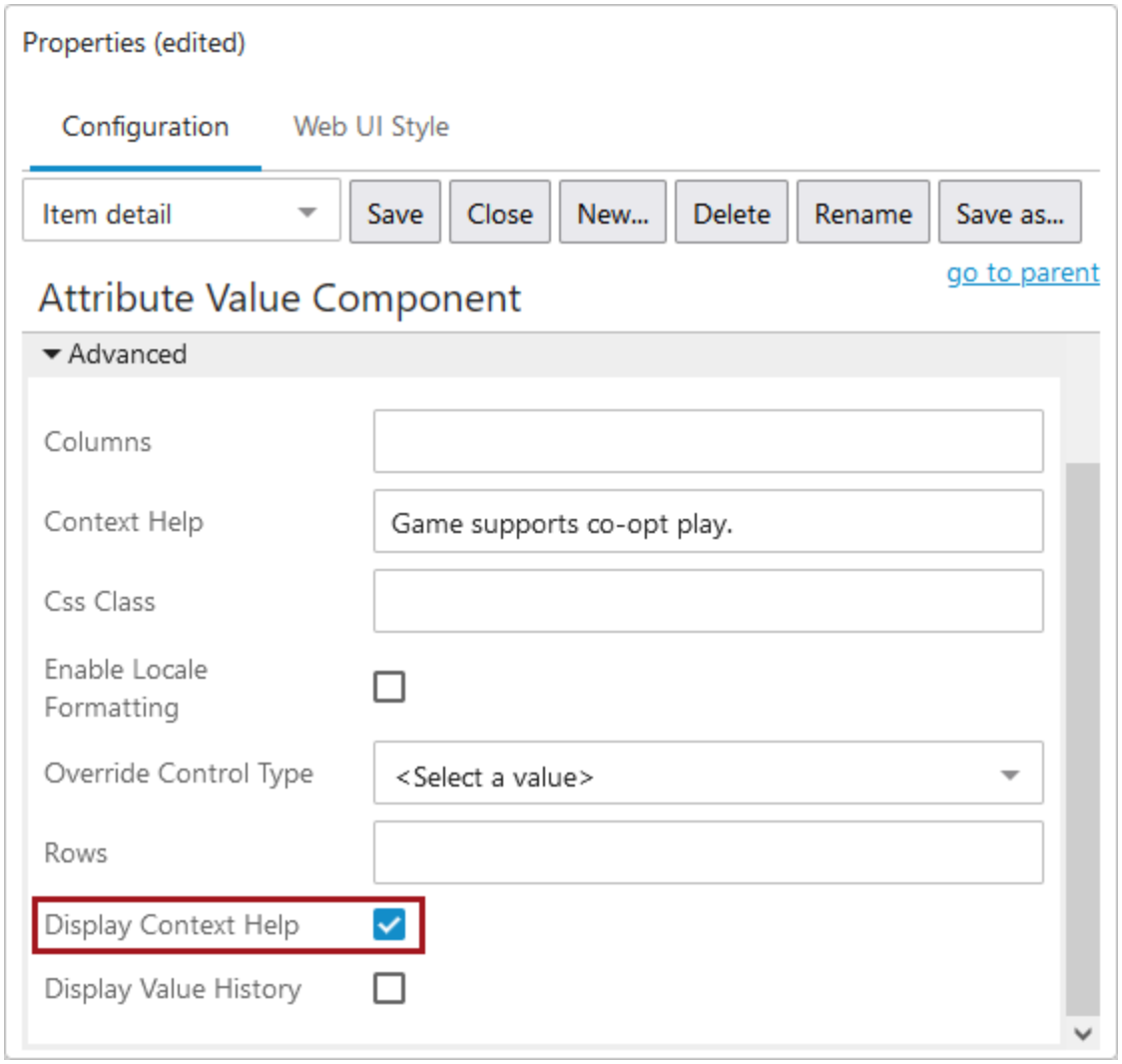


In order to inform the Web UI where to pull help texts from, the help text attribute must be specified. In **System Setup**, navigate to the **Users & Groups** root node, open the **Web UI Settings** flipper, and in **Context Help metadata attribute**, type the ID of the metadata attribute.

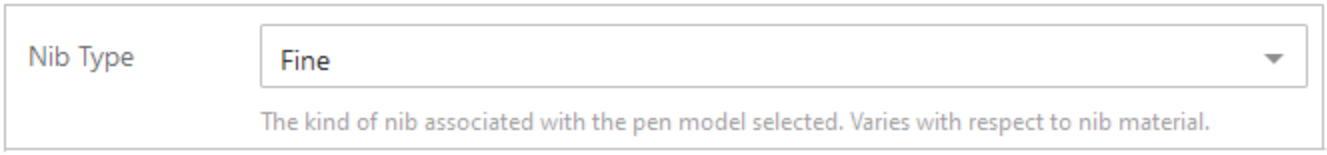


Set Component Properties in Web UI

Once the workbench setup is complete, help texts must be enabled in Web UI. This is done using the **Display Context Help** parameter, which is available on attribute-related components (e.g., Attribute Value, Attribute Value Group) and attribute-related table header components (e.g., Attribute Value Header, Attribute Value Group Header, Variants Header) — all of which can be configured using a Node List with any of the following display modes: Multi Edit Display Mode, Compare View, Sequence View, and List View.



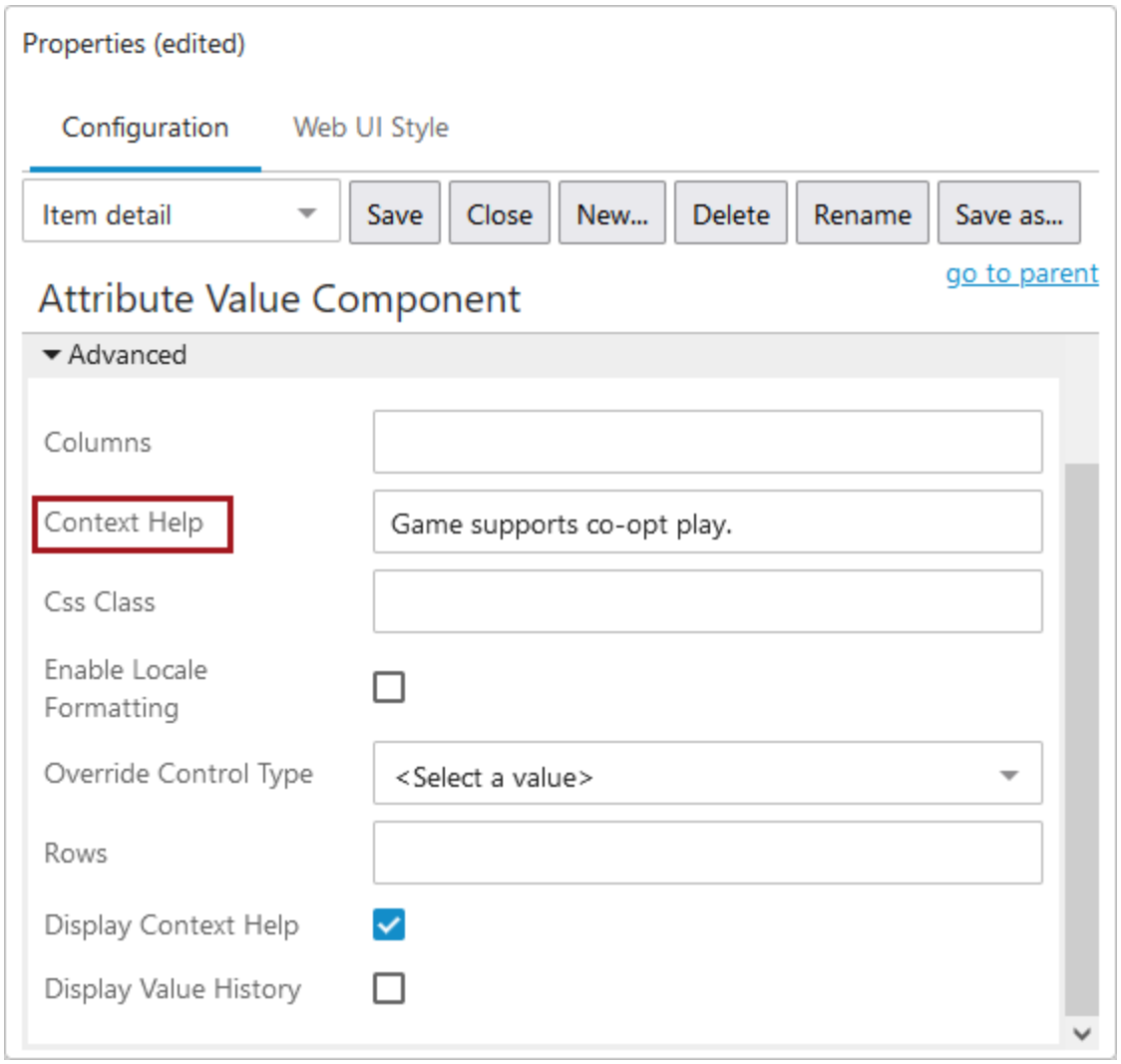
When end users access a component in which help text is enabled, the configured help text will display beneath the field if the field is set as editable.



If the attribute is set as 'Read Only,' the blue information button displays when the user hovers over the attribute, and the help text is shown when the user clicks the information button.

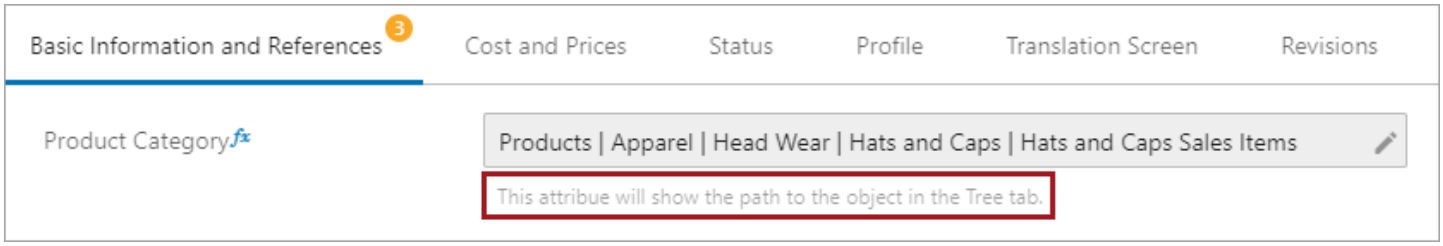


If an override to the attribute help text from workbench is required, it can be done in Web UI by entering a new value in the 'Context Help' parameter, as found in the example below. This can be useful when some additional instruction is needed only in a particular context. For example, when introducing a new object instructions for data population may differ slightly from those for established objects. In this case, Web UI designers could populate local help text that would only be available in an item initiation screen.

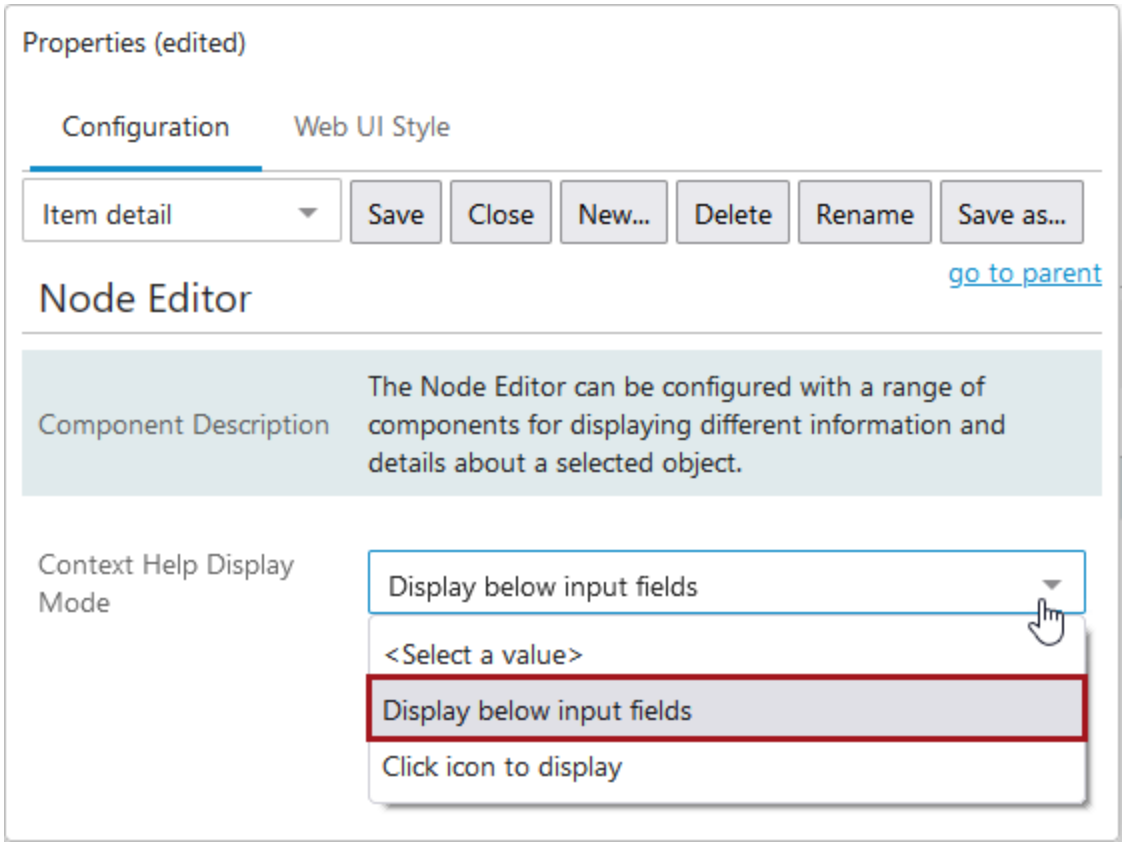


Change Help Text Display Mode

Rather than being accessed via an icon, help text can be configured to appear below relevant attributes at all times.



To configure this option, navigate to Node Editor Properties, and under the **Context Help Display Mode** parameter, select 'Display below input fields'.

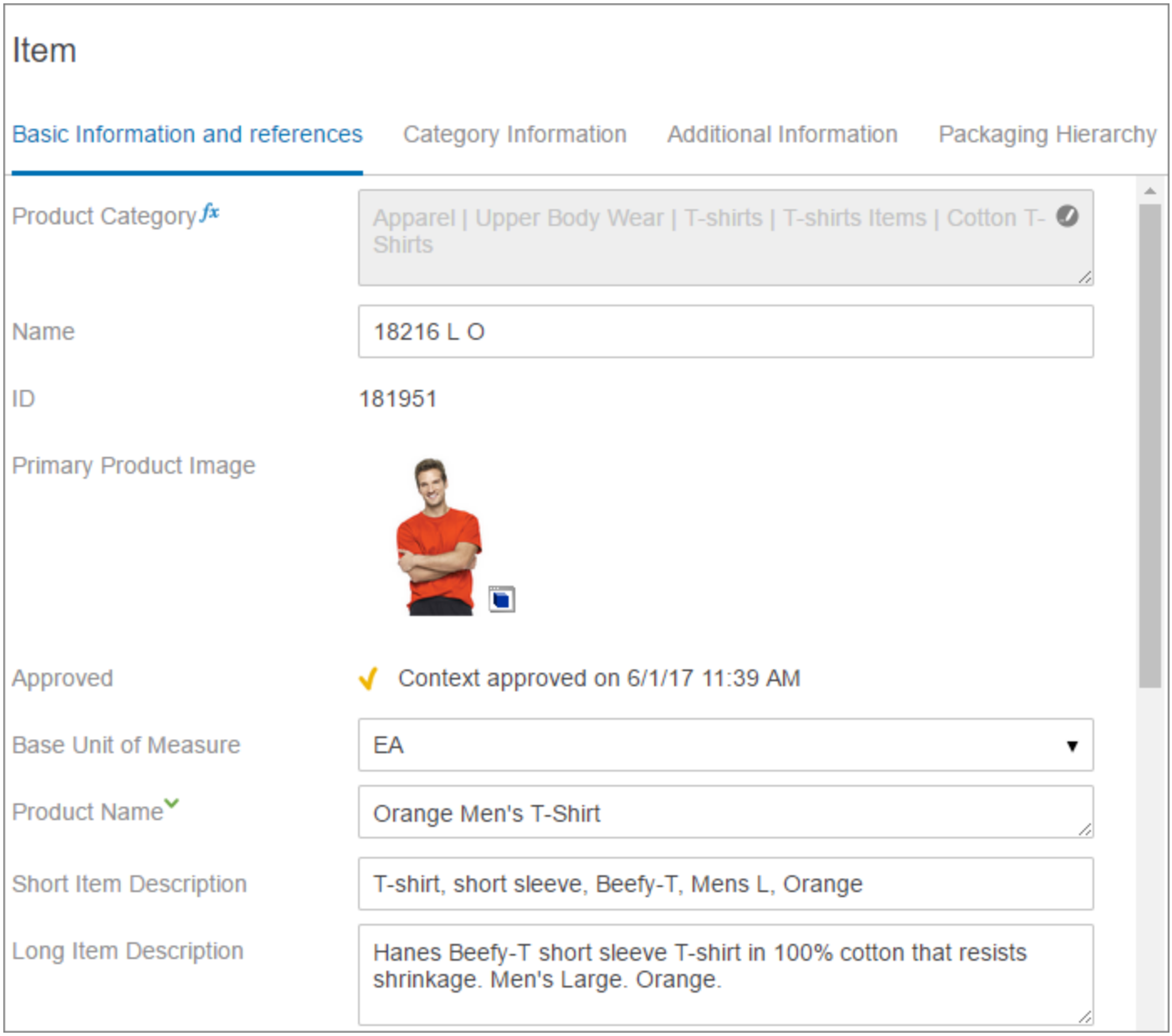


Note: This option is only available with the Node Editor component. Additionally, read-only attributes will display help text via an icon regardless of what is selected in this parameter.

Attribute Value Component

An Attribute Value component can be added to a Node Editor component to display the value for a single attribute.

In the example below, the Name, ID, and Product Name attributes are displayed using Attribute Value components within a Node Editor on a Node Details screen.



Prerequisites

It is expected that anyone configuring the Attribute Value component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, users must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the Web User Interfaces documentation.

Within this component are options related to the use of STEP Tags. Prior to making changes to the default settings related to STEP Tags and Tag Conversion, it is recommended to review the complete **Tags** documentation within System Setup.

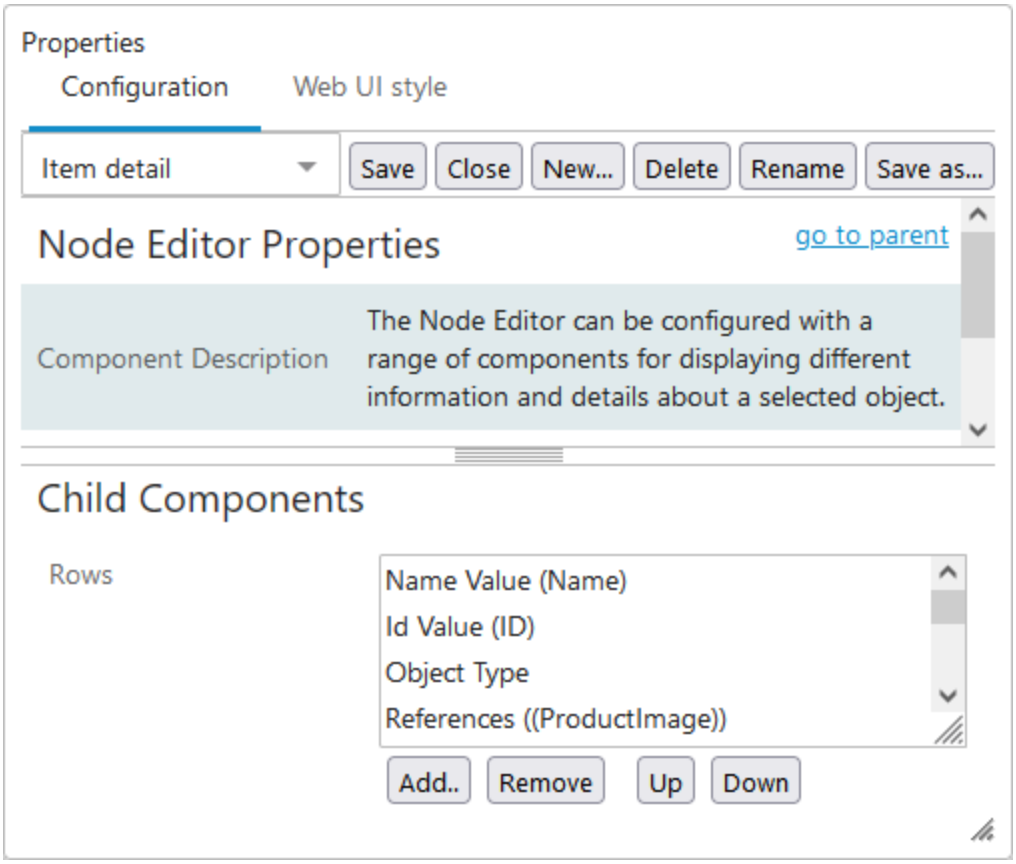
Adding an Attribute Value Component to a Node Editor

Attribute Value components are added within the Child Components section of the Node Editor Properties. They can be added and removed using the buttons below the Rows field, and the attribute values will display on the screen based on how they are ordered within the field. They can be reordered using the Up and Down buttons.

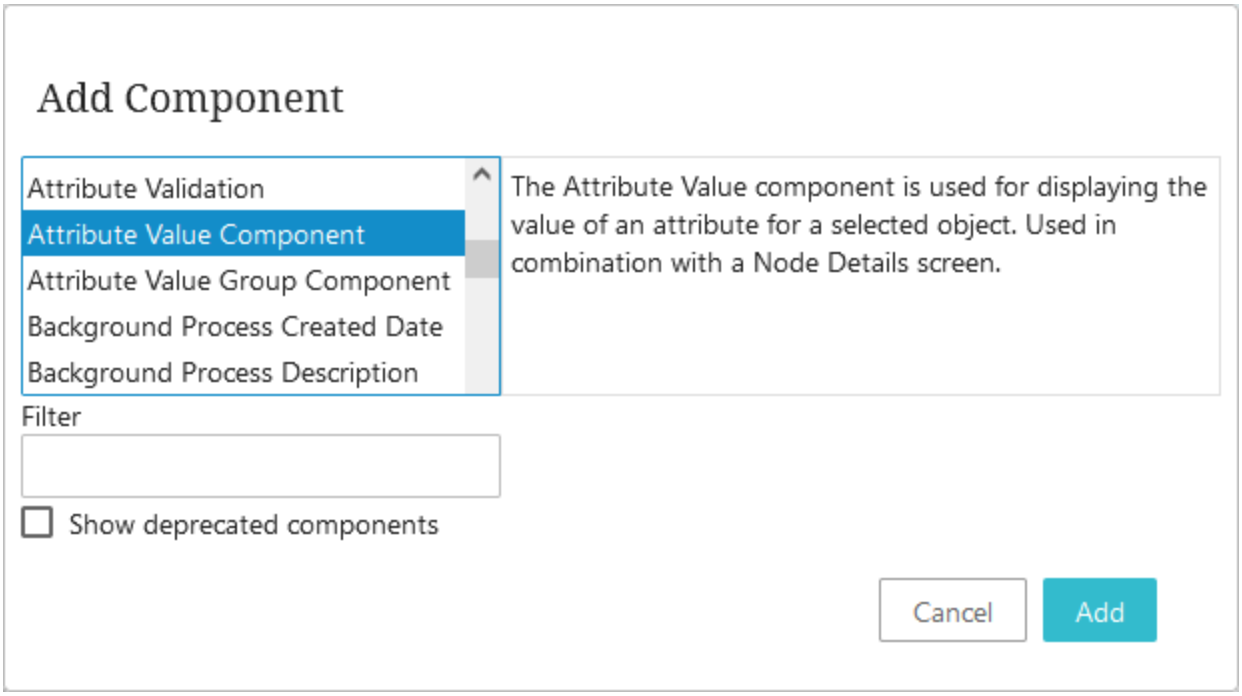
Recommended practice when displaying attributes within Web UI is to use the Attribute Value Group component and then manage the display behavior of the validation base types using one or more global rules created using the Override Control Type component. For more information, refer to the Override Control Type Rule topic within the Web User Interfaces documentation.

Steps for adding an Attribute Value Component to a Node Editor are below. Information for all the Attribute Value Component Properties dialog parameters are available in the Configuring an Attribute Value Component section below.

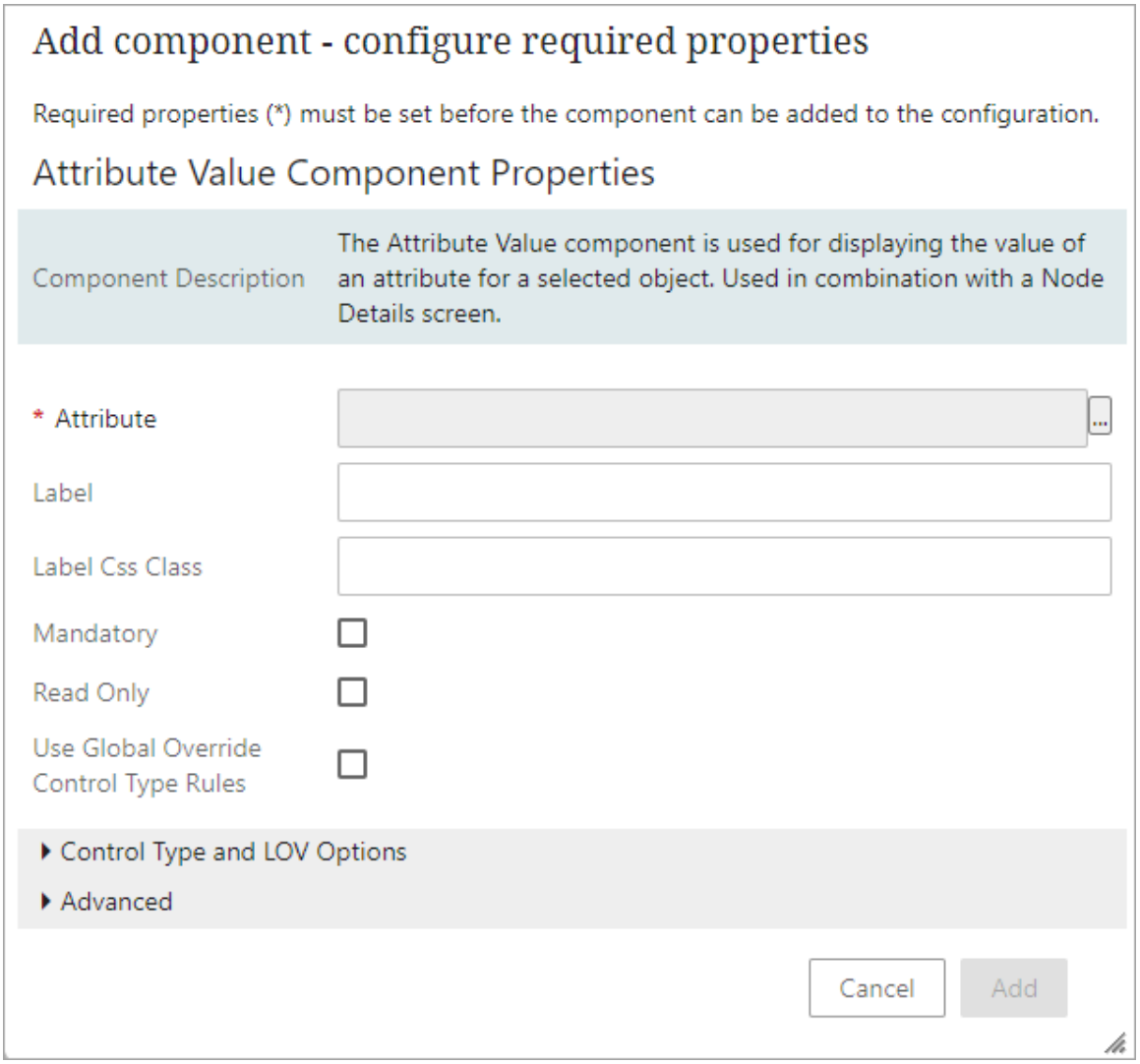
1. With the designer open, select **your Node Details screen**, navigate to **your Node Editor component**, and the Node Editor Properties will display.



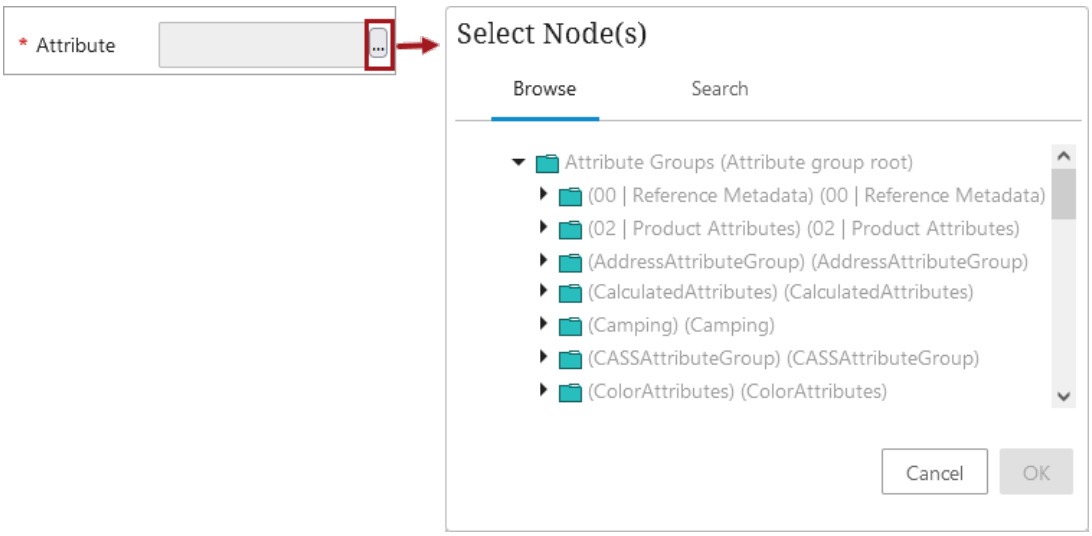
2. Click the **Add** button, the Add Component dialog will display.



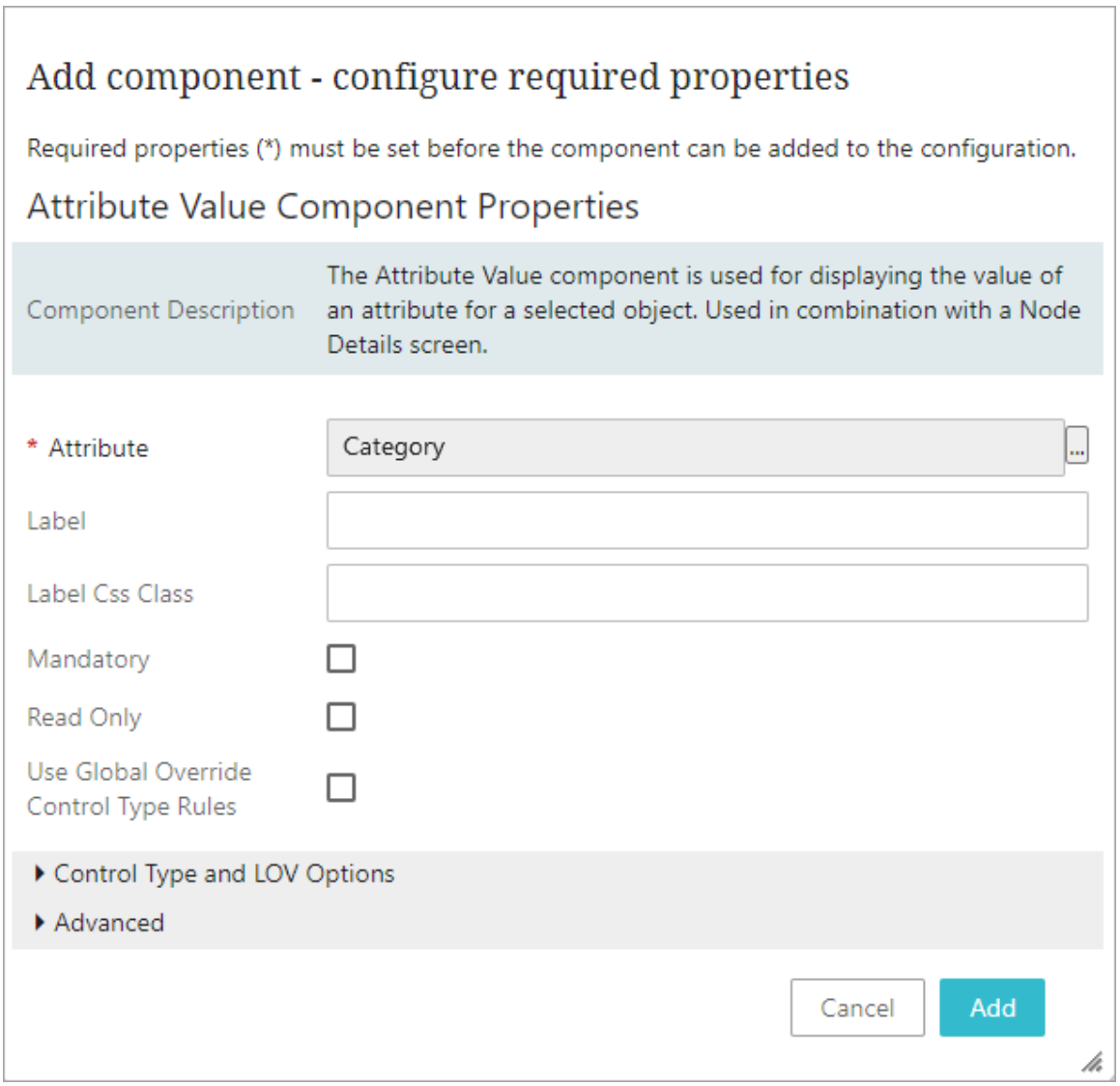
3. Select the Attribute Value Component, click the **Add** button, and the Attribute Value Component Properties dialog will display.



4. The only mandatory parameter is **Attribute**. To select an attribute, click the ellipsis button (...) to the right of the Attribute field. A Select Node(s) dialog will appear and an attribute can be selected by browsing and navigating down to the desired attribute or by using the search feature.



5. Once the appropriate attribute has been selected, click the **OK** button to close the Select Nodes dialog, and return to the Attribute Value Component Properties dialog now displaying the selected attribute and the enabled Add button.



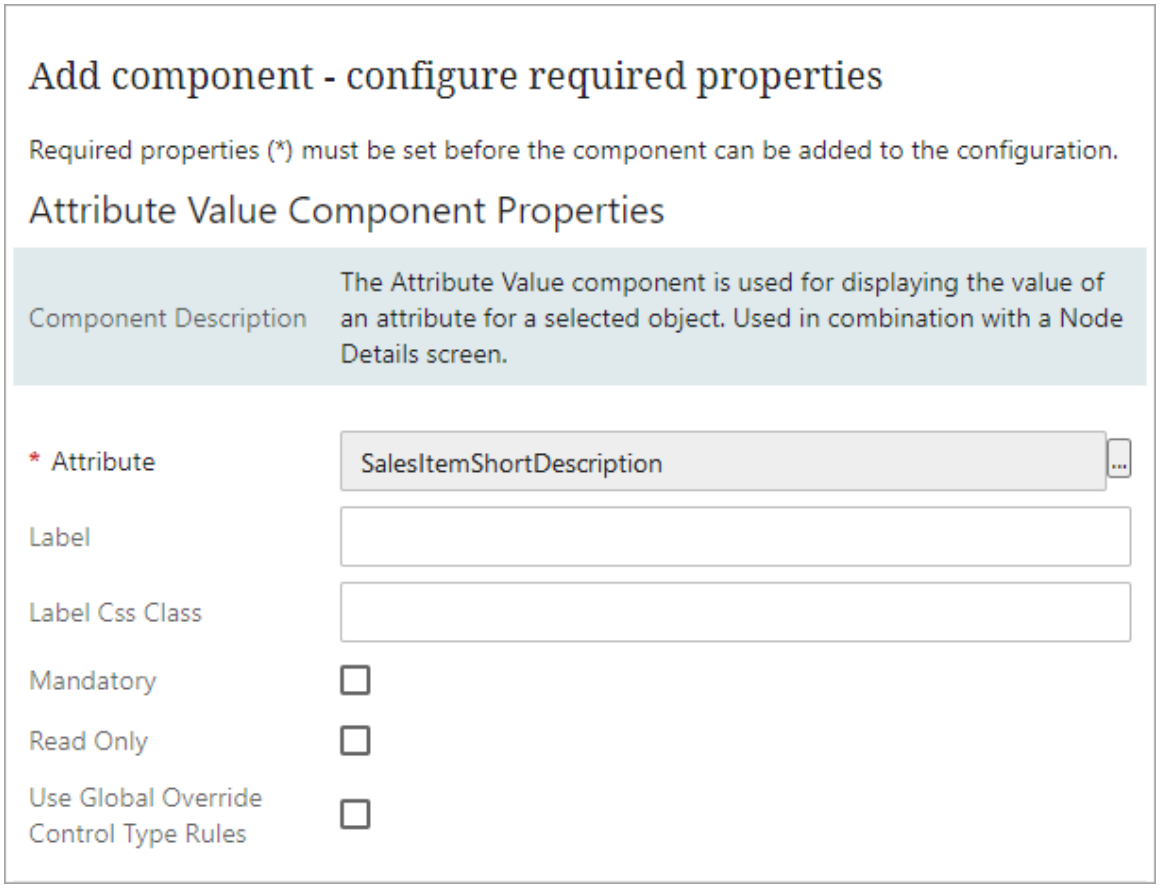
6. Click the **Add** button, the dialog will close, and the newly added Attribute Value component will display as the last row of the Node Editor Child Components Rows.
7. Optionally, use the **Up** and **Down** buttons to properly order the display of the newly added Attribute Value component.
8. Click the **Save** and **Close** buttons for the designer.

Configuring an Attribute Value Component

An Attribute Value component is highly configurable, and its parameters are found within the three sections; 'Main', 'Control Type and LOV Options', and 'Advanced'. Information for each of the parameters available for the Attribute Value Component Properties can be found below.

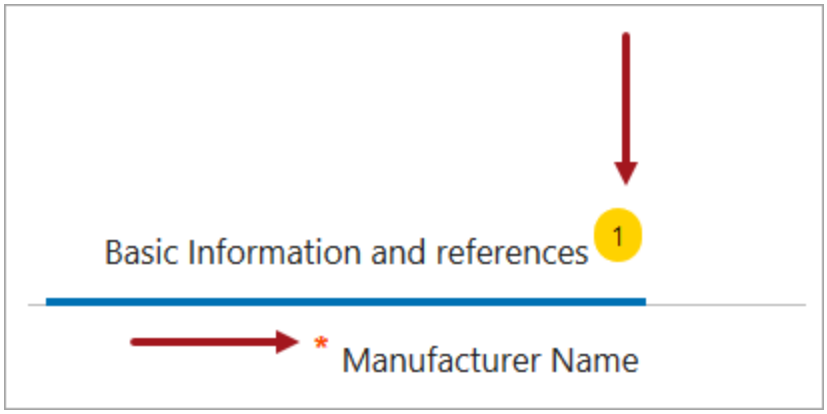
Main Parameters

Configure the parameters as needed.



- **Attribute:** The only mandatory parameter for this component. An attribute is selected when the component is added. To select a different attribute, click the ellipsis button (...) to the right of the Attribute value field. A Select Node(s) dialog will appear and an attribute can be selected by browsing and navigating down to the desired attribute or by using the search feature.
- **Label:** Override the attribute name by adding new text that will display in its place. The default label of attribute value component is the attribute title.
- **Label Css Class:** Optional name of a CSS style to be set for the label.
- **Mandatory:** When checked, users are visually prompted to add a value to the attribute. If 'Enforce Validity' is checked on any of the action buttons (Save, Submit, or Approve), users must provide a value for the attribute to the attribute field before any of the action buttons will be activated.
  - If checked, the attribute name will display with an asterisk (*), and when tab pages are used, a yellow warning icon will display for each tab that contains unpopulated mandatory attribute fields.

In the example below, the Manufacturer Name attribute value displays with an asterisk, and because the attribute value field has not been populated, the yellow warning icon appears in the right upper corner of the tab.

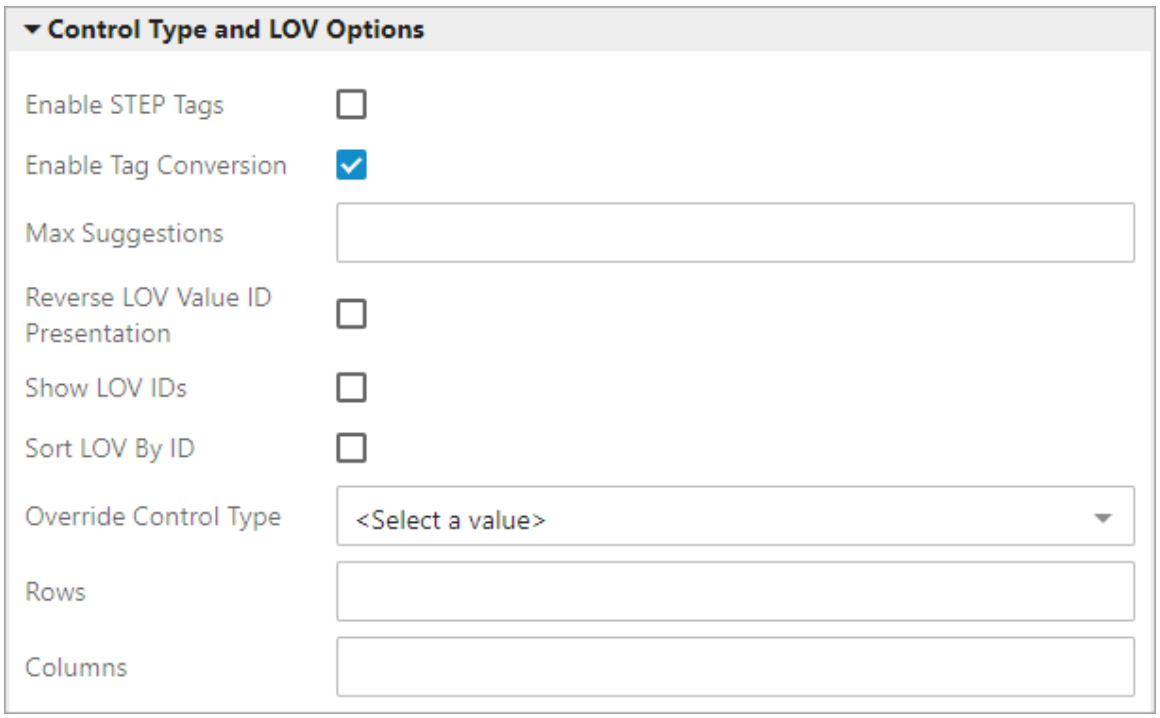


- **Read Only:** Determines if the value field should be editable or read only.
  - If not checked (default), then users can edit the field.
  - If checked, the attribute value on the screen will be locked so end users cannot make edits.
- **Use Global Override Control Type Rules:** Determines if global or local control types are used.
  - If checked, global Attribute Control Type Rules will be used for overriding the default control types for attributes with the following validation base types: List of Values, Numeric Text, Numeric Text (exclude tags), Text, and Text (exclude tags).
  - If not checked, then the local configuration will be used.

For details on the classification-specific parameters ('Classification Link Type', 'Unit Metadata Attribute', and 'Display FValue Details') refer to the Classification-Specific Attribute Value Components topic.

Control Type and LOV Options Parameters

Click the arrowhead next to the **Control Type and LOV Options** heading to view the parameters available. Configure the parameters as needed.



- **Enable STEP Tags:** Determines if users can edit STEP tags.

  Note: Refer to the **Understanding the Rich Text Editor** section below for details about when the RTE is available.

  - If not checked (default) and the content contains a tag (other than <lt/> or <gt/>), the component is read-only based on the Override Control Type selected.
  - If checked, STEP tags are shown in the value and it is possible to edit the tags.

- **Enable Tag Conversion:** By default, this parameter is checked when adding new instances of Attribute Value components.

  Note: Refer to the **Understanding the Rich Text Editor** section below for details about when the RTE is available.

  Important: Working with tags may require setup in workbench. Refer to the **Tags** topic in the System Setup documentation.

  - If checked (default), users can more easily use < and > symbols in attribute values without having to do additional configuring because the control type for Text, Text (exclude tags), Numeric Text, and Numeric Text (exclude tags) attribute fields will default to Rich Text.

The Override Control Type parameter (below) **will not** override the Text, Text (exclude tags), Numeric Text, and Numeric Text (exclude tags) validation base types, and the 'Edit formatted value' icon will be present for attributes with Text, Text (exclude tags), Numeric Text, and Numeric Text (exclude tags) validation base types.

- If not checked, and users enter the < and/or > symbols into an attribute value field, or a style is applied to a value (e.g., bold or italic) upon save, the field will become locked and the Rich Text Editor (RTE) is the only way to edit the values. The field can only be unlocked by accessing workbench.

- **Max Suggestions:** Determines the maximum number of suggestions that will display before a scroll bar is used when the attribute is set to (or automatically uses) the LOV base type and typeahead control type. Additionally, it is used to indicate the maximum number of items returned in the typeahead result.
- **Reverse LOV Value ID Presentation:** Determines if the LOV values display before or after the LOV ID.
  - If not checked (default), then the LOV value will display before the LOV ID.
  - If checked, then the LOV ID will display before the LOV value.

Important: Settings within the Reverse LOV Value ID Presentation parameter will only apply when the attribute LOV is configured with IDs, and the Show LOV IDs parameter is enabled. For more information, refer to the **Adding IDs to Existing Values in LOV** section of the List of Values (LOVs) topic within the System Setup.

- **Show LOV IDs:** Determines if the attributes LOV ID displays for the end user.
  - If not checked (default), then the LOV IDs are not displayed.
  - If checked, and the attributes LOV has IDs enabled, then the LOV ID will display next to the value.
- **Sort LOV By ID:** Determines if the LOV displays in ascending order using the LOV name or ID.
  - If not checked (default), then the LOV is sorted by name.
  - If checked, and the attributes LOV has IDs enabled, then the LOV ID will display by the IDs ascending order. It is recommended to also enable the 'Show LOV IDs' parameter, because the list will appear to be sorted incorrectly if the IDs are not displayed.
- **Override Control Type:** The default control type is defined by the attribute validation base type and LOV hardness (users' ability to add values).

Note: Refer to the **Understanding the Rich Text Editor** section below for details about when the RTE is available.

  - If the attribute validation base type is LOV, then the following Override Control Type options are viable: Checkbox (only for multivalued LOVs), Radio, Radio with clear option, and Typeahead.

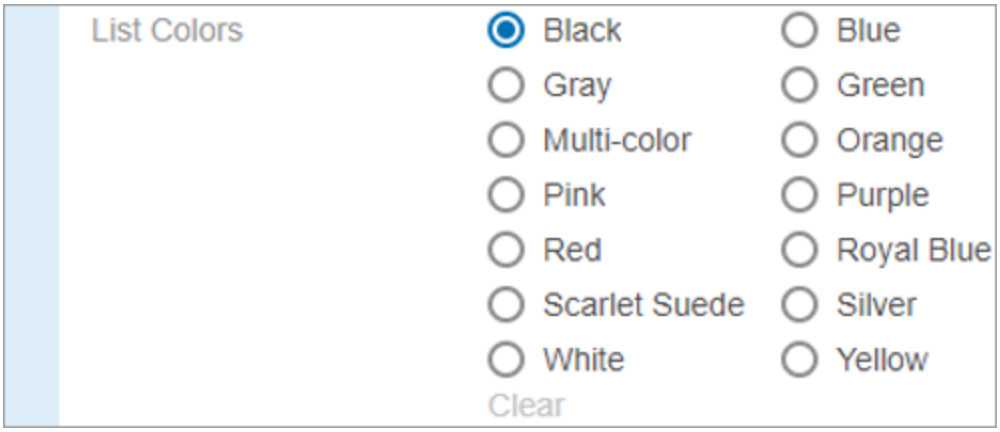
- If the attribute validation base type is Text, Text (exclude tags), Numeric Text, or Numeric Text (exclude tags), then the following Override Control Type options are viable: Rich Text, Text Area, and Text Box.

For more information about managing the control types in the Web UI, refer to the 'Override Control Type Rule' section of the Main Properties documentation.

Important: Although it is possible to select any one of the control types, if the selection is not valid, then the expected results will not display.

- **Rows:** Enter the number of rows to display before a scroll bar is displayed to the user. Settings within the Rows parameter will only apply when the attribute is set to (or automatically uses) one of the following control types: Checkbox, Radio, and Radio with clear option. Also the attribute cannot be set to allow users to add values.
- **Columns:** Enter the number of columns that should be used for the distribution of the values. Settings within the Columns parameter will only apply when the attribute is set to (or automatically uses) one of the following control types: Checkbox, Radio, Radio with clear option. Also the attribute cannot be set to allow users to add values.

  For example, the control type is set to 'Radio with clear option', and the Columns parameter is set to 2. The 14 attribute values display within two columns, and the 'Clear' option displays to the end of the value based on the value distribution of the Column parameter setting.



Note: The radio button with Clear option displays ‘Clear’ within the attribute values based on the column parameter setting and total number of attribute values. It will NOT be always to the right of the last value. A single valued LOV attribute cannot be specified with the Checkbox control type.

Advanced Parameters

Click the arrowhead next to the **Advanced** heading to view the parameters available. A description of each parameter follows. Configure the parameters as needed.



- **Context Help:** Enter help text to display when a user hovers over the attribute name. Requires that the Display Context Help parameter is checked. More information about the Context Help parameter can be found in the 'Set Component Properties in Web UI' section of the Attribute Help Text in Web UI documentation.
- **Css Class:** Enter a css-style name to be set as the primary style for this component. This will override the default determined by the attribute data type or settings applied to the Override Control Type parameter below.
- **Enable Locale Formatting:** Determines if the 'ISO Date' or 'ISO Date and Time' attribute values are displayed per the locale selection.
  - If not checked (default), locale formatting is not implemented.
  - If checked, the 'ISO Date' or 'ISO Date and Time' attribute values are displayed in the manner defined by the locale selection made during login.

    Important: Additional setup is required. For more information, refer to the Localizable Dates in Web UI section of the Web User Interfaces documentation.
- **Display Context Help:** Determines if the help text supplied in the Context Help parameter above should be available to users. Help texts can be used to provide information to end users about an attribute and how it should be populated. For more information, refer to the **Attribute Help Text in Web UI** section of the Using a Web UI documentation. This is where the 'Go to Wiki' link is displayed when the Wiki Metadata feature is installed. For more information, refer to the Wiki Metadata (Data Catalog Connector) topic in the System Setup documentation .
- **Display Value History:** Determines if the history icon should appear displaying the attribute's historic data and information on how the value has changed over time within the Web UI. For more information, refer to the Attribute Value History section of the Using a Web UI documentation .

Understanding the Rich Text Editor

How admins configure the **Enable STEP Tags**, **Enable Tag Conversion**, and **Override Control** parameters on an Attribute Value Component determines when the Rich Text Editor (RTE) is accessible for the component. The following items include dependencies that can help you understand why a particular editor is displayed for your attribute and how to configure your desired editor.

A Rich Text Editor can be used for editing when the attribute linked to the Attribute Value Component:

- does not use an LOV
- is not calculated
- is not read-only

  and also meets the requirements listed in either of the two groups below:

  - The 'Enable STEP Tags' parameter is not checked, and
  - The attribute value contains either
    - inline references or
    - single-word tags

  Or

  - The 'Enable STEP Tags' parameter is not checked, and
  - The 'Enable Tag Conversion' parameter is checked, and
  - The 'Override Control Type' is not set at all, or, if it is set, it is set to the Default or to Rich Text, and
  - The attribute is not encrypted

Additionally, the following settings affect the type of editor available:

- The 'Override Control Type' setting of Rich Text only displays a Rich Text Editor when the 'Enable Tag Conversions' parameter is checked.
- When both the 'Enable STEP Tags' and 'Enable Tag Conversion' parameters are not checked, the Text Box is used for editing and the Rich Text Editor is not available.

If you experience issues while using the Rich Text Editor in Internet Explorer, use an alternate browser such as Chrome, Firefox, or Safari.

Attribute Value Group Component

The Attribute Value Group component can be added to a Node Editor component to display the values for each attribute within a chosen attribute group.

One major benefit to using an Attribute Value Group component (versus multiple Attribute Value components) is that when attributes are added to the chosen attribute group, then the newly added attribute values automatically appear on the screen without additional Web UI configuration. If certain attributes or attribute groups within the chosen attribute group do not need to display, then the attribute value group component has several options to properly display only the desired attributes within the chosen attribute group.

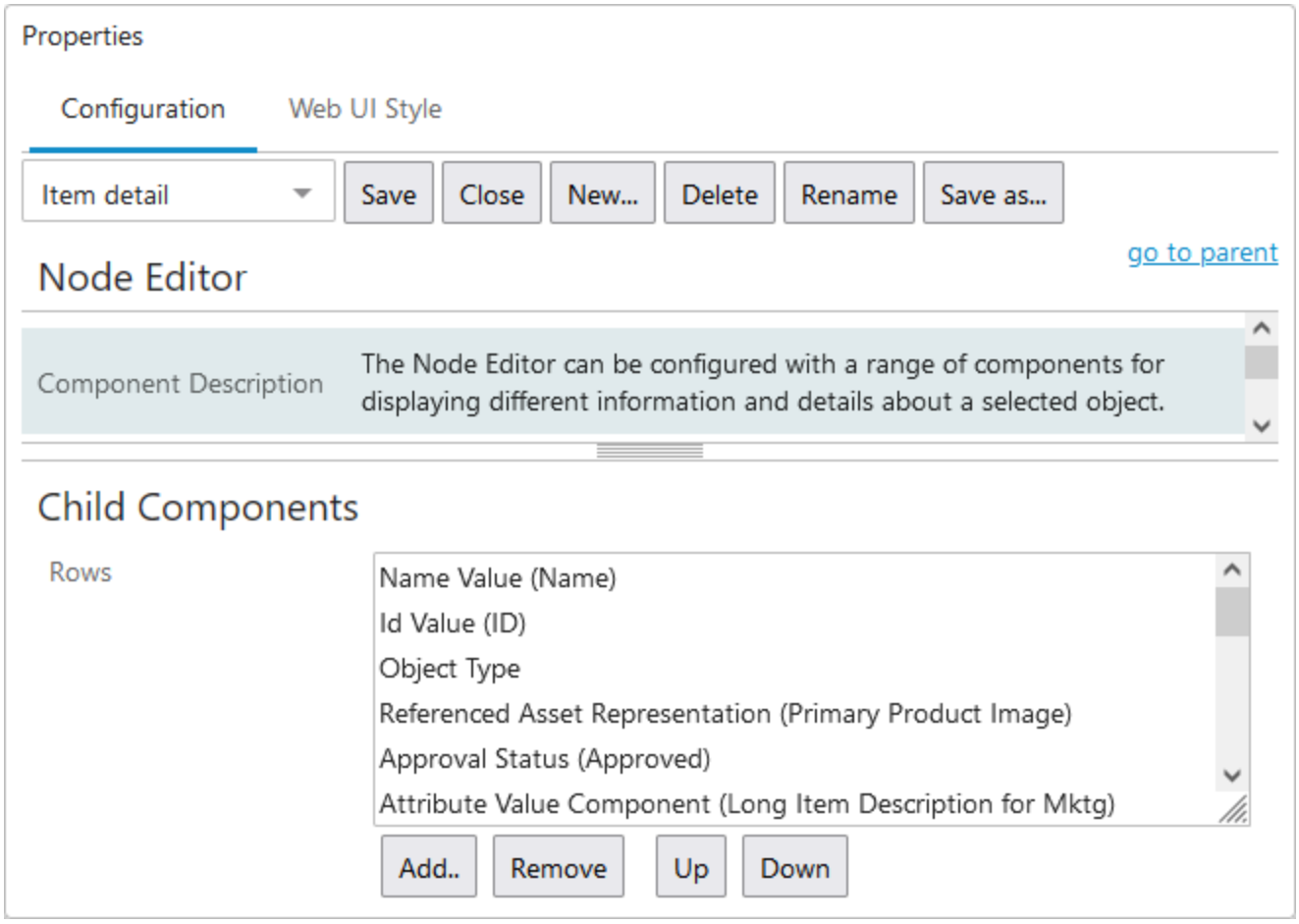
In the example below, the Name, ID, Primary Product Image, and attributes from a chosen attribute group are displayed within a Node Editor on a Node Details screen.

Product view

Basic Information and references | Workflow States | Additional Information

Name	Blue Flashlight
ID	134887
Object Type	Item
Primary Product Image	 BlueFlashlight
Approved	✕ Last approved 2/21/17 8:15 AM
Long Item Description for Mktg	The flashlight is small enough to fit into a purse or pocket. Perfect for home projects or camping.
	Type: Long Item Description for Mktg **Target:** For Products, Packaging and Moulds **Description:** Describes the Product with all the details, different colour codes can be used. For more information visit store.
Available Colors	Aero Blue Carmine Red

The screenshot below displays the Web UI designer settings used for the example given above.



Prerequisites

It is expected that anyone configuring the Attribute Value Group component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, users must have appropriate privileges to access the designer. Additional information can be found in the Designer Access section of the Web User Interfaces documentation.

It is possible to not display certain attributes within an attribute group. For more information, refer to the **Handling Duplicated Attributes in Web UI** topic in the System Setup documentation.

Within this component are options related to the use of STEP Tags. Prior to making changes to the default settings related to STEP Tags and Tag Conversion, it is recommended to review the complete Tags documentation within System Setup.

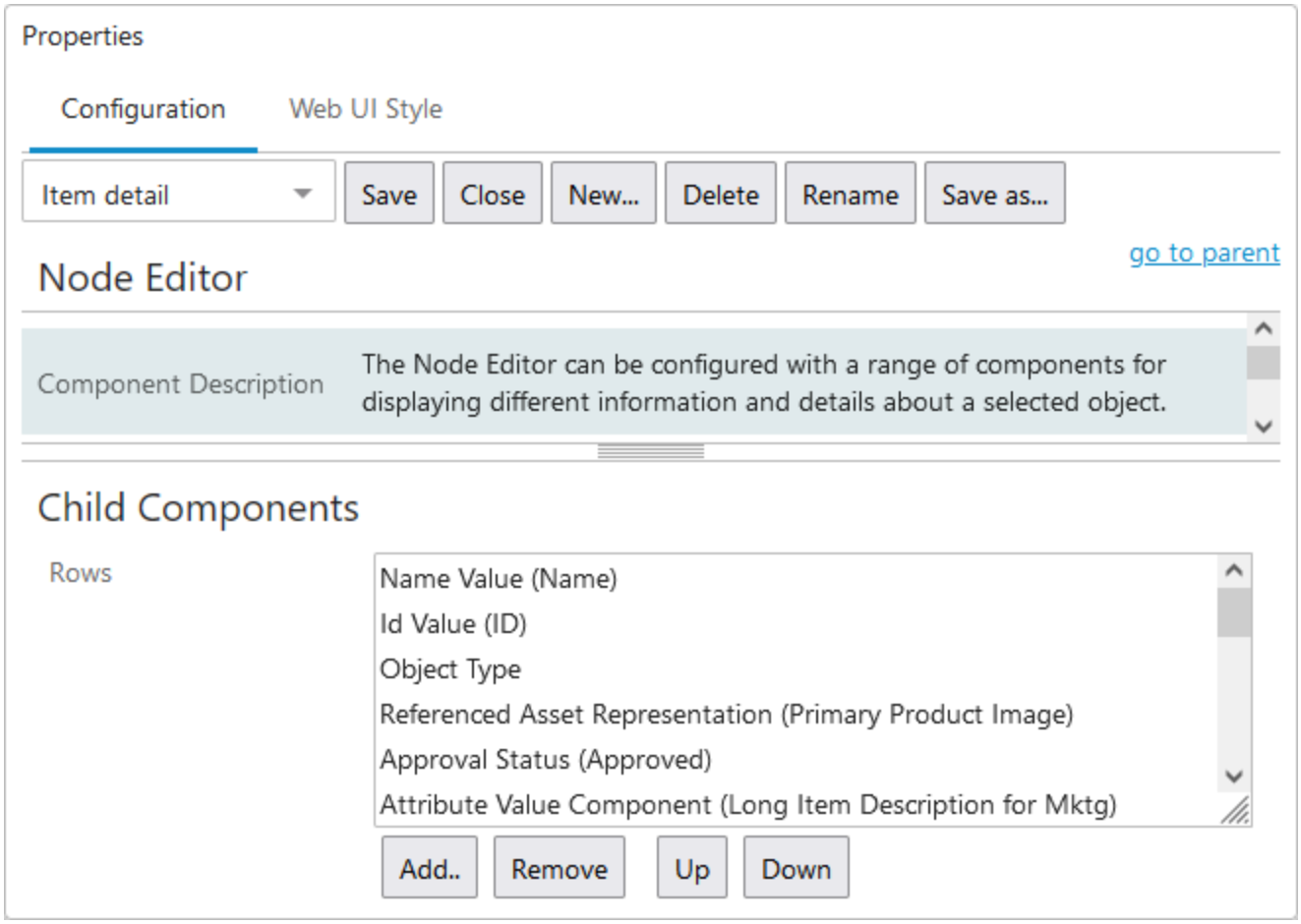
Adding an Attribute Value Group Component to a Node Editor

Attribute Value Group components are added within the Child Components section of the Node Editor Properties. They can be added, removed, and re-ordered using the buttons below the Rows parameter. The Node Editor Child Components Rows will display in the order listed within the Rows parameter. Once added, the components can be reordered using the Up and Down buttons.

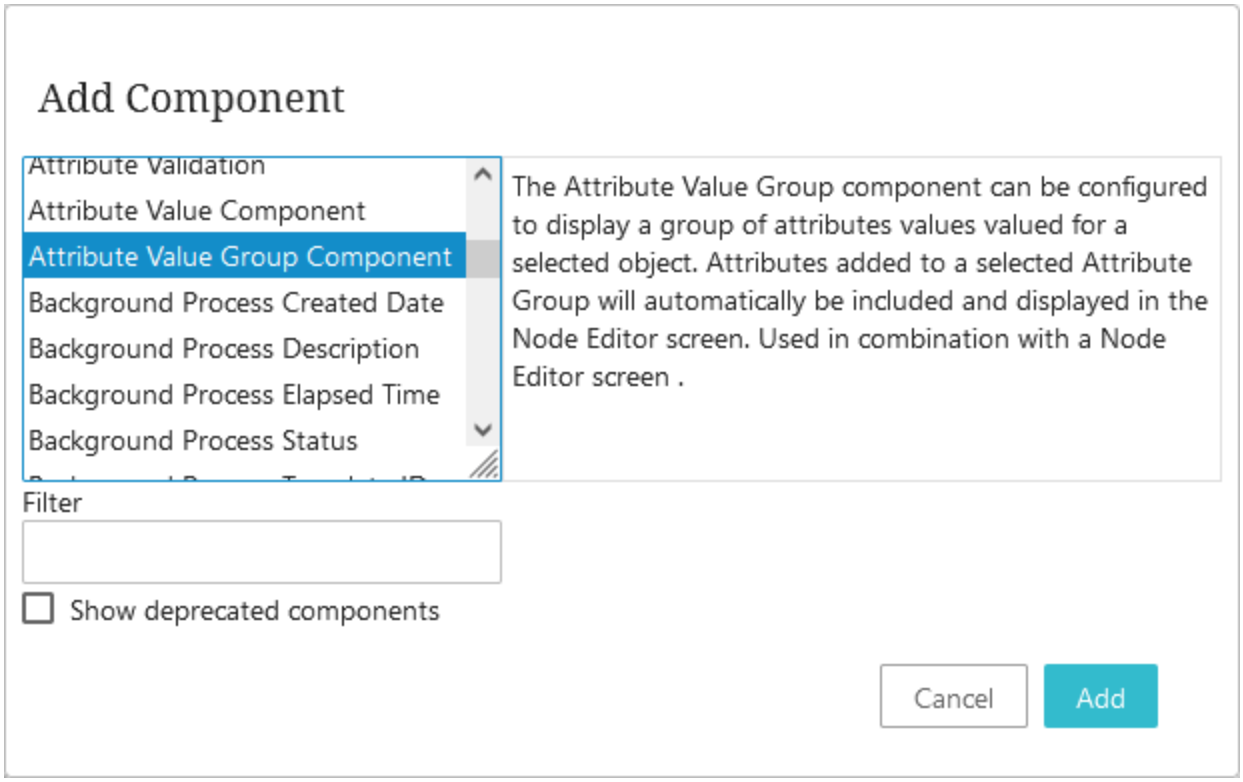
Recommended practice when displaying attributes within Web UI is to use the Attribute Value Group component and then manage the display behavior of the validation base types using one or more global rules created using the Override Control Type component. For more information, refer to the Override Control Type Rule topic within the Web User Interfaces documentation.

Steps for adding an Attribute Value Group Component to a Node Editor are below. Information for all the Attribute Value Group Component Properties dialog parameters are available in the Configuring an Attribute Value Group Component section below.

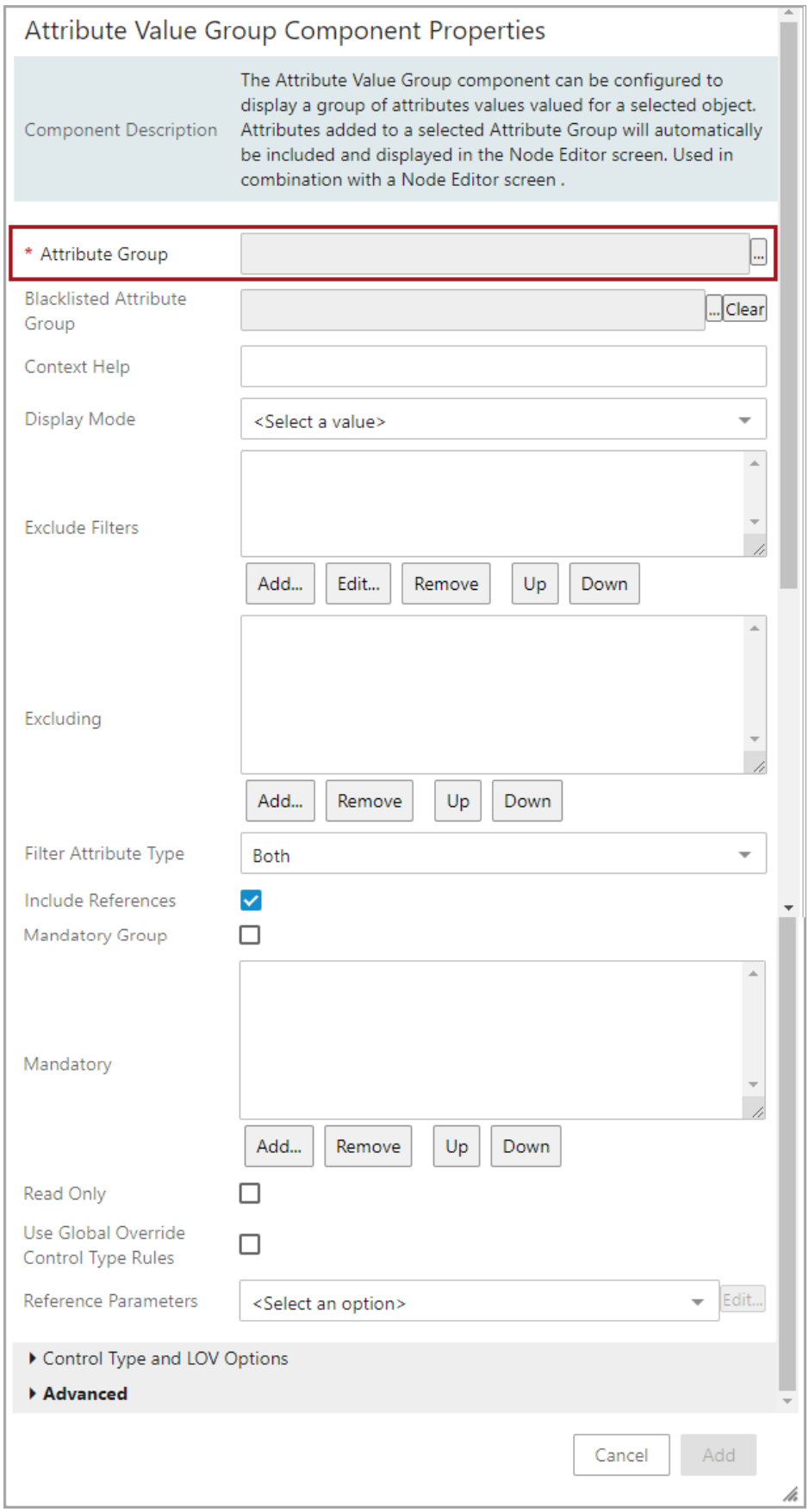
1. With the designer open, select your Node Details screen, navigate to your Node Editor component, and the Node Editor Properties will display.



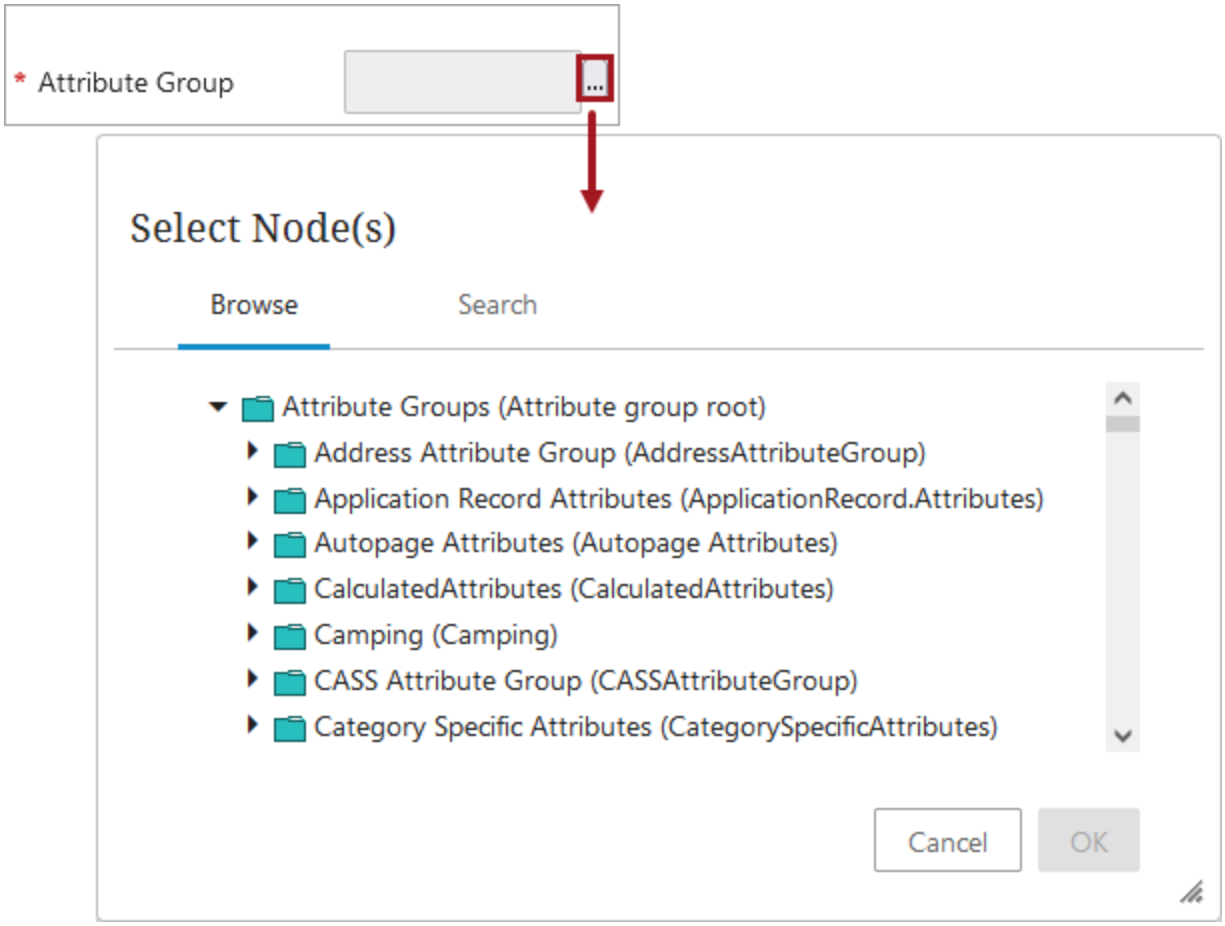
2. Click the **Add** button, and the add component dialog will display.



3. Select the Attribute Value Group Component, click the **Add** button, and the Attribute Value Group Component Properties dialog will display.


Attribute Value Group Component Properties
Component Description
The Attribute Value Group component can be configured to display a group of attributes values valued for a selected object. Attributes added to a selected Attribute Group will automatically be included and displayed in the Node Editor screen. Used in combination with a Node Editor screen .
* Attribute Group
Blacklisted Attribute Group
Clear
Context Help
Display Mode
<Select a value>
Exclude Filters
Add...
Edit...
Remove
Up
Down
Excluding
Add...
Remove
Up
Down
Filter Attribute Type
Both
Include References
Mandatory Group
Mandatory
Add...
Remove
Up
Down
Read Only
Use Global Override Control Type Rules
Reference Parameters
<Select an option>
Edit...
Control Type and LOV Options
Advanced
Cancel
Add

4. The only mandatory parameter is **Attribute Group**. To select an attribute group, click the ellipsis button (...) to the right of the Attribute Group field. A Select Node(s) dialog will appear and an attribute group can be selected by browsing and navigating down to the desired attribute group or by using the search feature.



5. Once the appropriate attribute group has been selected, click the **OK** button to close the Select Nodes dialog, and return to the Attribute Value Group Component Properties dialog now displaying the selected attribute and the enabled Add button.
6. Click the **Add** button, the dialog will close, and the newly added Attribute Value Group component will display as the last row of the Node Editor Child Components Rows.
7. Optionally, use the **Up** and **Down** buttons to properly order the display of the newly added Attribute Value Group component.
8. Click the **Save** and **Close** buttons for the designer.

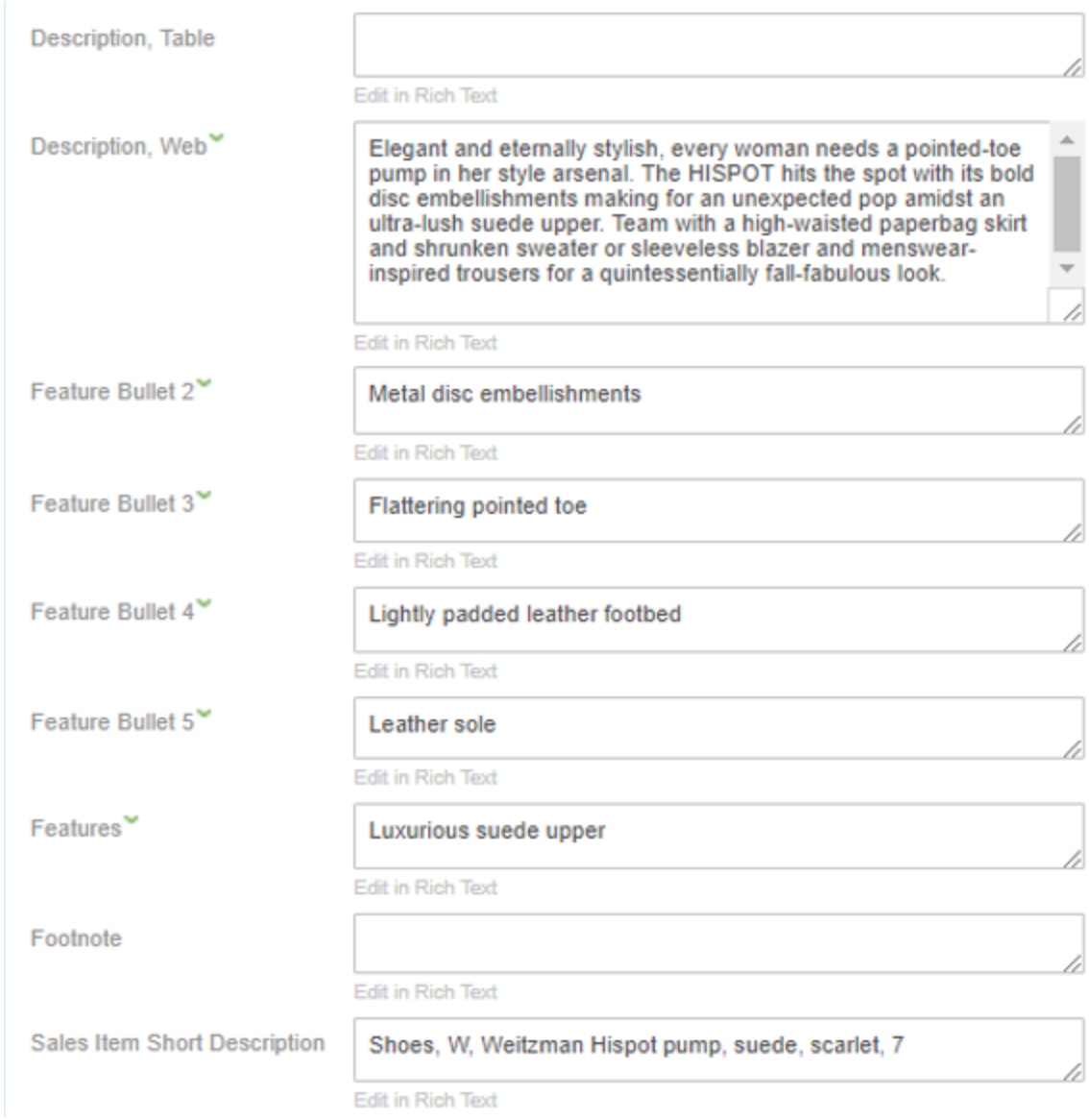
Configuring an Attribute Value Group Component

An Attribute Value Group component is highly configurable, and its parameters are found within the three sections: 'Main', 'Control Types and LOV Options', and 'Advanced'. Information for each of the parameters available for the Attribute Value Group Component Properties can be found below.

Main Parameters

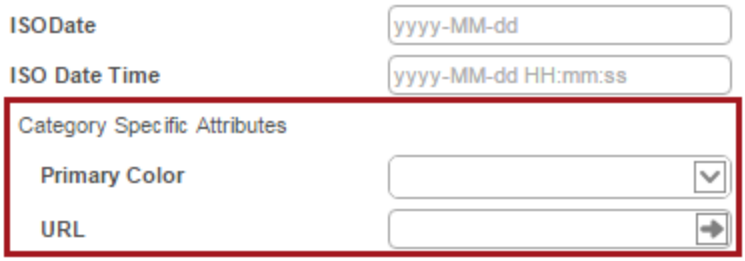
Configure the parameters as needed.

- **Attribute Group:** The only mandatory parameter for this component. An attribute group is selected when the component is added. To select a different attribute group, click the ellipsis button (...) to the right of the Attribute Group value field. A Select Node(s) dialog will appear and an attribute group can be selected by browsing and navigating down to the desired attribute or by using the search feature.
- **Blacklisted Attribute Group**: Click the ellipsis button (...) and add a Blacklisted Attribute Group to hide attributes that should not be displayed on the Web UI screen. More information about the **Blacklisted Attribute Group** parameter can be found in the Setting up Blacklisted Attribute Groups in Web UI section of the Handling Duplicated Attributes in Web UI documentation.
- **Context Help:** Enter help text to display when a user hovers over the attribute group name. Requires that the Display Context Help parameter below is enabled. More information about the Context Help parameter can be found in the Set Component Properties in Web UI section of the Attribute Help Text in Web UI documentation.
- **Display Mode:** Determines how attributes within the attribute group are displayed to the end user.
  - **Merged:** Attributes below the selected attribute group and sub groups are displayed together alphabetically without attribute group as headers.

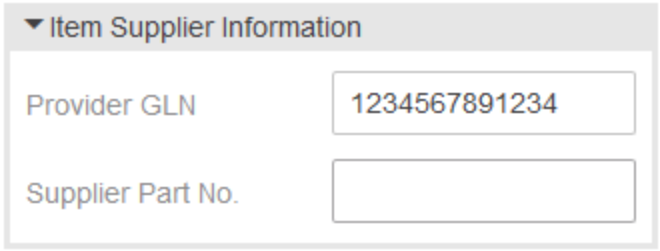


Note: If the attribute display sequence is defined on attributes, then the attributes are displayed together based on ascending display sequence order. Additionally, attribute display sequence takes precedence over the alphabetical sorting. Attributes displayed together in alphabetical order is based on the attribute's name.

- **Partitioned:** Attributes are displayed alphabetically (based on the attribute name) within their attribute groups. Attribute Group names are not displayed as headers.
- **Hierarchical:** Attribute group titles are shown with attribute titles indented below, according to the attribute group structure.



- **Sectioned**: Attributes are presented in sections; one section per attribute group; collapse and expand by clicking on the attribute group title.

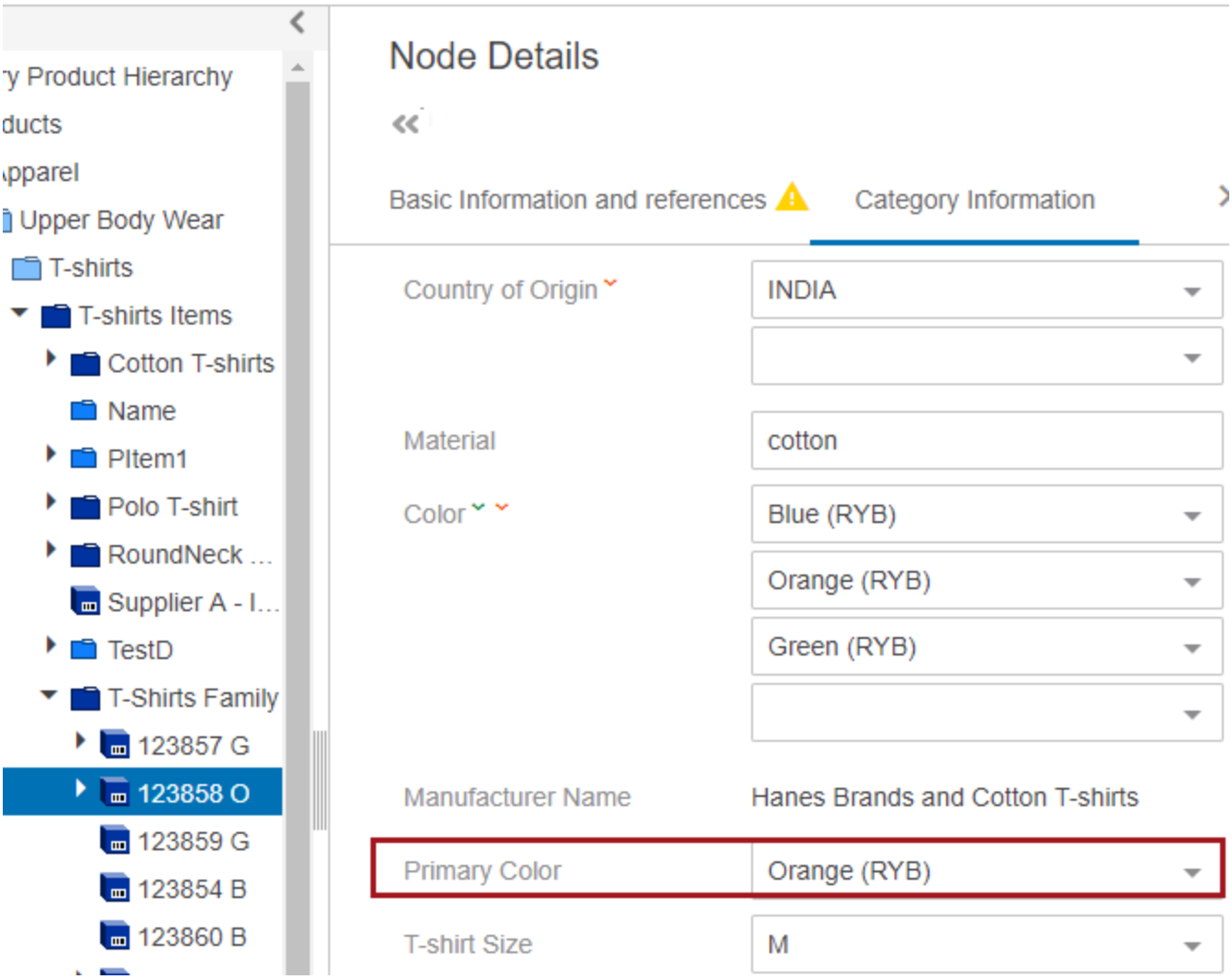


Note: The attribute group title will be highlighted only when the mouse is hovered over the attribute group title.

- **Exclude Filters:** Hides or displays attributes based upon attribute values or fixed text by adding one or more filters. Each filter component will be applied to the collection of attributes in the group. The two filter component types to choose from are:
  - **Meta Data Lookup Filter Component:** Used for filtering attribute values in an attribute group by looking up the value of another attribute on the node and comparing that value to the value of the metadata attribute.
  - **Meta Data Text Filter Component:** Used for filtering attribute values in an attribute group by comparing a fixed text value to the value of the metadata attribute.

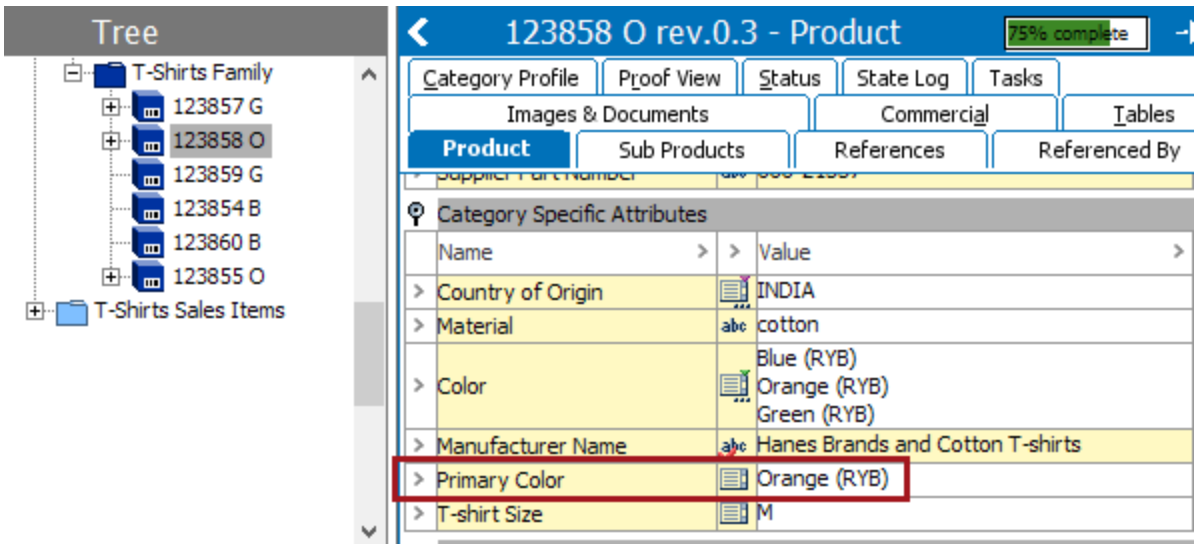
Setting the Meta Data Text Filter Component

The attribute **Primary Color** will be filtered from the group **Category Specific Attributes** in Web UI.

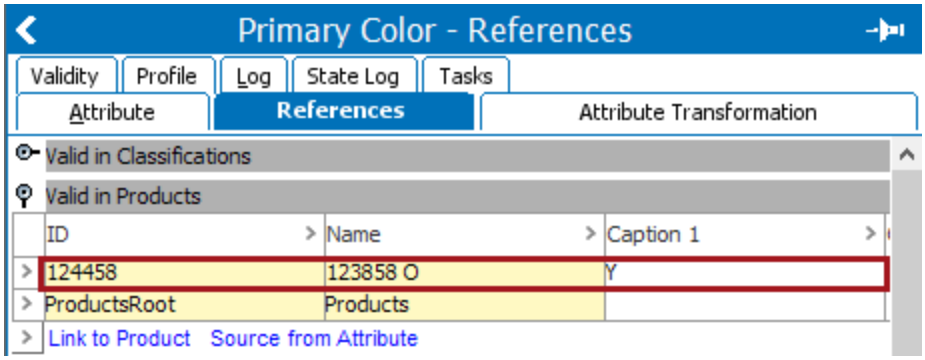


Before any setup in Web UI can take place, the following setup needs to be in place in workbench first.

In the example below, the attribute group, **Category Specific Attributes**, has been added on a product, and a specific attribute, in this case **Primary Color**, needs to be filtered from the group.

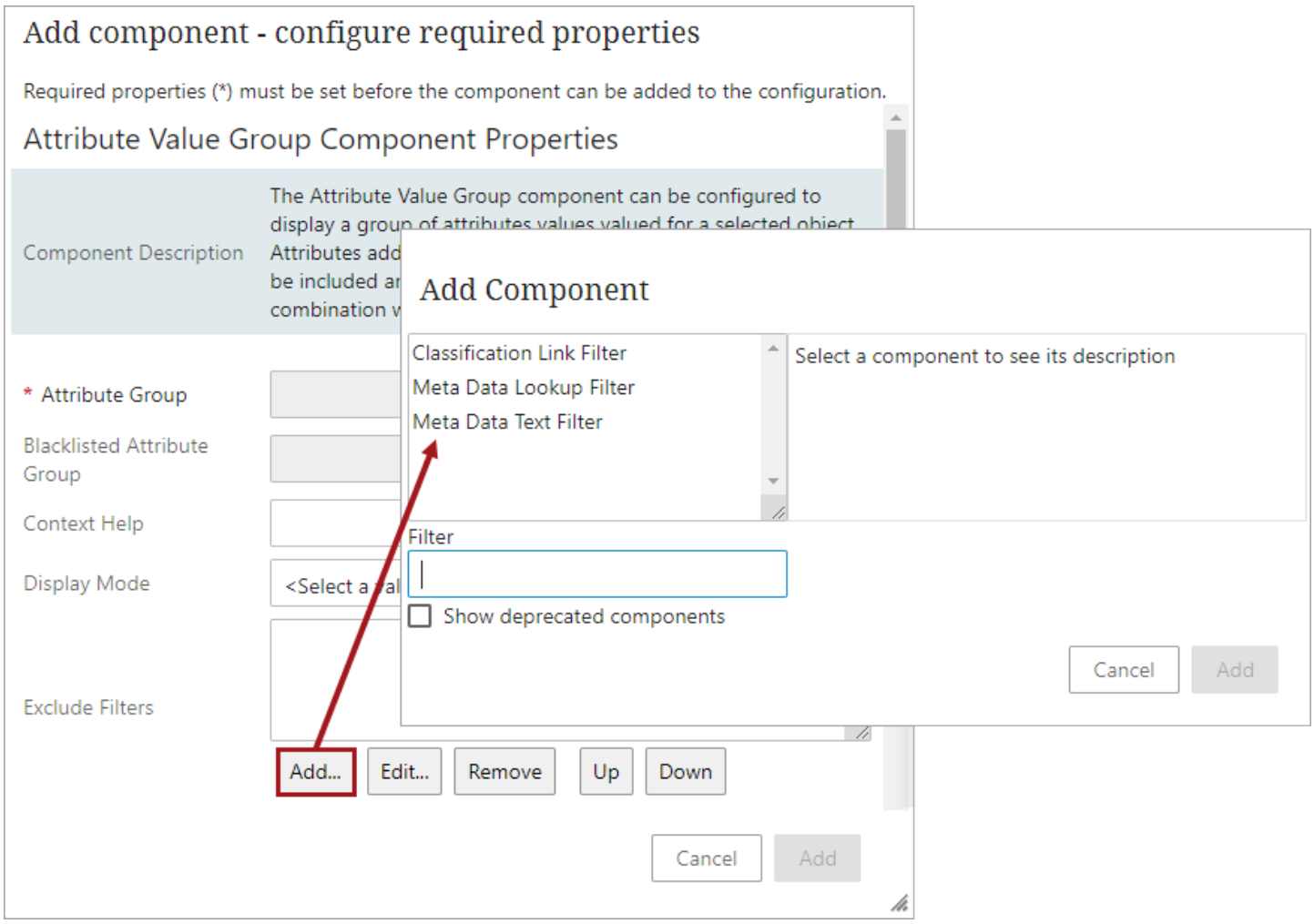


A metadata attribute, in this case **Caption 1**, with an LOV base type needs to be valid on the same object type that the attribute is used on, in this case product types. Select the attribute that needs to be excluded from the Web UI screen (Primary Color), and click on the References tab. Specify a value for Caption 1, in this case 'Y.'

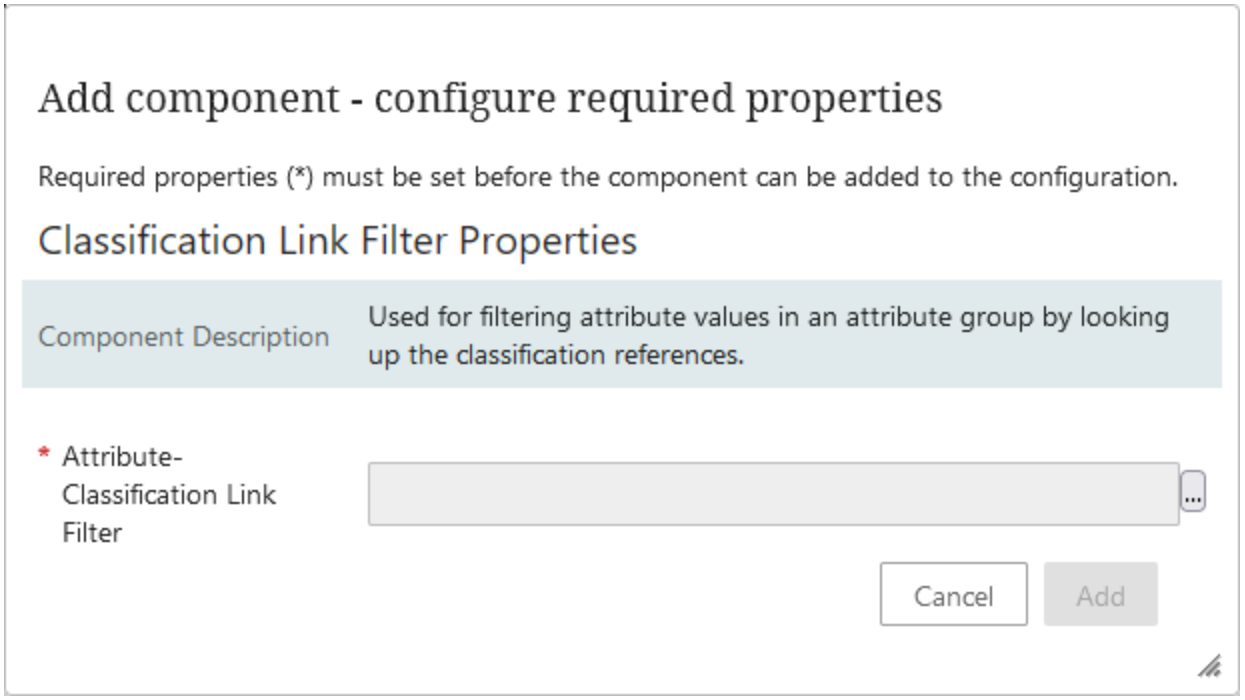


In the Web UI the setup of Meta Data Text filters can be configured by following the steps below:

On **Attribute Value Group Component Properties** > Exclude Filters > click on the Add button to display the filter options.

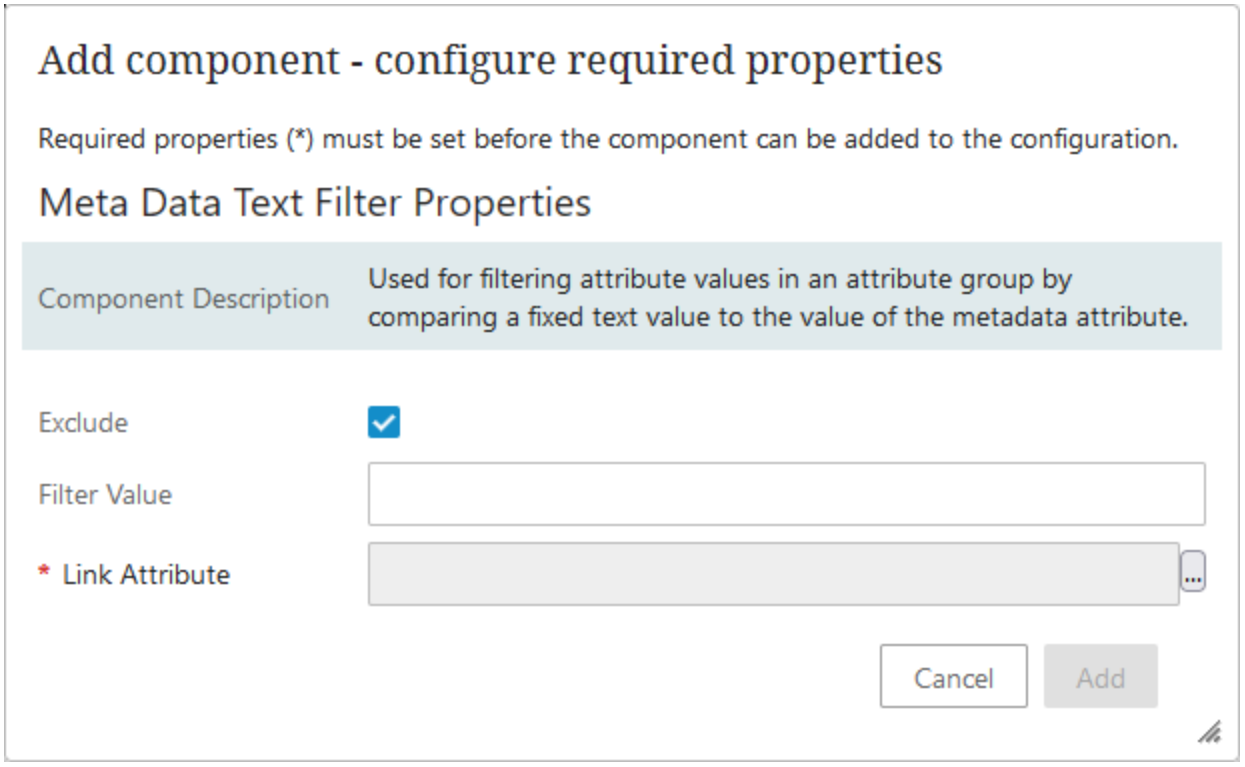


When using the classification link filter option, in the Classification Link Filter Properties dialog, click the ellipsis button (...) to display the Select Node(s) dialog. Browse or search for the desired classification and click **OK** to close the Select Node dialog. Then click the **Add** button to close the Classification Link Filter Properties dialog.

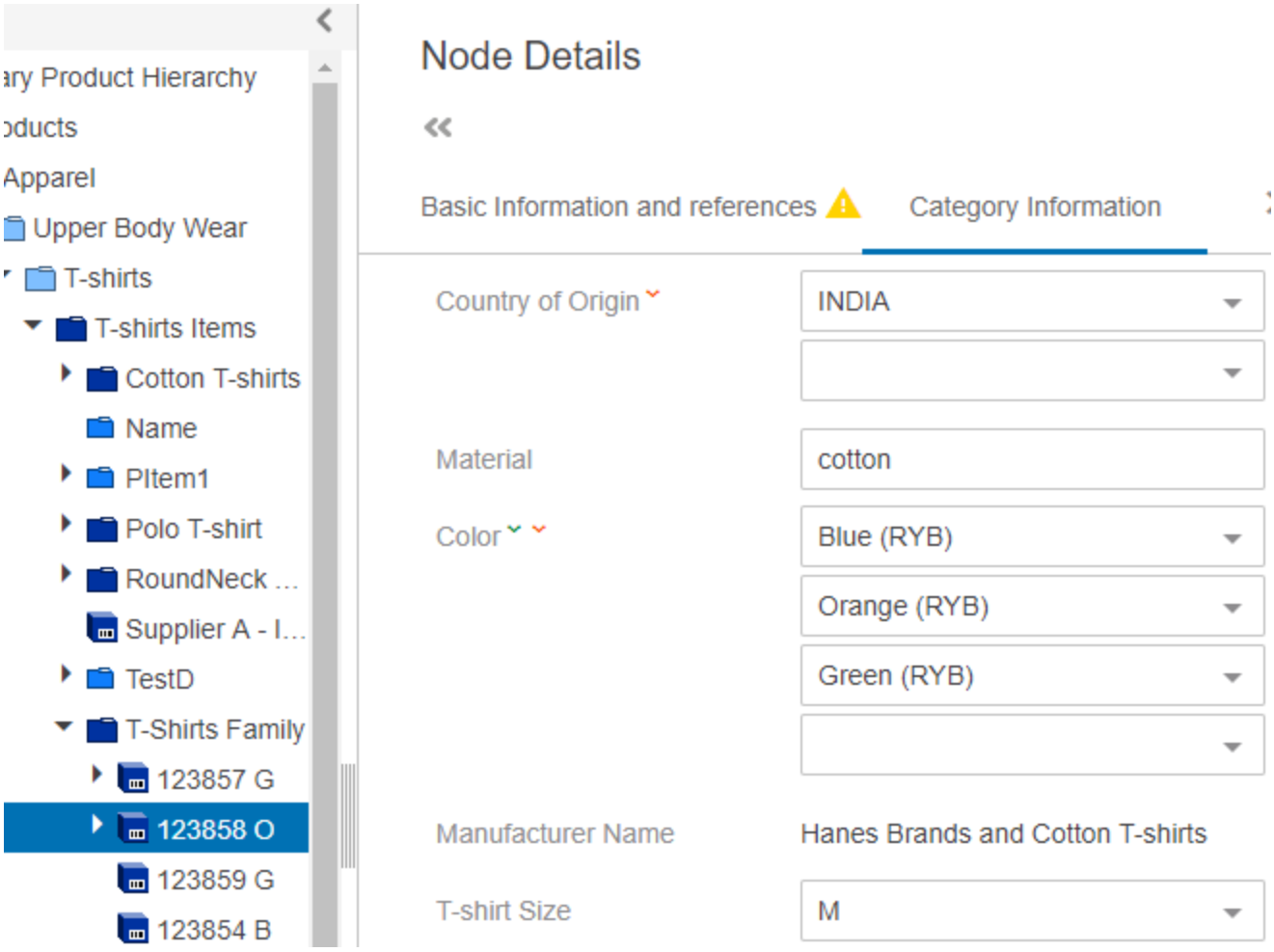


When using the metadata options, in the Meta Data Text Filter Properties or the Meta Data Lookup Filter Properties, fill out the two fields:

- **Filter Value**: a metadata attribute value to use in the filter condition (the value of Caption 1 in this example)
- **Link Attribute**: a metadata attribute that specifies whose values to filter attributes by.



Save the screen and close the Web UI designer. The attribute Primary Color will be filtered from displaying within the attribute group Category Specific Attributes in Web UI.

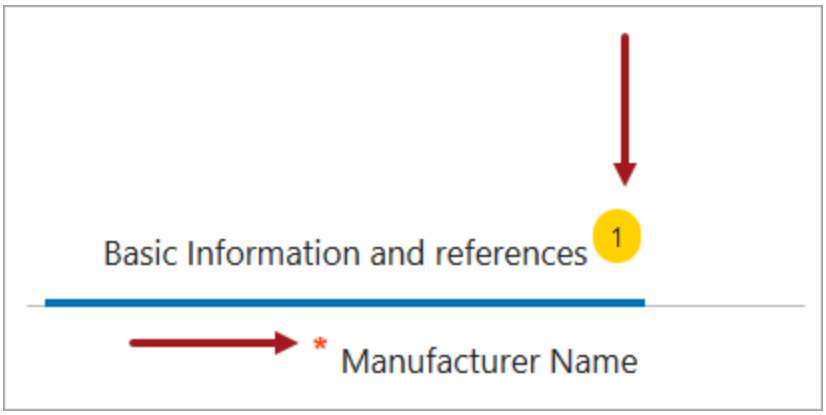


Important: The **Meta Data Lookup Filter** and **Meta Data Text Filter** components feature an **Exclude** parameter that is enabled by default, however, disabling this parameter allows the filters to become inclusive, instead of exclusive.

- **Excluding:** Prevents specified attributes (within the attribute group) from displaying for this particular Node Editor screen by adding specific attributes to the parameter.
- **Filter Attribute Type:** Determines if only Specification or Description attributes within an attribute should display.
- **Include References:** Determines if references should be displayed with the respective attributes if reference types exist in the attribute group.
- **Mandatory Group:** When enabled, users are visually prompted to add a value to all attributes in the attribute group. If 'Enforce Validity' is enabled on any of the action buttons (Save, Submit, or Approve), users must provide a value for all attributes in the group before any of the action buttons will be activated. This setting will override any attributes listed in the Mandatory parameter, described below.

- **Mandatory:** When enabled, users are visually prompted to add a value to specific attributes from the attribute group that are added to the 'Mandatory' field. If the 'Mandatory Group' parameter is enabled, attributes added to this field will be overridden and all attributes in the group will display as mandatory. If 'Enforce Validity' is enabled on any of the action buttons (Save, Submit, or Approve), users must provide a value for the attributes listed in this field before any of the action buttons will be activated.
  - Add specific attributes to the parameter that should display the attribute name with an asterisk (*), and when tab pages are used, a yellow warning icon will display for each tab that contains unpopulated mandatory attribute fields.

    In the example below, the Manufacturer Name attribute value displays with an asterisk, and because the attribute value field has not been populated, the yellow warning icon indicator appears in the right upper corner of the tab.



- **Read Only:** Determines if all attribute values within the group should be editable or read-only.
  - If disabled (default), then users can edit the field.
  - If enabled, the attribute value on the screen will be locked so end users cannot make edits.
- **Use Global Override Control Type Rules:** Determines if global or local control types are used.
  - If enabled, global Attribute Control Type Rules will be used for overriding the default control types for attributes with the following validation base types: List of Values, Numeric Text, Numeric Text (exclude tags), Text, and Text (exclude tags).
  - If disabled, then the local configuration will be used.
- **Reference Parameters:** Determines how references pertaining to attributes within the group are displayed. Also at least one editor screen must be specified for the References to work as hyperlinks to the target.

> **Note:** Include References option should be enabled along with Reference Parameters setting.

Configuring Reference Parameters

In the attribute value group properties, go to Reference Parameters field > select Value Group Reference Parameter > click on Edit.



In the Value Group Reference Parameter set the below fields:

Editor Screens - select the screen to be displayed when the hyperlink to the target is clicked. While one screen must be selected, multiple screens can be selected.

Show Visibility Controls - the component controls the context visibility of references. It has no effect if legacy view is used however.

- If the option is disabled (default), then adjusting context visibility controls will not be displayed.
- If this option is enabled, then adjusting context visibility controls will be displayed, and the reference type should be dimension dependent.

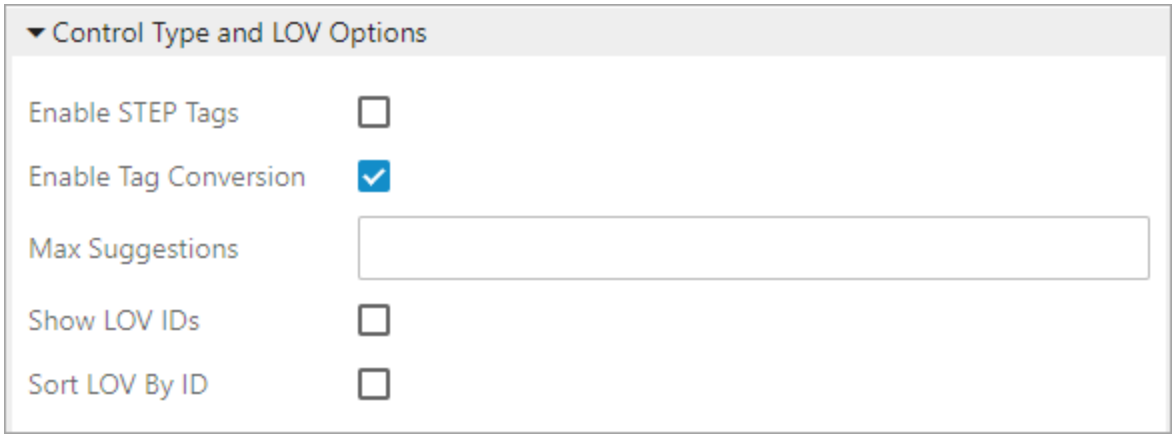
  Note: The Legacy View option should be disabled when Show Visibility Controls option has to be configured for the reference parameters.

- **Rich Text Editing:** Determines when Rich Text editing should be applied to all attribute values within the group.
  - **Never:** All attribute values within the group will never display with Rich Text Editing.
  - **Always:** All attribute values within the group will always display with Rich Text Editing.
  - **Long Text:** Only attributes with validation length longer than 100 will display with Rich Text Editing.

For details on the classification-specific parameters ('Classification Link Type', 'Unit Metadata Attribute', and 'Display FValue Details') refer to the Classification-Specific Attribute Value Components topic.

Control Type and LOV Options Parameters

Click the arrowhead next to the 'Control Type and LOV Options' heading to view the parameters available. Configure the parameters as needed.



- **Enable STEP Tags:** Determines if users should be able to edit STEP tags.
  - If disabled (default) and the content contains a tag (other than <lt/> or <gt/>), then the component will be read-only based on the Override Control Type selected.

    Note: If the Override Control Type is a rich text editor, then the component will be editable with the rich text editor.

  - If enabled, STEP tags are shown in the value and it is possible to edit the tags.
- **Enable Tag Conversion:** By default this parameter is enabled when adding new instances of Attribute Value Group components.
  - If enabled (default), then users can more easily use the less than (<) and greater than (>) symbols in attribute values without having to do additional configuring because the control type for Text, Text (exclude tags), Numeric Text, and Numeric Text (exclude tags) attribute fields will default to Rich Text.

    The Override Control Type parameter (below) **will not** override the Text and Numeric Text validation base types, and the 'Edit formatted value' icon will be present for attributes with Text, Text (exclude tags),

    Numeric Text, and Numeric Text (exclude tags) validation base types.

    Note: If the Enable Tag Conversion is set to true, then the Override Control Type will not be taken into consideration, and the Rich Text Box will always be created. Additionally, the 'Enable Tag Conversion' always takes precedence. If the Text Box is desired instead of the Rich Text, then the Enable Tag Conversion parameter should be set to false.

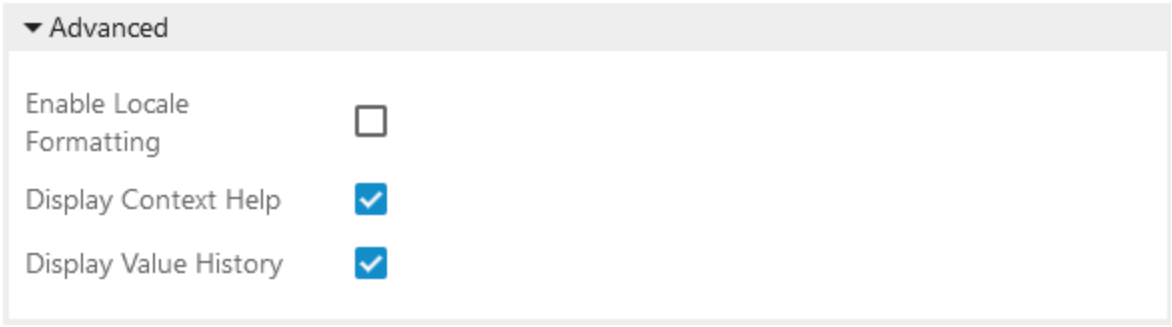
  - If disabled, and users enter the < and / or > symbols into an attribute value field or a style is applied to a value (e.g., bold or italic), upon save, the field will become locked. The field can only be unlocked by accessing workbench.

Important: There is more information to be aware of when enabling and disabling this parameter. Refer to the Enable Tag Conversion section at the end of this topic. Also, working with tags may require setup in workbench. Refer to the Tags topic in the System Setup documentation.

- **Max Suggestions:** Determines the maximum number of suggestions that will display before a scroll bar is used when the attribute is set to (or automatically uses) the LOV base type and typeahead control type.
- **Show LOV IDs:** Determines if the attribute's LOV ID displays for the end user.
  - If enabled (not default), and the attribute's LOV has IDs enabled, then the LOV ID will display next to the value.
- **Sort LOV By ID:** Determines if the LOV displays in ascending order using the LOV name or ID.
  - If enabled (not default), and the attribute's LOV has IDs enabled, then the LOV ID will display by the IDs ascending order. It is recommended to also enable the 'Show LOV IDs' parameter, because the list will appear to be sorted incorrectly if the IDs are not displayed.

Advanced Parameters

Click the arrowhead next to the **Advanced** heading to view the parameters available. Configure the parameters as needed.



- **Enable Locale Formatting:** Determines if the 'ISO Date' or 'ISO Date and Time' attribute values are displayed per the locale selection.
  - If enabled (not default), the 'ISO Date' or 'ISO Date and Time' attribute values will be displayed in the manner defined by the locale selection made during login.

Important: Additional setup is required. For more information, refer to the Localizable Dates in Web UI section of the Web User Interfaces documentation.

- **Display Context Help:** Determines if the help text should be available to users. Help texts can be used to provide information to end users about an attribute and how it should be populated. For more information, refer to the Attribute Help Text in Web UI section of the Using a Web UI documentation. This is where the 'Go to Wiki' link is displayed when the Wiki Metadata feature is installed. For more information, refer to theWiki Metadata (Data Catalog Connector) topic in the System Setup documentation.
- **Display Value History:** Determines if the history icon should appear displaying the attribute's historic data and information on how the value has changed over time within the Web UI. For more information, refer to the Attribute Value History section of the Using a Web UI documentation.

Additional Considerations

Enable Tag Conversion

- If Enable Tag Conversion is disabled / unchecked and a style is applied to a value (e.g., bold or italic), the field locks and Rich Text Editor is the only way to edit the values.
- If you experience issues while using the Rich Text Editor in Internet Explorer, use an alternate browser such as Chrome, Firefox, or Safari.

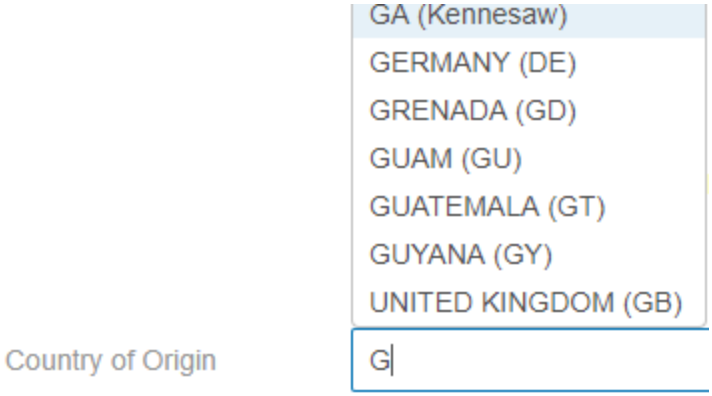
Attribute Value Group LOV Typeahead Functionality

A List of Values (LOV) is a set of values that can be selected and used for an attribute. LOV values for LOV-validated attributes configured to display as part of an **Attribute Value Group component** function differently depending on the number of values.

If a single or multi-valued LOV has greater than 5,000 values, the LOV automatically becomes typeahead-based, thereby allowing the users to narrow down the possible values to select from by typing in part of the desired value. For example, a user can type in the letters 'blu' into a color attribute field and the system will show only the configured values that start with 'blu' (e.g., blue, blueberry, blue green, and blush pink). The more characters typed, the more defined the list becomes as it adjusts to the input. The user then makes a selection from these choices. This significantly speeds up processing time since the user is not presented with every color (A to Z) to choose from.

If an LOV has 5,000 or fewer values, all the values are loaded into the system as soon as the Attribute Value Group component loads in a Web UI screen. This may create a Web UI performance issue if an Attribute Value Group component is configured to display multiple attributes that each have large LOVs (e.g., 2,000 - 3,000 values). Since the system is loading the entire value list for each LOV and typeahead functionality is not automatically available, users may experience system slowness as they work in Web UI. **For this very specific use case, a configuration setting change can be made to force all Attribute Value Group LOV attributes to be typeahead based.**

With typeahead, the list displayed includes both IDs and values that match the text typed, as shown below:



Property Settings

To use typeahead LOV functionality for all LOVs in Attribute Value Group components, add the following property to the sharedconfig.properties file:

```
Portal.ValueGroup.LOV.ForceTypeahead=true
```

Important: Carefully consider changing the configuration. The property setting will impact **all** Web UIs used within a STEP system after the application server has been restarted.

Excluding Attributes

It is possible to exclude certain LOVs from being typeahead based. To exclude any attributes from the global typeahead setting, this property will also need to be added to the sharedconfig.properties file:

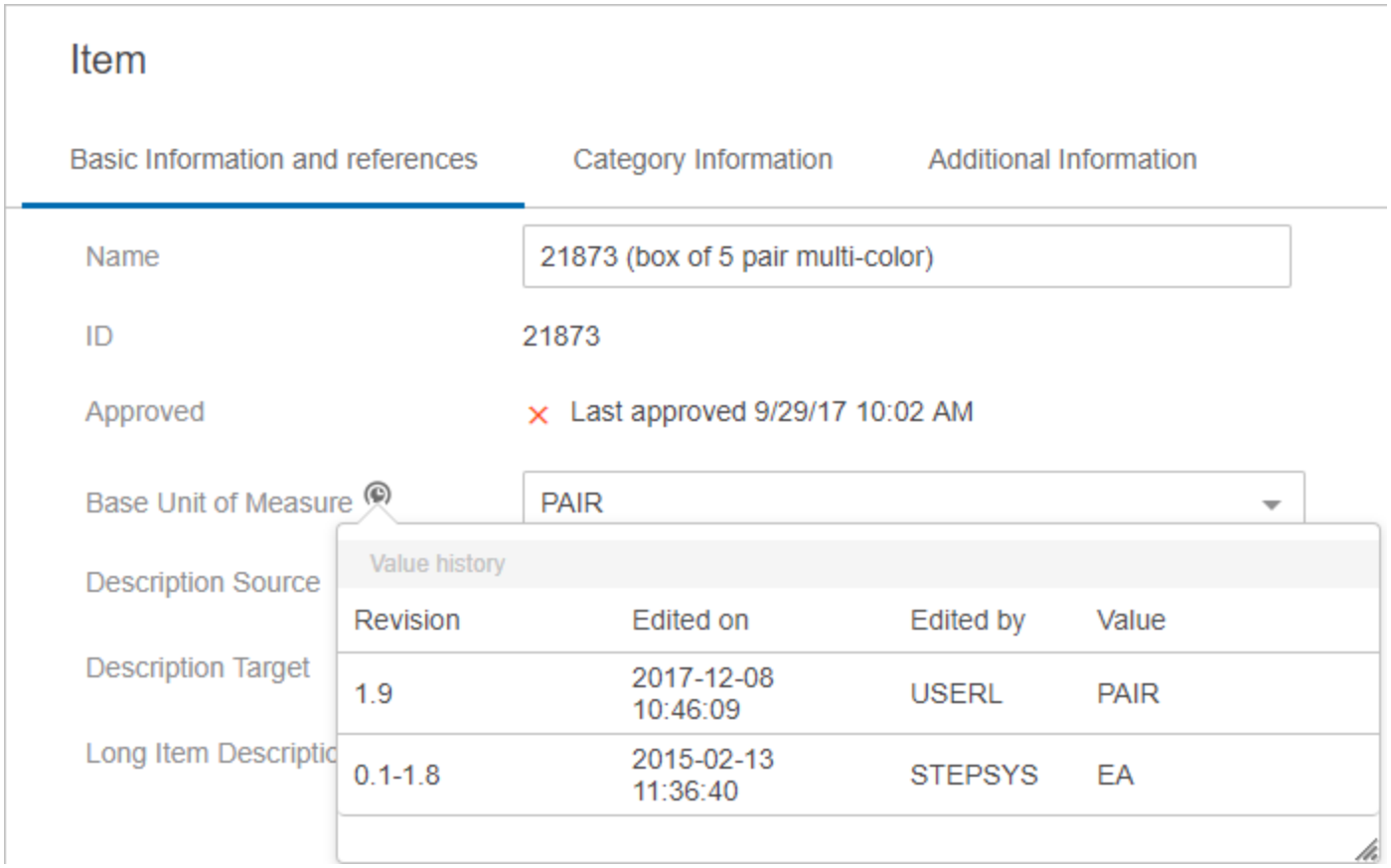
```
Portal.ValueGroup.LOV.ForceTypeahead.Exclude=[AttributeID],[AttributeID], etc.
```

The property setting shown is an example only. In place of [AttributeID], enter the actual ID of the attribute to be excluded from the typeahead functionality.

Refer to the **List of Values (LOVs) Overview** section of the **Getting Started** documentation for more information about setting up and using LOVs.

Attribute Value History

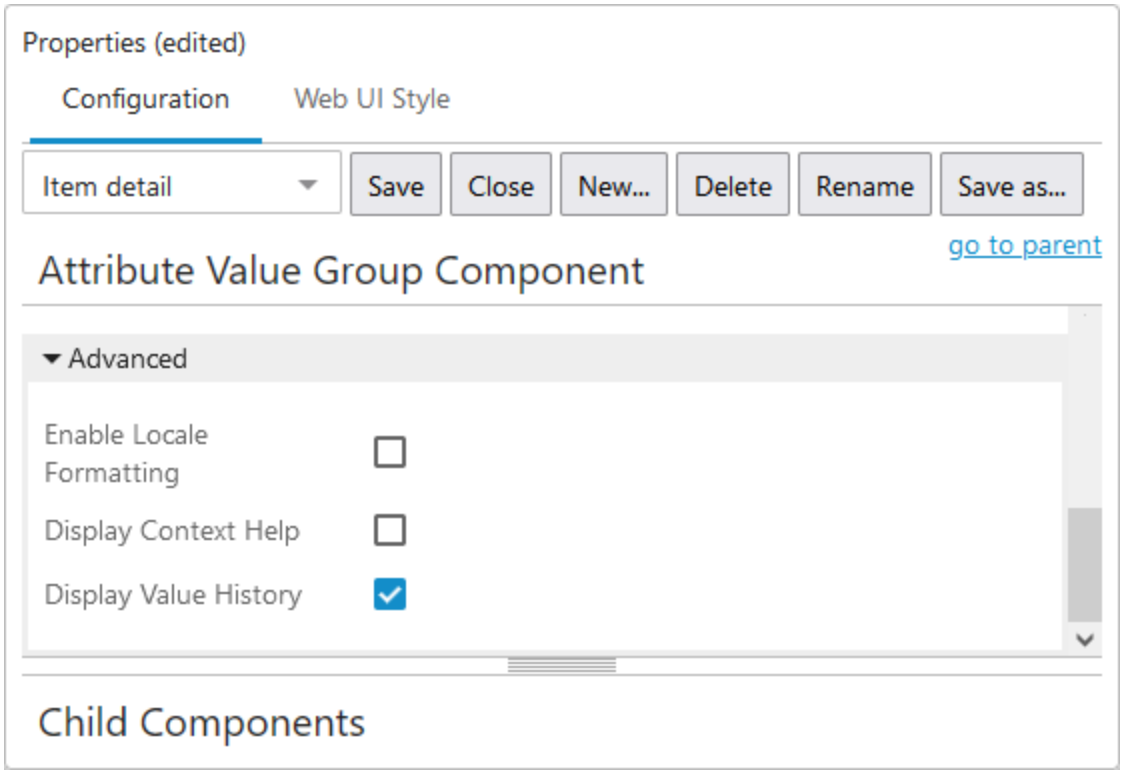
It is possible to view the historic data of a certain attribute value and track how the value has changed over time within the Web UI. This functionality is accessible when viewing an object details page (Node Details) in Web UI. Hovering over the attribute label makes the history icon appear for that attribute, and clicking the icon opens a simple view displaying historic information including revision, edited on (date / time), edited by, and the value of the attribute. Note that individual revisions are displayed only if the attribute value differed between them.



Configuring Attribute Value History

In order to have Attribute Value History text show, it needs to be configured in the designer. This can be done on either the **Attribute Value** or **Attribute Value Group** components.

In either component, scroll down to the bottom of the designer window and expand the **Advanced** flipper. Check the **Display Value History** parameter, then save and close the editor.



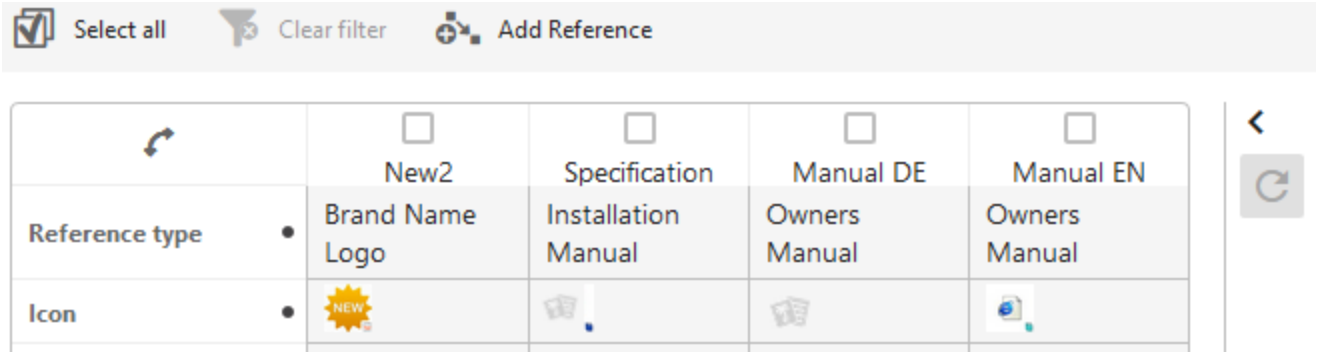
The 'Display Value History' parameter is checked by default, meaning that attribute value history is enabled. To disable, uncheck the parameter and save the configuration.

Note: The value history will not be displayed for LOV attributes which have over 5000+ values. It will also not display for LOV attributes with the Override Control Type selected.

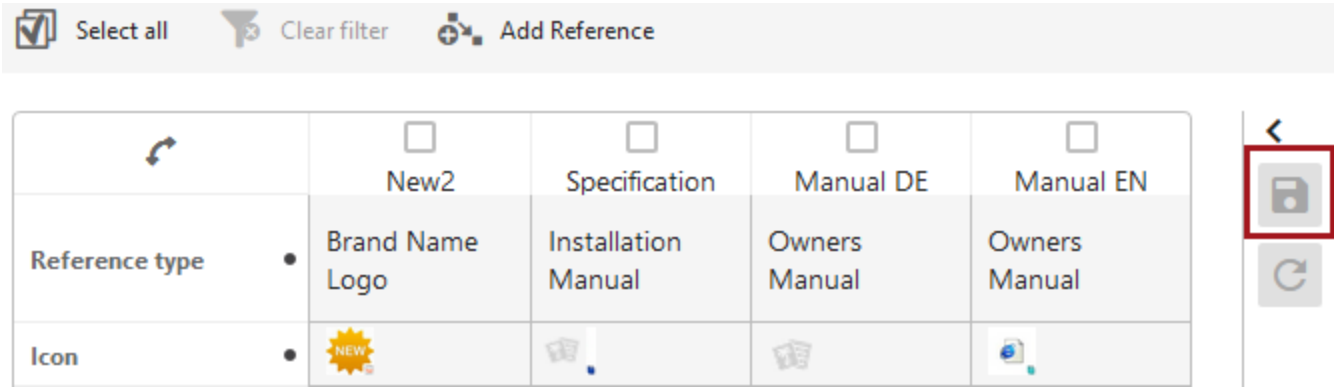
Auto-Save in the Web UI

On some Node List type screens in Web UI, the 'Use Immediate Save' parameter in the designer controls the auto-save feature. Enabling the parameter removes the manual Save button that otherwise displays to the right of a table and saves valid edits as they are made. While this is the preferred scenario, in cases where, for example, business rules are run with a save function, or additional validations are performed, displaying the manual save button may be preferred.

For example, on a multi reference node list with the 'Use Immediate Save' parameter enabled shown below, the save button is not displayed since edits are saved automatically.



Disabling the 'Use Immediate Save' parameter on the same node list shown below, allows the user to manually save edits using the save button.



In both cases, the reset button  displays so that error messages and invalid values can be cleared. For example:

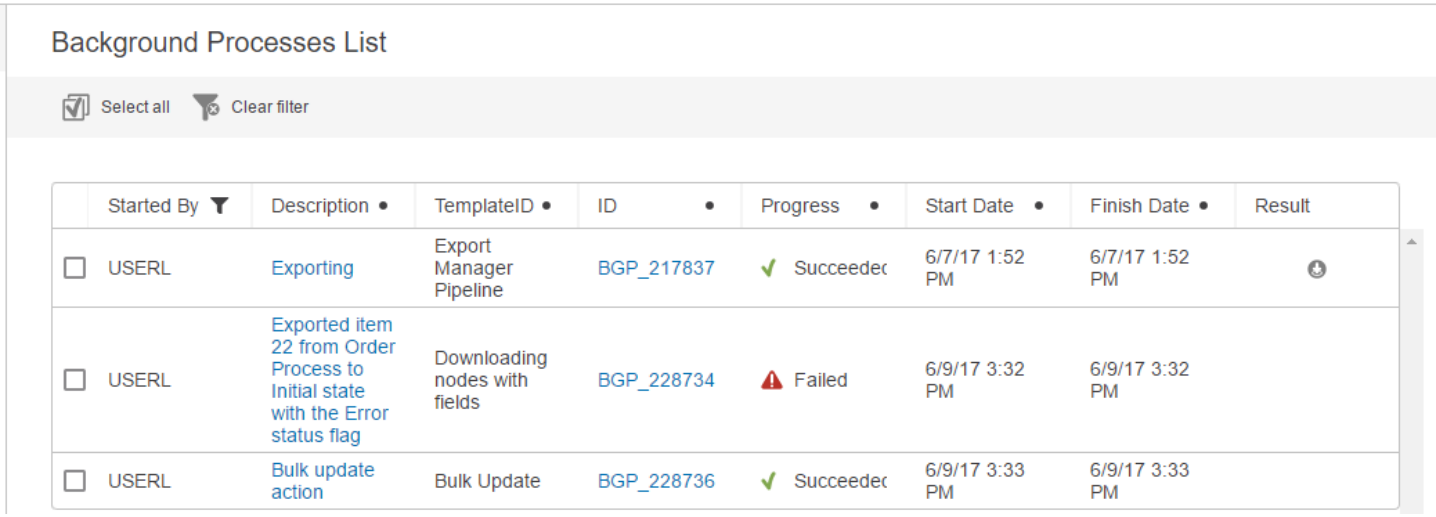
- If another user edits the same field on the same object before you make your edit, you are editing an out-of-date value. Because the screen has not been refreshed to show their changes, you will get an error: '[edited_object] was updated by another user. Please reload the page.'
- If the value you edit cannot be saved because it does not comply with the validation base type, you will get an error: 'Invalid value [value] does not conform to the required format.'

Refer to the following topics for information about the availability of the 'Use Immediate Save' parameter:

- Run Business Action Use Cases
- Configuring a Multi Language Screen
- Configuring a Multi Workspace Screen
- Configuring the Attribute Link Editor Screen
- Multi-Reference Editor
- Multi Workspace Screen
- Task List

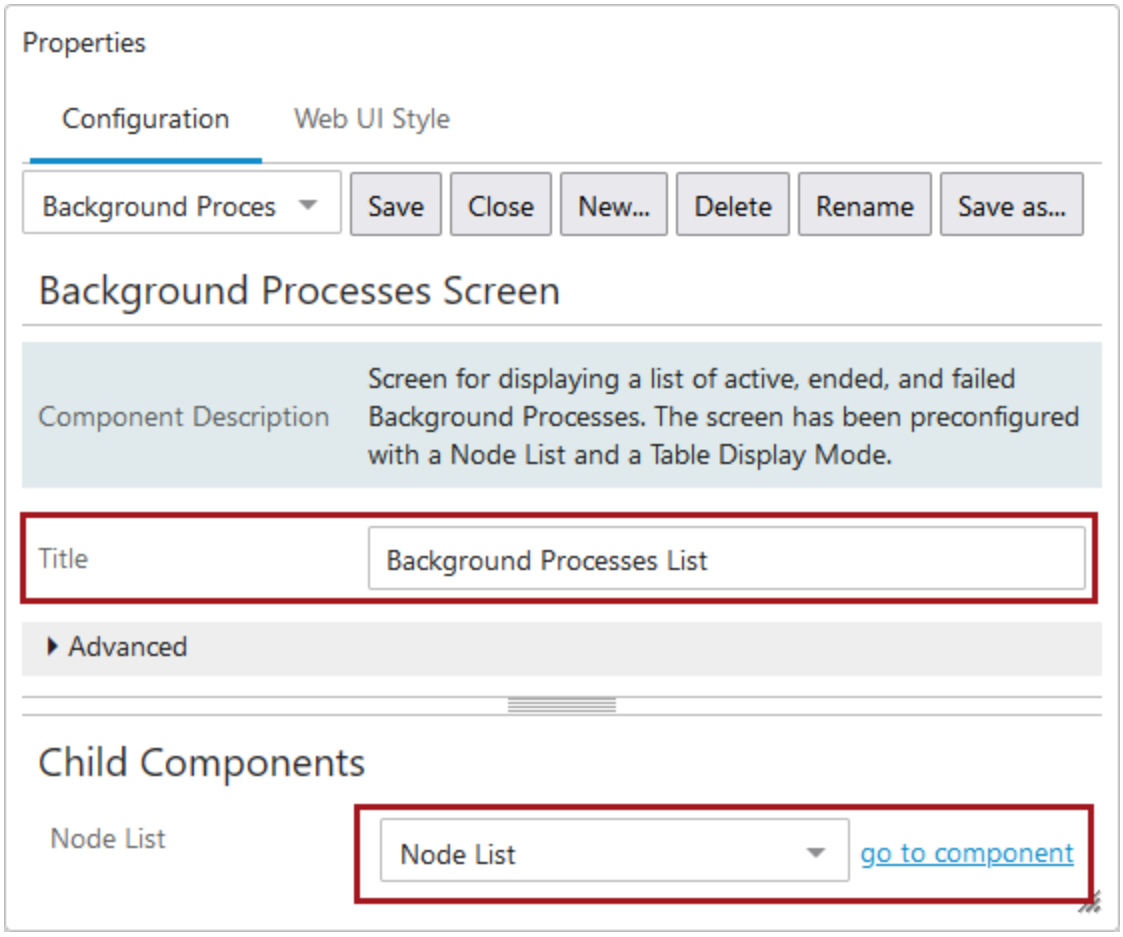
Background Process List Screen

In order to view a list of Background Processes (BGPs) in Web UI, a Background Process Screen needs to be configured. This way a user can easily track a list of active, ended, and failed BGPs such as Imports, Exports, Bulk Updates, Smartsheet downloads / uploads, etc., that have been initiated by users in the Web UI.

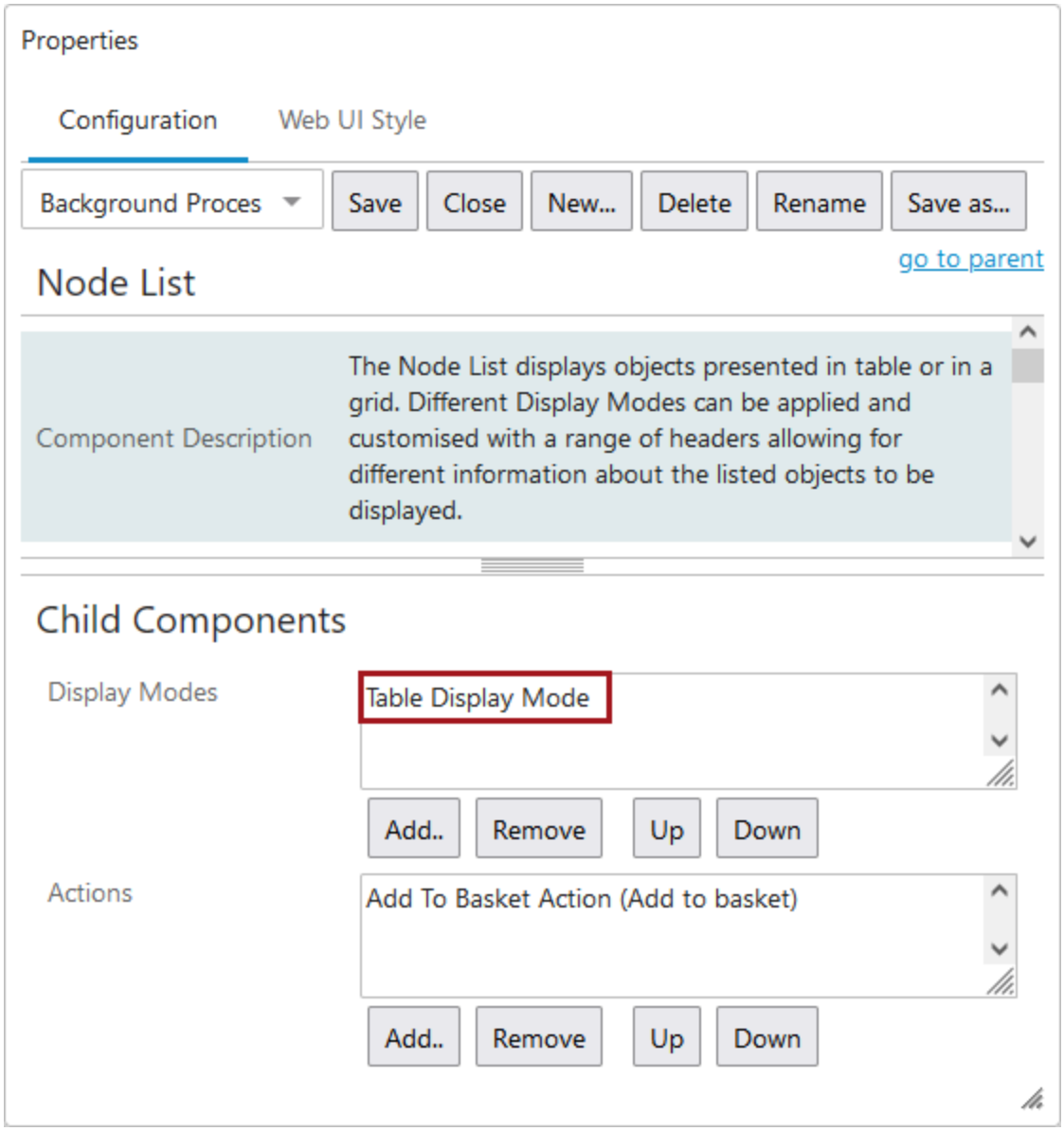


Setting up the Background Process Screen

1. Create a new screen of the type **Background Processes Screen** and mapping it using the **Background Process List Condition**.
2. Configure the new screen by selecting it from the dropdown in the upper left corner of the Web UI Designer window. Add a **Title** and under Child components and add a **Node List**. Then click the **go to component** link.



3. On the **Node List** screen under Child Components, it is recommended to add a **Table Display Mode** under **Display Modes**. Double click on **Table Display Mode**.

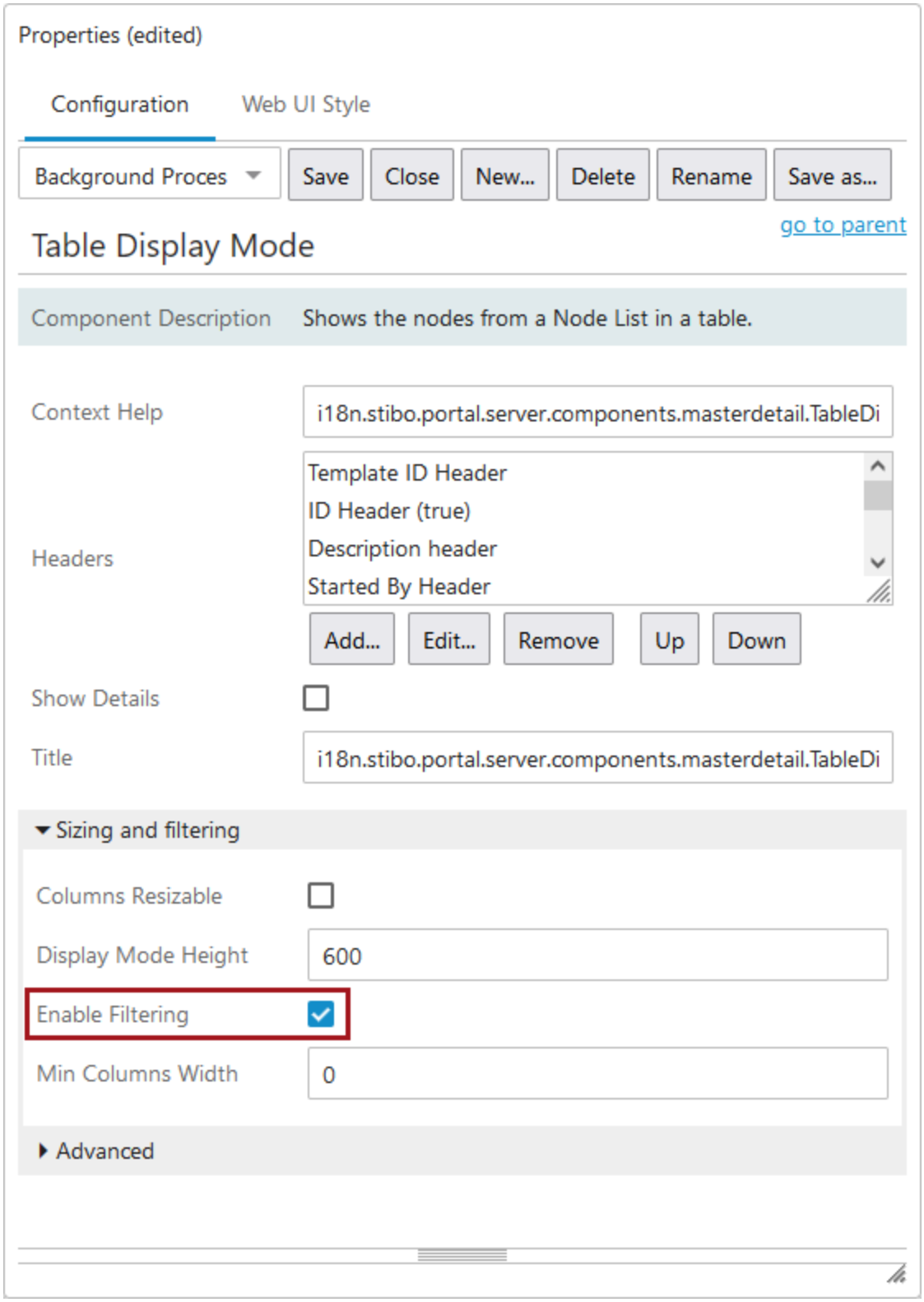


4. On the **Table Display Mode** screen, **Headers** should be configured according to user needs, although it is recommended to add the following headers: **Started By**, **Description**, **Template ID**, **ID Header**, **Progress**, **Start Date**, **Finish Date**, and **Result**.

Headers	Returned Value
Started By	Allows users to adjust and select filters as needed in the column header. **Started by Me** is the default filter.
Description	Returns the Background Processes names (if

Headers	Returned Value
	available).
Template ID	Describes the type of template used for the BGP
ID Header	Provides the automatically generated BGP ID given to the process
Progress	Gives the status of the BGP
Start Date	The date and time that the BGP started
Finish Date	The date and time that the BGP finished
Result	If available, the completed file that can be downloaded

5. Once all desired Headers are added, scroll down and make sure that filtering is enabled on Table Display Mode. Save and close the designer.



This completes the basic configuration required to display a list of BGPs in Web UI. Additional advanced configuration options related to background processes are described below.

Background Process Messaging and Identification

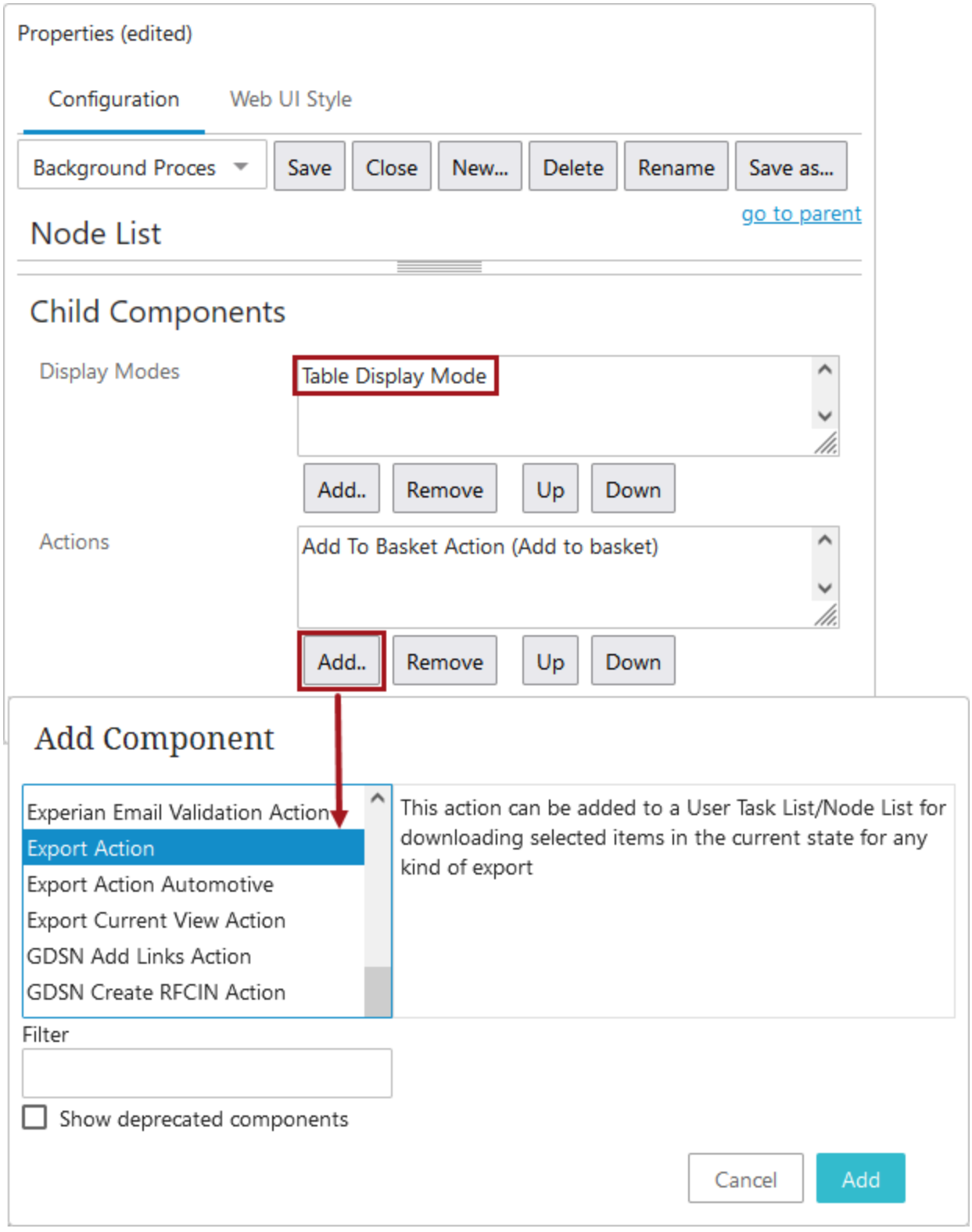
Background processes by default are identifiable by an autogenerated ID. However, to have a more detailed or user-friendly BGP description displayed, this can be done via configuration of the **Process Description** field available on actions that launch BGPs throughout Web UI. The full list of components containing the **Process Description** field for naming background processes is below:

- Bulk Update Action
- Bulk Update List Action
- Create Collection Action
- Create Publication from Existing Action
- Custom Export Action
- Download Assets Action
- Export Action
- Generate PDF
- Print on demand
- Reflow from next column
- Simple Importer Widget

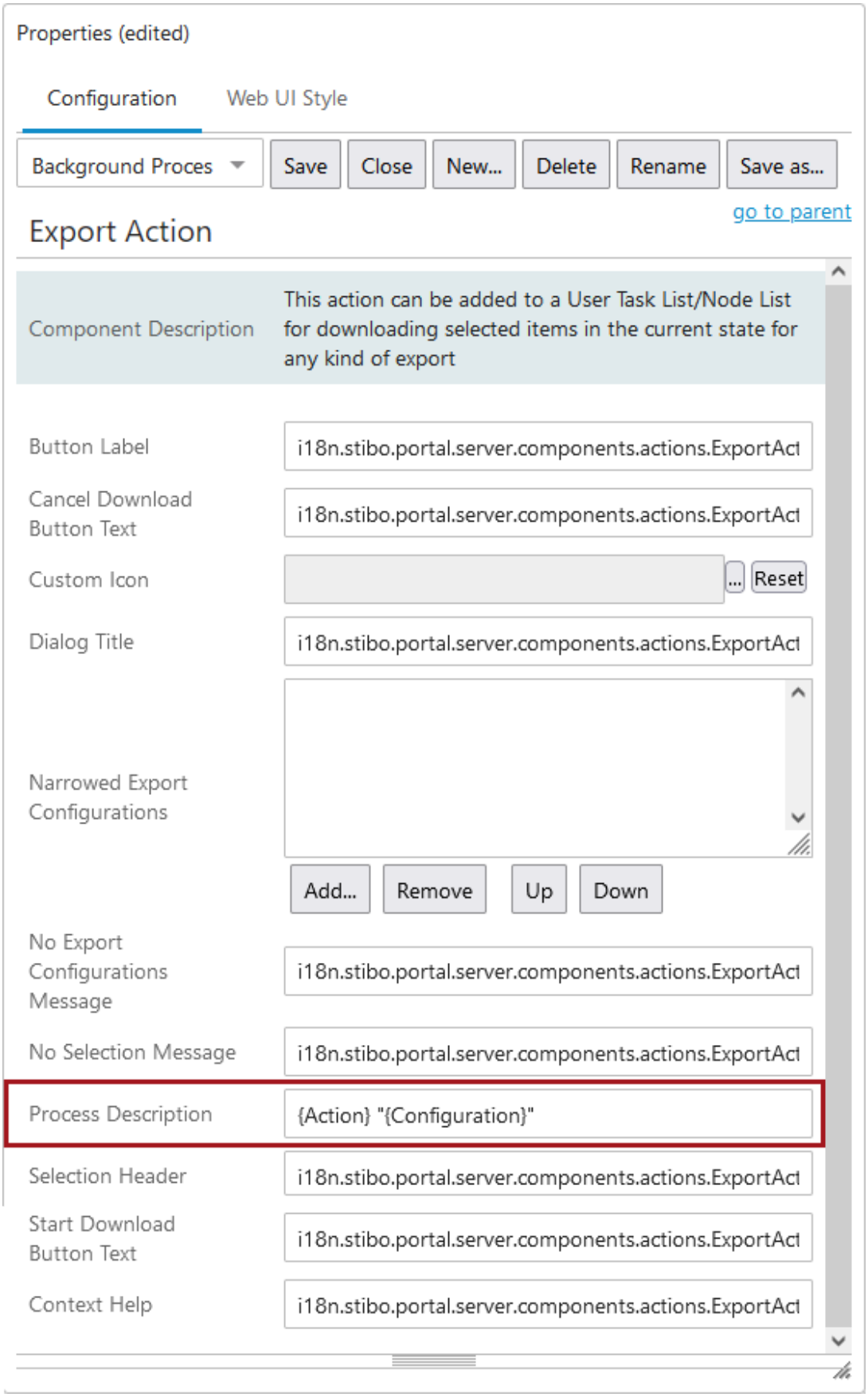
In addition to having an action-related message displayed, users can also configure BGP Node Lists to display a configured message using the **Description header** component, which will display the message defined by the associated action.

To create more detailed background process descriptions:

1. Navigate to a Node List Properties screen and add the desired **Actions** under Child Components.



2. Double click on the added Action and navigate to the **Process Description** field.


Properties (edited)
Configuration
Web UI Style
Background Proces
Save
Close
New...
Delete
Rename
Save as...
go to parent
Export Action
Component Description
This action can be added to a User Task List/Node List for downloading selected items in the current state for any kind of export
Button Label
i18n.stibo.portal.server.components.actions.ExportAct
Cancel Download Button Text
i18n.stibo.portal.server.components.actions.ExportAct
Custom Icon
...
Reset
Dialog Title
i18n.stibo.portal.server.components.actions.ExportAct
Narrowed Export Configurations
Add...
Remove
Up
Down
No Export Configurations Message
i18n.stibo.portal.server.components.actions.ExportAct
No Selection Message
i18n.stibo.portal.server.components.actions.ExportAct
Process Description
{Action} "{Configuration}"
Selection Header
i18n.stibo.portal.server.components.actions.ExportAct
Start Download Button Text
i18n.stibo.portal.server.components.actions.ExportAct
Context Help
i18n.stibo.portal.server.components.actions.ExportAct

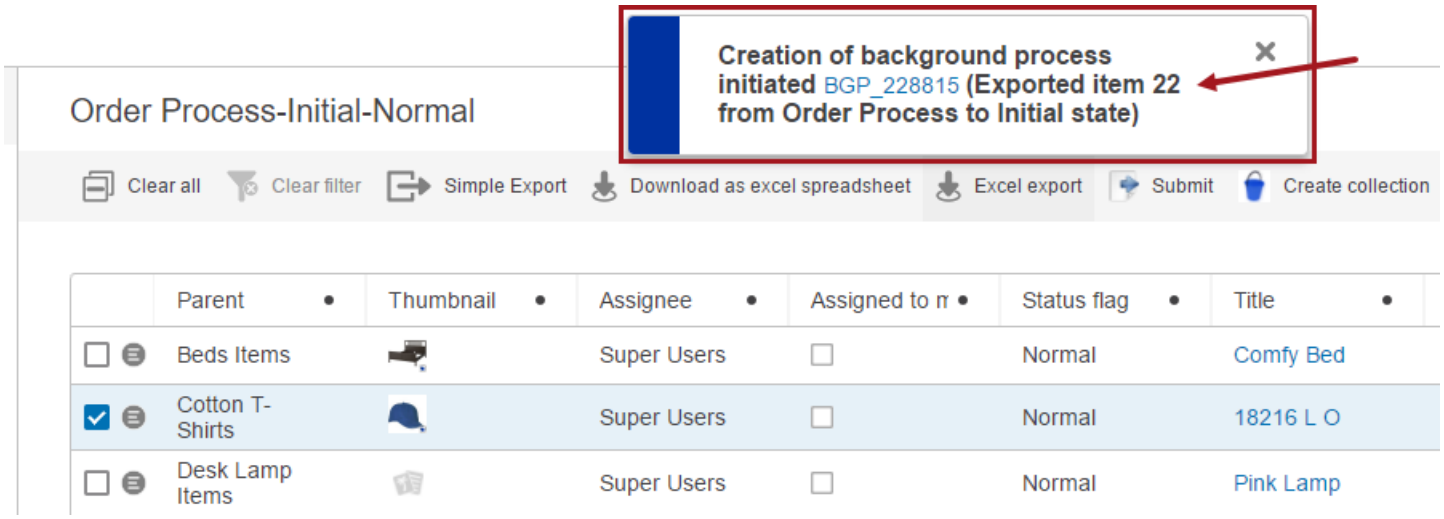
3. A combination of static text and action **Placeholders** can be added to return a coherent naming to the background process taking place if available.

   The available **Placeholders** to use and their areas of use are listed below:

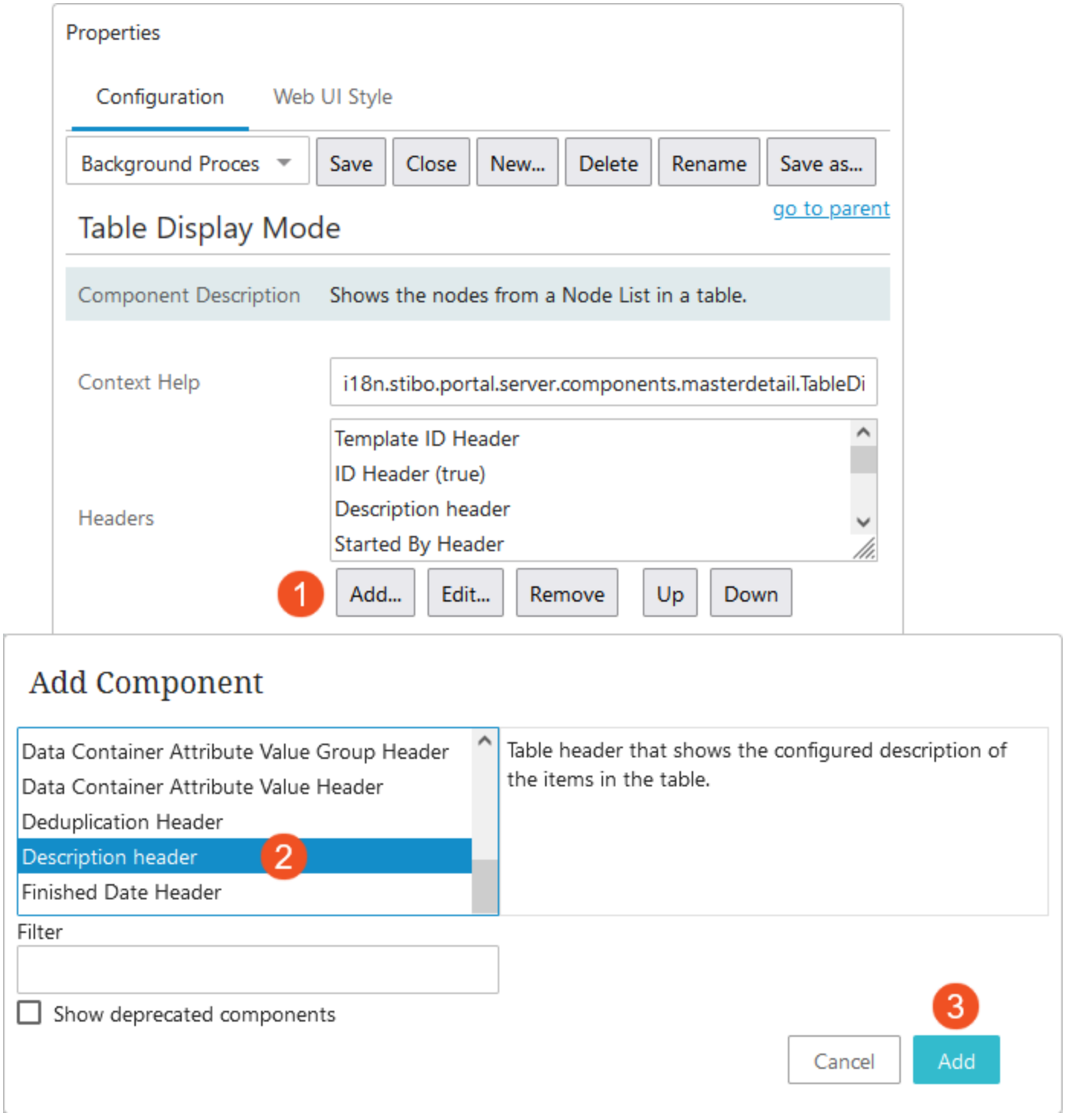
Placeholder	Returned Value	Notes on Availability
{Action}	Type of action taking place	Available on **ALL** actions.
{Configuration}	Import / Export / Bulk configuration	Available **ONLY** for: • Bulk Update Action • Bulk Update List Action • Custom Export Action • Simple Importer Widget
{ImportFile}	Name of import file	Available **ONLY** for: • Bulk Update Action • Bulk Update List Action • Smart Sheet Import • Simple Importer Widget
{WorkflowName}	Name of the workflow in which the items are currently located in	**NOT** Available for: • Create Publication from Existing • Simple Importer Widget • Print on Demand Action
{WorkflowState}	Workflow state in which the items are currently located in	**NOT** Available for: • Create Publication from Existing Action • Simple Importer Widget • Print on Demand Action
{ItemCount}	Returns the number of selected objects to be processed by the action	**NOT** Available for: • Create Publication from Existing Action • Custom Export Action • Simple Importer Widget • Reflow from next column action

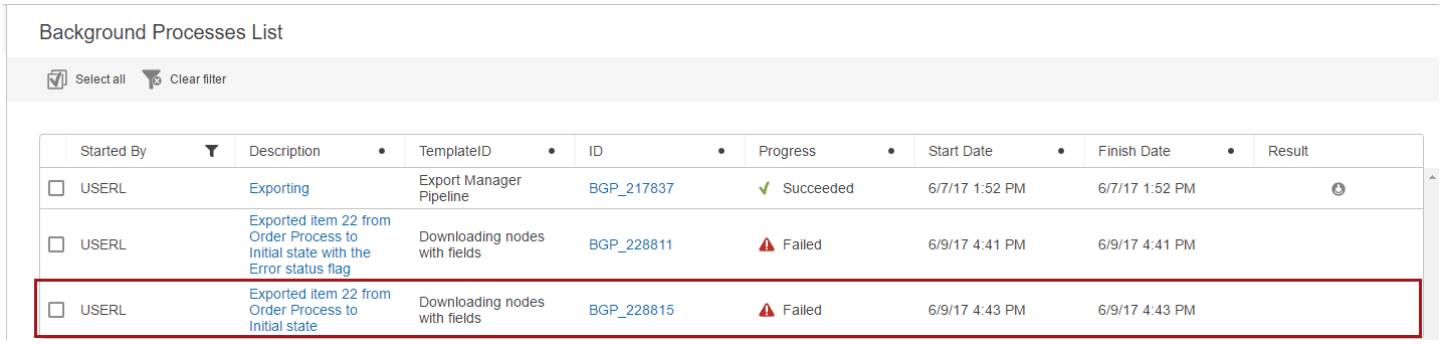
Placeholder	Returned Value	Notes on Availability
		• Print on Demand Action
{StatusFlag}	Return the name of the status flag	Available **ONLY** for: • Create Collection Action • Custom Export Action • Download Asset Action • Generate PDF Action • Reflow from next Column Action

For example, if the following was written in the Process Description field of an export from a workflow: **Exported item {ItemCount} from {WorkflowName} to {WorkflowState} state**, it would return the message shown below to the user when the BGP is initiated.



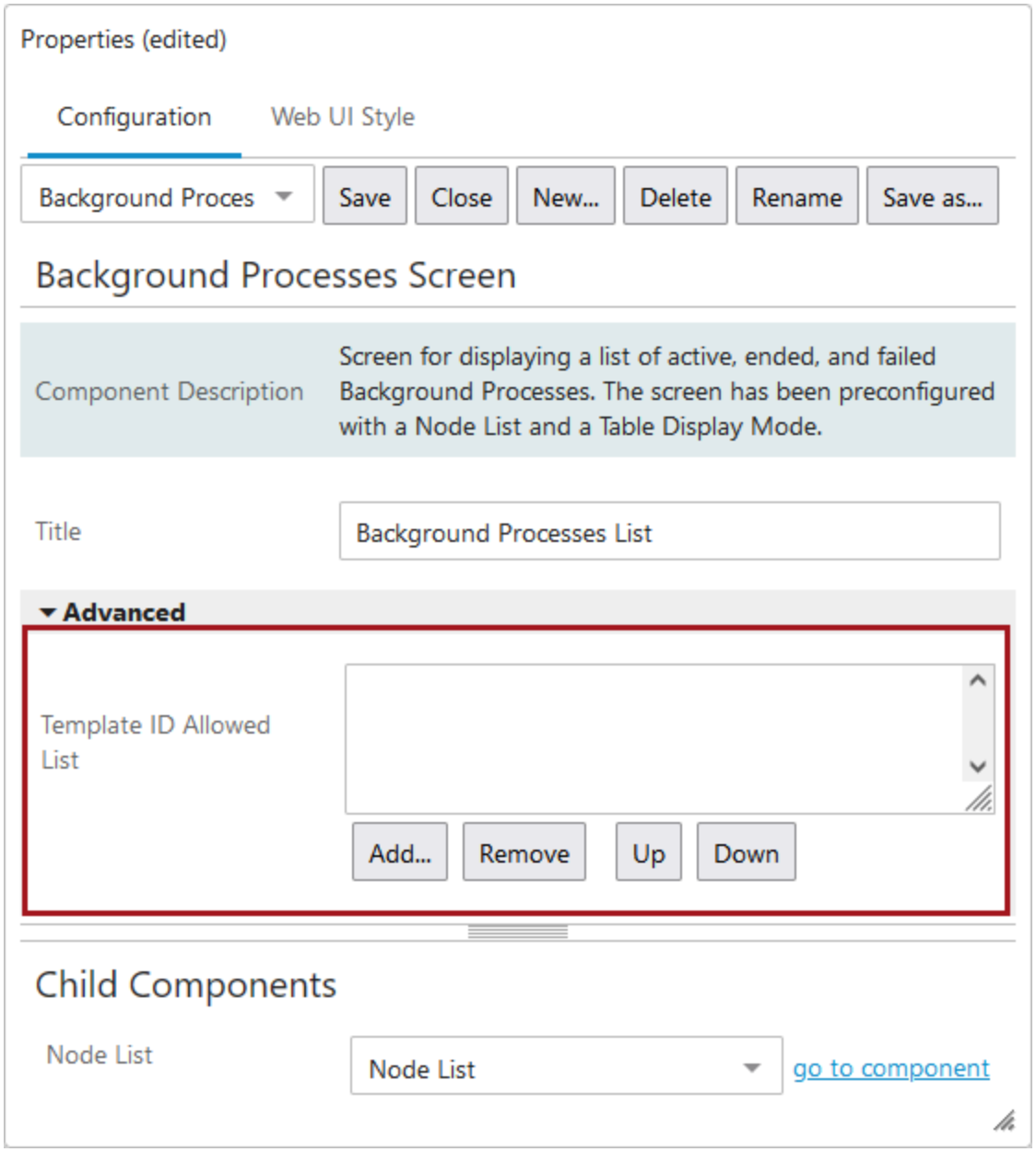
In addition, if the Description header has been added to the Node List configuration (generally via the Table Display Mode), the description will also appear in the BGP list.


Properties
Configuration
Web UI Style
Background Proces
Save
Close
New...
Delete
Rename
Save as...
go to parent
Table Display Mode
Component Description
Shows the nodes from a Node List in a table.
Context Help
i18n.stibo.portal.server.components.masterdetail.TableDi
Headers
Template ID Header
ID Header (true)
Description header
Started By Header
1
Add...
Edit...
Remove
Up
Down
Add Component
Data Container Attribute Value Group Header
Data Container Attribute Value Header
Deduplication Header
Description header
Finished Date Header
2
Table header that shows the configured description of the items in the table.
Filter
Show deprecated components
3
Cancel
Add



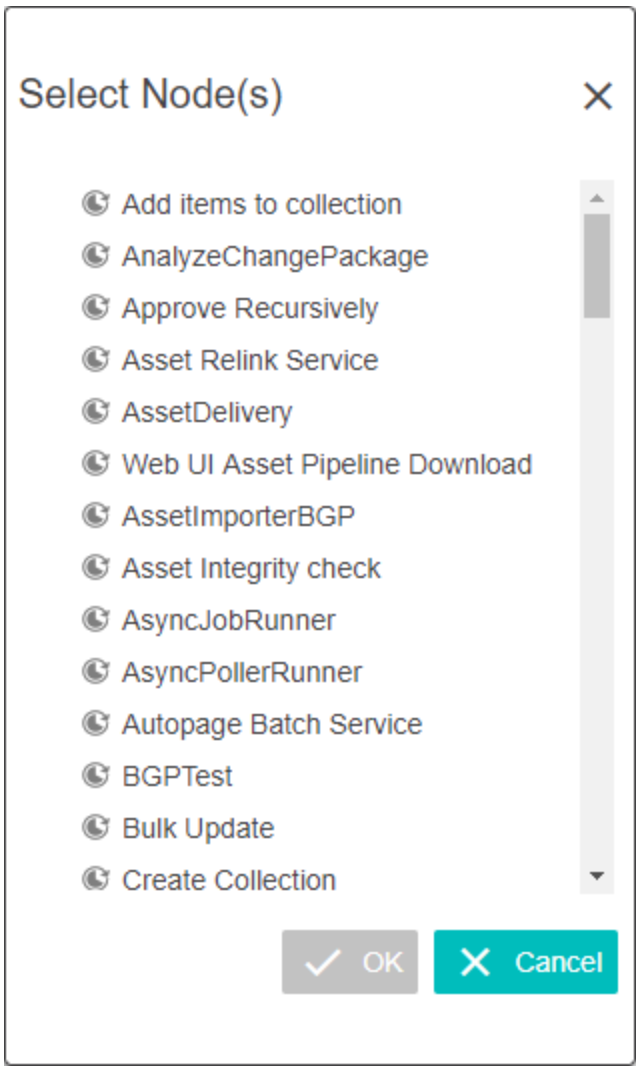
Advanced flipper in Background Processes Screen Properties

Template ID Allowed List option allows the user to restrict the Background Processes List from displaying all the processes.



To enable this, click on the **Add** button to select the required Template ID List.

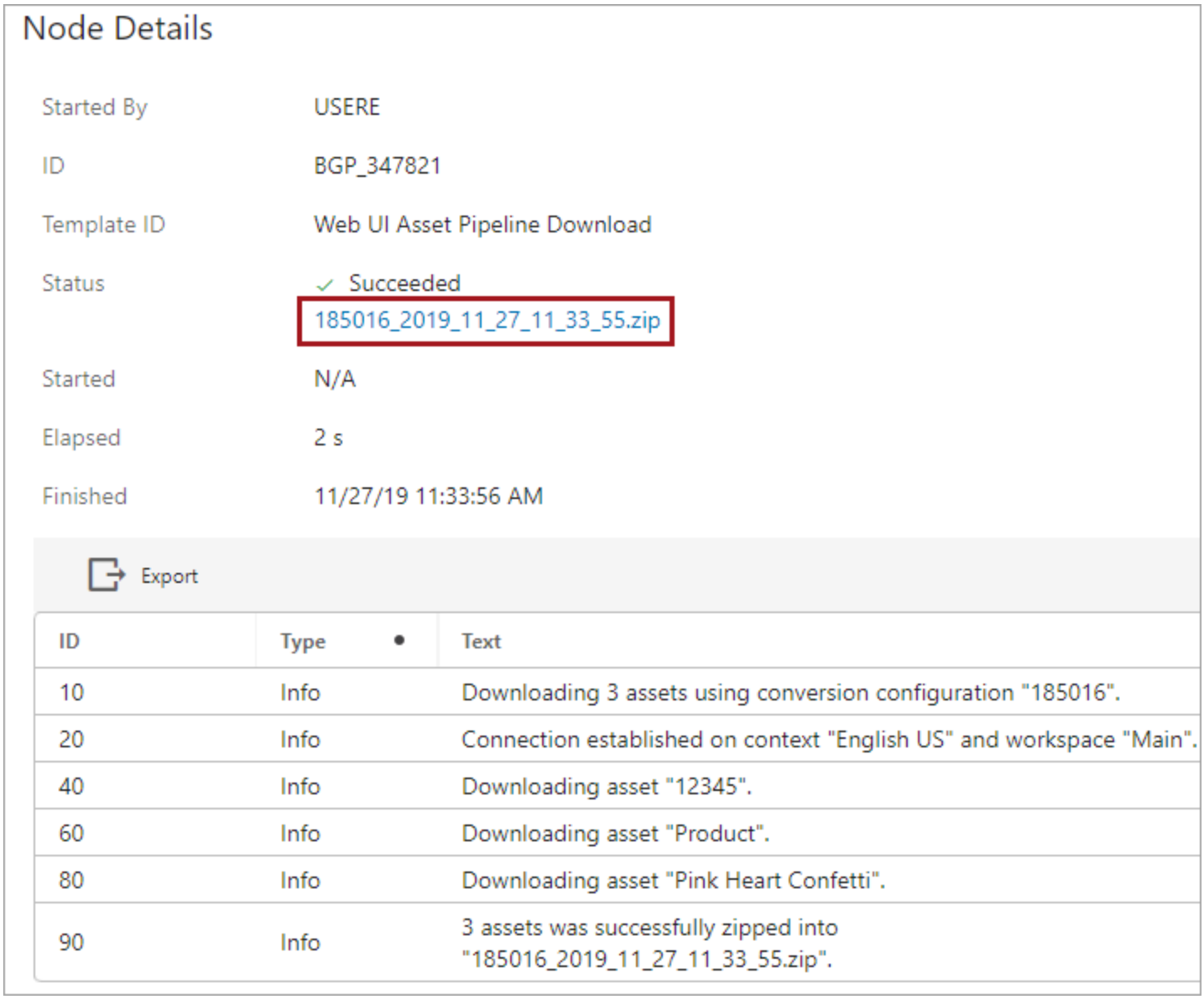
A predefined template list displayed, where multiple selections can be made.



With the selections made, the Background Processes List will be restricted to display only the processes related to the templates selected. If no template ID is chosen, then by default all of the Background Processes (BGPs) in Web UI are displayed.

Background Process Node Details Screen

Users that take advantage of background processes in Web UI can use the Background Process Node Details screen to check the status and output of a background process.



Once the screen is configured and activated, a background process initiated in Web UI displays the background process node details screen above. In this example, the output is a zip file.

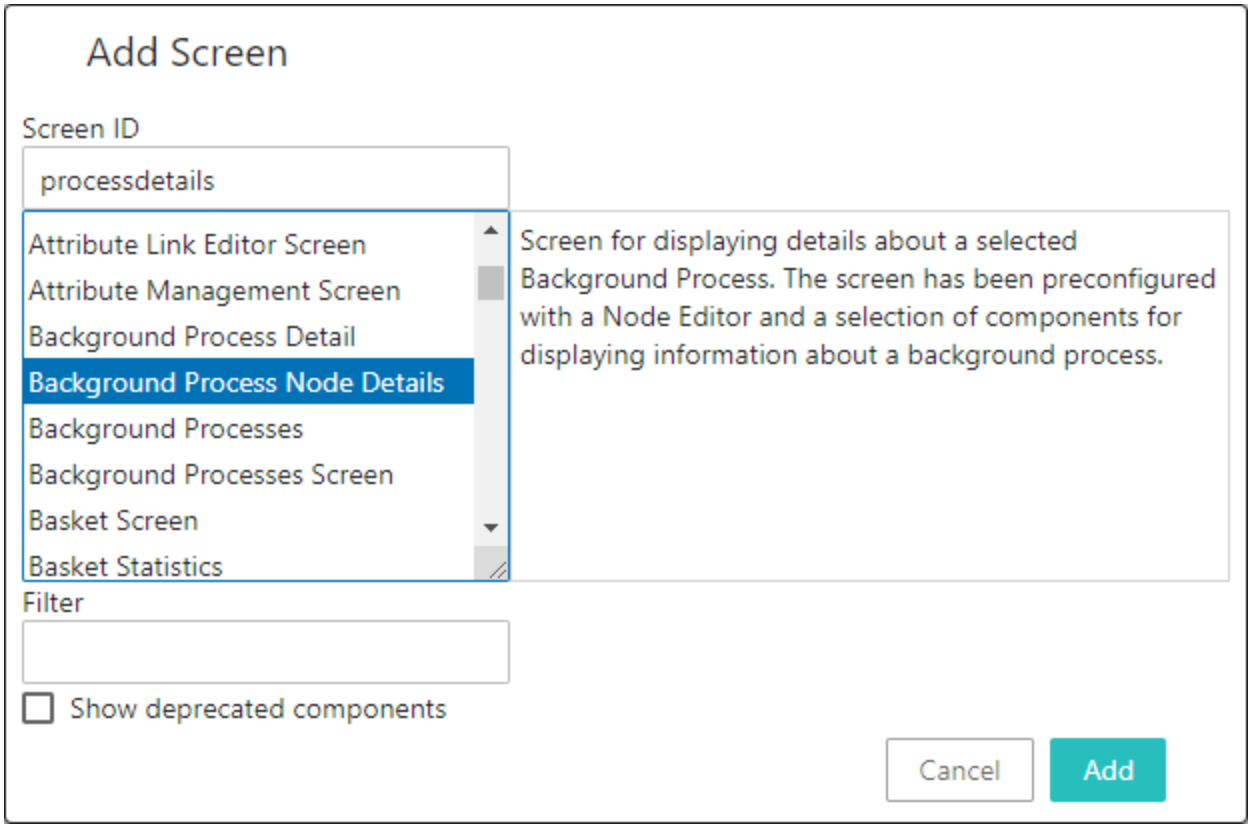
- To download the file to the local system, click the file name link.
- To save the generated file with a new name, right-click the file name link and use the **Save Link As** option.

Prerequisites

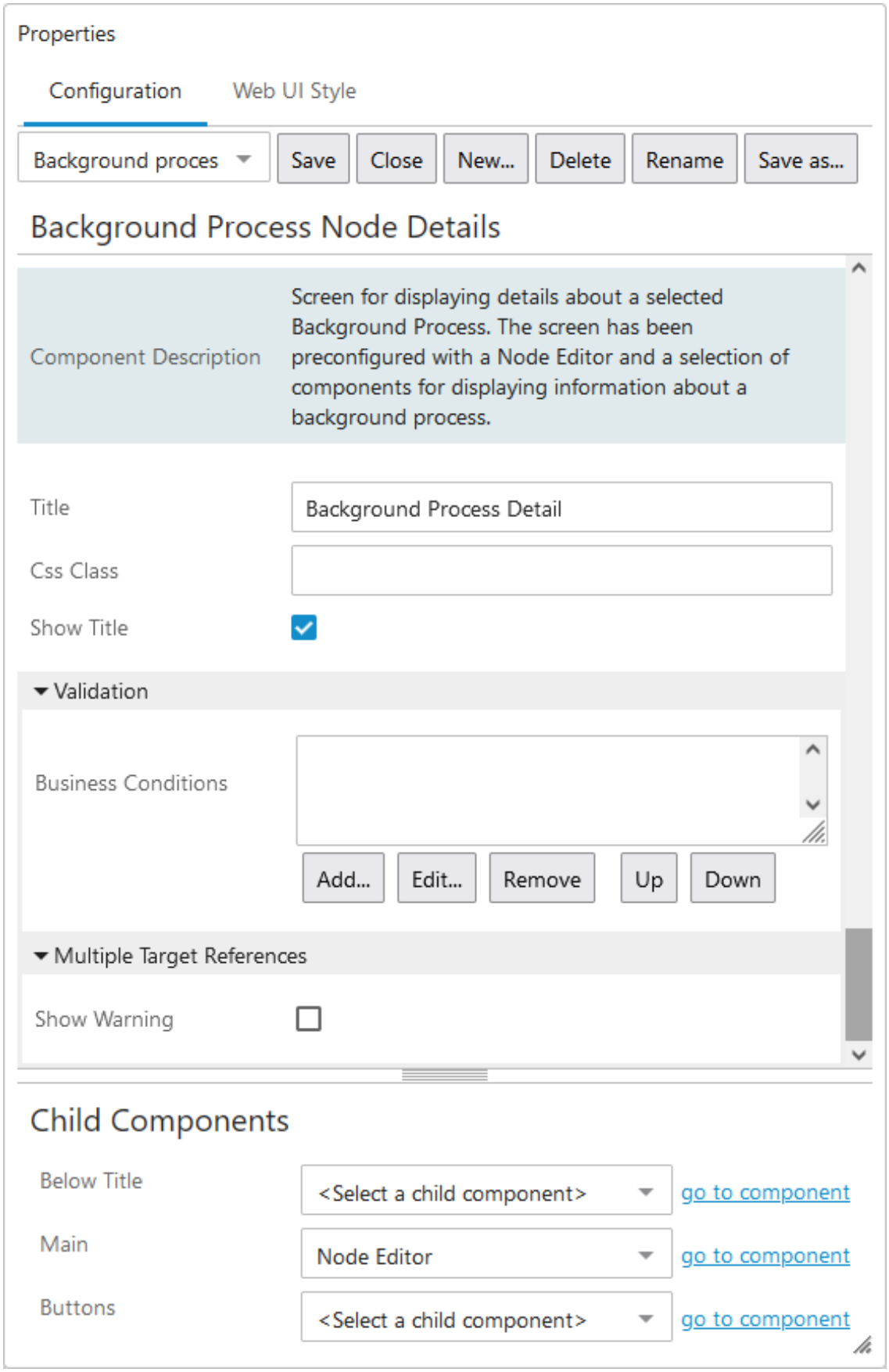
It is expected that anyone configuring the Node Details component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuration

The process for creating a new screen is outlined in the **Design Mode Basics** topic in the **Web User Interfaces** documentation. Select 'Background Process Node Details' as the screen type and add a Screen ID (shown in the screenshot below).



Once created, the Background Process Node Details screen needs no further configuration to function. However, it can be customized as defined below.


Properties
Configuration
Web UI Style
Background proces
Save
Close
New...
Delete
Rename
Save as...
Background Process Node Details
Component Description
Screen for displaying details about a selected Background Process. The screen has been preconfigured with a Node Editor and a selection of components for displaying information about a background process.
Title
Background Process Detail
Css Class
Show Title
Validation
Business Conditions
Add...
Edit...
Remove
Up
Down
Multiple Target References
Show Warning
Child Components
Below Title
<Select a child component>
go to component
Main
Node Editor
go to component
Buttons
<Select a child component>
go to component

- **Title** - The title is displayed in the top left corner of the background processes window. Based on the default i18n translation key, 'Background Process Details' is the window title. To use a different title, overwrite the i18n label with the desired text.
- **Css Class** - Optional. Enter the name of the primary CSS Stylesheet for the component.
- **Show Title** - When checked, the title is displayed in the window; if unchecked, the title and associated white space is removed from the window.

Validation

- **Business Conditions** - Optional. Use the **Add** button to select one or more existing business conditions to execute validation on the node being edited. All business conditions must succeed for the process to continue. For more information, refer to the **Business Conditions** topic in the **Business Rules** documentation.

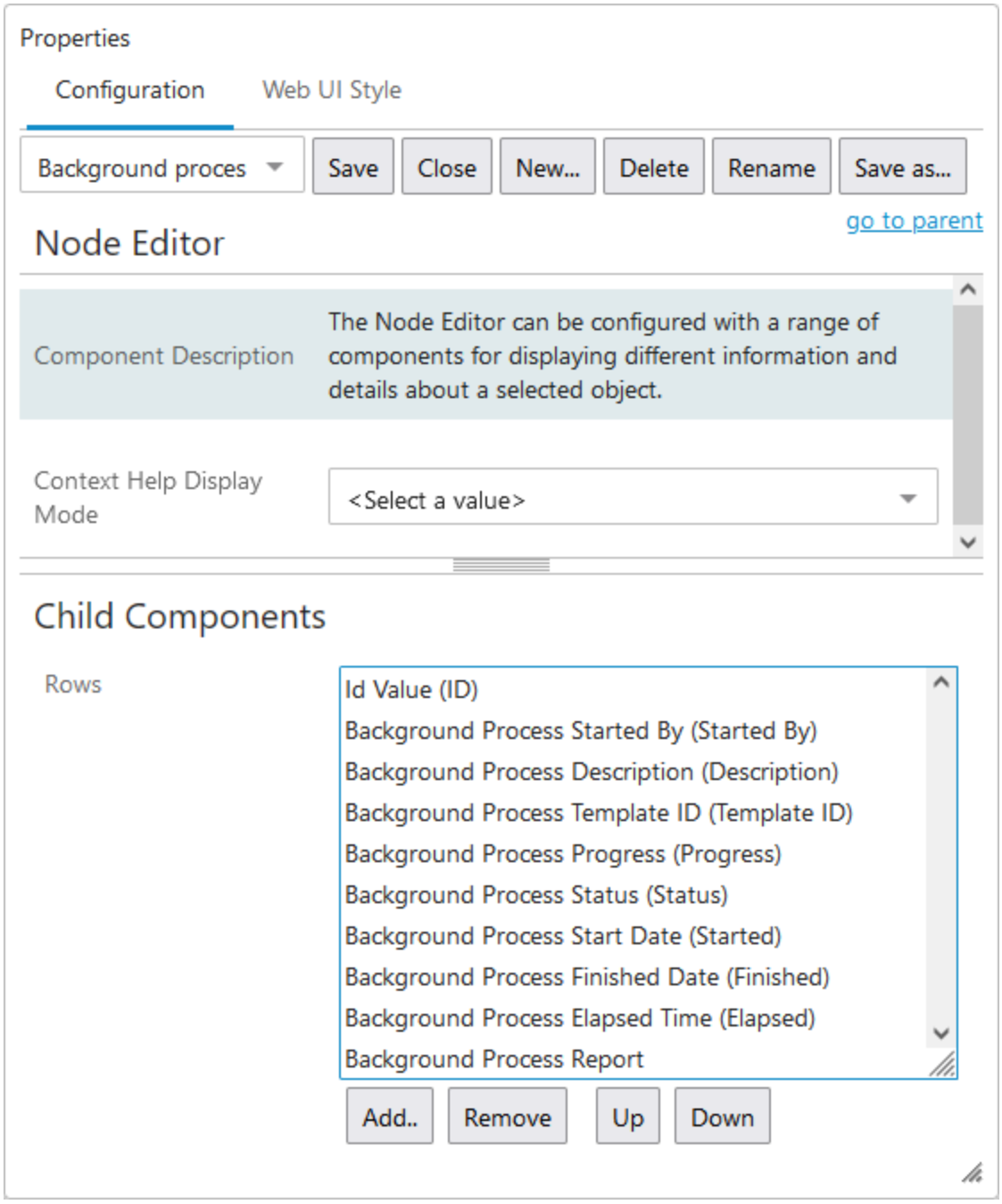
Multiple Target References

- **Show Warning** - When checked, a warning displays if a shared object is edited and then saved (either using a manual Save action or via a process like Submit Action or Approve Action). For more information, refer to the **Shared Data Handling** topic.

Child Components

- **Below Title** - Used to display a breadcrumb describing where in the hierarchy the object resides. For more information, refer to the **Below Title Component** topic.
- **Main** - Determines how the background process information is displayed. For example, you can select a Node Editor or a Tab Control. Additional configuration may be required based on the Main component selected.

  In this example, the Node Editor component is chosen and then the 'go to component' link is clicked to display the additional configuration options. For more information, refer to the **Node Editor Component** topic.

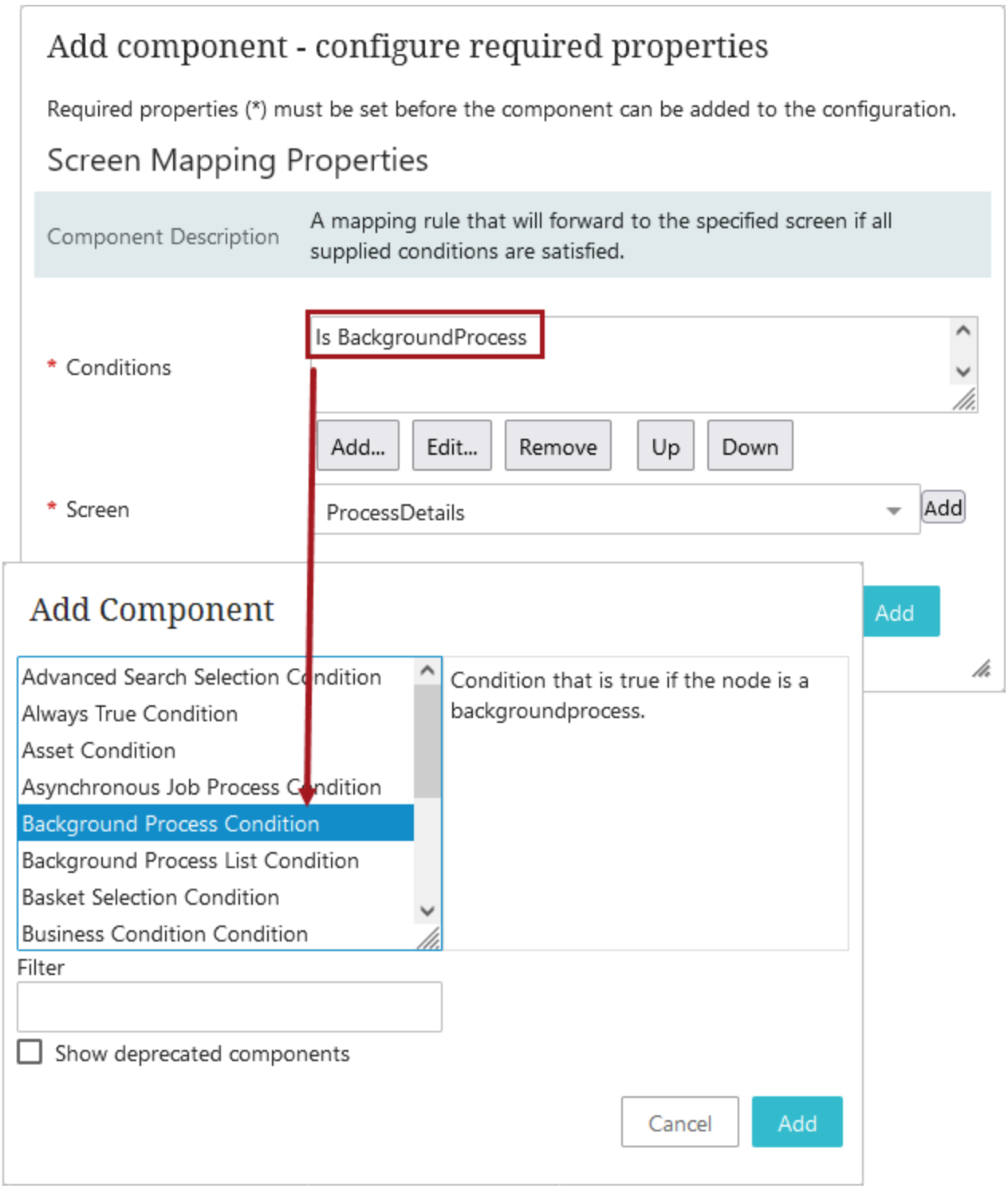


- **Buttons** - Defines the action buttons available on the component. For more information, refer to the **Action Buttons** topic.

Click the designer's **Save** button to confirm the settings.

Activation

To display the Background Process Node Details screen, navigate to the MAIN screen and map the screen to the 'Background Process Condition' which is displayed as 'Is BackgroundProcess' in the Conditions parameter. Set the Screen parameter to the Screen ID created earlier. Click the dialog's **Add** button, then click the designer's **Save** button to confirm the settings and the **Close** button to return to the Web UI. For more information, refer to the **Mappings** topic.


Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Screen Mapping Properties
Component Description
A mapping rule that will forward to the specified screen if all supplied conditions are satisfied.
* Conditions
Is BackgroundProcess
Add...
Edit...
Remove
Up
Down
* Screen
ProcessDetails
Add
Add Component
Add
Advanced Search Selection Condition
Always True Condition
Asset Condition
Asynchronous Job Process Condition
Background Process Condition
Background Process List Condition
Basket Selection Condition
Business Condition Condition
Condition that is true if the node is a backgroundprocess.
Filter
Show deprecated components
Cancel
Add

Calculated Attributes in Web UI

Calculated attributes are a special type of attributes whose values are not written in the database, but are calculated on the fly. Calculated values are dynamic based on the context, version, product selected in the GUI or included in the export. Calculated values are generated when clicking on the object in GUI or when exported and are not stored in the database. The foundation for a calculated attribute is a functional programming language very similar to the language used for defining functions in Excel.

Note: Change Flags for events require that data is present in the database. Since calculated attribute values are not stored, no change flags are generated. For more information, refer to the **Limitations and Exceptions** section of the **Core Events** topic in the **System Setup** documentation.

For assistance in determining if a calculated attribute is the most efficient way to meet your requirements, refer to the **Calculated Attribute Considerations and Limitations** topic in the **Calculated Attributes** section of the **System Setup** documentation.

The value of a calculated attribute is determined by a value template which can be written in the Function Editor. Many functions can include an argument, which specifies the STEP data to be accessed. Functions can access information from references, compare data between objects, round numbers, modify text, and many other options. For a step-by-step guide to creating a calculated attribute, refer to the **Creating a Calculated Attribute** topic in the **Calculated Attributes** section of the **System Setup** documentation.

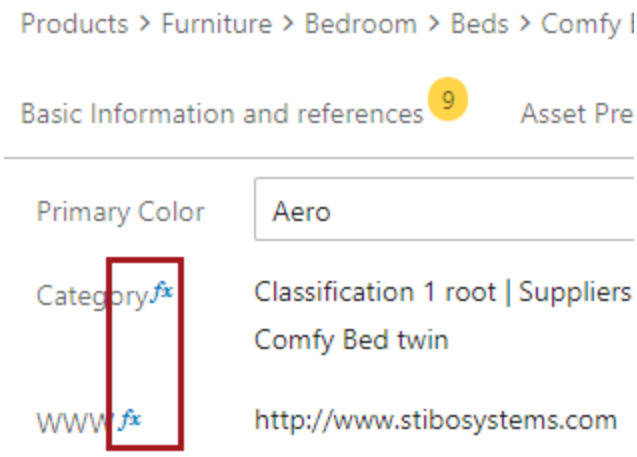
Read more about setting up and using calculated attributes in the:

- **Calculated Attributes** section of the **System Setup** documentation
- **Attribute and LOV Creation and Maintenance in Web UI** section of the **Web User Interfaces** documentation

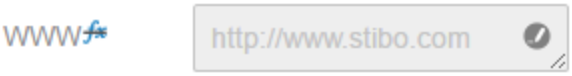
Identifying Calculated Attributes

Once a calculated attribute is set up, users can quickly identify a calculated attribute value that is configured to display in Web UI using a Node Editor (e.g., details screen) or a Node List (Multi Edit Display Mode). And, by looking at the icons, a user can also easily tell if the calculated attribute value shown on the screen has been overwritten with another value.

-  indicates a calculated attribute displaying the calculated value



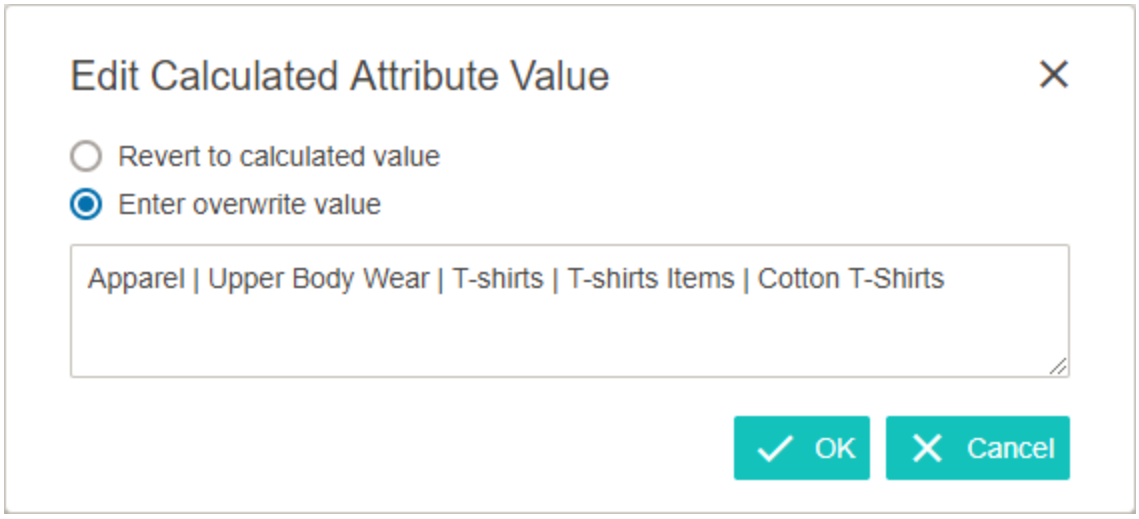
- indicates a calculated attribute displaying an overwritten (edited) value



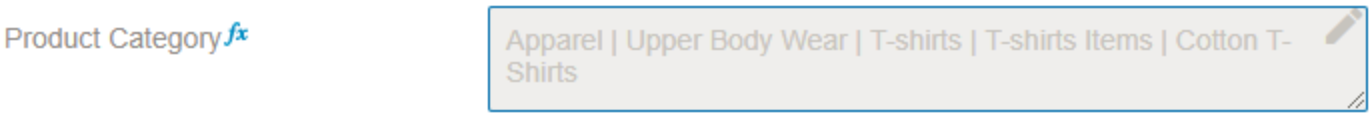
Editing Calculated Attributes

If an existing calculated attribute value needs to be edited, the user will take these steps:

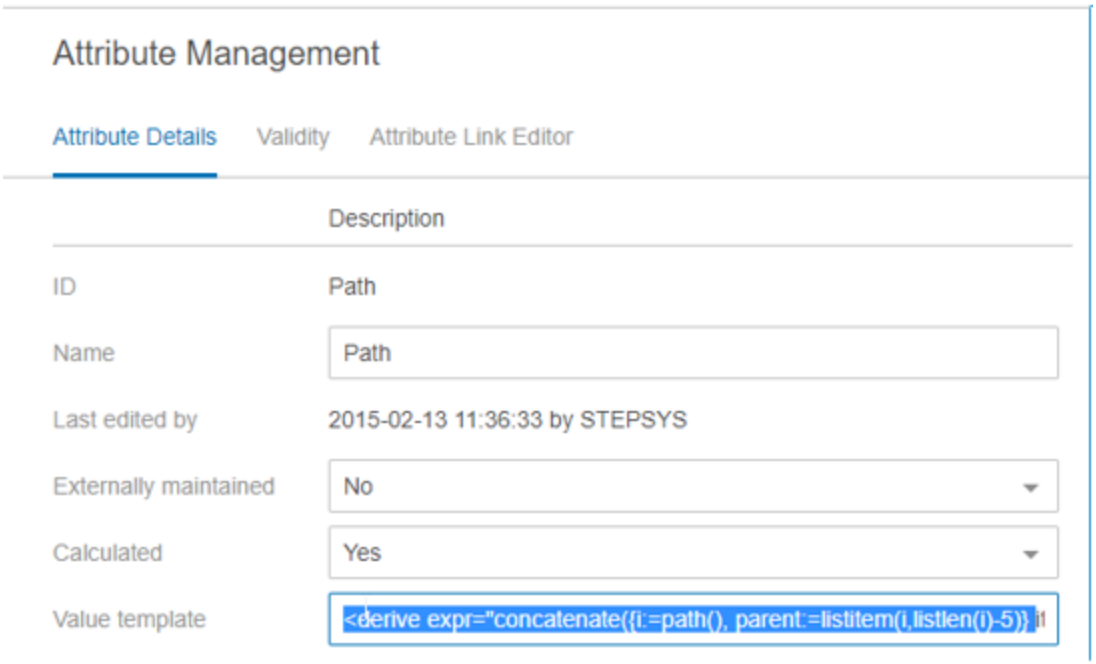
1. Click the edit icon ( ) found to the right of the value field or double-click the table cell where the attribute is displayed, whichever method applies.
2. An 'Edit Calculated Attribute Value' dialog box will display. Make a radio button selection and enter / edit the value entry, if applicable. Then click OK.
   - The default setting is 'Revert to calculated value.' The user can return to the original value.
   - Or, the user may choose 'Edit or overwrite value.' Users can edit the current value shown or completely clear the data and then replace it with a new value.



3. If making edits within rows of a Node Editor screen, click the Save button to view the changes. Changes are reflected automatically when users exit out of a table cell. However, depending on the display configuration, the user may still need to save any changes before moving to another screen.



It is worth noting that a calculated attribute editor (to insert templates, evaluate nodes, etc.) is available in the workbench only, and is not available in Web UI. Additionally, a user will have to specify the required function manually on the attribute management screen.



Children of Types Screen

The Children of Types screen component enables users to set a screen on a parent node and view, at a glance, children objects of a specified object type or types. For example, if a node has children objects that are of the 'Item', 'Retail item', and 'Online Sale Item' object types, but only objects of the types 'Retail Item' and 'Online Sale Item' should be displayed, the Children of Types screen can be used to limit the view of children objects on a node list to just those two object types.

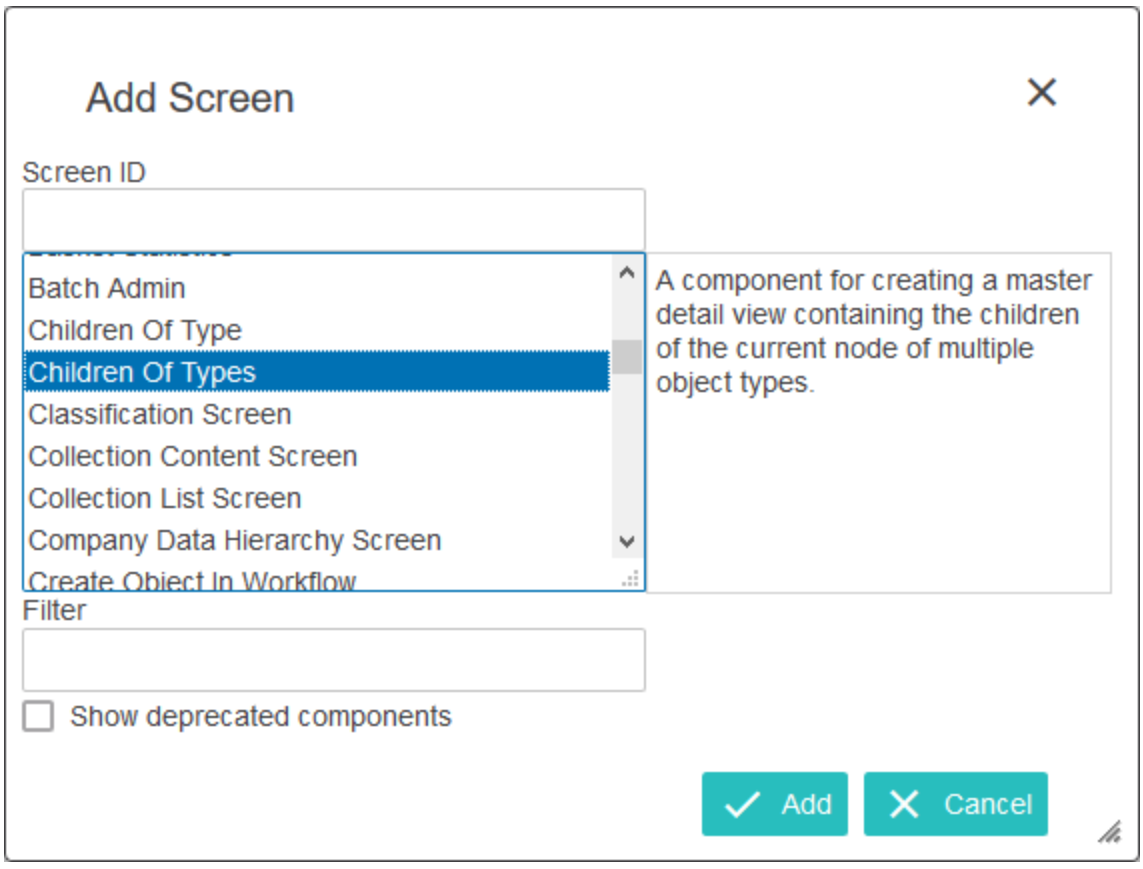
Prerequisites

It is expected that anyone configuring the Children of Types Screen component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

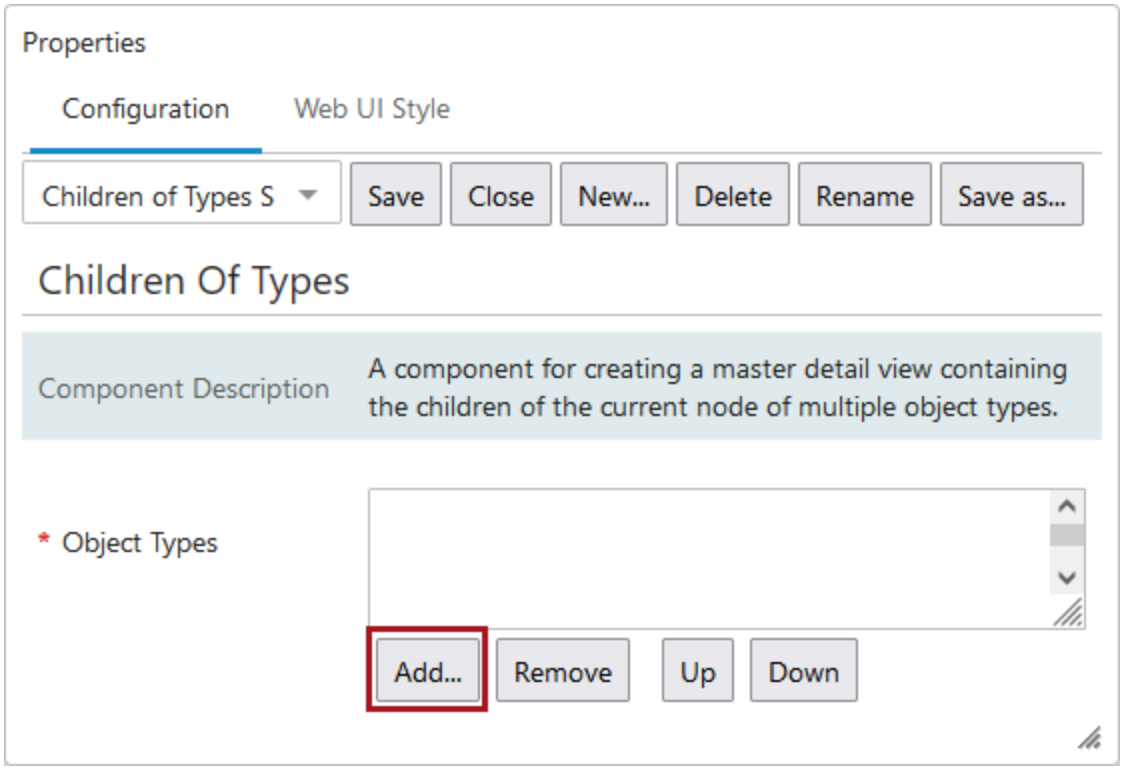
Adding and configuring a Children of Types screen

To create and configure a Children of Types screen, users must first determine the child objects of which object type or types will display in a node list. This will be dependent, in large degree, to where the screen will be set in the Web UI. Once this has been determined, users may begin the configuration process.

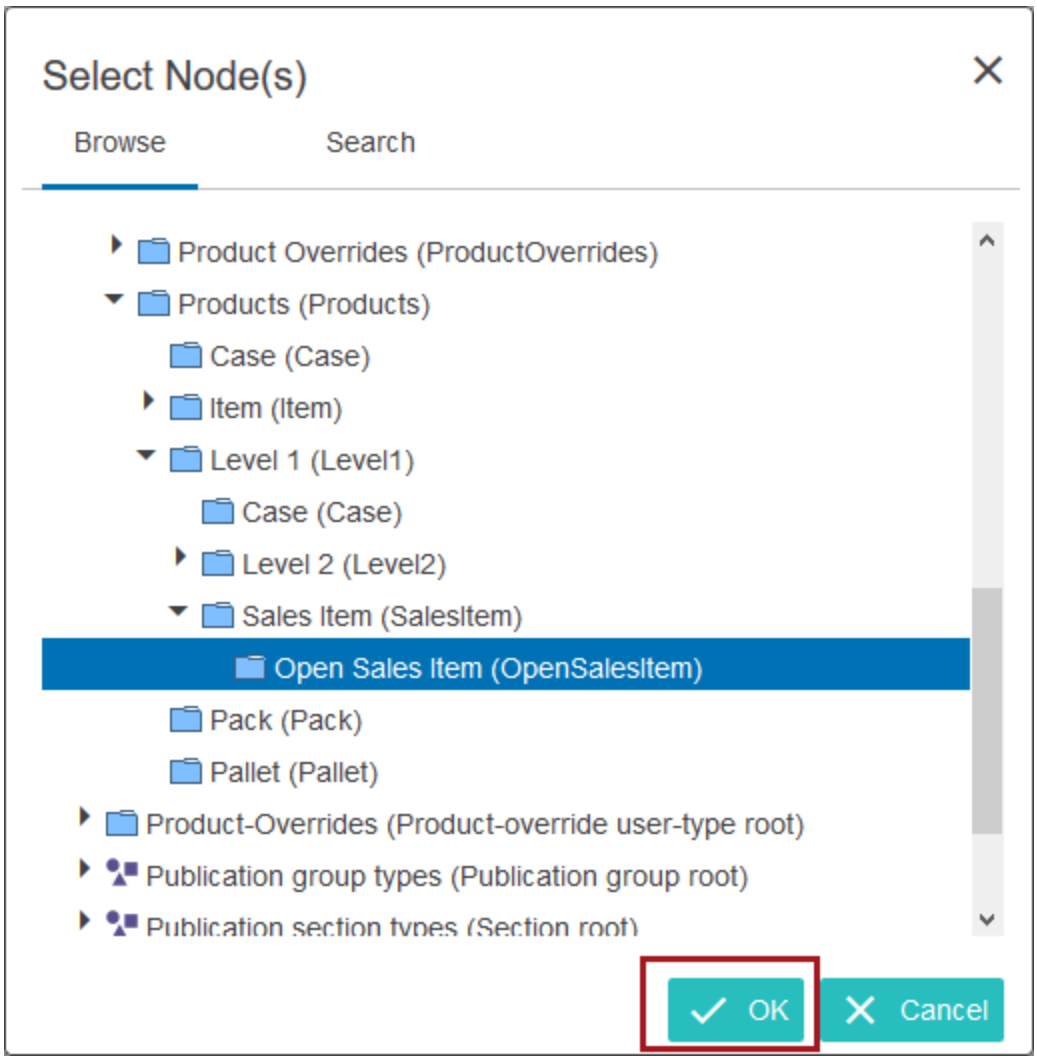
1. Create a new 'Children of Types' screen. Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Select 'Children of Types Screen' as the screen type.

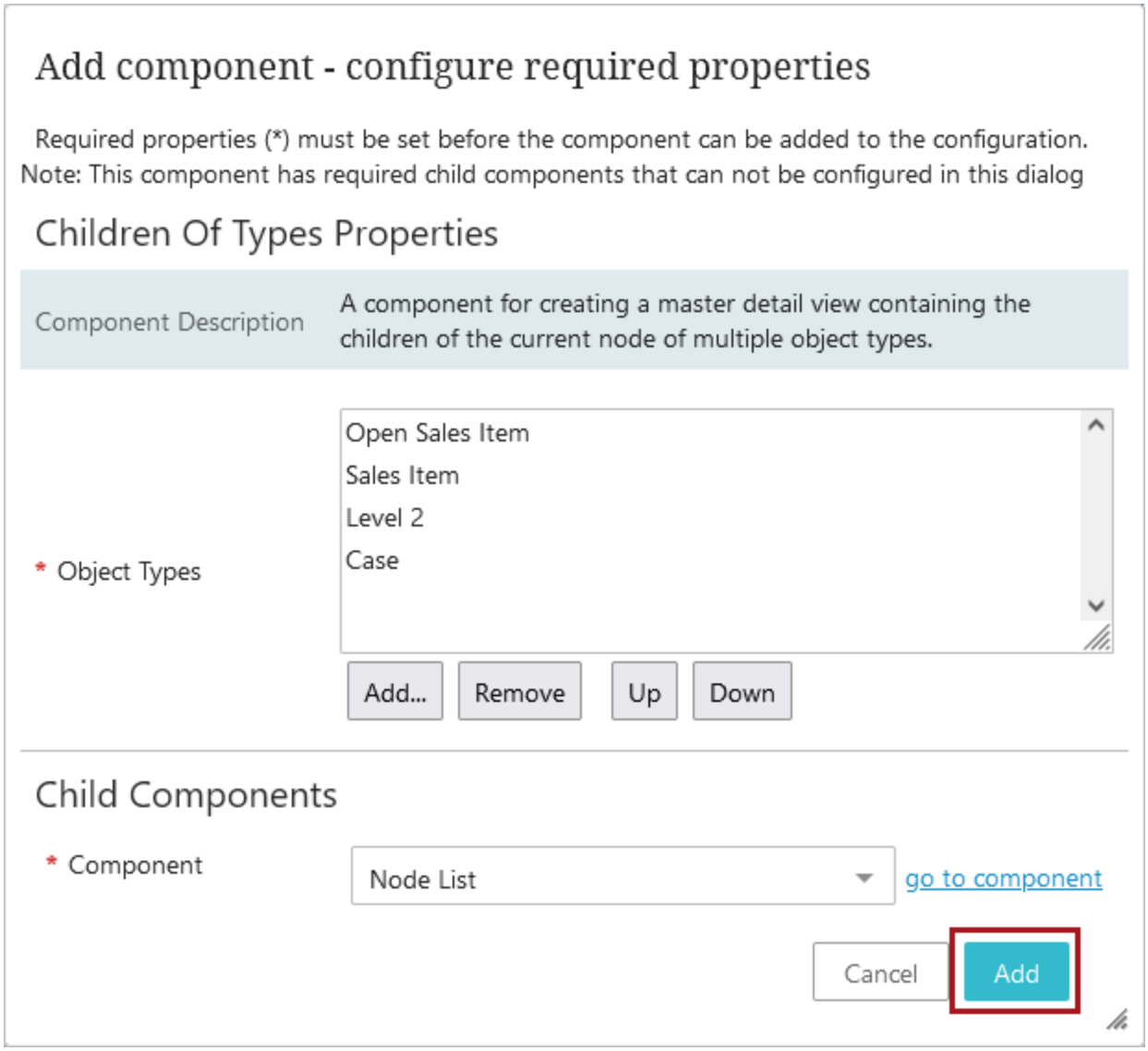


2. After creating the new 'Children of Types' screen, users must determine which object types will display on the screen. Click 'Add' to bring up a Node Selector dialog.

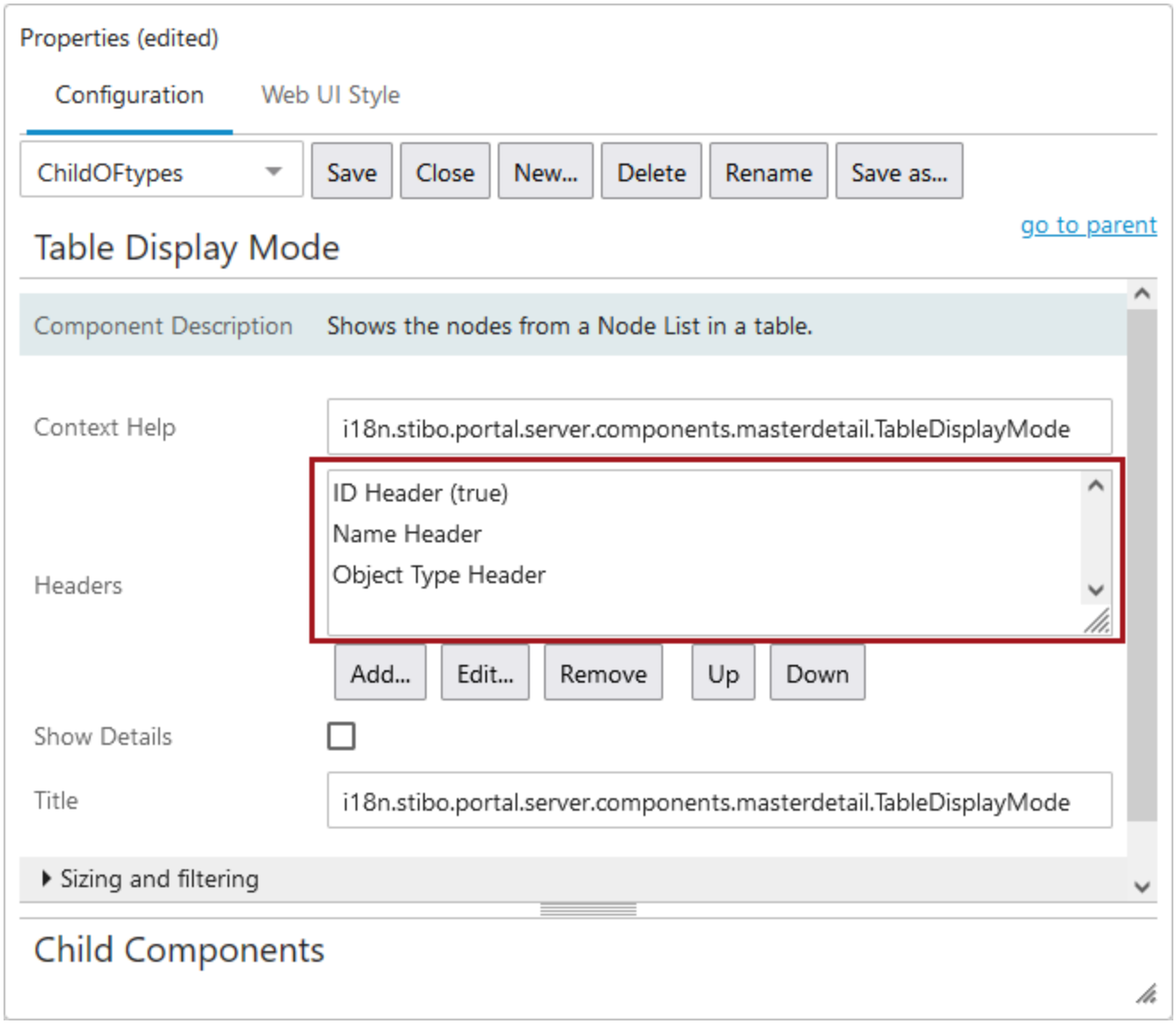


3. Using either the 'Search' or the 'Browse' option, users select the object types that can appear in the screen. Multi-select is enabled. When the selections are made, click 'OK', and then in the 'Children of Types Properties' window, click 'Add.'


Select Node(s)
Browse
Search
Product Overrides (ProductOverrides)
Products (Products)
Case (Case)
Item (Item)
Level 1 (Level1)
Case (Case)
Level 2 (Level2)
Sales Item (SalesItem)
Open Sales Item (OpenSalesItem)
Pack (Pack)
Pallet (Pallet)
Product-Overrides (Product-override user-type root)
Publication group types (Publication group root)
Publication section types (Section root)
OK
Cancel



4. Finish configuration of the screen on the Node List component. For more information about configuring a Node List, refer to the **Node List Component** section of the **Web User Interfaces** documentation.
5. Configure the view mode type best suited for the screen. Table view, Multi edit view, Compare view, and List view are viable options.
6. Set the required headers for the screen. These headers will determine which columns display in the tabular view of the child objects.



Once configured and set as a Sub Screen Tab Page, the Children of Types screen will display in a tabular view all child objects that are of the configured object types that were set in step two.

Classification-Specific Attribute Value Components

The following attribute value components are available for use with classification-specific attribute values. Specifically, these components are useful for working with ETIM data. For more information, refer to the **ETIM Format** topic with the **Data Exchange** documentation.

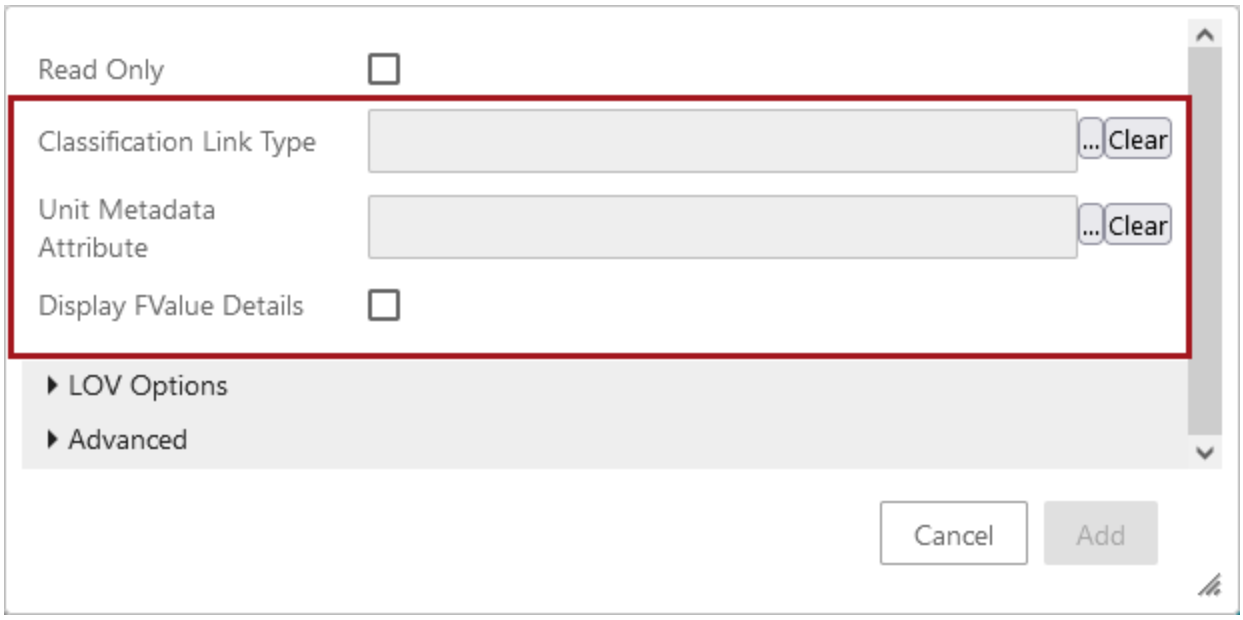
For the most part, the following components mirror the Attribute Value Component and general configuration information can be found in the **Attribute Value Component** topic.

- Classification-Specific Attribute Value Component for Node Details
- Classification-Specific Attribute Value Header Component for Node List

For the most part, the following two components mirror the Attribute Value Group Component and general configuration information can be found in the **Attribute Value Group Component** topic.

- Classification-Specific Attribute Value Group Component for Node Details
- Classification-Specific Attribute Value Group Header Component for Node List

The following sections define the classification parameters ('Classification Link Type', 'Unit Metadata Attribute', and 'Display FValue Details') displayed on the components named above.



Classification Link Type

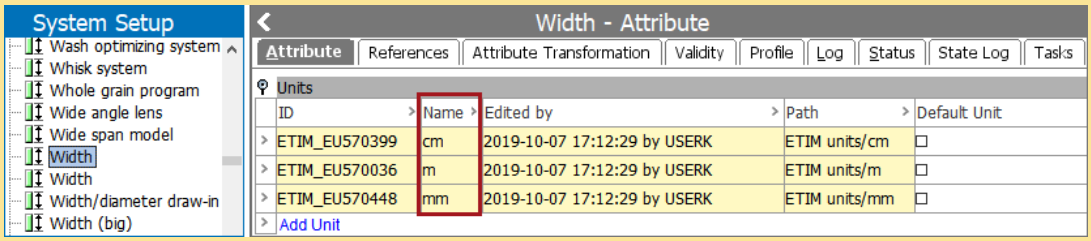
Products must be classified into the ETIM classification via a product-to-classification link type as defined in the **Create Product to ETIM Classification Link** topic of the **Data Exchange** documentation.

For this parameter, click the ellipsis button (...) to display the Select Node(s) dialog. Choose the product-to-classification link type configured for ETIM. Click **OK** to close the dialog and display your selection on the component dialog. Click the **Clear** button to remove the selection.

Unit Metadata Attribute

During ETIM configuration, the 'ETIM Unit Description' metadata attribute is selected, as explained in the **Valid Units are Determined by Classification to Attribute Link** section of the **ETIM Format** topic in the **Data Exchange** documentation.

Important: The unit's 'Name' (e.g. mm) in STEP Workbench has to be used in the 'ETIM Unit Description' in order for the validation to work. It will not work if it is using the unit that is assigned by ETIM import (e.g. Millimeter).



For this parameter, click the ellipsis button (...) to display the Select Node(s) dialog. Choose the metadata attribute used by the classification to attribute link. Click **OK** to close the dialog and display your selection on the component dialog. Click the **Clear** button to remove the selection.

Note: Invalid ETIM unit values result in a Web UI error.

Display FValue Details

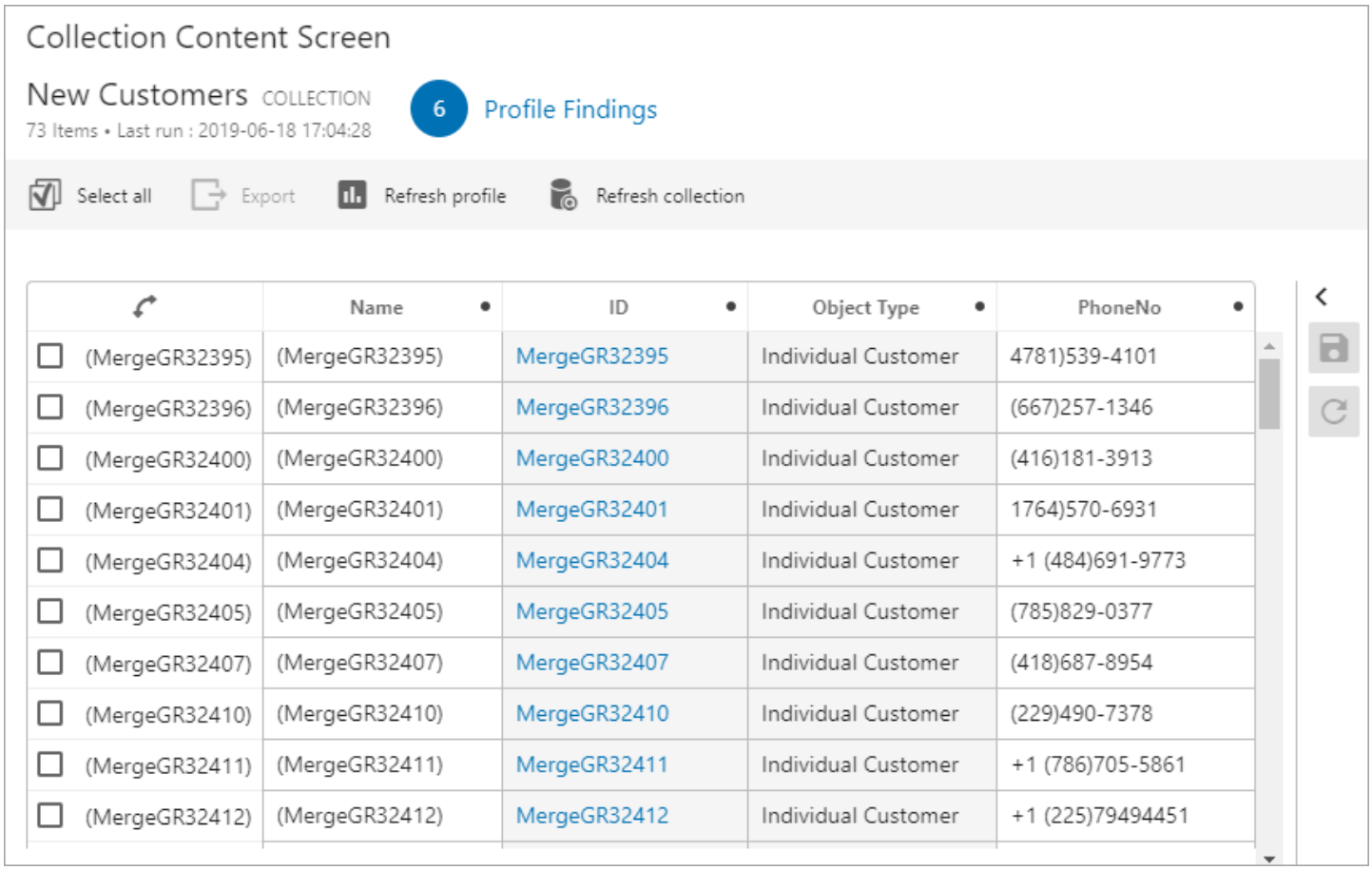
Check this parameter to display FValue Details attributes that have been imported via the ETIM IXF Format with the 'Create Value Details attributes' parameter checked on the ETIM IXF format dialog. When 'Display FValue Details' is checked, Web UI displays FValue Details attributes for each of the configured ETIM attributes. For more information, refer to the **ETIM IXF Format** topic in the **Data Exchange** documentation.

If FValue Details are not necessary in your data model, leave this checkbox unchecked.

Note: This option is available only for the Classification-Specific Attribute Value Component and for the Classification-Specific Attribute Value Group Component. It is not available for the Header components.

Collection Content Screen

The Collection Content screen is used to display and maintain collections in Web UI.



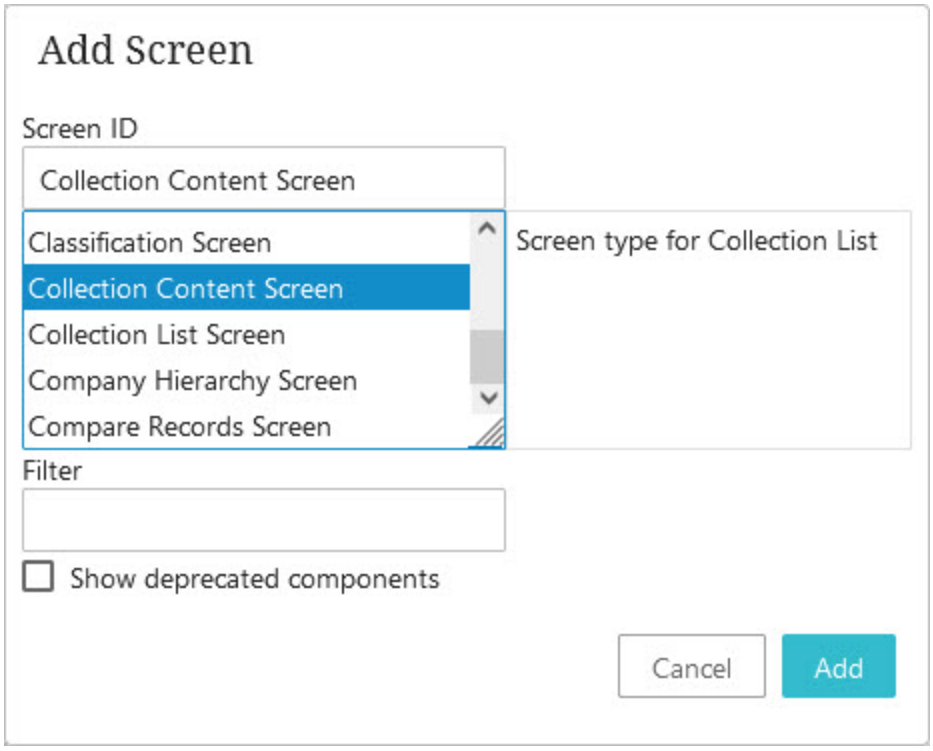
	Name	ID	Object Type	PhoneNo
(MergeGR32395)	(MergeGR32395)	MergeGR32395	Individual Customer	4781)539-4101
(MergeGR32396)	(MergeGR32396)	MergeGR32396	Individual Customer	(667)257-1346
(MergeGR32400)	(MergeGR32400)	MergeGR32400	Individual Customer	(416)181-3913
(MergeGR32401)	(MergeGR32401)	MergeGR32401	Individual Customer	1764)570-6931
(MergeGR32404)	(MergeGR32404)	MergeGR32404	Individual Customer	+1 (484)691-9773
(MergeGR32405)	(MergeGR32405)	MergeGR32405	Individual Customer	(785)829-0377
(MergeGR32407)	(MergeGR32407)	MergeGR32407	Individual Customer	(418)687-8954
(MergeGR32410)	(MergeGR32410)	MergeGR32410	Individual Customer	(229)490-7378
(MergeGR32411)	(MergeGR32411)	MergeGR32411	Individual Customer	+1 (786)705-5861
(MergeGR32412)	(MergeGR32412)	MergeGR32412	Individual Customer	+1 (225)79494451

Prerequisites

It is expected that anyone configuring the Collection Content Screen component is familiar with the Web UI Designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Adding a new Collection Content Screen

Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic.

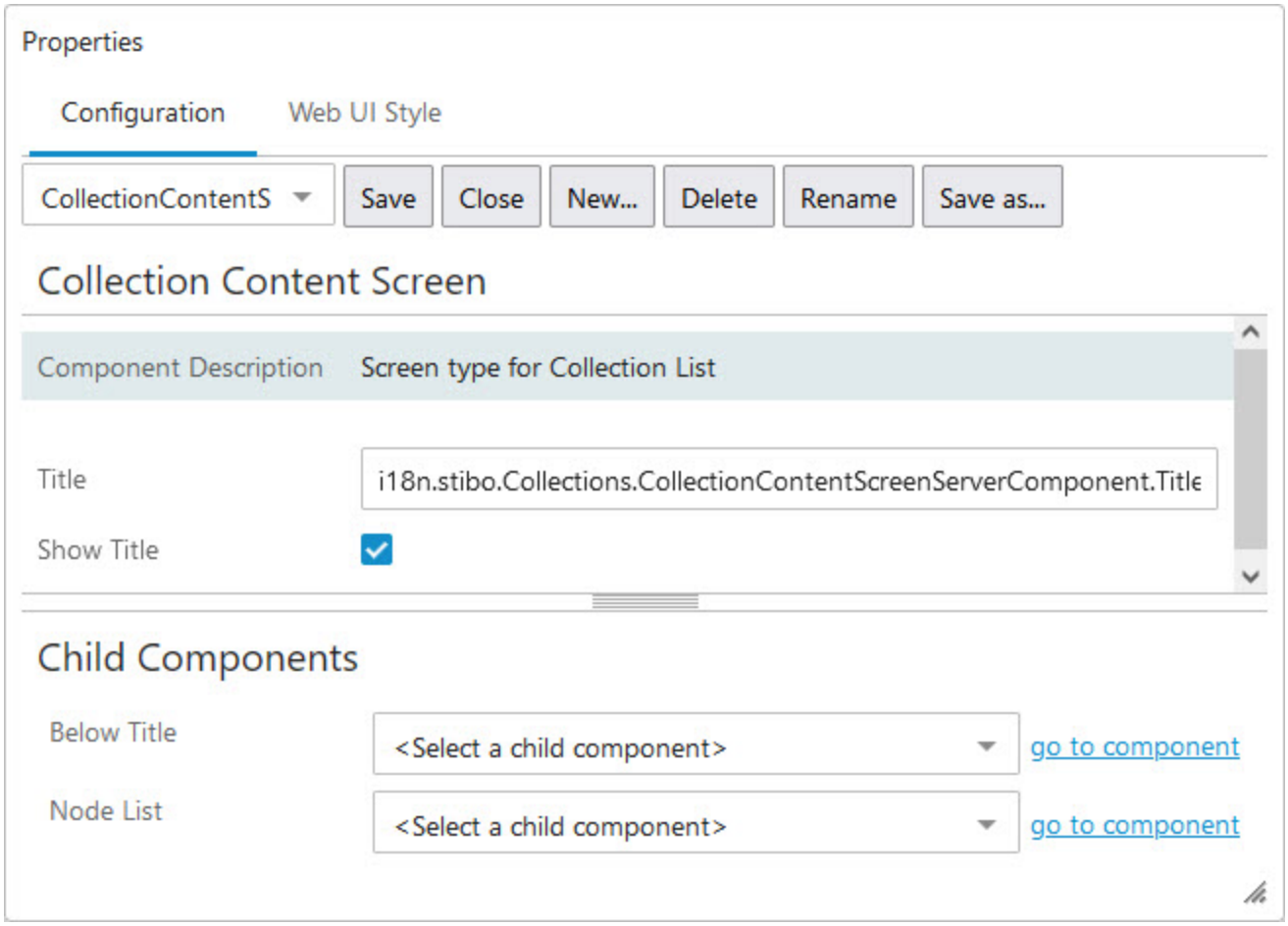


1. In the 'Add Screen' window, select 'Collection Content Screen' as the screen type, as shown in the screenshot above.
2. In the Screen ID text field, create a name for the Collection Content screen. For this example, the Screen ID is named 'Collection Content Screen'.
3. Click **Add**.

Configuring a Collection Content Screen

The data Collection Content screen displays is driven primarily by its two child components: 'Below Title' and 'Node List.'

1. To access the Collection Content Screen properties, open the designer and select 'Collection Content Screen' from the screen dropdown.



2. In the Below Title parameter, select the desired component from the dropdown list. For more information regarding component options included in the dropdown, refer to the **Below Title Component** section of the **Web User Interfaces** documentation.
3. In the Node List parameter, select 'Node List' from the dropdown and click **go to component**.
4. Configure the Node List Properties. For more information, refer to the **Node List Component** section of the **Web User Interfaces** documentation.

Note: To add an 'Edit Collection Search Criteria Action' button to the Node List configuration, ensure that an advanced search screen is properly configured and mapped under MAIN properties. For more information, refer to the **Advanced Search** section of the **Web User Interfaces** documentation.

Company Hierarchy Visualization and Maintenance

Customer data users can browse and edit a visual representation of company hierarchy data using a Company Hierarchy Screen. When using the hierarchy functionality, company hierarchy data is saved as STEP entities, and references are used to connect the entities to each other. The visualization of entities and their references may help users better understand company hierarchies, and relationships between aggregates (e.g., companies, franchises, and branches). Users may also be able to identify patterns, better organize objects, and ultimately build better data relationships.

This topic addresses:

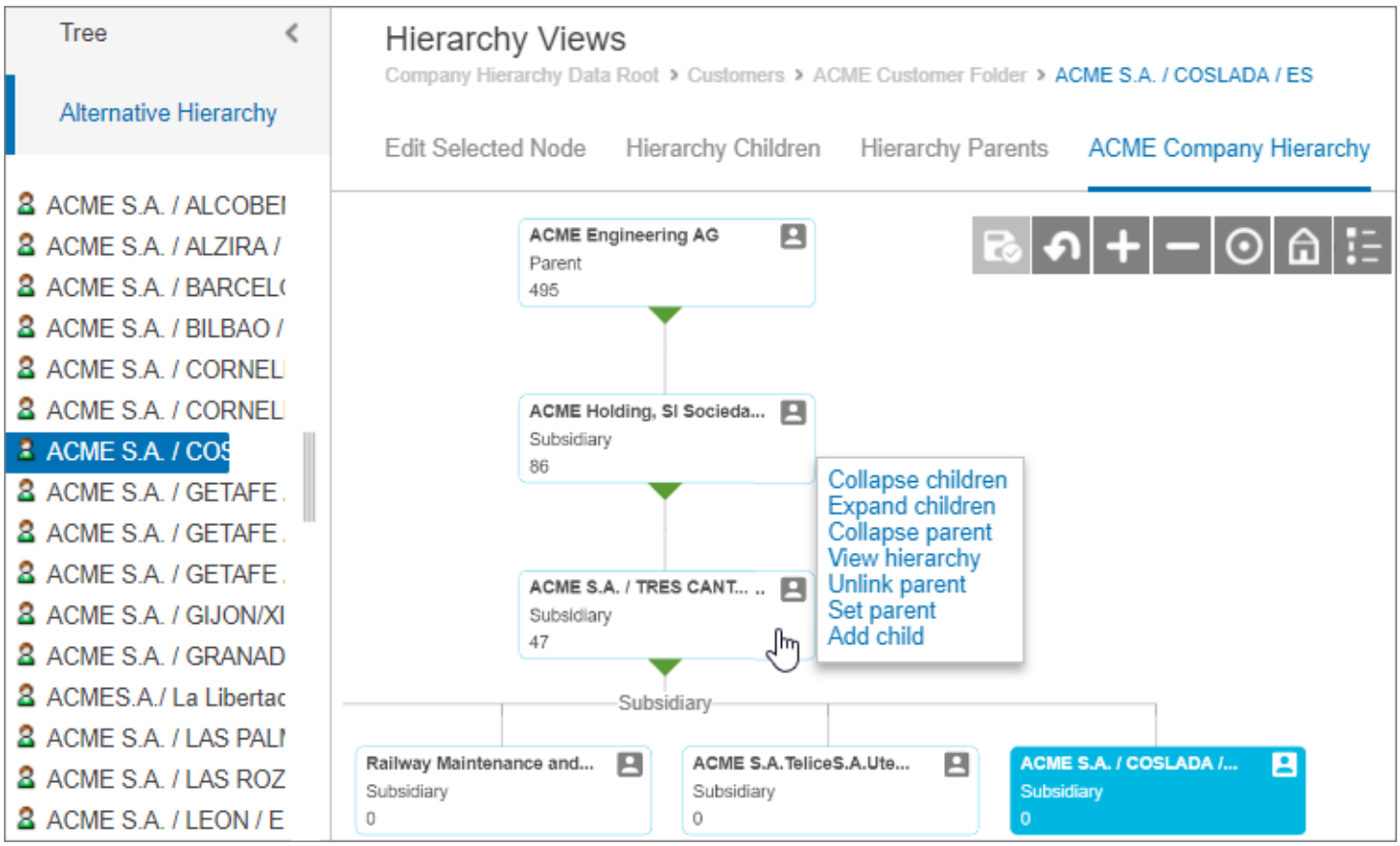
- Prerequisites
- Overview of a Company Hierarchy Screen
- Using a Company Hierarchy Screen
- Editing a Company Hierarchy
- Optional Tools for 'Set parent' and 'Add child' Actions

Prerequisites

It is very important to note that users with access to the Web UI designer will need to configure the Company Hierarchy Screen component before it can be used. For more information, refer to the **Configuring a Company Hierarchy Screen** topic.

Overview of a Company Hierarchy Screen

The below screenshot shows a sample of a Company Hierarchy Screen that is configured to display via a Sub Screen Tab page when a user clicks on an entity object within a Tree Navigator panel.



Using this example:

- An entity can be selected using the navigation panel on the left.
  - If the panel on the left is expanded, then the selected entity node will display shaded.
  - Selecting a different entity within the panel will render the respective company hierarchy.
  - Selecting a different hierarchy to view within the Company Hierarchy Screen will update the selected entity node in the navigation panel.
- The initial view responsively adapts based upon screen size, so that the hierarchy view appropriately fills the screen.
- Each linked entity is displayed within individual graphical nodes.
  - Each graphical node displays up to three configured attribute values, and a customizable icon representing the object type.



- A blue filled box represents the selected node within the hierarchy.
- A toolbar in the top right offers the following options for better viewing and editing:



  - Save & Approve - all changes on these objects are saved and partially approved. Any references that were not created by the approving user or were left unaltered will remain unchanged in the existing workspace.
  - Undo
  - Zoom in
  - Zoom out
  - Recenter hierarchy view
  - Default hierarchy view
  - Symbol Legend
- Green arrowheads display at the bottom of a graphical node (and top, when applicable) to indicate when additional data is available but not displayed.
  - When a parent is not displayed, the green arrowhead will display at the top of the graphical node.
  - When a child is not displayed, the green arrowhead will display at the bottom of the graphical node.
- A hand shaped cursor and the following interactive options display when a user hovers over any of the entity boxes.

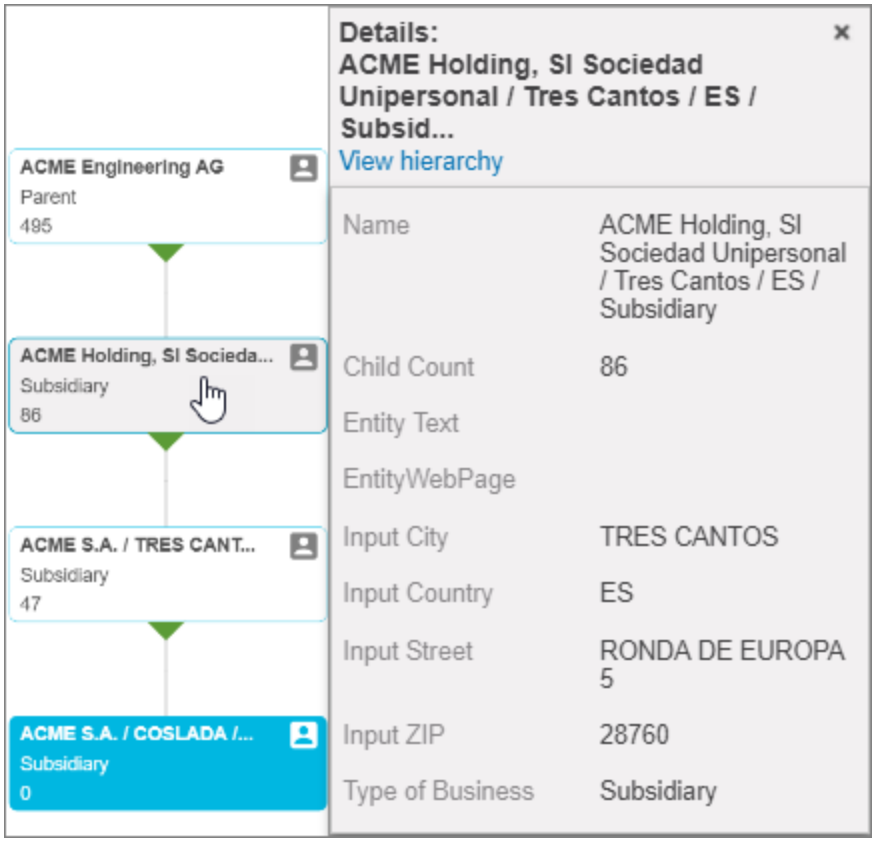


  - Expand parent*
  - Collapse parent
  - Expand children
  - Collapse children
  - View hierarchy
  - Unlink parent
  - Set parent
  - Add child

*Because the options are interactive, only those that are applicable display.

Users can view more information by selecting an individual node. The attributes that display are configurable in the designer by the admin users. Users also have the option to select the 'View hierarchy' link to render the hierarchy for the selected node. When this happens, the Tree Navigation (if applicable) will move to the newly selected entity object.

The below screenshot shows a sample of information that appears when a user selects any of the entity nodes within a Company Hierarchy Screen.



Using a Company Hierarchy Screen

Characteristics of many customer data models lend themselves to a hierarchical layout, even though the data model is referential. Many times the creation of customer hierarchy data does not occur in STEP but is created in surrounding applications (ERP, CRM, and eCommerce). Until now, this resulted in company hierarchy content and structure being maintained outside STEP. Orphaned hierarchies that do not naturally reside in the surrounding applications can also be created and maintained in the STEP Web UI Company Hierarchy Screen.

Using the Company Hierarchy Screen, users will be able to:

- View and maintain organizational hierarchies by making use of organic corporate data
- Make ad hoc changes as needed
- Associate account and other organizational data (e.g., revenue to date, credit score, etc.) to nodes within an organizational hierarchy
- Associate account and other organizational data received from third-party data providers to nodes within an organizational hierarchy
- Construct and manage differing perspectives of a singular hierarchy so as to accurately model the differing views stakeholders within an organization (e.g., Sales, Marketing, Finance / Legal) have for a given corporate

customer organization

- Map and manage relationships between nodes across different hierarchies

A node can be a member of multiple hierarchies, but only one hierarchy can be viewed at a time. Though only one hierarchy can be displayed at the same time, more than one hierarchy can be defined and displayed using multiple Company Hierarchy screens within the same Web UI.

Editing a Company Hierarchy

Users have many options to help them edit a company hierarchy. When using a company hierarchy screen, a user can hover over a graphical node and view the relative options for editing the company hierarchy. However, when working in an 'Approved' workspace, the hover menu options 'Unlink parent,' 'Set parent,' and 'Add child' are not available. Edits to the company hierarchy structure can only be done in the 'Main' workspace.

The screenshot below is an example of options displayed when hovering over a graphical node in a 'Main' workspace.



Each of these options is described below.

Collapse children

If the graphical node has any visible children, then the 'Collapse children' action will display. When selected, the children and underlying descendants will collapse into the node above.

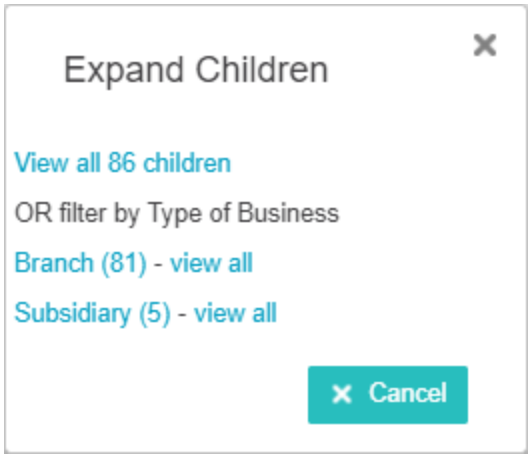
Expand children

If the graphical node has a green indicator on the bottom, upon hover, the 'Expand children' action will display. If there is enough available space to fit all children on the screen, then the children will expand under the graphical node. If there is not enough available space and the Expand Plugin has not been configured, then all children will be displayed, but potentially outside the visible area.

Using the zoom in, zoom out, and panning tools is helpful when this occurs.

If there is not enough available space and the Expand Plugin has been configured, then an Expand Children dialog will display.

In the screenshot example below, the Expand Plugin has been configured to use a filter type of Branch and Subsidiary. The user can select to view all children, view all children within the Branch filter type, view all children within the Subsidiary filter type, or drill down into the Branch or Subsidiary filter types.



In the screenshot example below, the user selected the Branch filter type, and the dialog now displays the available additional filter types. In this example all the Branch children are located in the same country, 'ES.'



The user can select the Back button to return to the previous dialog, or the Cancel button to return to the Company Hierarchy Screen.

Note: If a user selects 'Expand children' on a node with more than 1,000 children, then an error message will display informing the user that there are too many nodes to display. The user will not be able to display the nodes. If somehow 1,000 nodes are displayed on the screen, then a warning will display informing the user that browser performance may be impacted.

Collapse parent

If the graphical node has a visible parent, then the 'Collapse parent' action will display. When selected, the parent and all siblings will collapse into the node.

Expand parent

If the graphical node has a green indicator on the top, upon hover, the 'Expand parent' action will display. When selected, all direct ancestors are expanded, potentially outside the visible area. Using the zoom in, zoom out, and panning tools is helpful when this occurs.

View hierarchy

If a Hierarchy screen is defined for the target node, then the 'View hierarchy' link will be available. Selecting 'View hierarchy' will navigate away from the originally rendered node hierarchy to the selected node hierarchy. The once white graphical node will display filled with blue, indicating it is the selected node. If the left panel is enabled, the panel will display the newly selected node.

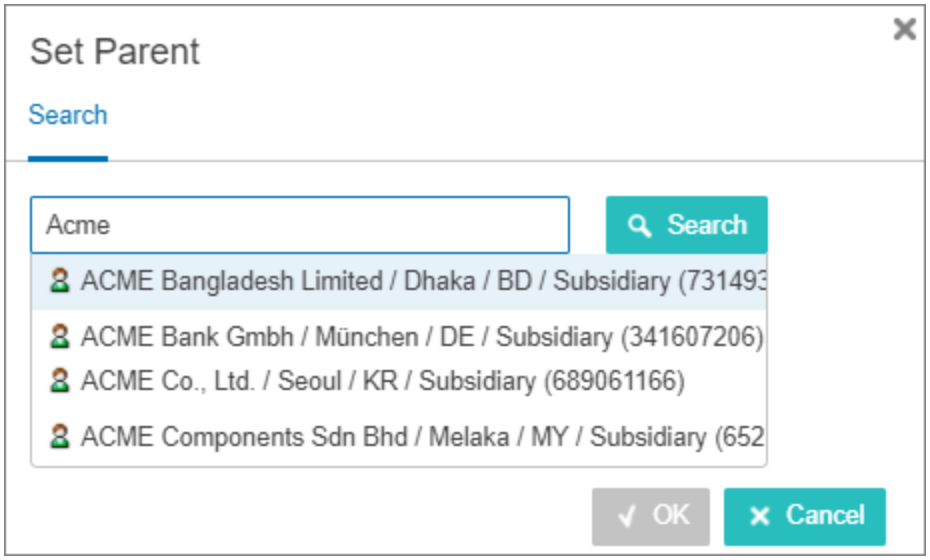
Unlink parent

Selecting 'Unlink parent' will remove the reference link between the node and its parent. However, the user must click the Save button for the changes to formally take affect. When selected, the graphical reference link (the line connecting the two graphical nodes) will no longer display, but the graphical node itself will remain displayed on the screen. This allows a user to edit the graphical node in other ways, or view the existing hierarchy prior to saving.

Set parent

'Set parent' can be used to change the parent to either an existing object or a new object that is created within the 'Set parent' dialog. When selected, the 'Set parent' dialog will display with at least a Search tab; however, if STEP has been configured with the optional 'Set parent' and 'Add child' settings, then a 'Find Similar Search' tab and/or a 'Create' tab will display. More information on these tabs can be found in the **Optional Tools for 'Set parent' and 'Add child' Actions** section below.

The screenshot below is an example of the default Search option displayed when using **Set parent**.



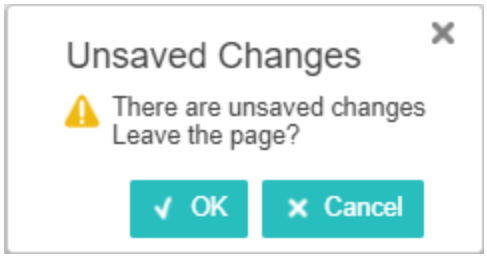
1. Using the Search tab, find the desired entity.
2. Select the new parent entity.
3. Click **OK**.
   - The link between the node and its original parent are removed, and the parent link is added to the newly selected node.
   - The 'Set parent' dialog will close and the hierarchy will display with the original remaining graphical nodes disconnected from the newly linked graphical node and its parent.
4. Click **Save** in the Company Hierarchy Screen toolbar.

Important: Changes will not take affect until the **Save** button is clicked.

If a user tries to navigate away from the Company Data Hierarchy tab, then the following warning will display.



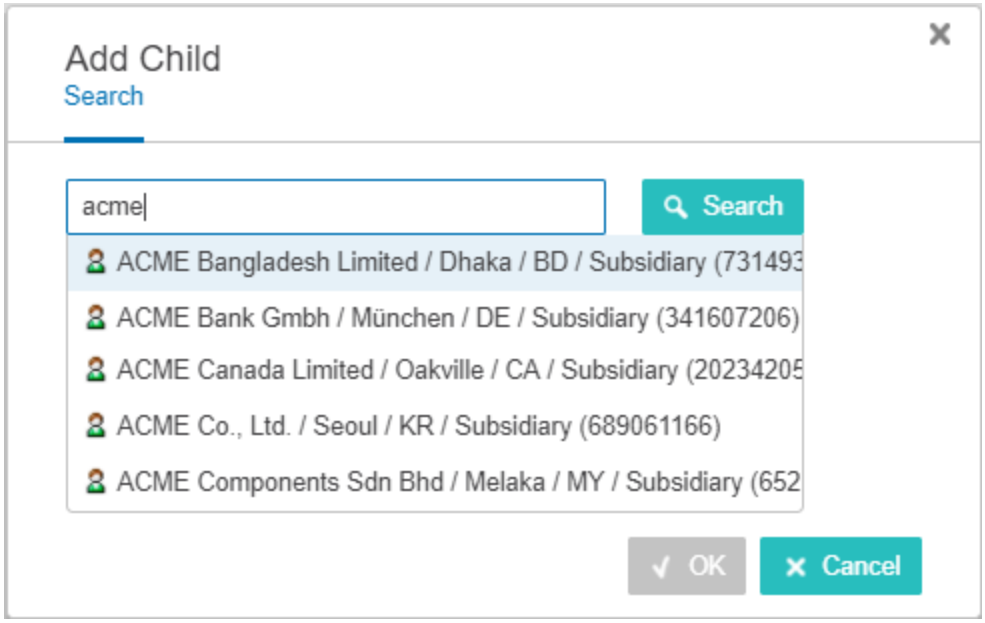
If a user selects a different entity from the left panel (if enabled) then the following dialog will display, and if the user clicks **OK** then the changes will be lost.



Add child

'Add child' can be used to add a child to the selected node. When selected, the 'Add child' dialog will display with at least a Search tab; however, if STEP has been configured with the optional 'Set parent' and 'Add child' settings, then a 'Find Similar Search' tab and/or a 'Create' tab will display. More information on these tabs can be found in the **Optional Tools for 'Set parent' and 'Add child' Actions** section below.

The screenshot below is an example of options displayed when using **Add child**.



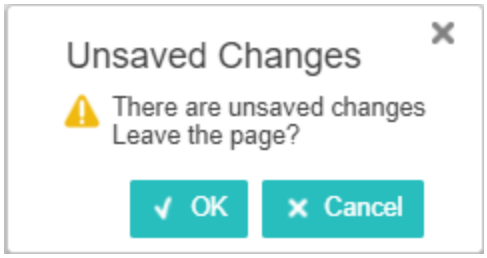
1. Using the Search tab, find the desired entity.
2. Select the new child.
3. Click **OK**.
   - The child link is added to the newly selected node.
   - The 'Add Child' dialog will close and the hierarchy will display the graphical node with its newly linked child.
4. Click **Save** in the Company Hierarchy Screen toolbar.

Important: Changes will not take affect until the **Save** button is clicked.

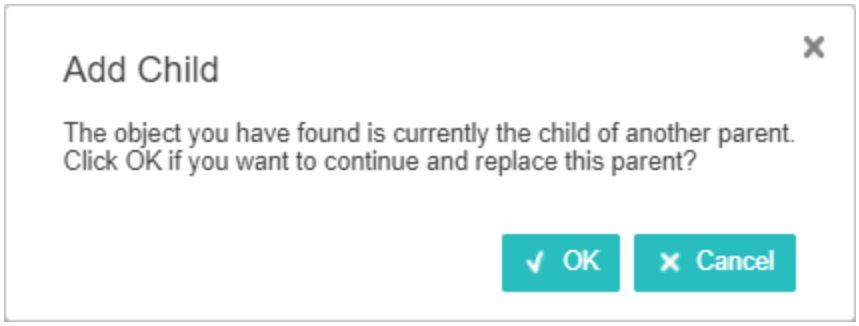
If a user tries to navigate away from the Company Data Hierarchy tab, then the following warning will display.



If a user selects a different entity from the left panel (if enabled) then the following dialog will display, and if the user clicks **OK** then the changes will be lost.



If the user selects an object that is currently the child of another parent, the user must confirm that they want to replace the parent.



Optional Tools for 'Set parent' and 'Add child' Actions

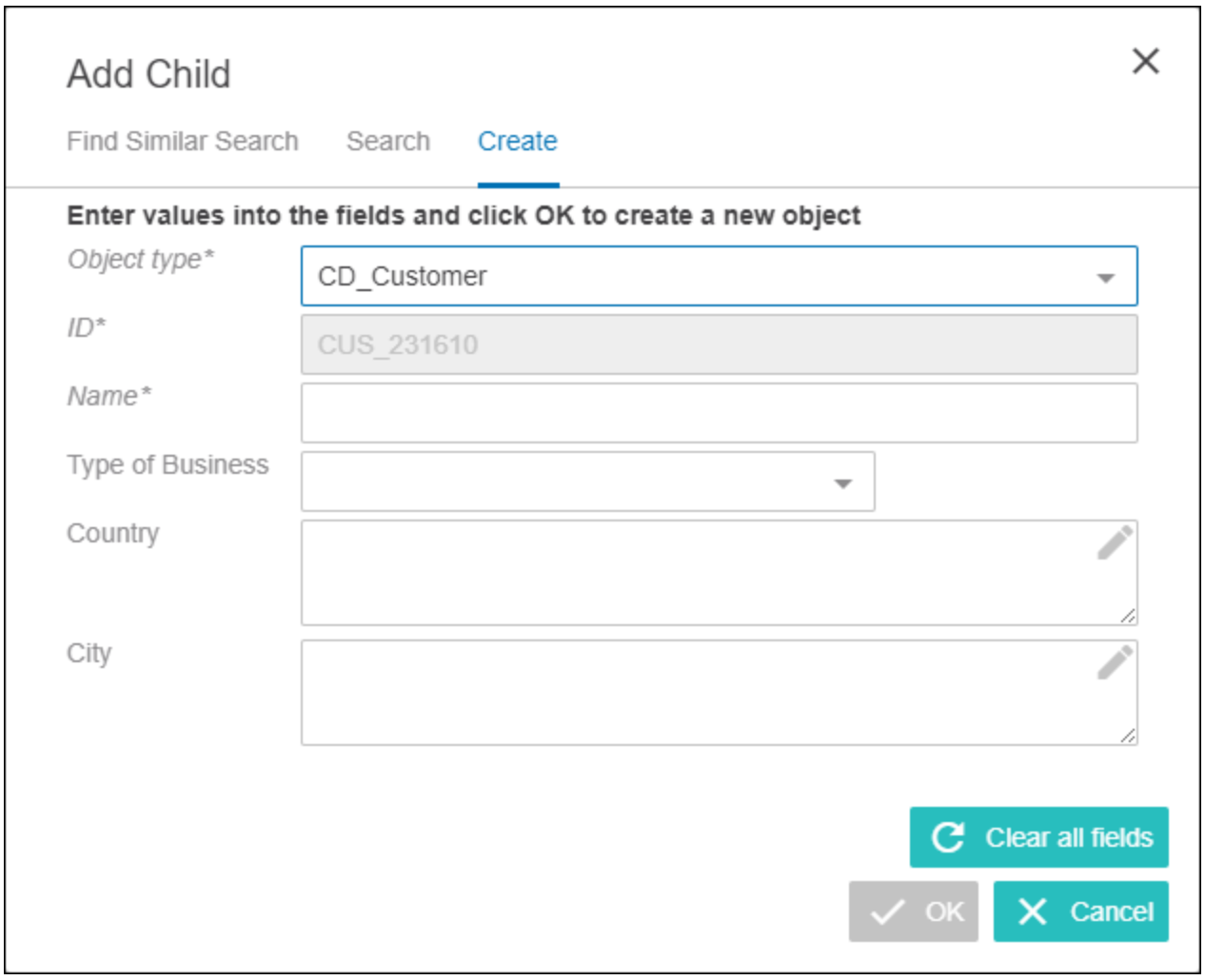
The 'Set parent' and 'Add child' actions offer optional functionality to assist users in properly editing a company hierarchy. The 'Create' tab and 'Find Similar Search' tab functionality are described below.

Create Tab

The Create tab will only display when a user selects the 'Set parent' and/or 'Add child' action, if a designer has set up the optional configurations. More information can be found in the **Optional Configurations for the Hierarchy Representation Component** topic.

Using the Create tab allows users to create new objects. Optionally, the user can also enter values into the attribute fields that have been configured in the designer to be applied to the new object. The attributes that display will depend on the selected Object Type.

The screenshot below is an example of a Create tab configured with attributes to populate.

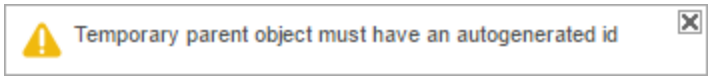


Clicking the **Clear all fields** button will remove all values from the visible fields.

When a user clicks the **Cancel** button, the actions are canceled and the dialog closes.

1. Select the Object Type from the dropdown list (if more than one is configured).
2. Complete any additional value fields, if displayed.
3. Click the **OK** button.

If the following warning displays, the Web UI designer should update the temporary parent object selection to an object with an autogenerated id, or contact your system administrator to have the current temporary parent object configured with an autogenerated id.



When a user clicks **OK**, the new object and relevant reference are created based on the choice of the user. (The reference type is specified in the hierarchy screen for the object type in question.) A message displays notifying the user of the success of the new object creation back on the hierarchy screen.

Find Similar Search Tab

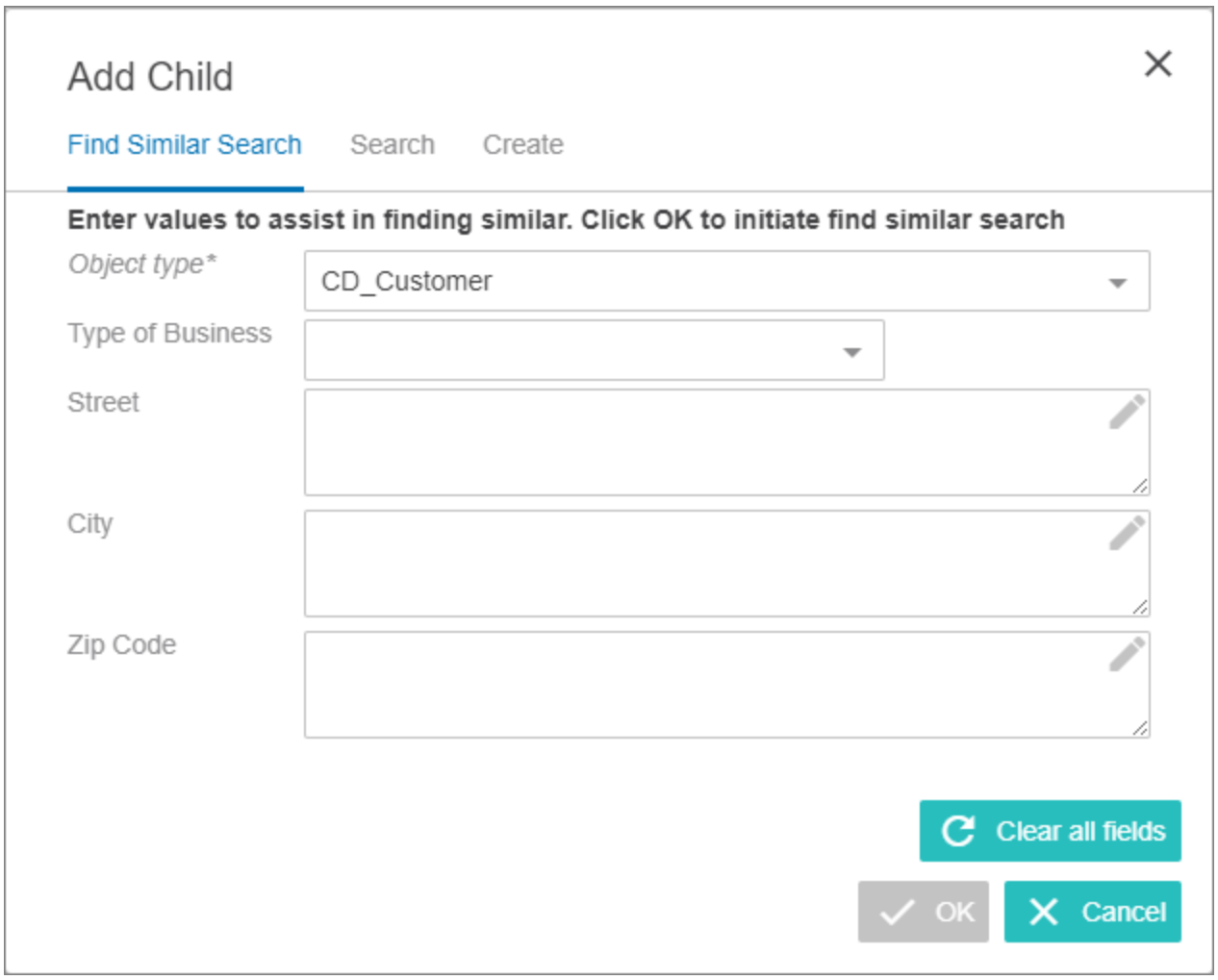
The Find Similar Search tab will only display when a user selects the 'Set parent' and/or 'Add child' action, if a designer has set up the optional configurations. More information can be found in the **Optional Configurations for Hierarchy Representation Component** topic.

In an effort to prevent users from creating duplicate objects in the STEP system, users can use the Find Similar Tab to identify similar objects prior to creating new ones when working in Company Hierarchy screens in Web UI. This functionality can be accessed through the 'Set parent' and/or 'Add child' actions while editing a company hierarchy. Using Find Similar allows users to search for potential duplicates on a more granular level.

The key to Find Similar functionality is the matching setup that the customer creates and uses for duplicate handling. Every time a user enters data into the search fields and clicks OK, the Find Similar search checks the match code values involved, executes the relevant matching algorithm, and provides a set of results, if any are found.

If a user is not getting the results they expect, then the first place to check is the algorithm configured in the Duplicate Handler parameter in Object Type Specific Find Similar Properties. A relevant Match Code and Matching Algorithm needs to be set up before attempting to use the Find Similar Search tab. For more information about setting up and using matching algorithms, refer to the **Configuring Matching Algorithms** section of the **Matching, Linking, and Merging** documentation.

The screenshot below is an example of a configured **Find Similar Search** tab.

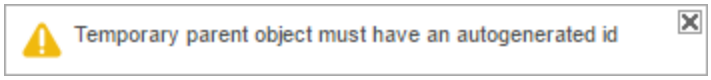


Clicking the **Clear all fields** button will remove all values from the visible fields.

When a user clicks the **Cancel** button, the actions are canceled and the dialog closes.

1. Select the Object Type from the dropdown list (if more than one is configured).
2. Enter searchable values for the attributes.
3. Click the **OK** button.

If the following warning displays, the Web UI designer should update the temporary parent object selection to an object with an autogenerated id, or contact your system administrator to have the current temporary parent object configured with an autogenerated id.



Important: The attributes being searched must be part of the list of attributes that Match Codes are generated for. If not, the search will not work as expected.

If similar objects are found after running the action / algorithm, the user is provided with the results in a admin user-configured detailed dialog list.

If a similar object cannot be found, then click Cancel to return to the 'Set parent' or 'Add child' dialog.

4. Select an object.
5. Click **OK.**

The system creates the reference to the similar object selected by the user, and the reference type is specified in the hierarchy screen for the Object Type in question. The dialog closes and the Company Hierarchy Screen displays.

Configuring a Company Hierarchy Screen

The purpose of the Company Hierarchy Screen is to allow users to graphically explore company structures. Any number of Company Hierarchy screens can be added to a Web UI. Once added, as with any screen, an admin user must configure how users access a Company Hierarchy Screen.

To use the Company Data Hierarchy functionality, an admin user will need to do the following:

1. Define the entity object type and reference type pair(s).
2. Configure a way for users to access the Company Hierarchy Screen.
3. Determine the visual representation of an object type.

This topic addresses:

- Prerequisites
- Creating a Company Hierarchy Screen
- Configuring access to a Company Hierarchy Screen
- Configuring Hierarchy Representation Properties
- Optional Configurations for the Hierarchy Representation Component

Prerequisites

It is expected that anyone configuring the Company Hierarchy Screen and the Hierarchy Representation component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

To use this functionality:

- The data must form a hierarchy before the Company Hierarchy Screen can be configured.
- A hierarchy must be defined by a list of valid Object Type and Reference Type combinations.
- The Reference Type to be used, must have the 'Allow multiple references' equal to 'No.'
- The Reference Type cannot be dimension dependent.
- An object type can only belong to a given hierarchy via one reference type, however it may belong to multiple hierarchies via the same or other reference types.

Creating a Company Hierarchy Screen

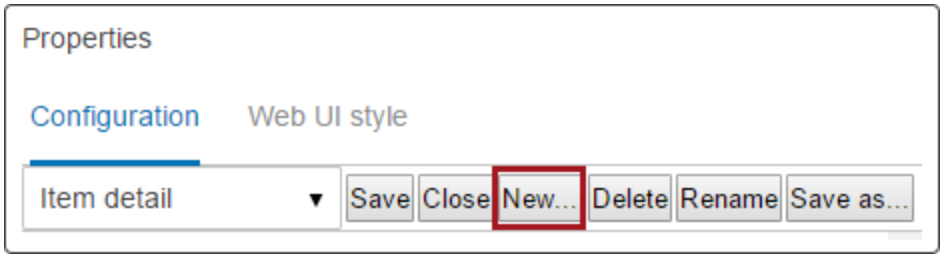
A Company Hierarchy Screen powers the visualization of company hierarchies. When using this screen, configuration must be done to define a hierarchy via a list of valid object type and reference type pairings.

Though only one hierarchy can be displayed in a Web UI screen, more than one hierarchy can be defined and displayed using multiple Company Hierarchy screens within the same Web UI.

The steps below cover how to add a new Company Hierarchy Screen. Additional details for creating new screens are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic.

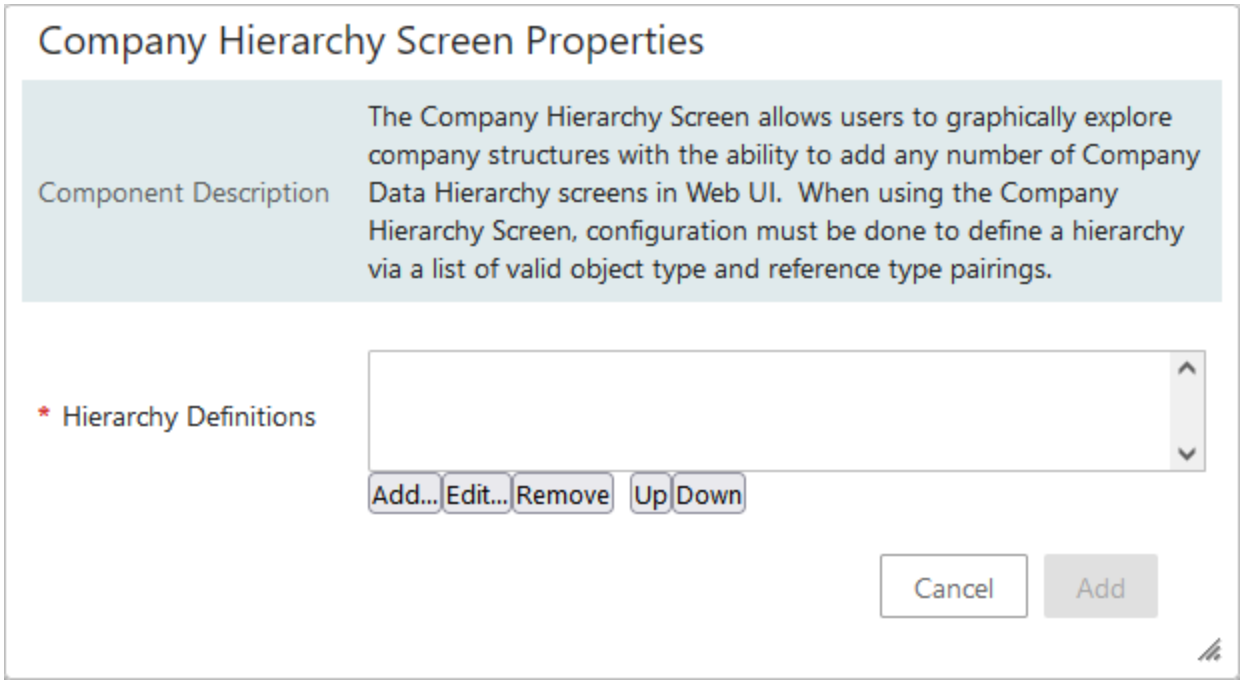
To create and configure a new Company Hierarchy Screen:

1. With the designer window open, click the **New** button to create a new screen.



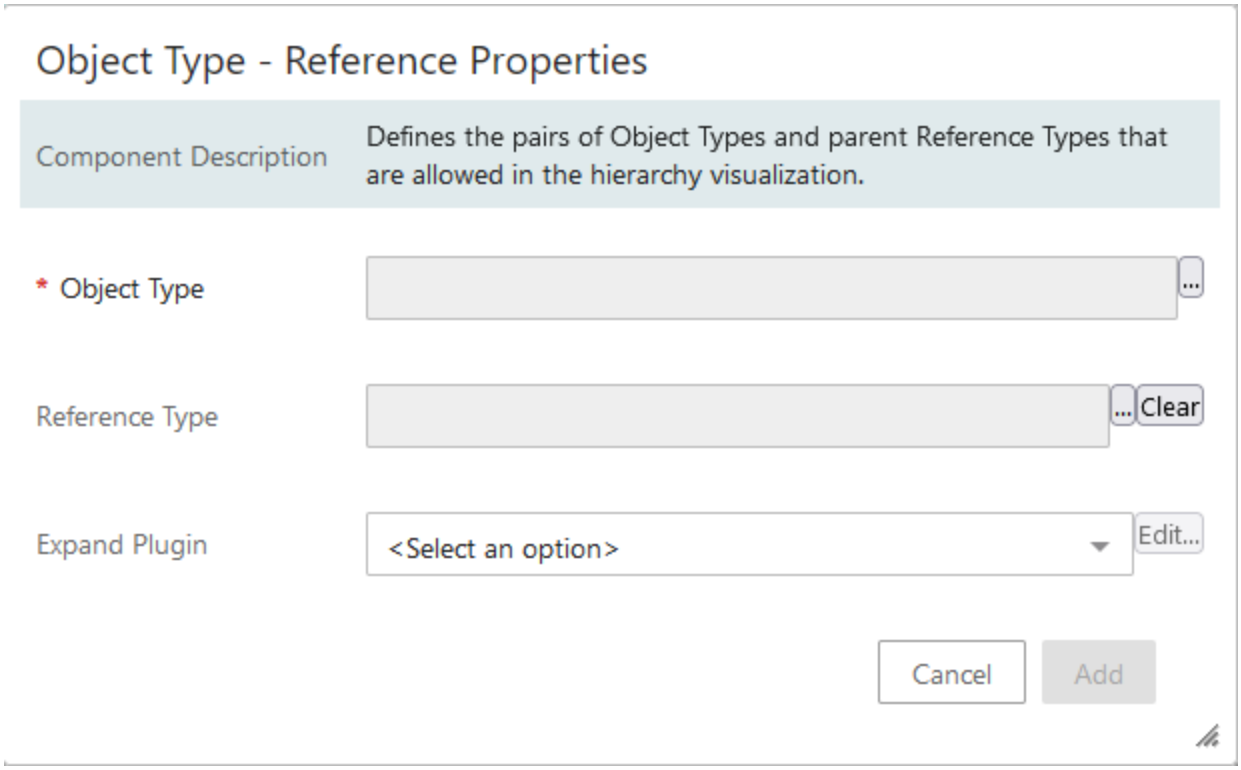
2. Choose **Company Hierarchy Screen** from the screen list.
3. Type in a descriptive Screen ID.
4. Click **Add**.

   The Company Hierarchy Screen Properties dialog will display.



5. Click **Add** to define an Object Type and parent Reference Type pair that are allowed in the hierarchy visualization.

   The Object Type - Reference Properties dialog will display.



6. Click the ellipsis button (...) and select one **Object Type** to be shown in the hierarchy screen.
7. Optionally, select one **Reference Type** to be shown in the hierarchy screen.
   - The Reference Type will be used to identify the parent object.
   - If no Reference Type selection is made, objects of the designated Object Type will not have parents in the hierarchy.
8. Optionally, enable the Expand Plugin parameter by selecting **Expand By Attributes** from the dropdown.
   - This parameter is suggested for larger hierarchies where users will benefit from selecting specific data dimensions (pre-configured filters) to properly navigate a large hierarchy.
   - Once enabled, click **Edit** to add specific attributes for users to select from while expanding children within a large hierarchy.
9. Click **Add.**

> **Note:** Multiple Hierarchy Definitions can be added, if necessary, repeat steps 5 - 9 to add the desired additional parings.

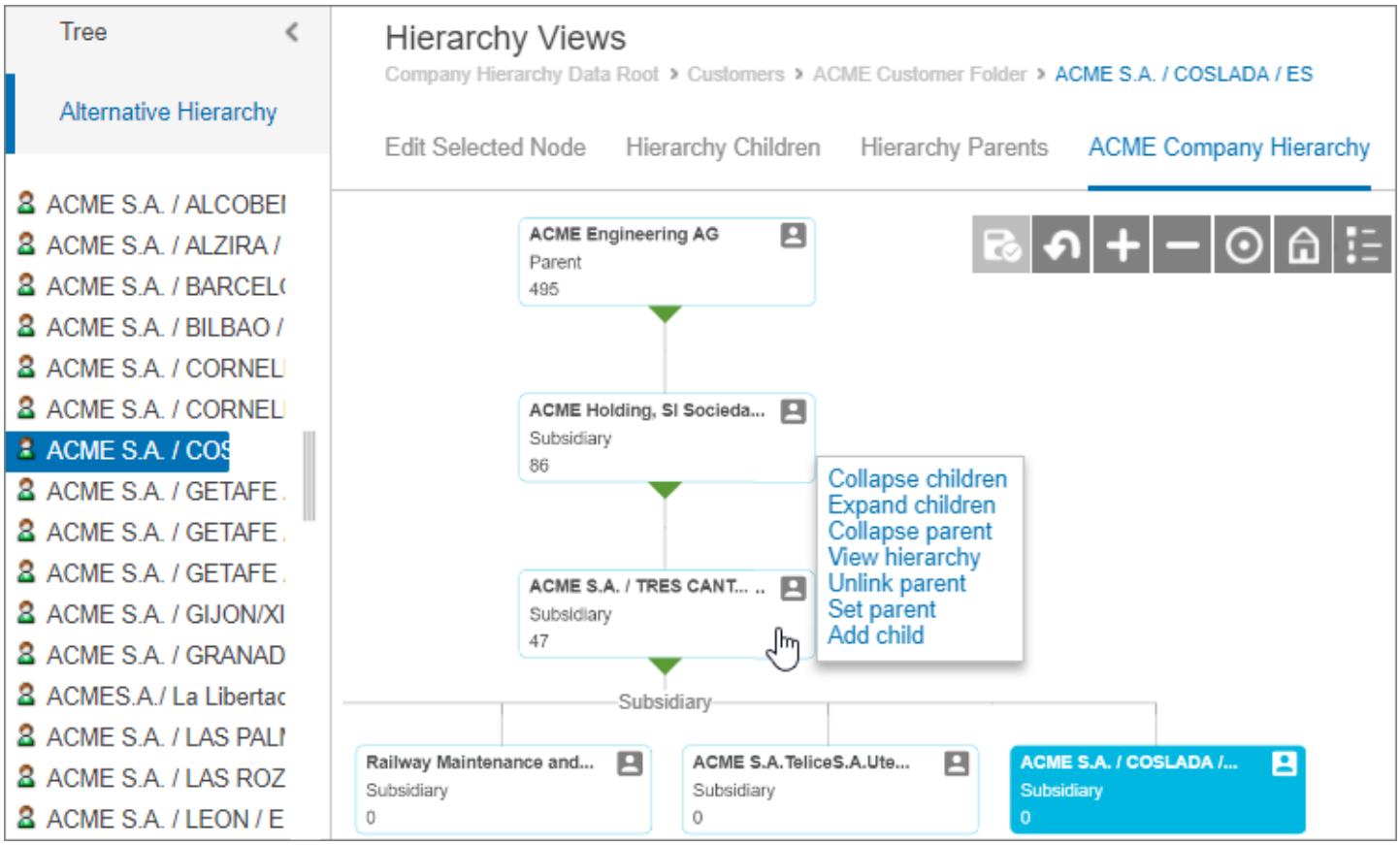
10. Click **Add** on the Company Hierarchy Screen Properties once the Hierarchy Definitions are complete.
11. Click **Save**.
12. Click **Close**.

Configuring Access to a Company Hierarchy Screen

An admin user must configure how an end user will access a Company Hierarchy Screen. The Company Hierarchy Screen can be either mapped using Main Properties or added as a Sub Screen Tab Page on a Node Details Screen.

For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about Sub Screen Tab Pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

The example below shows the Company Hierarchy Screen displayed via a Sub Screen Tab Page on a Node Details screen and is displayed when an entity is selected.



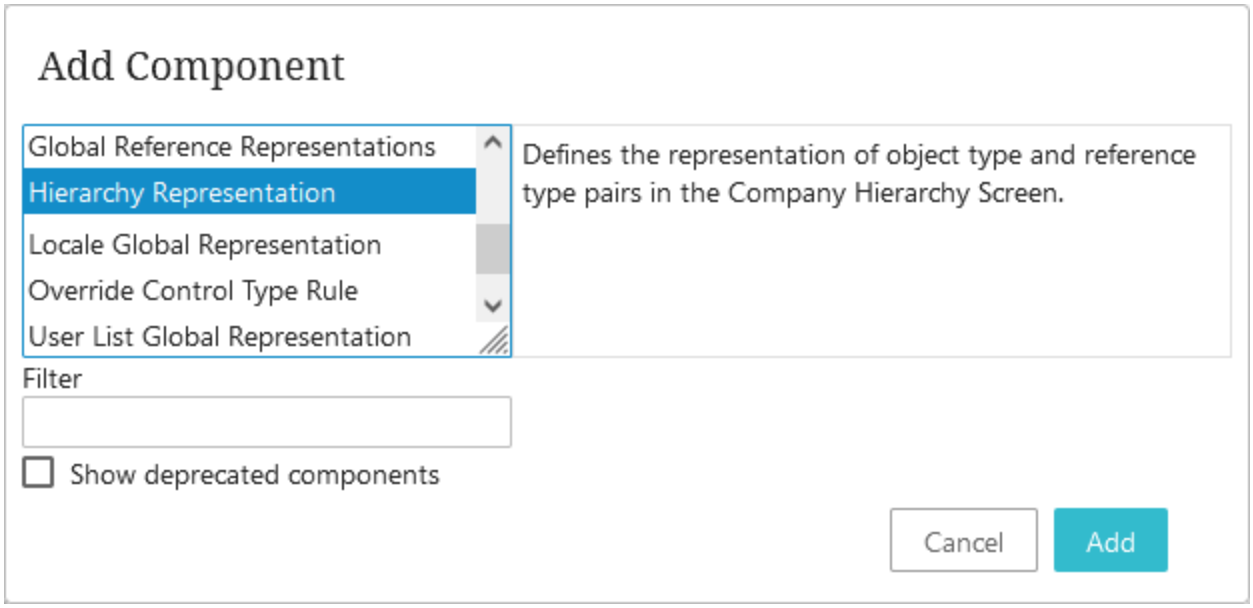
Configuring Hierarchy Representation Properties

The Hierarchy Representation Properties determine the overall look of the graphical interface. Styling needs to only be set up one time and is applied throughout a specific Web UI, regardless of how many Company Hierarchy screens are configured.

To configure the Hierarchy Representation Properties:

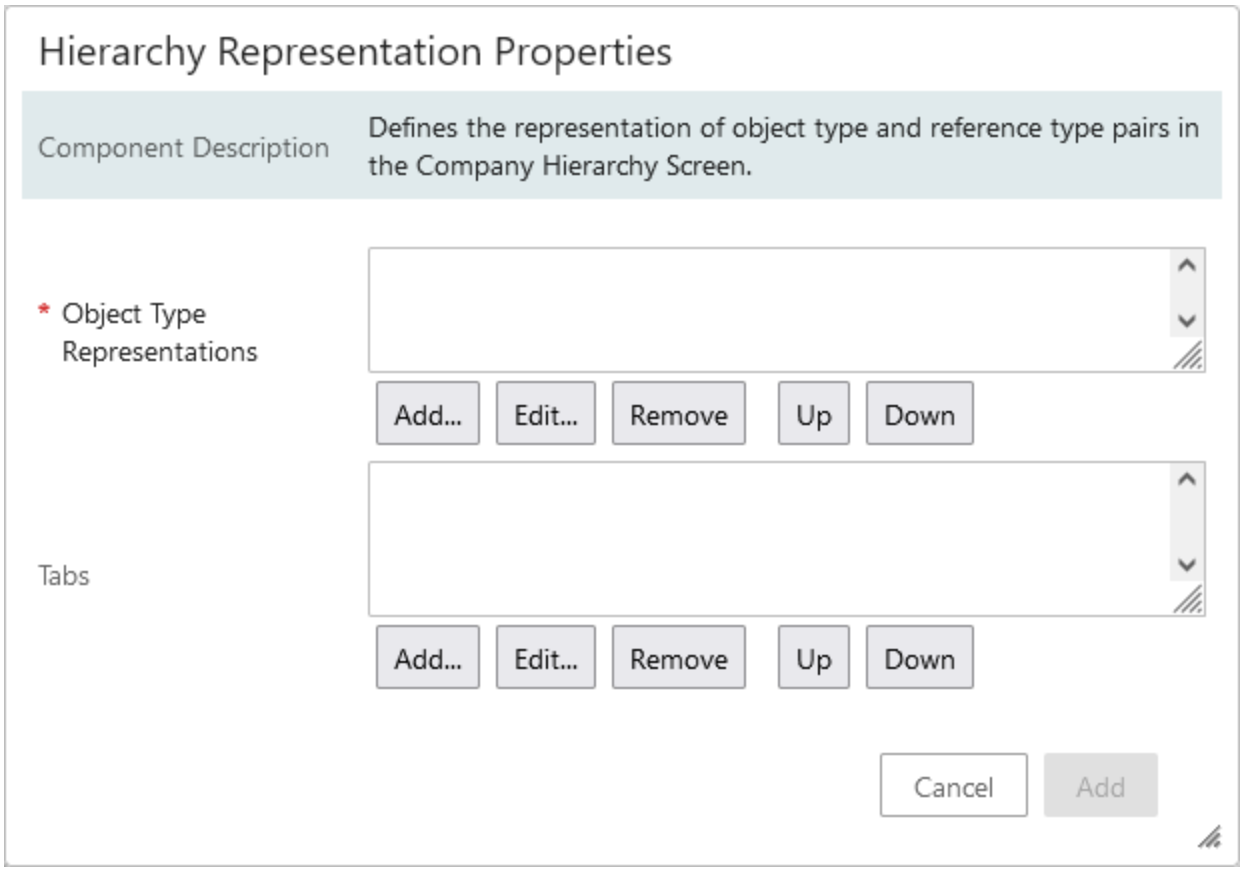
1. In Web UI designer, go to the MAIN (Screen) Properties > Global Representation List > Click **Add.**

   The 'Add Component' dialog will display.



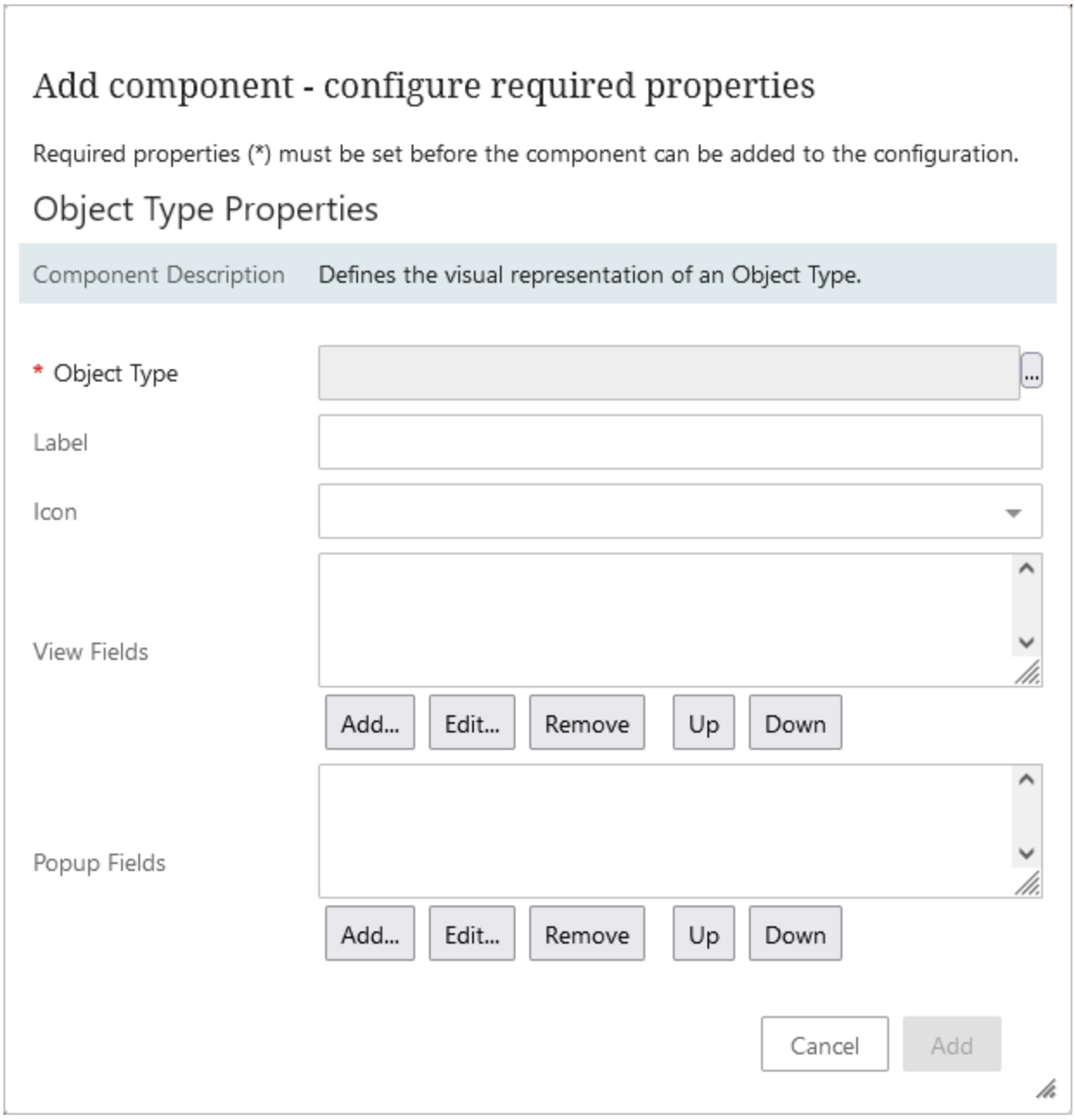
2. Select **Hierarchy Representation**.
3. Click **Add**.

   The Hierarchy Representation Properties will display.



4. For the Object Type Representations parameter, at least one object type representation must be added. If more than one is added, then the order listed within the parameter field determines the order for horizontal sorting in the Hierarchy screen. Click **Add**.

   The Object Type Properties dialog will display.



5. Click the ellipsis button (...) to select the **Object Type** to be defined and displayed in the hierarchy.
6. Optionally, enter an alternate label for the Object Type used in the Company Hierarchy Screen. If no Label is entered, the Object Type is used.

7. Optionally, select an icon to represent the Object Type. Each value on the list represents a different icon to be used within the hierarchy.

   The following icon options are available for selection:

   - Account
   - Aggregate
   - Branch
   - Classification
   - Customer
   - Division
   - Employee
   - Folder
   - Legal
   - Location
   - Parent
   - Region
   - Sales-manager
   - Subsidiary
   - Territory
   - Top-flag

8. Optionally, select up to three View Fields to display on the graphical node when the hierarchy renders. If making an Attribute Value Field selection, then the attribute must be specified and an additional dialog will display.
9. Popup Fields is also an optional parameter. Click **Add** to select attributes and/or attribute groups to display in the popup when a user selects a graphical node. Selecting 'Attribute Group Value Field' and/or 'Attribute Value Field' brings up additional dialogs for property selection.
10. Click **Add** on Object Type Properties, and the Hierarchy Representation Properties will display.
11. Click **Add** to return to the Main (Screen) Properties.
12. Click **Save**.
13. Click **Close**.

Optionally, when a user is adding or creating new objects in the hierarchy screen (Set parent, Add child), tabs can be configured to display, to help the user find or create an appropriate object. This can be done by clicking **Add** for the Tabs parameter within the Hierarchy Representation Properties.

Configuring options for 'Set parent' and 'Add child' are described in the **Optional Configurations for the Hierarchy Representation Component** documentation.

For an example regarding how to use the screen once configured, refer to the **Company Hierarchy Visualization and Maintenance** topic.

Optional Configurations for the Hierarchy Representation Component

A Web UI designer can customize how a user searches, looks for similar objects, and/or creates an entity when using the 'Set parent' and/or 'Add child' actions.

When using the Company Hierarchy Screen to edit a company hierarchy, a user can edit the parent and/or child for a selected entity by using the default search tab component that is always visible, even if no search tab configuration has been added. However, a Web UI designer has the option to configure settings so that the standard search results are limited and/or additional tabs are visible in the dialog when a user is editing the parent and/or child in a hierarchy screen.

This topic addresses adding and configuring the Search Tab and Find Similar Search Tab.

Important: Each tab can only display once.

Prerequisites

The required configuration of the Company Hierarchy Screen must be completed before the optional configurations found within this topic can be applied. Refer to the **Configuring a Company Hierarchy Screen** topic.

The Find Similar Search Tab relies on the configured matching algorithm configuration. Only after a well established matching algorithm has been configured, does it make sense for the Find Similar Search tab to be configured. For more information about setting up and using matching algorithms, refer to the **Configuring Matching Algorithms** section of the **Matching, Linking, and Merging** documentation.

The Find Similar Search functionality for company hierarchies is very similar to the Find Similar functionality used when adding a reference via the Multi Reference Editor. More info regarding this setup is described in the **Find Similar in Web UI** topic. The Find Similar topic also goes in to more details on how to configure the Dialog List used to display Find Similar search results.

Search Tab

The Search Tab is visible in the dialog used by the 'Set parent' and 'Add child' actions that can be used when editing a company hierarchy within the company hierarchy screens. By default, the Search Tab will always be visible, and users will be able to search by entity name and/or ID. However, the Search Tab can be configured, by a Web UI designer, to limit the Object Types users will find in a search and/or to allow users to search not only by Name and/or ID but also by specific attribute(s).

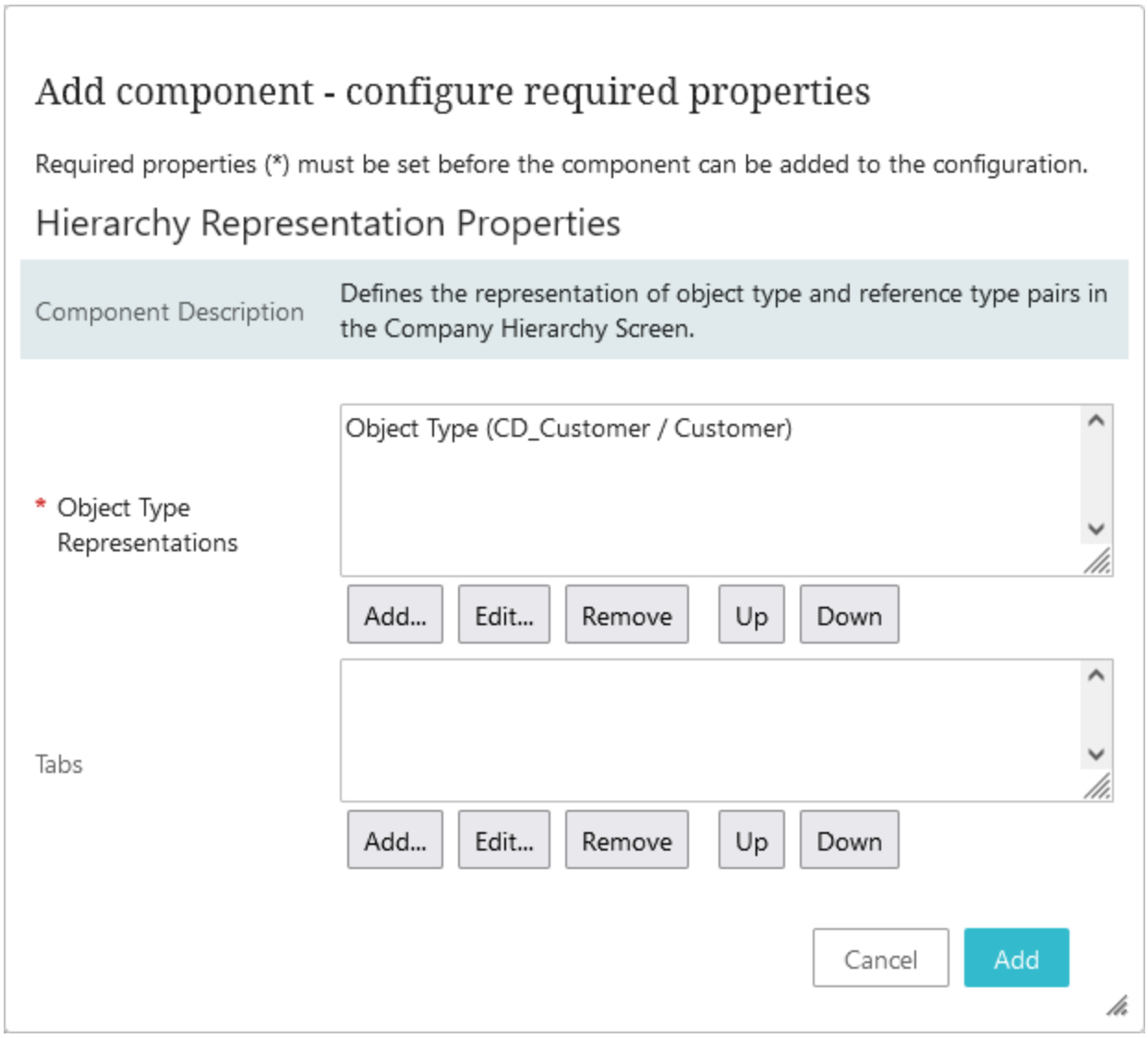
Once the Search Tab has been added to the Hierarchy Representation Properties, the Object Type Limitations and Search Plugins can be added and configured.

Add the Search Tab

Steps for adding the Search Tab so that it can be optionally customized are below:

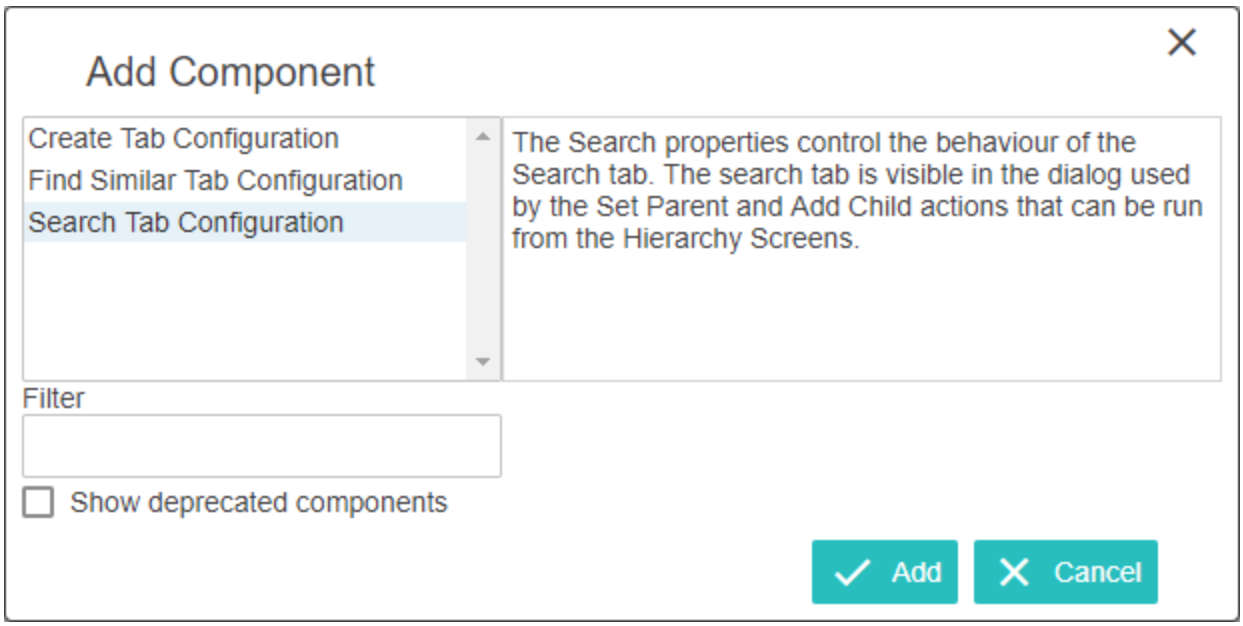
1. Go to the MAIN (Screen) Properties > Global Representation List and double click **Hierarchy Representation**.

   The Hierarchy Representation Properties will display with at least one configured Object Type Representation.



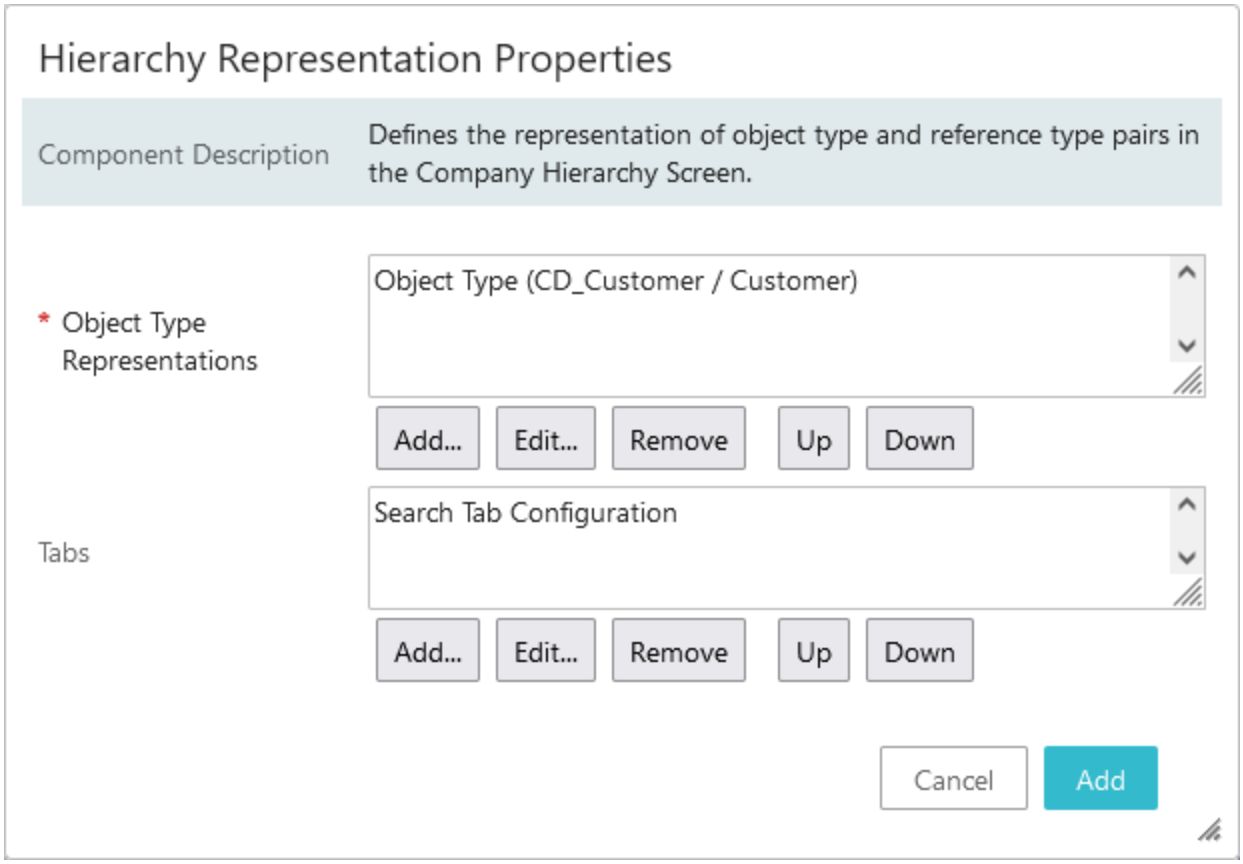
2. Go to the Tabs parameter > Click **Add**.

   The Add Component dialog will display.



3. Select **Search Tab Configuration**.
4. Click **Add**.

The Hierarchy Representation Properties Tabs parameter will list the Search Tab configuration.



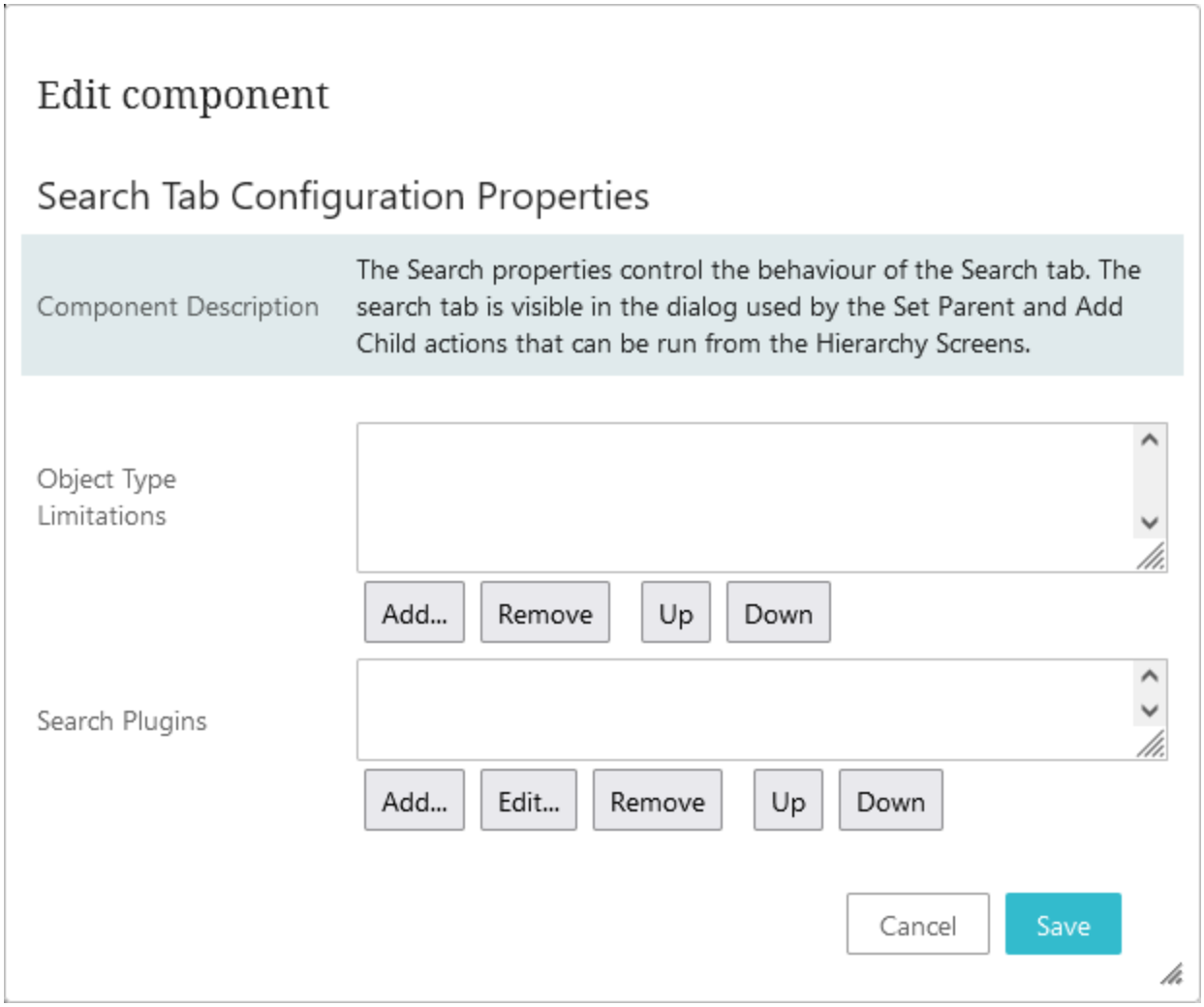
5. Click the **Save** button.

Limit Object Type Search Results (Optional)

To limit the Object Types(s) a user can find in the customized search:

1. From the Hierarchy Representation Properties Tabs parameter, double click **Search Tab Configuration.**

   The Search Tab Configuration Properties will display.



2. Within the Object Type Limitations parameter, click **Add**, and select the desired Object Type.

   Repeat these steps to add additional Object Types, if desired.

3. Click the **Save** button.

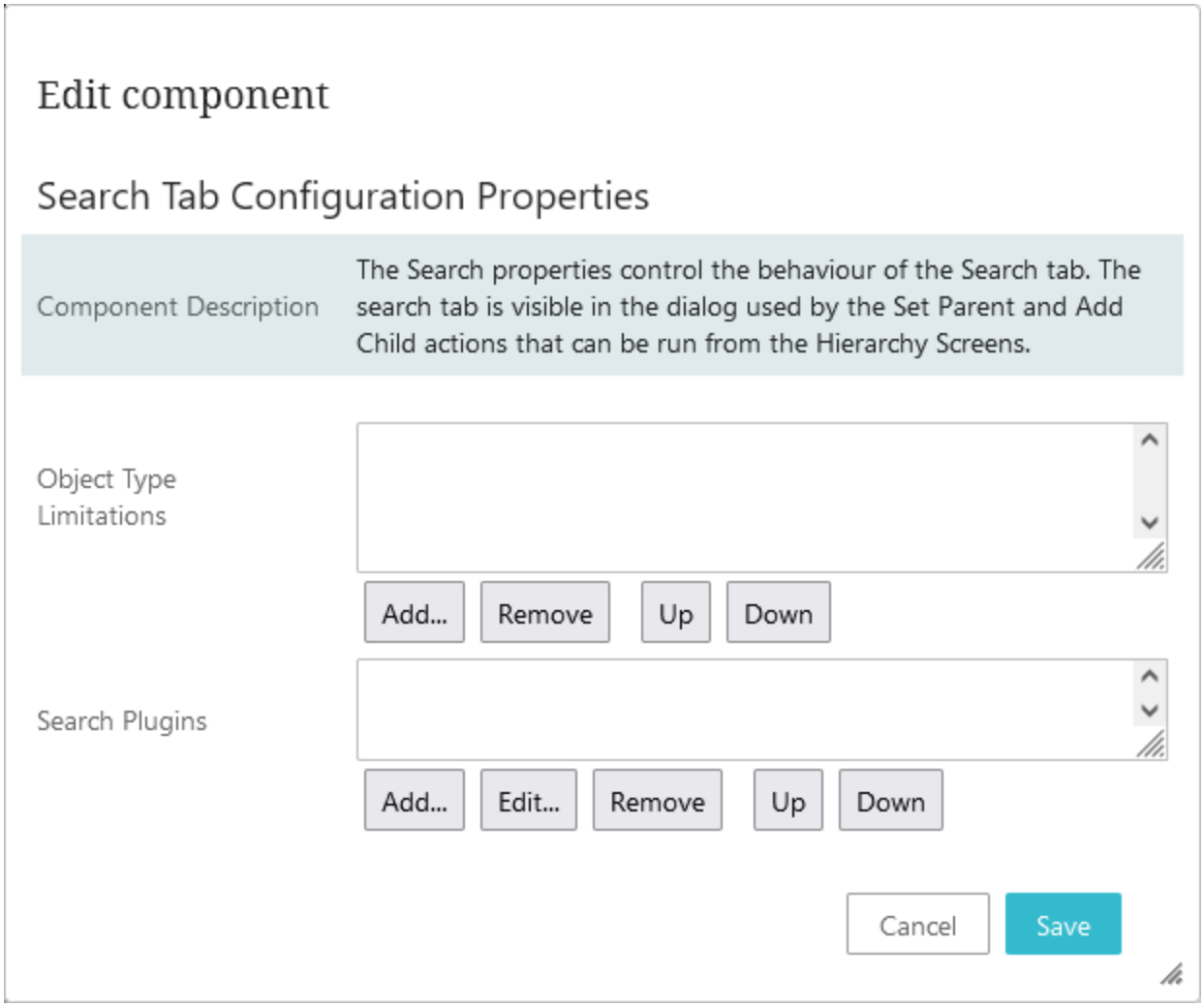
Add Search Plugins (Optional)

The 'Name Or Id or Attributes' search plugin allows users to not only search by name and ID, but also to search values for specific attribute(s).

Adding the 'Name Or Id Or Attributes' component

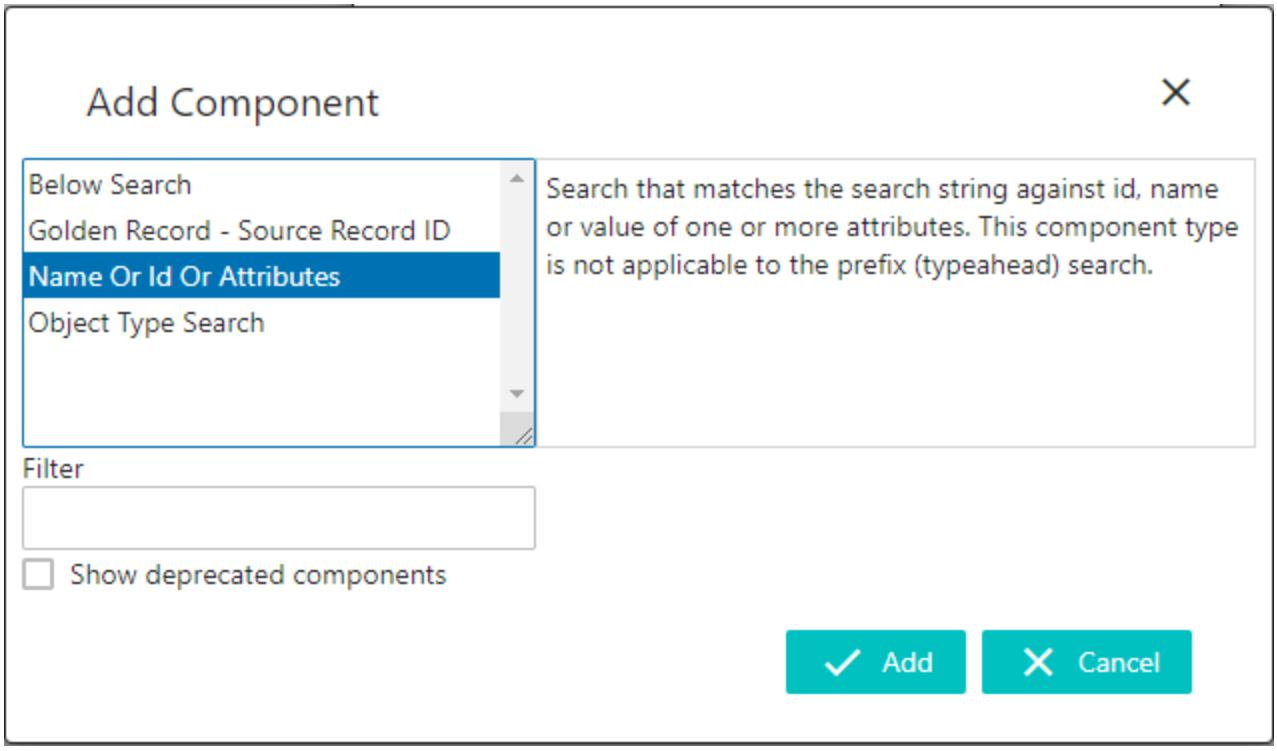
1. From the Hierarchy Representation Properties Tabs parameter, double click **Search Tab Configuration**.

   The Search Tab Configuration Properties will display.



2. Within the Search Plugins parameter, click **Add**.

   The Add Component dialog will display.



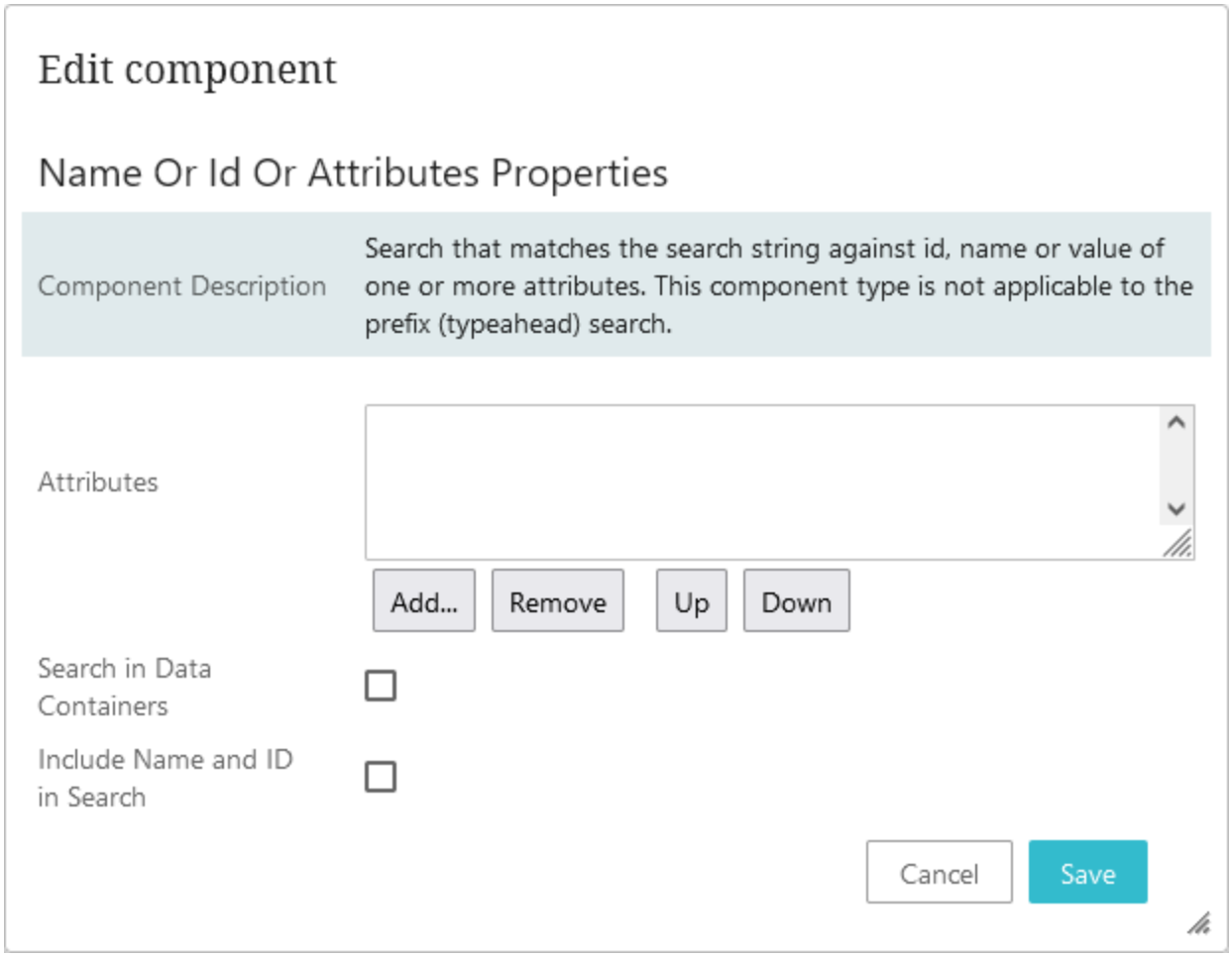
3. Select '**Name Or Id Or Attributes**.'
4. Click the **Add** button.

   The Search Tab Configuration Properties > Search Plugins parameter will display the 'Name Or Id Or Attributes' component.

Configure Attributes to Include in the Search Tab

1. Double click '**Name Or Id Or Attributes.**'

   The 'Name or Id Or Attributes Properties' will display.



2. Click **Add**.
3. Select a desired attribute.
4. Click the **OK** button.

   Optionally, repeat these steps to add multiple attributes.

5. Optionally, enable the 'Search in Data Containers' parameter if the user needs to search for attribute values on attributes also associated with data containers.
6. Click the **Save** button to return to the Hierarchy Representation Properties.
7. Click the **Save** button to return to the MAIN (Screen) Properties.
8. Click the **Save** and **Close** buttons for the designer.

Find Similar Search Tab

In an effort to prevent users from creating duplicate objects in the STEP system, users can use the Find Similar Search Tab to identify similar objects prior to creating new ones when working in Company Hierarchy screens in Web UI. When configured to display (optional), the Find Similar Search Tab is visible in the dialog used by the 'Set parent' and 'Add child' actions that can be used when editing a company hierarchy within the Company Hierarchy screens.

The key to Find Similar Search functionality is the matching setup created and used for duplicate handling. Every time a user enters data into the search fields and clicks **OK**, the Find Similar Search checks the match code values involved, executes the relevant matching algorithm, and provides a set of results, if any are found.

If a user is not getting the results set they expect, then the first place to check is the algorithm configured in the Duplicate Handler parameter in the Object Type Specific Find Similar Properties.

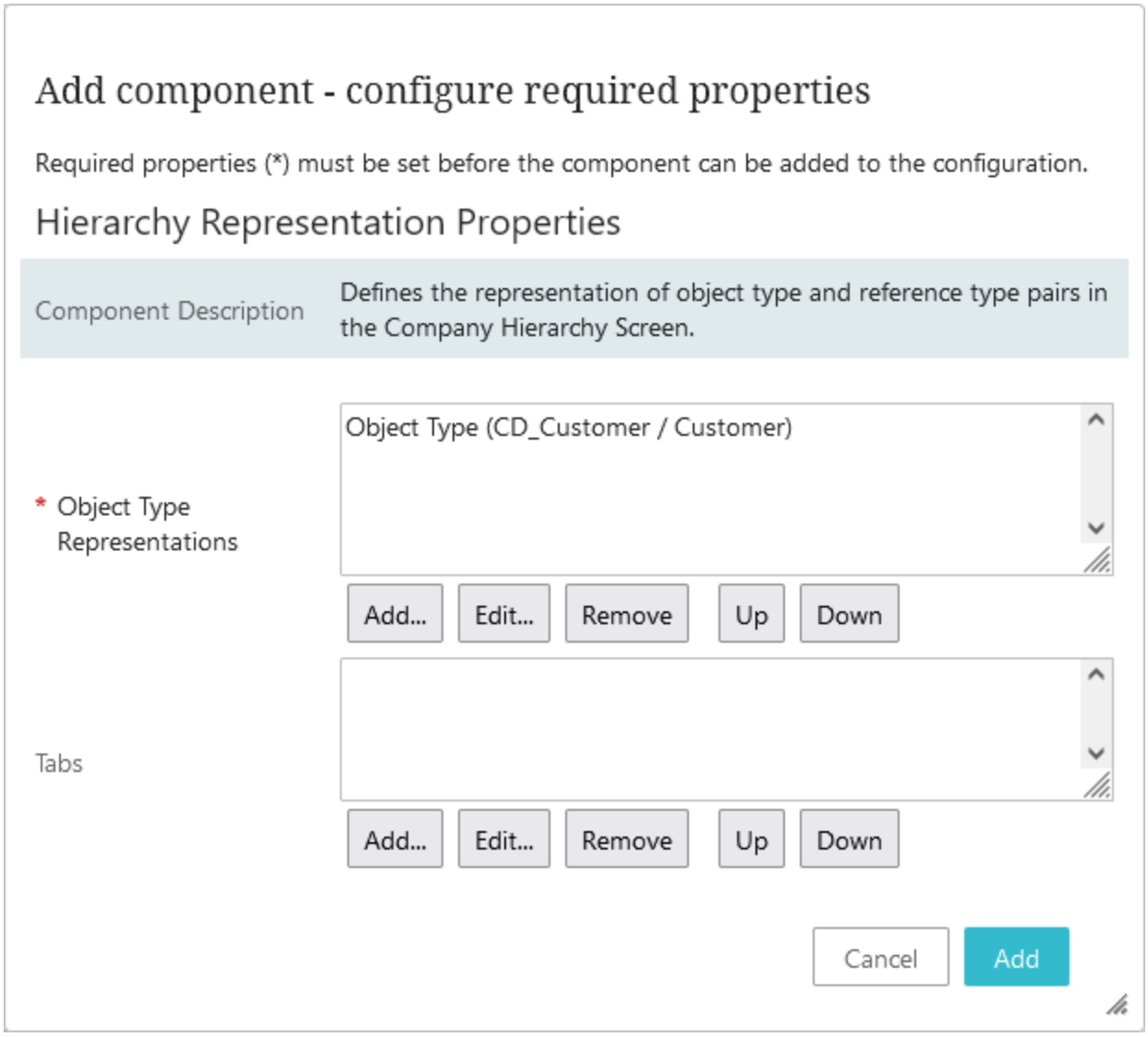
Once the Find Similar Search Tab has been added to the Hierarchy Representation Properties, then the Object Type Specific Setup can be added and configured. Within the Object Type Specific Setup, the Duplicate Handler, Find Similar Search Fields, Temp Parent For Find Similar, and List Dialog are all required.

Add the Find Similar Search Tab

To add the Find Similar Search Tab:

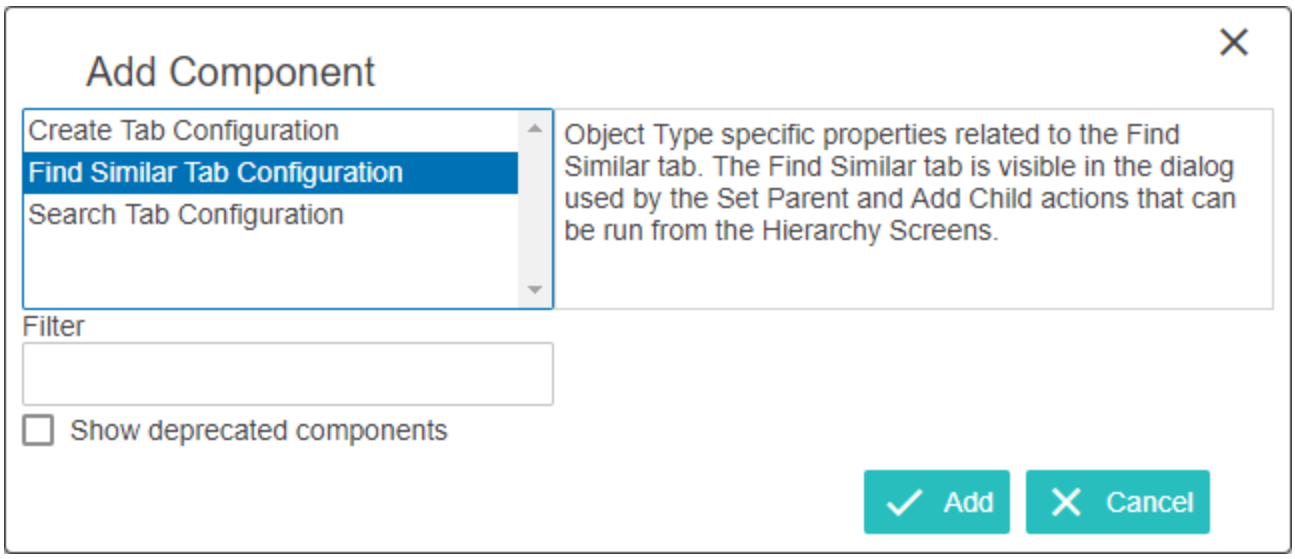
1. Go to the MAIN (Screen) Properties > Global Representation List and double click **Hierarchy Representation**.

   The Hierarchy Representation Properties will display with at least one Object Type Representation.



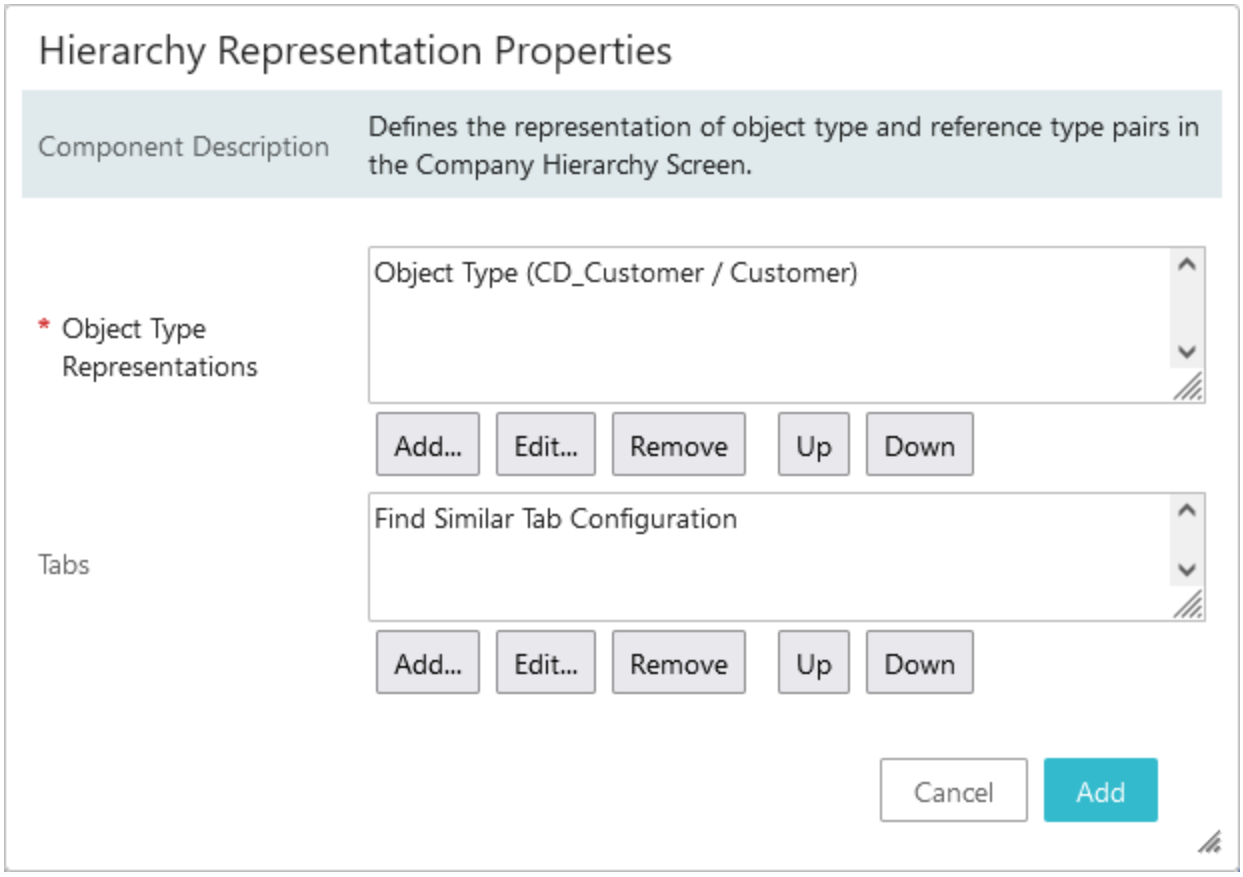
2. Go to the Tabs parameter > Click **Add**.

   The Add Component dialog will display.



3. Select **Find Similar Tab Configuration**.
4. Click the **Add** button.

   The Hierarchy Representation Properties Tabs parameter will list the Find Similar Tab Configuration.



5. Click the **Save** button**.**

   The Main (Screen) Properties will display.

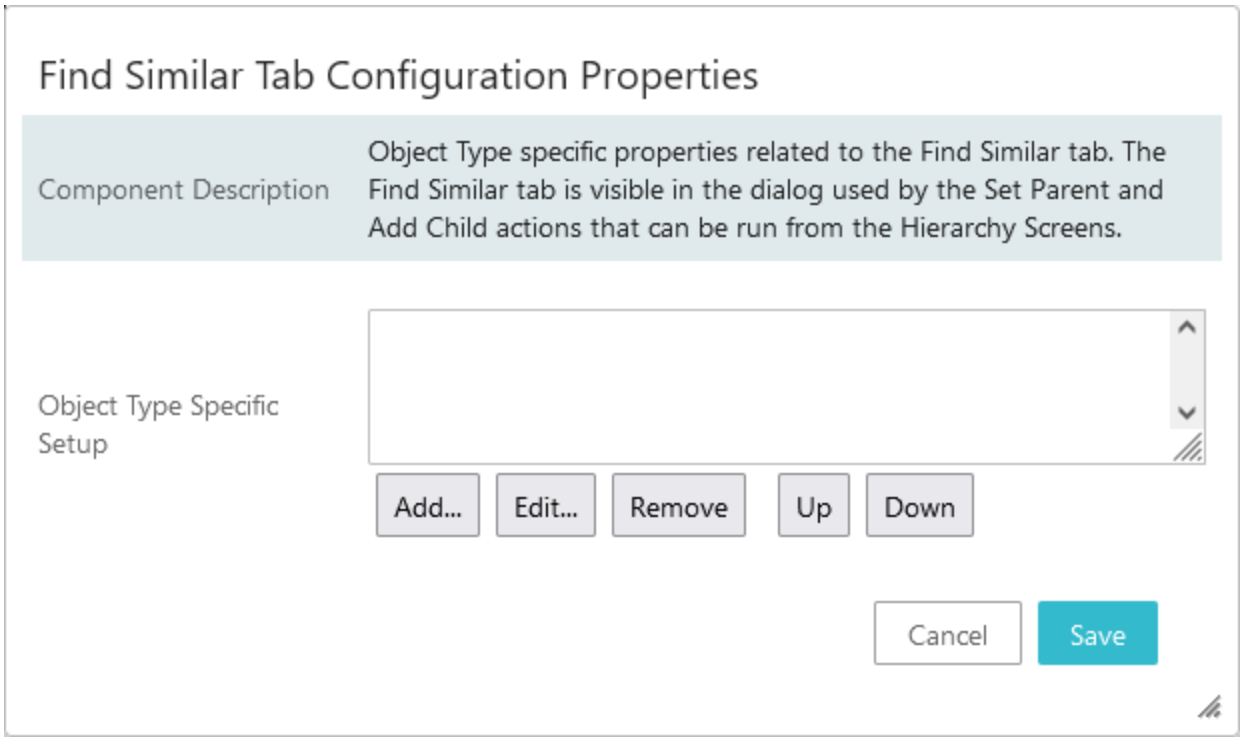
6. Click the **Save** button.
7. Click the **Close** button to exit the designer.

Configure the Find Similar Search Tab

To configure the Find Similar Search Tab:

1. From the Hierarchy Representation Properties Tabs parameter, double click **Find Similar Tab Configuration.**

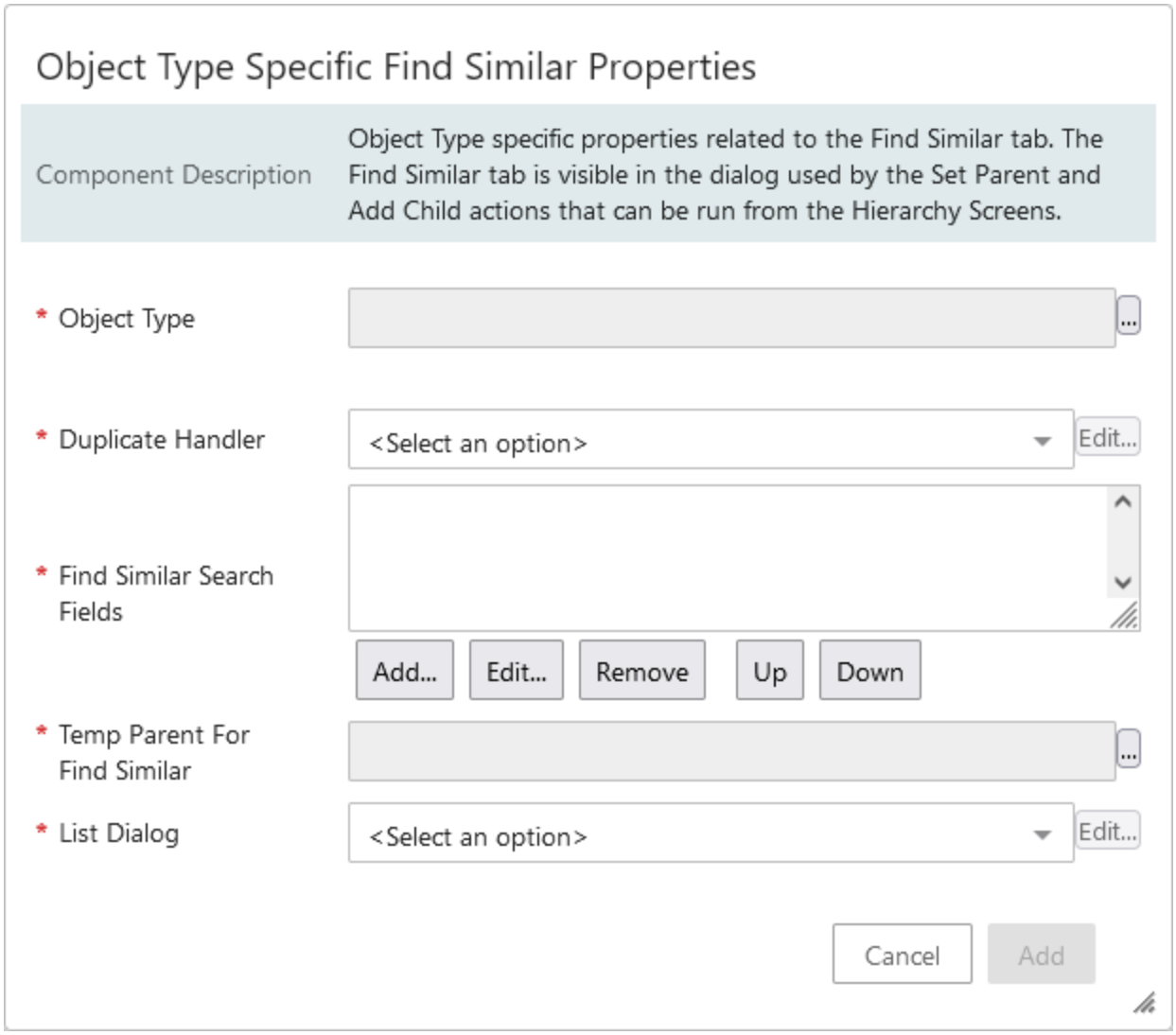
   The Find Similar Tab Configuration Properties will display.



   This is where the Web UI designer configures what Object Types a user can add to a hierarchy via the Find Similar Search Tab.

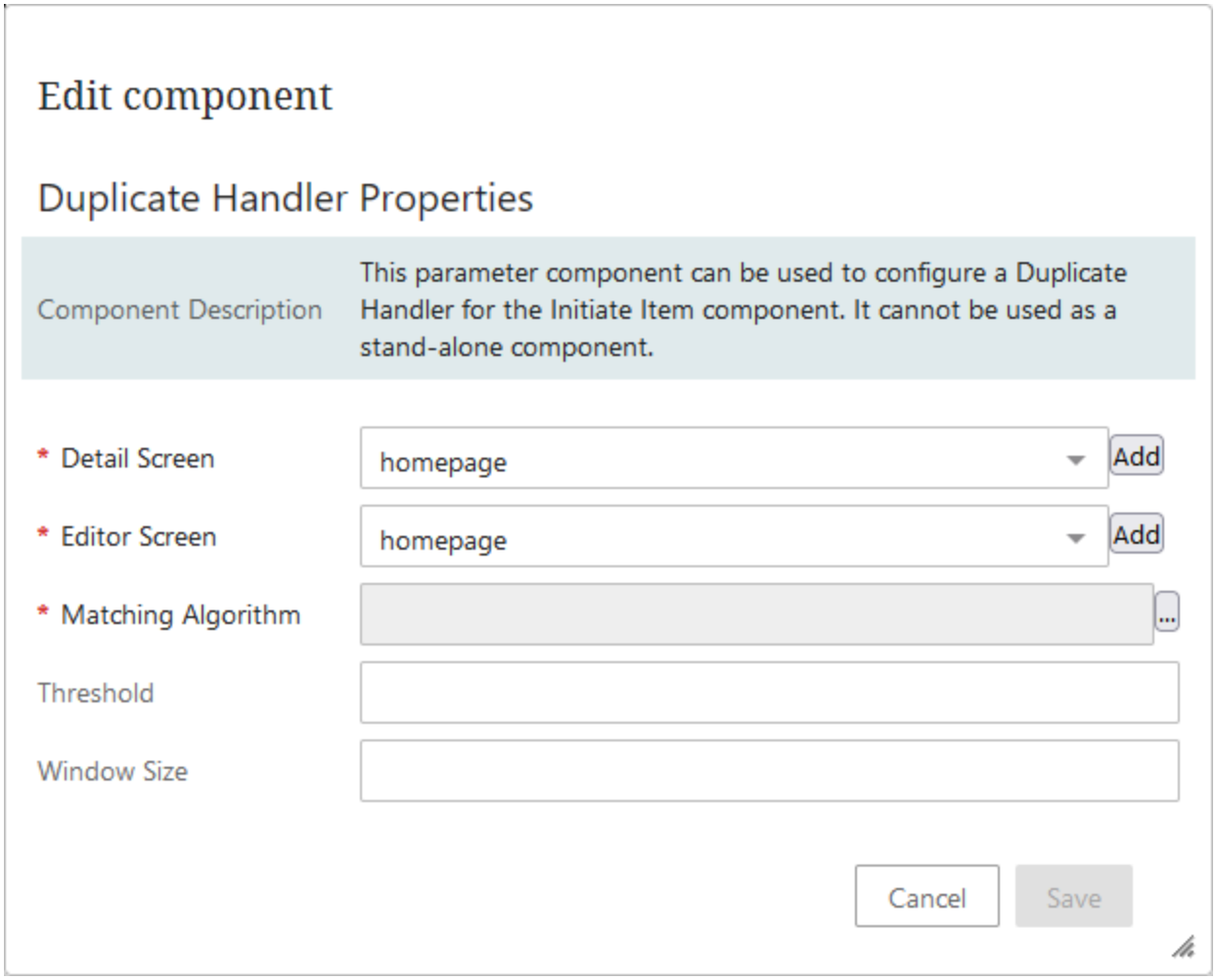
2. Within the Object Type Specific Setup parameter, click **Add**.

   The Object type Specific Find Similar Properties will display.



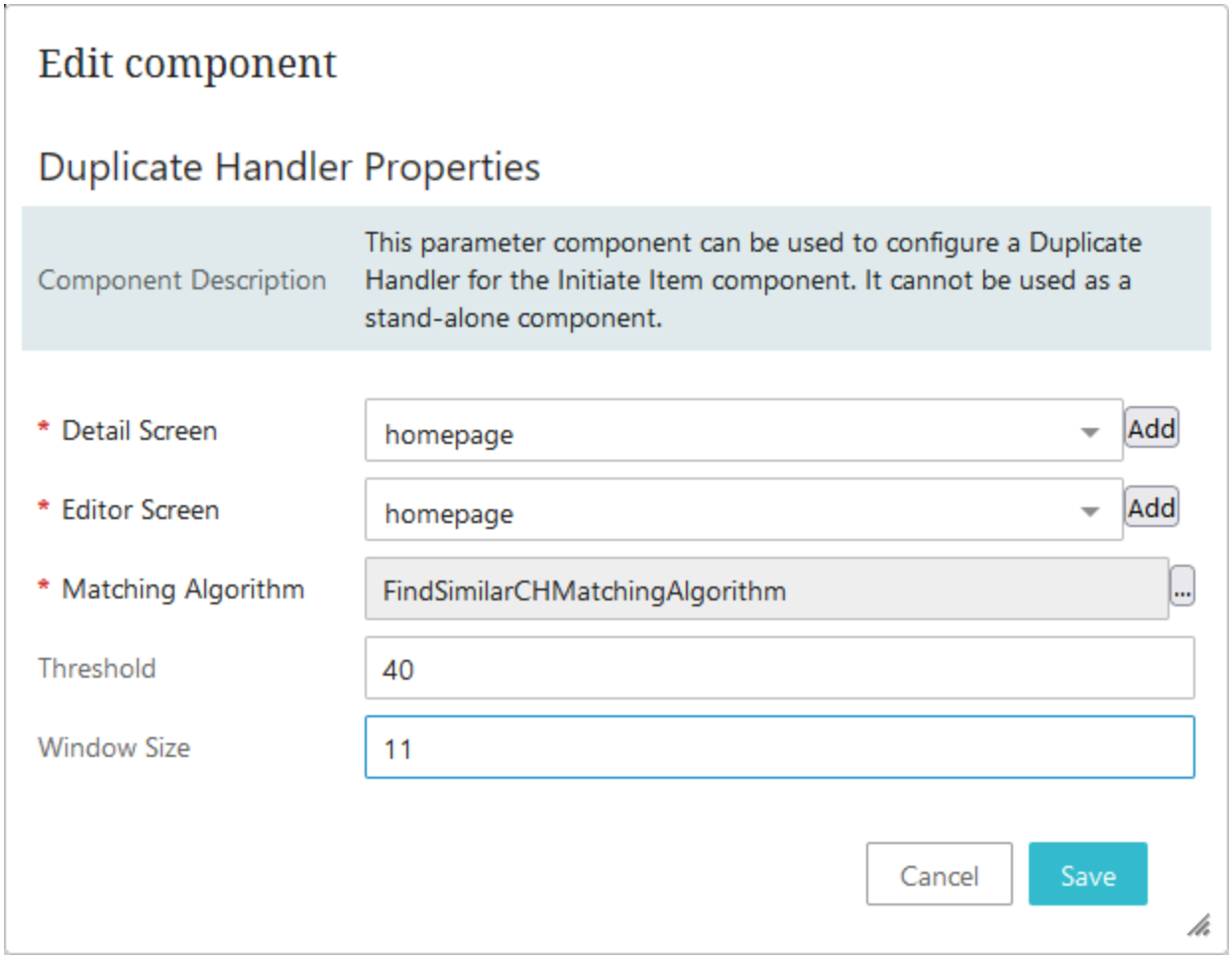
3. Select the desired 'Object Type.'
4. Select 'Duplicate Handler' from the dropdown.

   The Duplicate Handler Properties will display.

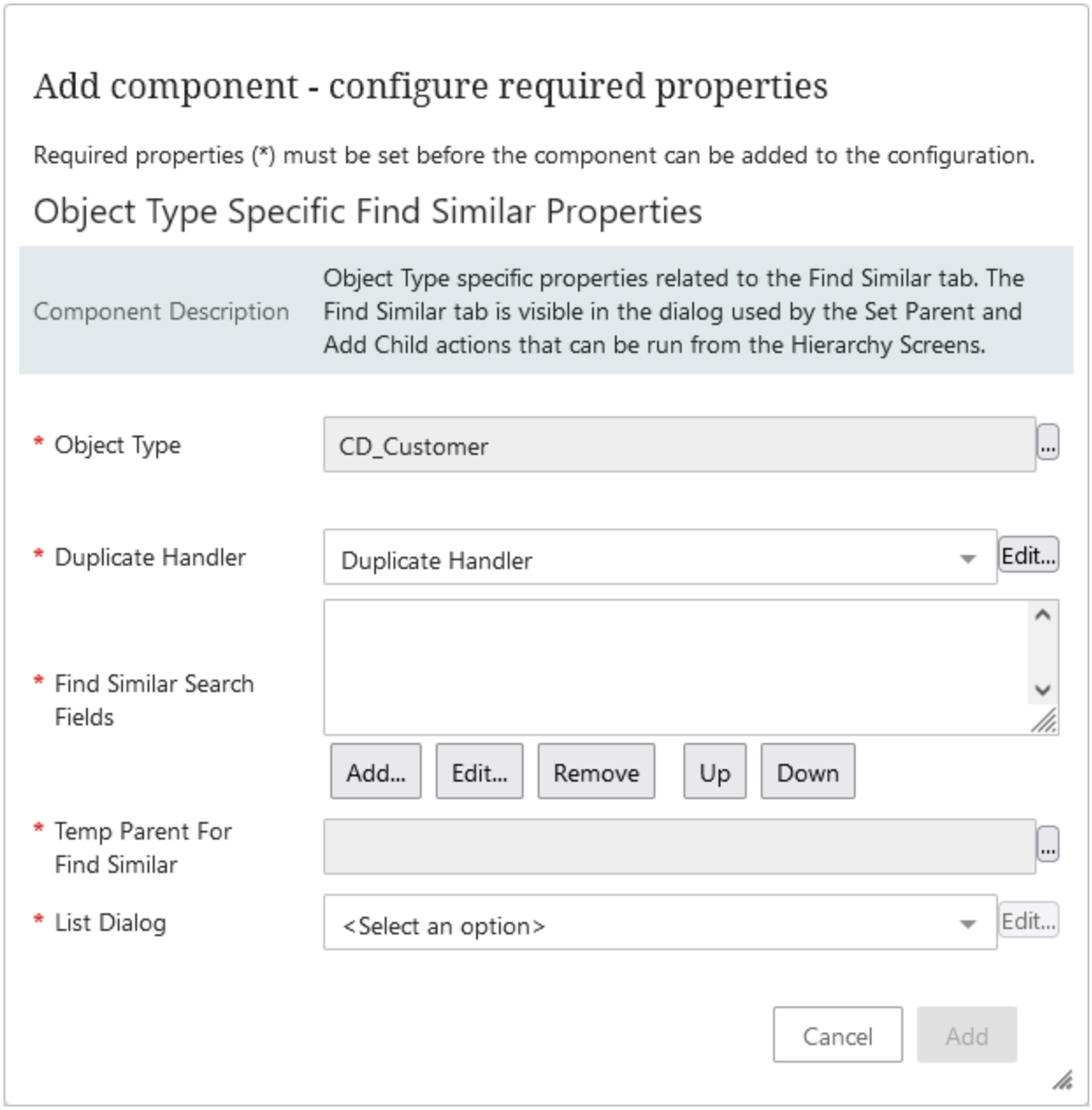


5. 'homepage' is the default selection for the **Detail Screen** parameter. Make another selection, if desired.
6. 'homepage' is the default selection for the **Editor Screen** parameter. Again, make another selection; changing this is optional.
7. Within the 'Matching Algorithm' parameter, click the ellipsis button (...) and a list of available matching algorithms will display.
8. Select the desired algorithm, and then click the **OK** button.

   The Duplicate Handler Properties dialog will display with the Matching Algorithm populated.



9. Optionally enter a threshold rate to apply to the selected matching algorithm. The threshold specifies how equal two objects must be to be considered possible duplicates / similar objects. The lower the threshold number, the less strict the matching algorithm will be. In the example shown above, duplicates / similar objects will only be reported if the Matching Algorithm rate is higher than a threshold value of 40.
10. Optionally enter the number of objects within a window to run the matching algorithm against. The number must be uneven and represents the number of comparisons an individual object can make. Window Size is described in detail within the **Matching, Linking, and Merging Elements** topic.
11. Click the **Save** button, and the Object Type Specific Find Similar Properties dialog will display with the Duplicate Handlers parameter populated.



12. Click **Add** for Find Similar Search Fields to indicate which attribute or attributes end users can search by, remembering that the attributes must match those used by the matching algorithm.

Important: The attributes being searched must be part of the list of attributes that Match Codes are generated for. If not, the search will not work as expected.

13. Click the ellipsis button (...) to select a Temp Parent for Find Similar.

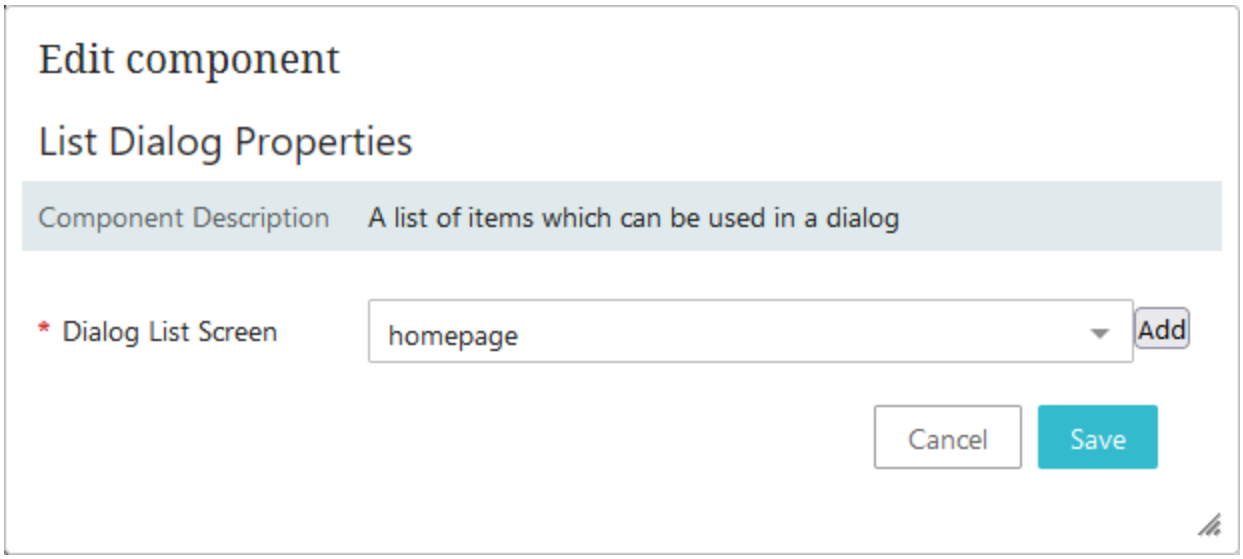
When the matching algorithm is run, it creates temporary objects based on the input in the search fields. These objects are then used in the algorithm to compare and find similar objects. The temporary objects need

a parent and object type to be created. After the user finishes the operation, the temporary objects are deleted by the system. These parameters have to be configured for the functionality to work. The object types of both the direct objects and the referenced objects need to be made valid under the location used for the Temp Parent For Find Similar parameter.

The node selected for Temp Parent For Find Similar in the configuration, must also be included in the category specified in the match code definition, if a category is specified. If this is not done, the match codes will not generate properly and the match results will be incorrect.

Note: The Parent object selected must be set up with auto-generated IDs, otherwise users will receive an error message and will not be able to create the object.

14. Select List Dialog from the List Dialog dropdown, and the List Dialog Properties will display.



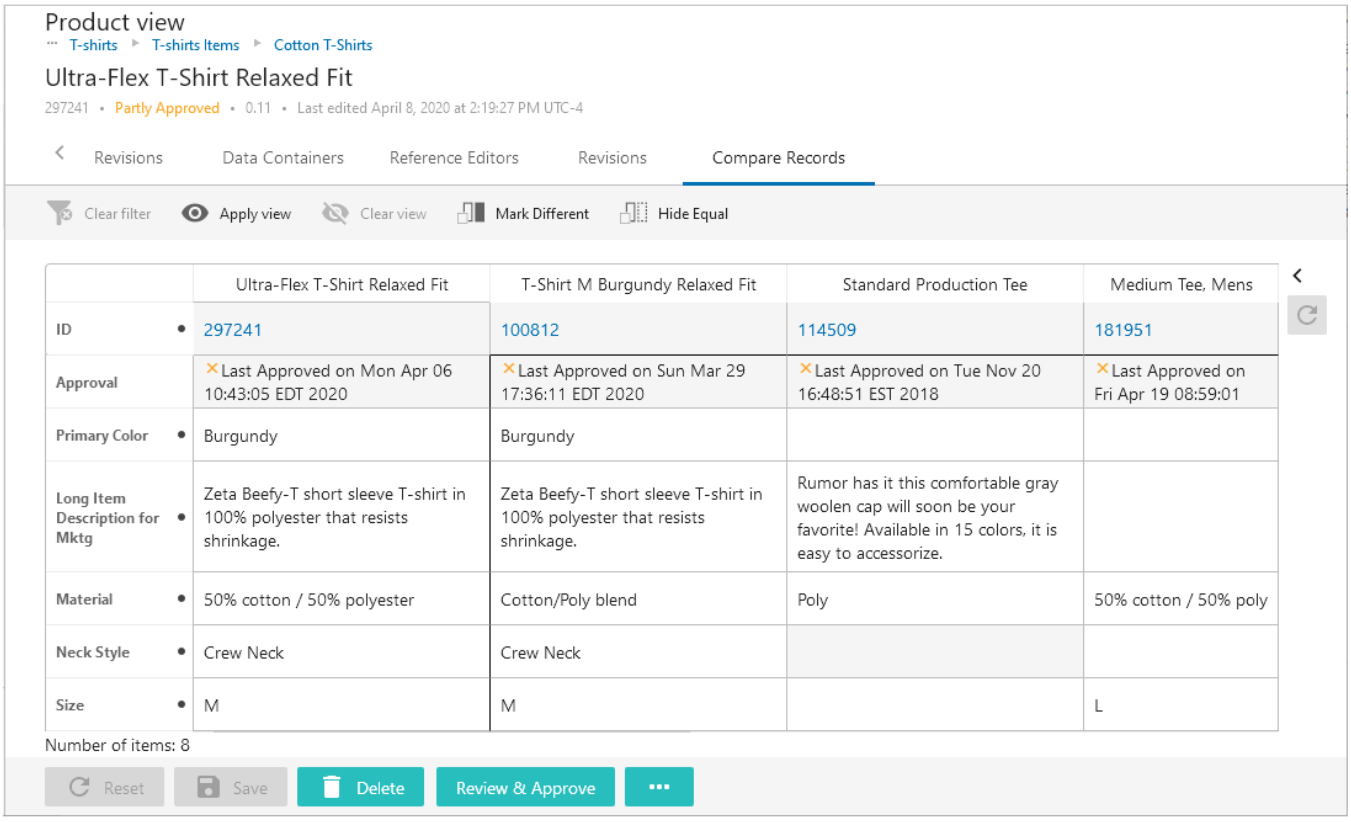
15. Create / set up a Dialog List Screen specific to company hierarchies or use an existing list.

    A maximum of fifty (50) objects are shown at one time on the results list. If the end user finds a reference on the results list that they want to use, they click in the row they want. When that selection is made, the OK button will be available. The end users clicks OK and now that reference is saved. If the user does not find a result to use, they can click cancel and create a new reference using the Create function.

16. Click the **Save** button, and the Object Type Specific Find Similar Properties dialog will display with the List Dialog parameter populated.
17. Click the **Add** button to close the Object Type Specific Find Similar Properties dialog and return to the Find Similar Tab Configuration Properties.
18. Click the **Save** button for all the properties dialogs until they all close.
19. Click the **Save** and **Close** buttons for the Web UI designer window.

Compare Records Screen

The Compare Records screen can be used to enable a one-screen view of a selected object and objects that either reference the selected object, or are referenced by the selected object. Many business cases can be supported with this screen, but of particular note are instances in which customers are matching and merging records to produce golden records. Using this screen, users can view the golden record, the enrichment record, and all records from which the golden and enrichment record were drawn. In the view provided with this screen, data stewards have the ability to view at-a-glance where specific data originated, and can make informed edits / updates to progress the object as desired.



As one example of this use case, a product steward is tasked with editing an internal data record for a t-shirt product. To do so, the steward must reference the various supplier records that auto-populate the internal data record. Because the internal data record updates the t-shirt product page on the website, the data steward must simultaneously reference the supplier and golden records to make informed changes to the internal data record, which in turn updates the website. Rather than requiring users to visit multiple screens to collate the needed data, the Compare Records screen gives the product steward an efficient way to compare and maintain the internal source record against the other contributing objects in a single screen.

Prerequisites

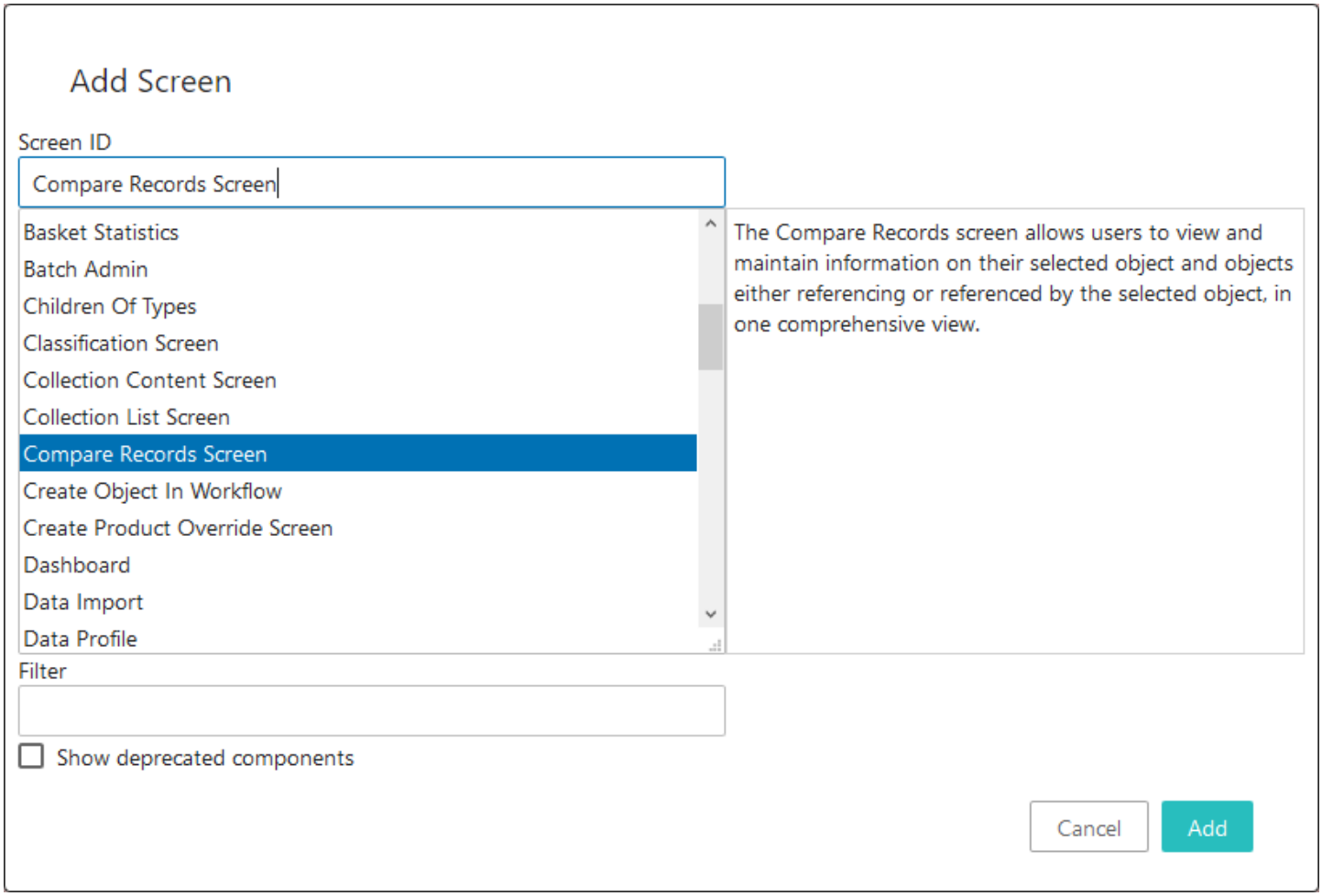
It is expected that anyone configuring the Compare Records screen is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access**

section of the **Web User Interfaces** documentation.

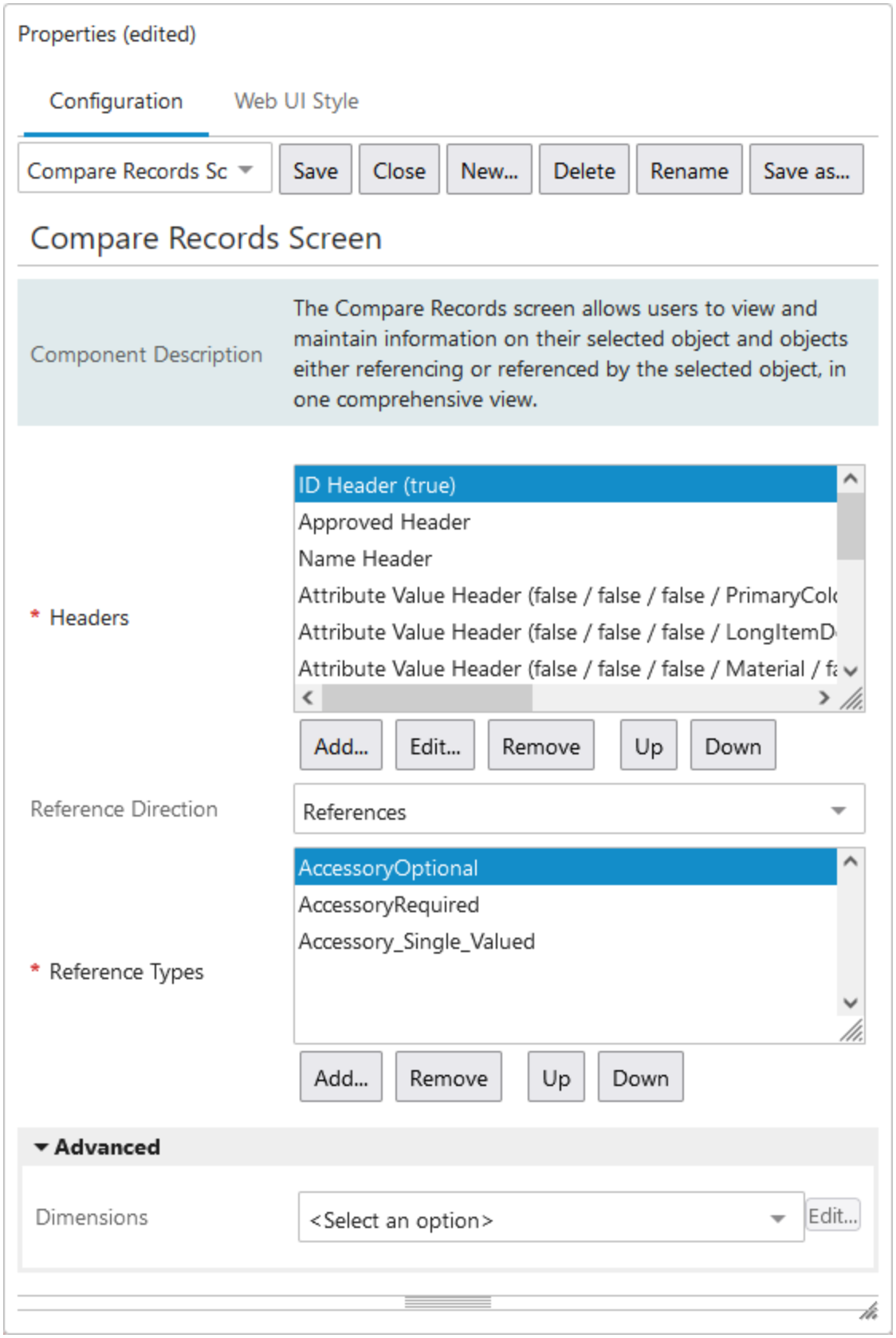
Configuration

The process for creating a new screen is outlined in the **Design Mode Basics** topic in the **Web User Interfaces** documentation.

Select 'Compare Records Screen' as the screen type and add a Screen ID (as shown in the screenshot below).



To set up the Compare Records screen, the parameters in the designer must be configured as described below.


Properties (edited)
Configuration
Web UI Style
Compare Records Sc
Save
Close
New...
Delete
Rename
Save as...
Compare Records Screen
Component Description
The Compare Records screen allows users to view and maintain information on their selected object and objects either referencing or referenced by the selected object, in one comprehensive view.
* Headers
ID Header (true)
Approved Header
Name Header
Attribute Value Header (false / false / false / PrimaryCol
Attribute Value Header (false / false / false / LongItemD
Attribute Value Header (false / false / false / Material / f
Add...
Edit...
Remove
Up
Down
Reference Direction
References
* Reference Types
AccessoryOptional
AccessoryRequired
Accessory_Single_Valued
Add...
Remove
Up
Down
Advanced
Dimensions
<Select an option>
Edit...

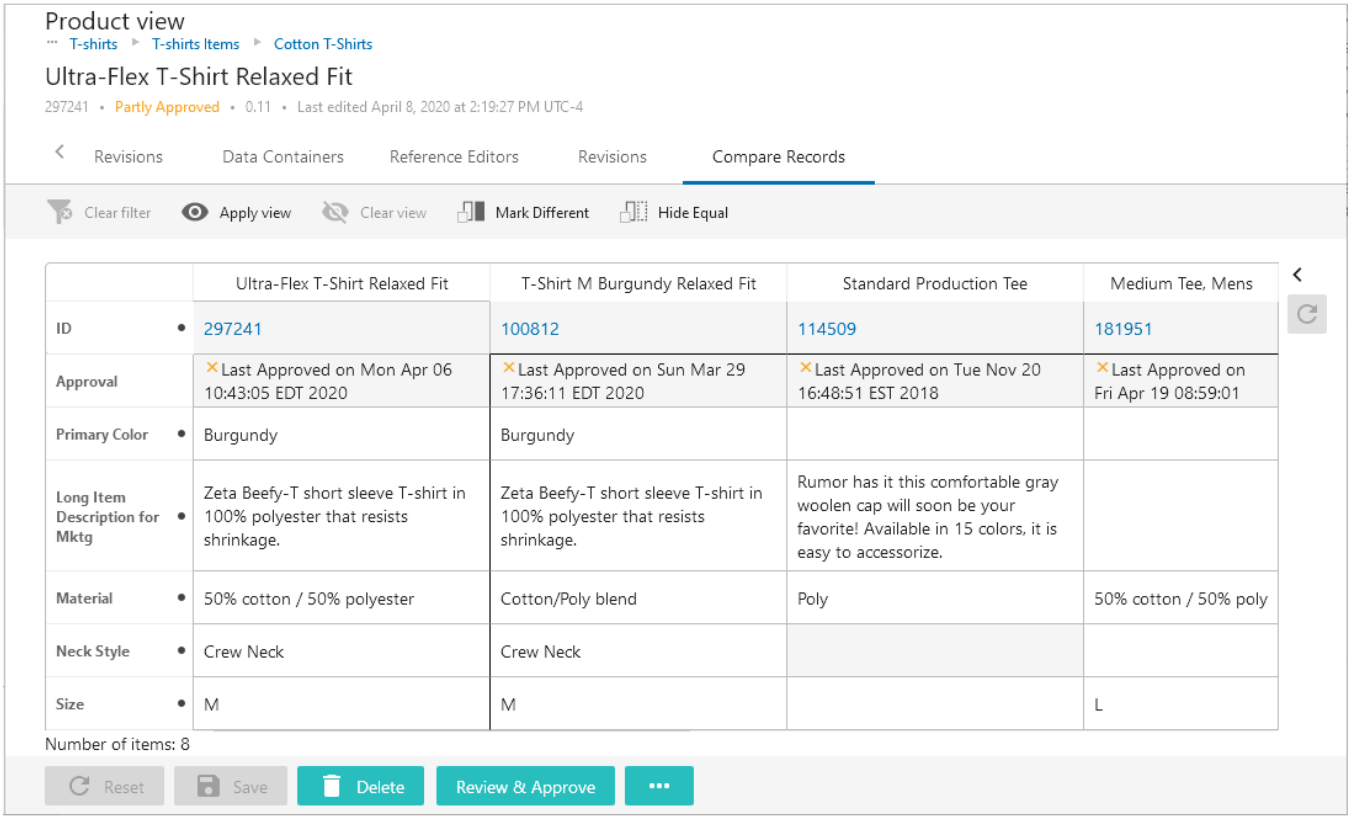
Headers - This mandatory parameter determines which columns display in the table. Using the various header components, users can determine which data is brought into the table. For example, the Target or Metadata Reference Header allows users to bring information from the reference object, or metadata from the reference itself, directly into the table.

Reference Direction - Determines whether the objects displaying in the table are objects the selected object references, or objects that have referenced the selected object. 'References' will show target objects the selected object (source) references, while 'Referenced by' shows source objects that reference the selected object (target).

Reference Types - This mandatory header allows users to select the reference types, valid for the viewed object, that will bring the desired objects into the table.

Using the Compare Records screen

Additional information about how this screen can be used is listed below the screenshot.



By default, the Compare Records screen also supports auto-save, user configurable views, as well as the 'Hide Equal' and 'Mark Different' functionality.

The first column displays information specific to the selected item and is locked in place; users cannot scroll to the right and cause the column to scroll out of display. This is done to ensure the screen's efficacy as a comparison tool with emphasis placed on the selected object. For the same reason, the ability to flip the orientation of the table is also removed.

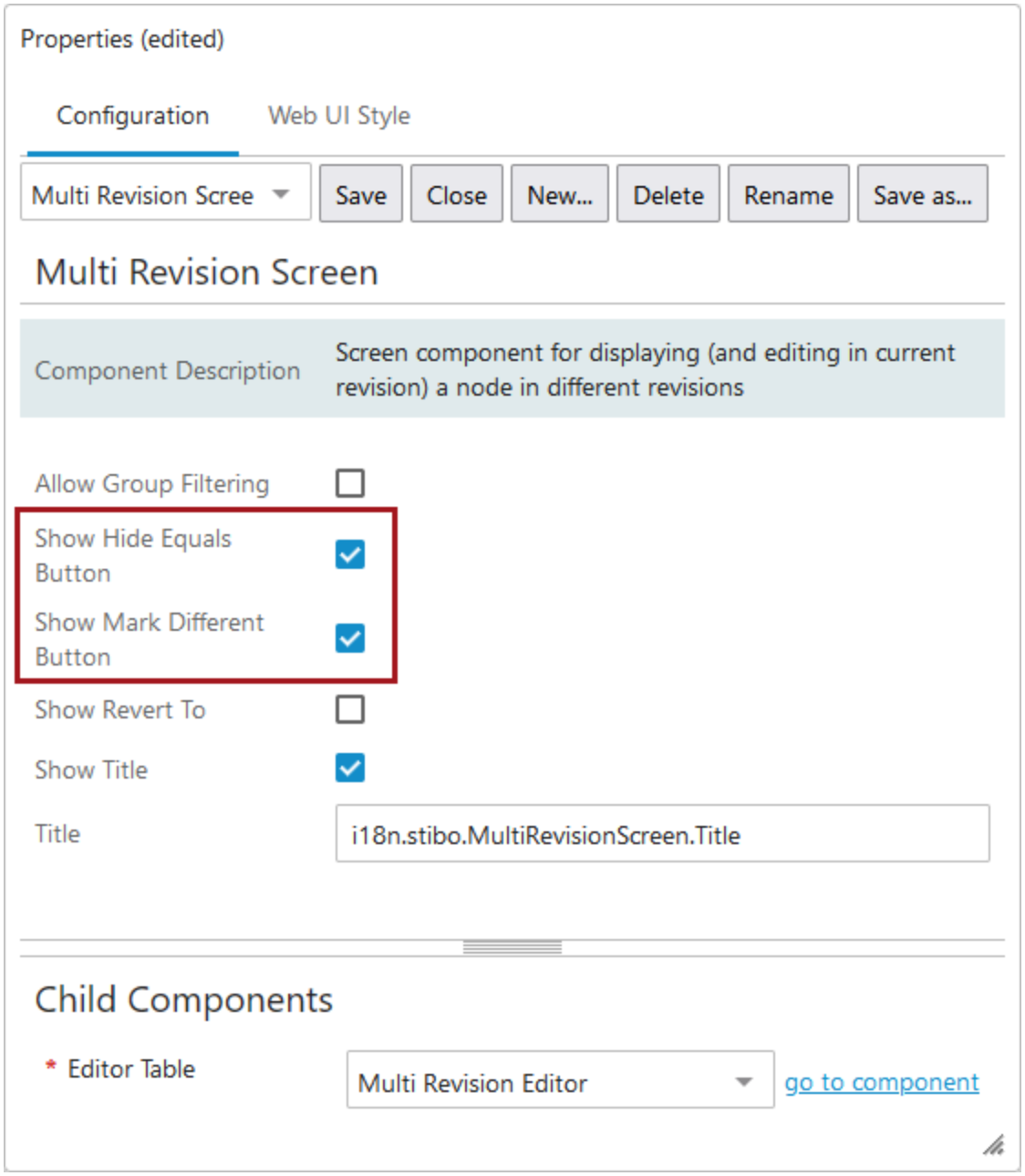
Users may use single-reference reference types and multi-reference reference types with this screen. However, when using the Target or Metadata Reference Header, only single-reference reference types are compatible.

Comparing Data Using Hide Equal and Mark Different

A number of components in Web UI offer the ability to easily identify differences and similarities between multiple objects via the 'Hide Equal' and 'Mark Different' actions. The 'Hide Equals' action hides all equal values from the user, while the 'Mark Different' action highlights all values that are different. These actions are available for all Node Lists, but are added in a variety of ways. They can be configured as toolbar actions on the following components: Children of Types Screen, Task List screen, Multi Selection Screen, and the Collections Screen. They are available via checkbox configuration on the Multi Revision Screen, Deduplication Screen, Multi Workspace Screen, and Potential Duplicates List. For the Deduplication and Potential Duplicates screens these actions are automatically available so long as at least one other action is configured.

For Multi Workspace Screen and Multi Revision Screen components, these actions need to be manually configured.

1. In design mode, navigate to the screen component to configure via the dropdown.
2. In the screen properties for the applicable component, check the 'Show Hide Equals Button' and the 'Show Mark Different Button'.

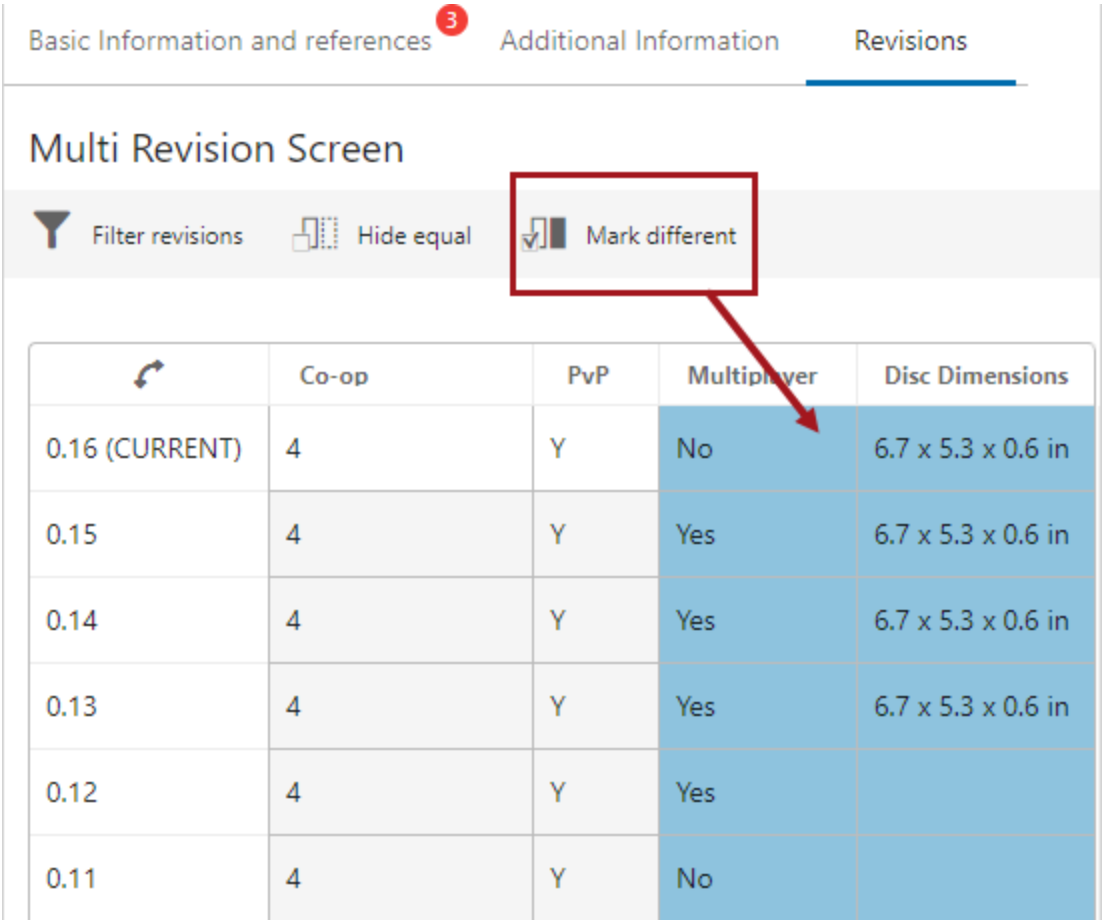


3. Click **Save**.

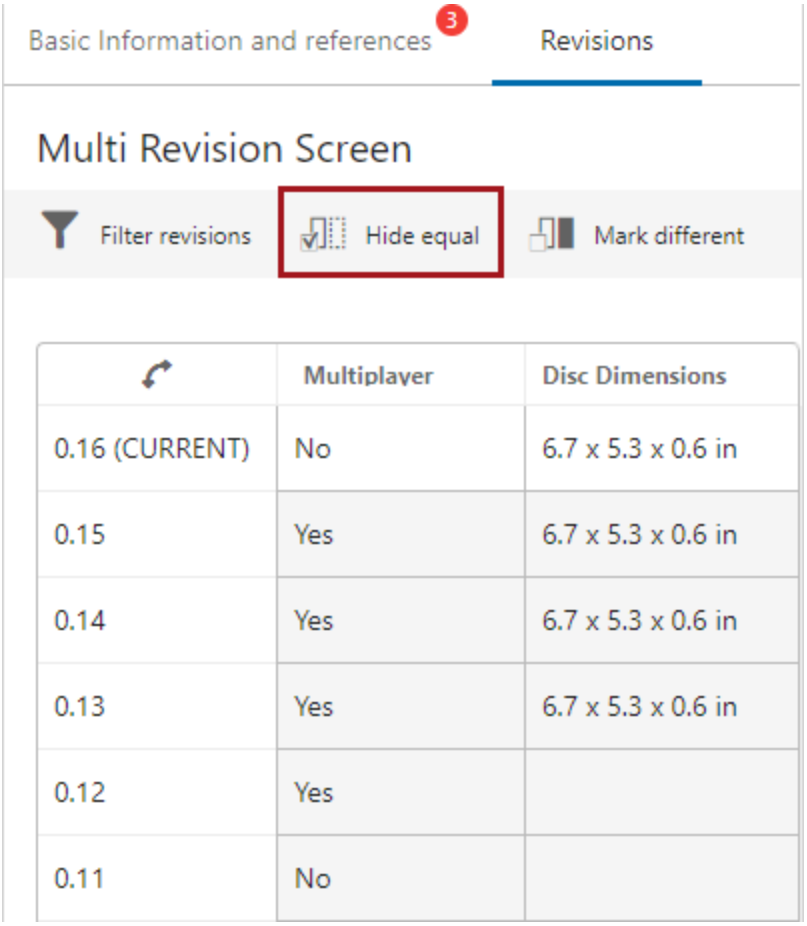
Important: For tables containing more than 25 objects (or less than two), the Hide Equal and Mark Different buttons will show as inactive. This is because running a Hide Equal or Mark Different process on more than 25 objects can cause significant performance slowdowns. If a table is showing with more than 25 objects and one of these two tasks must be performed, use the filtering features to bring the number down below 25.

Example

In the image below, the 'Mark Different' action has highlighted the attributes 'Multiplayer' and 'Disc Dimensions' because the displayed revisions have different values for those attributes.



In the image below, the 'Hide Equals' action hid the 'Co-op' and 'PvP' attribute values columns(pictured above) because the displayed revisions have the same values for those attributes.



	Multiplayer	Disc Dimensions
0.16 (CURRENT)	No	6.7 x 5.3 x 0.6 in
0.15	Yes	6.7 x 5.3 x 0.6 in
0.14	Yes	6.7 x 5.3 x 0.6 in
0.13	Yes	6.7 x 5.3 x 0.6 in
0.12	Yes	
0.11	No	

Note: Hide equal and Mark different actions works the same way for Multi Context and Multi Workspace as described above for Multi Revision screens.

Conditional Attribute Display

As is often the case, an attribute may not be relevant unless another attribute holds a certain value. For example, attributes specific to hazardous materials may become valid if the attribute 'Has Lead' has a value of 'Yes'. To facilitate this, attributes can be conditionally displayed in Web UI and Smartsheets.

A condition can be configured in two ways: as metadata on a description attribute or as a specification attribute link. When configured, it indicates the circumstances under which the relevant attribute is valid.

This enables business users to steer the Web UI and Smartsheets behavior for end users without requiring use of the Web UI designer.

Note: Conditional attribute support does not apply to STEP Workbench as all attribute visibility in the workbench is determined solely by user privileges.

Terminology

For additional context, refer to relevant definitions below:

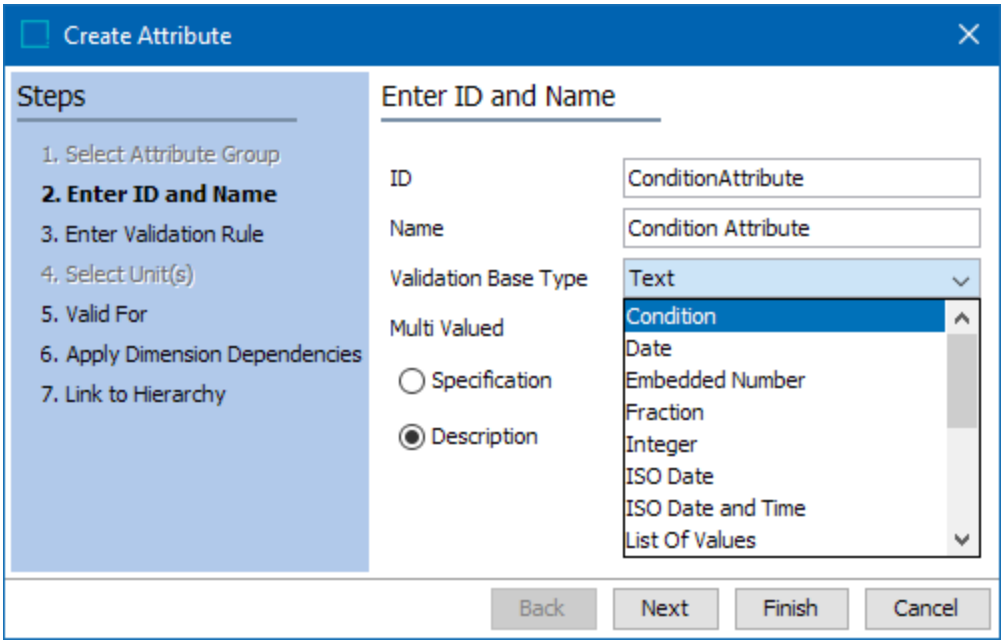
- **Conditional Attribute** - This attribute appears as a metadata field on Description attributes and on Specification attribute links in the Product Hierarchy. Conditional expressions are stored in this attribute.
- **Conditional Expression** - Validity rules for the Conditionally Valid Attribute. Expressions are stored in the Conditional Attribute field for the relevant attribute or attribute link.
- **Conditionally Valid Attribute** - These attributes are only valid under the conditions specified by a conditional expression. In Web UI, Conditionally Valid Attributes are only displayed to the user when the Conditionally Driving Attribute is populated according to the Conditional Expression.
- **Conditionally Driving Attributes** - Attributes that are specified in a conditional expression. Conditionally Valid Attributes rely on populating this attribute with the correct value. In Web UI, Conditionally Driving Attributes are always displayed.

Creating the Conditional Attribute

Before conditions can be set on attributes, the Conditional Attribute must be created.

Note: Only one Conditional Attribute can be active on the system at any given time. To be clear, the Conditional Attribute is the attribute that holds the logic for the Conditionally Valid Attributes. Therefore, any number of Conditionally Valid Attributes and their associated expressions can be configured using a single Conditional Attribute.

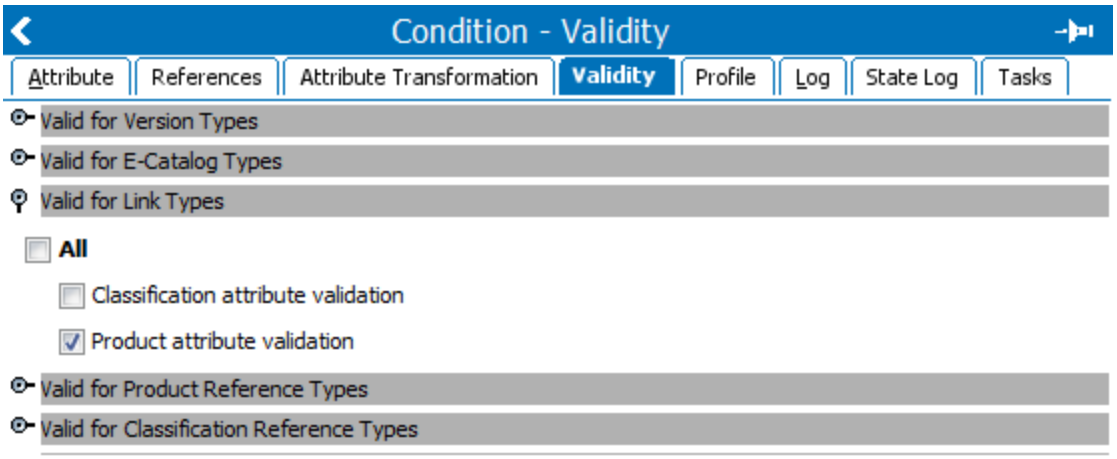
1. In System Setup, navigate to a relevant attribute group and create a Description Attribute with the Base Validation Type of Condition.



2. Complete any other relevant information and click **Finish** to create the attribute.

Important: It is recommended that attributes used for conditional validity (as the Conditional Attribute or as a Conditionally Driving Attribute) do not have dimension dependencies.

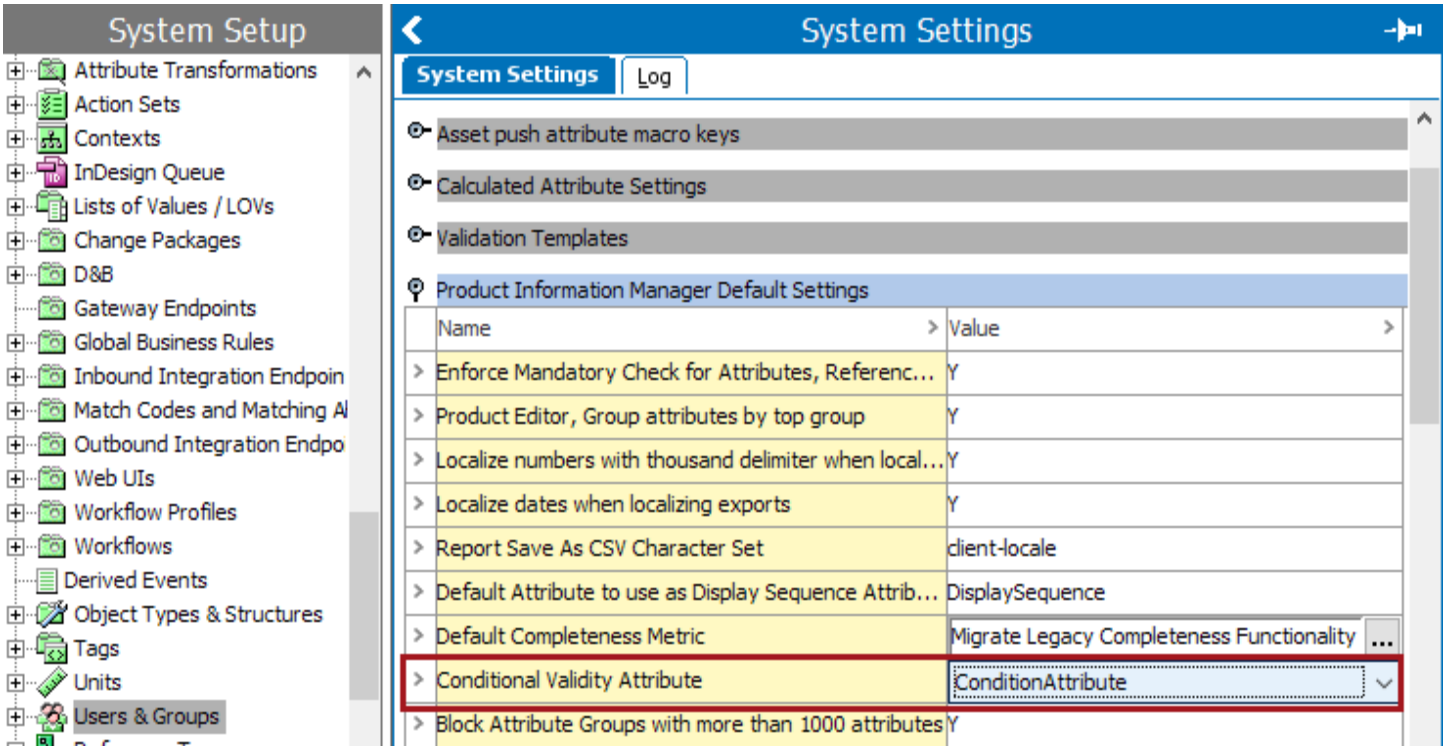
3. Under 'Valid for Link Types', set the validity of the attribute for the **Product attribute validation** option.



Activating a Conditional Attribute

Once created, the Conditional Attribute must be activated.

1. Navigate to System Settings and select **Users & Groups**.
2. Locate the 'Product Information Manager Default Settings' section.
3. In the 'Conditional Validity Attribute' field, select the conditional attribute configured in the previous section.



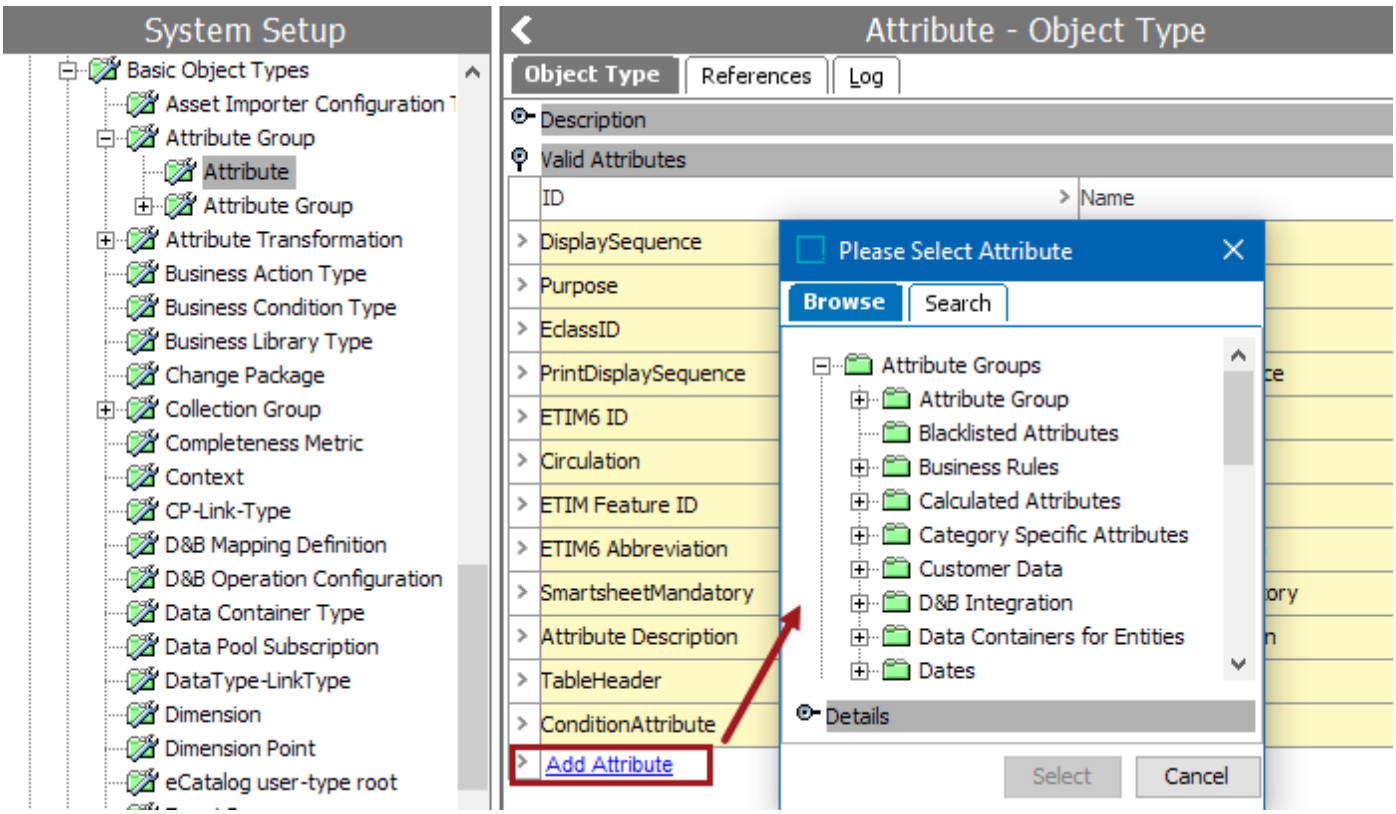
Configuring Conditionally Valid Attributes

Where and how you configure a condition for an attribute depends on whether it is a description or specification attribute.

Description Attributes

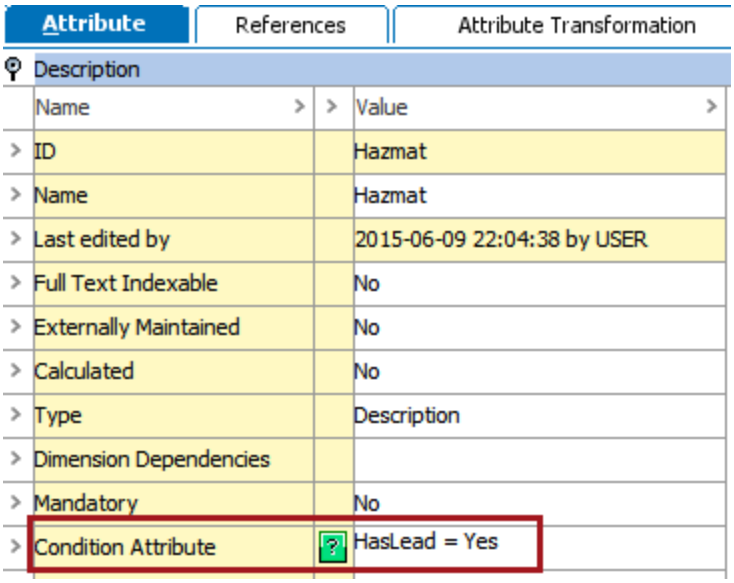
The condition for a description attribute is configured as metadata on the attribute itself. Before you can add it to an attribute, however, make the conditional attribute valid for the attribute object type.

1. In System Setup, navigate to Objects & Structures and expand Basic Object Types, expand Attribute Groups, and then click on **Attribute**.
2. In the Valid Attributes section of the Object Type tab, click **Add Attribute** and browse or select the conditional attribute from the list.



For more information, refer to the **Description Attribute** section of the **System Setup** documentation.

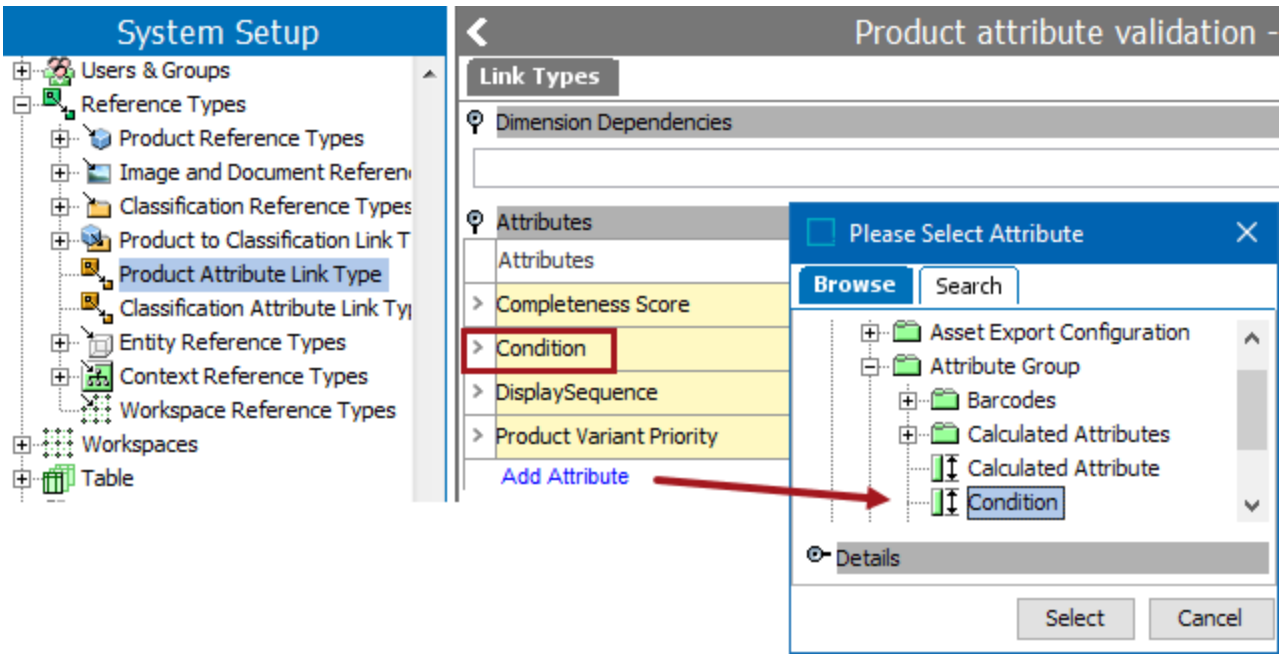
3. Navigate to System Setup and select the desired description attribute.
4. In the Conditional Attribute field, enter the desired condition rules for the conditionally valid attribute.



Specification Attributes

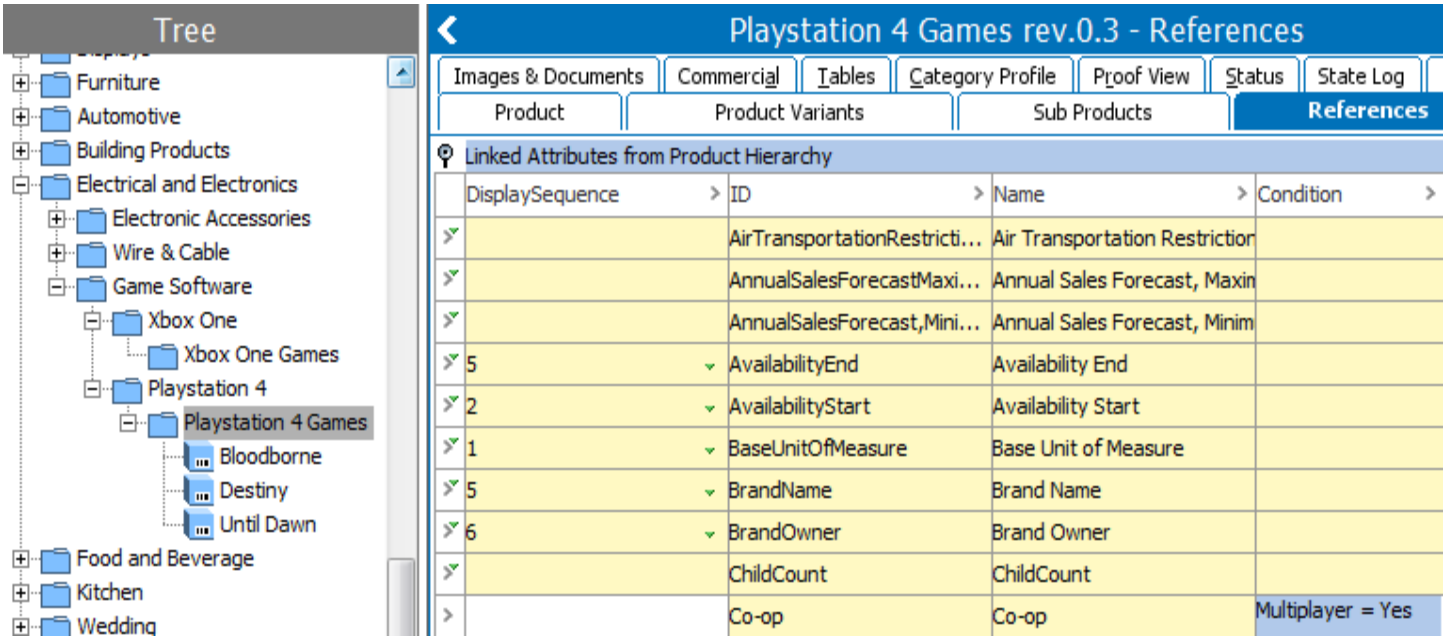
The condition for the Specification Attribute is configured by linking it to the relevant products on the References tab. Before you can add it to a product, however, the Conditional Attribute must be made valid for the Product Attribute Link Type object type.

1. In System Setup, expand Reference Types and open the Product Attribute Link Type node.
2. Click **Add Attribute** and browse or select the Conditional Attribute.



3. Navigate to the Tree and open the relevant node in the product hierarchy.
4. On the list of linked attributes, locate the desired Specification Attribute. In Conditional Attribute column, enter

the conditional expression.



Writing Conditional Expressions

Conditional expressions are written directly in the STEP Workbench text editor.

The expressions are written in a simple syntax in the format [AttributeID] = [Value1];[Value2], where multiple values act as an 'OR' operator. For example, a Condition Attribute called 'Condition Attribute' specifies that the 'Hazmat' attribute will only appear if the 'HasLead' attribute has a value of true, using the syntax [AttributeID] = [Value1]:

Syntax forms:

- Condition: <language id><attribute id> = <value list>
- Language ID: .*:|<nothing>
- Value list: <value>;<value list>
- Value: .*

Rules that must be observed for the conditions:

- The used attribute must not have spaces in its ID.
- The used attribute must not have ':' in its ID.
- If a value contains ';' it must be escaped with \'
- If a value contains '\' it must be escaped with \'

Note: Conditional expressions using attributes with LOVs that utilize value IDs will evaluate the value ID. For example, assume a Yes / No LOV exists that uses value IDs, where 1=Yes and 2=No. The conditional expression for this must use the value ID, e.g., 'AttributeA = 1' if the attribute should only be available when the value of AttributeA is 'Yes'.

For more information refer to the **Business Rules with Conditional Attributes** section of the **Business Rules** documentation.

Note: Conditional attributes can also be exported using Smartsheets. When exporting products with conditional attributes any cells containing invalid conditionally displayed values will be automatically locked for editing. In order to unlock the cell and make changes, the user must first fulfill the proper conditions for the attribute and then validate the sheet. For more information on creating Smartsheets exports, refer to the **Smartsheet Data and Template Configurations** section of the **Data Exchange** documentation.

Conditional Attribute Example

A number of Web UI components centered around the Task List and Node Editor components are enabled to deal with the conditional validity of attributes. These components honor the conditional validity settings and only allow for display and/or editing of attribute values if they are valid based on the driving conditions.

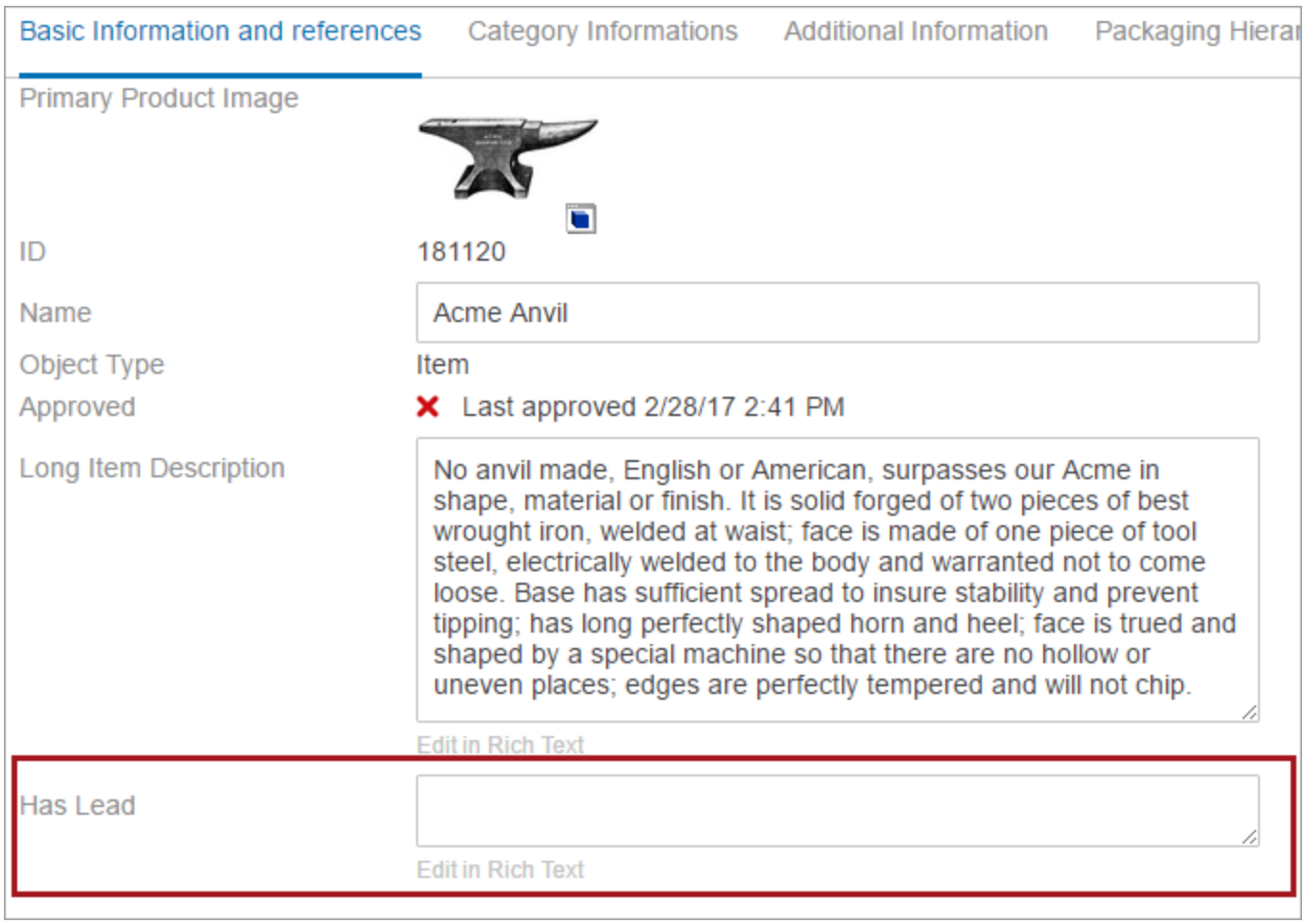
For example, the 'Hazmat' attribute is available when 'Has Lead' is set to 'Yes', but is unavailable when 'Has Lead' is left unpopulated or set to 'No'.

Basic Information and references | Category Informations | Additional Information | Packaging Hier

Primary Product Image



ID	181120
Name	Acme Anvil
Object Type	Item
Approved	✖ Last approved 2/28/17 2:41 PM
Long Item Description	No anvil made, English or American, surpasses our Acme in shape, material or finish. It is solid forged of two pieces of best wrought iron, welded at waist; face is made of one piece of tool steel, electrically welded to the body and warranted not to come loose. Base has sufficient spread to insure stability and prevent tipping; has long perfectly shaped horn and heel; face is trued and shaped by a special machine so that there are no hollow or uneven places; edges are perfectly tempered and will not chip.
	Edit in Rich Text
Has Lead	Yes
	Edit in Rich Text
Hazmat	
	Edit in Rich Text



Note: The 'Hazmat' attribute is not available if the ‘Has Lead’ attribute is set to ‘No’ or left blank.

Conditional attribute functionality can be used with Web UI elements:

- ParentValue
- TargetAttributeColumn
- TargetAttributeLinkColumn
- TargetValueHeader
- Value
- ValueHeader
- ValueGroup
- ValueLinkHeader
- ValueGroupHeader

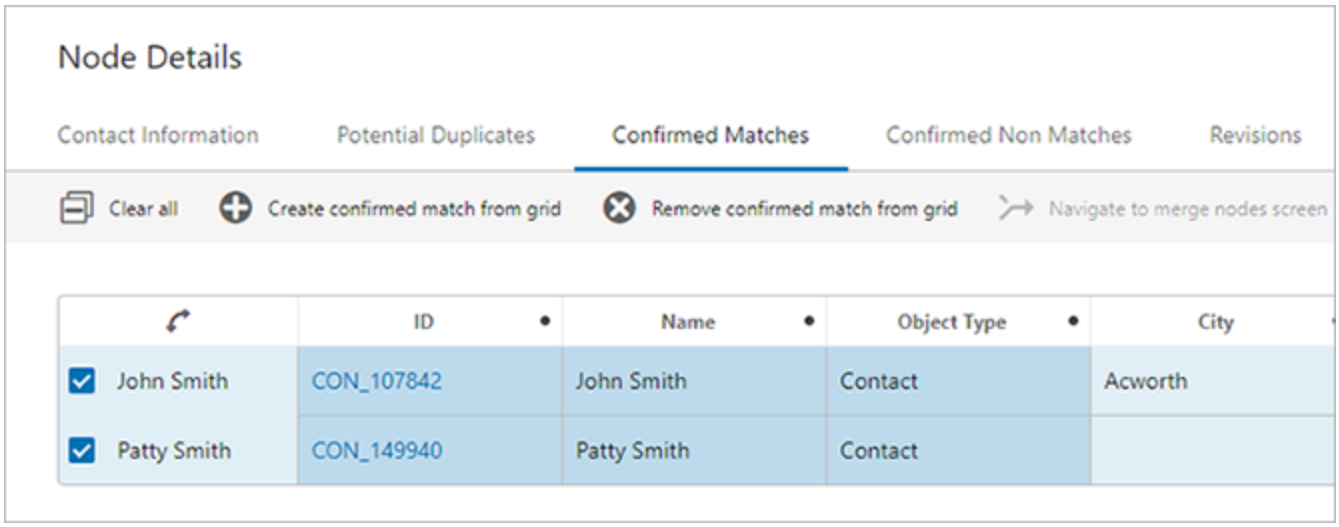
- Attribute Value Component
- Attribute Value Group Component

Note: Before working on Conditional Attributes, it is important to ensure that attributes have validity and are linked on the object where conditions should match. In our example, 'Has Lead' and 'Hazmat' attributes are linked and have validity on the Item object. If the attribute is linked on the parent level, specify the condition on the parent level. Validity must be available on object.

Confirmed Matches Component

From the Confirmed Matches component screen, users can view all objects that have been confirmed as matches for the currently selected object, and may choose to either merge the selected object with one of the listed matches, or reject an object(s) as a viable match.

Important: The option to merge is not applicable to Golden Record configurations.



Before they can appear on this screen, matches listed must be confirmed via the **Potential Duplicates List** topic or the Deduplication List screen (as defined in the **Configuring a Deduplication Clerical Review** topic).

If applicable to the configuration, a merge nodes button can be added to the screen as defined in the **Merging Confirmed Matches** topic. To merge two matching nodes, select the relevant object from the list and click the 'Merge' ( ) icon.

To reject a confirmed match, select the relevant object from the list and click the 'remove' ( ) icon. Doing so sends the selected object back to the Potential Duplicates List / Deduplication List screen.

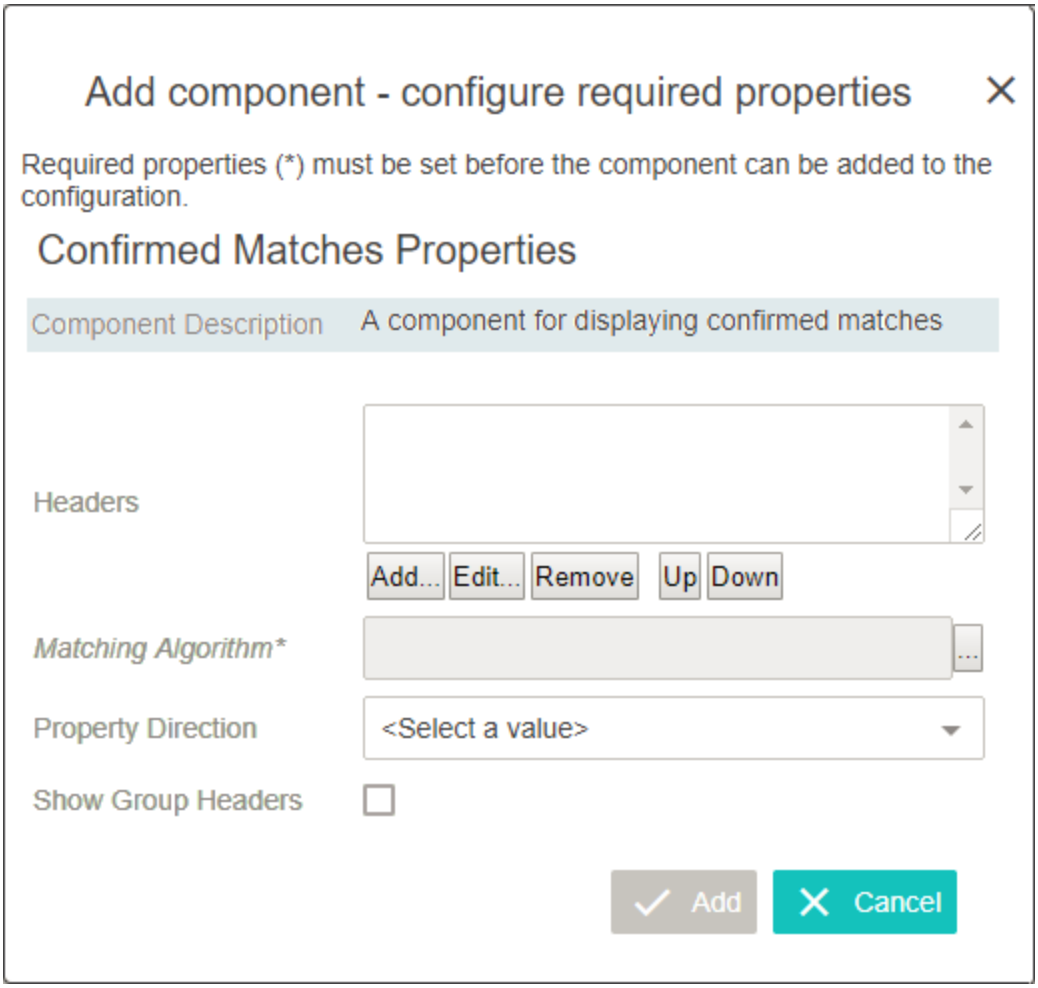
Prerequisites

It is expected that anyone configuring the Confirmed Matches component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring the Confirmed Matches component

A number of configuration options are available for this component that allow users to customize how the table is formatted. Additionally, a matching algorithm and corresponding action button(s) must be configured.

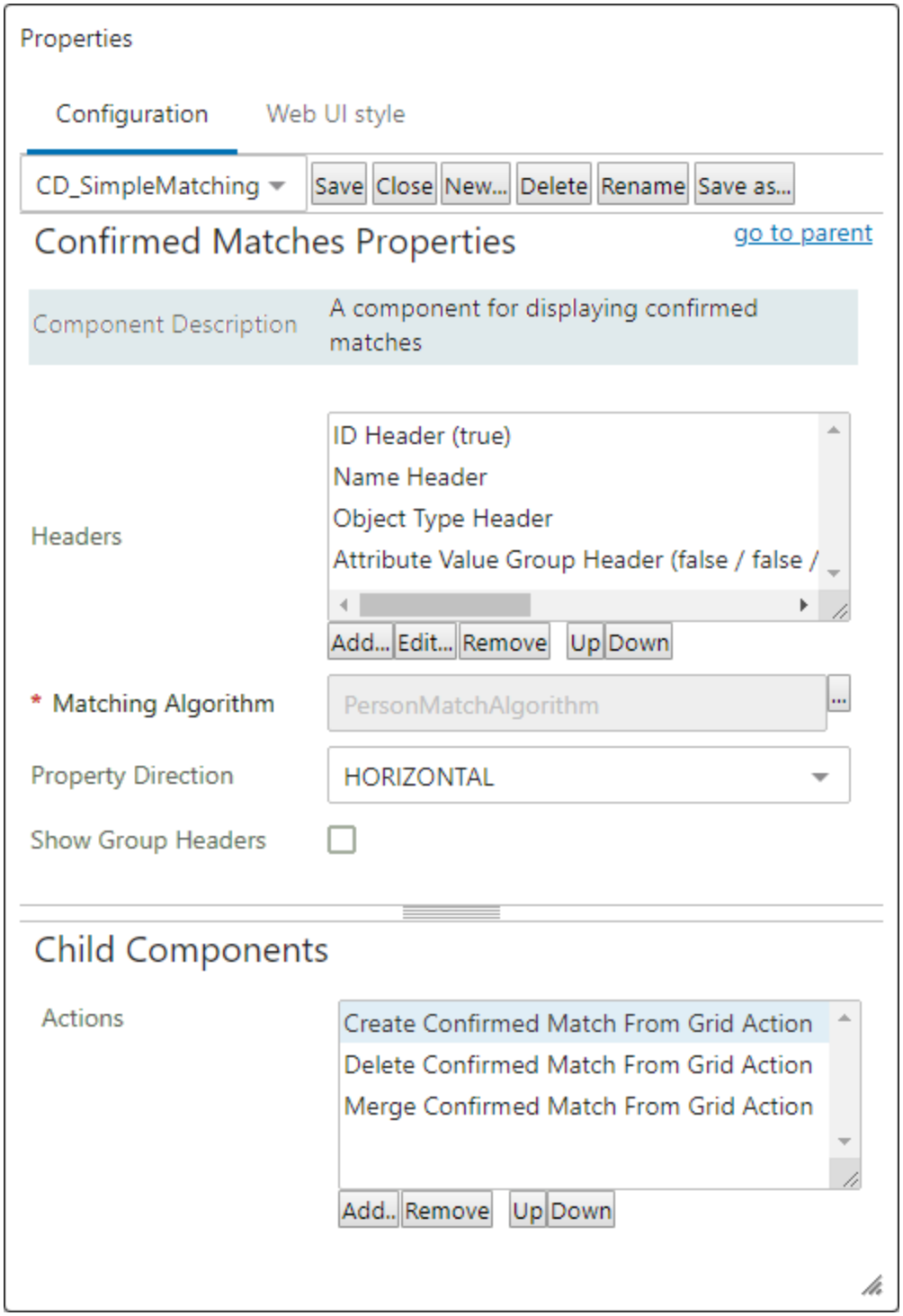
1. Select the **Node Details** screen. Example: Subscriber Details
2. In the **Child components** area, in the **Main** dropdown, select **Tab Control**.
3. Click on '**go to component**' to configure the Tab Control component.
4. Add a **Tab Page** to the Tab Control.
5. On the **Tab page**, enter Title name. Example: Confirmed Matches.
6. On the **Tab Page**, set **Tab Content** to **Confirmed Matches**.
7. Confirmed Matches Properties screen will be displayed as shown in the image below.



- **Headers**: In this parameter, specify which headers will appear on the table by clicking **Add...** and selecting the desired header. Depending on the header selected, additional configuration steps may be required. Ideally, attributes most relevant to matching should be specified.
- **Matching Algorithm**: In this parameter, click the ellipsis button (...) and select the relevant matching algorithm.

- **Property Direction**: For this parameter, determine whether to display the data in a horizontally or vertically aligned list via the dropdown.
- **Show Group Headers**: Check the box for this parameter if attribute group headers should be displayed.

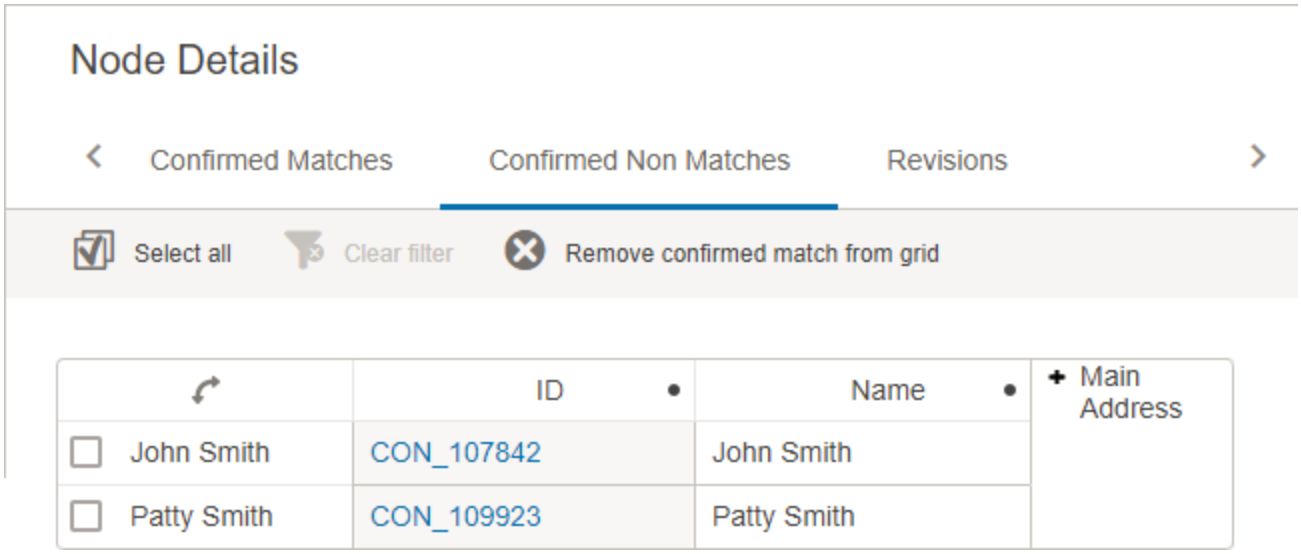
  Once the tab has been created and configured, an additional field is made available as a child component:



- **Actions**: In this parameter, click the **Add...** button to add actions to this component. The available actions are the 'Create Confirmed Match From Grid Action,' which adds a button to add new confirmed matches from the screen, the 'Delete Confirmed Match From Grid Action,' which adds a remove node button to the screen, and the 'Merge Confirmed Match from Grid Action' button, which allows confirmed matches to be merged. The 'Create Confirmed Match from Grid Action' requires configuration.

Confirmed Non Matches Component

From the Confirmed Non Matches component screen, users can view all objects that have been rejected as matches for the currently selected object, and send them back to the Potential Duplicates List / Deduplication List screen to be reevaluated, if necessary.



Before they can appear, matches listed on this screen must be rejected via the **Potential Duplicates List** topic or the Deduplication List screen (as defined in the **Configuring a Deduplication Clerical Review** topic).

To send a rejected match back to the Potential Duplicates List / Deduplication List screen, select the relevant object from the list and click the 'Remove' ( ) icon.

Prerequisites

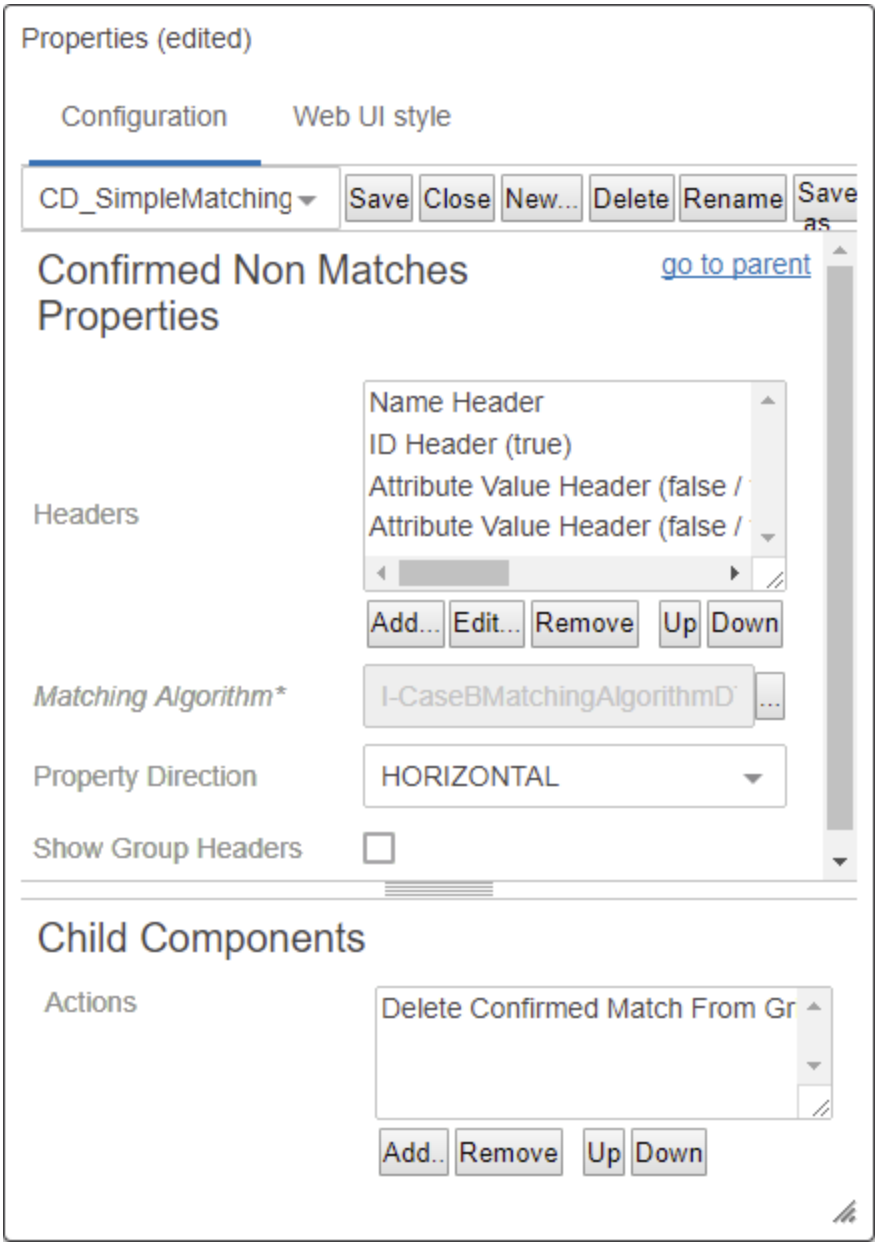
It is expected that anyone configuring the Confirmed Non Matches component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring the Confirmed Non Matches component

A number of configuration options are available for this component that allow users to customize how the table is formatted. Additionally, a matching algorithm and corresponding action button(s) must be configured.

1. Select the **Node Details** screen. Example: Subscriber Details
2. In the **Child components** area, in the **Main** dropdown, select **Tab Control**.
3. Click on '**go to component**' to configure the Tab Control component.

4. And a **Tab Page** to the Tab Control.
5. On the **Tab Page**, enter Title name. Example: Confirmed Non Matches.
6. On the **Tab Page**, set Tab Content to **Confirmed Non Matches**.
7. Confirmed Non Matches Properties screen will be displayed as shown in the image below.



- **Headers**: In this parameter, specify which headers will appear on the table by clicking **Add...** and selecting the desired header. Depending on the header selected, additional configuration steps may be required. Ideally, attributes most relevant to matching should be specified.

- **Matching Algorithm**: In this parameter, click the ellipsis button (...) and select the relevant matching algorithm.
- **Property Direction**: For this parameter, determine whether to display the data in a horizontally or vertically aligned list via the dropdown.
- **Show Group Headers**: Check the box for this parameter if attribute group headers should be displayed.
- **Actions**: In this parameter, click the **Add...** button and select the 'Delete Confirmed Match From Grid Action'. This will add the remove node button to the screen.

Custom Export Action

With the Custom Export Action, users can export any selection of products, entities, and classifications from Node Lists and Tasks Lists. Users can export the contents of these tables without having to build a time-intensive mapping to create the export.

Note: Users may export one node type at a time. Supported export formats are Excel and CSV.

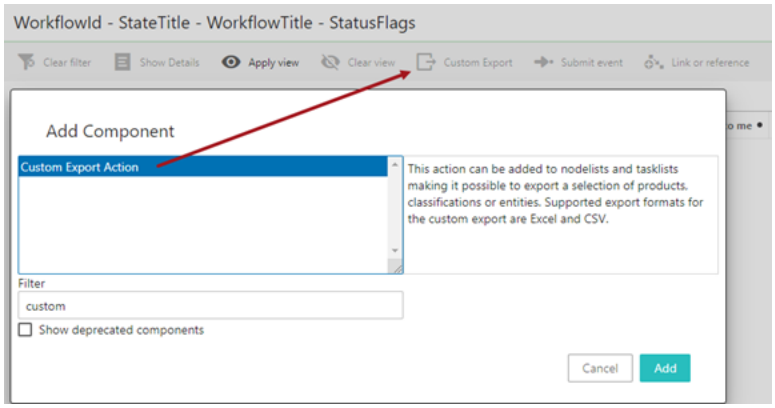
Important: Data container attributes cannot be exported with the Export Current View Action.

To begin using the Custom Export Action functionality, the action must be applied to toolbars on relevant screens.

Important: Search Screen (Faceted Search) is not supported with this action. However, a custom export can be done from the **Search Screen Basket**, and details regarding that functionality can be found in the **Search Screen** documentation.

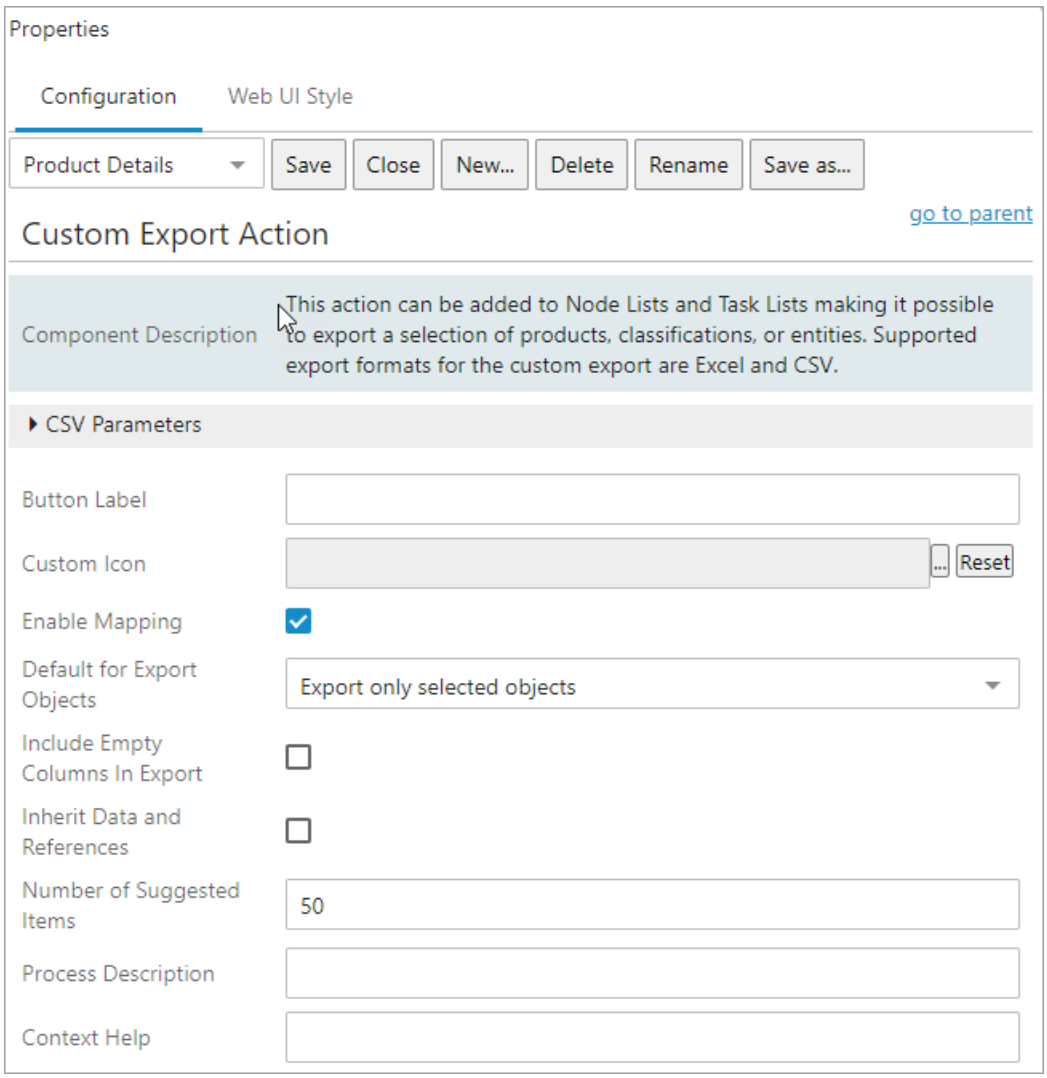
Adding a Custom Export Action to the toolbar

In the designer, a toolbar action called 'Custom Export Action' can be added to a toolbar on a Node List or Task List screen:

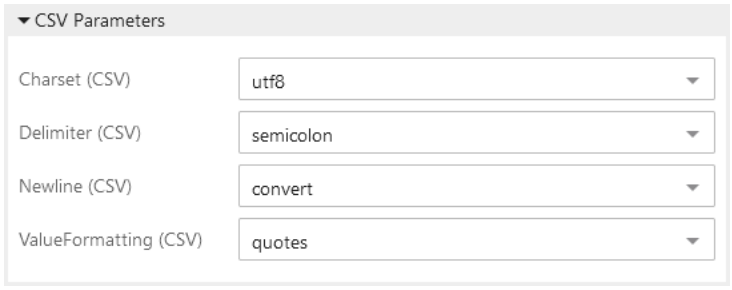


Configuring the Custom Export Action Properties

It is possible to change the default settings (shown in the screenshots that follow) within the Custom Export Action Properties.



Expand the **CSV Parameters** flipper to make parameter selections applicable to CSV exports.



- **Charset (CSV):** Choose the character set that should be used from the dropdown list.
- **Delimiter (CSV):** Choose a delimiter from the dropdown list. The end user can overwrite this default setting when doing an actual export.
- **Newline (CSV):** Select whether you want to keep carriage return (new line) or convert to a space instead. The latter is recommended, so changing the default setting is not recommended. You may experience issues

with the data integrity if you keep the carriage returns.

- **ValueFormatting (CSV):** Select to export all values in quotes or without quotes.

Standard parameters are as follows:

- **Button Label:** Entered text is displayed on the button. When no text is entered, the default 'Custom Export' is displayed. This is only valid if the 'Include Label' parameter on the parent Node List properties is checked.
- **Custom Icon:** An icon can be selected from those that exist in workbench. Adding a custom icon overrides the default icon displayed in the user interface. The recommended size of the icons in pixels is 20 (high) x 35 (wide). The recommended color of an icon is jewel-toned, deep colors that fade well when the action is in a disabled state. Click **Reset** to restore the default icon.
- **Enable Mapping:** Selected by default. When enabled, users have access to configure their own export, including to save and reuse configurations. If unchecked, users do not have access to configure mapping of the export and can only export the data that is onscreen and supported for export (with no option to save and reuse configurations).
- **Default for Export Objects:** User can select options which will display as the default in the 'Export Objects' dropdown. When creating a new custom export, the 'Export only selected objects' option will show by default unless another option is selected.
- **Include Empty Columns in Export:** If checked, the export includes all attribute columns when attribute groups are mapped, even when no value exists for any of the objects for one or more of the attributes in the group. By default, the parameter is disabled since exporting empty fields can increase the time for the background process to complete. All attributes mapped individually are included in the export regardless of this setting.
- If checked, the export includes all attribute columns when attribute groups are mapped, even when no value exists for any of the objects for one or more of the attributes in the group. Export time is increased when using this feature. All attributes mapped individually are included in the export regardless of this setting.
- **Inherit Data and References:** If selected, the Export Manager extracts values for products that have inherited values from products at a higher level in the hierarchy. When disabled / not checked, the export with not include any inherited data or references on the exported object(s).
- **Number of Suggested Attributes:** Sets the maximum number of attribute suggestions shown during export mapping.
- **Process Description:** Text entered (including HTML tags) will be used for the name of the background process (BGP). Refer to the **Background Process Messaging and Identification** section of **Background Process List Screen** topic for more information on this parameter.
- **Context Help:** Text displayed when hovering over the object.

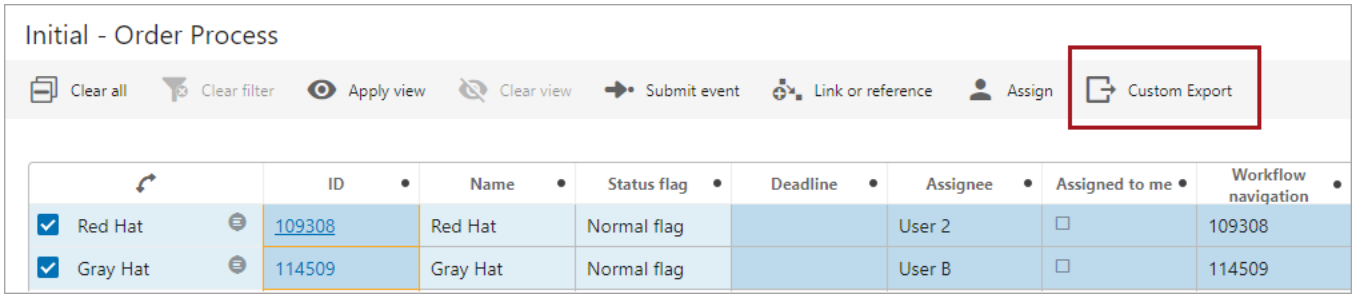
Using the Custom Export Action

Custom Export Action supports both a simple export of supported table data, as well as more complex configurations using the Custom Export configuration window. All exportable headers displaying in the table,

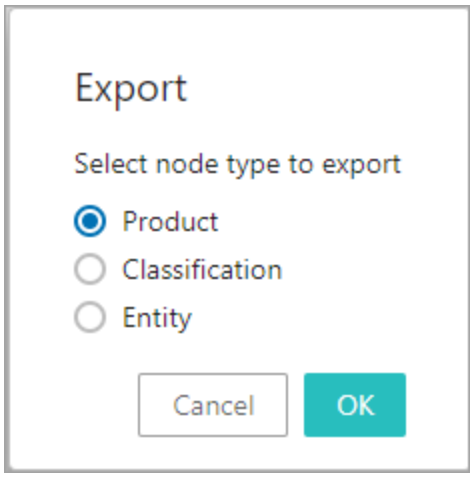
whether through configuration of the table or through configuration on an applied user configurable view, display in the Custom Export configuration window by default. Users can add or remove these headers to create the desired export.

Note: Some data types that can be configured to display in Web UI tables, like assignee, reference metadata for reference types that allow multiple references, approval status, etc., are not supported for export.

The Custom Export icon will display as disabled (grayed out) until there is data that can be exported. Once enabled, the action can be selected.



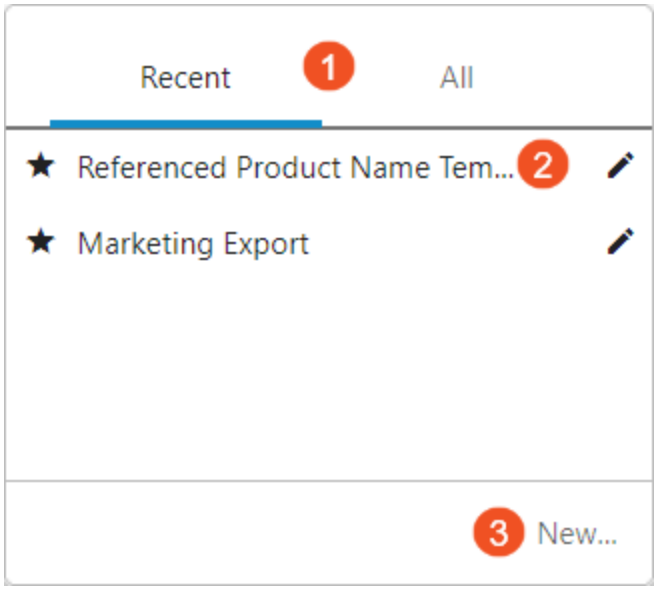
If the selection consists of more than one node type, you are asked to decide which node type to export:



If the selection is limited to less than one hundred objects, this choice is only presented when objects of different node types are present in the selection.

Custom Export Dialog

The numbered items in this dialog are defined below:

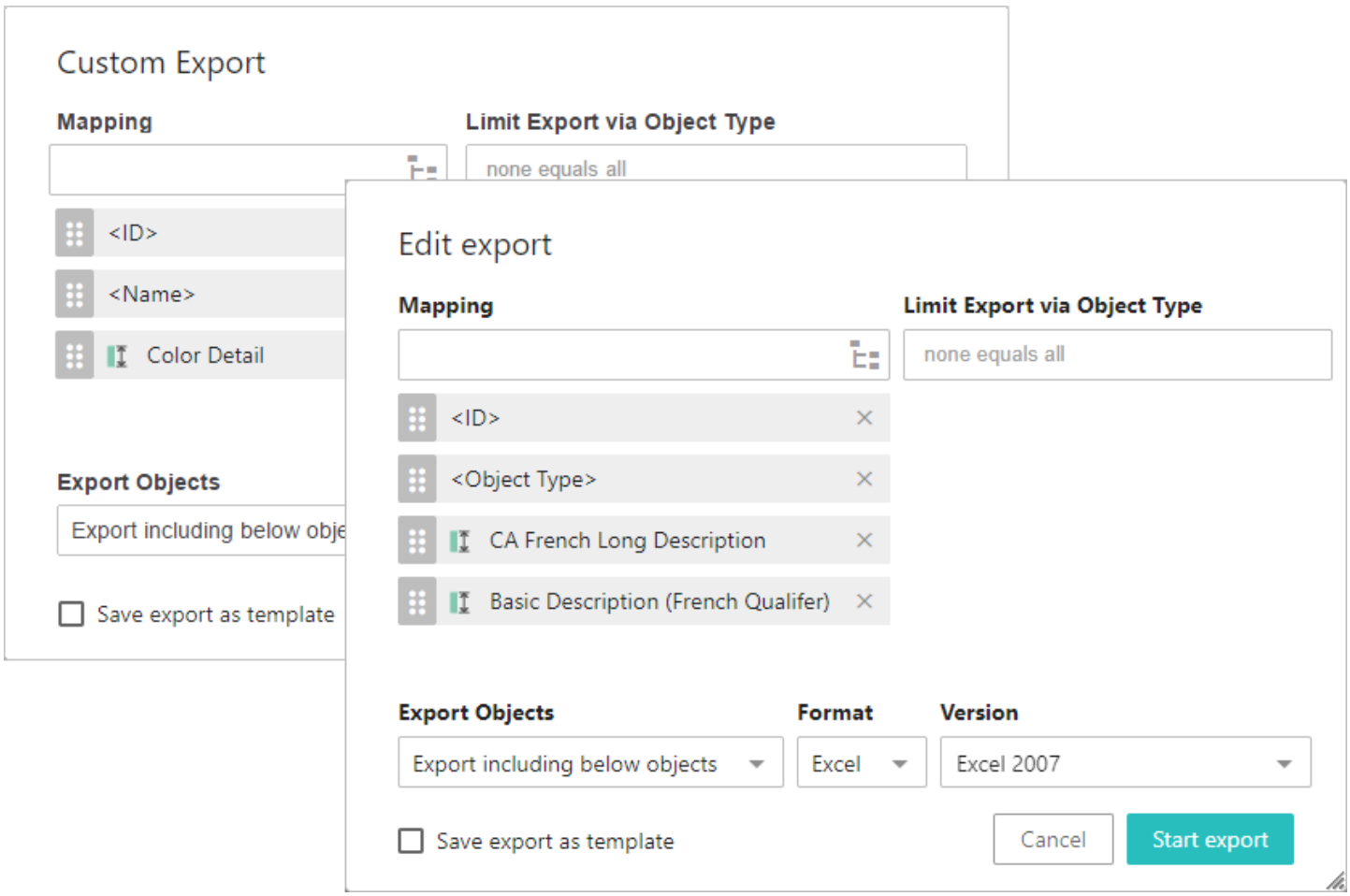


1. **Recent** and **All** - Click the **Recent** tab or the **All** tab to display a list of saved custom export
2. Saved custom exports - Click the row of a saved export (such as 'Marketing Export' shown above) to display the 'Edit export' dialog (shown below). This allows you to review the export settings and start the export. Right-click the edit button (✎) to display Edit, Delete, Rename, and Share options. If shared, the export configurations can be reused by all members of the designated user groups.
3. **New...** - Click the **New...** button to display the 'Custom Export' dialog (shown below) and to define a new custom export.

The **Close** button closes the dialog without initiating an export.

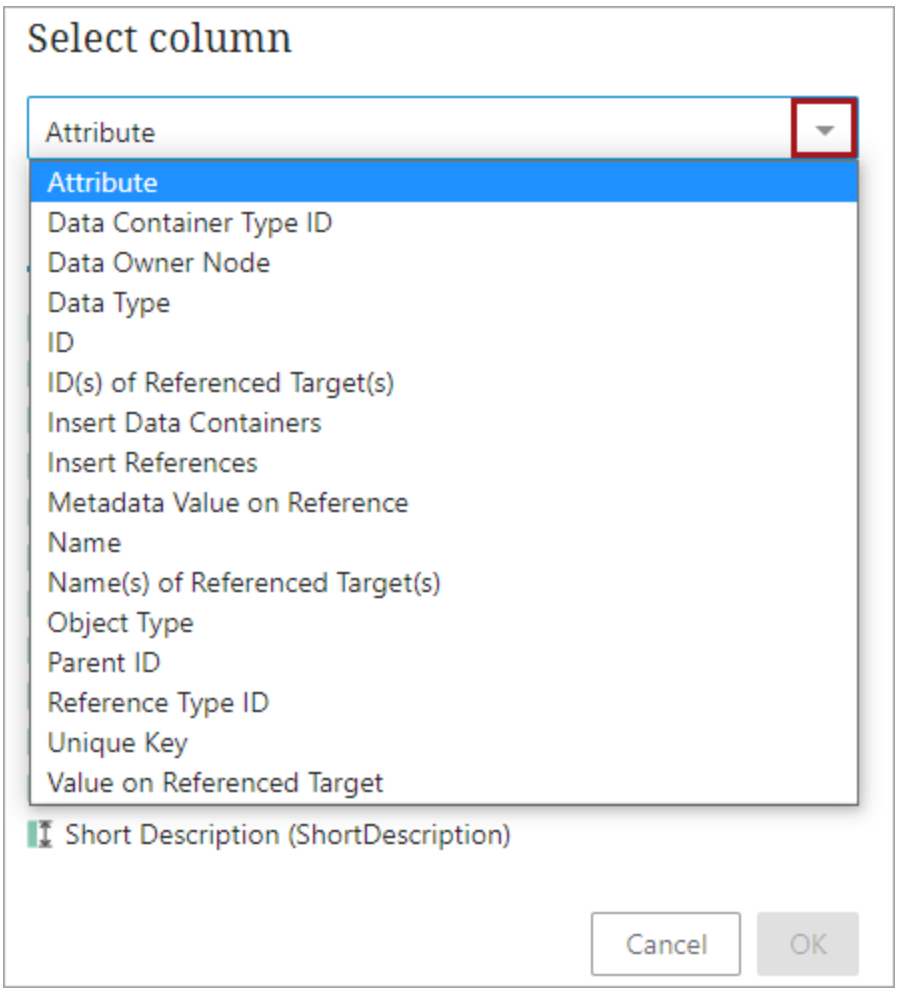
Configuring a Custom Export

The 'Custom Export' and the 'Edit export' dialogs include the same parameters to define the export data.



1. For the Mapping parameter, use the typeahead field to search for attributes by name, or click the node picker button ( ) to display the **Select column** dialog (shown below) to select the type of item for mapping from the available options. Use the dropdown to set the item and display additional options based on selection. Refer to the **Example** section below for more information.

   Once added, the new mapping can be reordered by clicking and holding the sort button ( ), dragging to the desired place in the list, and then releasing the button. The screenshot below shows the kinds of headers users can include in their custom imports. Below the screenshot is a list of the available column types.



- **Attribute** - When selected, users are prompted to select the desired attribute from those configured on the system. The selected attribute's value displays in a column named after the attribute. This is the default column type.
- **Data Container Type ID** - The 'Data Container Type ID' option allows output of the ID of the data container type for rows representing a data container object. This option is primarily relevant to export data containers of different types or to be able to import the exported file again.
- **Data Owner Node** - When using the 'Insert References / Data Containers' functionality, by convention, all non-NODE rows following a NODE row, represent data owned by the NODE. The 'Data Owner Node' option allows you to make the relationship between the NODE and non-NODE rows more explicit. For each row representing a data container object, a reference object, or a classification product link object, the owner node ID can be included in the 'Data Owner Node' column.
- **Data Type** - The 'Data Type' data source exports static text values of 'NODE', 'DATA_CONTAINER', or 'REFERENCE' to identify the reference or data container information on the row.
- **ID** - Displays the ID of the listed objects in a column with the header 'ID.'

- **ID(s) of Reference Target(s)** - Displays the ID of a target object referenced by the source object. For instance, if Acme SmartPhone is the object listed in the table, and Acme SmartPhone references Acme Headphones, the ID of Acme Headphones will display in this column.
- **Insert Data Containers** - The 'Insert Data Containers' data source can export data container values and reference target IDs and names, that are owned by the exported object in a separate row. This option is available in the CSV and Excel formats and is effective when exporting product or entity objects, both of which can own data containers.
- **Metadata Value on Reference** - Displays a value of an attribute on the reference that links the listed source object to the reference target object. For instance, if the reference connecting Acme SmartPhone to Acme Headphones has on it a metadata attribute related to Bluetooth compatibility, then the value of this metadata attribute will display in this column. Users have the option to also include the Reference Type name to display alongside the metadata value to help users differentiate between similar values across multiple Metadata Value on Reference columns. This can be done by checking the 'Include reference type in header' setting when configuring this header.
- **Name** - Displays the 'Name' value of the selected objects in a column with the header 'Name.'
- **Name(s) of Referenced Target(s)** - Displays the name of a target object referenced by the source object. For instance, if Acme SmartPhone is the source object listed in the table, and Acme SmartPhone references Acme Headphones as the target object, the name 'Acme Headphones' will display in this column.
- **Object Type** - Displays the object type of the listed object in a column with the header 'Object Type.'
- **Parent ID** - Displays the Parent ID of the listed objects in a column with the header 'Parent ID.'
- **Reference Type ID** - The 'Reference Type ID' option allows output of the ID of the reference or classification product link type for rows representing a reference or classification product link object. This option is primarily relevant to export references and links of different types to be able to import the exported file again.
- **Unique Key** - If a unique key is configured for the listed object, the unique key will display in a column with the header 'Unique Key.'
- **Value on Referenced Target** - Displays a value of an attribute on the referenced target object. For instance, if the source product is Acme SmartPhone and it references a target object called Acme Headphones, and the requested data is the value of the 'Color' attribute on Acme Headphones, then a color value like 'Metallic Gray' would display in this column. Users have the option to also include the Reference Type name to display alongside the referenced target value to help users differentiate between similar values across multiple Value on Referenced Target columns. This can be done by checking the 'Include reference type in header' setting when configuring this header.

2. For **Limit Export via Object Type**, the exported objects can be limited further by choosing specific object types to be exported. Click the parameter to display a list of all the object types in System Setup. If nothing is added to this parameter, the export is not limited by object type.
3. For **Export Objects**, the user can choose which objects to export:

- Export including below objects
- Export only leaf objects
- Export only selected objects

4. For **Format**, select an export format: Excel or CSV. If CSV is selected, the user can choose which delimiter to use (if the default configured in the Custom Export Action designer is not applicable for the given job).
5. For **Version**, choose an Excel version to be used. It is recommended that the newest supportable version of Excel is used. The default is Excel 2007.
6. For **Save export as template**, check the box to name the export, retain the settings, and display it for selection on future custom exports.

   Important: The **Maintain type hierarchy (node types)**, a setup action for Object Types, must be granted in order for a user to have access to the 'Save export as template' action in Web UI. Refer to the Setup Actions and Error Descriptions topic in the System Setup documentation for more information.

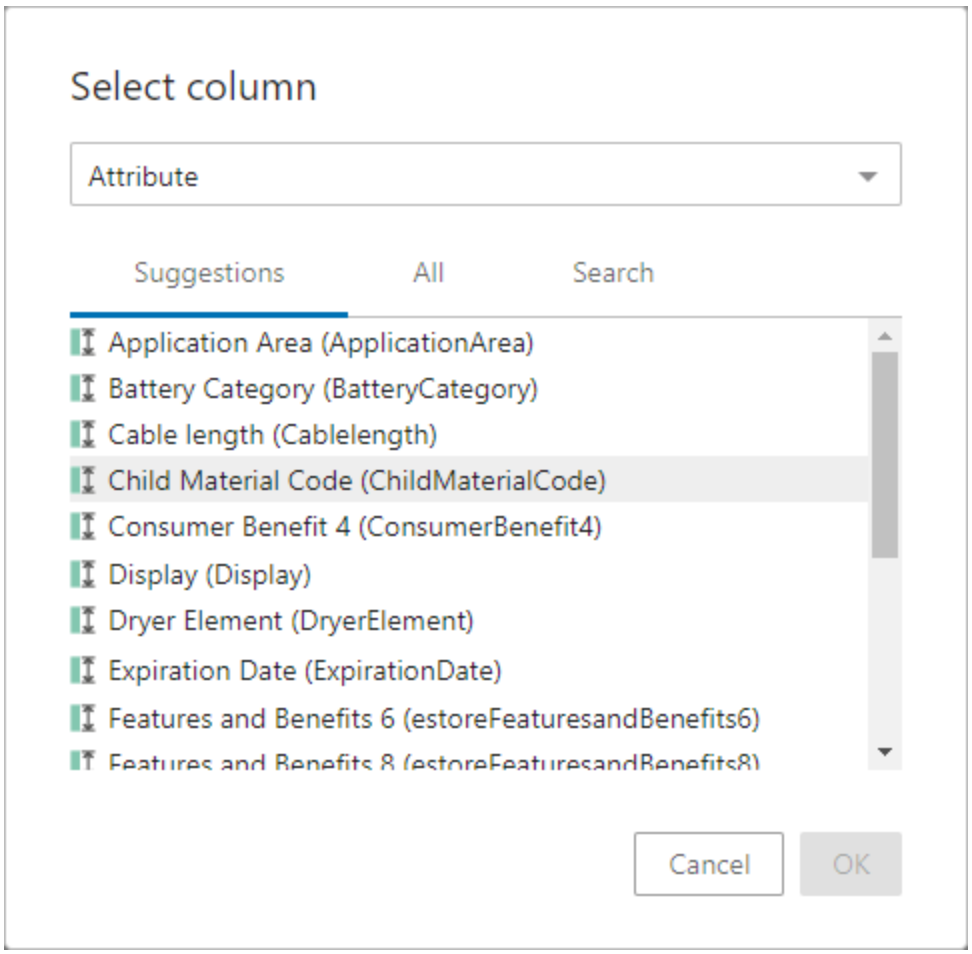
7. Click **Start Export** to begin the background process or **Cancel** to leave the dialog without saving.

   The exported file is automatically named. For example, 'excel-2020-07-24_11.12.27.xlsx' where 'excel' indicates the file type (Excel and CSV are the only options for this action), '2020-07-24_11.12.27' is the timestamp of the background process as YYYY-MM-DD_HH.mm.ss. To assign a new file name, once the file name is displayed in the **Background Process Node Details Screen** as a background process with status 'Succeeded,' right-click the file name link and choose **Save Link As** option to provide the desired file name.

   The file name is also used as the process description and can be viewed in the Web UI in the 'Recent background processes' side panel. For more information, refer to the Recent Background Processes Side Panel topic and the Background Process List Screen topic in the **Web User Interfaces** documentation. For more information on the BG Processes tab in workbench, refer to the BG Processes Tab topic in the Getting Started documentation.

Example

For example, when the attribute option is selected, three tabs are displayed to help you find the required attribute. Suggestions are given based on a sample of the objects in the beginning of the selection. Under the 'All' tab you can browse through all the attributes in the system. Finally, you can search for a given attribute under the 'Search' tab.



If you select ID, Name, or Object Type, no additional information is required. Click **OK** to return to the previous dialog.

The supported sort columns:

- ID Header
- Title Header
- Name Header
- Object Type Header
- Unique Key Header
- Attribute Value Header
- Attribute Group Value Header
- Reference Header
- Workflow Variable Header

- Workflow Deadline Header
- Workflow Status Header

The Workflow Variable Header, Workflow Deadline Header and Workflow Status Header are not supported in the Excel generated using Export Actions and their sort order will not be honored while exporting the excel.

The sort can only be applied to selected objects in the node list. If a user chooses "Export Including below object" or "Export only leaf objects" and those objects are not in the node list, the sorting cannot be applied.

Data Containers in Web UI

When working with product or entity objects in Web UI, there are two components you can use to display and edit data containers. Users are encouraged to incorporate these components into their Web UI in a way that best fits their needs.

Data Container / Attribute Maintenance

Components that are available for displaying and maintaining data containers in Web UI:

- Globally Configured Data Container
- Globally Configured Multi Edit Data Container

A third component, Data Container Table View Editor, has been superseded by the Globally Configured Multi Edit Data Container. Additionally, there is a withdrawn data container component called the **Data Container Attribute View Editor**, which is detailed at the end of this topic.

Globally Configured Data Container

The **Globally Configured Data Container** component allows users to edit attribute values for data container attributes, edit references for data container references, and add / delete data containers on an entity or product object.

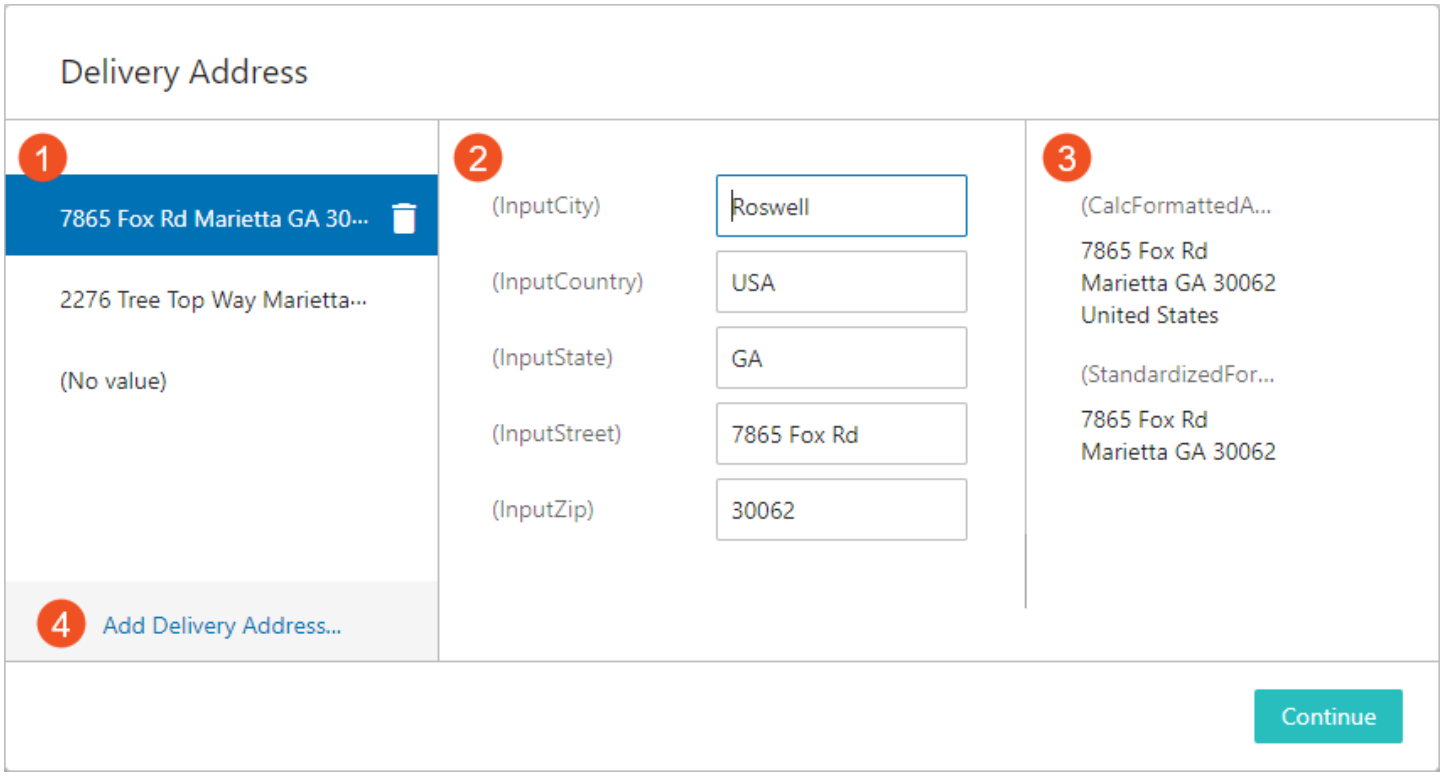
The editor can be configured as a Node Editor child component, set up to display on a Tab Page within a Node Details screen. For information on configuring the Globally Configured Data Container component, refer to the **Globally Configured Data Container** topic in the **Web User Interfaces** documentation.

To configure which attribute values / references display in this component and under what conditions they should be displayed, refer to the **Global Data Container Representations** section of the **Web User Interfaces** documentation.

To edit an existing data container, click on the relevant data container from the component. To add a new data container to the object, click the **Add** link below the component display. Regardless of how you access the editor dialog, options to edit existing data containers and add new ones will be available.



The **Globally Configured Data Containers** dialog is split into several different sections:



1. The data container selector on the left-hand side of the dialog displays all of the data containers of a specified type that are currently on the object. The specific data container type is defined in the component configuration. The name of the data container is derived from the **Display Attribute** parameter, configured on the Global Data Container Representations component, and is typically comprised of different attribute values that define the data container. Newly added data containers appear on this list and can be removed by clicking the 'trashcan' icon.

   Note: Viewing inherited data containers is not possible in the Globally Configured Data Container popup dialog. Instead, a 'No Existing Entries' message displays on the left-hand side of the dialog.

2. The selected data container's editable attributes / references are listed in the middle section of the dialog. Each attribute value or reference can be edited in their respective fields. The attributes / references that appear in this section are derived from a list of attributes / references specified by the **Editable Attributes and References** parameter in the Global Data Container Representations component.
3. The selected data container's 'Read Only' attributes and references are listed in the right-hand side of the dialog. These values cannot be edited. The attributes and references that appear in this section are derived from a list of attributes / references specified by the **Read Only Attributes and References** parameter in the Global Data Container Representations component.
4. To add a new data container, click the **Add** link in the bottom left-hand corner of the dialog.
5. Once finished, click **Continue**.

Data Container Table View Editor

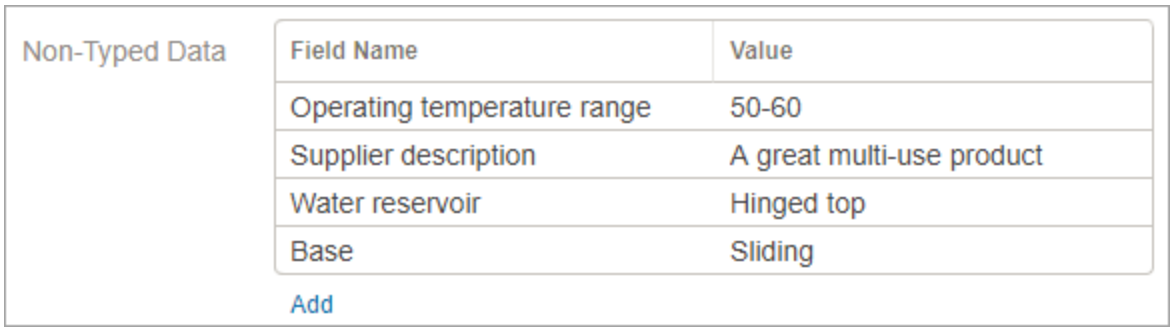
The **Data Container Table View Editor** component allows users to edit attribute values for data container attributes, and add / delete data containers on an object. Unlike the Globally Configured Data Container component, these data containers appear as rows on a table.

Note: References cannot be displayed using this component.

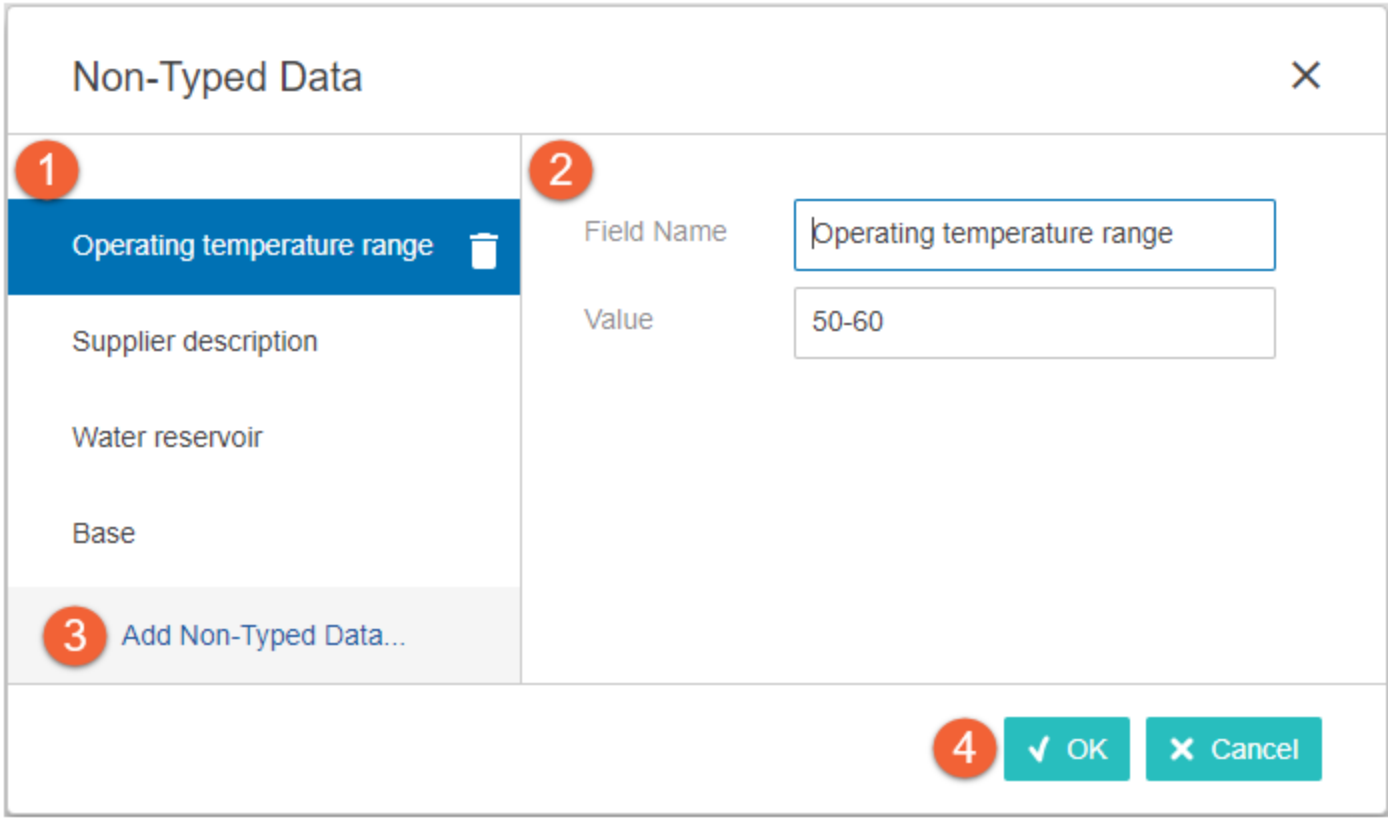
The editor can be configured as a Node Editor child component, set up to display on a Tab Page within a Node Details screen. For information on configuring the Data Container Table View Editor, refer to the **Data Container Table View Editor** topic in the **Web User Interfaces** documentation.

Note: The Data Container Table View Editor is not compatible with the Global Data Container Representations component, and therefore uses its own configuration settings.

To edit an existing data container, click on the relevant data container from the table. To add a new data container to the object, click the **Add** link below the table. Regardless as to how you choose to access the editor dialog, options to edit existing data containers and add new ones will be available.



The **Data Container Table View Editor** dialog is split into several different sections:



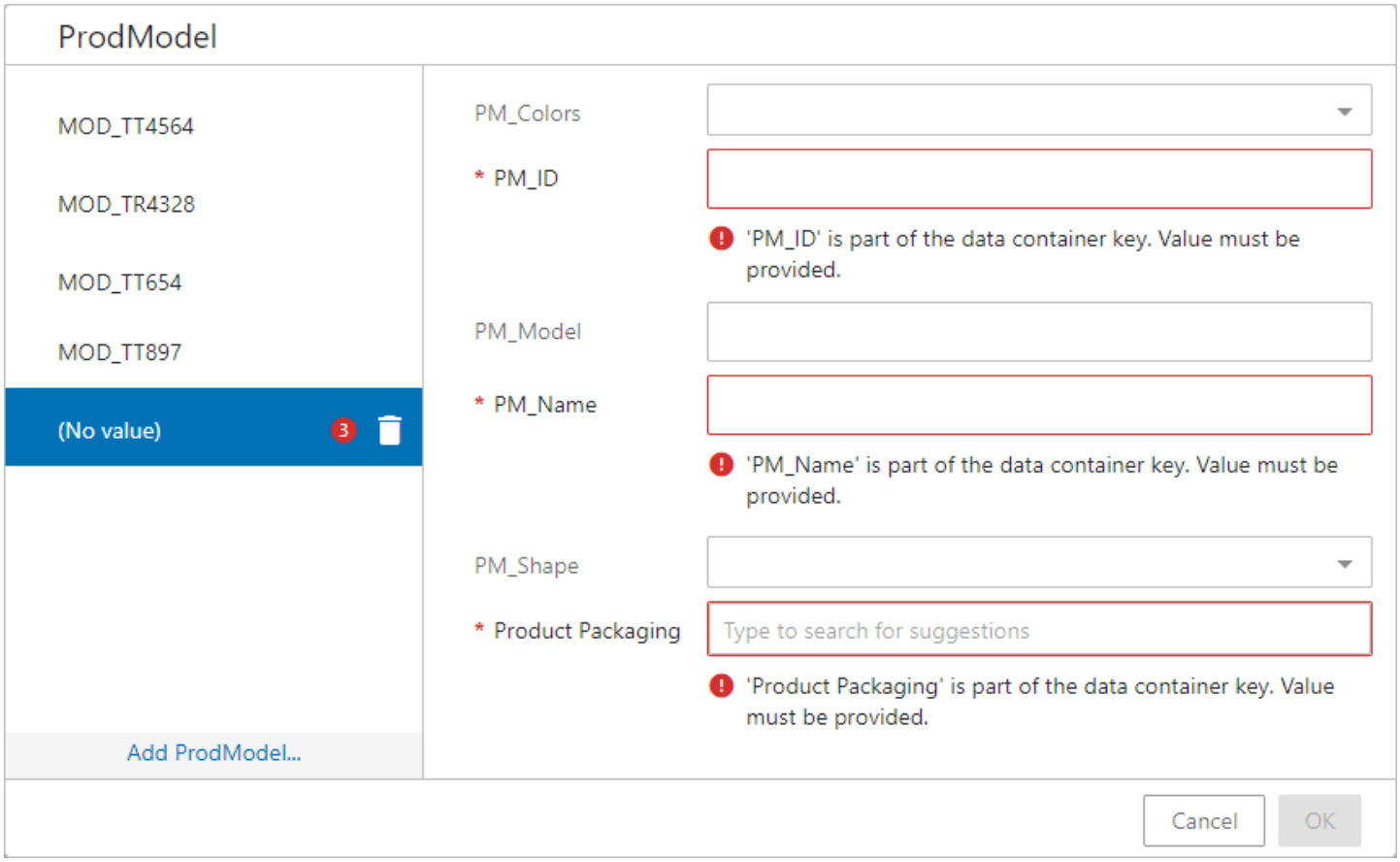
1. The data container selector on the left-hand side of the dialog displays all of the data containers of a specified type that are currently on the object. The specific data container type is defined in the component configuration. The name of the data container is derived from the Display Attribute configured on the component, and is typically comprised of different attribute values that define the data container. Newly added data containers appear on this list and can be removed by clicking the 'trashcan' icon.
2. The selected data container's editable attributes are listed in the middle section of the dialog. Each attribute value can be edited in their respective fields. The attributes that appear in this section are derived from the attribute group specified by the Editable Attributes parameter in the configuration.
3. To add a new data container, click the **Add** link in the bottom left-hand corner of the dialog.
4. Once finished, click **OK**.

Data Container Keys

When a data container object type is initially created in the workbench, users have the option to create a data container key. A data container key is a unique identifier for the data container object type, and is based on the values of selected attributes and/or the target object IDs of selected reference types. For some users, a data container key is more useful as an identifying label than a standard alpha-numeric key because the data container key contains information specific to that data container. Additionally, data container keys can be used to identify data containers when they are imported (e.g., from an external system that cannot identify an internal STEP ID) and to ensure that duplicate data containers are not created.

When a new data container is created based on a data container object type that has a configured data container key, users must provide values for the attributes and/or reference types that make up the data container key in order for the data container to be saved. The attributes and/or reference types that make up a data container key are clearly identified during the data container creation process.

In the example below, the attributes 'PM_ID,' 'PM_Name' and the reference type 'Product Packaging' are part of the data container key; therefore, values must be provided for these attributes and reference types before the data container can be saved.



Note: Only users with the 'Edit Data Containers' privilege can make edits to the attributes /reference types after they have been assigned to data containers. It is recommended that only select admin users have this privilege added to their user profile and that this privilege be used sparingly to avoid creating duplicate keys. For more information regarding privileges, refer to the **User Actions and Error Descriptions** topic in the **System Setup** documentation.

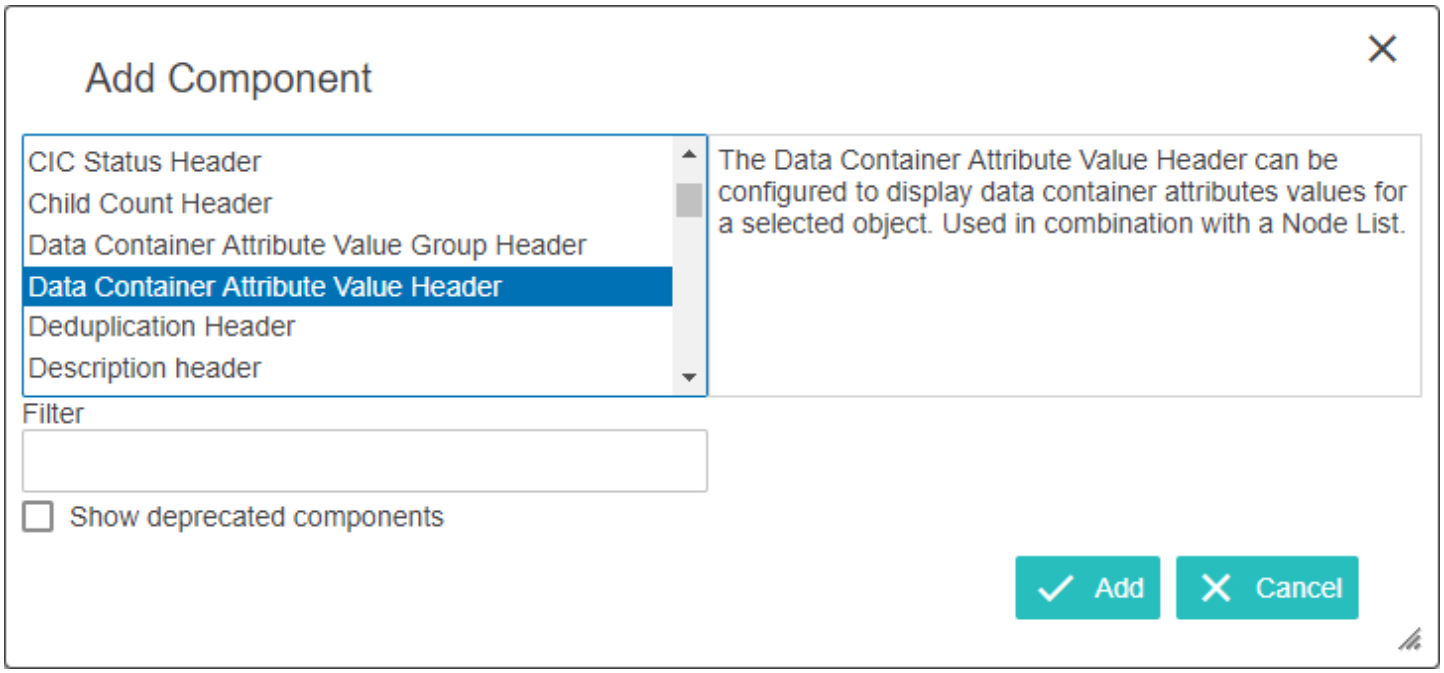
For more information regarding data container keys, refer to the **Data Container Keys** topic in the **System Setup** documentation.

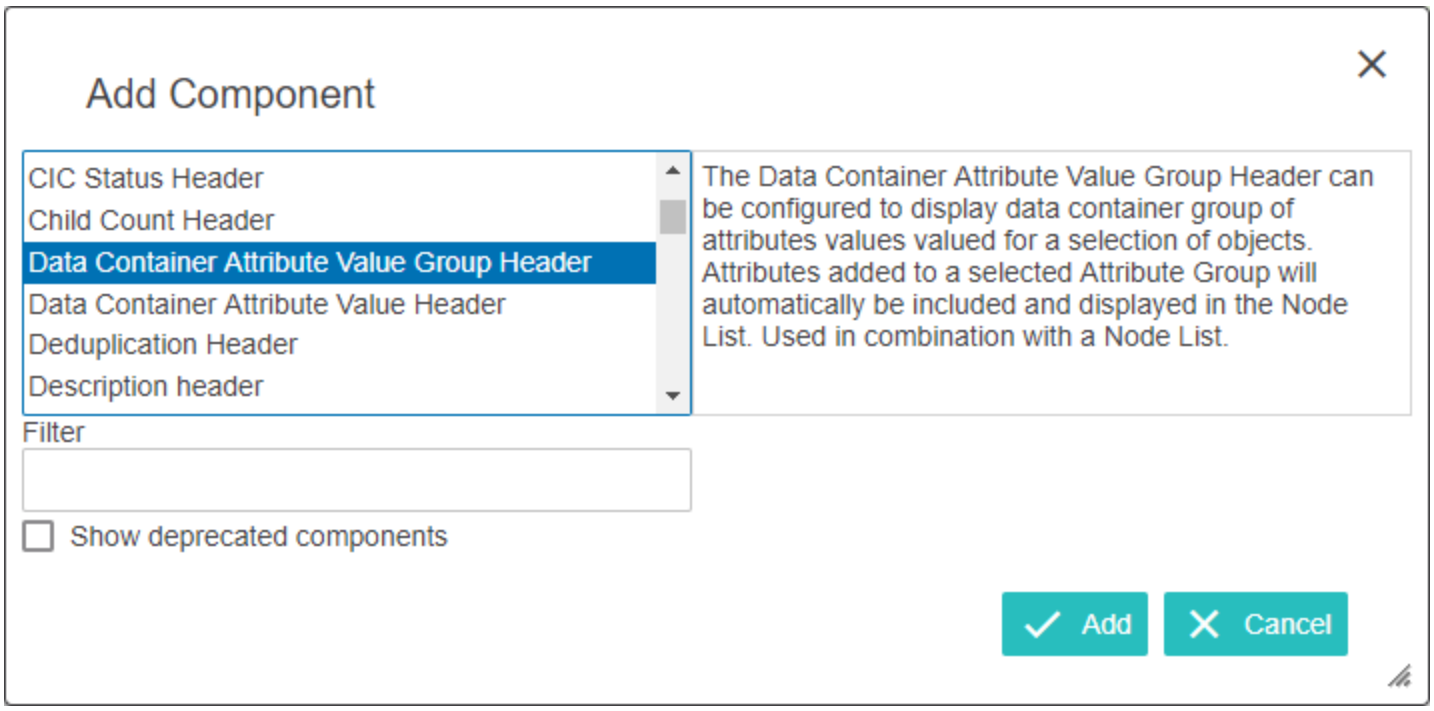
Additional Web UI Functionality

There are other areas of Web UI in which users can view data containers and their associated attributes as read-only. It is expected that working with objects that have data containers is like working with any other object, keeping in mind the functionality list and the limitations outlined in the **Data Containers** introduction in the **System Setup** documentation.

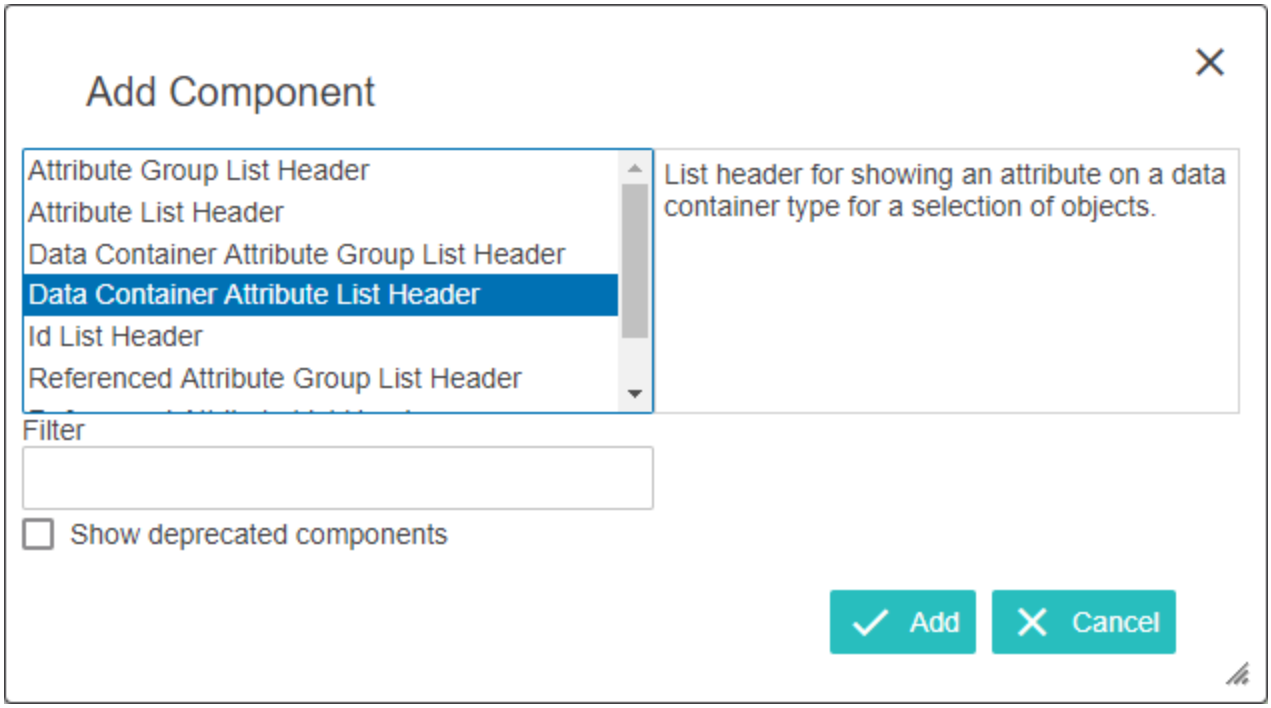
Depending on the screen / component you are working with, there are Data Container components that can be used when you look at entities in various situations. Additional functionality may be described in greater detail in relevant topics and the bullets below do not represent an all-inclusive list nor do they show end-user functionality.

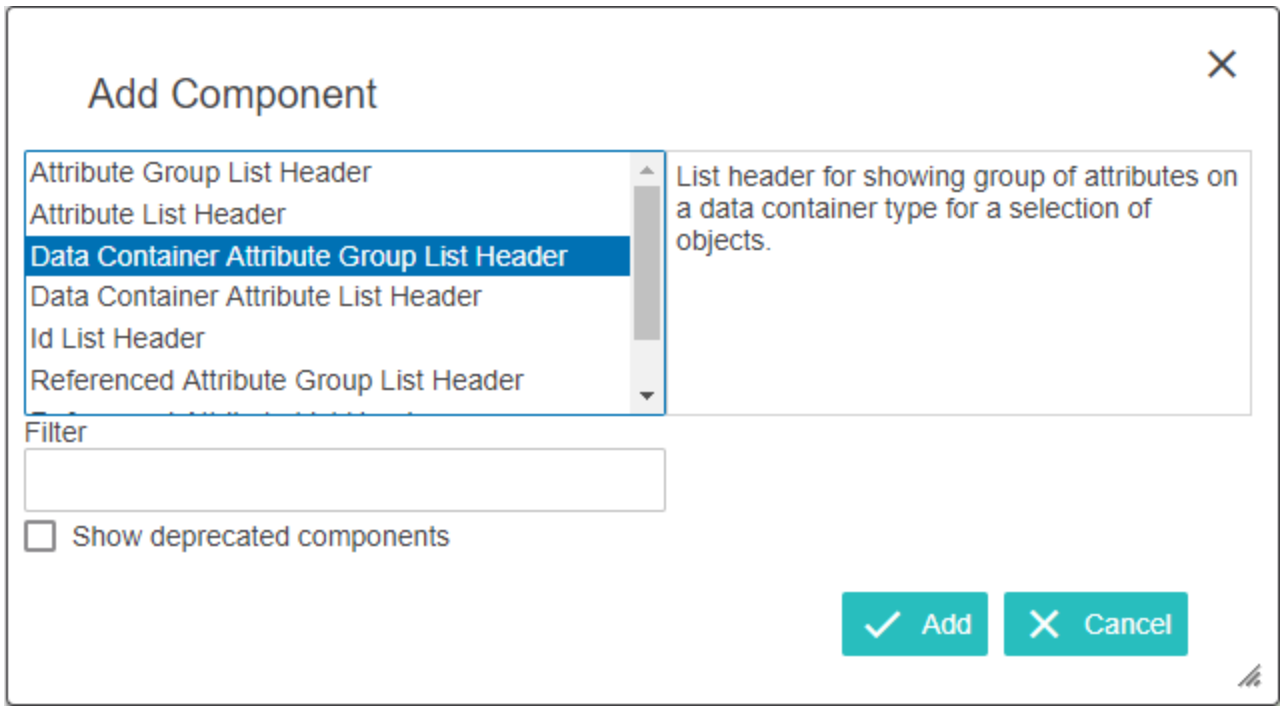
- Data Container Value Header and Data Container Value Group Header (to be used within a Node List in Multi Edit or Table display modes; read only)





- Data Container Attribute List Header and Data Container Attribute Group List Header (to be used within a Dialog List Screen used to display a list of results for template selection and finding similar objects using Find Similar / Find Existing actions).

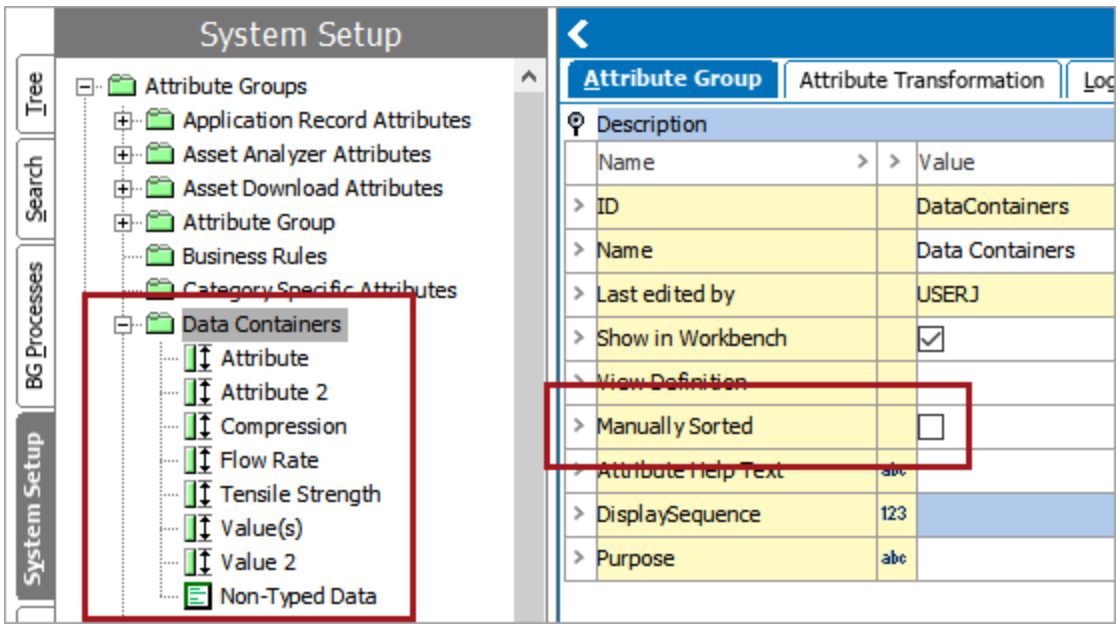




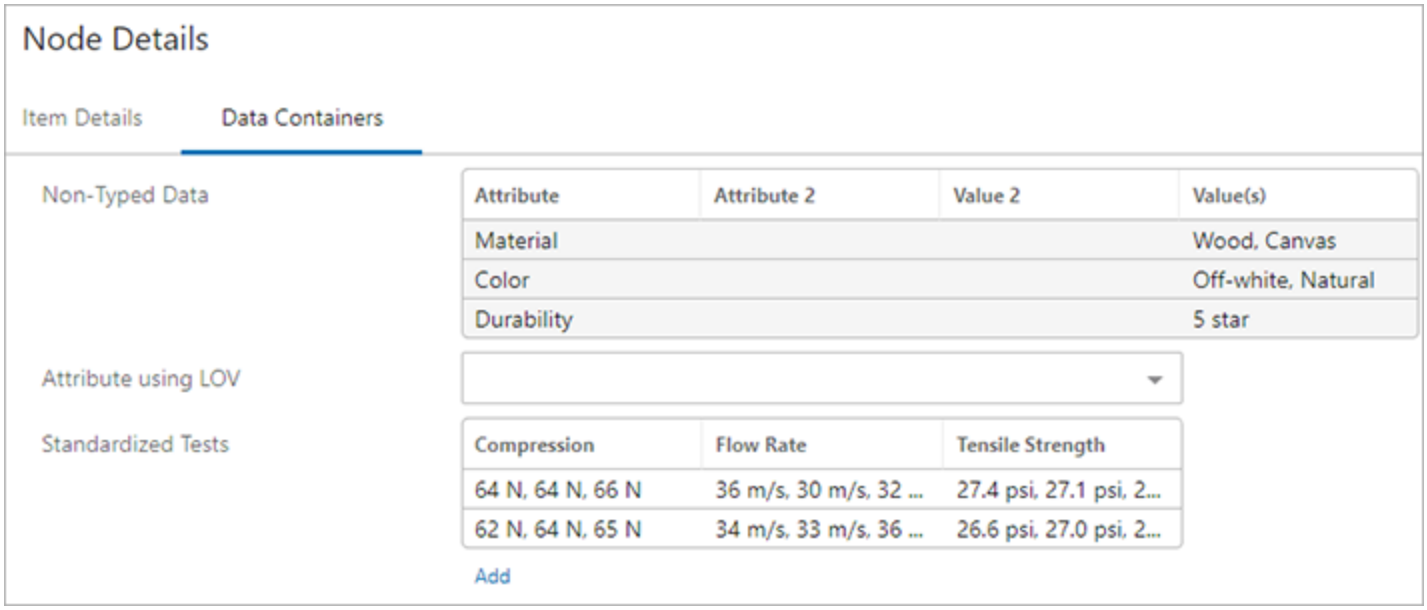
Refer to the **Web User Interfaces** documentation for more information regarding how to configure and use Web UI screens and components.

It is possible to change the visual sorting order of the attributes in a Data Container in Web UI. From the STEP Workbench, navigate to the parent folder of the data container with the associated attributes. Notice in the following image that the attributes are listed alphabetically because the 'Manually Sorted' option is unchecked.

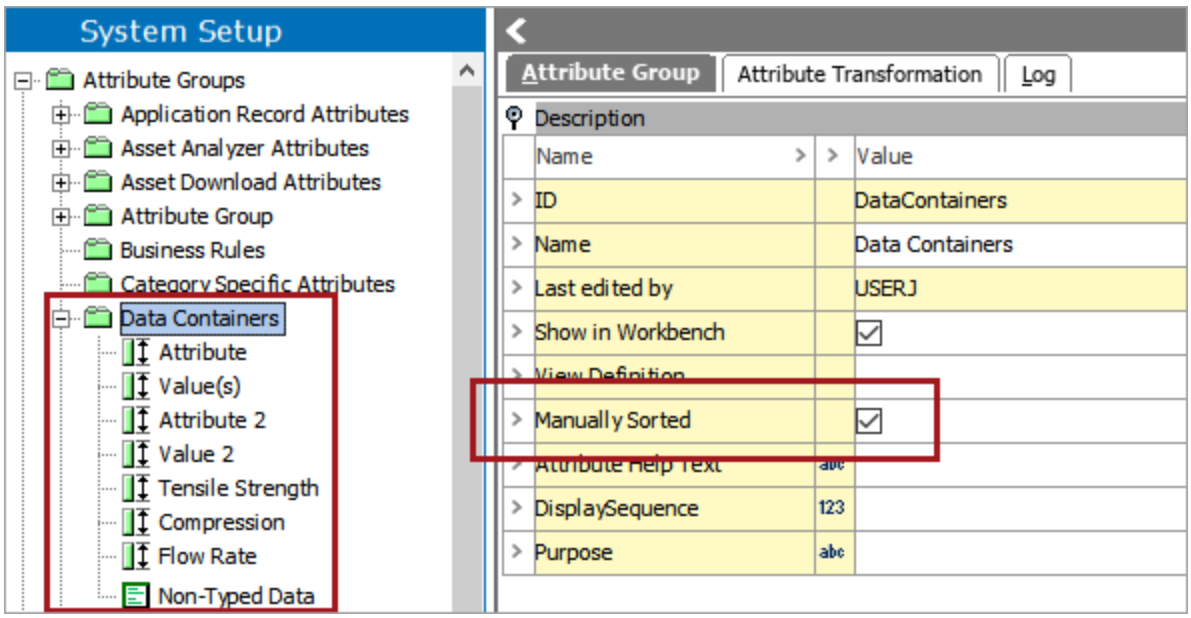
Note: The Globally Configured Data Container component ignores this function and sorts attributes / references based on the order they appear in the global representations settings.



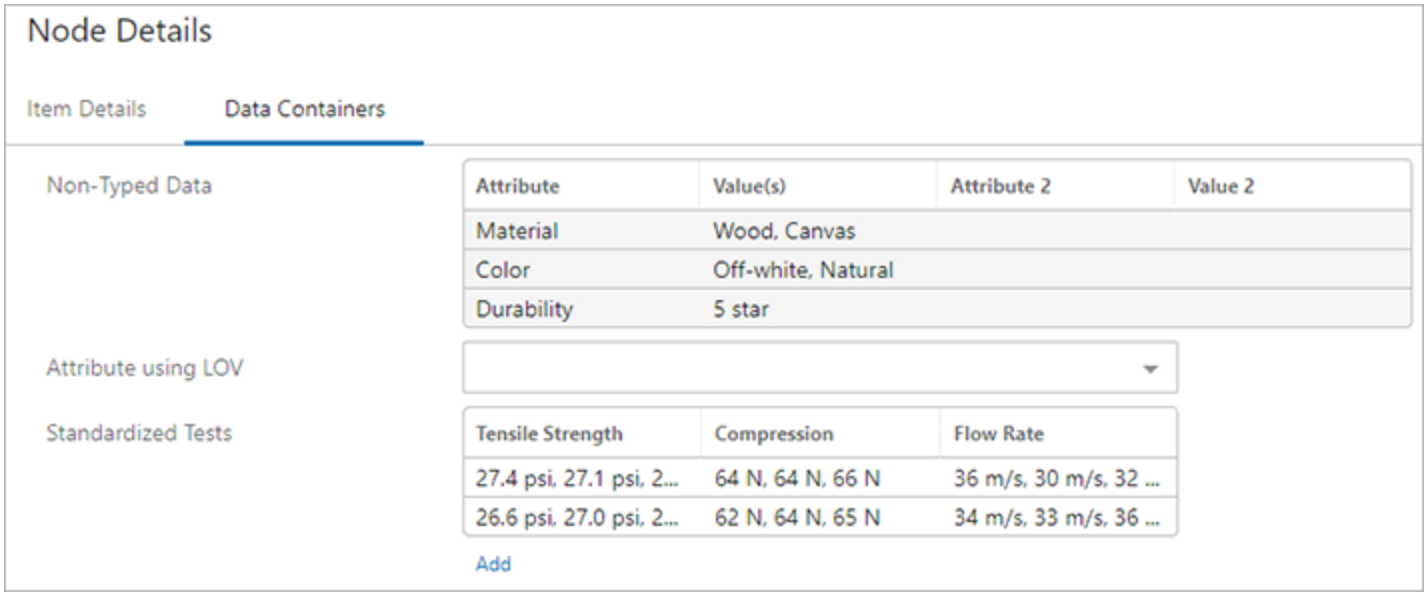
In Web UI, the Data Container for this object shows the attributes in this alphabetical order.



Once the 'Manually Sorted' option is selected and the attributes are rearranged in the desired order, the results will appear like so in the workbench.



In Web UI, the order mimics how it was set in workbench.



Note: This changing of order only affects the order in Web UI. The alphabetical order is maintained no matter what is done in the workbench.

Globally Configured Data Container

The Globally Configured Data Container component can be used to display and edit data container attribute values / references, and add / remove data containers in Web UI. For details regarding how the editor is used, refer to the **Data Containers in Web UI** topic.



Note: This component is optimized for customer data such as addresses, emails, and phone numbers.

Prerequisites

It is expected that anyone configuring the Globally Configured Data Container component is familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Also, before adding the Globally Configured Data Container component, it is expected that Data Containers and their associated attributes / references are already set up. For details, refer to **Setting Up Data Container Types in Workbench** in the **System Setup** documentation.

Adding a Globally Configured Data Container Component

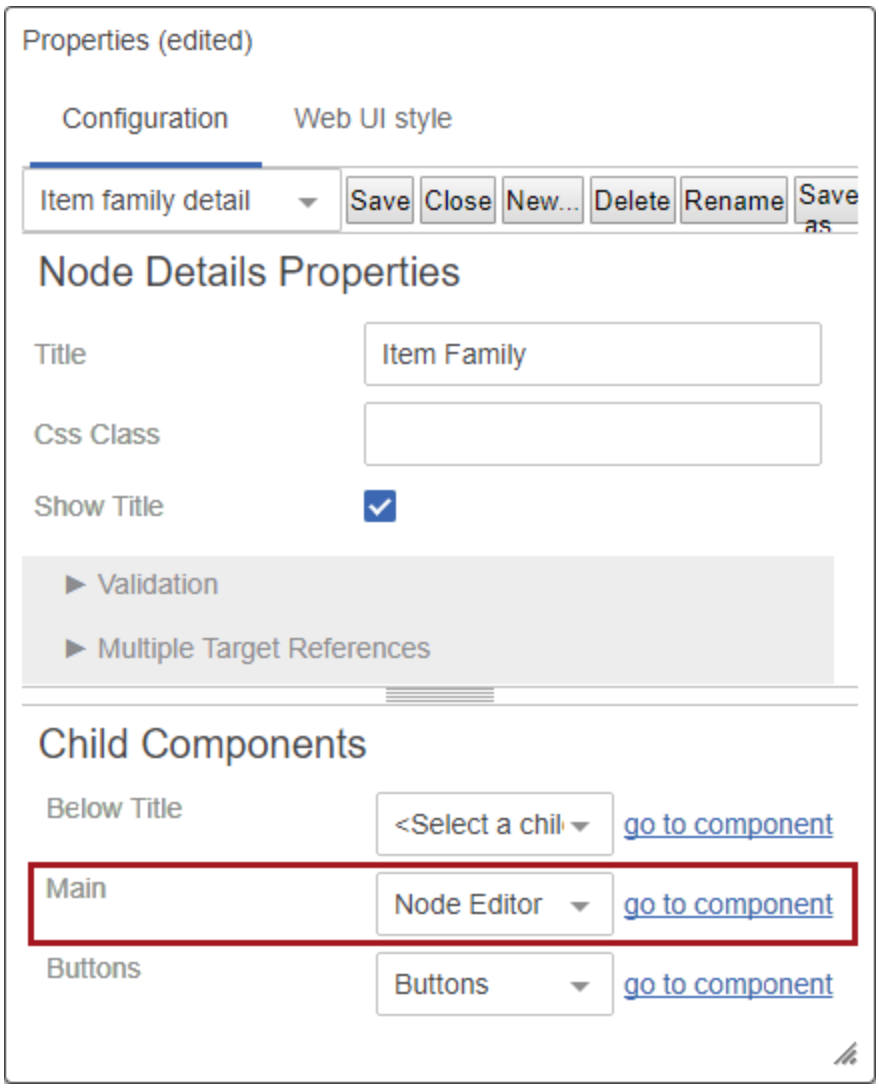
The Globally Configured Data Container component must be created on a Node Details screen type, and more specifically, on a Node Editor child component. The first step in configuring this component is to select an existing Node Details screen to add the component, or to create a new screen.

Steps for creating a new Node Details screen are outlined in the adding a new **Node Details Screen** topic in the **Web User Interface** documentation.

Additionally, the Save action button should be added to the Node Details screen so that users may save any changes they make to the data containers and attribute values / references.

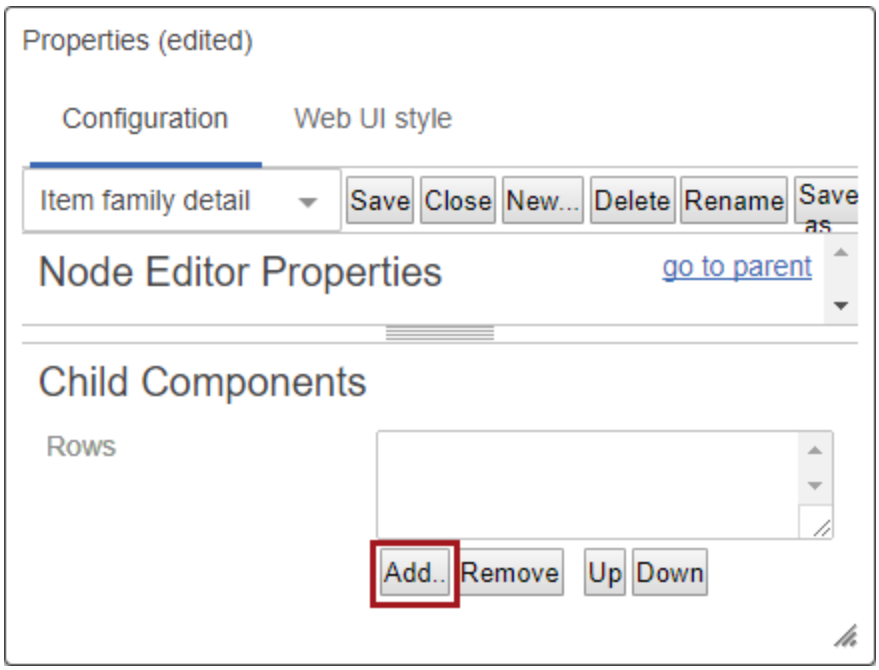
The Globally Configured Data Container can display both single-valued and multi-valued data container types in a similar manner to how attribute values are displayed.

1. Once a screen is set up, navigate to the applicable Node Editor > **go to component**.

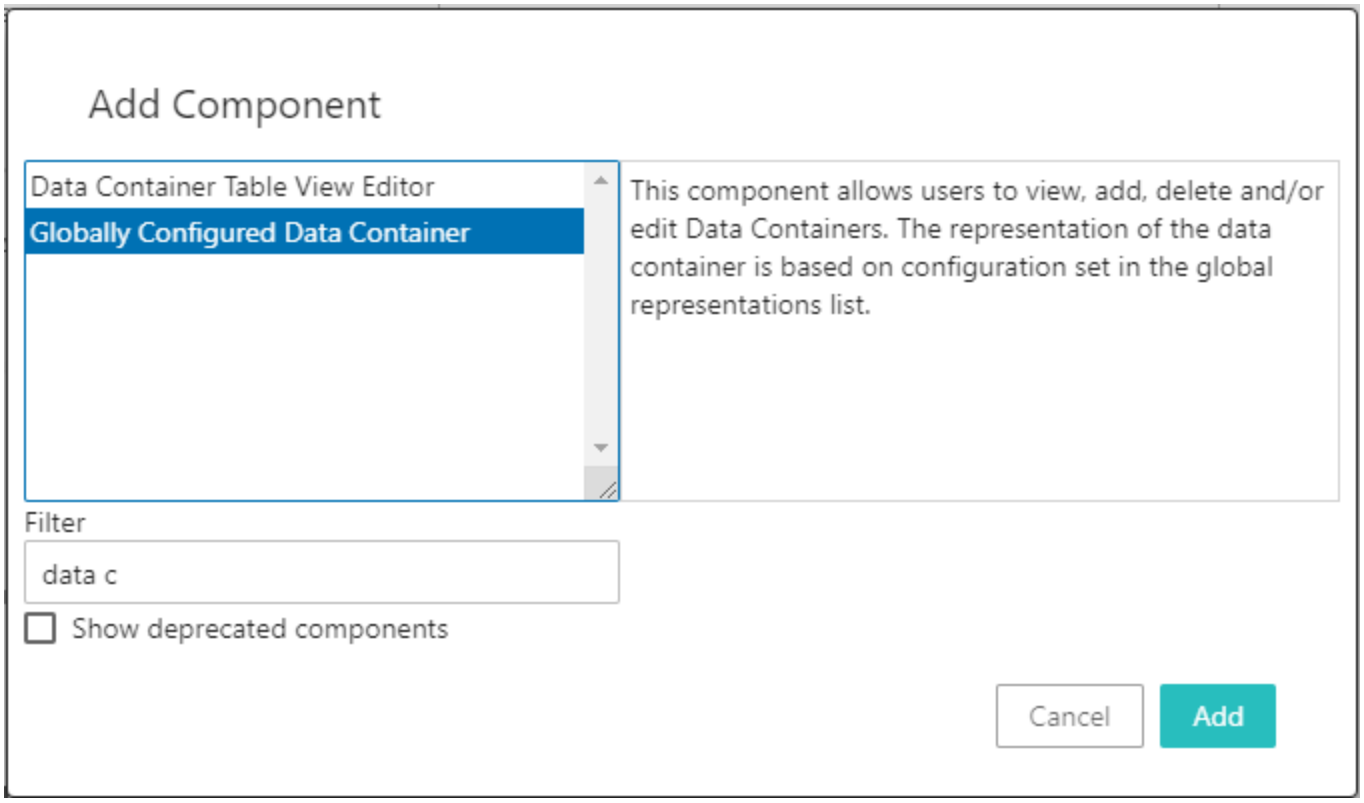


Note: Depending on how the screen is configured, the Node Editor may require more navigating to reach.

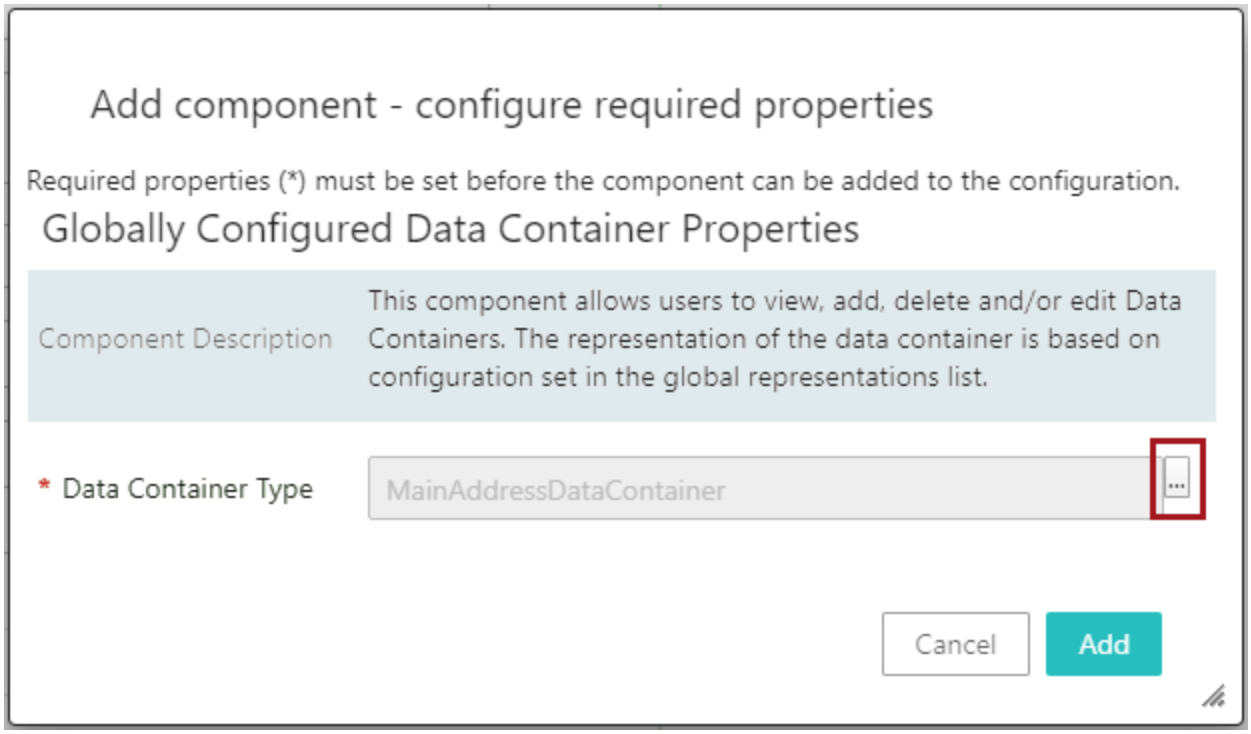
2. In Child Components > Rows, click **Add**.



3. Select **Globally Configured Data Container** from the Add Component dialog, then click **Add**.



4. On the Globally Configured Data Container Properties dialog, click the ellipsis button (...) for the **Data Container Type** parameter, then browse or search for the data container type to display in the component.



To configure which attribute values / reference display in this component and under what conditions they should be displayed, refer to the **Global Data Container Representations** section of the **Web User Interfaces** documentation.

Globally Configured Multi Edit Data Container

The Globally Configured Multi Edit Data Container component can be used to display data container attribute values in a table view on a Node Details screen, edit data container attributes, and add / remove data containers. For details regarding how the editor is used, refer to the **Data Containers in Web UI** topic.

Prerequisites

Anyone configuring the Globally Configured Multi Edit Data Container component must be familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Additionally, before adding the Globally Configured Multi Edit Data Container component, data containers and their associated attributes must already be set up. For details, refer to **Setting Up Data Container Types in Workbench** in the **System Setup** documentation.

Adding a Globally Configured Multi Edit Data Container

The Globally Configured Multi Edit Data Container component must be created on a Node Editor child component within a Node Details screen. The first step in configuring this component is to select an existing Node Details screen to add the component to or to create a new screen.

> **Note:** This component can be used for product, entity and classification objects.

Steps for creating a new Node Details screen are outlined in the adding a new **Node Details Screen** section of the **Web User Interfaces** documentation.

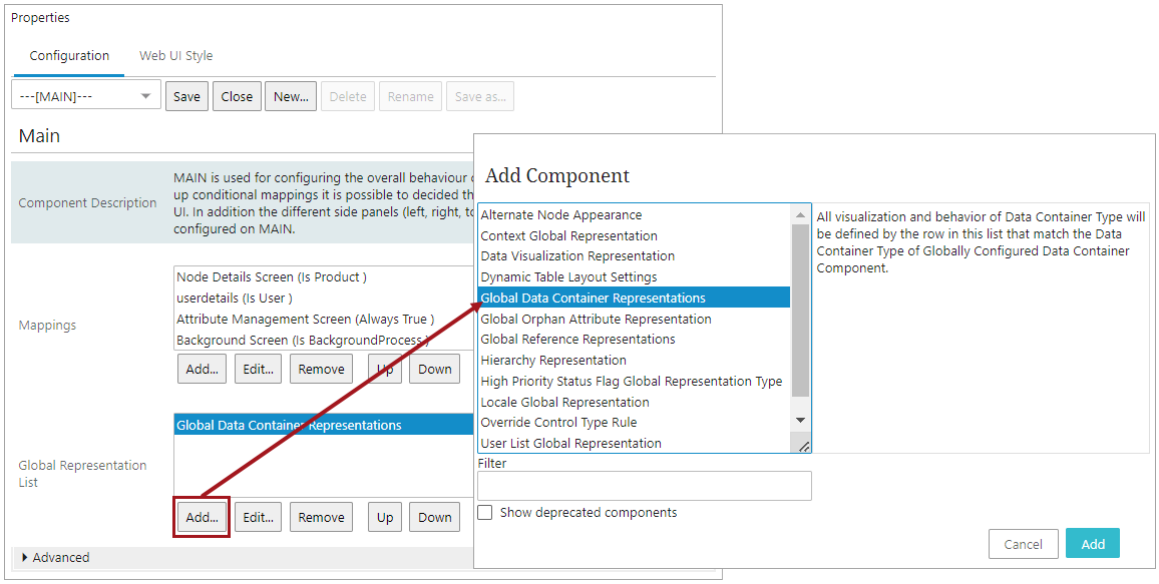
Additionally, the Save action button should be added to the Node Details screen so that users may save any changes they make to the data containers and attribute values.

Globally Configured Multi Edit Data Container can display both single-valued and multi-valued data container types in a similar manner to how attribute values are displayed.

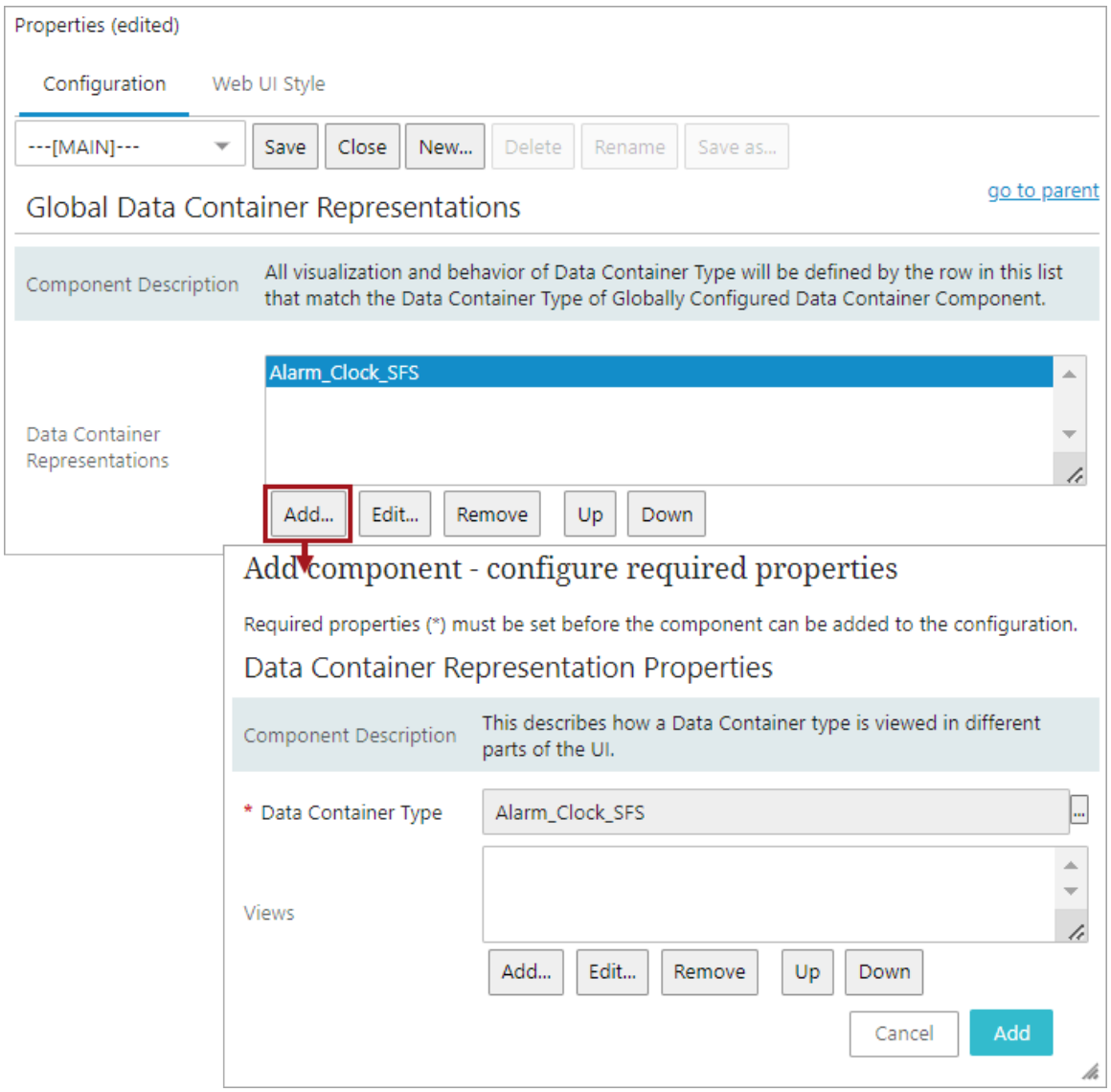
Before adding Globally Configured Multi Edit Data Container in the Node Editor, the Multi Edit Table View component should be configured within Global Data Container Representations.

Configuring the Multi Edit Table View within Global Data Container Representations

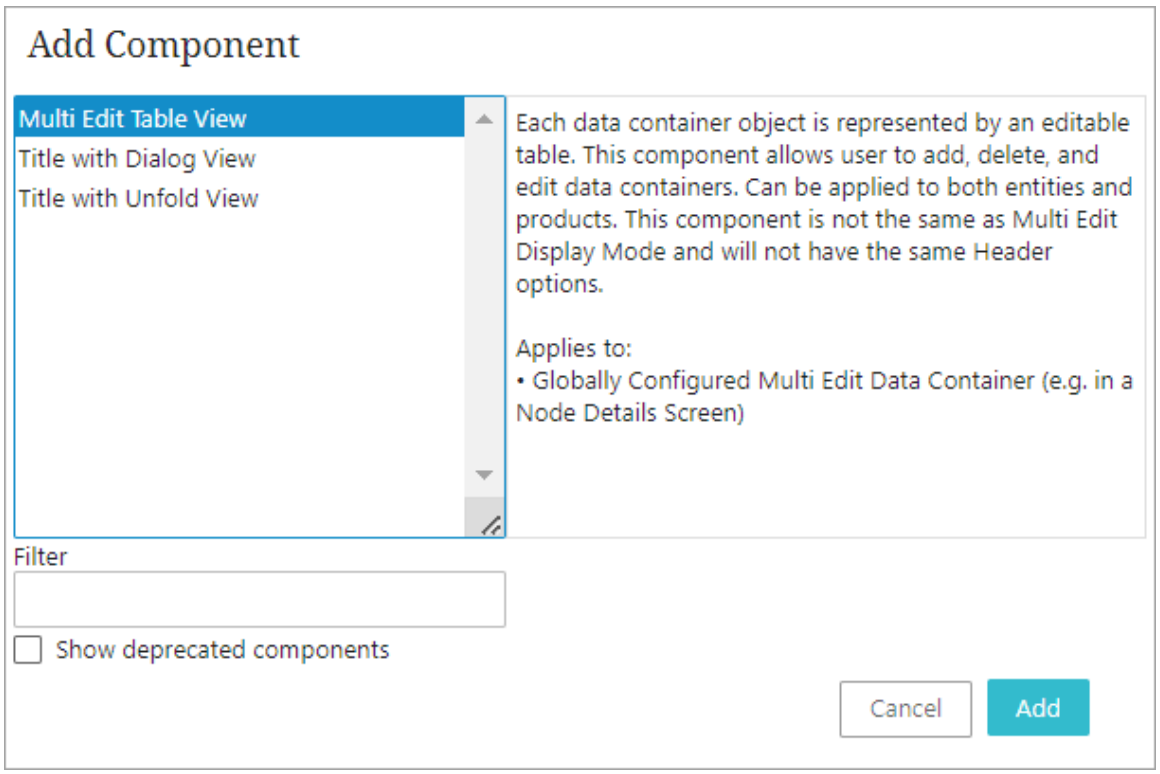
1. Select **Global Data Container Representations** from **Global Representation List**, click **Add**.



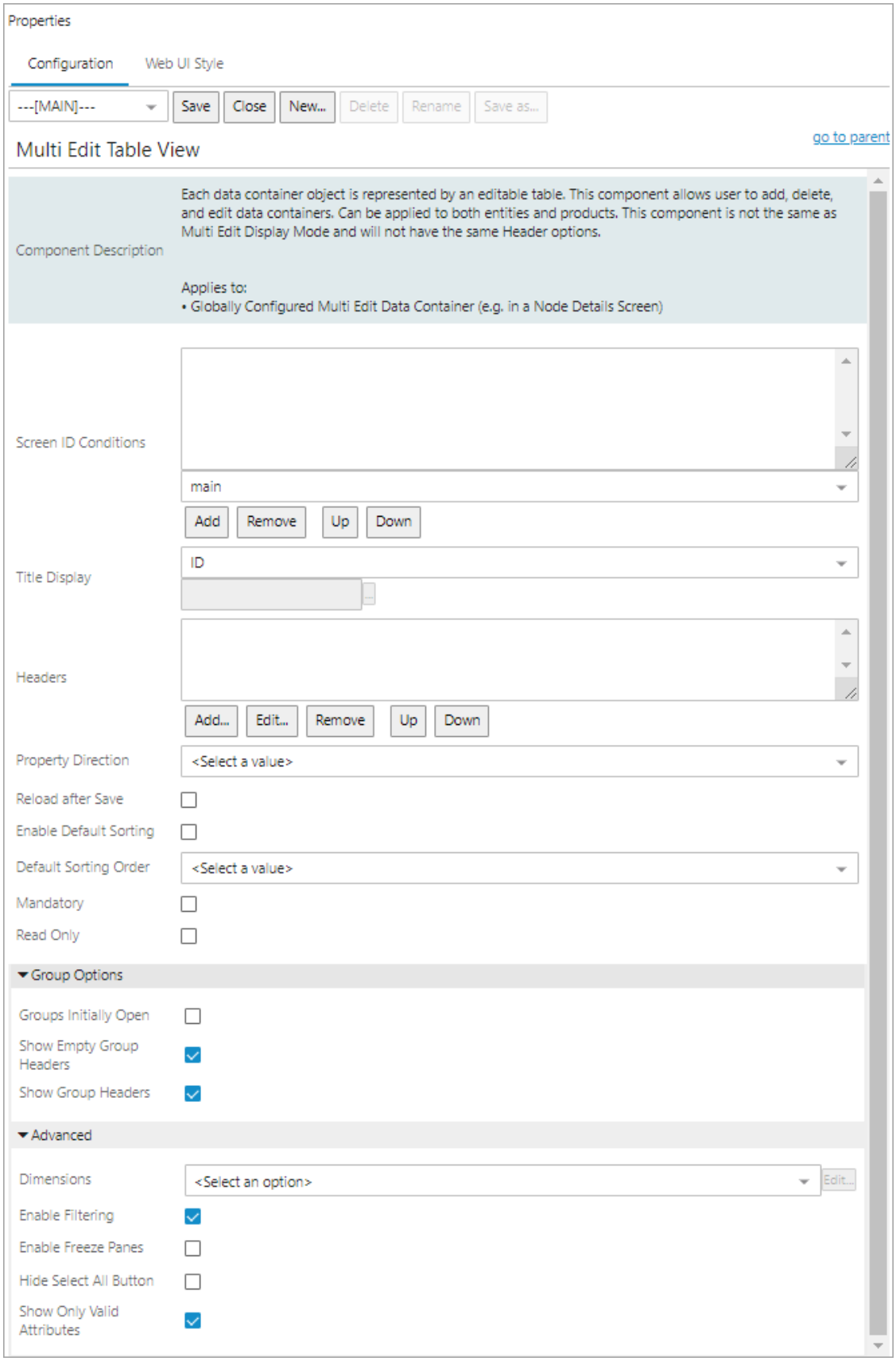
2. Select the **Data Container Type**, click **Add** to select **Views**.



3. Select **Multi Edit Table View**, click **Add**.



4. The Multi Edit Table View Properties Dialog opens for the user to enter valid information.


Properties
Configuration
Web UI Style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Multi Edit Table View
Component Description
Each data container object is represented by an editable table. This component allows user to add, delete, and edit data containers. Can be applied to both entities and products. This component is not the same as Multi Edit Display Mode and will not have the same Header options.
Applies to:
• Globally Configured Multi Edit Data Container (e.g. in a Node Details Screen)
Screen ID Conditions
main
Add
Remove
Up
Down
Title Display
ID
Headers
Add...
Edit...
Remove
Up
Down
Property Direction
<Select a value>
Reload after Save
Enable Default Sorting
Default Sorting Order
<Select a value>
Mandatory
Read Only
Group Options
Groups Initially Open
Show Empty Group Headers
Show Group Headers
Advanced
Dimensions
<Select an option>
Edit...
Enable Filtering
Enable Freeze Panes
Hide Select All Button
Show Only Valid Attributes

5. For the **Screen ID Conditions** parameter, if the configured data container view is restricted to display on specific Web UI screens, add them to this field by selecting the relevant screens from the dropdown list below. Web UI screens not in this list will not have this data container configured for display on that screen. If no screens are added, then the configured view applies to all screens.
6. The **Title Display** parameter determines what text element displays with the checkbox in the first column of the data container table. Select from the data container ID, just the checkbox (no text element), or an attribute value. If the selected option is 'Attribute', select the desired attribute from a Node Picker window by clicking the ellipsis button (...).
7. For the **Headers** parameter, you can choose which data container information is displayed by selecting the desired headers in this field. Each header will display as a column in the data container table. Determine the column ordering by using the **Up** and **Down** buttons. Select from the following header types: Attribute Value Group Header, Attribute Value Header, ID Header, and Reference Header.
8. The **Property Direction** parameter determines the orientation of information on the data container table. If '<Select a value>' or 'HORIZONTAL' is selected, the headers will display horizontally on the table as columns. If 'VERTICAL' is selected, the headers will display vertically, as rows.
9. The **Reload after Save** parameter, when enabled, immediately refreshes the information within the data container following a successful save. Consider enabling this feature if multiple users are tasked with updating the same data container.
10. The **Enable Default Sorting** parameter, if enabled, initially sorts the data container table by the contents of the first column (or row, if the Property Direction is set to VERTICAL). When disabled, the table will load with no sorting.
11. The **Default Sorting Order** parameter, if enabled, allows users to select whether tables load in ascending or descending order. If Enable Default sorting is not checked, the system will sort the rows in ascending order based on the ID value.
12. The **Mandatory** parameter indicates visually that the data container is mandatory by placing a red asterisk by the parameter name.
13. The **Read Only** parameter, if checked, prevents editing of the information within the data container table and overrides Read Only settings applied to individual columns.

Under Group Options:

1. When the **Groups Initially Open** parameter is enabled, Attribute Value Group Headers configured in the Headers field will display as open upon loading, meaning all valid attributes within the attribute group will display as columns.

   Note: If the Show Group Headers setting is not enabled, the groups will show as open regardless of how this parameter is set.

2. When the **Show Empty Group Headers** parameter is checked, Attribute Value Group Headers will display (as a blank column) even if there are no valid attributes within that attribute group. If left unchecked, those headers will not display.

3. When the **Show Group Headers** parameter is checked, Attribute Value Group Headers will display as collapsible / expandable blank columns to the left of the valid attributes (each displaying a column) contained within those groups. If unchecked, the attributes within the attribute groups will display without reference to their attribute group.

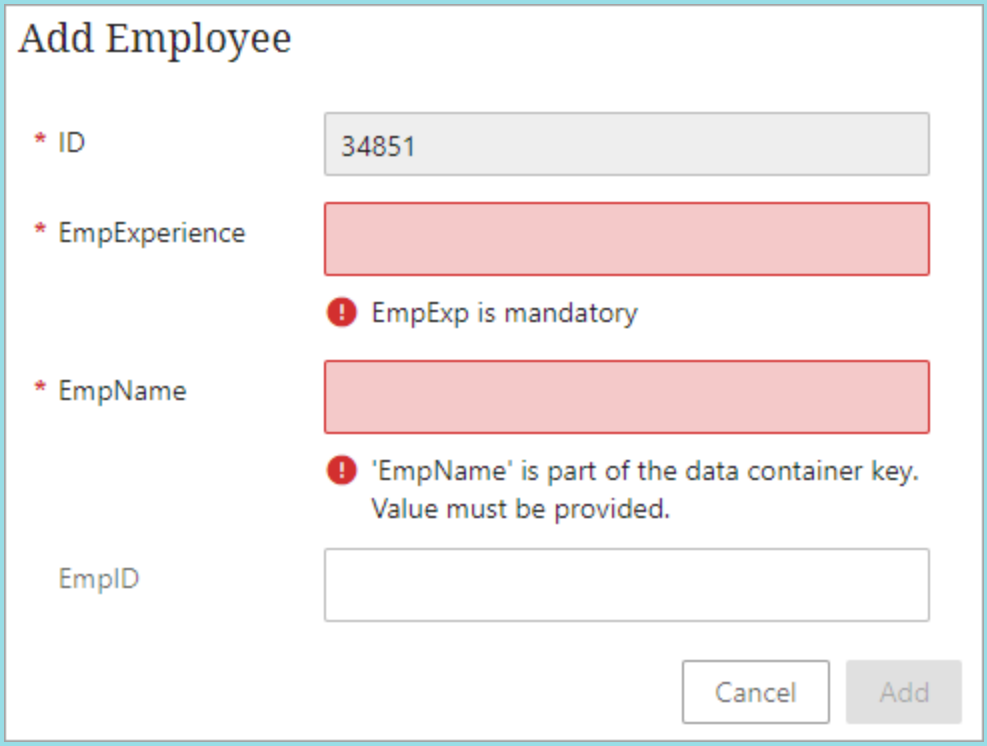
Under Advanced:

1. The **Dimensions** parameter allows users to configure the size of the table by configuring the precise measurements of the columns and rows. Select 'Compare Display Mode Dimension' from the dropdown, and assign a numerical value (in pixels) to the columns and rows that comprise the table.
2. When the **Enable Filtering** parameter is checked, it enables users to filter the data container table by clicking the header and choosing the desired options from the dialog that displays.
3. The **Enable Freeze Panes** parameter enables display of a Freeze Panes button. With a cell selected, click the button to lock a section of the table in place vertically and horizontally while the unlocked section can be scrolled. If the table is not large enough to support a scroll, no part of the table can be frozen.
4. The **Hide Select All Button**, when checked, hides the Select all button. If unchecked, the Select all button displays.
5. When **Show Only Valid Attributes** is checked, only those attribute headers with attributes that are valid for the object being viewed will display.

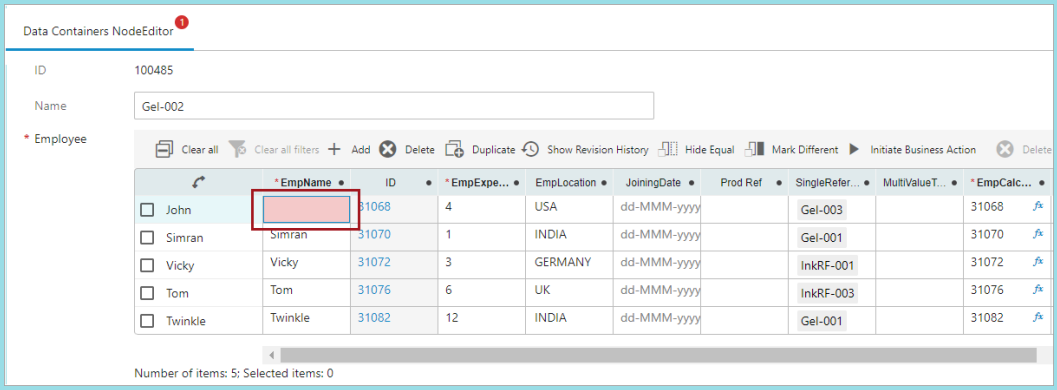
Child Components:

1. The **Add Data Container Action** is an toolbar action component which allows users to add data container objects.

> **Note:** If the parameter 'Enforce Validity' is enabled, the 'Add' button will not enable if the fields has missing mandatory values or data container key attributes, will be shaded red, and an error message will display below the field. These visual prompts compel the user to enter the missing values.



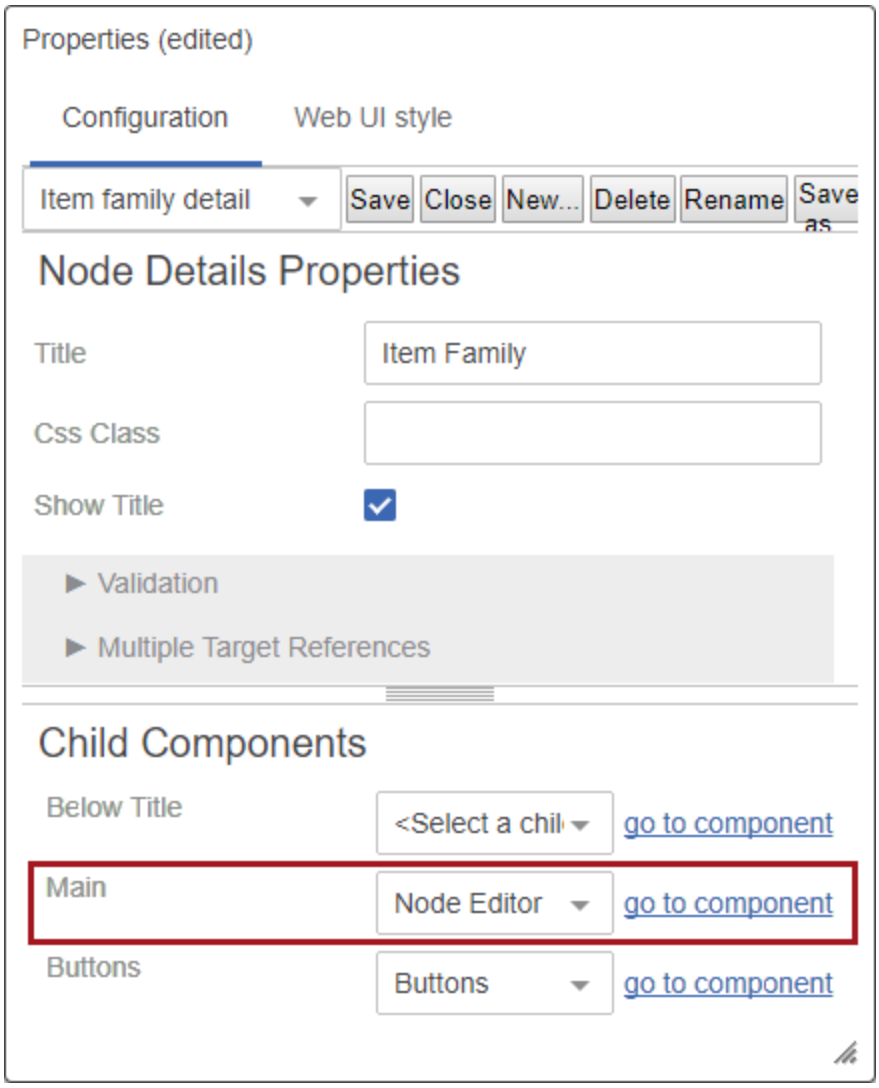
If data container key attribute values are missing inside of a data container table, then the cell is shaded red to indicate the error.



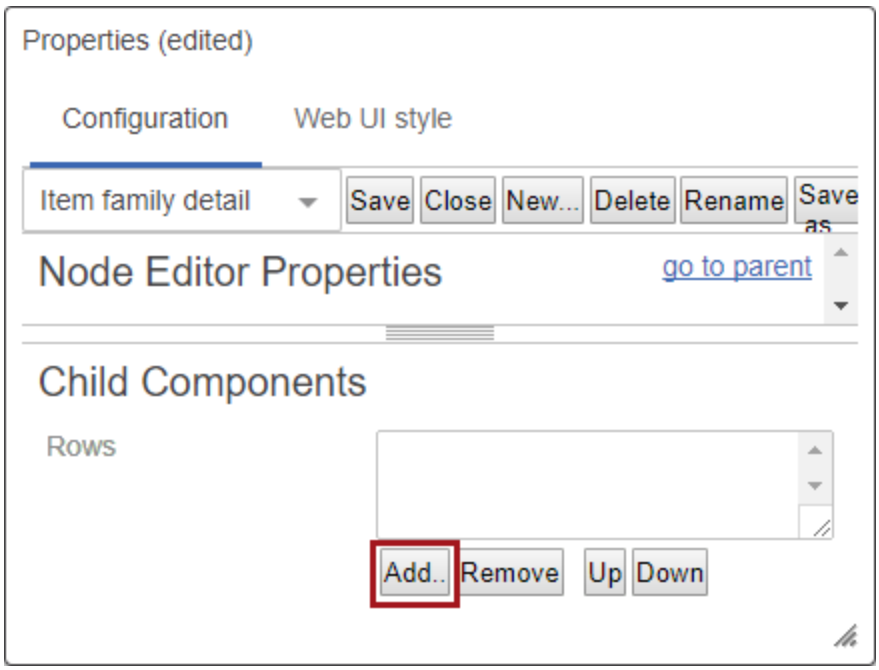
2. The **Delete From Grid Action** deletes the selected items in a grid or table.
3. The **Duplicate Data Container Action** is an toolbar action component which allows users to duplicate data container objects.
4. The **Hide Equal** is a toggle button that will hide columns if all values are equal.
5. The **Mark Different** is a toggle button that will mark columns if at least one value is different from the other values.

6. The **Menu Group** is a component that can be added to any node list as a toolbar action and serves to group other toolbar actions into dropdown menus from a single button.
7. The **Show Revision History Action** is a toolbar action component to show revision history of selected cell or attribute value.

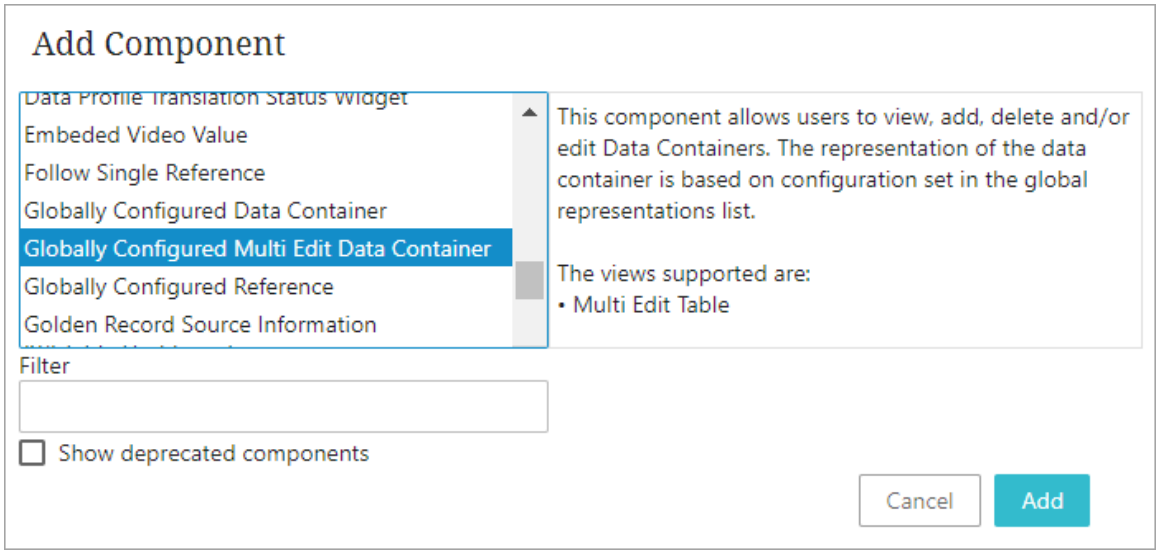
Once set up, navigate to the applicable Node Editor > **go to component**.



In Child Components > Rows, click Add.

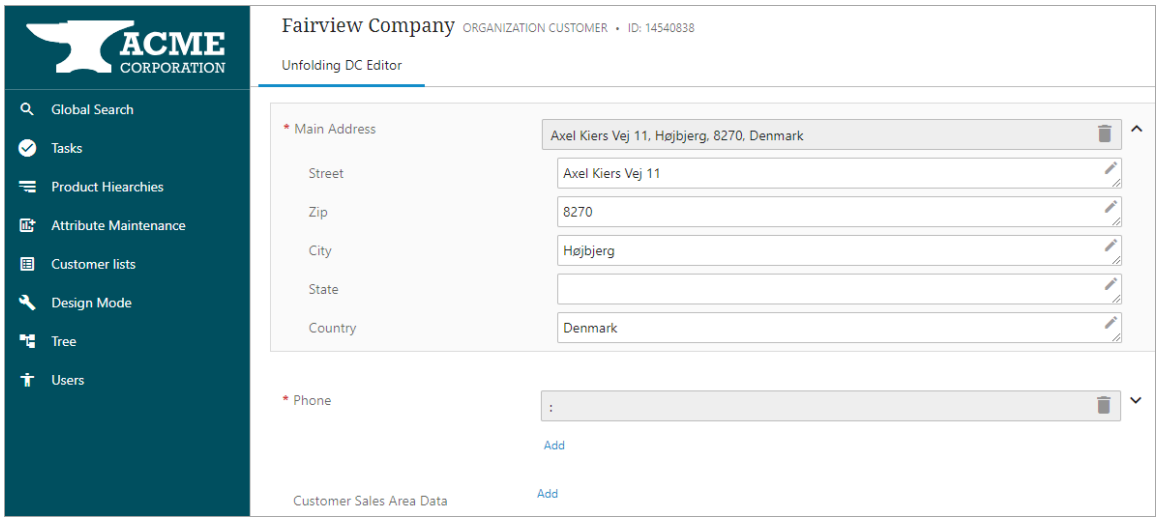


Select **Globally Configured Multi Edit Data Container** from the Add Component dialog and click **Add**.



Globally Configured Unfolding Data Container Component

The Globally Configured Unfolding Data Container allows users to display data container attribute values within an expanded view, and the component facilitates the creation of new data container instances with attributes and references. Additionally, users can efficiently edit existing data containers and remove them as needed.



Prerequisites

Anyone configuring the Globally Configured Unfolding Data Container component must be familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the Designer Access topic of the Web User Interfaces documentation.

Important: Before adding the Globally Configured Unfolding Data Container in the Node Editor, the 'Title with Unfold View on Node Details' component should be configured within Global Data Container Representations. For details, refer to the Globally Configured Unfolding Data Container View topic within the Main Properties section of the Web User Interfaces documentation.

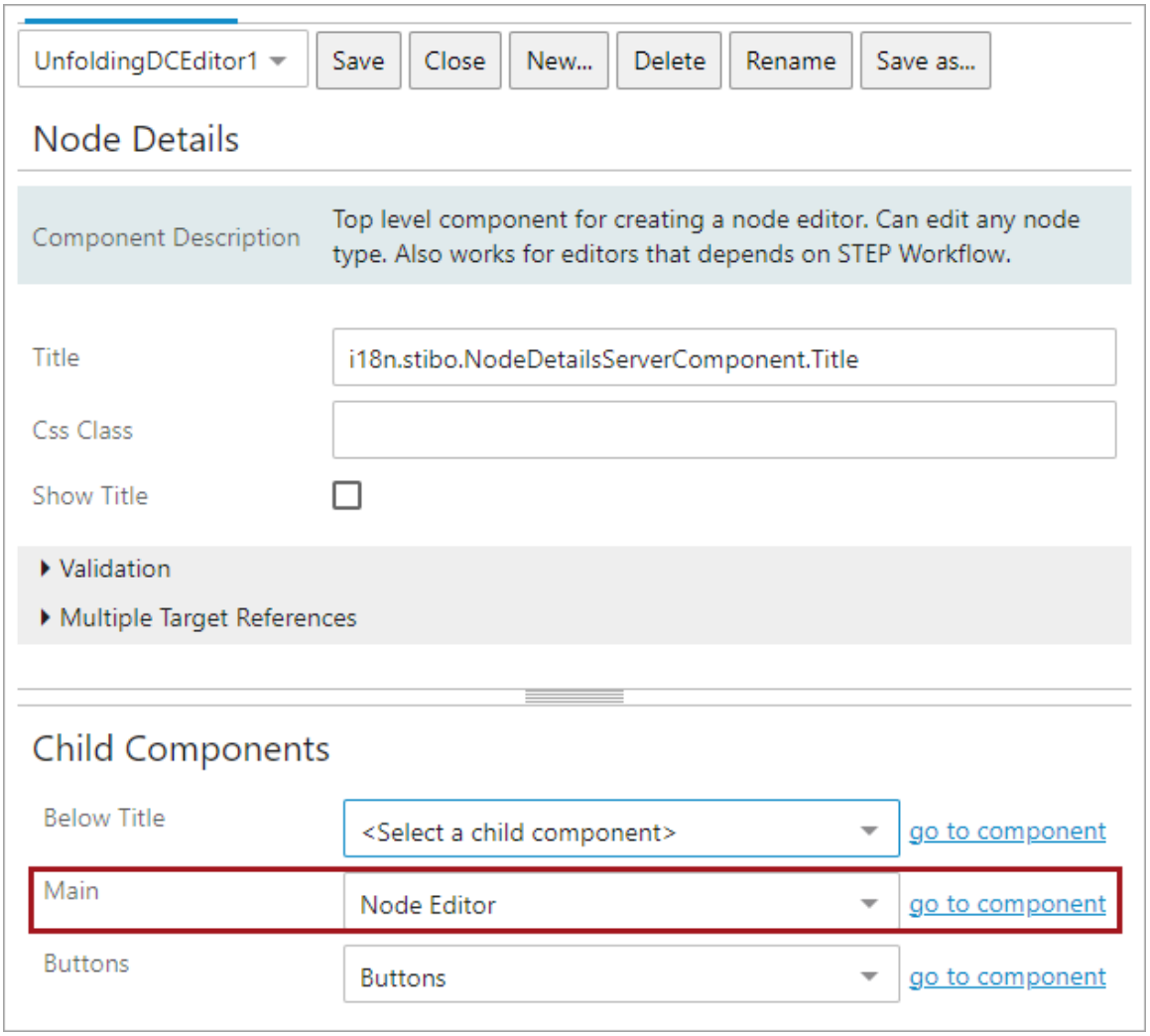
Additionally, before adding the Globally Configured Unfolding Data Container Editor component, data containers and their associated attributes must already be set up. For details, refer to Setting Up Data Container Types in Workbench in the System Setup documentation.

Adding a Globally Configured Unfolding Data Container Editor Component

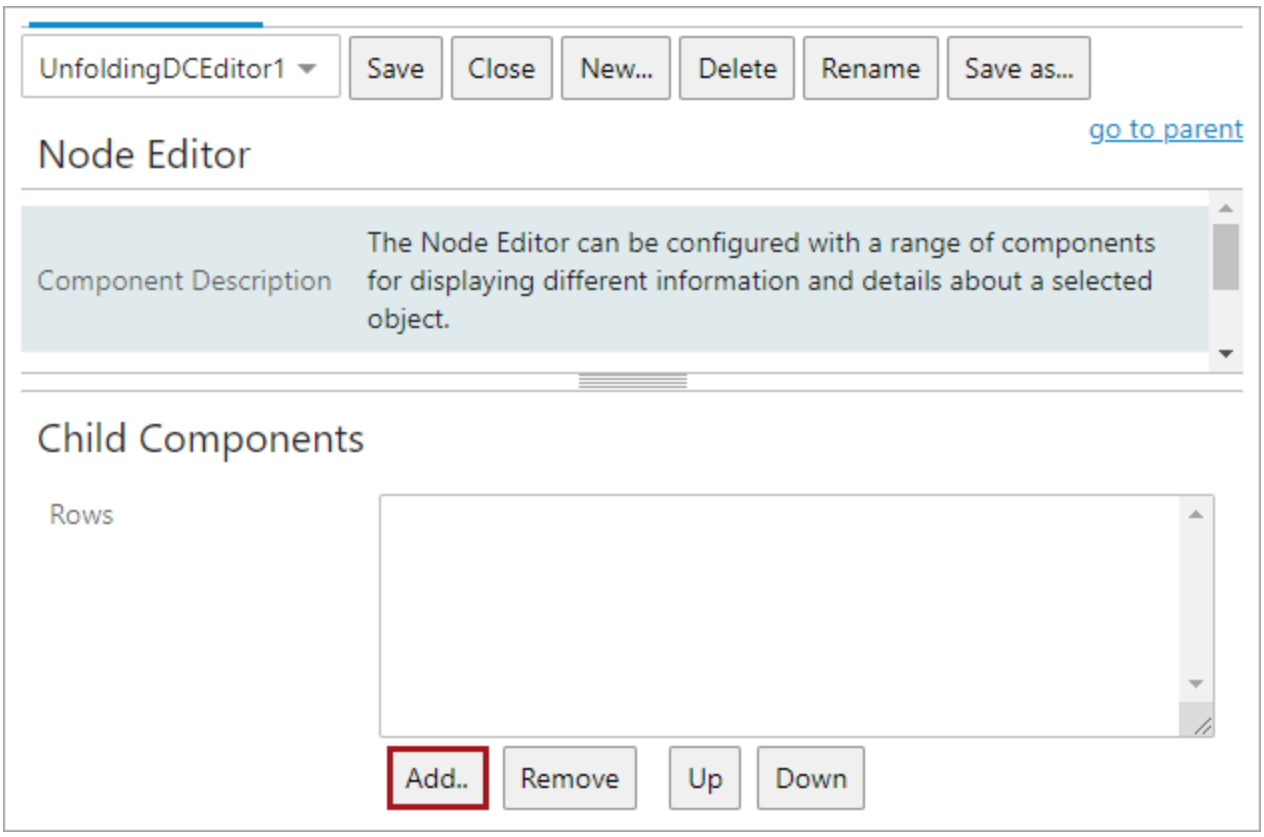
The Globally Configured Unfolding Data Container component must be configured on a Node Editor child component within a Node Details screen. The first step in configuring this component is to select an existing Node Details screen to include the component, or to create a new screen.

Steps for creating a new Node Details screen are outlined in the Node Details Screen topic of the Web User Interfaces documentation.

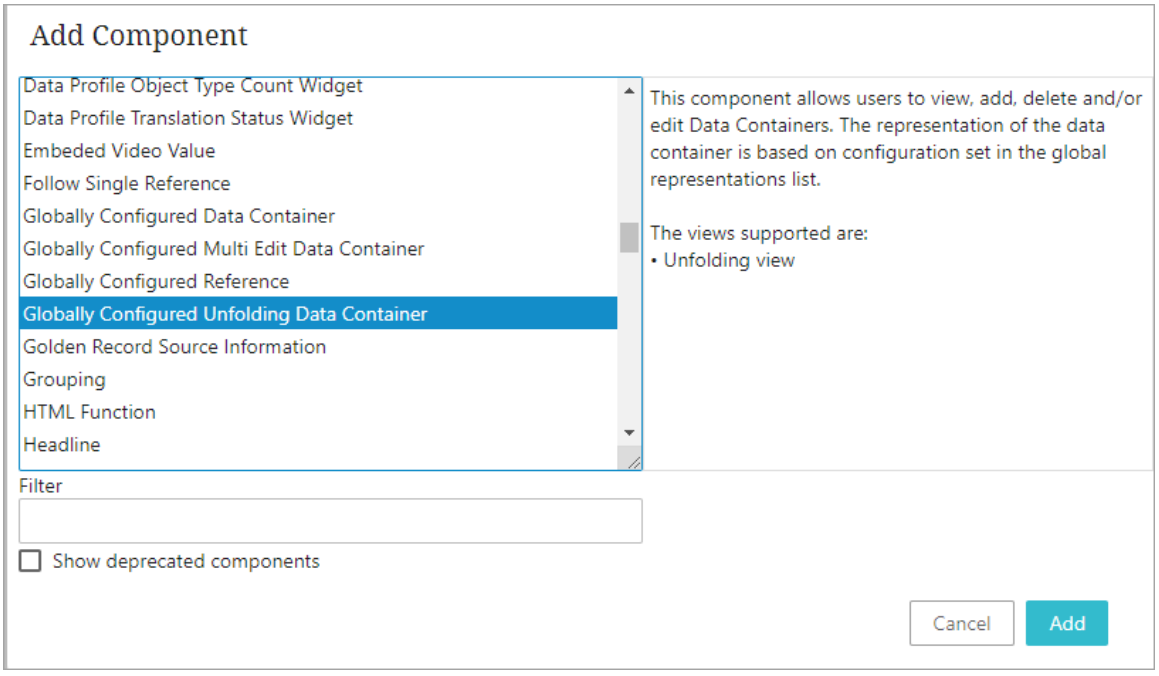
1. Once a screen is set up, navigate to the applicable Node Editor and click the 'go to component' link.



2. In 'Child Components', under the 'Rows' field, click **Add**.



3. Select 'Globally Configured Unfolding Data Container' from the 'Add Component' dialog and click **Add**.



To configure which attribute values / references display in this component and under what conditions they should be displayed, refer to the Globally Configured Unfolding Data Container View topic of the Web User Interfaces documentation.

Data Container Table View Editor

Important: The Data Container Table View Editor has been superseded by the Globally Configured Multi Edit Data Container and may be removed in a future release. This means Globally Configured Multi Edit Data Container has additional and improved functionalities on the Data Container Table View Editor.

The Data Container Table View Editor component can be used to display data container attribute values in a table view on a Node Details screen. It can also be used to edit data container attributes, and add / remove data containers. For details regarding how the editor is used, refer to the **Data Containers in Web UI** topic.

Prerequisites

It is expected that anyone configuring the Data Container Table View Editor component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Also, before adding the Data Container Table View Editor component, it is expected that Data Containers and their associated attributes are already set up. For details, refer to **Setting Up Data Container Types in Workbench** in the **System Setup** documentation.

Adding a Data Container Table View Editor

The Data Container Table View Editor component must be created on a Node Details screen type, and more specifically, on a Node Editor child component. The first step in configuring this component is to select an existing Node Details screen to add the component to or to create a new screen.

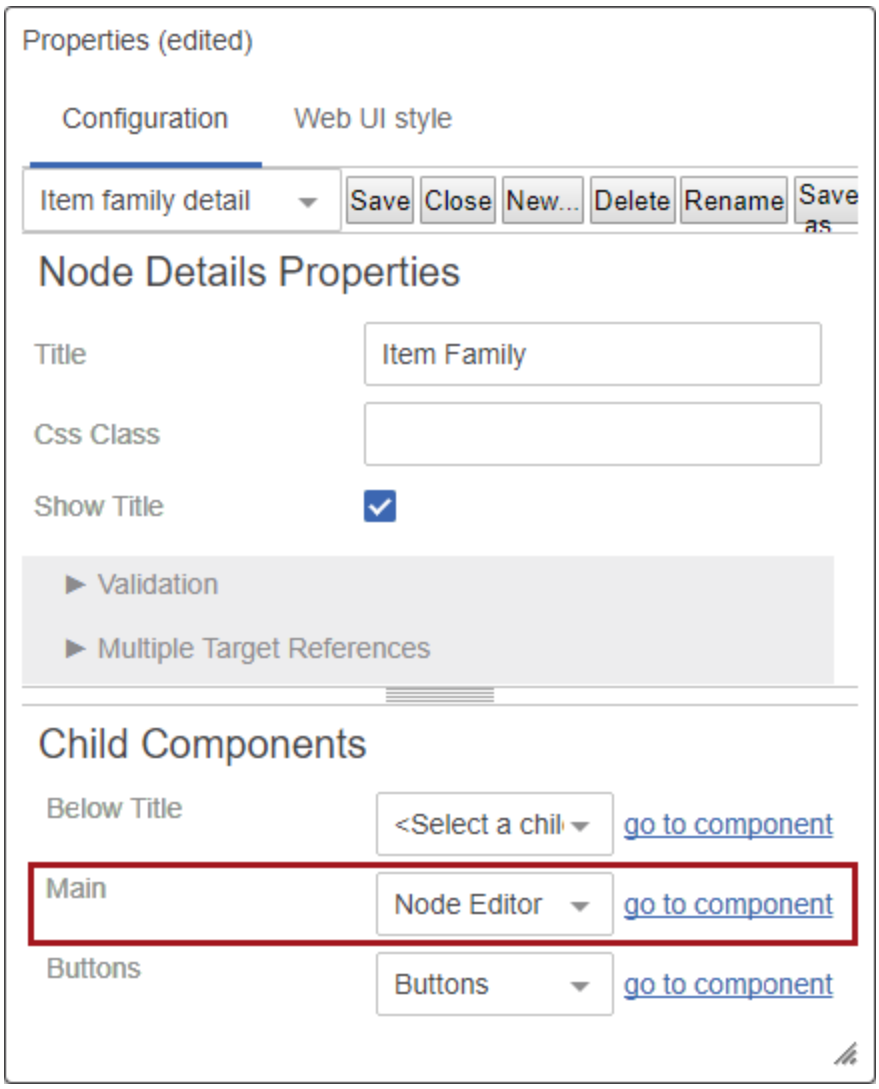
Note: This component can be used for product and entity objects.

Steps for creating a new Node Details screen are outlined in the adding a new **Node Details Screen** section of the **Web User Interfaces** documentation.

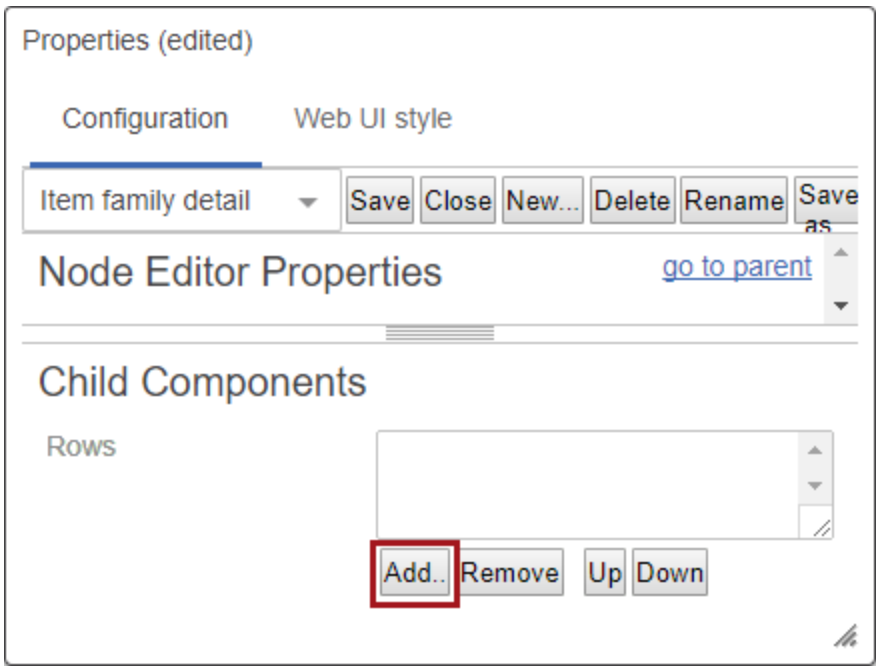
Additionally, the Save action button should be added to the Node Details screen so that users may save any changes they make to the data containers and attribute values.

Data Container Table View Editor can display both single-valued and multi-valued data container types in a similar manner to how attribute values are displayed.

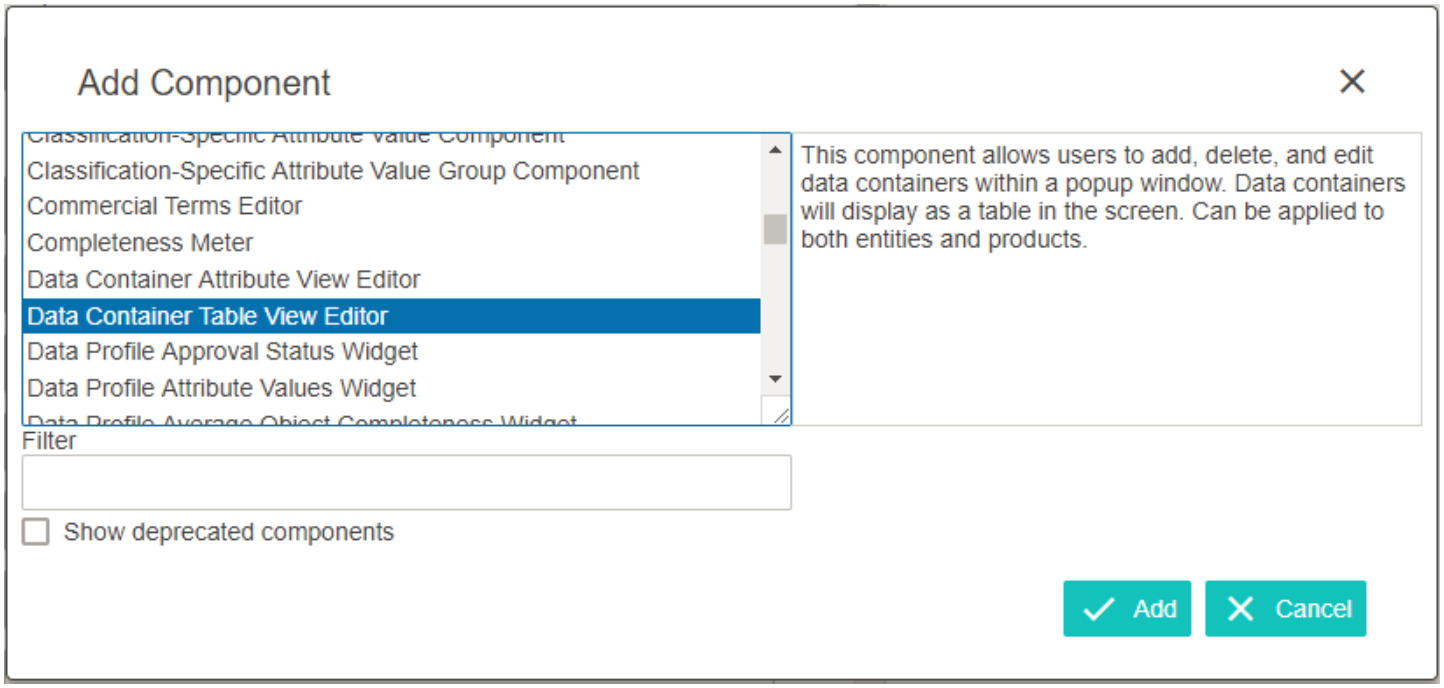
1. Once set up, navigate to the applicable Node Editor > **go to component**.



2. In Child Components > Rows, click Add.



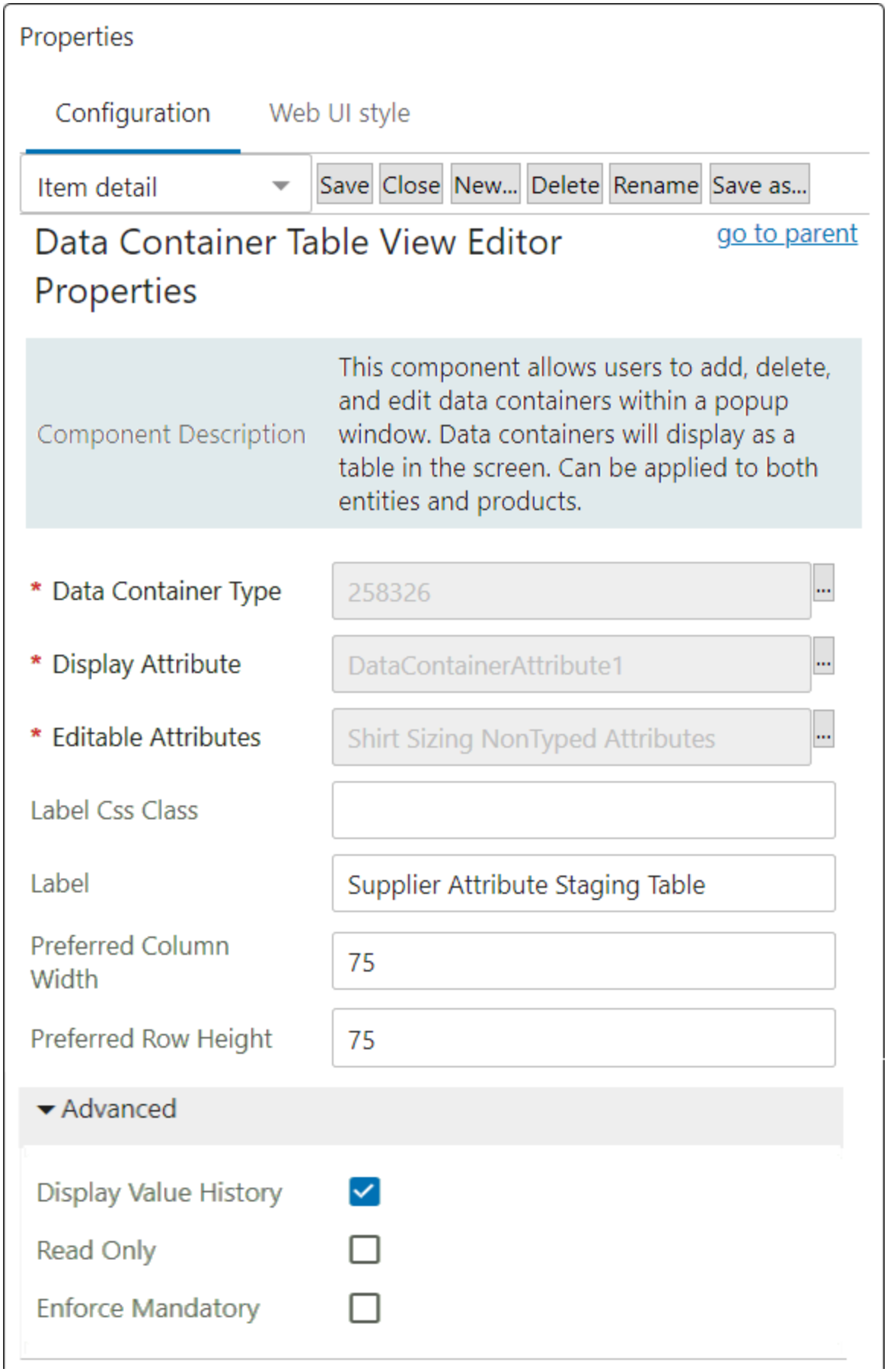
3. Select **Data Container Table View Editor** from the Add Component dialog and click **Add**.



Data Container Table View Editor Properties Dialog opens and prompts the user to enter mandatory information.

Configuring the Data Container Table View Editor

1. In Node Editor Properties > Child Components > Rows, double click on the Data Container Table View Editor.


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Data Container Table View Editor Properties
go to parent
Component Description
This component allows users to add, delete, and edit data containers within a popup window. Data containers will display as a table in the screen. Can be applied to both entities and products.
* Data Container Type
258326
* Display Attribute
DataContainerAttribute1
* Editable Attributes
Shirt Sizing NonTyped Attributes
Label Css Class
Label
Supplier Attribute Staging Table
Preferred Column Width
75
Preferred Row Height
75
Advanced
Display Value History
Read Only
Enforce Mandatory

2. For the **Data Container Type** parameter, click the ellipsis button (...) and browse or search for the relevant data container type to display attributes from.

   Note: The selected data container type must be configured with an Auto ID pattern.

3. For the **Display Attribute** parameter, click the ellipsis button (...) and browse or search for the relevant calculated attribute to display data containers listed in the editor. This calculated attribute should convey the most important details for differentiating the individual data containers.

   For more information on calculated attributes, refer to the **Calculated Attributes** section of the **System Setup** documentation.

   Note: It is not recommended to use LOVs that are configured to allow users to add values for this calculated attribute.

4. For the **Editable Attributes** parameter, click the ellipsis button (...) and browse or search for the attribute group that contains attributes whose values should be editable or displayed (if read-only).
5. For the **Label Css Class** parameter, add any CSS coding required.
6. For the **Label** parameter, specify a label for the header.
7. The **Preferred Column Width** parameter enables users to set a default column width, in pixels, for the data container. If no value is set for this, the column width defaults to a width that allows for about 14 characters before resolving to an ellipsis.
8. The **Preferred Row Height** parameter enables users to set a default row height, in pixels, for the data container table. If no value is set for this, the row height defaults to allow for a single row of text, or about 25-35 pixels high. For double-height default, users can set this value to a pixel height of 50-80 characters.
9. For the **Display Value History** parameter under **Advanced**, check the box if attribute value history should be displayed.
10. Enable **Read Only** if the data container should be viewable but users should not make any edits.
11. Enable **Enforce Mandatory** if users should not be able to save data containers if any mandatory fields are left blank.

Data Exchange in Web UI

Data import and export components, actions, and options are available in Web UI. Refer to the following topics for a starting point for importing to and exporting from Web UI.

Import

- Action Buttons
- Asset Importer Widget
- Simple Importer Widget
- Smartsheet Import Action

Export

- Action Buttons
- Custom Export Action
- Export Current View Action()
- Exporting Web UI Definitions as Comments
- Smartsheet Export Action
- Smartsheet Export Widget

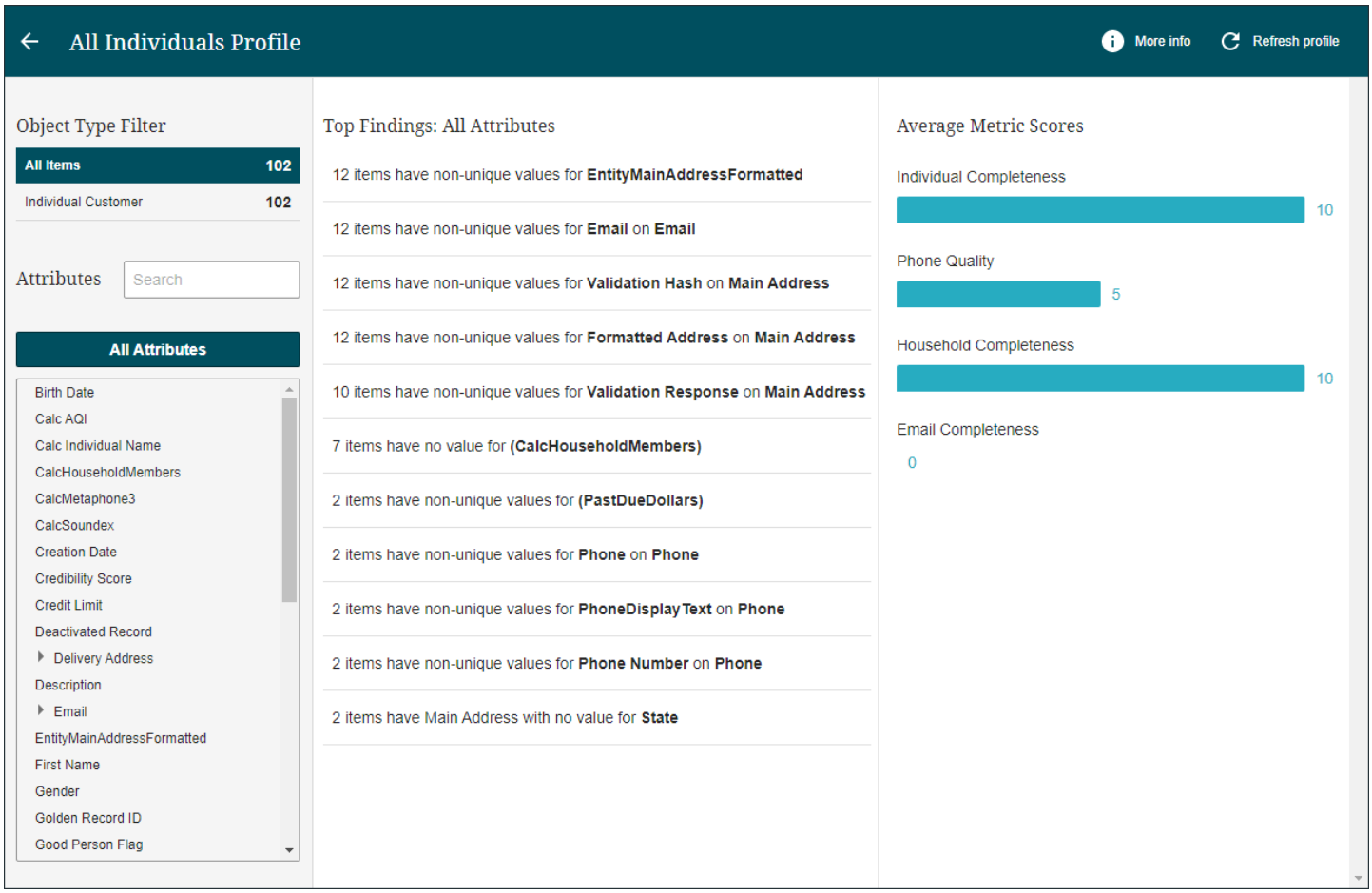
Data Profile Screen

The Data Profile screen allows users to view entity and collection data profiles. Much of the same functionality found in the workbench is also accessible from this screen.

Key features include:

- Top profile findings (unique to this screen)
- Filtering by object type, attribute, and data container
- Attribute data analytics

Note: This screen is only accessible for entities / collections that have already been profiled.



Prerequisites

It is expected that anyone configuring the Data Profiling screen is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access**

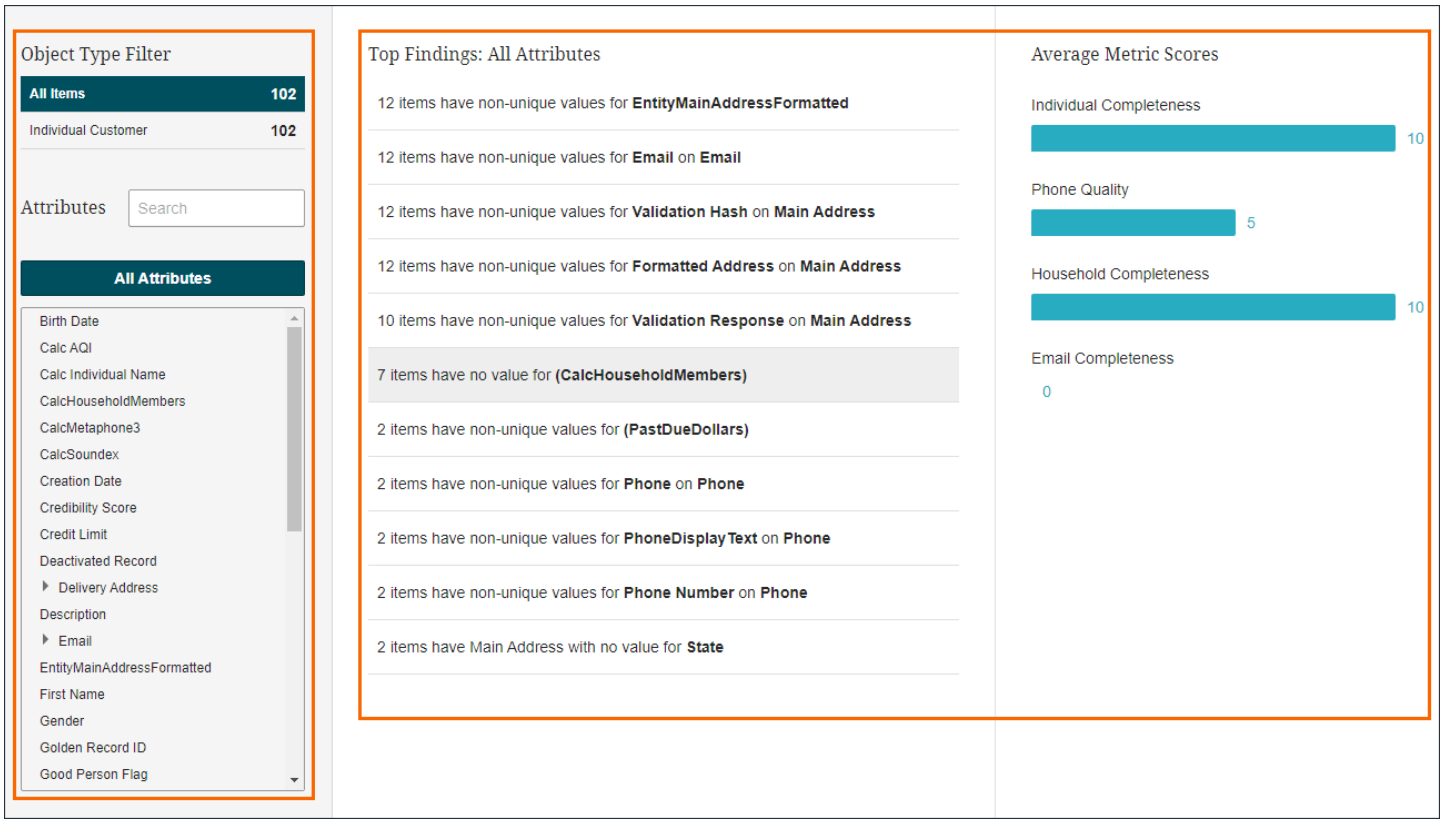
section of the **Web User Interfaces** documentation.

For more information on configuring the Web UI to handle data profiling, refer to the **Data Profiling in Web UI** section of the **Data Profiling** documentation.

Note: No configuration is required for this component, specifically.

Navigating the Data Profile Screen

The Data Profile screen provides a dynamic view of the data that transforms based on what filters have been applied. The filters on the left-hand side of the screen remain constant and any selections made there impact what data appears on the right-hand side of the screen:

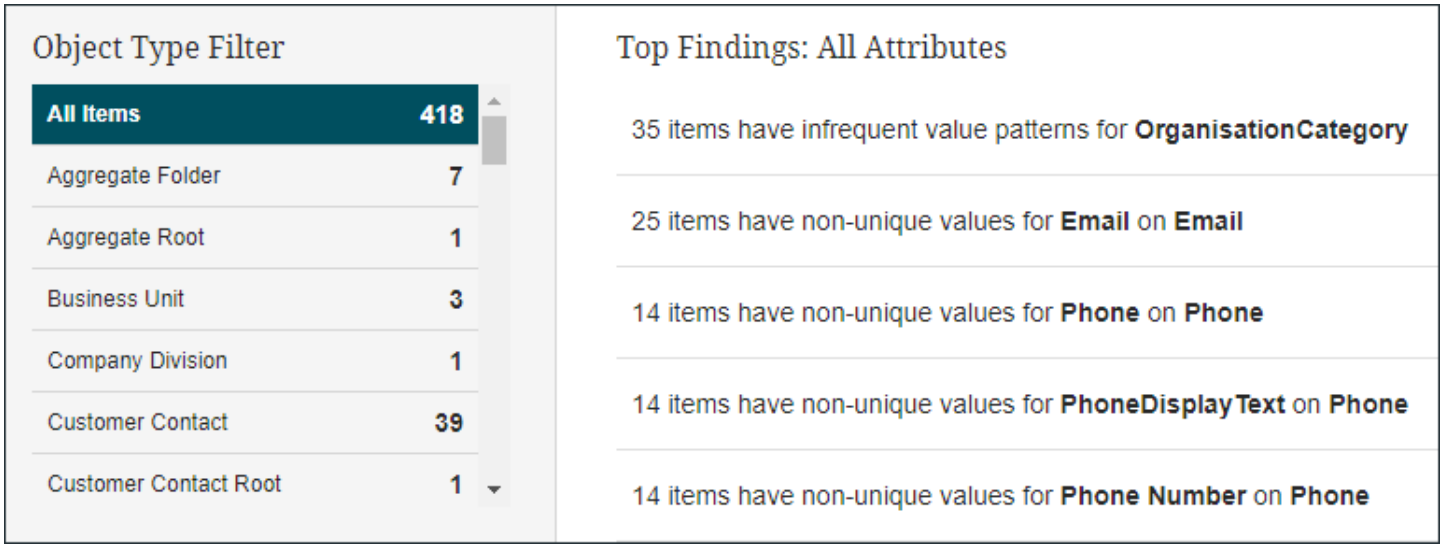


How to use these filters and how they impact the data displayed is detailed below.

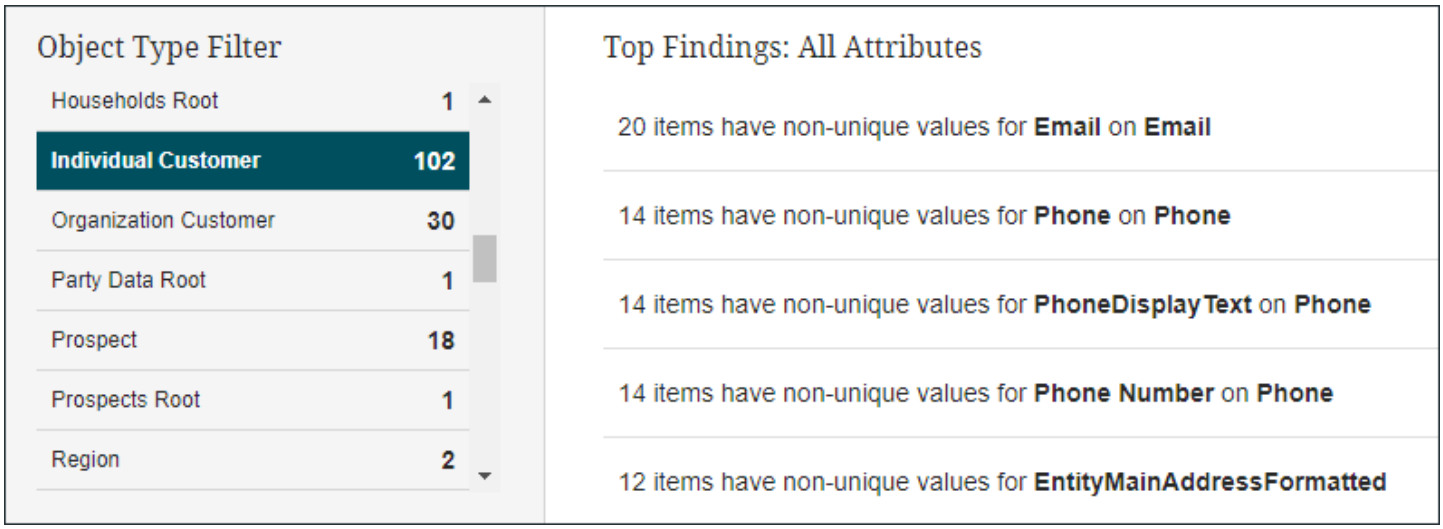
Filter by Object Type

The Object Type filter can be used to view data for specific object types in a collection. Though the actual data displayed on the right-hand side of the screen changes to reflect the applied filter, the actual format of the screen remains unchanged.

For example, in the image below 'All Items' has been selected, and no object type filter is applied. The Top Findings section in the right-hand side of the screen represents the top findings for all object types included in the profile:



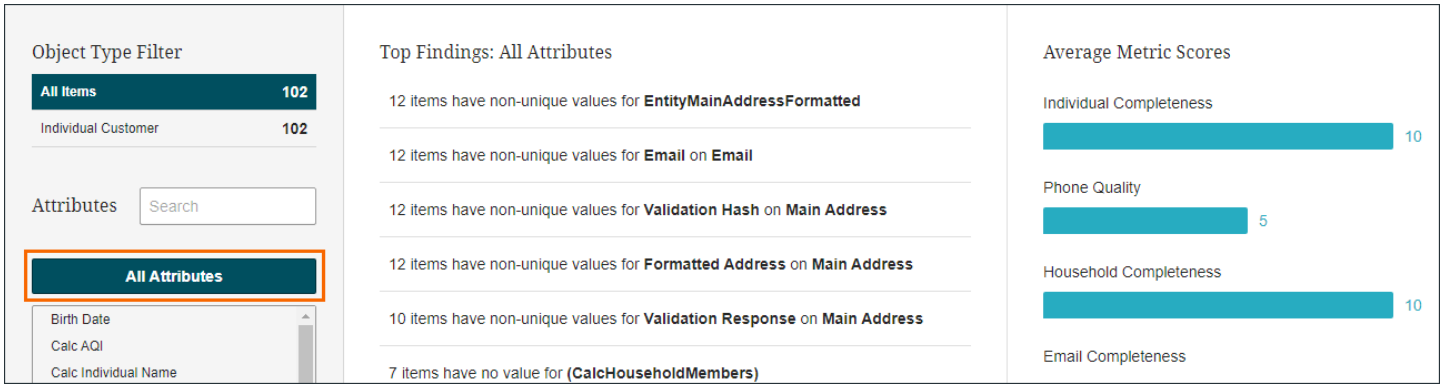
If a filter is applied to only display data for the 'Individual Customer' object type, the top findings presented on the right-hand side of the screen will only display the top findings relevant to objects of that type:



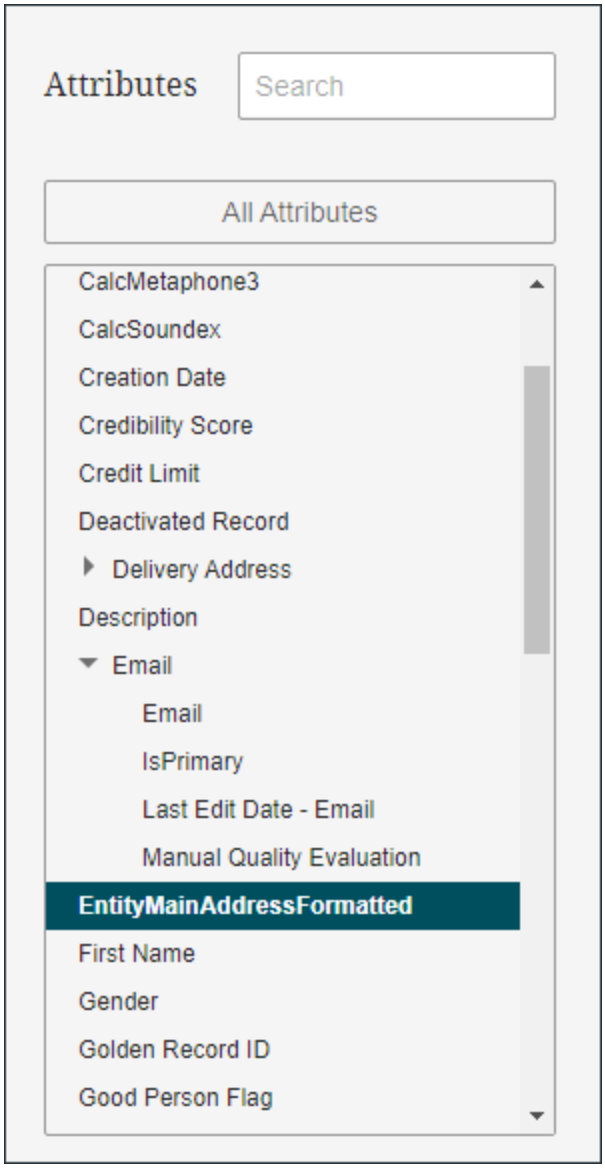
This principle also applies to other aspects of the data profile such as the Average Metric Scores and Attribute data widgets.

Filter by Attribute

The Attribute filter can be used to view data for specific attributes in the profile. By default, 'All Attributes' is selected, and the Top Findings and Average Metric Scores widgets display:

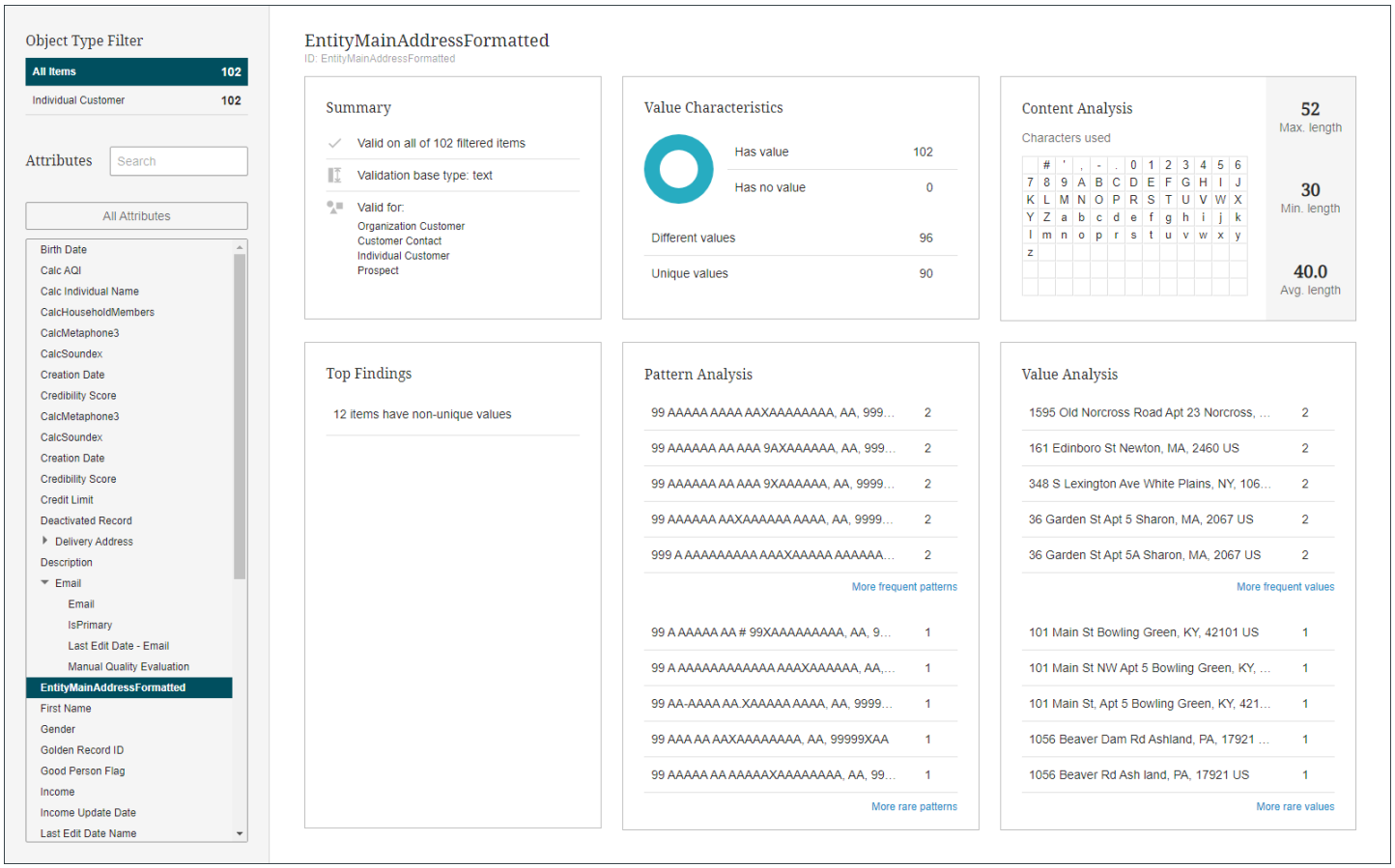


To apply an attribute filter, select an attribute / data container from the attribute list:



Note: The search bar can be used to filter what attributes are displayed in the list for easy selection.

When an attribute filter is applied, the right-hand side of the screen changes to display data relevant to the selected attribute. The Average Metric Scores widget is removed, and five other widgets join Top Findings on the screen:



These additional widgets include Summary, Value Characteristics, Content Analysis, Pattern Analysis, and Value Analysis. All these widgets are detailed in the **Data Widgets** section below.

Note: Applying a data container attribute filter will only display the Summary widget on the right-hand side of the screen.

Data Widgets

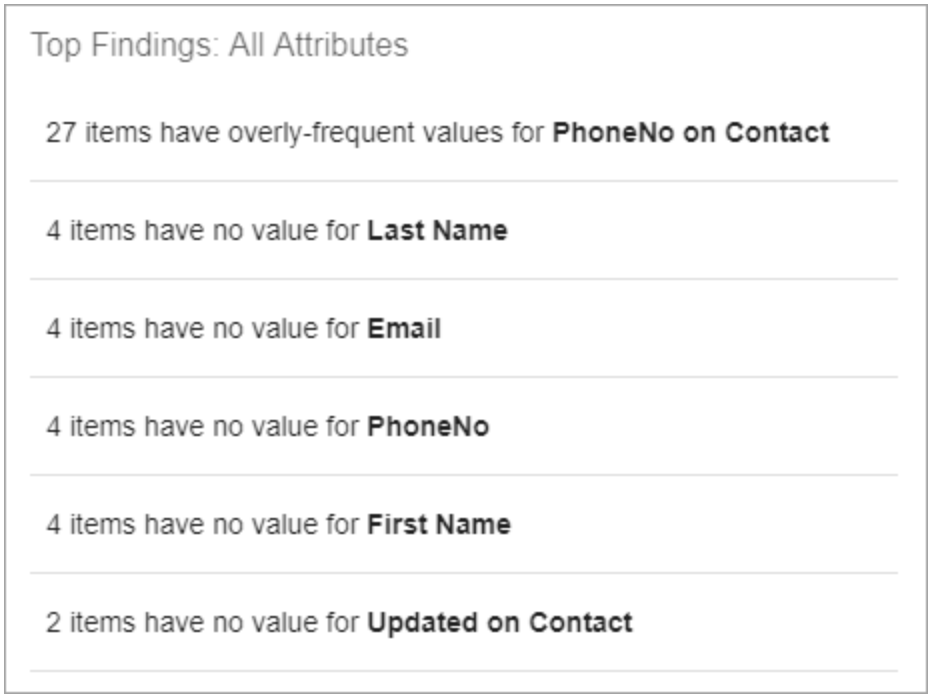
Most of the following data widgets only appear when an attribute filter is applied:

Attribute Filter	Data Widgets
All Attributes	• Top Findings • Average Metric Scores
Specific Attribute	• Summary • Value Characteristics • Content Analysis • Top Findings • Pattern Analysis • Value Analysis
Specific Data Container	• Summary

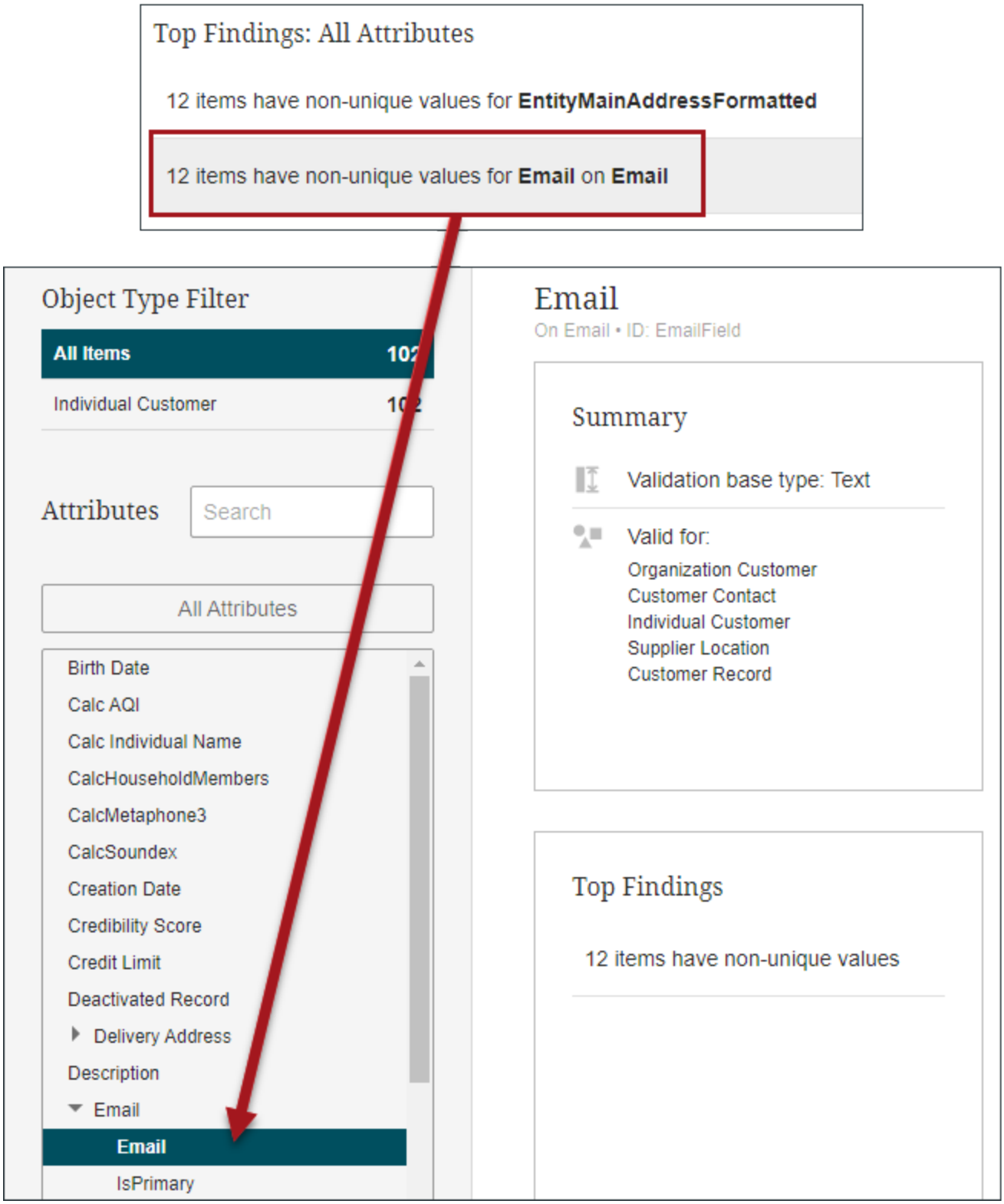
Top Findings

The Top Findings widget provides users with a list of outliers found in the data. These outliers may indicate issues with the data, but are not conclusive and require analysis by a data steward.

A full list of Top Findings for the entire profile can be viewed when the 'All Attributes' filter is applied.



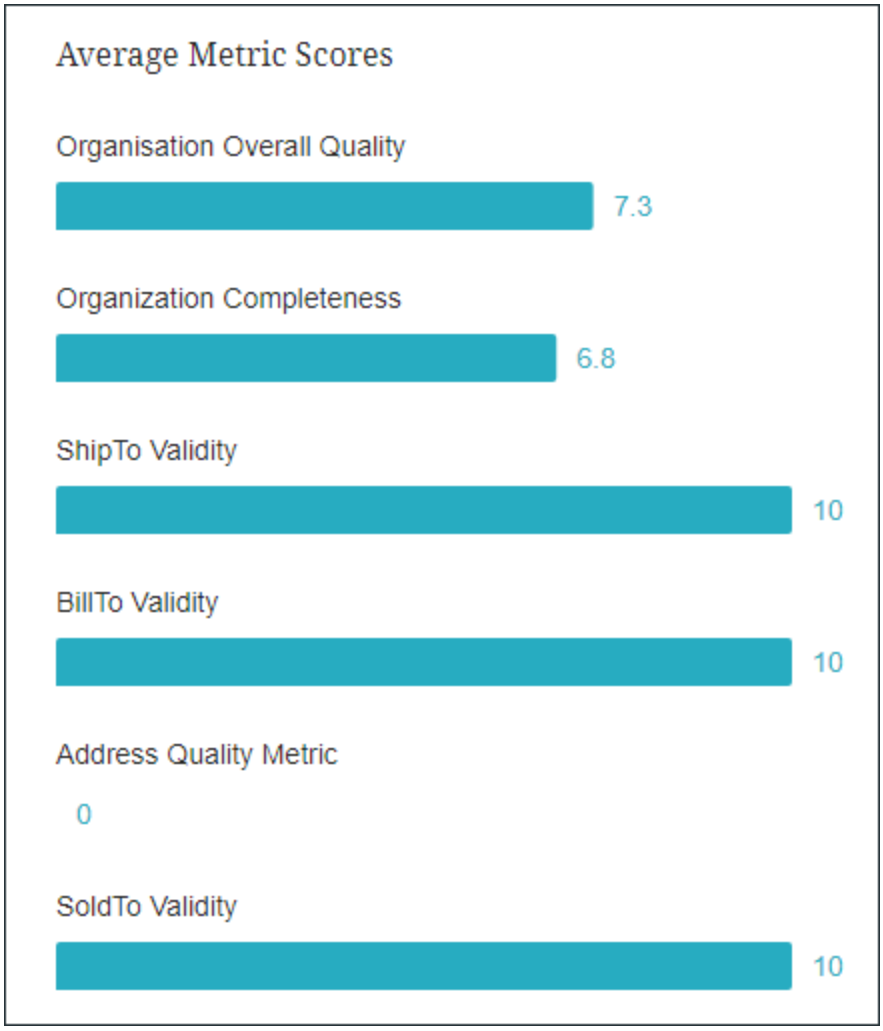
To investigate any particular finding from this list, click on it and the relevant attribute filter will be automatically applied.



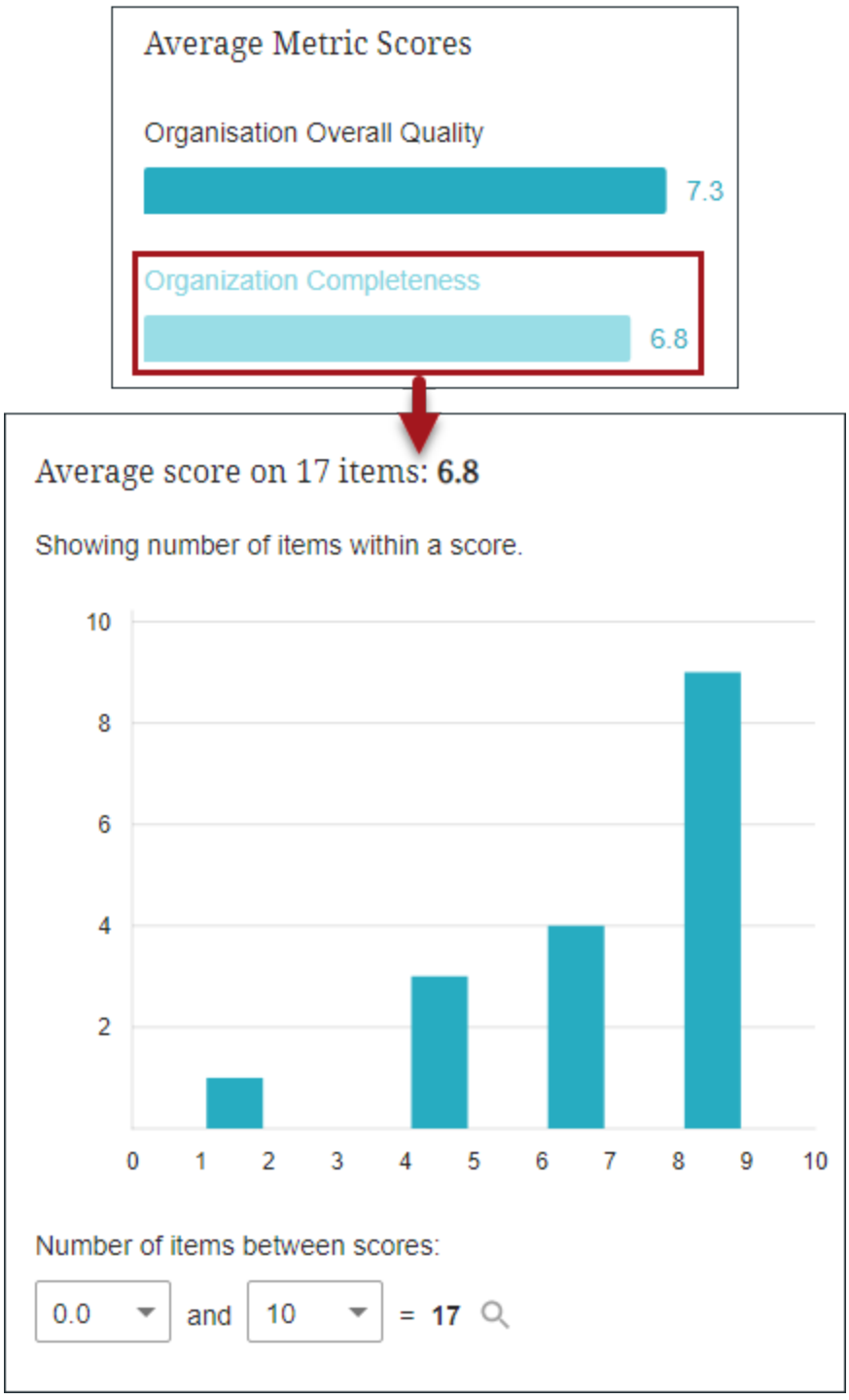
With the filter applied, the data steward can analyze the attribute data via the accompanying Attribute data widgets. Additionally, the Top Findings widget will now only display findings relevant to the attribute in question.

Average Metric Scores

The Average Metric Scores widget provides the average score of each metric applied to the data across the entire profile.



Clicking any particular metric will transform the widget to display a more granular view of the data specific to that metric.

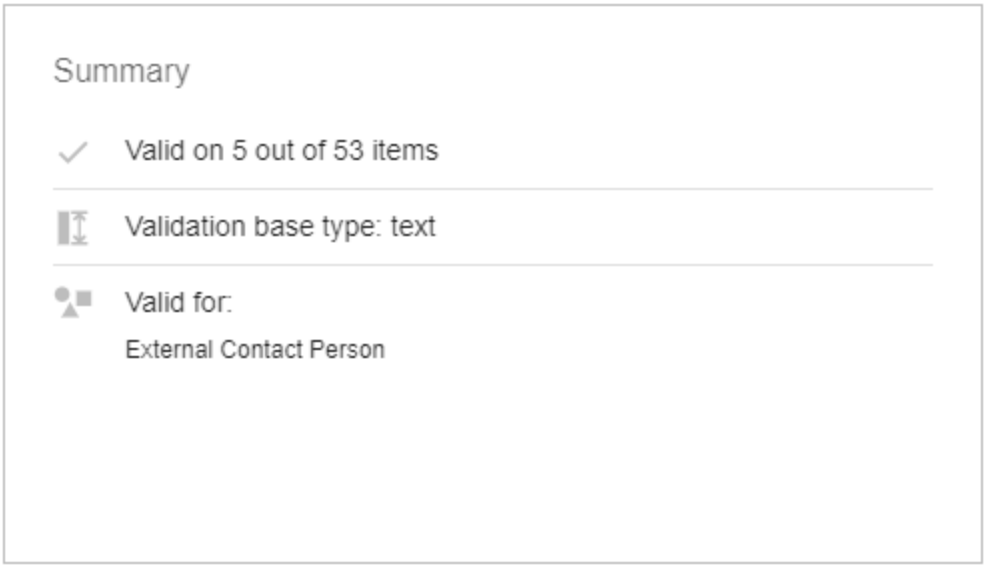


The **Number of items between scores** parameter can be used to view how many objects are scored within the designated range. This range can be changed via the dropdown, and once set, an advanced search can be run by clicking the magnifying glass icon ( ).

Summary

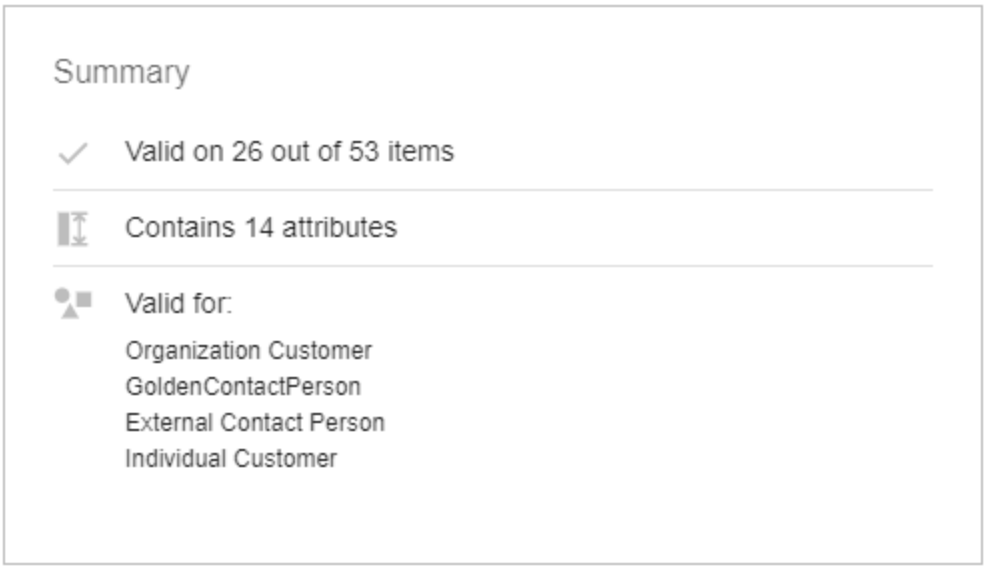
The Summary widget provides a brief overview of the attribute within the context of the data profile. Three particular data points are presented:

- The number of objects the attribute is valid on within the profile
- The validation base type of the attribute
- Which object types the attribute is valid for within the profile



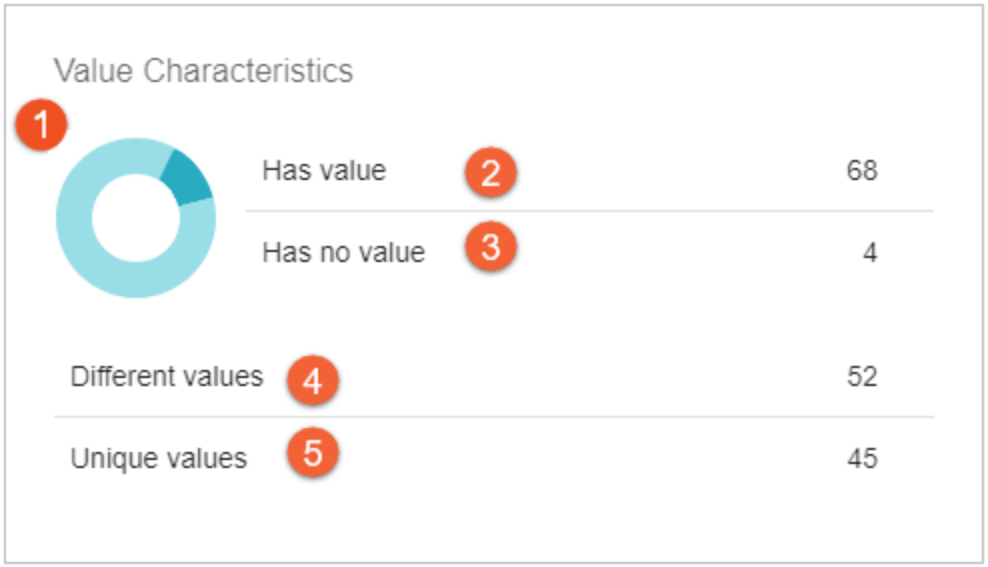
When viewing a data container, these data points vary slightly from those highlighted by an attribute:

- The number of objects the attribute is valid on within the profile
- The number of attributes contained within the data container
- Which object types the attribute is valid for within the profile



Value Characteristics

The Value Characteristics widget provides a breakdown of an attribute's values by how many objects have values for said attribute, and how many different and unique values exist, all within the context of the profile:

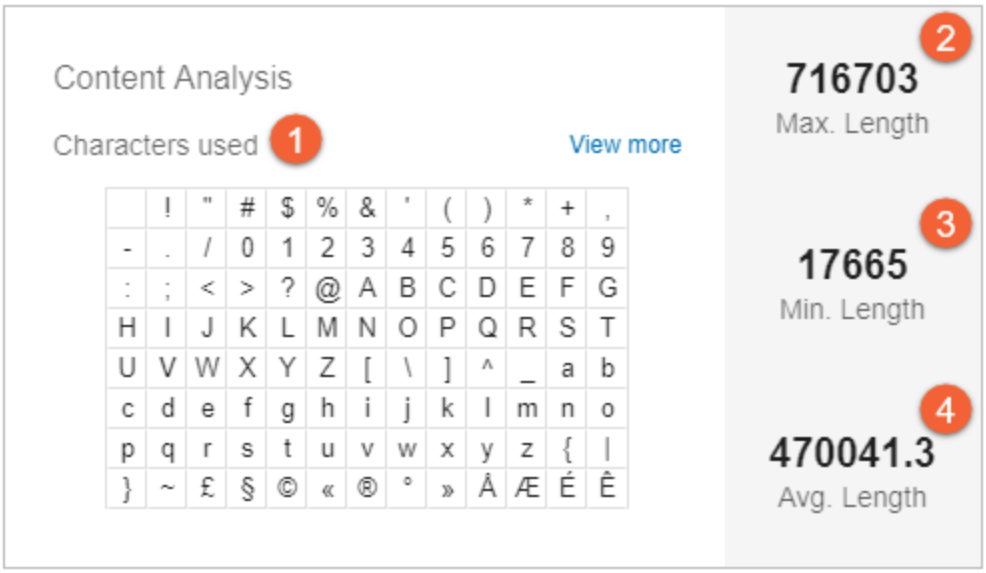


1. The graph illustrates how many objects have values for the attribute.
2. The **Has value** parameter indicates the number of objects that have a value for the attribute. Clicking on this parameter will execute an advanced search for the relevant objects.
3. The **Has no value** parameter indicates the number of objects that do not have a value for the attribute. Clicking on this parameter will execute an advanced search for the relevant objects.

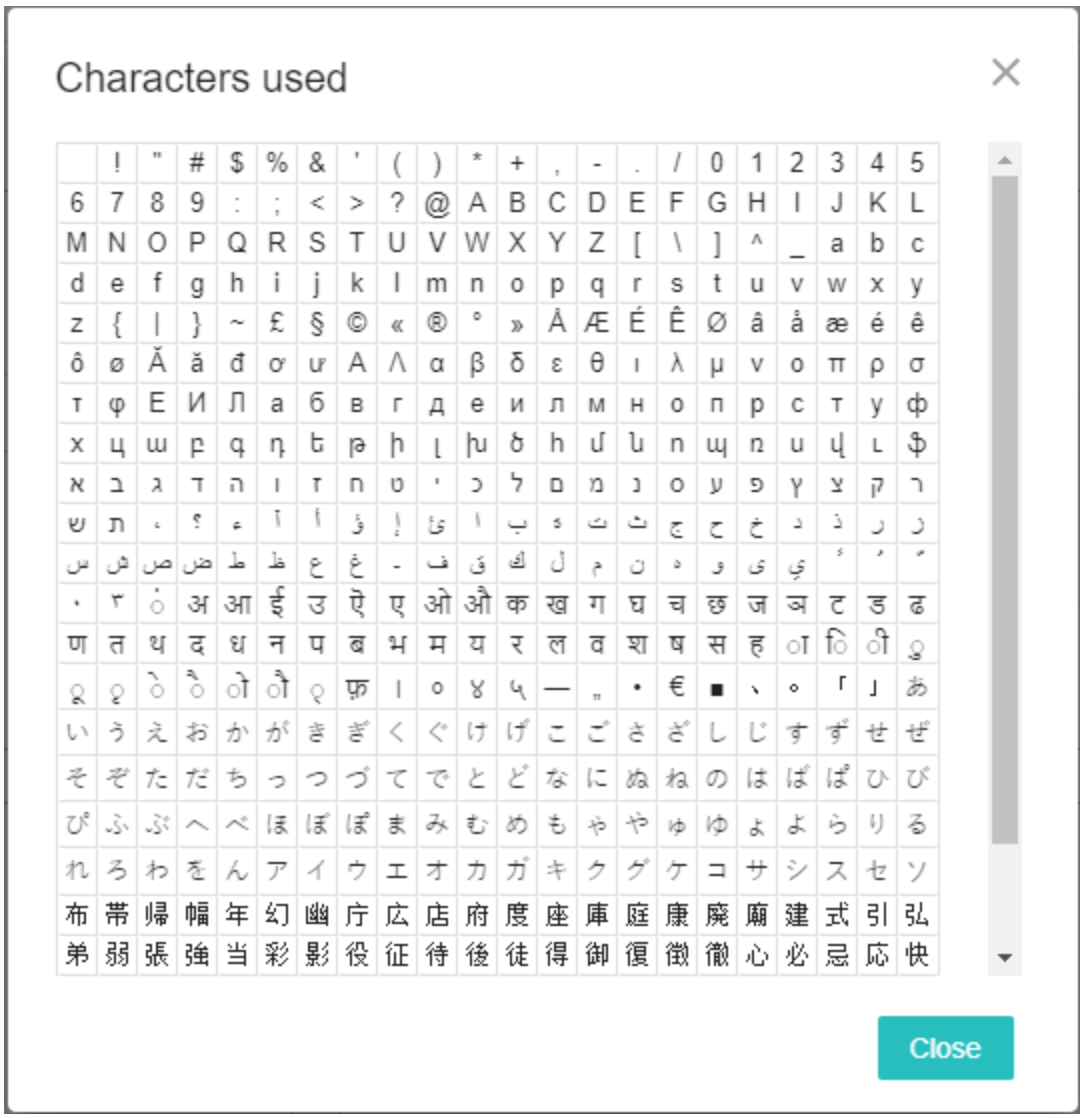
4. The **Different values** parameter indicates how many different values exist for the attribute. For example, if three objects have the value 'Blue' for the same attribute, it will only be counted once for this parameter.
5. The **Unique values** parameter indicates the number of values that occur exactly once for the attribute.

Content Analysis

The Content Analysis widget provides a breakdown of an attribute's values by minimum, maximum, and average character length, as well as which characters appear in said values, all within the context of the profile:



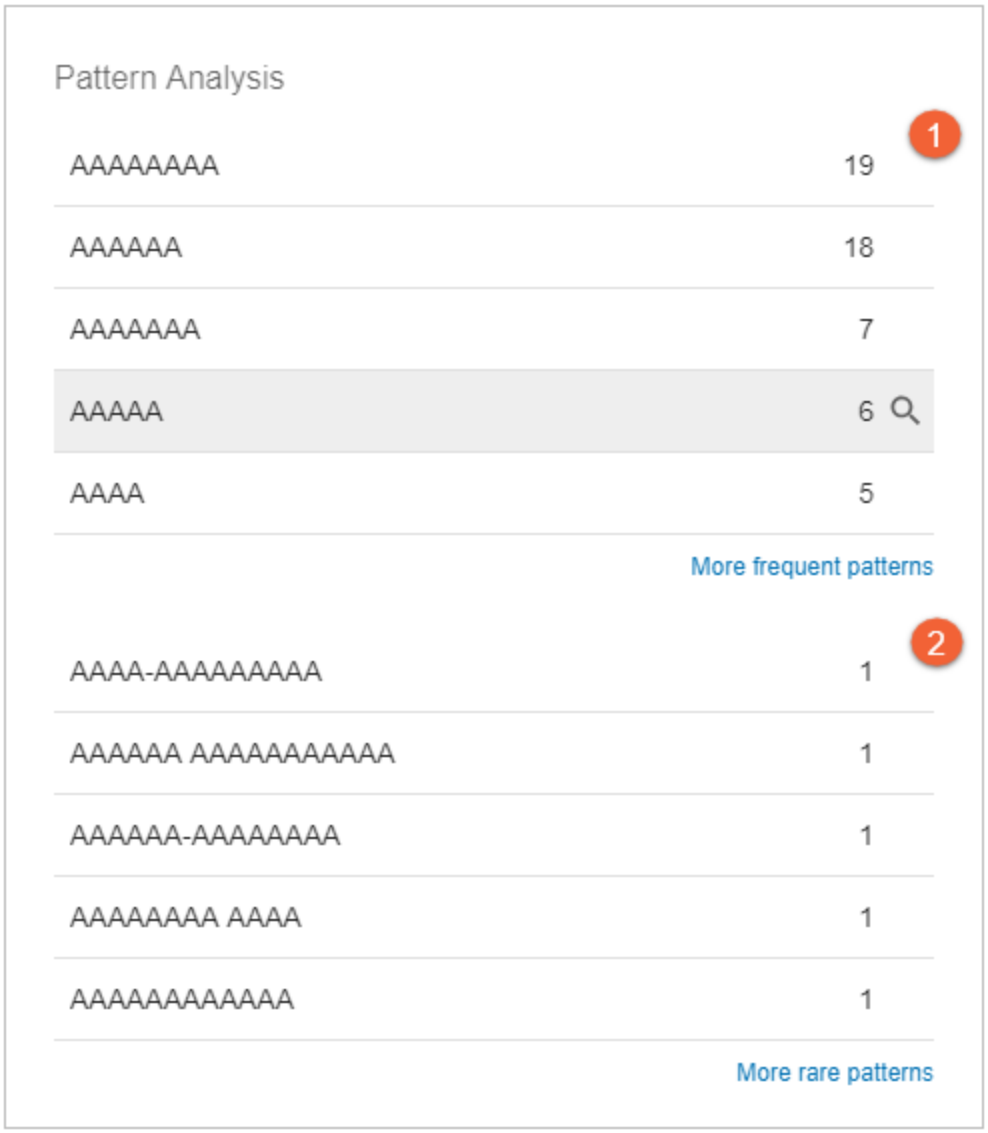
1. The **Characters used** table indicates which characters appear within the values of the attribute. If there are too many characters to fit into the widget, click the **View more** link to display all characters in a separate window.



2. The **Max. Length** parameter indicates the longest character length of any value for the attribute.
3. The **Min. Length** parameter indicates the shortest character length of any value for the attribute.
4. The **Avg. Length** parameter indicates the average character length of all values for the attribute.

Pattern Analysis

The Pattern Analysis widget provides a breakdown of an attribute's most frequent value patterns and rarest value patterns within the context of the profile:

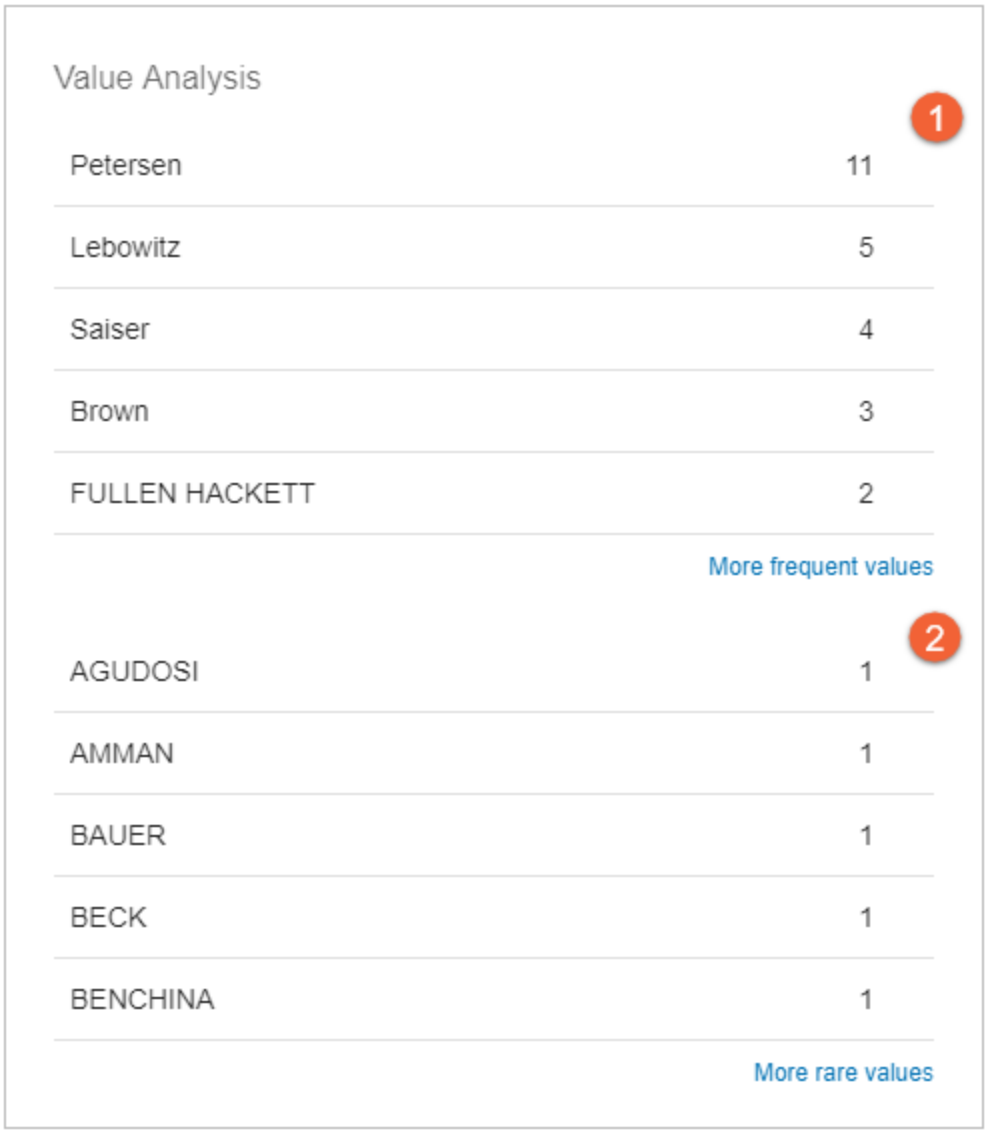


1. The **Frequent Patterns** list (appearing at the top of the widget) provides a list of the most frequent value patterns in descending order. If there are too many patterns to fit into the widget, click the **More frequent patterns** link to display all value patterns in a separate window.
2. The **Rare Patterns** list (appearing at the bottom of the widget) provides a list of the rarest value patterns in descending order. If there are too many patterns to fit into the widget, click the **More rare patterns** link to display all value patterns in a separate window.

Any value pattern can be clicked to execute an advanced search for all objects that share that value pattern within the profile.

Value Analysis

The Value Analysis widget provides a breakdown of an attribute's most frequent values and rarest values within the context of the profile:



1. The **Frequent Values** list (appearing at the top of the widget) provides a list of the most frequent values in descending order. If there are too many values to fit into the widget, click the **More frequent values** link to display all values in a separate window.
2. The **Rare Values** list (appearing at the bottom of the widget) provides a list of the rarest values in descending order. If there are too many values to fit into the widget, click the **More rare values** link to display all values in a separate window.

Any value can be clicked to execute an advanced search for all objects that share that value within the profile.

Data Validation in Web UI

In the Web UI, an administrator can use data validation options to accomplish the following scenarios:

- Hidden - ensure that irrelevant attributes and references are not displayed and reduce clutter for the job expected to be performed on the screen. Refer to the **Hiding Data in Web UI** topic.
- Mandatory - ensure that a required value is provided for attributes, references, and within workflows and visually identify fields that are necessary to save data. Refer to the **Mandatory Data in Web UI** topic.
- Read-only - ensure that specific attribute and reference parameters should not be changed and visually identify fields that cannot be edited. Refer to the **Read-Only Data in Web UI** topic.
- Values - ensure that attribute and reference parameters allow only defined values and restrict updates to use only expected values. Refer to the **Value Validation in Web UI** topic.

Each of these validation requirements can be achieved using the methods defined in the topics linked above. Review your data model and processes to help determine which method is most appropriate for your system.

For recommended practice in using business conditions to apply data validation in the Web UI, review the **Configuring Business Conditions in Web UI** topic.

Configuring Business Conditions in Web UI

Business conditions can validate user-entered data in real time and notify the user immediately if an applied business condition has not been fulfilled. For example, to ensure the entered value for the attribute 'Sell Pack Depth' is equal to or greater than 10 cm, a condition is created and applied to the attribute that evaluates whether the entered value meets that requirement. If the value is less than 10 cm, a warning is displayed as the user exits the field.

Important: The number of business conditions configured on a system can have a negative impact on Web UI performance. Before applying business conditions in the Web UI, consider alternative options, like implementing validation base types for attributes when possible, and review recommended practices in the following topics:

- Business Conditions
- Business Rule Recommendations
- Performance Considerations

Determine the Business Condition Location

Business conditions can be added in the Web UI in three places: Main - Global Representation List, Main - Advanced, and on an individual screen's Validation section. Review your use case and the options below to determine the preferred location to add the business condition.

Global Representation List

The 'Global Representation List' option is **recommended** to apply business condition dynamic validation - validation is performed as attribute and reference values are changed. The benefits of this method include:

- Validation is applied to all screens unless they are excluded within the business condition.
- The 'Triggering Data Types' parameter identifies data to be validated dynamically prior to a user or system initiated save, when the screen is loaded, and when the triggering data type values are modified.

Using either of the legacy options defined below, validation is only available for attributes. Further, dynamic validation requires an Attribute Value bind in the JavaScript business rule for each attribute to be validated.

Use the Global Representation List option unless you need to filter Lists of Values (LOVs), when the **Main - Advanced** option or the **Per Screen - Validation** option are required.

Main - Advanced

The Main - Advanced option includes an LOV Filter and legacy Validation for all screens.

Note: This functionality is the same as the Per Screen - Validation option.

- **LOVFilter** ensures that an acceptable value is selected from an LOV and prevents the user from selecting a value that violates the condition. For more information, refer to the **Business Condition: LOV Cross-Validation** topic in the **Business Rules** documentation.
- **Validation** is a **legacy** option that does not automatically validate dynamically. Only attributes are allowed in this functionality, and an Attribute Value bind is required in the JavaScript business rule for each attribute to be validated dynamically.

Use the Main - Advanced option only for LOV filtering on all screens.

Per Screen - Validation

The Per Screen - Validation option includes an LOV Filter and legacy Validation for individual screens.

Note: This functionality is the same as the Main - Advanced option.

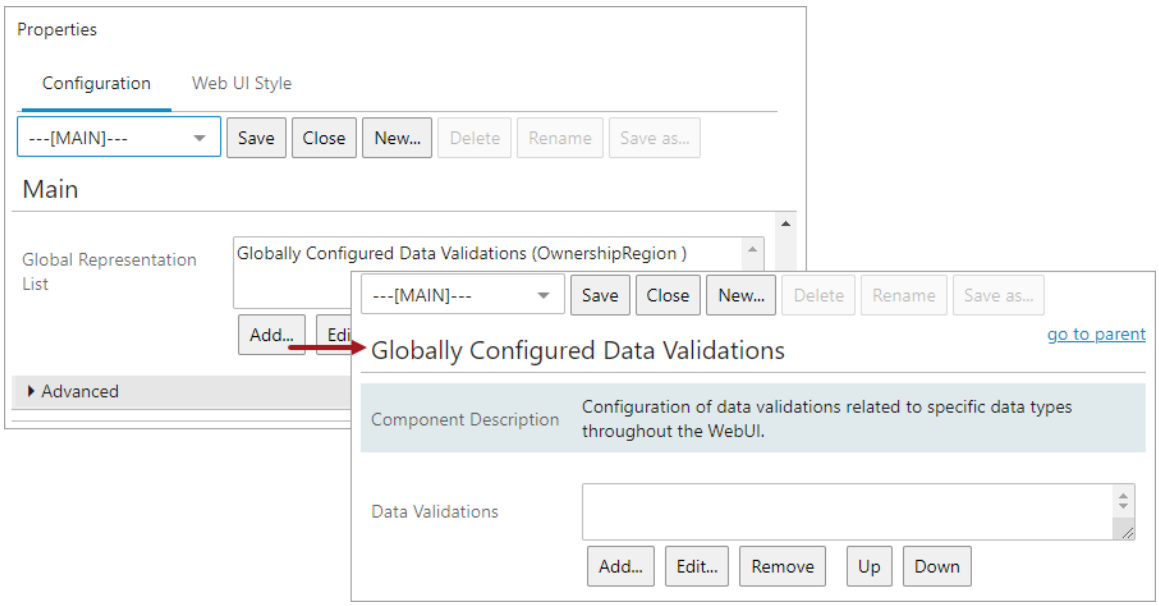
- **LOVFilter** ensures that an acceptable value is selected from an LOV and prevents the user from selecting a value that violates the condition. For more information, refer to the **Business Condition: LOV Cross-Validation** topic in the **Business Rules** documentation.
- **Validation** is a **legacy** option that does not automatically validate dynamically. Only attributes are allowed in this functionality, and an Attribute Value bind is required in the JavaScript business rule for each attribute to be validated dynamically.

Use the Per Screen - Validation option only for LOV filtering on individual screens.

Configure a Business Condition

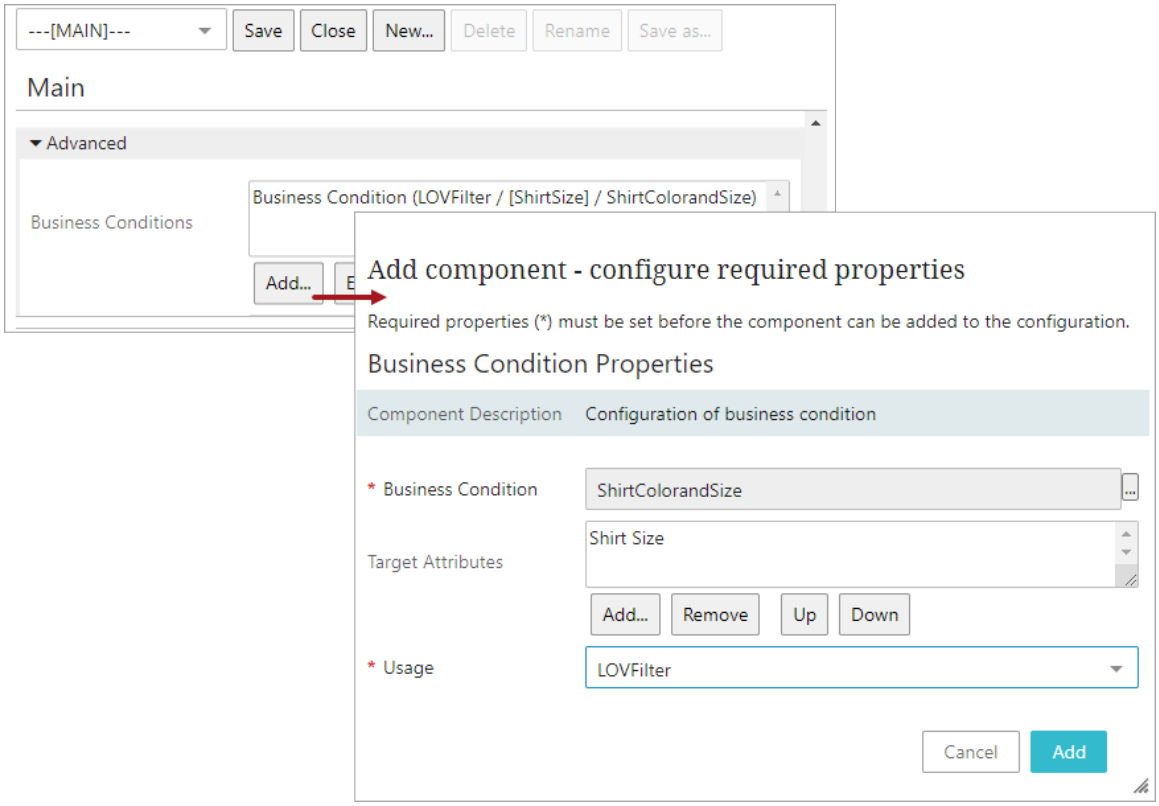
1. Create a business condition in the workbench. Refer to the **Creating a Business Rule, Function, or Library** topic in the **Business Rules** documentation.
2. Log in to the Web UI and access the designer. Refer to the **Designer Access** topic.
3. Add the business condition to the appropriate location based on the **Determine the Business Condition Location** section above.
    - **Global Representation List**

      From the screen dropdown, select the **MAIN** option, and scroll to the **Global Representation List** parameter. Click the **Add** or **Edit** button to open the Globally Configured Data Validations dialog.



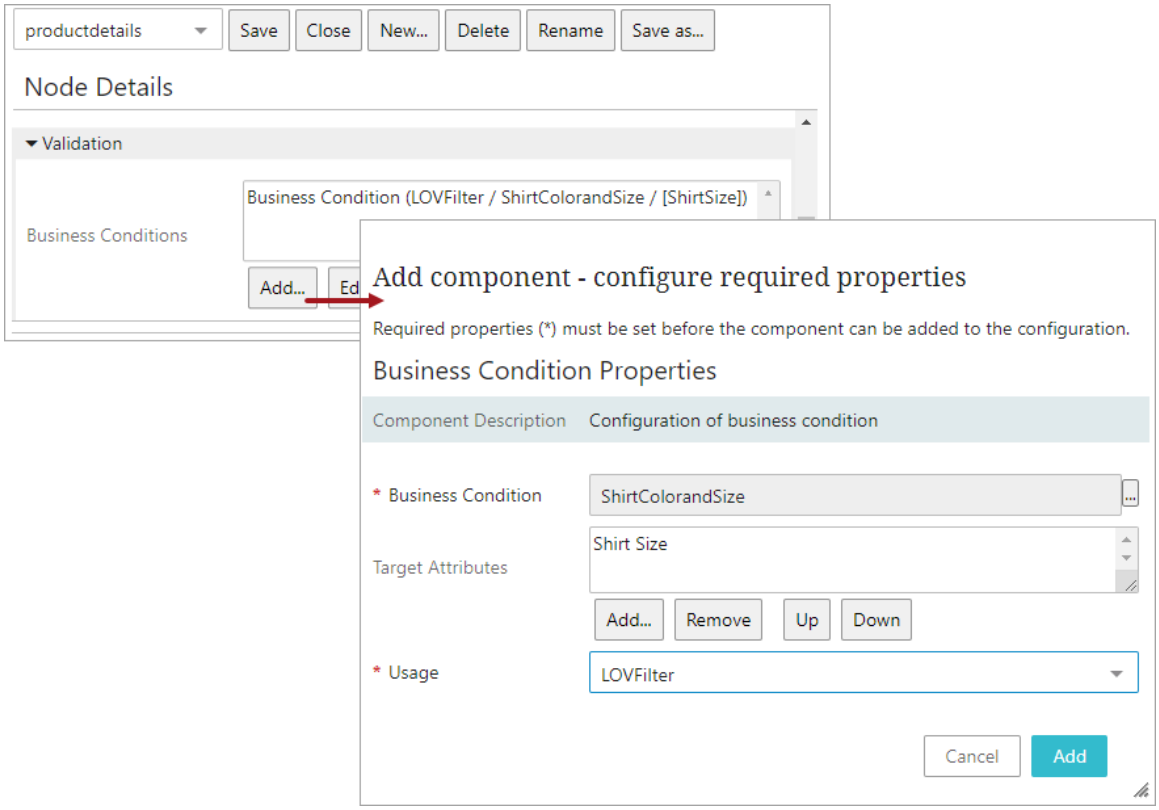
- **Main - Advanced**

  From the screen dropdown, select the **MAIN** option, and expand the **Advanced** section to display the **Business Conditions** parameter. Click the **Add** or **Edit** button to open the Business Conditions Properties dialog.



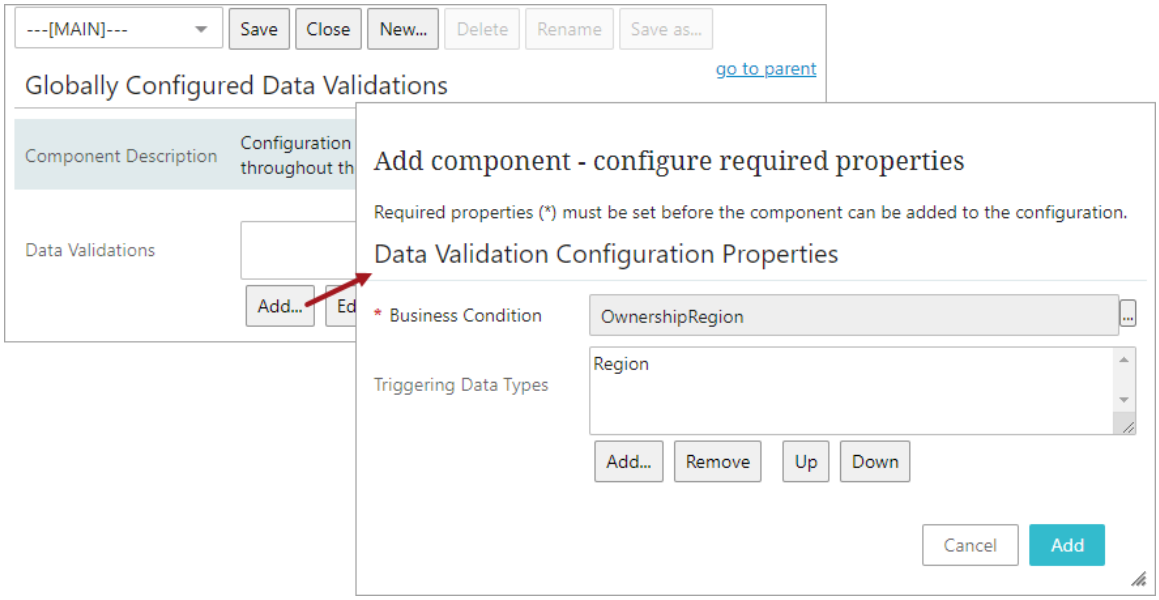
- **Per Screen - Validation**

  Select the **desired screen** from the dropdown, and expand the **Validation** section to display the **Business Conditions** parameter. Click the **Add** or **Edit** button to open the Business Conditions Properties dialog.



4. Configure the business condition based on where it was added.

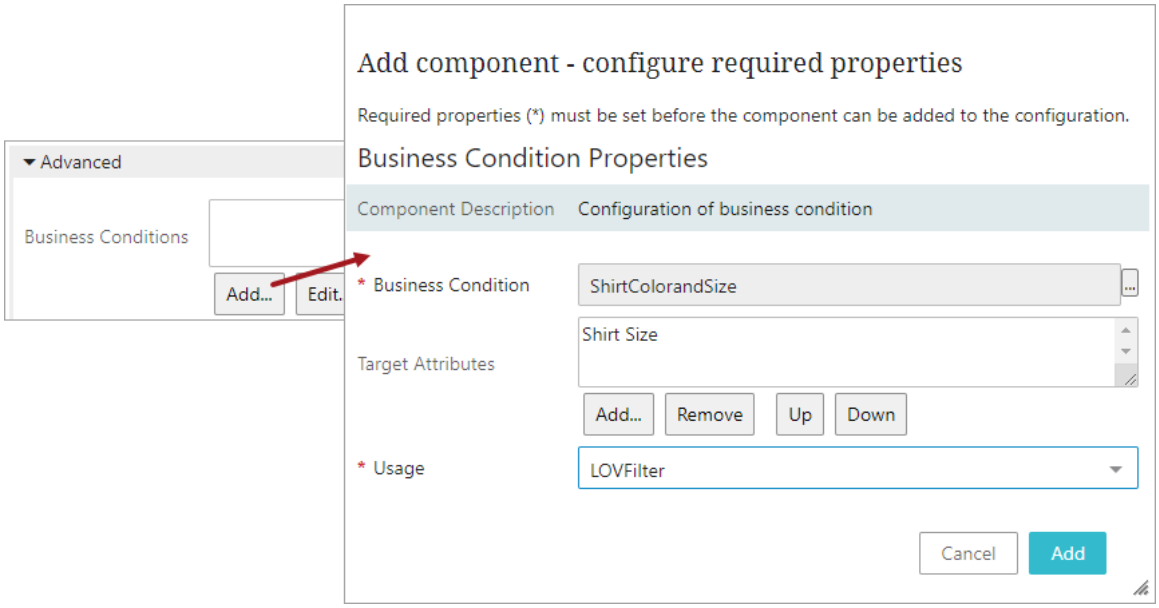
- **Global Representation List**



On the Data Validation Configuration Properties dialog, set the following parameters:

- **Business Condition** - Click the ellipsis button (...) to display the Select Nodes dialog, which includes all business conditions. Select the business condition to evaluate on the screen.
- **Triggering Data Types** - Add the attributes or reference types to be validated dynamically. The total number of triggering data types cannot exceed more than 100, including all mandatory, read-only, and hidden types.

- **Main - Advanced** or **Per Screen - Validation**



On the Business Condition Properties dialog, set the following parameters:

- **Business Condition** - Click the ellipsis button (...) to display the Select Nodes dialog, which includes all business conditions. Select the business condition to evaluate on the screen.
- **Target Attributes** - Add the attributes that should be marked as wrong if the condition is not met.
- **Usage** - Select the desired usage from the dropdown:
  - **LOVFilter** filters illegal values out when the target attribute is a list of values attribute.
  - **Validation** is a legacy option that is superseded by the Global Representation List option. The legacy option marks the target attribute as 'wrong' when the condition fails. For dynamic validation, an Attribute Value bind is required in the JavaScript business rule for each attribute to be validated.

5. Click the **Add** button.
6. Click **Save** and **Close** to exit the designer.

Hiding Data in Web UI

Hiding attributes and references prevents parameters and values from displaying. This is useful when parameters are irrelevant to a scenario, such as attributes that are unnecessary on certain object types. Hiding attributes and references can reduce the complexity of detail screens and remove clutter for the current job. It can prevent users from seeing data that is not pertinent to their role, for example, a marketing user has no need to view the values that a buyer user needs to view.

Recommended Use

- A business condition is required when an attribute or a reference should be hidden dynamically, that is, based on another setting in the node.
- If an attribute or reference should always be hidden, use the Web UI designer or other validation options to hide the object permanently.

Hidden validation can be set in the Web UI as defined in the linked topics below.

Attributes

Validation can be set on attribute objects as defined in:

- **Conditional Attribute Display** topic in the **System Setup** documentation
- **Validity on Description Attributes** topic in the **System Setup** documentation
- **Validity on Specification Attributes** topic in the **System Setup** documentation

Business Conditions

Validation can be set dynamically based on other information on the node via business conditions as defined in:

- **Configuring Business Conditions in Web UI** topic
- **Hidden Bind** topic (for use with JavaScript business rules) in the **Resource Materials** online help documentation

References

Validation can be set for references as defined in:

- **Reference Type - Select Valid Source Types** topic in the **System Setup** documentation
- **Reference Type - Select Valid Target Types** topic in the **System Setup** documentation

Users

Validation can be set for users as defined in:

- **Adding User Privileges for a Group** topic in the **System Setup** documentation
- **Setting Up Attribute Groups for Action Sets** topic in the **System Setup** documentation

Mandatory Data in Web UI

Mandatory validation means a value is required. This setting is available on an attribute, on a reference, or from within a workflow. For example, for products, setting the 'Accessory' reference type as mandatory ensures that the product cannot be approved until an accessory is selected.

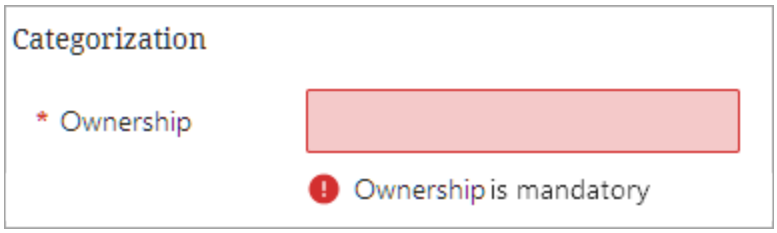
Important: Careful testing is recommended when using mandatory validation.

- A mandatory setting on an attribute or reference in workbench is applied in addition to other data validation settings applied at any level in the Web UI.

  For example, if an attribute is defined as mandatory in the workbench, but a business condition is configured to set that same attribute to be read-only or hidden in the Web UI, then in the Web UI, a product displaying that attribute shows an error with no way to address the error.

- A user cannot save an object if a mandatory value has been removed from a parameter; however, if the parameter has never had a value, the object can be saved.
- Product objects cannot be approved until all mandatory values are added.

Mandatory objects, like the 'Ownership' attribute in the image below, are identified by:



- An asterisk (*) to the left of the attribute name.
- A red background color if the user clicks out of the field without adding a value.
- The default message (shown above) or a custom message configured via a JavaScript business condition.

  Note: The default message that displays for mandatory attributes and references when defined on the object itself overrides any custom messages configured to display when a JavaScript business condition is applied.

Recommended Use

- A business condition is required when an attribute or a reference should be mandatory dynamically, that is, based on another setting in the node.

- If an attribute or reference should always be mandatory, use the Web UI designer or other validation options to set the mandatory requirement on the object permanently. To create custom validation messages without using business rules, refer to the **Custom Validation Error Messages** topic in the **System Setup** documentation or the **Reference Help Text in the Web UI** topic.

Mandatory validation can be set in the Web UI as defined in the linked topics below.

Attributes

Validation can be set on attribute objects as defined in:

- **Mandatory Attributes** topic in the **System Setup** documentation
- **Mandatory Attributes in Web UI** topic

Business Conditions

Validation can be set dynamically based on other information on the node via business conditions as defined in:

- **Configuring Business Conditions in Web UI** topic
- **Mandatory Bind** topic (for use with JavaScript business rules) in the **Resource Materials** online help documentation

References

Validation can be set on reference type objects as defined in:

- **Reference Type - Advanced** topic in the **System Setup** documentation

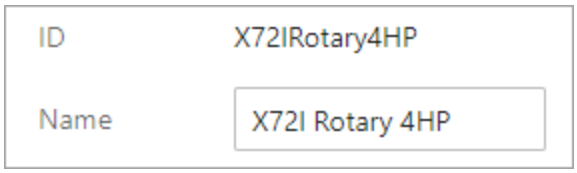
Workflows

Validation can be set in workflows as defined in:

- **Workflow Mandatory Attributes in Web UI** topic

Read Only Data in Web UI

Read-only parameters cannot be edited by users. For example, an attribute value that is important to be viewed by users, but is restricted from editing.



Read-only objects, like the 'ID' attribute in the image above, are identified by:

- Plain text for the attribute name.
- Plain text for the value field; no input box is displayed as it is for values that can be modified, like the 'Name' attribute.
- Optionally, a custom message configured via a JavaScript business condition.

Recommended Use

- A business condition is required when an attribute or a reference should be read-only dynamically, that is, based on another setting in the node.
- If an attribute or reference should always be read-only, use the Web UI designer or other validation options to set the read-only requirement on the object permanently. To create custom validation messages without using business rules, refer to the **Custom Validation Error Messages** topic in the **System Setup** documentation or the **Reference Help Text in the Web UI** topic.

Read-only validation can be set in the Web UI as defined in the linked topics below.

Attributes

Validation can be set on attribute objects as defined in:

- **Configuring the Attribute Link Editor Screen** topic
- **Product Editor Screen** topic
- **Attribute Value Component** topic
- **Attribute Value Group Component** topic

Business Conditions

Validation can be set dynamically based on other information on the node via business conditions as defined in:

- **Configuring Business Conditions in Web UI** topic
- **Read Only Bind** topic (for use with JavaScript business rules) in the **Resource Materials** online help documentation

References

Validation can be set on reference type objects as defined in:

- **References Component** topic
- **Product Editor Screen** topic
- **Referenced Asset Representation** topic

Users

Validation can be set for users as defined in:

- **Privilege Rules** topic in the **System Setup** documentation

Value Validation in Web UI

Value validation settings ensure that the values added for an attribute or reference meet the business requirements. For example, allowing only numeric characters or using inheritance to ensure consistent data.

Recommended Use

- A business condition is required when a value should be validated dynamically, that is, based on a change on another item in the node.
- If a value should always be validated in the same way, use the Web UI designer or other validation options to set the value requirement permanently. To create custom validation messages without using business rules, refer to the **Custom Validation Error Messages** topic in the **System Setup** documentation or the **Reference Help Text in the Web UI** topic.

Value validation can be set in the Web UI as defined in the linked topics below.

Attributes

Validation can be set on attribute objects as defined in:

- **Validation Rules** topic in the **System Setup** documentation
- **List of Values (LOVs)** topic in the **System Setup** documentation
- **Specification Attributes** topic in the **System Setup** documentation
- **Description Attributes** topic in the **System Setup** documentation
- **Single and Multi-valued Attributes** topic in the **System Setup** documentation

Business Conditions

Validation can be set dynamically based on other information on the node via business conditions as defined in:

- **Configuring Business Conditions in Web UI** topic
- **Data Issues Report Bind** topic (for use with JavaScript business rules) in the **Resource Materials** online help documentation

References

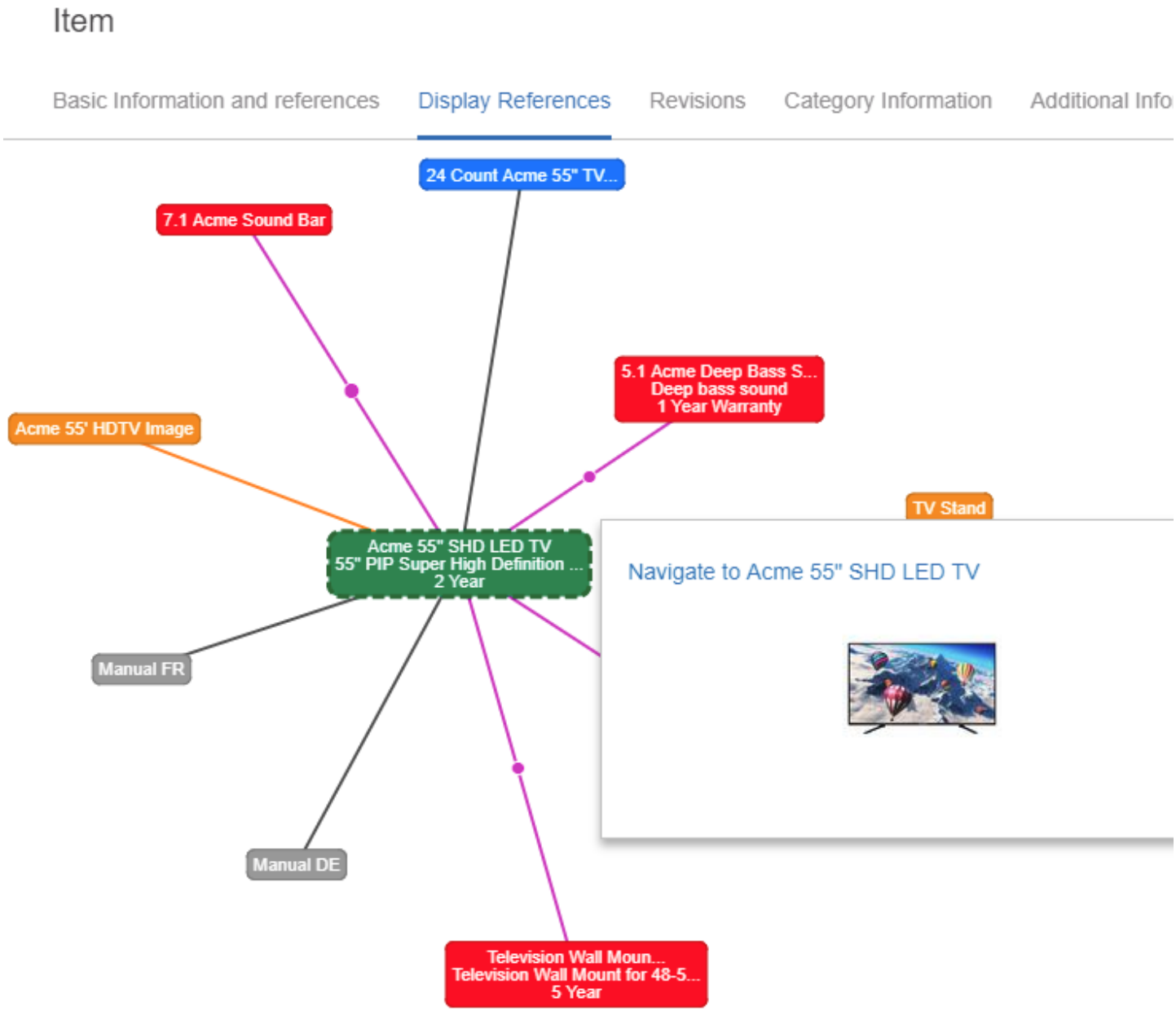
Validation can be set on reference type objects as defined in:

- **Reference and Link Types** topic in the **System Setup** documentation
- **Custom Reference Target Search** topic

Data Visualization

Data visualization functionality in Web UI allows users to view a visual representation of objects in STEP and how they relate to each other. The visualization of object types and their reference objects can help users better understand data and identify patterns, find better ways to organize objects, and ultimately build better data relationships.

The highly customizable interface is interactive, allowing users to click on and mouse over graphical objects on the screen to get more information on an object, expand outward from it to display additional references, or navigate directly to it.



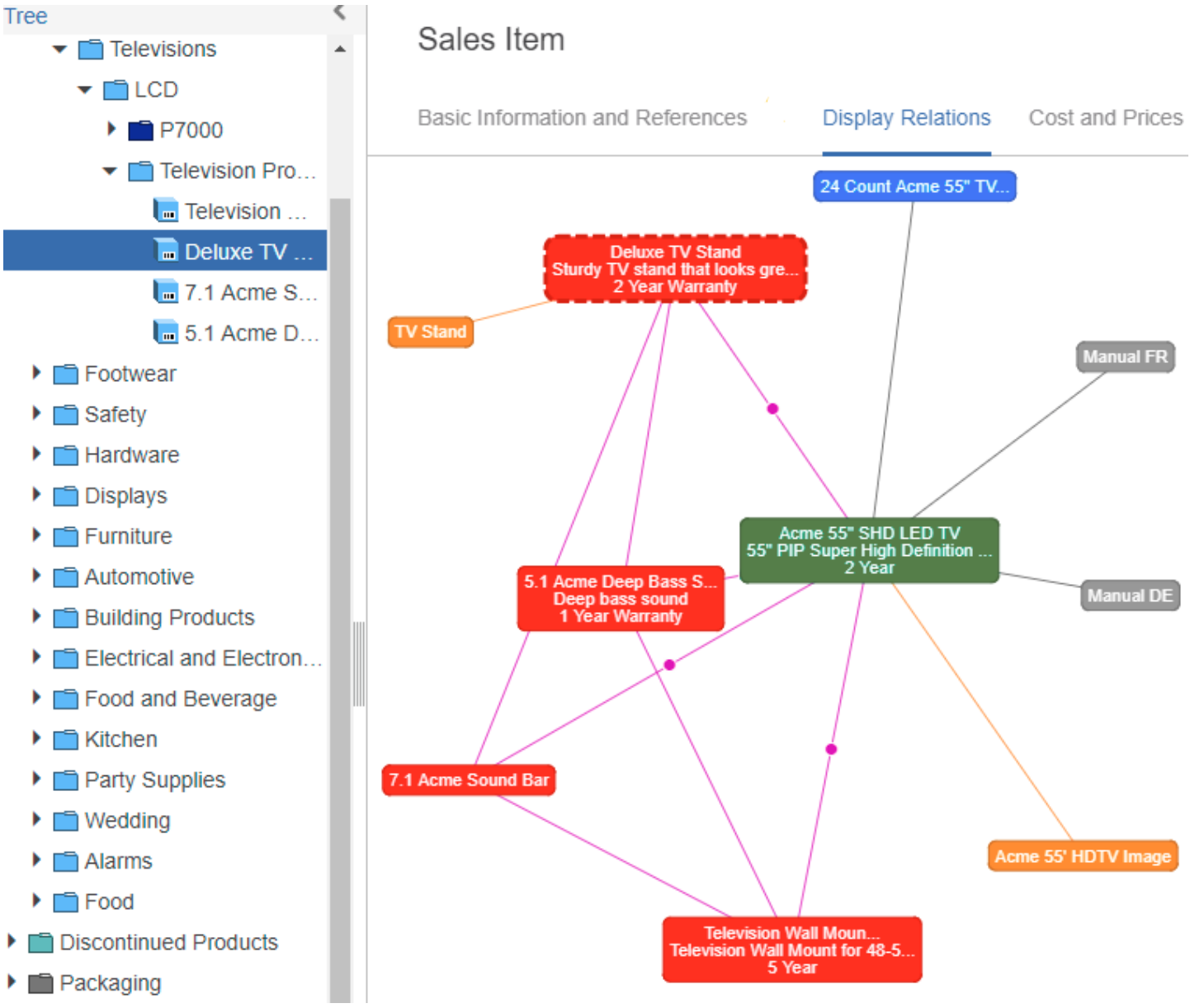
Using Data Visualization

When a user clicks on an object, the interface displays the object and related objects. If the user clicks on a related object node, then the interface updates based on the new selection.

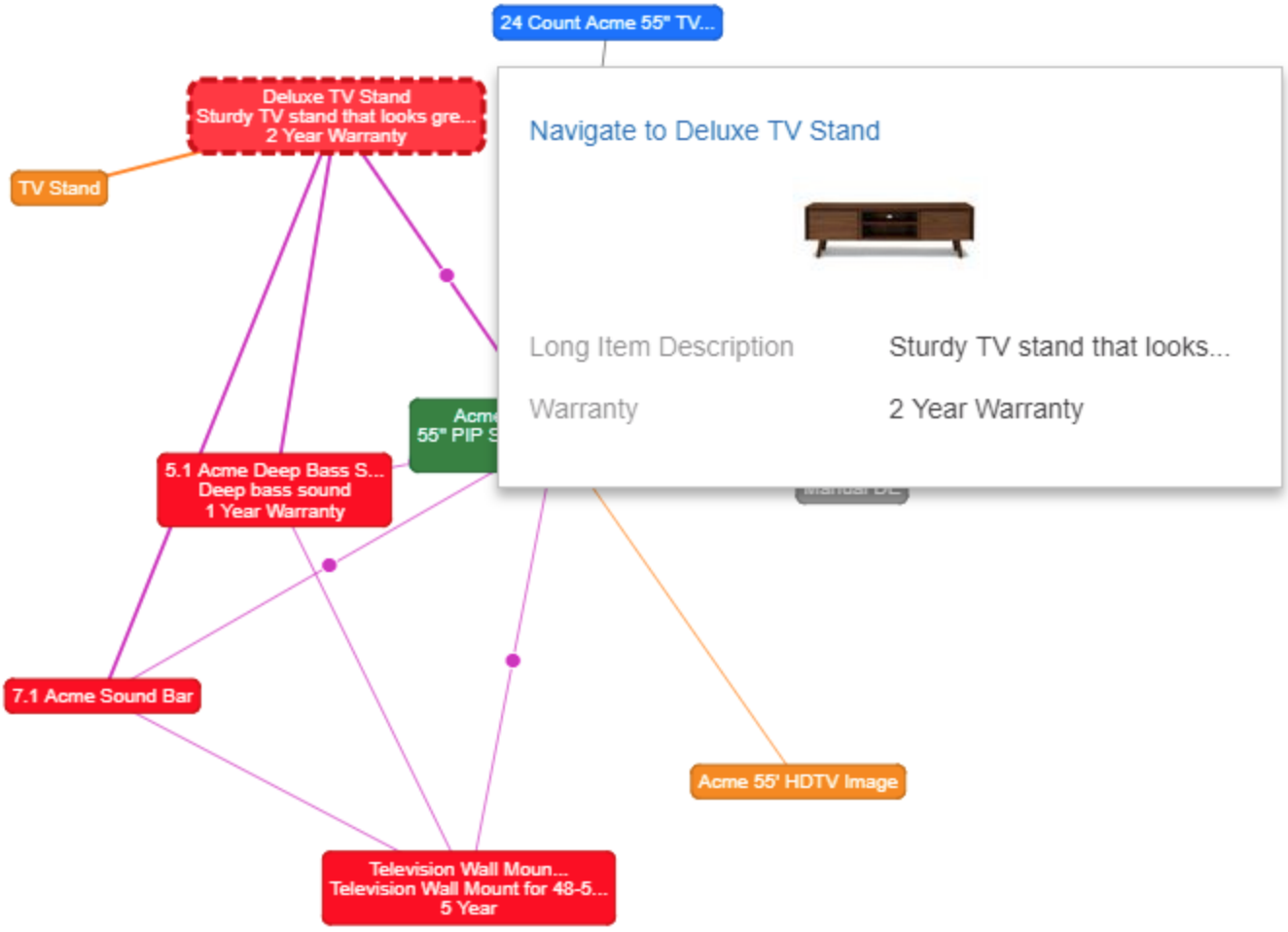
By default, when an object is selected the system displays one (1) 'step' (the object and a single level of references). If the user wants to view more expanded data, then the Expansion Distance parameter can be changed to show more steps.

Below is an example:

The end user clicks on a Sales Item named 'Deluxe TV Stand' and views the graphical interface on a Display Relations screen configured as a Sub Screen Tab Page on a Node Details screen (Sales Item). The object the user is on is identified by the dotted line around the node.



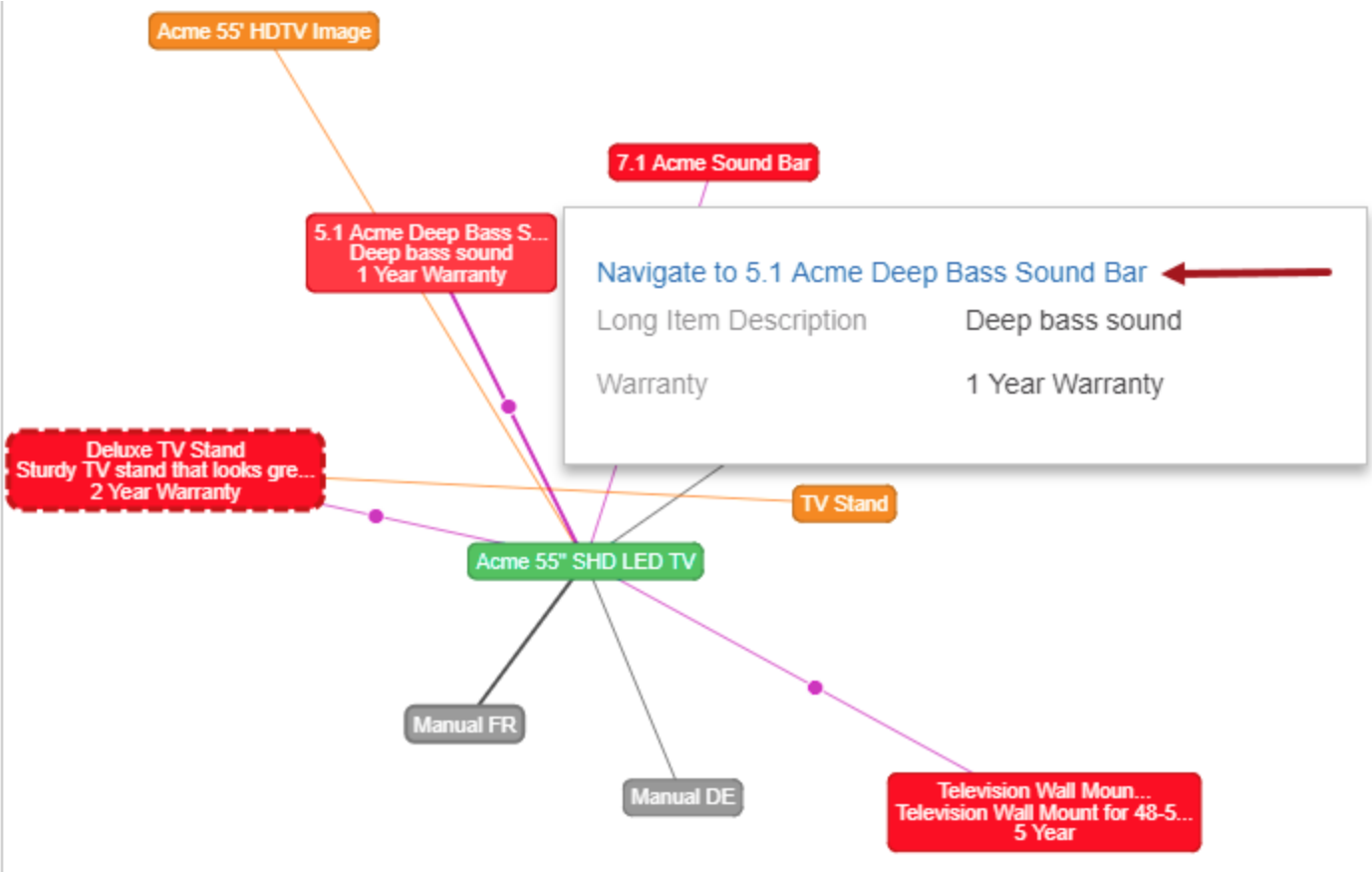
Mousing over the object node displays a hover popup showing the primary product image and configured attributes.

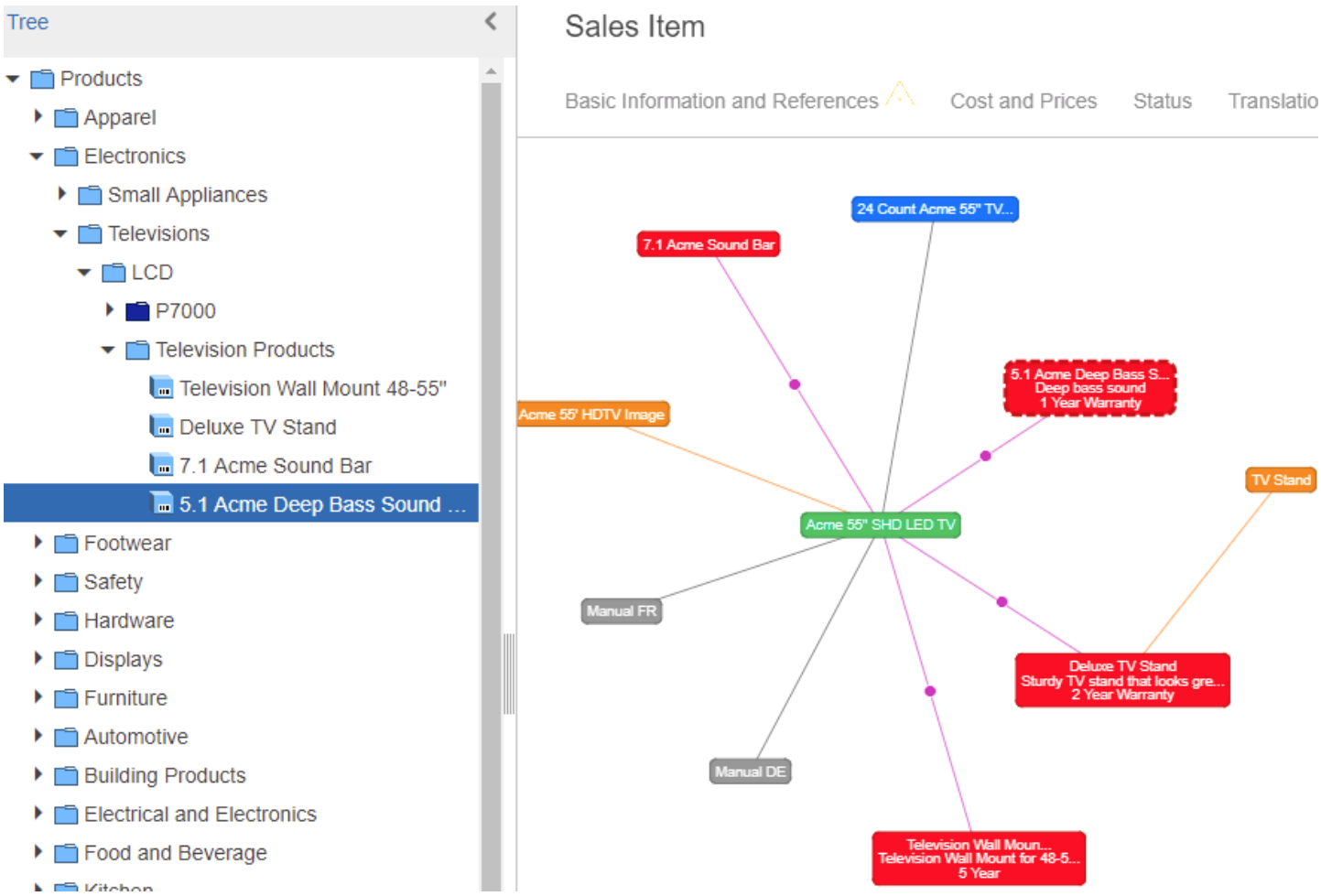


Clicking on a reference node 'Television Wall Mount' adjusts the visual representation accordingly.

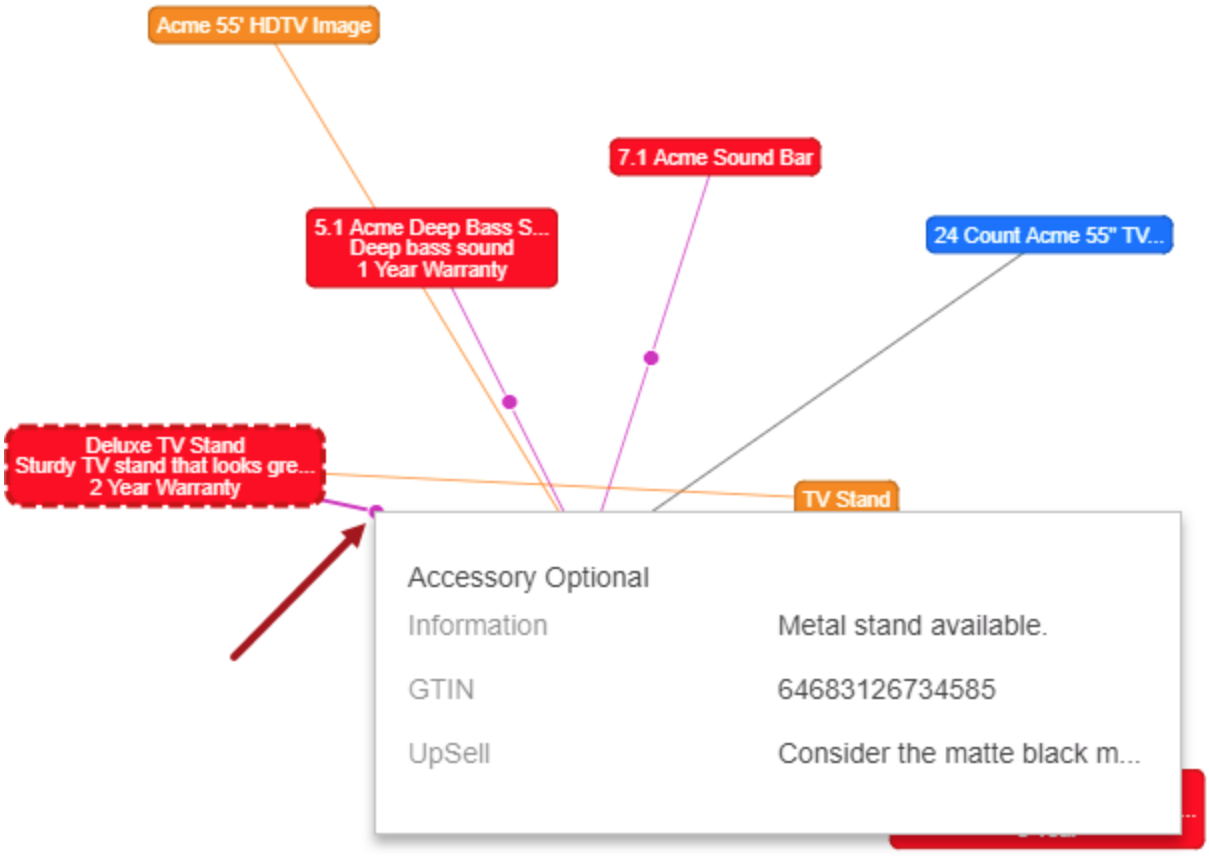


Alternatively, mousing over a reference node and then clicking on the 'Navigate to 5.1 Acme Deep Bass Sound Bar' link will take the user to object '5.1 Acme Deep Bass Sound Bar.' '5.1 Acme Deep Bass Sound Bar' becomes the new selected object.


Acme 55' HDTV Image
7.1 Acme Sound Bar
5.1 Acme Deep Bass S...
Deep bass sound
1 Year Warranty
Navigate to 5.1 Acme Deep Bass Sound Bar
Long Item Description
Deep bass sound
Warranty
1 Year Warranty
Deluxe TV Stand
Sturdy TV stand that looks gre...
2 Year Warranty
TV Stand
Acme 55" SHD LED TV
Manual FR
Manual DE
Television Wall Moun...
Television Wall Mount for 48-5...
5 Year



Users also can view metadata attributes on references by mousing over the dot on the reference type.



Product | Sub Products | References | Referenced By | Images & Documents | Commercial | Tables | Category Profile | Proof View | Status | Stat

Attribute Group

Reference Type	Target	Information	GTIN	UpSell
Accessory Optional +	5.1 Acme Deep Bass Sound Bar	Promotional offer.	58347928647120	Suggest Acme 7.1 sound bar.
	7.1 Acme Sound Bar	Promotional offer.	58997734928632	Not applicable.
	Deluxe TV Stand	Metal stand available.	64683126734585	Consider the matte black metal stand.
	Television Wall Mount 48-55"	Our finest.	32993375877225	Not Applicable.

Users can also zoom in and zoom out using their mouse scroll on the Display Relations screen. They can click on and move nodes to different positions on the screen (with no impact to data / relationships).

Important: The maximum object limit is 500 and controlled by a configurable setting in the sharedconfig.properties file (DisplayRelations.MaxObjectsLimit). If a user clicks on an object or reference object that has over 500 related objects to be displayed on screen, then a message displays that says 'Maximum limit of 500 objects has been exceeded.' Changing the maximum object limit to a higher number is not recommended. In addition, if you experience issues with Web UI performance while using this functionality, you may want to lower the maximum object limit and/or lower the Expansion Distance value to find the optimal setup for your system.

Configuring Data Visualization

Data Visualization in Web UI allows users to view a visual representation of objects in STEP and how they relate to one another. The visualization of object types and their reference objects may help users better understand data and identify patterns, better organize objects, and ultimately build better data relationships. The customizable interface is interactive, allowing users to click on and mouse over graphical objects on the screen to get more information on an object, or navigate directly to it.

This topic addresses:

- Prerequisites
- Creating a New Display Relations Screen
- Configuring a Display Relations Screen
- Configuring Main Properties

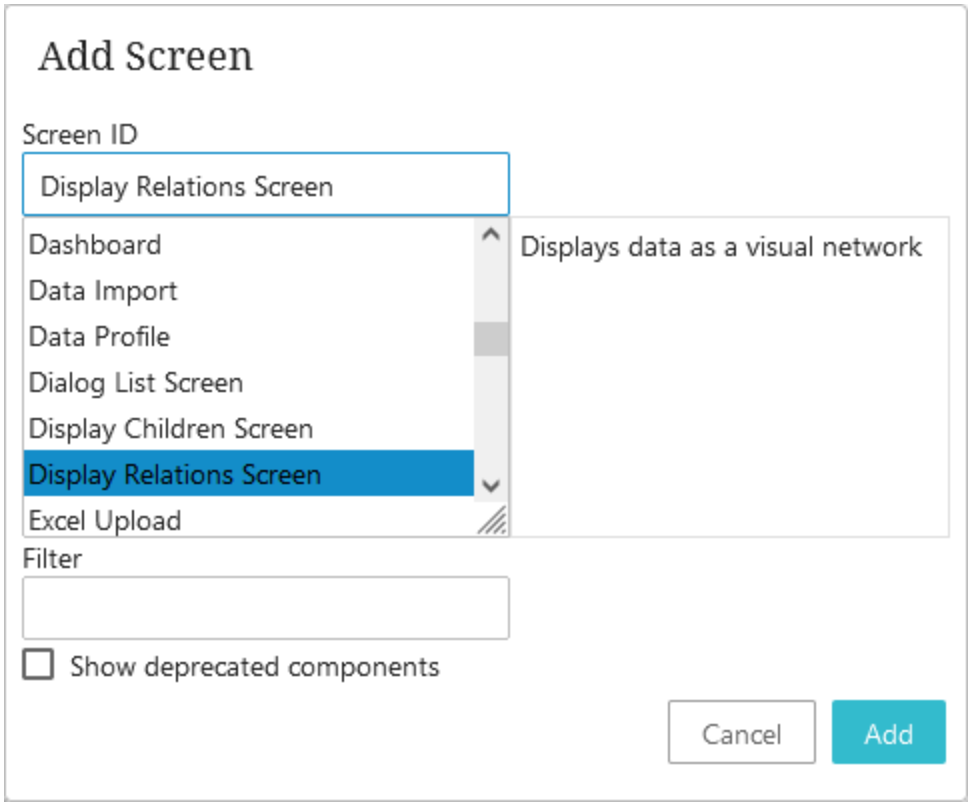
Prerequisites

All of the configuration steps provided in this topic assume the Web UI designer is in design mode and that all users (designers and end users) have the proper privileges to work with these features. For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

Creating a New Display Relations Screen

The **Display Relations Screen** screen type is dedicated to visually display objects and references.

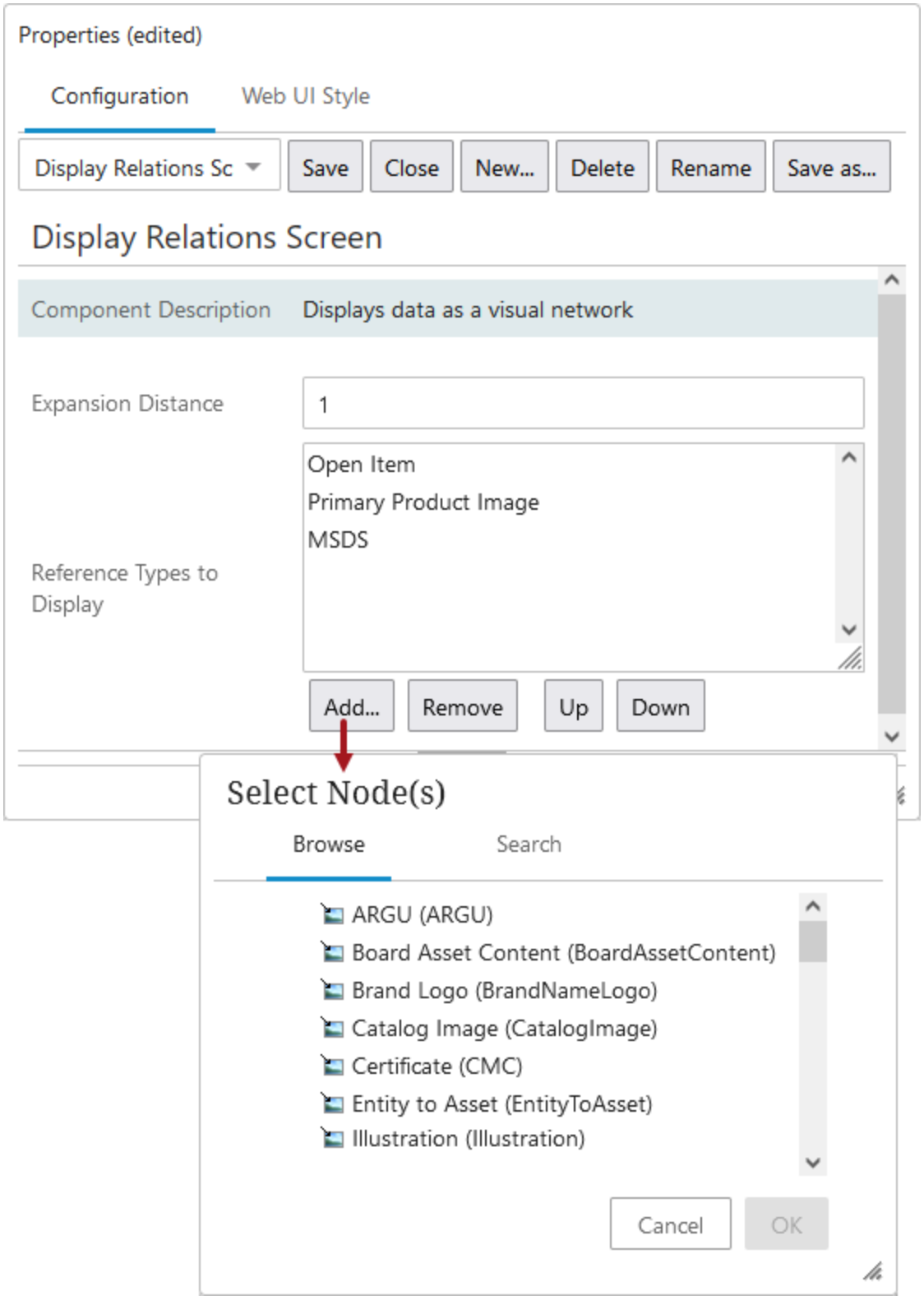
1. In the designer window, click the **New** button in the action icon row.
2. Choose **Display Relations Screen** from the screen list and type in a Screen ID. The screen ID should be something easily identifiable when it is time to configure the screen and/or set up screen mapping.



3. Click **Add**.
4. Click **Save**. At this point, either close designer and configure the screen at a later time, or continue on with the **Display Relations Screen** configuration.

Configuring a Display Relations Screen

Each parameter should be configured as needed and features help text, accessible by clicking the yellow info icon to the right of each parameter name (as shown in the next screenshot).



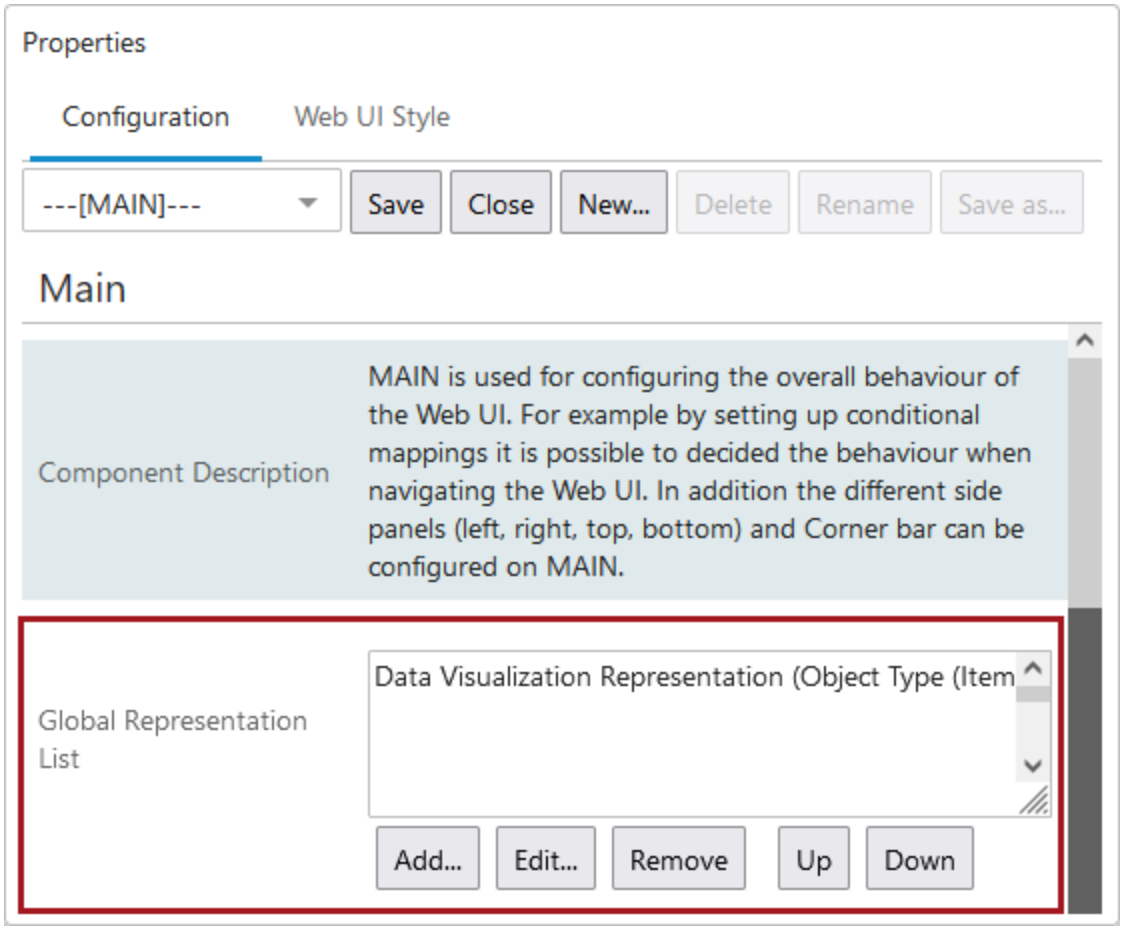
1. Select the **Display Relations Screen** you just created by selecting the screen ID from the screen dropdown.

2. Enter a number in the **Expansion Distance** parameter value field. This must be a whole integer and determines how far the display will branch out from the selected object (e.g., one reference 'step' away from the object or five reference 'steps' away from the object). This determines both the default number of 'steps' shown from the original selection, as well as the expansion distance when an object in the relations screen is clicked. Care should be taken in setting the expansion distance as a high number could cause performance issues. It is recommended to set this number between 1 and 3.
3. Determine which reference types will be displayed. Click **Add** under the **Reference Types to Display** field, and make a selection from the **Select Node(s)** screen. Reorder or remove the Reference Types as needed. If no selection is made, then all reference types will be shown.
4. **Save** the changes.
5. As with any screen, it must be mapped appropriately in **Main Properties** > **Mappings** for end users to be able to access it. As an alternative to mapping, the Display Relations Screen can be added as a **Sub Screen Tab Page** on a **Node Details** screen.
6. **Close** design mode to return to normal operation, or move on to the **Configuring Main Properties** section to continue the configuration steps.

Configuring Main Properties

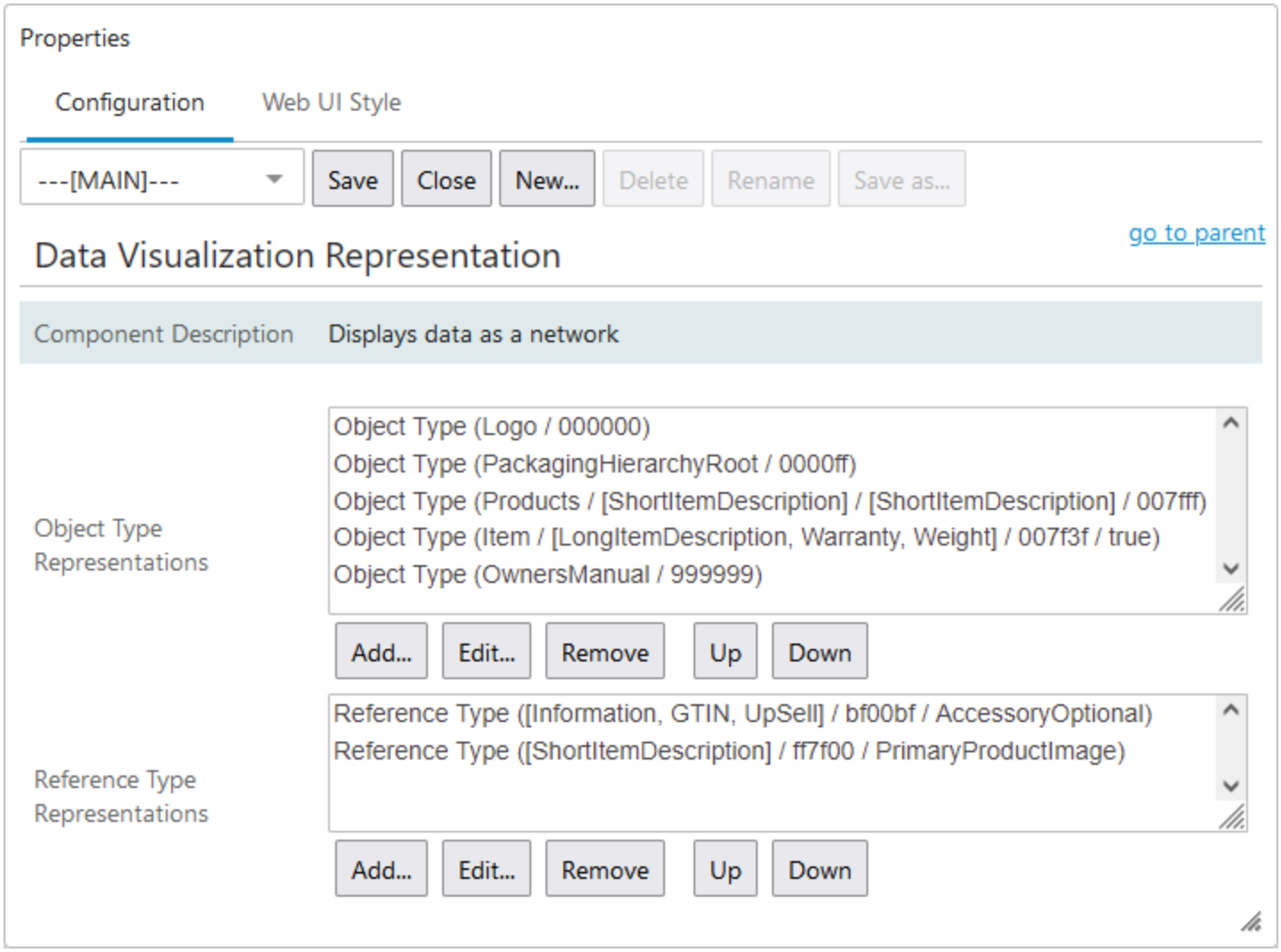
Within the **Main Properties**, which are used for configuring the overall behavior of the Web UI, configuration can be done to set up the look of the graphical interface that users will view when using any Display Relations screen. Object type and reference styling only needs to be set up one time, and the selections will be applied to usage throughout a specific Web UI, regardless of how many Display Relations screens are used.

1. Enter design mode and select **---[MAIN]---** from the screen dropdown list.
2. Go down to the **Global Representation List** parameter.
3. Click the **Add...** button under the value field.
4. Select **Data Visualization Representation** from the Add Component dialog.
5. Double click the **Data Visualization Representation** title that populates the value field and configure the Data Visualization Representation Properties.
6. Click **Save**.

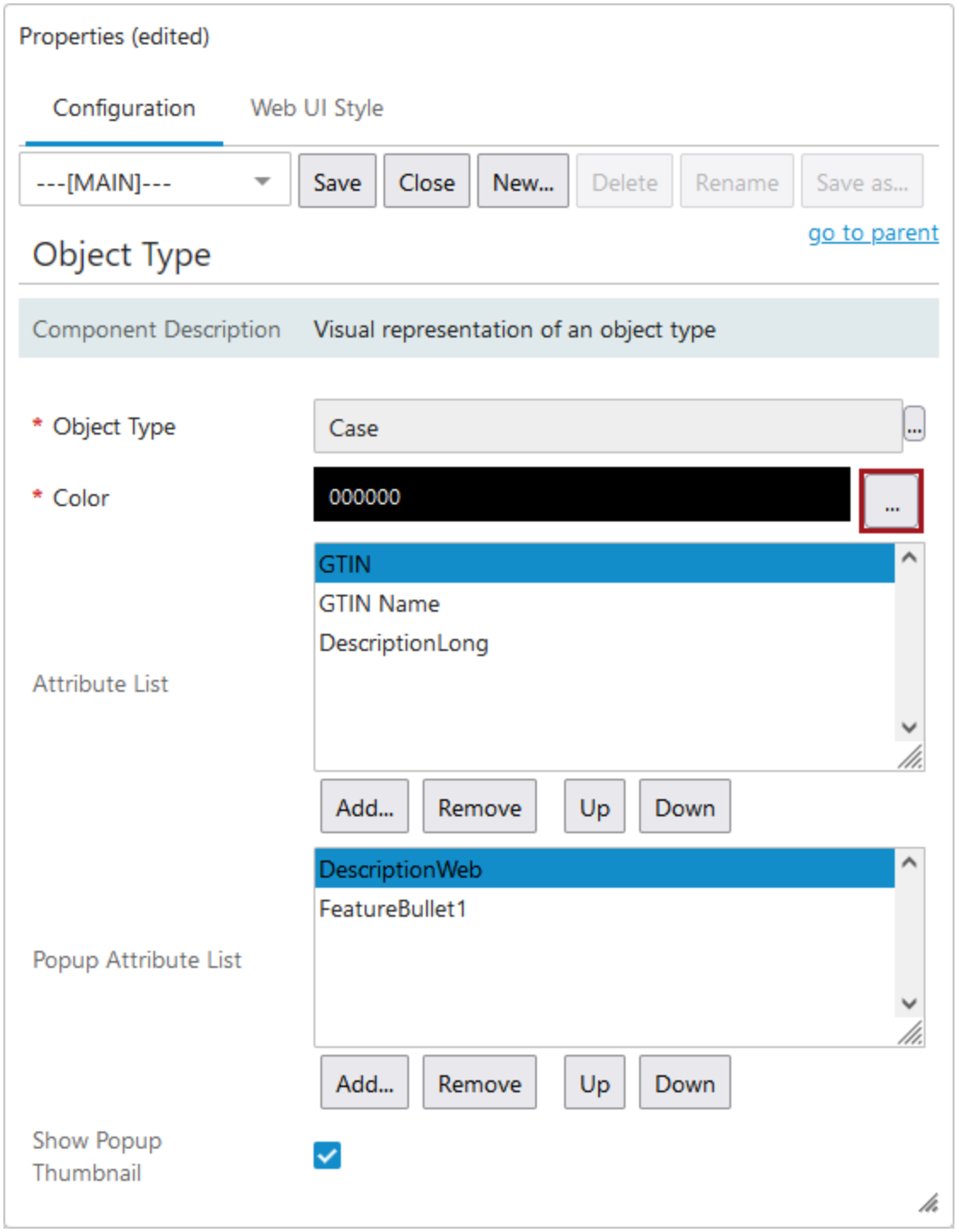


Next the **Data Visualization Representation Properties** value fields need to be populated.

For easy identification, you can configure all nodes of the same type (e.g., all assets, all products, all entities, or all classifications) so that all object type nodes under that object structure hierarchy are represented by the same color and same attributes. You can configure display settings on a more granular level, too, or do a combination of both. For example, you can designate all products to display one color / attribute combo except for objects representing direct sellable units, which could be a different color and/or attribute combo). The display settings are highly configurable to fit the needs of your object structure. A sample configuration is shown below.



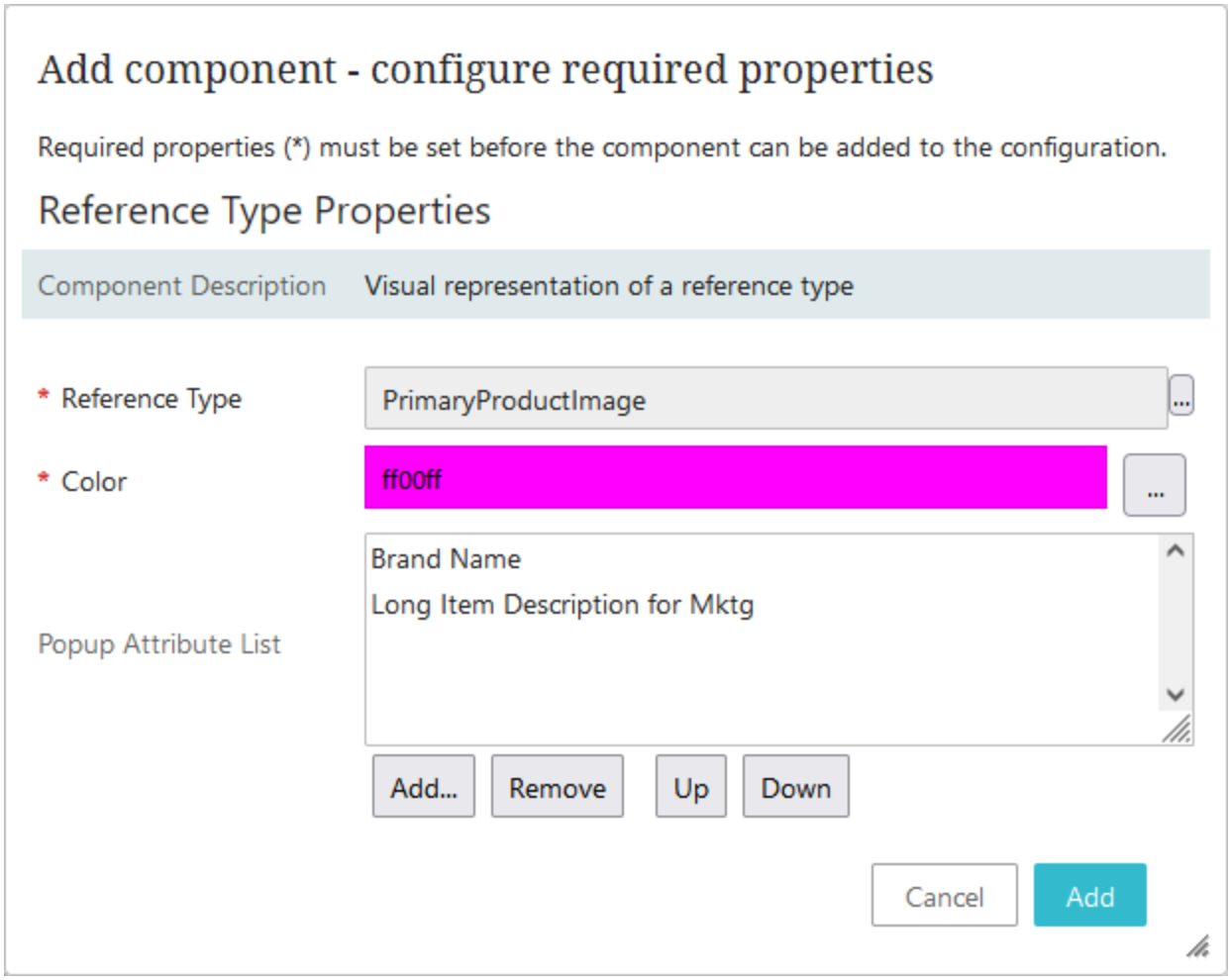
7. Click the **Add** button under the **Object Type Representations** field.
   - Click the ellipsis button (...) to select **Object Type**.
   - Enter a hex color code in the **Color** field, or click the ellipsis button (...) to the right of the field to select a color. If you choose to enter the hex color code yourself, the format is a six-digit hex color code. The '#' sign that is usually associated with hex color coding is applied automatically. Use this color coding to visually distinguish between different types of data.
   - Add individual attributes to the **Attribute List** field. The attribute values will display on the object in the interface. The name of the object displays by default and is not a configurable setting.
   - Make **Popup Attribute List** selections. The attribute values will display on the hover information that displays when mousing over the nodes within the interface. The name of the object displays by default along with a link to the object.
   - The primary product image will also display on the hover popup if the **Show Popup Thumbnail** parameter is enabled / checked.
   - When done, click **Add** to save the selections.

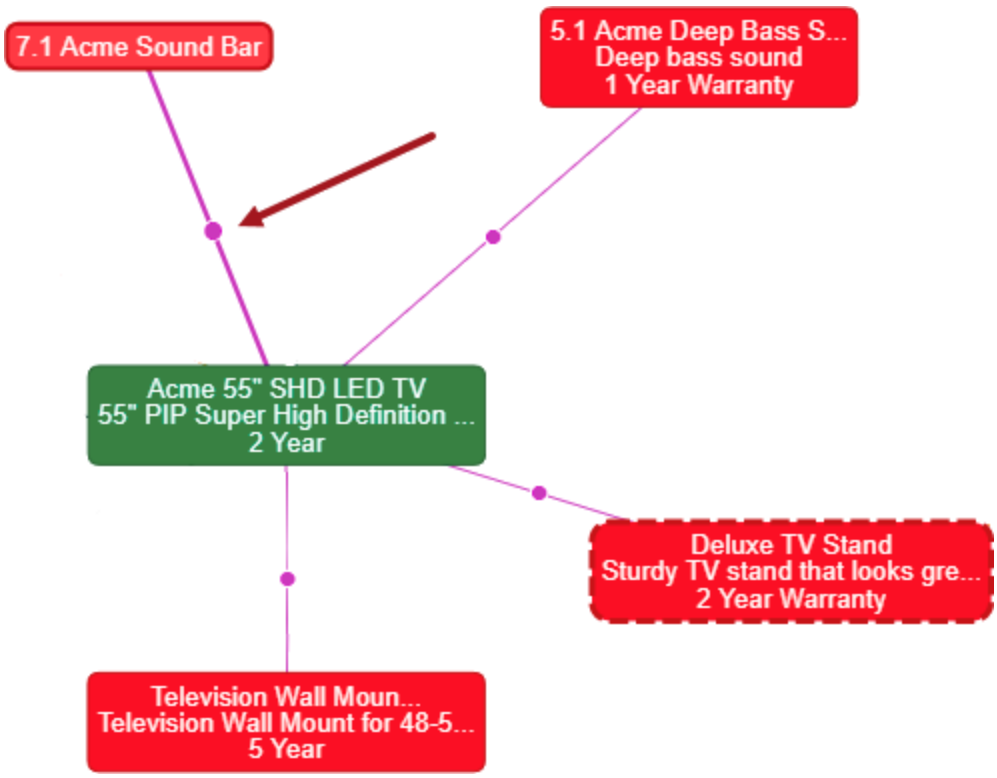


8. Next, click the **Add** button under the **Reference Type Representations** field.
   - Click the ellipsis button (...) to make **Reference Type** selections.
   - Enter a hex color code in the **Color** field or, click the ellipsis button (...) to the right of the field to select a color. If you choose to enter the hex color code yourself, the format is a six-digit hex color code. The '#' sign

that is usually associated with hex color coding is applied automatically. Use this color coding to visually distinguish between different types of data.

- If desired, enter the metadata attributes that you want to display when you hover over the **Reference Type**. These are the metadata attributes that are on the object to the target.
- Click **Add** to save the settings.





9. Click **Save** and **Close** design mode to return to normal Web UI operation.

Dimension Dependent Attributes in Web UI

Dimension dependent attributes in both Web UI and workbench behave in a similar fashion. For more information on dimension dependent attribute behavior in workbench, refer to the **Dimension Dependent Attributes** section of the **System Setup** documentation.

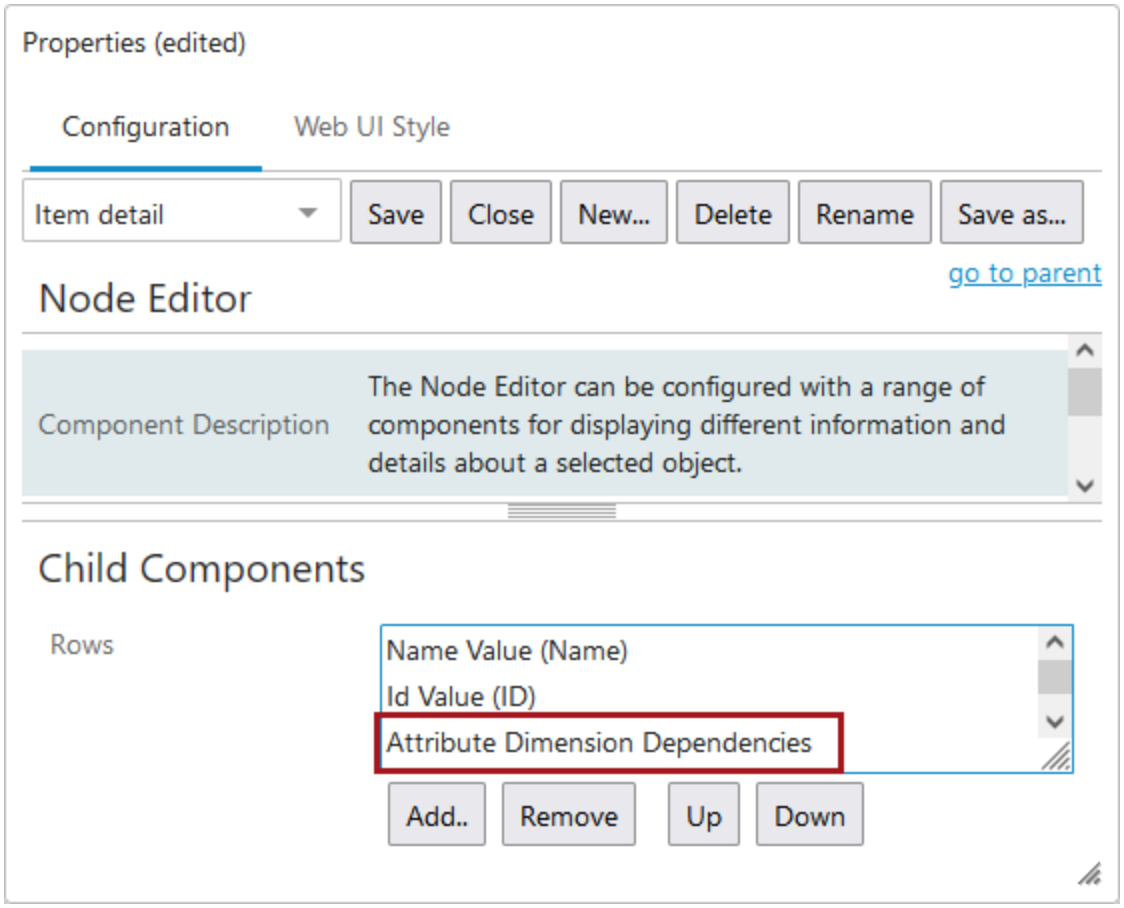
For more general information on dimension dependencies, refer to the **Dimensions and Dimension Points** section of the **System Setup** documentation.

Web UI Configuration

Attribute Dimension Dependencies component

With the Attribute Dimension Dependency component, users can add dimension dependencies on an attribute. Dimension dependent attributes can have different values for different dimensions, e.g., language, country, etc.

Note that the instructions provided below assume the user is adding the Attribute Dimension Dependencies component to an Attribute Management screen. The primary business case for the Attribute Dimension Dependencies component is for the purpose of editing and managing attributes in the Web UI, which is done on the Attribute Management screen. Recommended practice is to configure this component on the Attribute Management screen. A full description of how to configure the Attribute Management Screen can be found in the **Attribute Group Management Screen** section of this documentation.



The Attribute Dimension Dependencies component does not require configuration. A field is available for users to add customized help text.

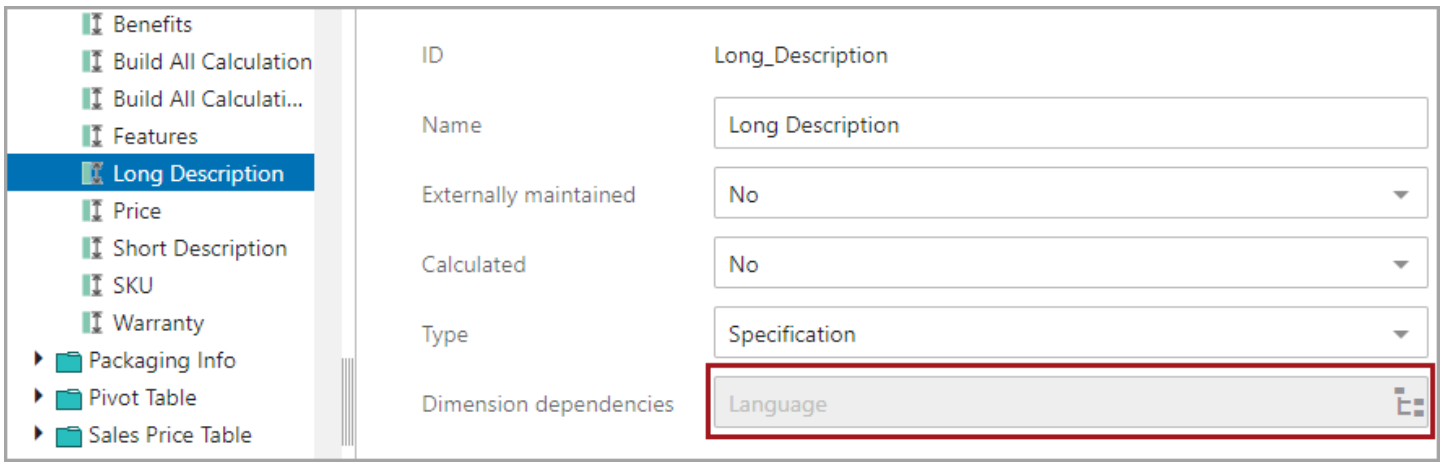
Note: The 'Attribute Dimension Dependencies' component is pre-configured on a 'Attribute Management' screens. Though possible, it is not recommended to remove any of the pre-configured components, including 'Attribute Dimension Dependencies', as it may compromise the user's ability to fully edit and maintain attributes.

Handling Dimension Dependent Attributes in Web UI

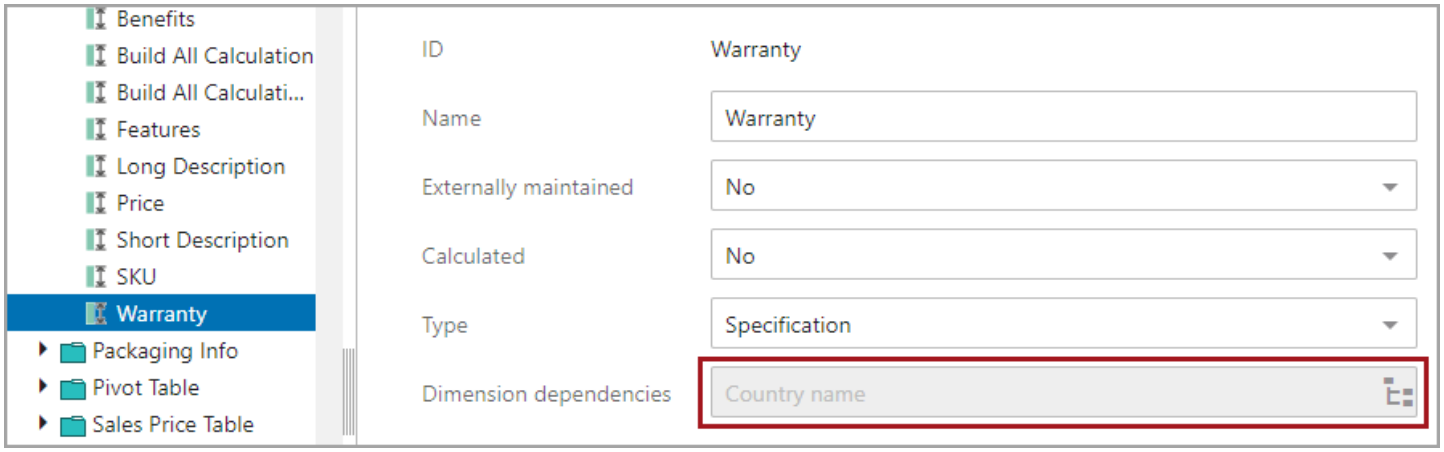
Dimension Dependent Attribute Values in Web UI

The screenshots below provide two examples of dimension dependent attributes. The first is dependent on a language dimension and the second is dependent on a country dimension.

1. The attribute **Long Description** has a 'Language' dimension dependency, meaning its content may differ based on the language context in which it is viewed.



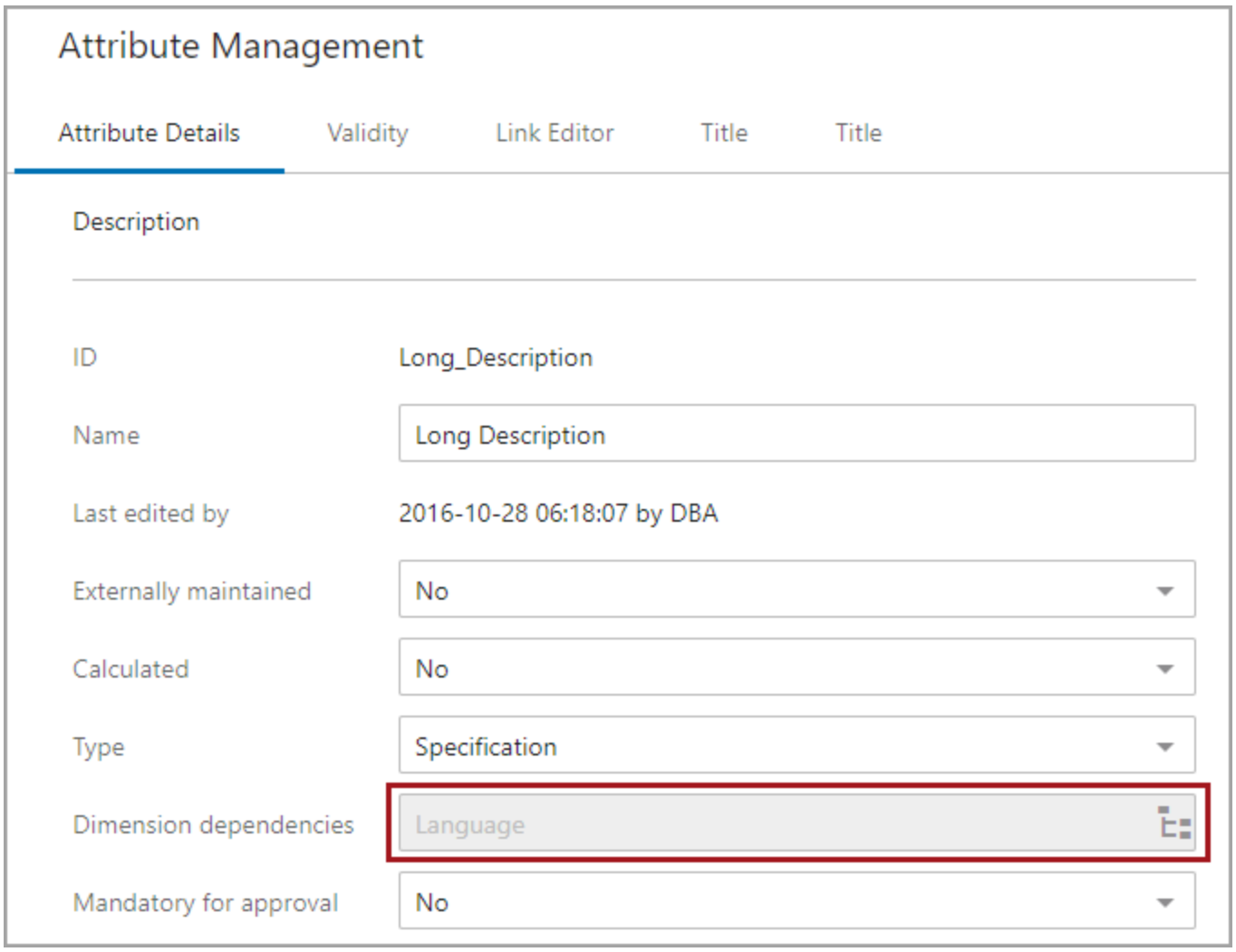
2. The **Warranty** attribute shown below has a 'Country' dimension dependency, meaning that its content may differ based on the country context in which it is viewed. In this example, this dependency has been applied because the product's warranty information may vary based on the country in which it is sold.



A context that uses the 'Language' dimension point of 'English' and the 'Country' dimension point of 'USA' would contain an English-language value for 'Long Description' and USA-specific 'Warranty' content. Additionally, the **Warranty** attribute could also be made language dependent to ensure the warranty text is always in English.

Setting Dimension Dependency on Attributes and LOVs in Web UI

To set a dimension dependency for attributes and LOVs in the Web UI, users must first navigate to the attribute or LOV object to be edited. If configured correctly in the Web UI, the Attribute Management screen will display for attributes, and the List of Values Management screen will display for LOVs. For the screenshots below, an Attribute Management screen is shown.

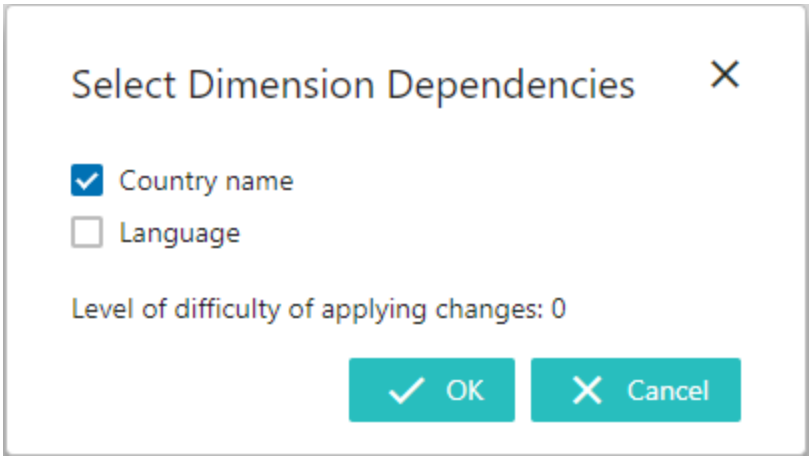


Note: If users are creating or editing attributes whose information will never vary by language or country, no dimension dependency should be applied to it. If a dimension dependency is applied to an attribute for which data has been added for many objects, new data will be stored on the specified dimension point. When a user newly applies a dimension dependency, they are choosing the dimension that existing data should be applied to. When there is no dimension dependency, data is visible in all dimensions, so applying a dimension dependency and choosing the dimension point where it goes means some dimensions will not have data. Information detailing which dimensions will have the data and which dimensions will not is displayed to the user in the validation step. Prior to 9.3, it was not possible to select the dimension where existing data should be applied. When enabling a dimension dependency, data was automatically applied to the highest dimension point. If a user newly enabled a dimension prior to 9.3, to move data into an appropriate dimension point, refer to the **Adding a Dimension Dependency After Loading Data** topic.

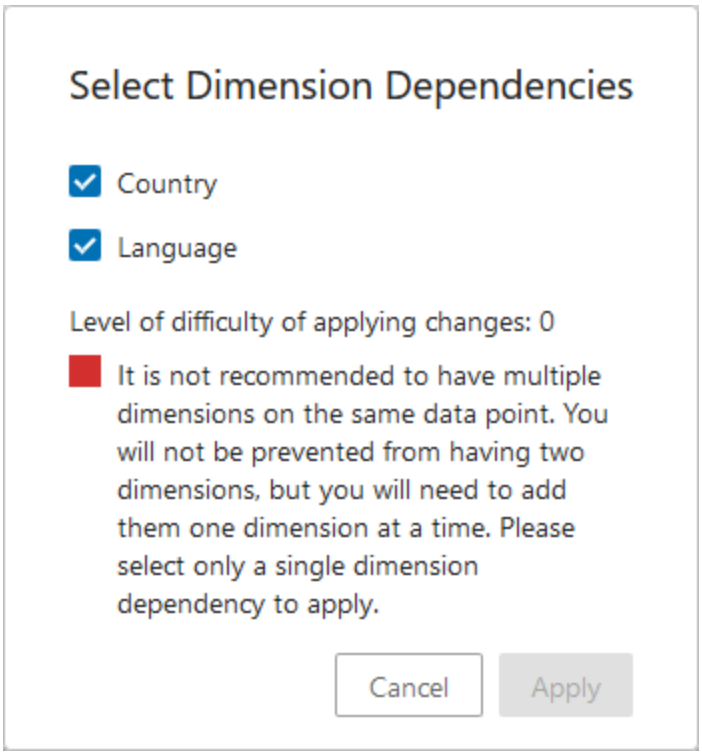
To set the dimension dependency on an attribute, follow these instructions:

1. In the **Dimension Dependencies** parameter of the desired attribute or LOV, click the hierarchy button .

2. In the **Select Dimension Dependencies** dialog that displays, check the box for the dimension to which the data should be applied, then click **OK** to set the dependency.

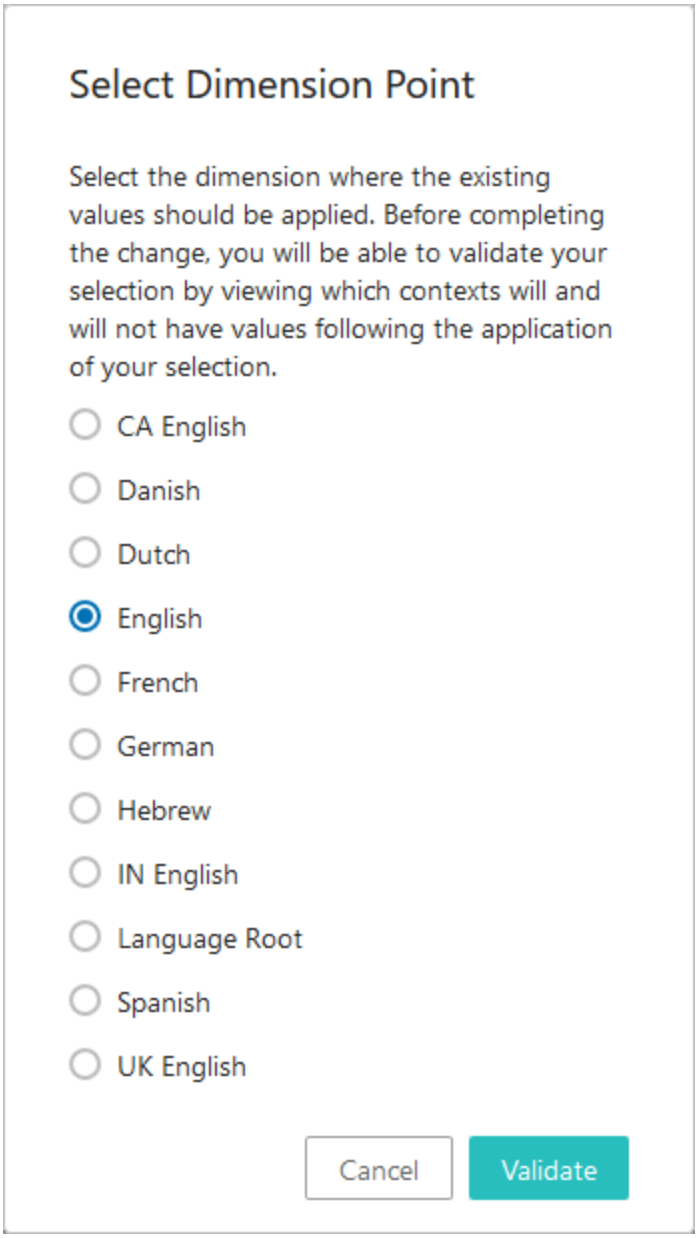


Only one dimension dependency can be selected in a single action, with only two dimension dependencies applied in total. If a user attempts to check two dimensions at once, an error will display:



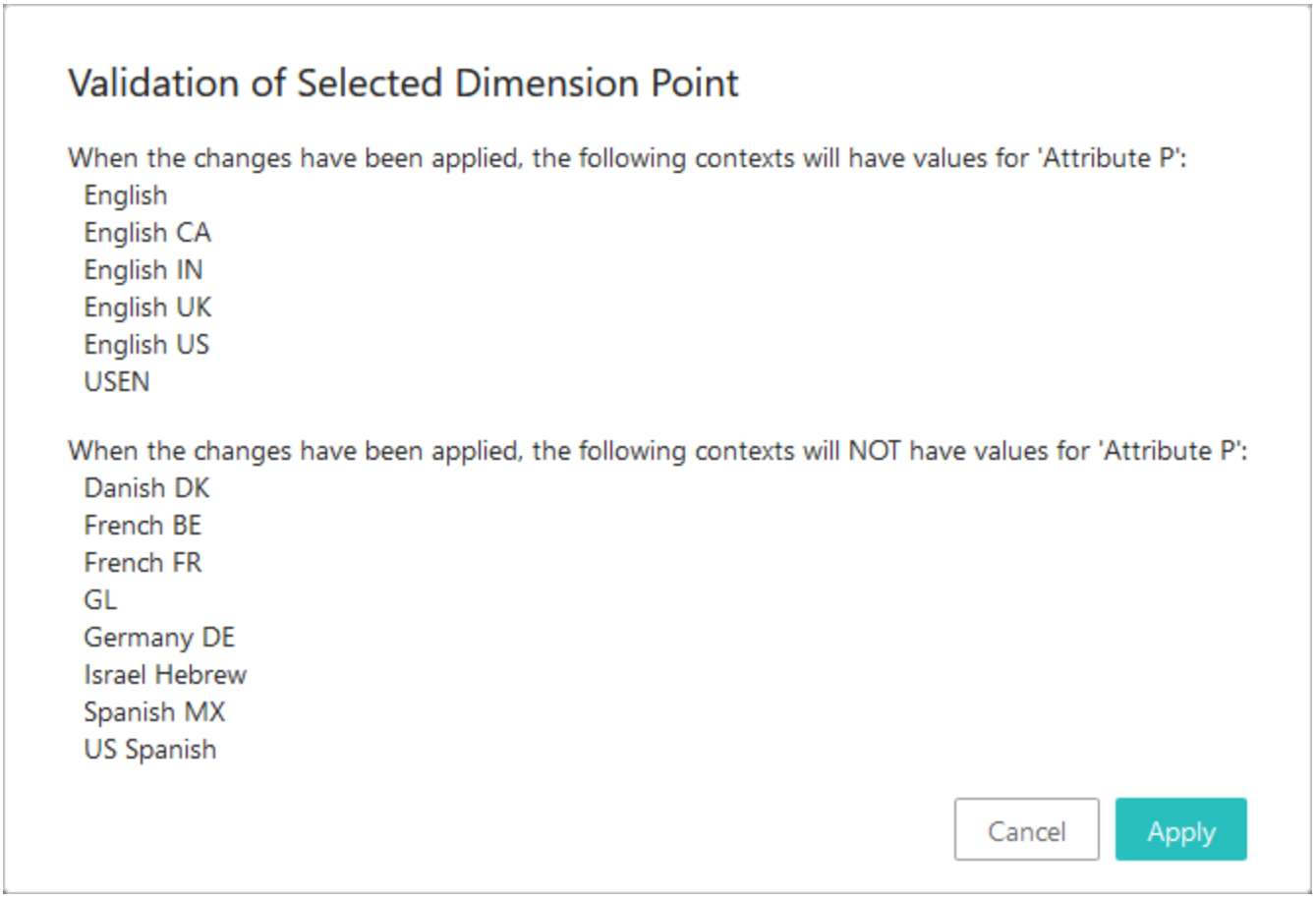
When adding a dimension dependency to an attribute or LOV, a dialog box will display that enables the user to select the one target dimension to which the existing attribute's or LOV's data should be applied.

When a language dimension dependency is being applied, a 'Select Dimension Point' window will display showing all configured dimension points specific to the selected dimension.



Note: Recommended practice for the majority of use cases is not to select the 'All' or 'Global' dimension point (or, as shown in the screenshot above, 'Language Root'). The reason for this is that when the global dimension point is selected, the attribute or LOV data is stored on the global dimension point. However, the user might expect that by selecting the global dimension point, the data is being stored on all listed dimension point, which is not necessarily the case.

Once the desired dimension point is selected, the 'Validate' button will become active. Once clicked, a 'Validation of Selected Dimension Point' popup will display:



As is made clear by the above screenshot, this validation pop-up lists which dimension points the data will be applied to, and then lists the dimension points to which no data will be applied. If additional contexts need values, those values can be applied via export from the context that contains the values and then imported into the contexts to which the values should also be applied.

Value Inheritance in Dimension Dependent Attributes in Web UI

Value inheritance functions in a similar manner between both Web UI and workbench. For more information on value inheritance in workbench, refer to the **Dimension Dependent Attributes** section of the **System Setup** documentation.

To better understand how value inheritance works in Web UI, consider the following scenario:

- 'US English' is the parent language dimension.
- 'UK English' is the child language dimension of 'US English'.
- A description was added to the 'Language' dimension dependent attribute **Long Item Description** using the English US context:



Even if not translated, the value of the attribute **Long Item Description** will inherit to the child context of UK English as-is. This essentially means that if users switch to the UK English context, they will view whatever was entered into the **Long Item Description** parameter while in the US English context.

Inheritance of the value is indicated by a red downward facing arrow.



In any other 'Language' context (such as French, Danish, etc.), the **Long Item Description** would remain empty until a description is entered for the parameter while in that context.

After being translated, the content for UK English appears as follows.



If the UK English content is deleted, the US English content will reappear. The red arrow is gone, as the value is no longer inherited but has been overwritten by the inherited content.

Using Dimension Dependent LOVs With Attributes in Web UI

Lists of Values (LOVs) can also be made dimension dependent. Dimension dependent LOVs are commonly used alongside non-dimension dependent attributes, though other combinations are also applicable. This behavior is similar to how dimension dependent LOVs are handled in workbench. For more information, refer to the **Using Dimension Dependent with Attributes** section of the **System Setup** documentation.

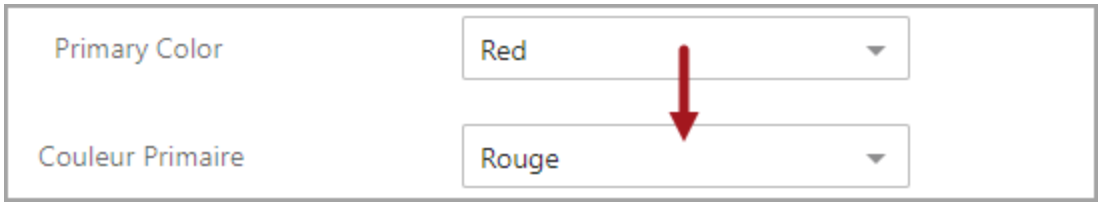
Note: There is also an **LOV Dimension Dependencies** component that functions in a similar manner to the **Attribute Dimension Dependencies** component, but is optimized for LOVs.

Refer to the sections below for guidance on handling different scenarios of dimension dependency between attributes and LOVs.

Attribute with No Dependency / LOV with a Dependency

In the following scenario the attribute has no dimension dependency and the LOV has a language dependency.

- A user working in English chooses the color 'Red' for a new product.
- If the LOV has already been translated, the French value 'Rouge' will automatically populate when working in the French context, so there is no need to retranslate this text.
- Every time Red is chosen, the translation is already in place.



Attribute with No Dependency / LOV without a Dependency

In this scenario, neither the attribute nor the LOV it is using are dimension dependent. The value of the LOV is the same in every context.



Attribute with a Dependency / LOV with a Dependency

In the following scenario, both the attribute and the LOV it is using are dimension dependent.

- If an English US user chooses 'Red,' a value will not display in the French FR context until a French FR user chooses a value from the dropdown.
- In this case the value of every dimension needs to be manually entered.



Attribute with a Dependency / LOV without a Dependency

In the following scenario, the attribute is dimension dependent while the LOV it is using is not.

- If an English US user chooses a value, nothing will appear in the Danish DK or French FR contexts until a user in one of those contexts makes a choice from the same dropdown list.


Primary Color
Red
Couleur Primaire

ECLASS Advanced Screen

ECLASS Advanced is a hierarchical classification and product description system for grouping materials, products, and services. The ECLASS Advanced Screen gives users of this product classification taxonomy a clear, intuitive, and read-only view of their ECLASS Advanced data in the Web UI.

Important: The ECLASS Advanced Screen has been superseded by the ECLASS Advanced Editor Screen and may be removed in a future release. It is recommended that users transition to using the new screen, which is described in the ECLASS Advanced Editor Screen topic.

Prerequisites

It is expected that users who configure the ECLASS Advanced Screen familiarize themselves with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** topic in the **Web User Interfaces** documentation.

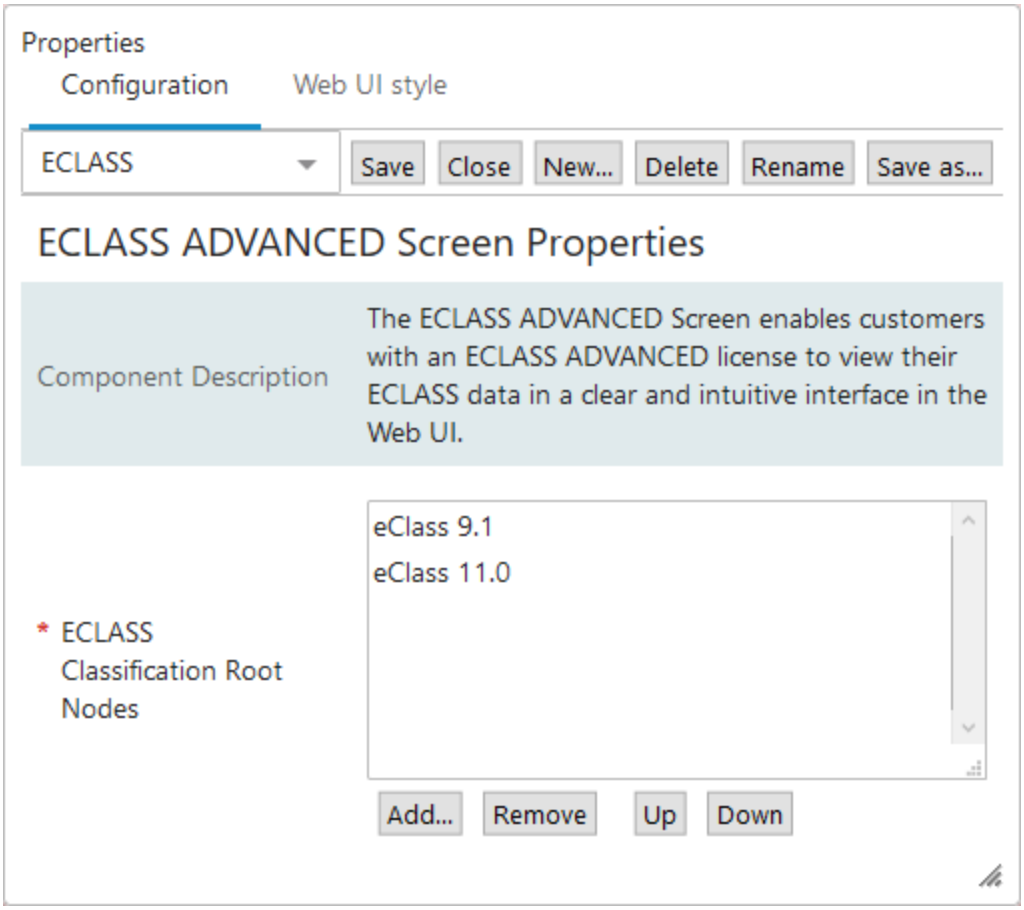
Additionally, to access the ECLASS Advanced Screen, the ECLASS Advanced commercial license is needed. This license allows for the enablement of a new 'X.ECLASSADVANCED' system license and eclass-advanced add-on component required to access the functionality. Contact your account manager to get any additional commercial licensing for your system.

Finally, to display ECLASS Advanced data on an ECLASS Advanced Screen, the STEP system must contain the ECLASS Advanced taxonomy. Contact your Stibo Systems account manager or partner manager if you want to import the ECLASS Advanced taxonomy.

Configuring the ECLASS Advanced Screen

To configure an ECLASS Advanced Screen on your Web UI, follow the steps described below:

1. Add the ECLASS Advanced Screen to your Web UI. Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic in the **Web User Interfaces** documentation.
2. Populate the 'ECLASS Classification Root Nodes' field by selecting one or more classification folders in which the ECLASS Advanced-modeled data is contained. If you only have one version of ECLASS Advanced set up, then you would only select one root classification folder for this field. Provided the data within these folders is modeled subject to ECLASS Advanced requirements, the folder contents will be available for display in the ECLASS Advanced Screen.

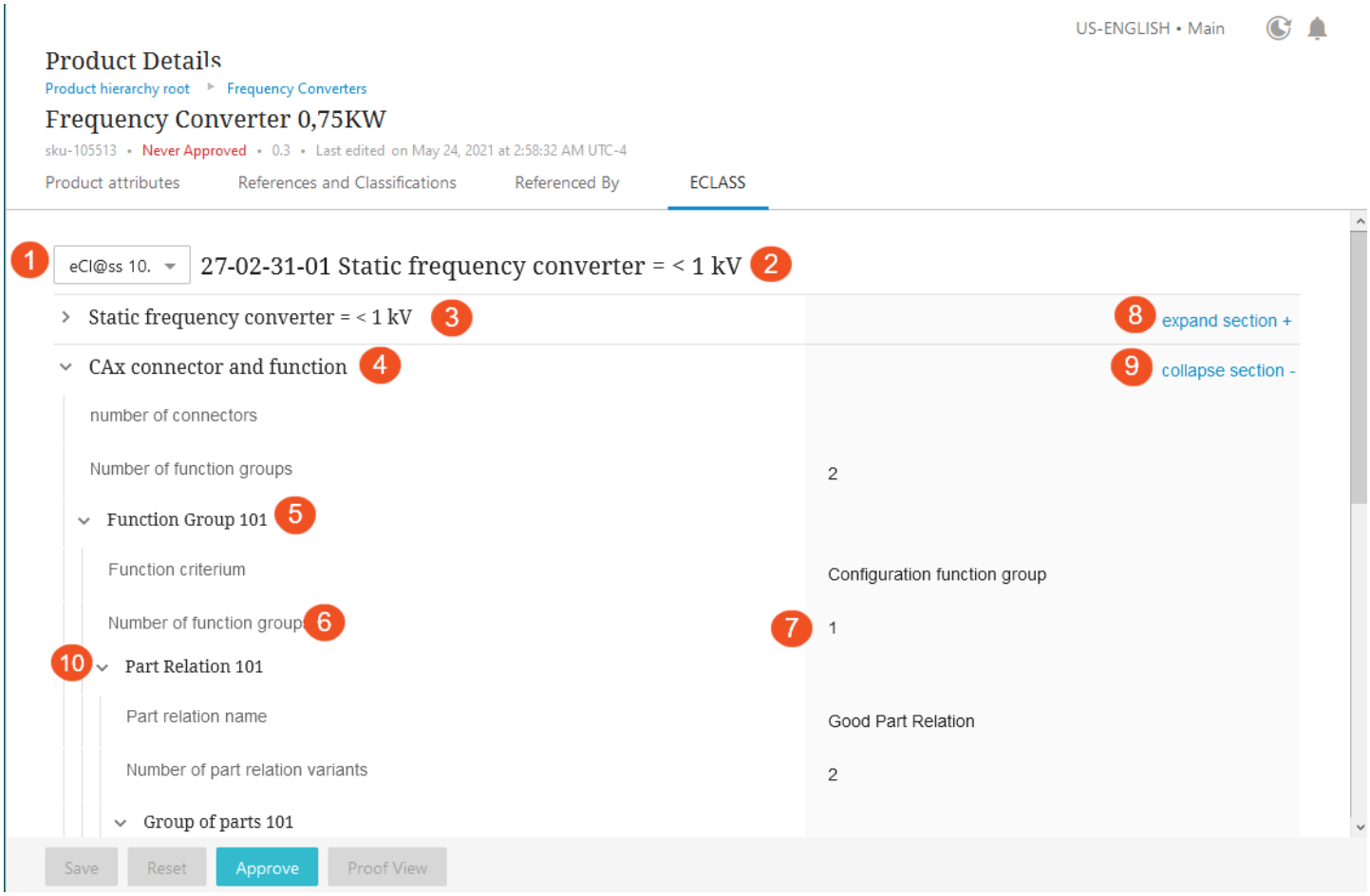


3. Click the 'Save' button to save the designer configuration, and then click 'Close' to close the designer.

Using the ECLASS Advanced Screen

The ECLASS Advanced Screen displays ECLASS Advanced-modeled data in a way that clearly presents the elements that define ECLASS Advanced data.

In the screenshot below, a product is displayed on the ECLASS Advanced Screen in the ECLASS Advanced structure. Numbers are placed beside various organizational elements specific to ECLASS.



Below is a list of the elements numbered in the screenshot above with the associated descriptions:

1. ECLASS Version dropdown - A dropdown that allows you to select which ECLASS version data to display. If a selected object is linked to an ECLASS ADVANCE version, that version will display as an option on this dropdown.
2. Commodity Class - A commodity is a group of similar products. They are further described with the help of product properties and property values. The label also includes the hierarchical position of the Commodity Class in the ECLASS Advanced Taxonomy.
3. Application Class - A data point determinative of whether the associated data is subject to the ECLASS Basic or ECLASS Advanced models.
4. Aspect - A grouping of attributes related to the object that are not descriptors of the object itself (i.e., suppliers, packaging).
5. Block - A grouping of attributes that describes the object itself.
6. Attribute - An object descriptor.
7. Value - Data populated for the attribute.

8. 'expand section' - When this text button is clicked, data contained within the relevant section of the ECLASS hierarchy will expand and be displayed in full.
9. 'collapse section' - When this text button is clicked, data displaying within the relevant section of the ECLASS hierarchy will no longer display.
10. Arrow button - When the arrow is shown pointing downwards, this indicates that the data in this section is expanded and displayed in full. When pointing to the right, this indicates that the data is in a collapsed state, and is not displaying. Clicking the button when collapsed switches the setting to expanded, and vice versa.

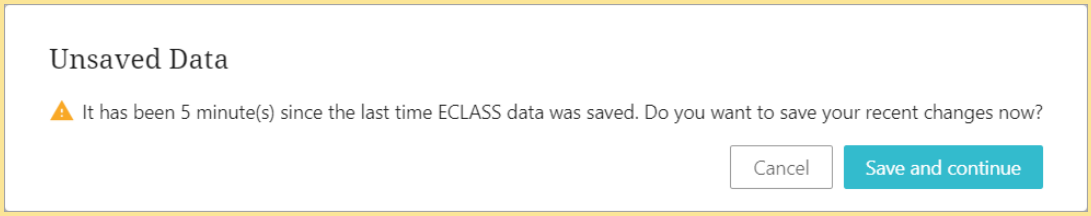
For more information on ECLASS, refer to the **ECLASS Format** topic in the Data Exchange documentation.

ECLASS Advanced Editor Screen

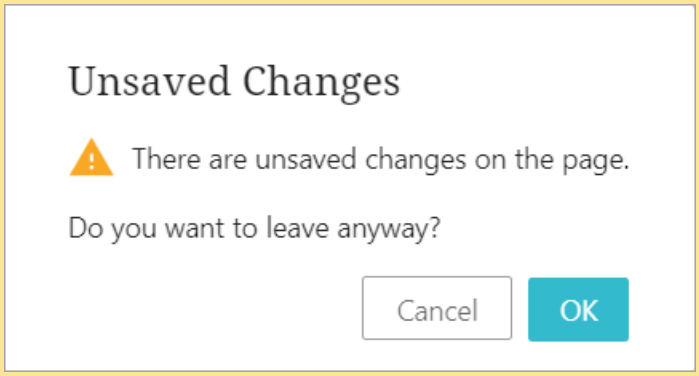
The ECLASS Advanced Editor Screen in the Web UI is designed to allow users to maintain products already linked to the ECLASS Advanced hierarchy and link existing or new products to one more versions of the ECLASS Advanced hierarchy. The ECLASS Advanced Editor Screen enables the users to add and remove blocks, modify product data attributes, and approve products all within the Web UI.

For more information on importing ECLASS data into STEP, refer to the ECLASS Classification Import section of the documentation.

Important: The ECLASS Advanced Editor does not auto-save changes made to products. It is recommended to frequently save changes made to products to ensure data is not lost. The user will be prompted every 'X' minute(s) based on the configuration (capped at 20 minutes) to save any unsaved data. In the example below, every 5 minutes a dialog is displayed prompting the user to save any unsaved data.



Additionally, if the user attempts to leave the page without saving data, the 'Unsaved Changes' dialog will display prompting users to stay on the page. When the user selects 'Cancel' to stay on the page, they still must save any changes made to the product by clicking save.



To access the ECLASS Advanced Editor Screen, you must first have obtained an ECLASS Advanced commercial license, 'X.ECLASSADVANCED' system license, and the eclass-advanced add-on component. Once the proper licenses, component, and privileges are acquired, you must configure the ECLASS Advanced Screen. For more information on configuring the ECLASS Advanced Editor Screen refer to the ECLASS Advanced Screen documentation.

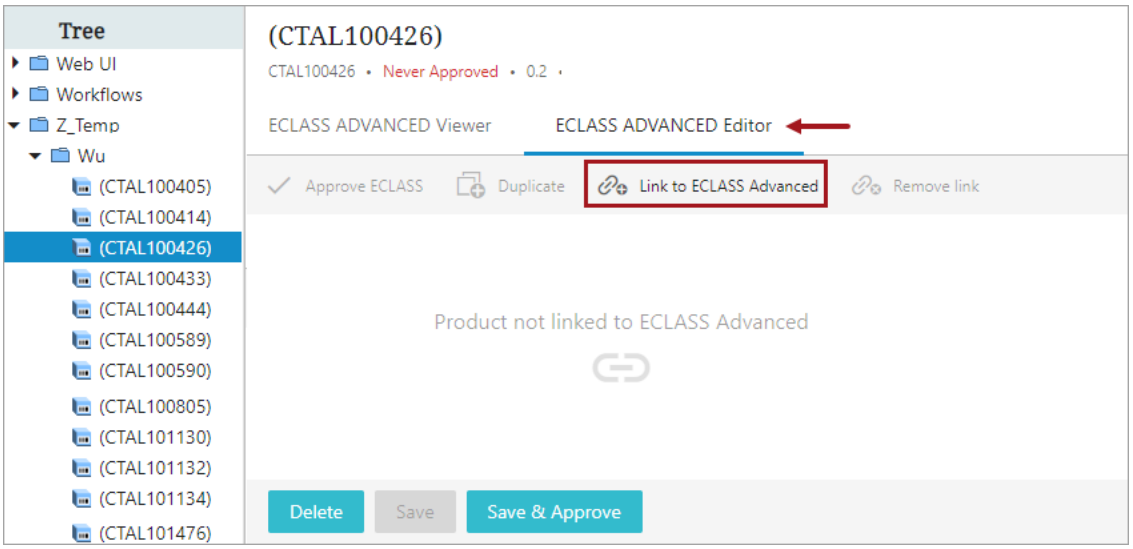
Adding the ECLASS Advanced Editor Screen

To start using the ECLASS Advanced Editor, first create the ECLASS Advanced Editor screen and map it, or add it as a tab page on a node details page, so that it displays as needed for the relevant products. The screen is ready to use once added, and requires no additional configuration. The administrator may choose to configure the 'Link to ECLASS Advanced' button if the user(s) has privileges to link to the ECLASS Advanced Classification. For information on adding and mapping screens, refer to the Designer Access topic in the **Web User Interfaces** documentation.

Linking a product to the ECLASS Advanced Classification

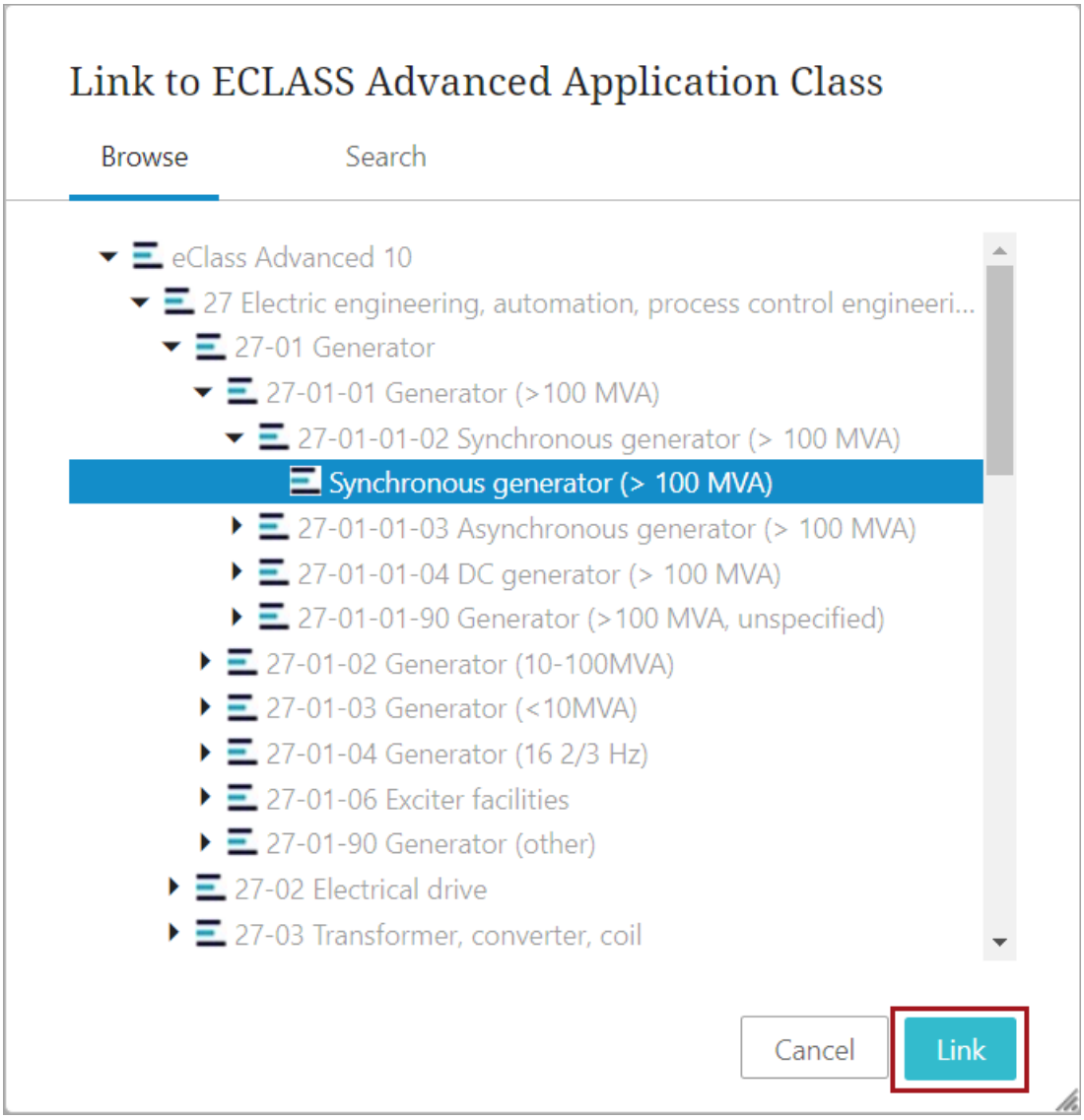
The ECLASS Advanced Editor Screen enables users to link products to an ECLASS Advanced Classification. To establish this link, follow the instructions described below:

1. Select a product to link from the product hierarchy in the Global Navigation Panel.
2. Navigate to the ECLASS Advanced Editor Screen to access the editor screen. If a product has not been linked to any ECLASS Advanced Classification, a message displays that reads, 'Product not linked to ECLASS Advanced.'



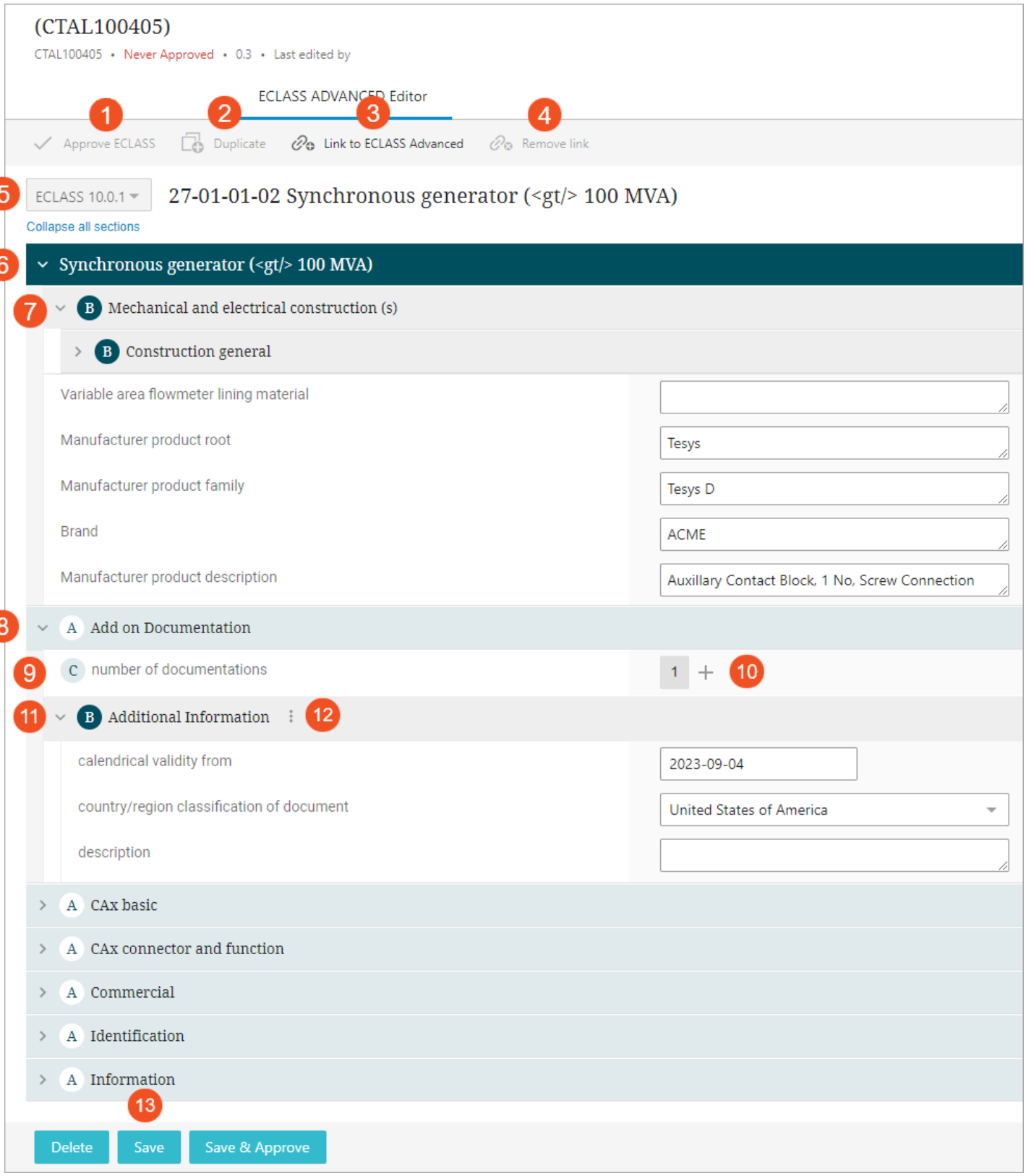
3. To link a product to the ECLASS Advanced Classification, click the 'Link to ECLASS Advanced' button available in the toolbar. A dialog displays titled 'Link to ECLASS Advanced Application Class.' The dialog will have the ECLASS Advanced versions displayed under 'Browse' based on ECLASS Advanced versions imported into STEP and user privileges. Web User Interfaces documentation
4. Within the relevant ECLASS version displayed in the dialog, navigate to the desired application class to be linked with the product. Only those application classes that are valid for the relevant product are available to select. When you select the desired application class, the 'Link' button is enabled.

5. To establish the link from the product to the ECLASS hierarchy, click the 'Link' button in the dialog.



Once the 'Link' button has been clicked, the dialog closes. Once the system has successfully fetched all relevant application class attributes and aspects being applied to the product, the screen reloads.

Linked Product View



In the screenshot of the ECLASS Advanced Editor Screen shown above, the important elements of that screen are displayed in the image with an associated number. Below is a list of the relevant screen elements displayed in the ECLASS Advanced Editor Screen describing their purpose, and are numbered according to the corresponding numbers in the screenshot:

1. **Approve ECLASS** - This button allows the user to approve saved changes to a product and corresponding aspects and blocks.
2. **Duplicate** - This button creates a duplicate from the linked ECLASS version(s) to another product.
3. **Link to ECLASS Advanced** - This button allows the user to link a product to one or more ECLASS Advanced versions.
4. **Remove link** - This button allows the user to remove a product from a linked ECLASS Advanced application class.
5. **ECLASS Advanced Version dropdown** - This dropdown allows the user to select which ECLASS Advanced version data to display. If a selected object is linked to a specific ECLASS Advanced version, that version will display as an option on this dropdown.
6. **ECLASS Application class** - The ECLASS Application class is a classification object to which the product is linked. Further, the Application class is referenced with aspects, blocks, and attributes.
7. **Non dependent block** - These blocks contain attribute that has the property 'NON_'DEPENDENT_P_ DET_Type' set in it. These blocks cannot be duplicated.
8. **Aspect** - A grouping of attributes related to the object that are not descriptors of the object itself. Aspects are highlighted with the letter (A) in the screen.
9. **Cardinality** - An attribute that defines total number of dependent blocks. Cardinality is highlighted by letter (C).
10. **Add icon (+)** - Icon that allows adding more blocks inside an application class or aspect for a product.
11. **Dependent block** - This is a product block inserted based on the value defined in the cardinality attribute. In the screenshot above, the cardinality attribute 'number of documentations' has the value 1 that results in one dependent product block 'Additional Information.' These blocks contain an attribute that has the property 'CONDITION_DET_Type' set in it. These blocks exhibits cardinal behavior, meaning it can be duplicated.
12. **Menu icon** (⋮) - The options menu containing functionalities for block deletion and duplication.
13. **Save** - This button allows the user to save changes made to a product.

Linking products to multiple versions

Users can link a product to multiple ECLASS Advanced versions.

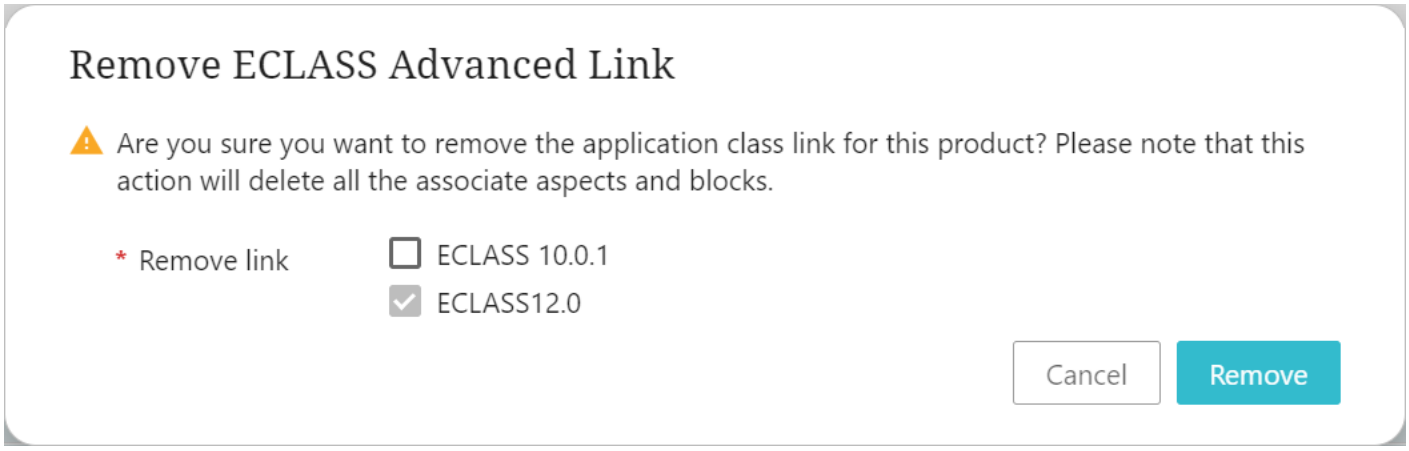
To link an ECLASS Advanced-linked product to an additional ECLASS hierarchy version, select a product and follow the same steps above for linking to an ECLASS Advanced Application Class. The versions of ECLASS that are already linked to the product will not be available to link with, as those versions are already linked to the product.

Linked ECLASS versions display in a dropdown menu on the left side of the page.

After linking a product to an ECLASS version, the attributes, aspects, and blocks will display on the page. Users can use the 'expand/collapse section' link or arrow on the left of the section to expand a particular aspect(s) or block(s) to access the attributes.

Removing a link

If the user desires to unlink a product from an ECLASS Advanced version, click the 'Remove link' button available on the toolbar of the screen. A confirmation dialog will display as shown in the screenshot below.



Select the checkbox of the ECLASS Advanced version that you desire to remove. Click the 'Remove' button in the confirmation dialog to unlink the product. After the user clicks the 'Remove' button, the product will be unlinked, and all linked objects (aspects and blocks) created during the maintenance process will be deleted. The page will reload with the current active ECLASS Advanced version, if one still exists otherwise, the page will display 'Product not linked to ECLASS Advanced'.

Adding and Editing blocks

To add blocks in the ECLASS Advanced Editor Screen, follow the steps described below:

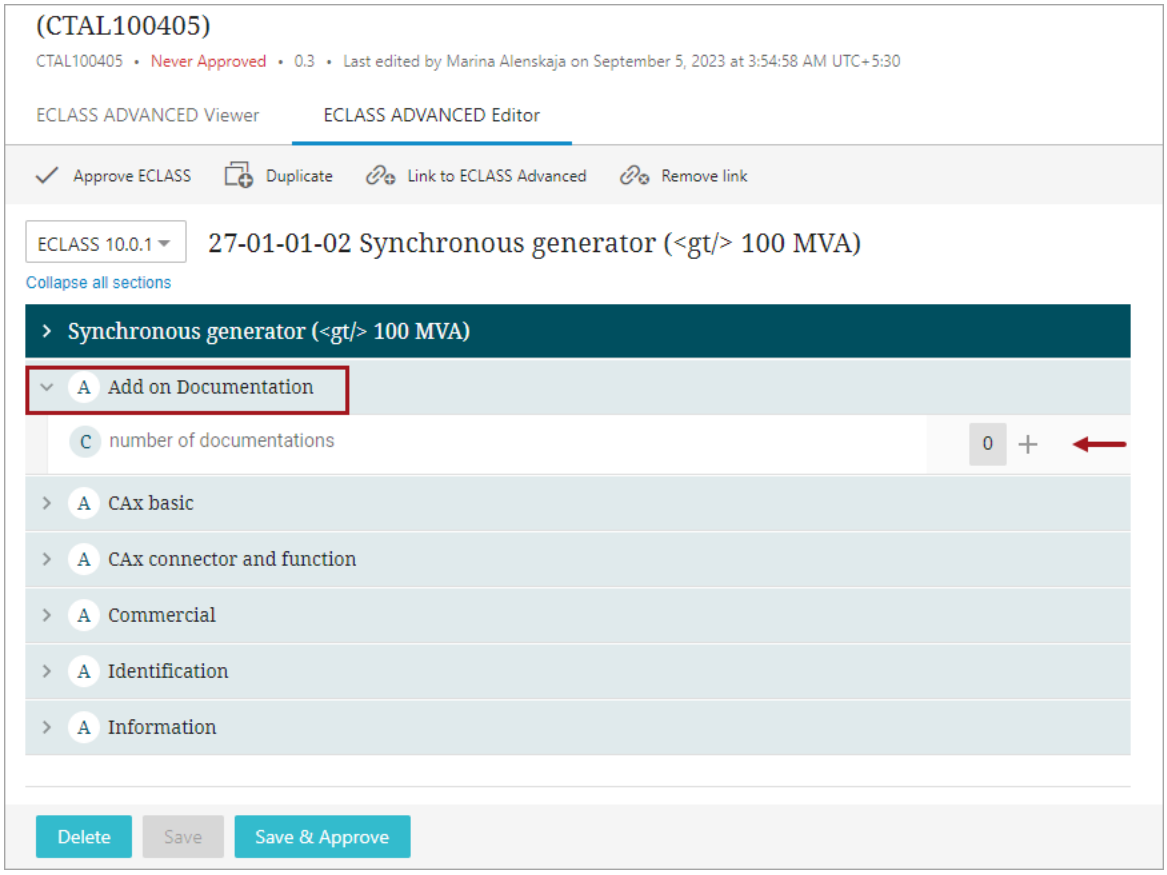
1. Expand an aspect to display the attributes.
2. Click the plus sign '+' across from the cardinality attribute.

The user can also edit, remove, or add values to attributes in the editor screen. To do so, click the field across from the attribute to edit the data.

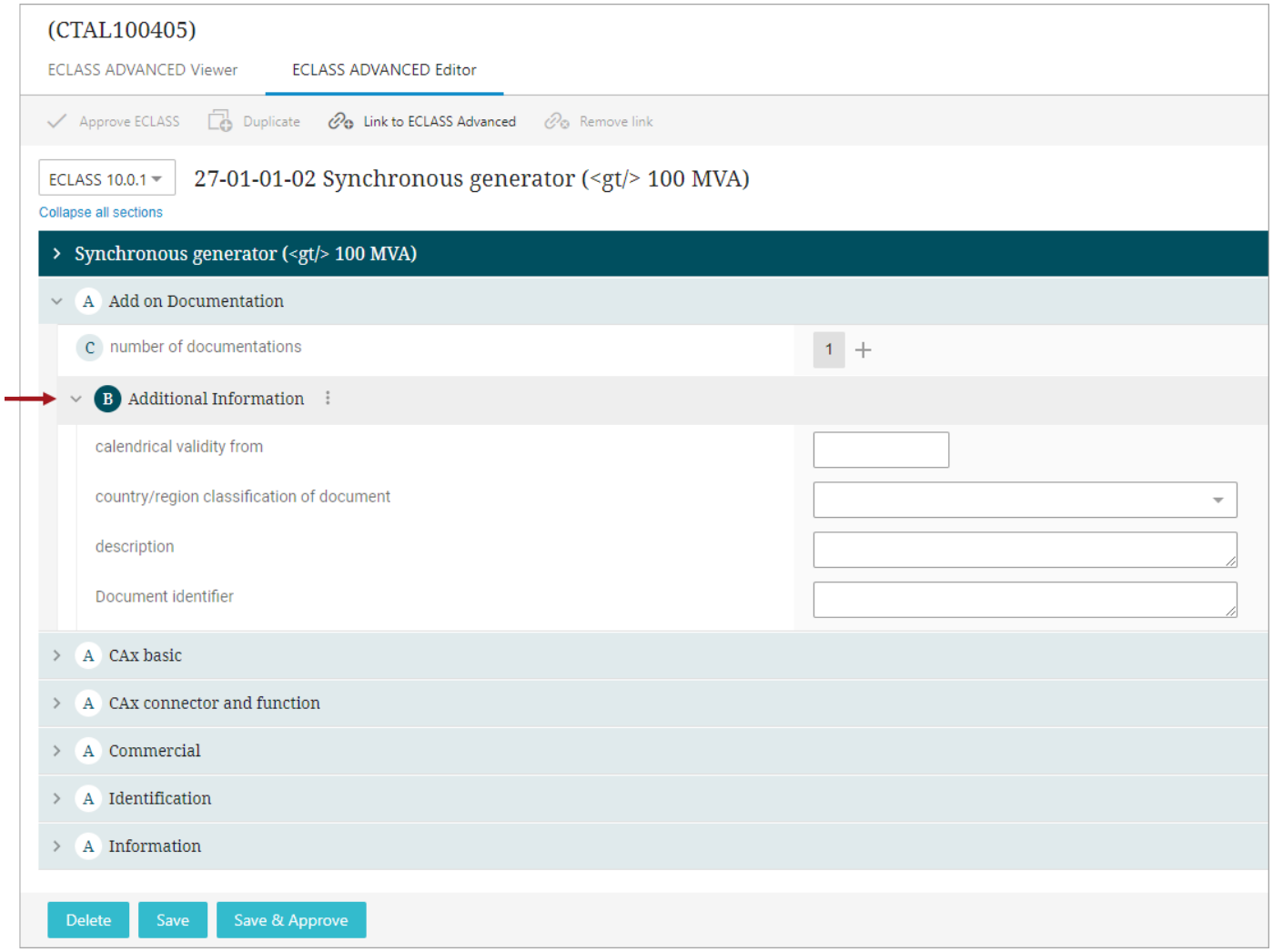
Every attribute has a validation base type that cannot be changed in the editor. For example, if the validation base type for an attribute is 'Number', text cannot be added to this field. Whenever a user tries to add invalid data in an attribute, a message is displayed below the field explaining why the input is invalid and asking the user to remove the invalid data. The ‘Save’ button at the bottom of the page will be disabled if any invalid data exists on the page, and it will be enabled when data has been altered and is valid on the page. Click the 'Save' button to keep any changes made to the product data.

Support for Cardinality - Adding more blocks

Users can add more blocks inside an application class or aspect for a product based on the cardinality attribute. For example, at the bottom of the product page, under the aspect section labeled 'Add on Documentation', users can add multiple 'Additional Information' blocks.



1. Click the plus sign '+' to the right of 'number of documentations' cardinality attribute to add an 'Additional Information' block.
2. Click the arrow on the left of the newly added 'Additional Information' block to expand and add details into the expanded fields. The 'Save' button will be enabled when changes are made to the product.

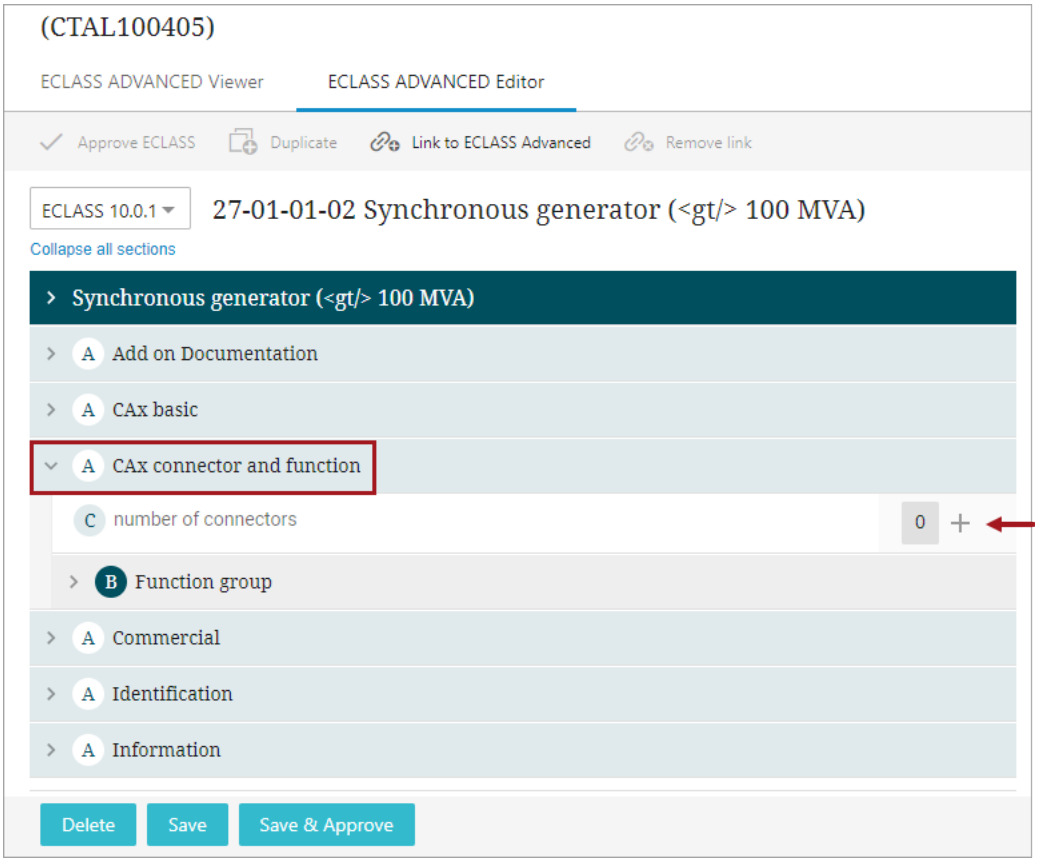


3. Click 'Save' to save your changes.

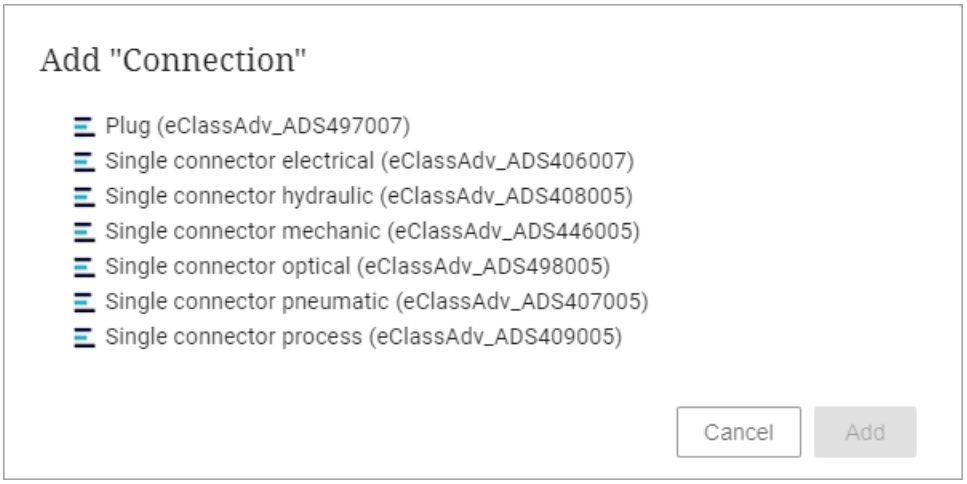
Support for Polymorphism - Adding more blocks of a specific block subtype

The ECLASS Advanced Editor screen supports polymorphism as well. Users can add more blocks of a specific block subtype when they click on the '+' next to an attribute which allows both cardinality and polymorphism. The example below describes how a polymorphic 'Connector' block is added to the 'CAx connector and function' aspect next to the attribute 'number of connectors':

1. Click the 'expand section' link or arrow to expand the 'CAx connector and function' aspect.



2. To add a connector, click the plus sign to the right '+' of the 'number of connectors' attribute and a dialog box will display. The dialog box will list the types of 'Connections' available to add this to the aspect:



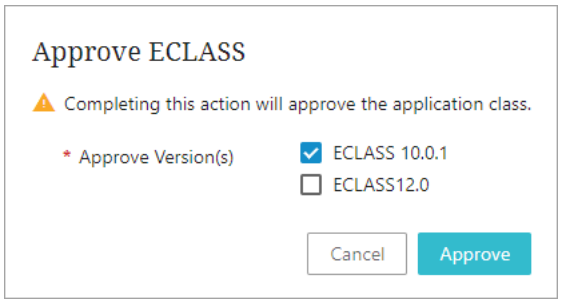
3. Select a 'Connection Type' to enable 'Add.' Click 'Add' to add the selected 'Connection' type block to the 'CAx connector and function' aspect.

Note: Data containers are rendered as blocks in the ECLASS Advanced Editor Screen. Data containers cannot be added in the editor. To add a new container, add a new block containing a data container which means only a single data container will be added to the newly added block.

New blocks are moved to the top of the list of blocks. Blocks are listed newest to oldest, from top to bottom.

Approving ECLASS Products

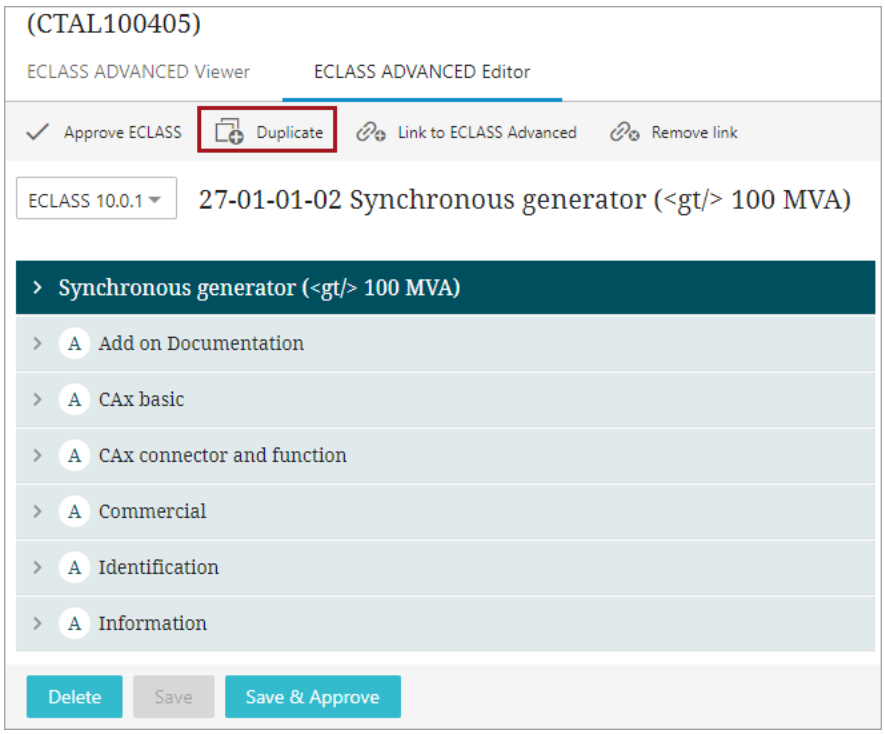
To approve product changes, the user must have approval privileges. To enable the 'Approve ECLASS' button, all changes must be saved. The 'Approve ECLASS' button is available as a toolbar action on the ECLASS Advanced Editor Screen. When the user clicks the 'Approve ECLASS' button, a confirmation dialog will display as shown in the screenshot below.



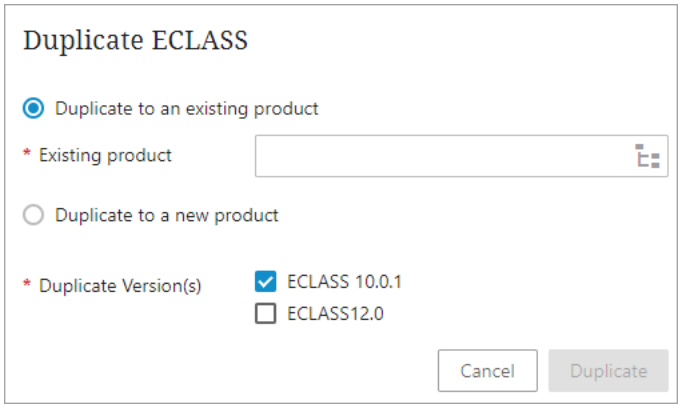
Select the desired version(s) you intend to approve and click the 'Approve' button in the dialog. A background process runs that approves the changes affecting the product, blocks, and aspects.

Duplicating ECLASS Versions

The 'Duplicate' button is available as a toolbar action on the ECLASS Advanced Editor Screen (as shown below) that allows users to duplicate the linked ECLASS version(s) to another product. To enable the 'Duplicate' button, all changes must be saved.



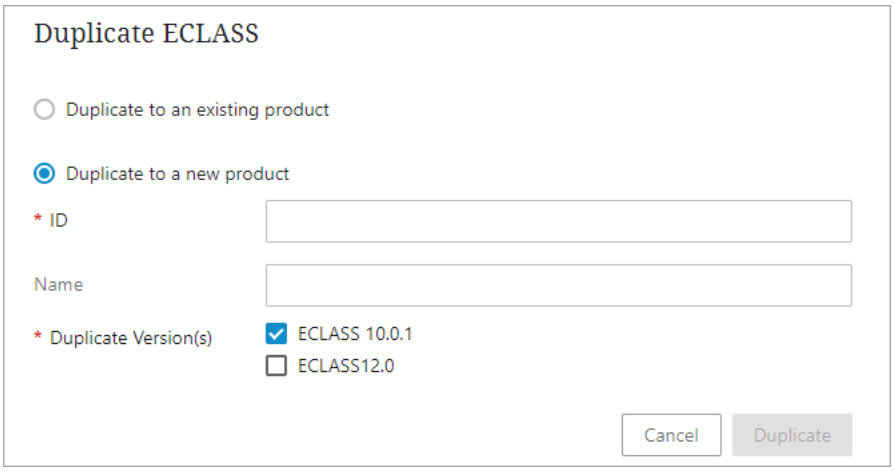
When the user clicks the 'Duplicate' button, 'Duplicate ECLASS' dialog will display as shown in the screenshot below.



Within the 'Duplicate ECLASS' dialog, the following options are available:

- **Duplicate to an existing product:** Selecting this option will duplicate version(s) into another product that already exists in the system. Find and select the target product using the node picker icon ( ) available next to the field. Later, select the desired version(s) you intend to duplicate and click the 'Duplicate' button in the dialog. A background process runs that duplicates the version along with its blocks, and aspects. The existing product will be enriched with the additional versions. However, if the version is already defined for the target product (determined by the presence of an ECLASS Advanced classification link on the target product), this process will not duplicate the version.

- **Duplicate to a new product:** Selecting this option will create a new product with the ECLASS Advanced versions specified. Further parameters like ID and name for the new product must be defined along with this option.

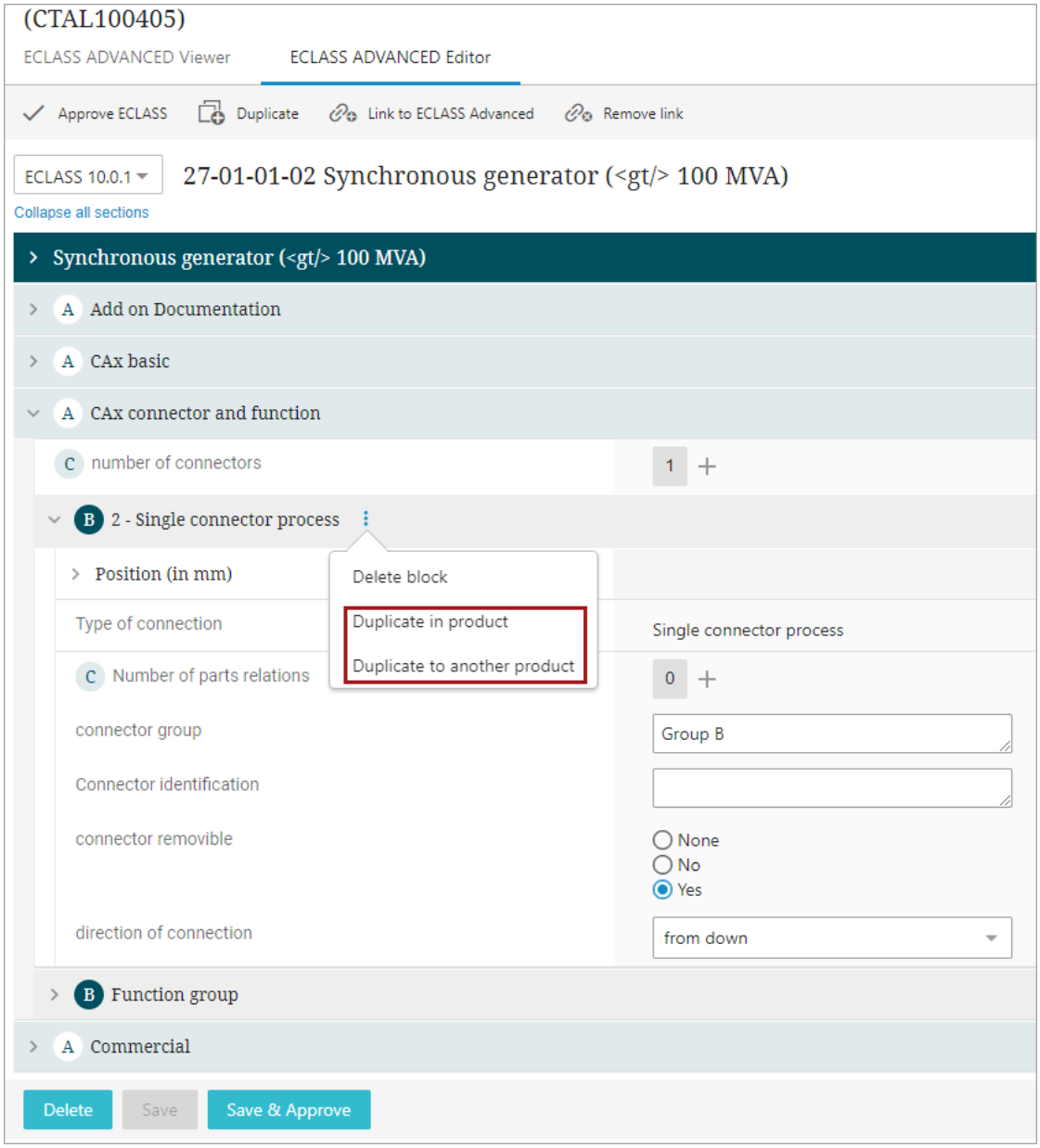


  Once all fields are populated, proceed by selecting the version(s) you wish to duplicate and click the 'Duplicate' button in the dialog. This action initiates a background process, leading to the creation of a new product that includes the selected version linked to it. The new product will be generated within the same hierarchy as the source object.

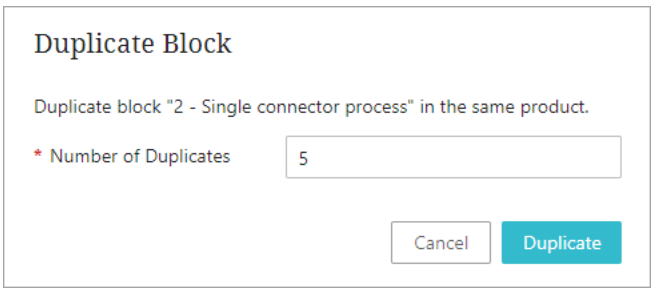
- **Duplicate Version(s):** This option displays the list of available versions in the current product. Select the versions that you intend to be copied to the target product.

Duplicating Blocks

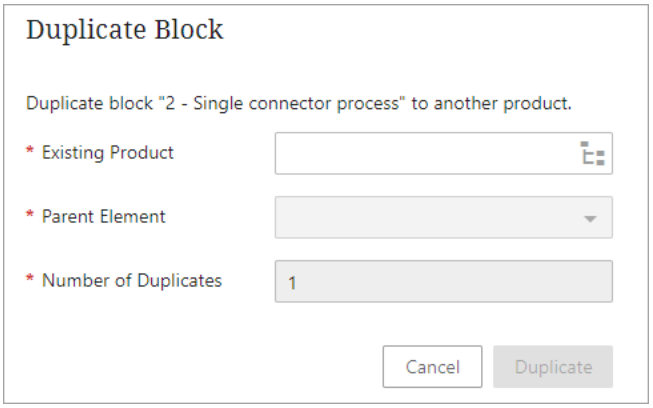
Users have the ability to duplicate blocks within the same product, and in cases where multiple similar products exist within the system, they can duplicate blocks from one product to another. This process is called as partial duplication of ECLASS Advanced data. Partial duplication options are available within the menu icon (⋮) across each cardinal block as shown in the screen shot below.



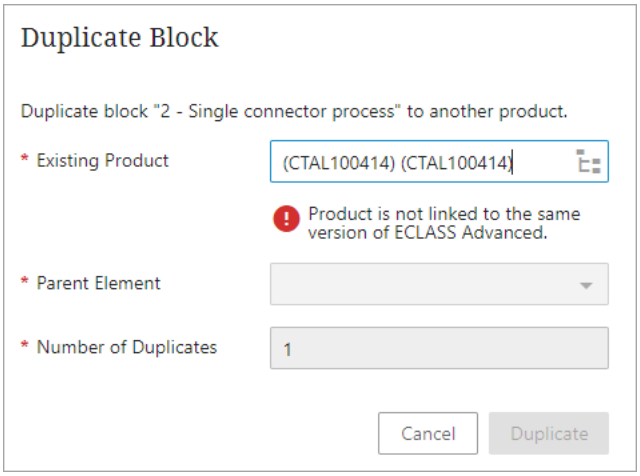
- **Duplicate in product:** Clicking this option opens the 'Duplicate Block' dialog, facilitating the duplication of blocks within the product. Users can generate multiple copies of blocks as required. Simply input the desired number of block copies (limited to 100) within the 'Number of Duplicates' field.



- **Duplicate to another product:** Clicking this option opens the 'Duplicate Block' dialog, facilitating the duplication of blocks into another product. To activate the 'Duplicate' button within the dialog, users must complete the mandatory parameters listed below:



  - **Existing Product:**Users can find the target product by using the node picker available next to the parameter. It is essential to ensure that the target product is already linked to the corresponding ECLASS version. Otherwise, an error will be presented as shown in the screenshot below.



  - **Parent Element:** This parameter defines the parent of the block within the target product.

- **Number of Duplicates:** Users can create multiple block copies as needed by entering the desired number of copies (with a limit of 100) within the dialog.

Configuring ECLASS Advanced Editor Screen

The ECLASS Advanced Editor Screen is a preconfigured interface with a limited set of optional parameters for configuration. This topic covers the design prerequisites, configuration of an ECLASS Advanced Editor Screen, and setting up access to an ECLASS Advanced Editor Screen.

Prerequisites

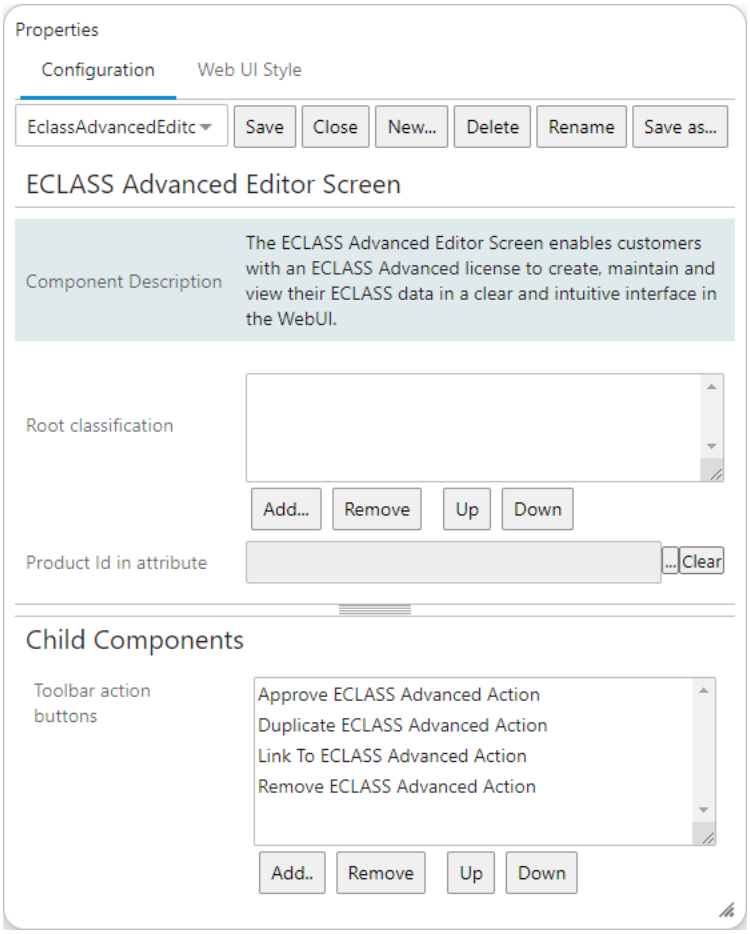
It is expected that users who configure the ECLASS Advanced Screen familiarize themselves with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the Designer Access topic in the **Web User Interfaces** documentation.

Additionally, to access the ECLASS Advanced Editor Screen, the ECLASS Advanced commercial license is needed. This license allows for the enablement of a new 'X.ECLASSADVANCED' system license and eclass-advanced add-on component required to access the functionality. Contact your account manager to get any additional commercial licensing for your system.

Finally, to display ECLASS Advanced data on an ECLASS Advanced Editor Screen, the STEP system must contain the ECLASS Advanced taxonomy. Contact your Stibo Systems account manager or partner manager if you want to import the ECLASS Advanced taxonomy. For generic information about the ECLASS Advanced solution, refer to the topics within the ECLASS: European Classification for Advanced e-Commerce section within the **Solution Enablement** documentation.

Configuring the ECLASS Advanced Editor Screen

To configure an ECLASS Advanced Editor Screen on your Web UI, follow the steps described below:



1. Add the ECLASS Advanced Editor Screen to your Web UI. Steps for creating a new screen are outlined in the **Creating a New Screen** section of the Design Mode Basics topic in the **Web User Interfaces** documentation.
2. Optionally populate the 'Root classification' field by selecting one or more classification folders in which the ECLASS Advanced-modeled data is contained. This parameter determines which versions will be available in the ECLASS Advanced Editor Screen. If no root node is selected, all versions will be displayed.
3. Optionally configure the 'Product Id in attribute' parameter with an attribute. This creates an attribute ID containing a prefix that will be used to hash product IDs.
4. The 'Toolbar action buttons' parameter comes preloaded with the following action buttons. You can customize the list by adding or removing buttons as needed:
    - Approve ECLASS Advanced Action: Adding this action will display the 'Approve ECLASS' button in the toolbar. This button allows users to approve saved changes made to a product, along with its corresponding aspects and blocks.
    - Duplicate ECLASS Advanced Action: Adding this action will display the 'Duplicate' button in the toolbar. This button facilitates the duplication of linked ECLASS version(s) to another product.

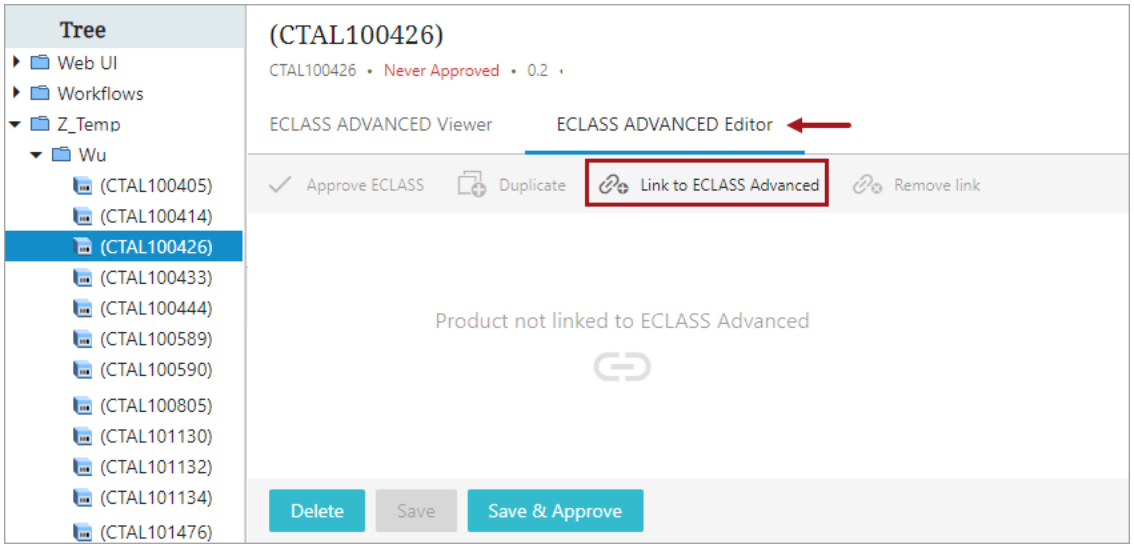
- Link To ECLASS Advanced Action: By adding this action, you will see the 'Link to ECLASS Advanced' button in the toolbar. This button allows users to establish links between a product and one or more ECLASS Advanced versions.
- Remove ECLASS Advanced Action: Adding this action results in the 'Remove link' button being displayed in the toolbar. Users can utilize this button to remove a product from a linked ECLASS Advanced application class.

5. Click the 'Save' button to save the designer configuration, and then click 'Close' to close the designer.

Configuring Access to an ECLASS Advanced Editor Screen

An admin user must configure how a user will access an ECLASS Advanced Editor Screen. The ECLASS Advanced Editor Screen can either be mapped using Main Properties or added to a sub screen tab page on a Node Details Screen. For more information about mapping, refer to **Configuring the Parameters** in the Main Properties topic, and for more information about sub screen tab pages, refer to the Tab Pages topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

Below is an example of an ECLASS Advanced Editor Screen that is configured (mapped) to display when an object is selected.



Experian Email Validation Integration

Both STEP Workbench and Web UI support validating emails from within STEP using the Experian service, and allow for enriching email address information in STEP with this data.

For details on configuring and using this email validation, refer to the **Experian Email Validation Integration** topic in the **Data Integration** documentation.

Exporting Web UI Definitions as Comments

Web UI configuration definitions can be exported as comments using Advanced STEPXML. These exports are intended to be used for submission to external source control systems for comparison purposes. Users can import them into source code repository systems where they can be compared from version to version. Editing and/or import of these files is not supported (e.g., users may not export, edit the comments, and re-import in STEP).

To export a Web UI definition for external comparison, Advanced STEPXML must be used and the DefinitionsAsComments tag must be set to 'true'.

On the Select Format step of the outbound tool, choose the Advanced STEPXML format, then copy and paste the following text into the Template field:

```
<?xml version='1.0'?>
    <STEP-ProductInformation DefinitionsAsComments="true">
        <PortalConfigurations ExportSize="All"/>
    </STEP-ProductInformation>
```

An example of the output for a Web UI definition as comments is shown below:

```
<PortalConfigurations...>
    <!--Definition:[This is the Web UI definition. Removed for brevity.-->
   [Remaining configuration]
</PortalConfigurations>
```

Note: The content of the comment field is not part of the STEPXML XSD and therefore Stibo Systems reserves the right to change the format of the output content at any time.

For more information, refer to the **STEP-ProductInformation Tag in STEPXML** section of the **Data Exchange** documentation.

Find Existing

In an effort to avoid the creation of duplicate addresses in STEP, Find Similar functionality can be added to the Store Single Referenced Target Web UI component via the **Find Existing** action.

The Find Existing action searches objects to identify similar objects using a matching setup that the customer creates and uses for duplicate handling. If similar objects are found after running the action / algorithm, the user is provided with the results in a user-configured detailed list.

The key to Find Existing functionality is the **matching setup** that the customer creates and uses for duplicate handling. Every time a user enters data into the search fields and clicks OK, the Find Existing search checks the match code values involved, executes the relevant matching algorithm, and provides a set of results, if any are found. If a user is not getting the results set they expect, then the first place to check is the algorithm selected for the Duplicate Handler parameter in the component properties. Bind types are not required for Find Existing functionality since a simple comparator expression, written to compare attributes of the same object type, is used.

Prerequisites

All the steps provided in this topic assume the Web UI designer is in design mode and on the applicable **Properties** screen prior to starting the configuration process. It is also assumed that all users (designers and end users) have the proper privilege to work with these features. For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

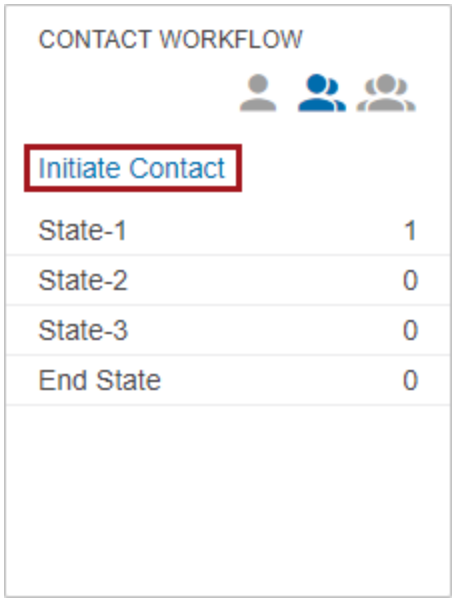
A relevant Match Code and Matching Algorithm needs to be set up before attempting to use the Find Existing action. For more information about setting up and using matching algorithms, refer to the **Configuring Matching Algorithms** section of the **Matching, Linking, and Merging** documentation.

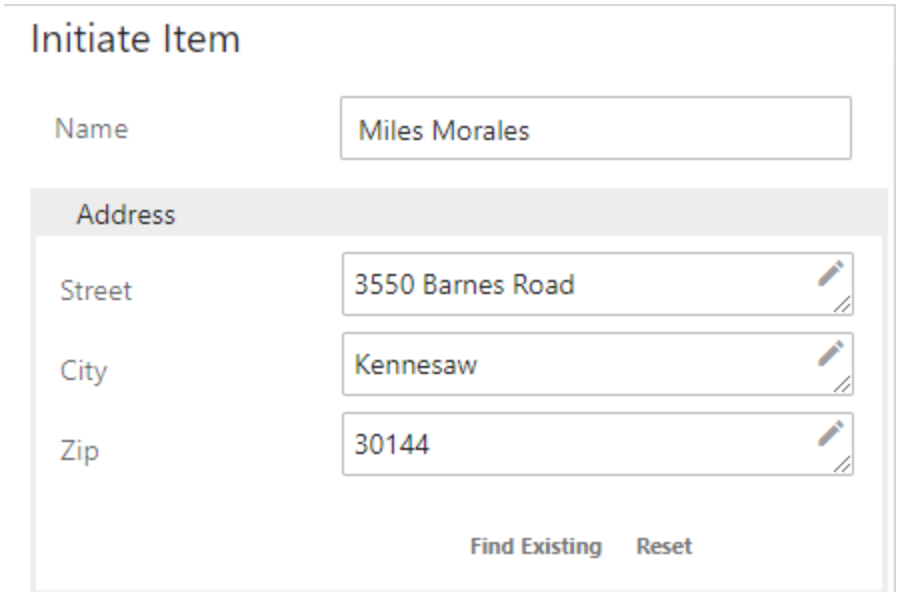
Using Find Existing on Store Single Referenced Target

This is a very basic example of how the Find Existing action can be used within a Store Single Referenced Target component on an Initiate Item screen. Configuration instructions are after this section.

The end user begins the object (Contact) initiation process by clicking Initiate Contact on the Status Selector Homepage Widget. On the Initiate Screen, the user may enter data into the referenced object attribute value fields. If the user will be doing a Find Similar search after checking for duplicate references, then the user should also enter data for the direct object attribute values.

Before doing an overall Find Similar search on both the direct object and its referenced object, the user clicks the Find Existing button within the Store Single Referenced Target framework to first search for similar objects within that object type. In the example below, the Find Existing action is comparing address objects against address objects to view if a similar address exists in STEP.


CONTACT WORKFLOW
Initiate Contact
State-1 1
State-2 0
State-3 0
End State 0


Initiate Item
Name
Miles Morales
Address
Street
3550 Barnes Road
City
Kennesaw
Zip
30144
Find Existing
Reset



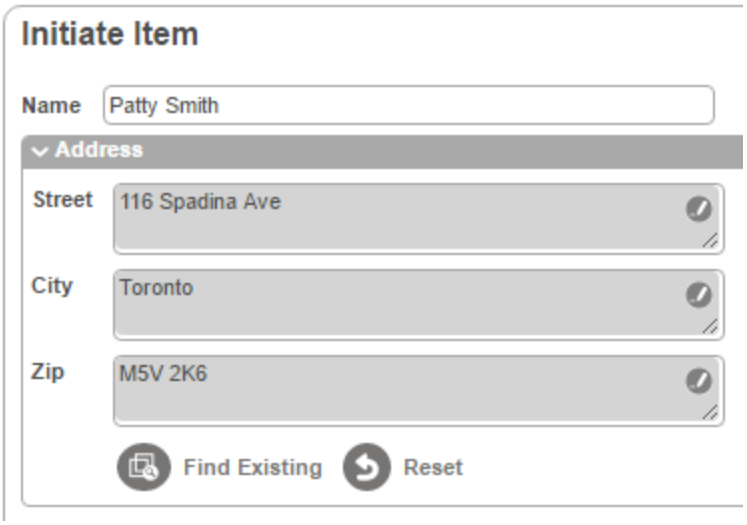
The algorithm runs in the background and the configured Dialog List Screen displays. Remember that this is not a standard search and results are based on the matching algorithm running in the background.

Important: As stated at the beginning of this topic, the key to Find Existing functionality is the matching setup that the customer creates and uses for duplicate handling. This is important because the attributes being searched *must* be part of the list of attributes that Match Codes are generated for. If not, the search will not work as expected.

A maximum of fifty (50) objects are shown at one time on the results list. The user can select one of the objects shown in the results list. Once a selection is made, the OK button is engaged. Clicking OK indicates that you want to use the selected referenced object and use it with creating the direct object.



The attribute value fields within the Store Single Referenced Target component become read only. If the user wants to create a new reference object with the attribute values entered instead of using one from the results list, the user clicks Cancel to exit the results list.

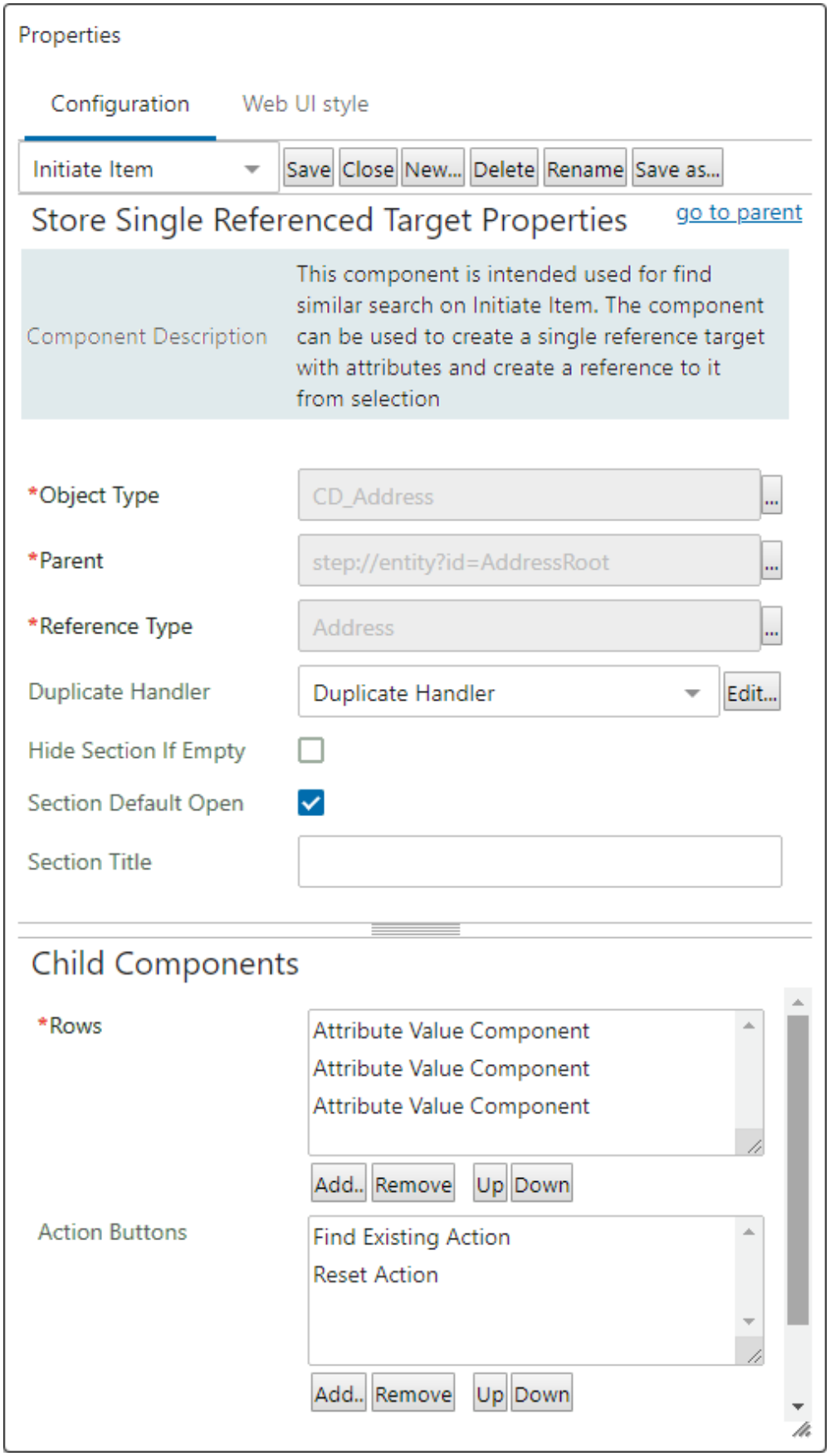


The user can run a Find Similar search, to view if there is a similar contact object that has an address reference that exactly matches the attribute values within the Store Single Referenced Target. Refer to the **Find Similar** topic for more information on using that functionality after running a Find Existing action.

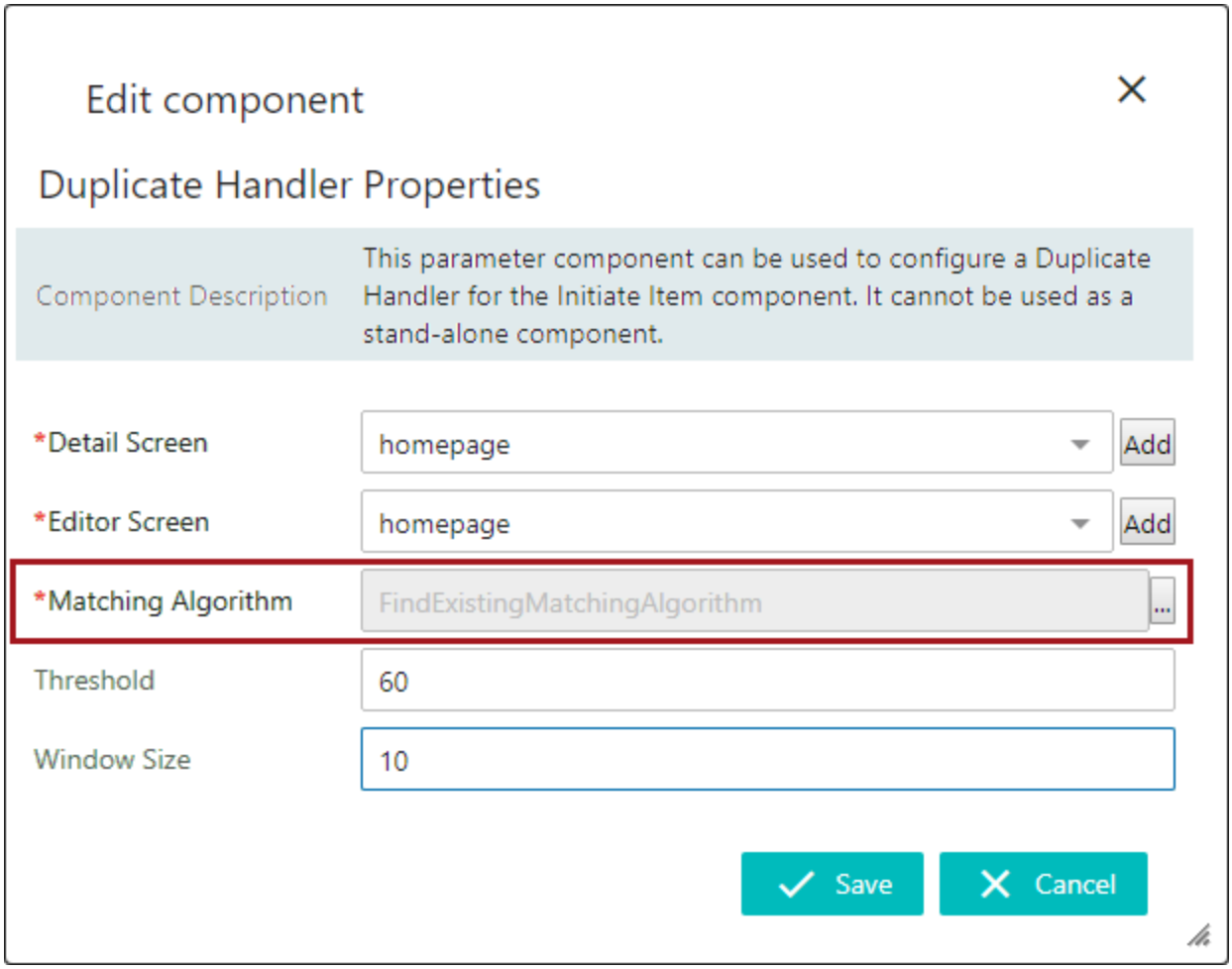
Configuring Find Existing on Store Single Referenced Target

Following the configuration steps below allows end users to search on referenced objects to identify matches within a single object type. If a similar address is found and used, then the direct object will be initiated and linked to selected existing referenced object rather than creating a new referenced object.

1. Create a new **Initiate Item** screen (or use an existing one) and complete configuration, making sure to add and configure the **Store Single Referenced Target** component. Complete details on configuration can be found in the **Initiate Item Screen** topic and within the **Find Similar in Web UI** topic.
2. While in Web UI designer, navigate to where the Store Single Referenced Target component is located (within a Node Editor on an Initiate Item screen). Double click on **Store Single Referenced Target** in Child Components > Rows to configure the component.


Properties
Configuration
Web UI style
Initiate Item
Save
Close
New...
Delete
Rename
Save as...
Store Single Referenced Target Properties
go to parent
Component Description
This component is intended used for find similar search on Initiate Item. The component can be used to create a single reference target with attributes and create a reference to it from selection
*Object Type
CD_Address
*Parent
step://entity?id=AddressRoot
*Reference Type
Address
Duplicate Handler
Duplicate Handler
Edit...
Hide Section If Empty
Section Default Open
Section Title
Child Components
*Rows
Attribute Value Component
Attribute Value Component
Attribute Value Component
Add..
Remove
Up
Down
Action Buttons
Find Existing Action
Reset Action
Add..
Remove
Up
Down

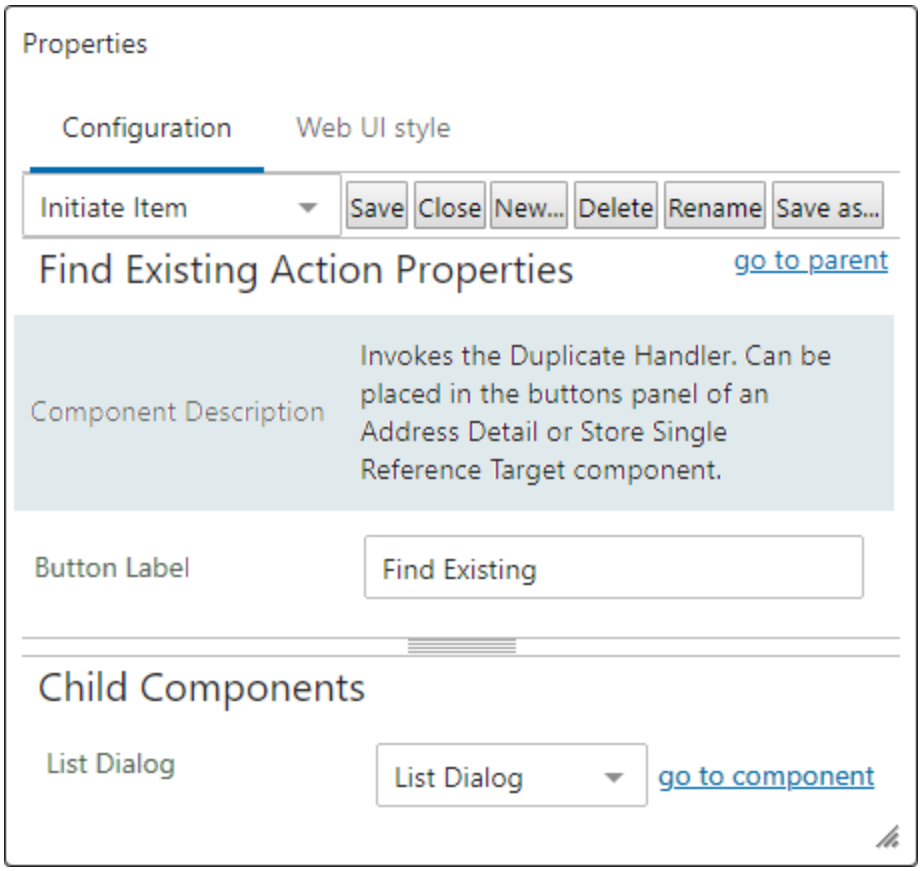
3. Click the ellipsis button (...) to make selections for each of the required parameters. Determine the:
   - **Object Type** of the objects being searched and that will be initiated in to STEP as a reference to the direct object being created.
   - **Parent** to be used for the object type when object is created on save.
   - **Reference Type** to be used when object is created on save.
4. Select **Duplicate Handler** in the dropdown for the Duplicate Handler parameter.
5. The **Duplicate Handler Properties** screen will display. The only required setting is the **Matching Algorithm** parameter. Click the ellipsis button (...) to the right of the value field and select a matching algorithm. Click **Save**.



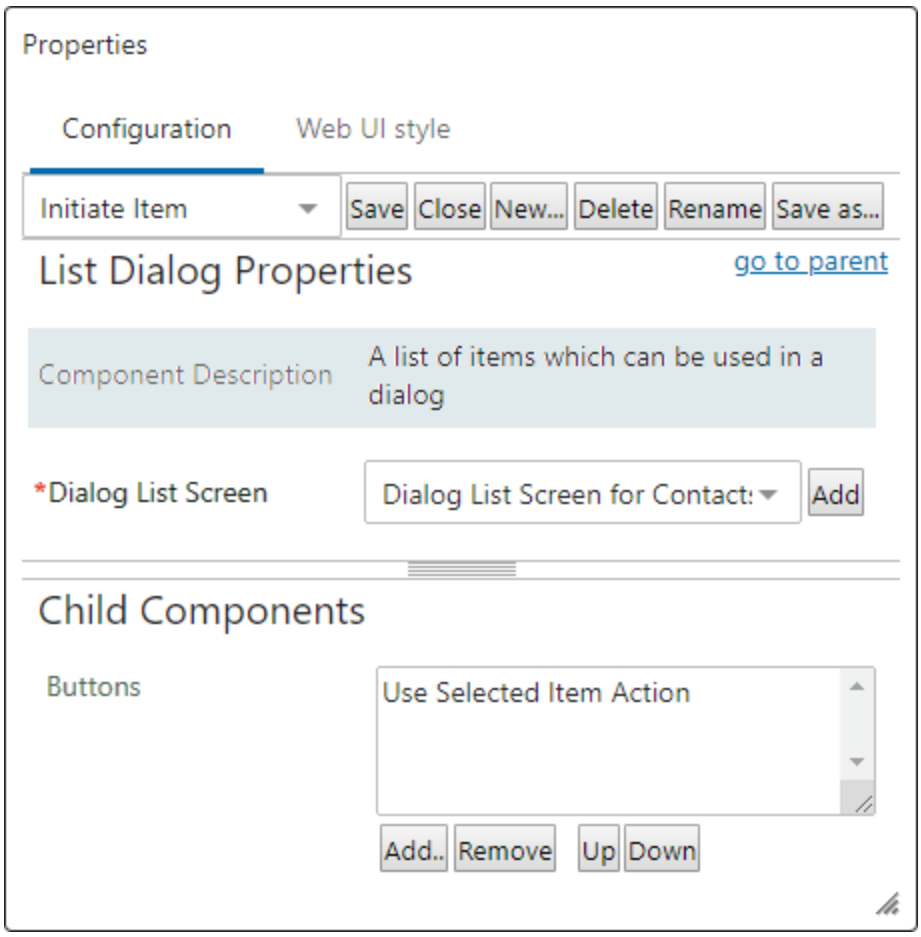
6. For Child Components > Rows, click the **Add** button.
7. Next, select the applicable component (Attribute Value or Attribute Value Group) and choose attributes to be used on the Initiate Item screen (within the Store Single Referenced Target framework) and that are also used within the algorithm. Click **Add** within the 'Add Component' dialog and you will be returned to the Store Single Referenced Target Properties.
8. Under Child Components > Action Buttons, click **Add**.

- Select **Find Existing Action**and click Add.
- Repeat this step and add the **Reset Action**.

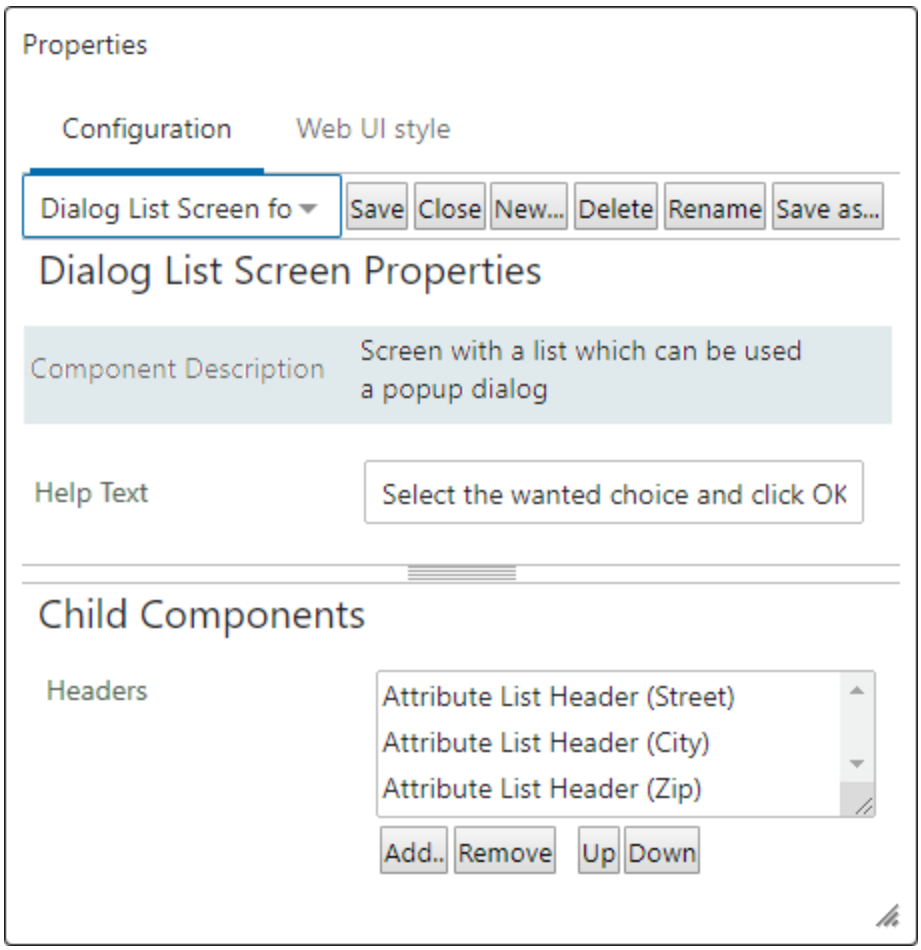
9. Double click the **Find Existing Action** title and open the **Find Existing Action Properties**.



10. Edit the **Button Label**, if desired. Under **Child Components** > **List Dialog**, select **List Dialog** from the dropdown menu.
11. On **List Dialog Properties**, click **Add** to the right of the Dialog List Screen value field.
12. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.
13. If a **Dialog List Screen** already exists, skip the previous two steps and on the **List Dialog Properties**, select the **Dialog List Screen** using the dropdown.



14. Also on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Use Selected Item Action**. Click **Add**, and then click **Save** in the designer window.
15. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen for Contacts.
16. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to set up the attributes that will display in the search results list.



17. Add different Dialog List Screen **Help Text**, if desired. It will display at the top of the template results list.
18. Click **Save** and **Close** the designer.

Find Similar in Web UI

In an effort to prevent users from creating duplicate objects in the STEP system, users can use the **Find Similar Action** to identify similar objects prior to initiating new ones when working in Initiate Item screens in Web UI. Also, users can use **Find Similar** functionality to search for and identify similar objects prior to adding references and creating target objects within a Multi-Reference Editor. Using Find Similar allows users to search for potential duplicates on a more granular level.

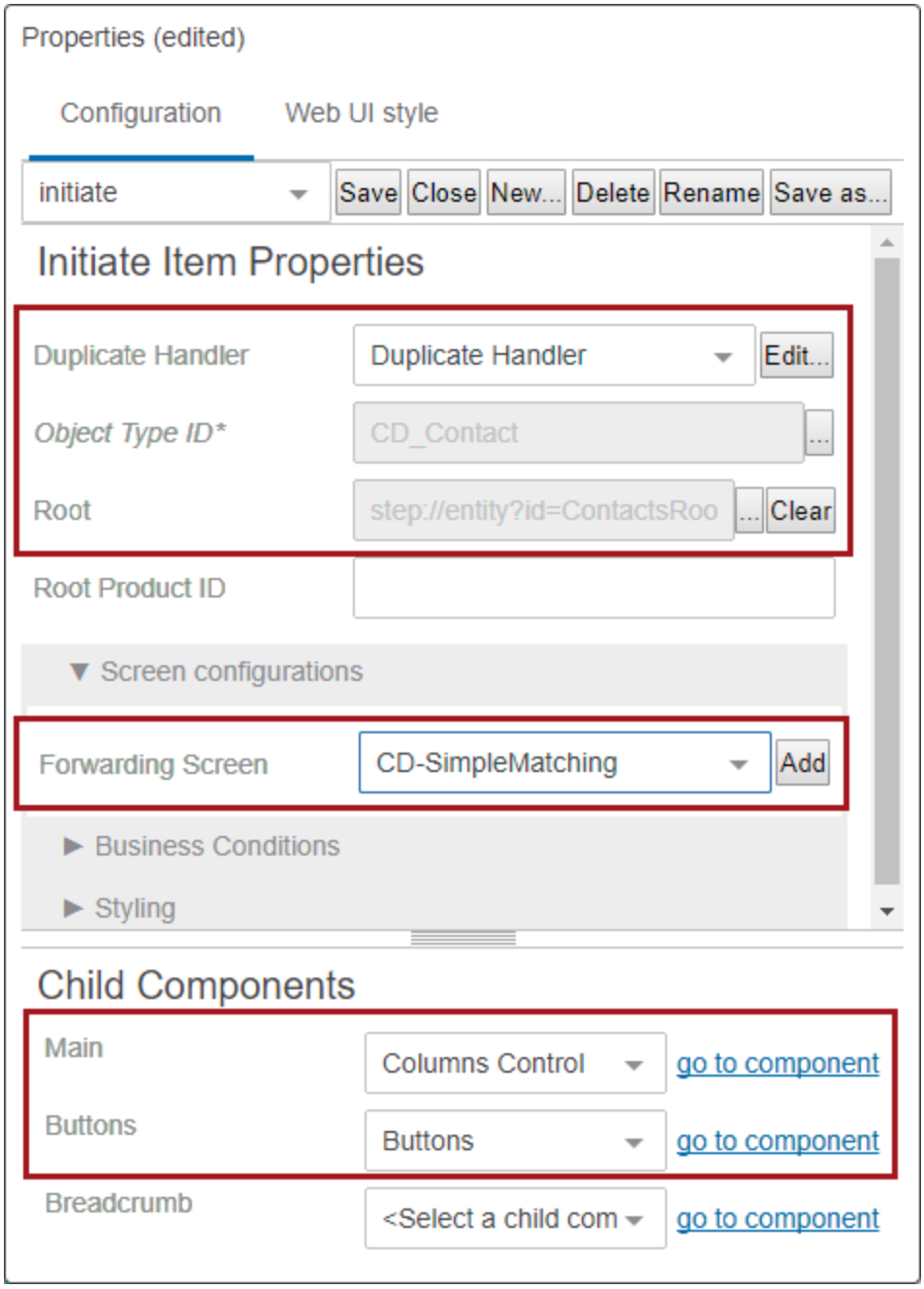
The key to Find Similar functionality is the **matching setup** that the customer creates and uses for duplicate handling. Every time a user enters data into the search fields and clicks OK, the Find Similar search checks the match code values involved, executes the relevant matching algorithm, and provides a set of results, if any are found. If a user is not getting the results set they expect, then the first place to check is the algorithm configured in the Duplicate Handler parameter in the Add Reference Action Properties. Two bind types work with the Find Similar functionality. They are: **First Match Object** and **Second Match Object**. A relevant Match Code and

Matching Algorithm needs to be set up before attempting to use the Find Similar Search tab. For more information about setting up and using matching algorithms, refer to the **Configuring Matching Algorithms** section of the **Matching, Linking, and Merging** documentation.

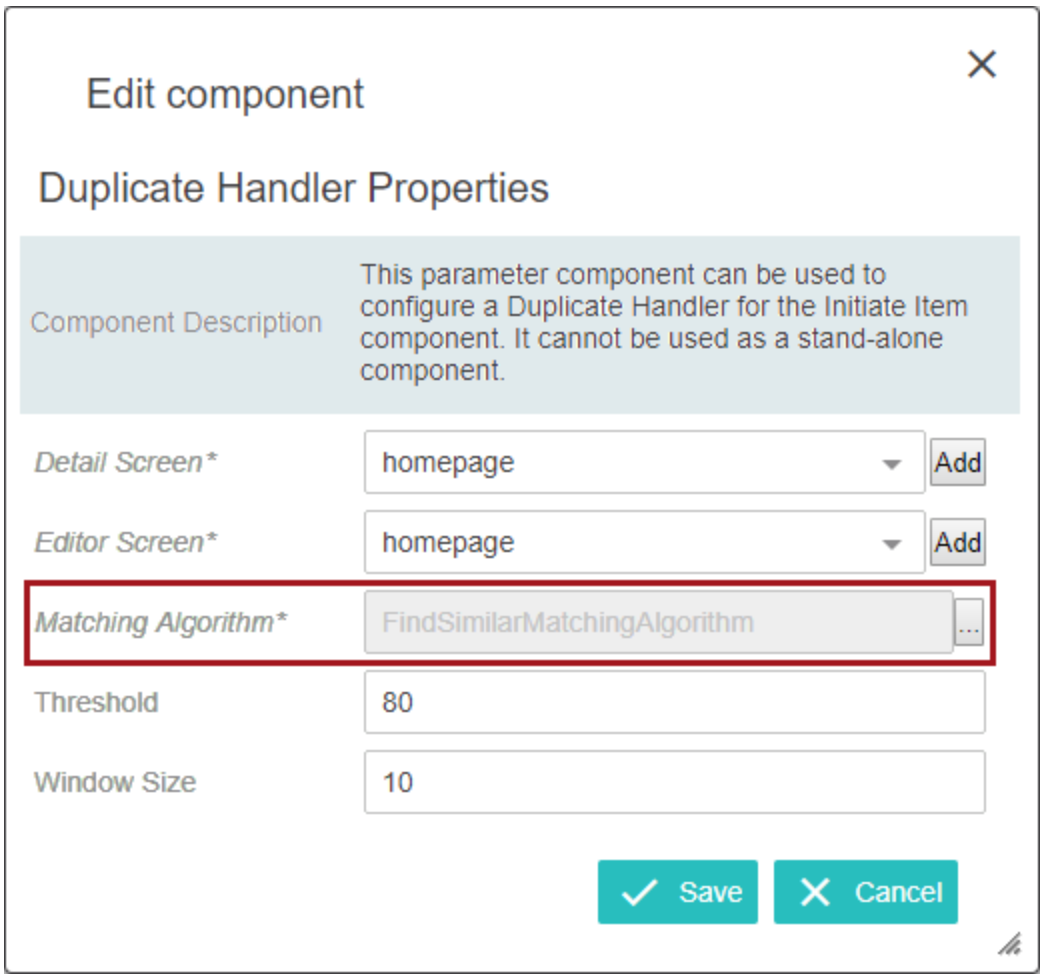
Prerequisites

All the steps provided in this topic assume the Web UI designer is in design mode and on the applicable **Properties** screen prior to starting the configuration process. It is also assumed that all users (designers and end users) have the proper privilege to work with these features. For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

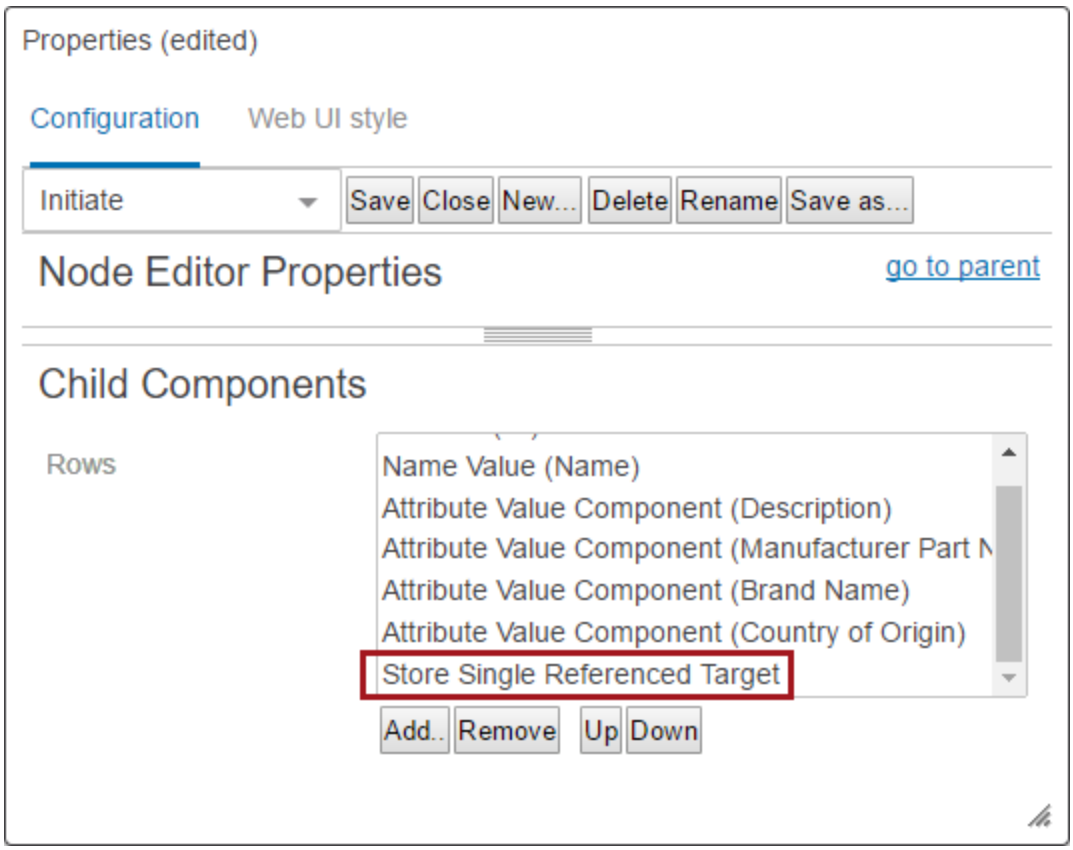
Configuring Find Similar on an Initiate Item Screen



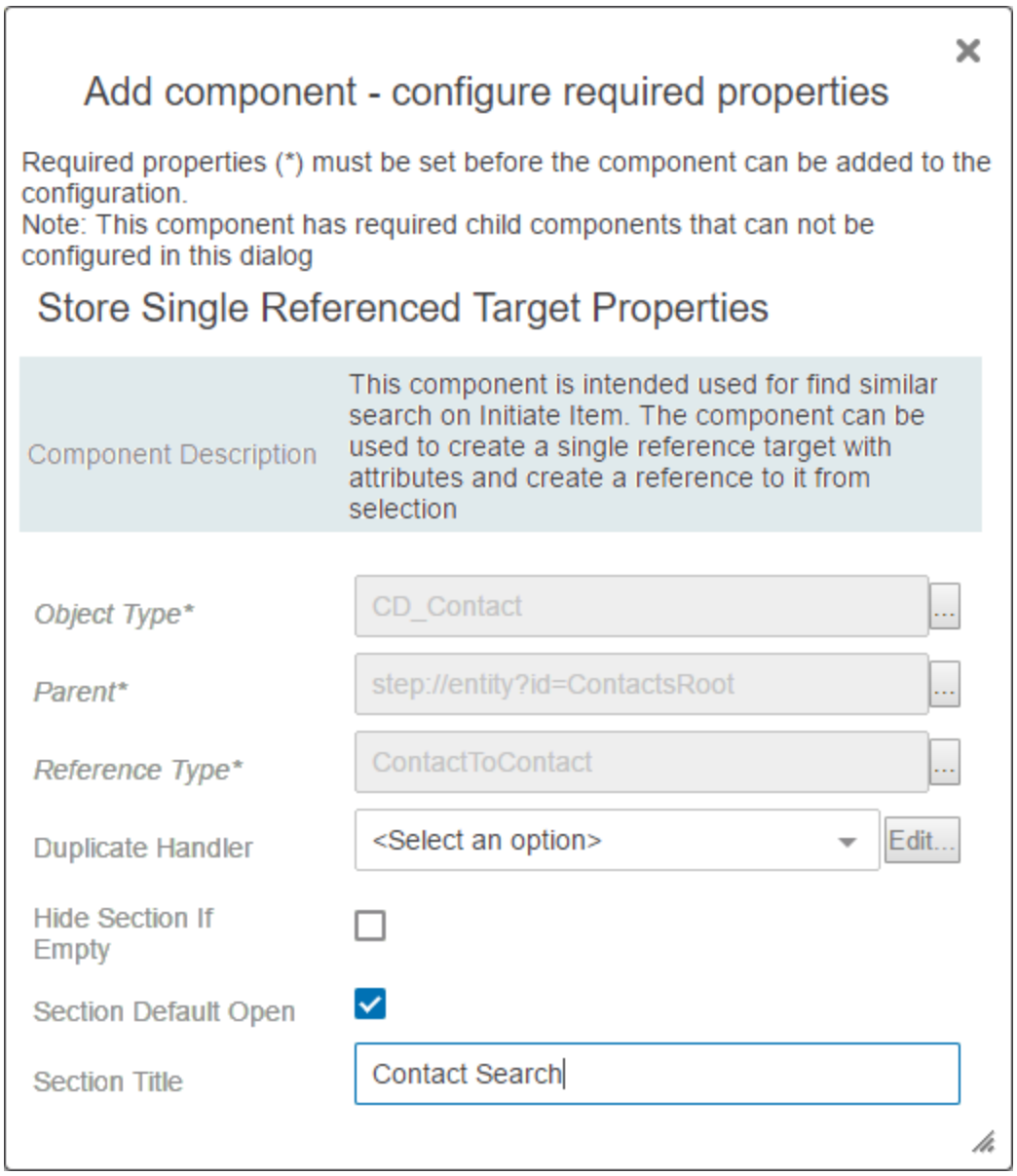
1. Create a new **Initiate Item** screen or use an existing one.
2. In **Initiate Item Properties**, select **Duplicate Handler** in the dropdown for the **Duplicate Handler** parameter.
3. The **Duplicate Handler Properties** screen will display. The only required setting is the **Matching Algorithm** parameter. Click the ellipsis button (**...**) to the right of the value field and select a matching algorithm. Click **Save**.



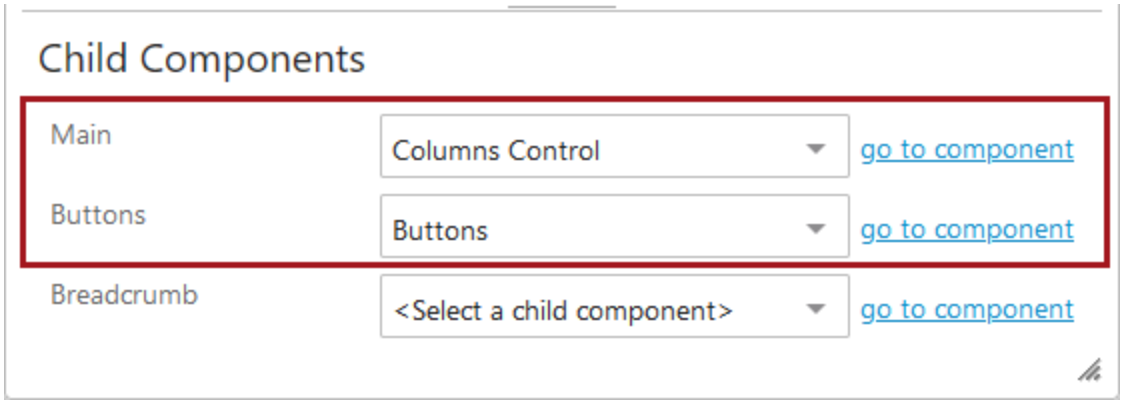
4. Click the ellipsis button (...) to the right of the **Object Type ID** parameter to select the object type of the objects that will be initiated in to STEP.
5. Click the ellipsis button (...) to select a **Root**. New items will be created below the designated root.
6. Make a **Forwarding Screen** selection. This is the screen that will be shown once an object is created. (Using the example setup portrayed in the screenshots, when you click on a CD_Contact object in the Web UI Tree, you are taken to the CD-SimpleMatching screen. So, if you are creating a new CD_Contact object using the Initiate Screen, after saving the object, you want to go to the CD-SimpleMatching screen to view that object.)
7. For **Child Components** > **Main**, choose **Columns Control** from the dropdown. Then click on **go to component** and select **Node Editor** in the **Child Components** > **Columns** of the **Columns Control Properties**.
8. Within the **Node Editor Properties**, the search attributes need to be configured within the **Child Components** > **Rows** value field using the Add, Remove, Up and Down buttons. These search attributes are for searching direct objects.



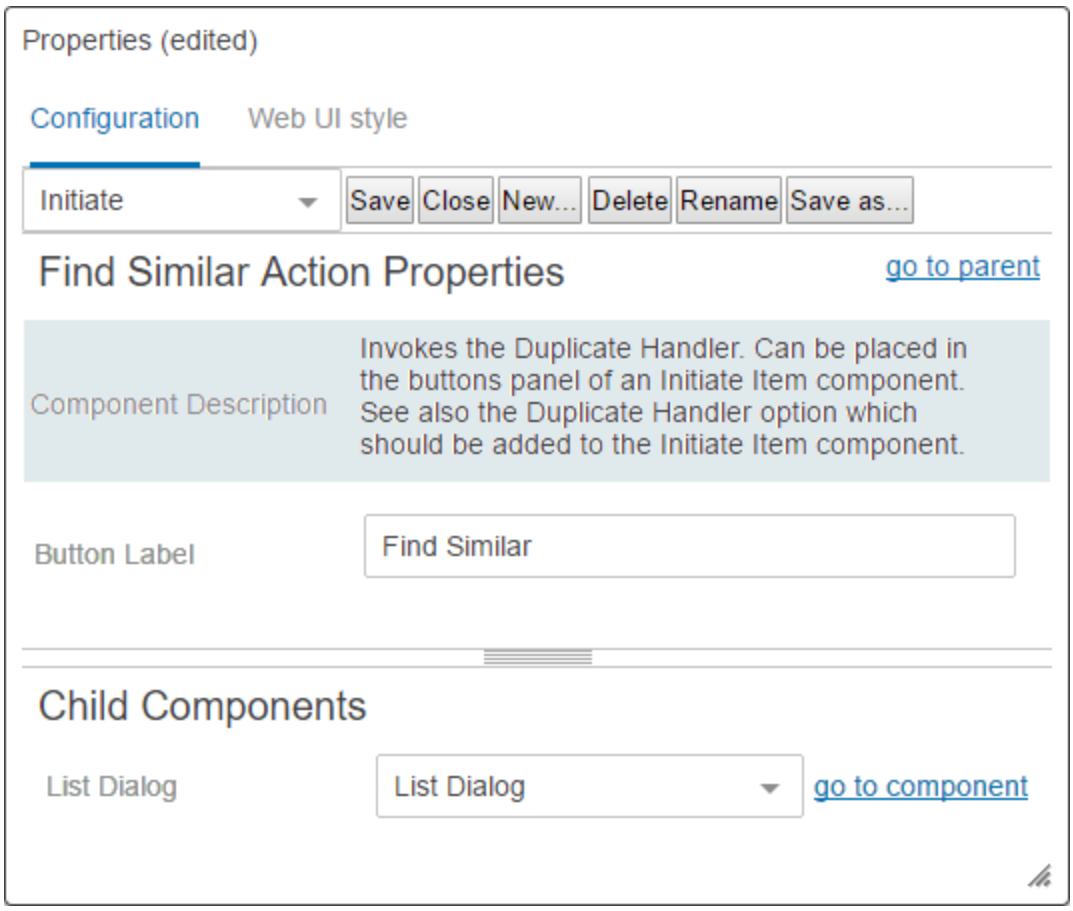
9. Add the **Store Single Referenced Target** component if end users will be searching on referenced objects in addition to direct objects (refer to example above).
10. Double click on **Store Single Referenced Target** to configure the component. **Object Type**, **Parent**, **Reference Type**, and **Child Component** > **Rows** (not shown) are required parameters / components. Go through each parameter one-by-one to complete the configuration.



11. Back on the **Initiate Item Properties** screen, go to **Child Component** > **Buttons** and click on 'go to component.' In the **Actions** value field, click **Add** and select **Find Similar Action**.

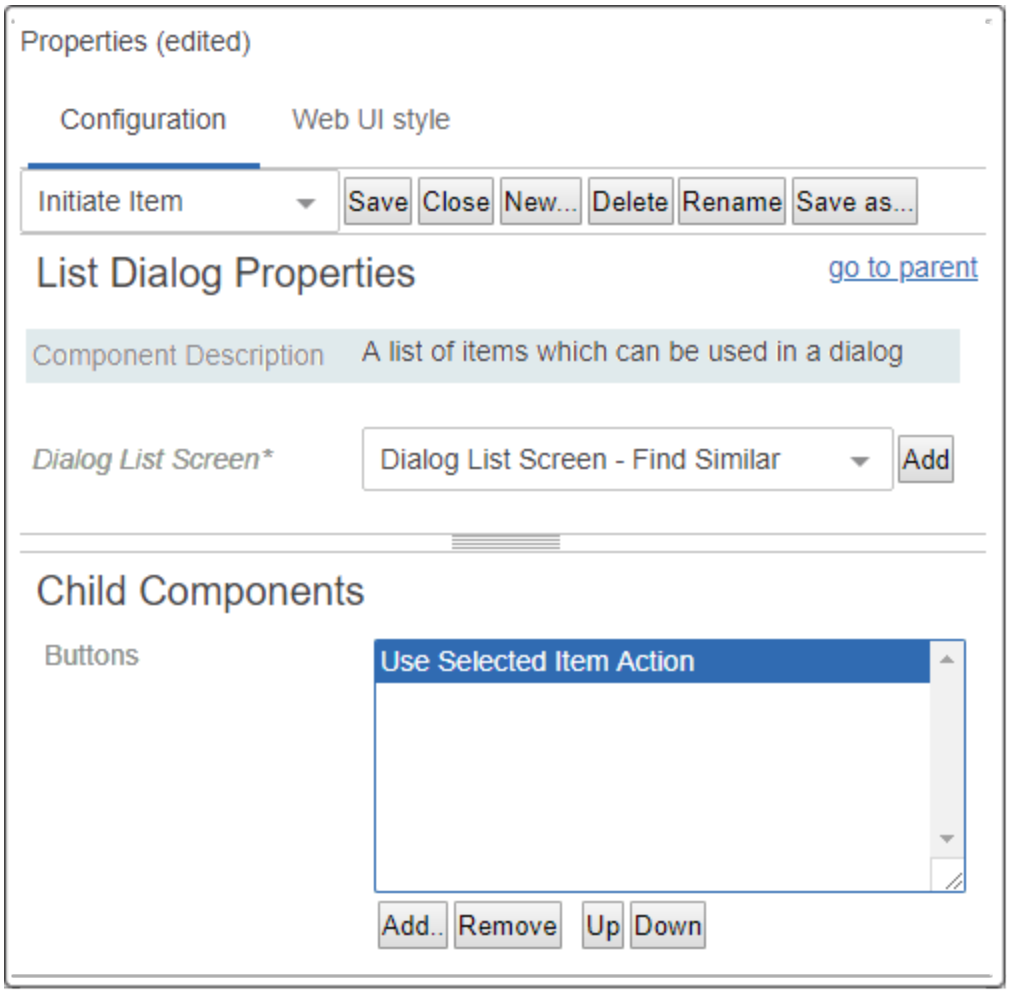


12. Double click on the **Find Similar Action** title and open the **Find Similar Action Properties**.

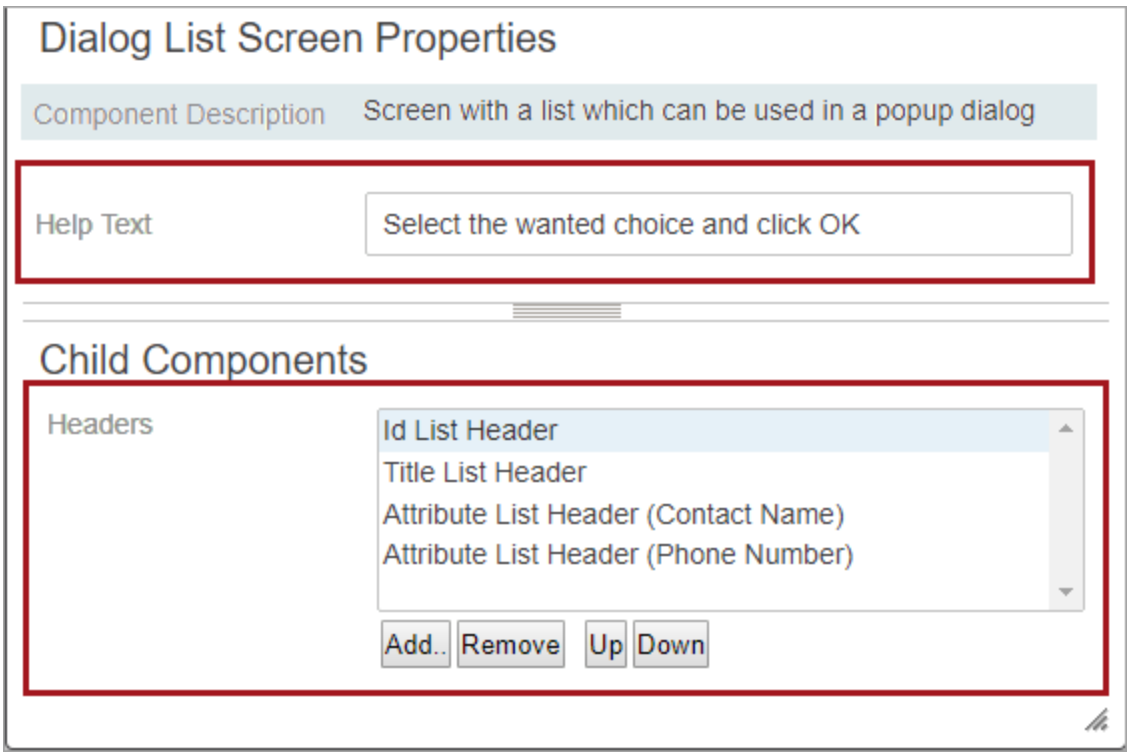


13. Edit the **Button Label**, if desired. Under **Child Components** > **List Dialog**, select **List Dialog** from the dropdown menu.
14. On **List Dialog Properties**, select a Dialog List Screen. If a **Dialog List Screen** does not exist, follow the next two steps to create one.
15. Click **Add** to the right of the Dialog List Screen value field.

16. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.



17. Also on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Use Selected Item Action**. Click **Add**, and then click **Save** in the designer window.
18. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen - Find Similar.
19. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to set up the attributes that will display in the Find Similar Search tab for the results list. The **Help Text** is editable and will display at the top of the results list.

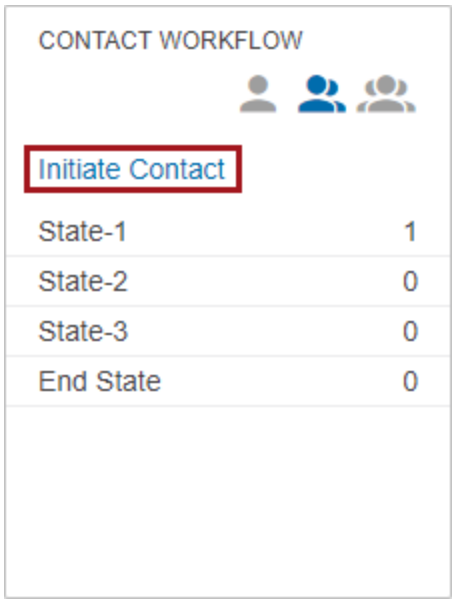


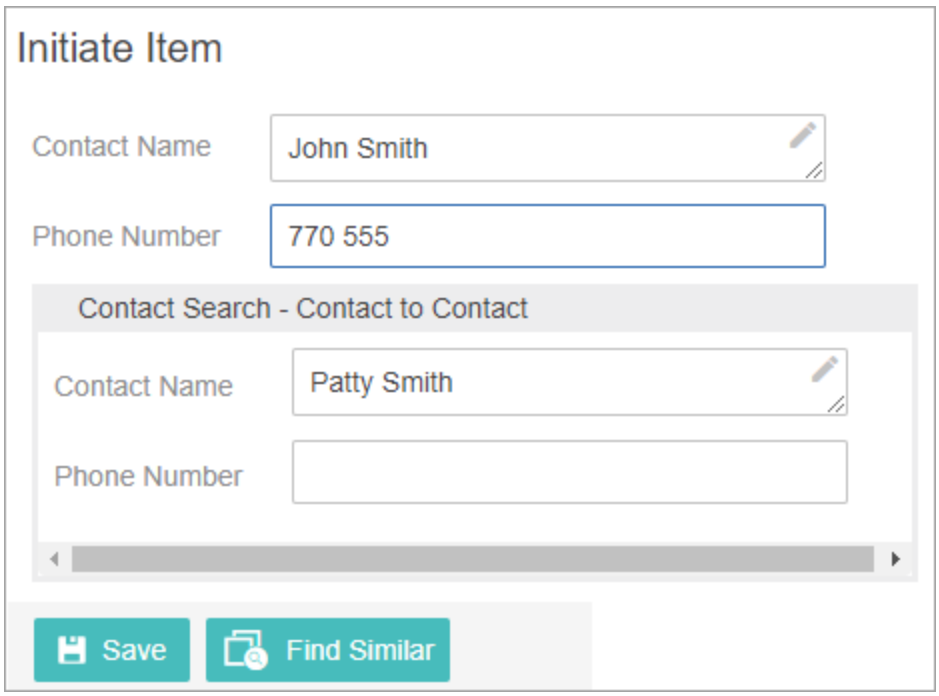
20. Click **Save** and **Close** design mode to return to normal Web UI mode.

Using Find Similar on an Initiate Item Screen

This is a very basic example of how **Find Similar** is used on an **Initiate Item** screen.

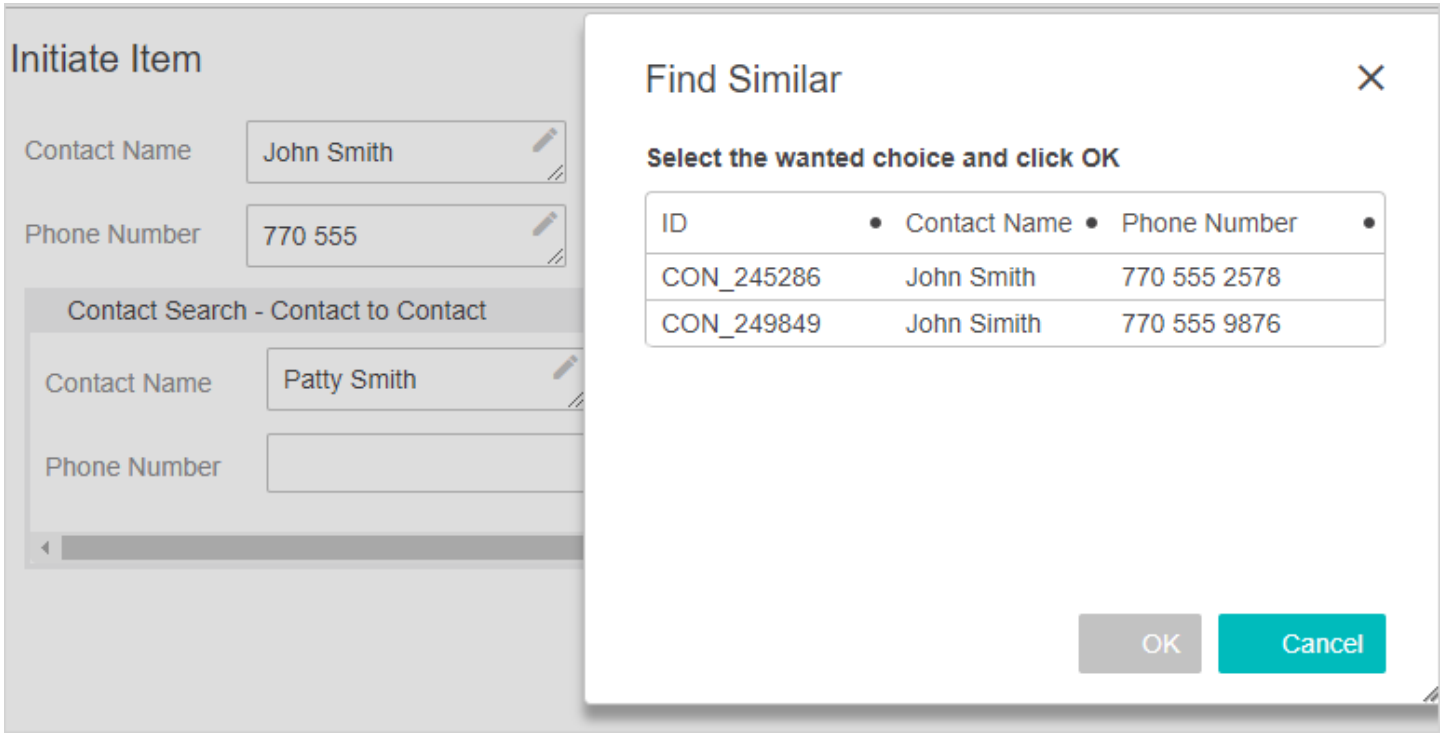
The end user begins the object (Contact) initiation process by clicking Initiate Contact on the Status Selector Homepage Widget. On the Initiate Screen, the user enters data into the direct object search fields and also into the referenced object search fields and then clicks the Find Similar button.



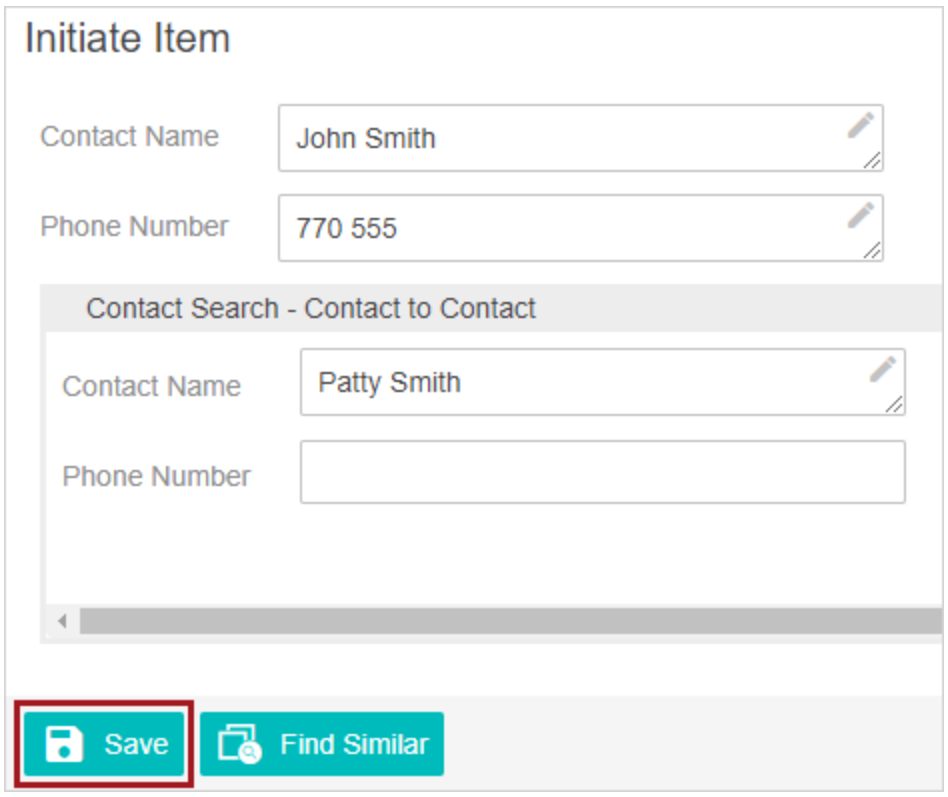


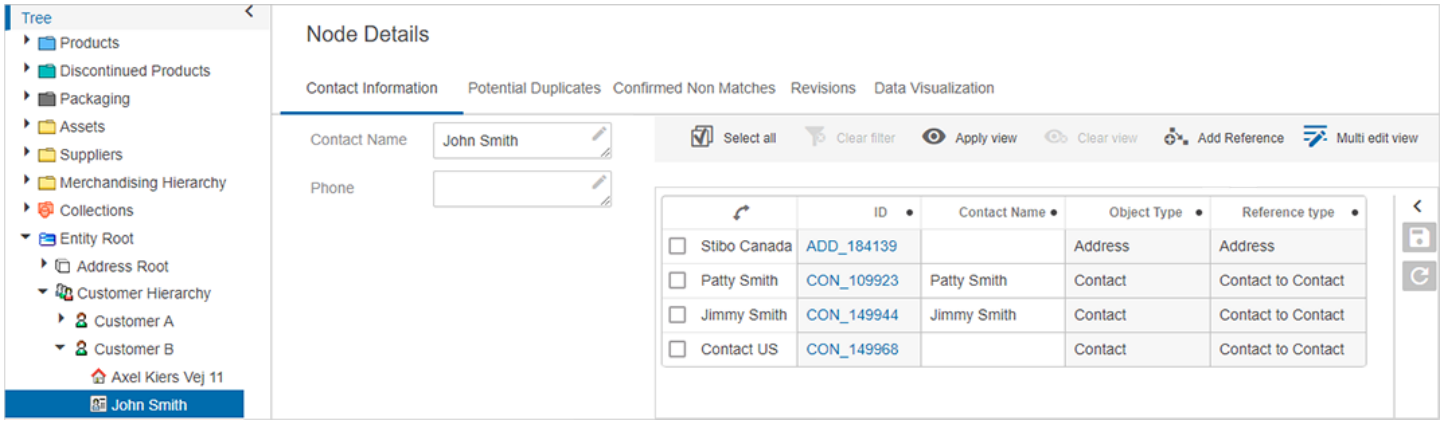
The algorithm runs in the background and the configured Dialog List Screen displays. Remember that this is not a standard search and results are based on the matching algorithm running in the background.

Important: As stated at the beginning of this topic, the key to Find Similar functionality is the matching setup that the customer creates and uses for duplicate handling. This is important because the attributes being searched *must* be part of the list of attributes that Match Codes are generated for. If not, the search will not work as expected.



A maximum of fifty (50) objects are shown at one time on the results list. The user can select one of the objects shown in the results list. Once a selection is made, the OK button is engaged. Clicking OK takes the user directly to that object via the appropriate Web UI screens. If the user wants to create a new object with the search data entered, the user clicks Cancel to exit the results list. Back on the Initiate Screen, the user will click Save and be taken directly to the new object. The data entered into the attribute value fields (configured in the Store Single ReferencedTarget Properties) is also used to create the referenced object and the reference between these objects is also created.

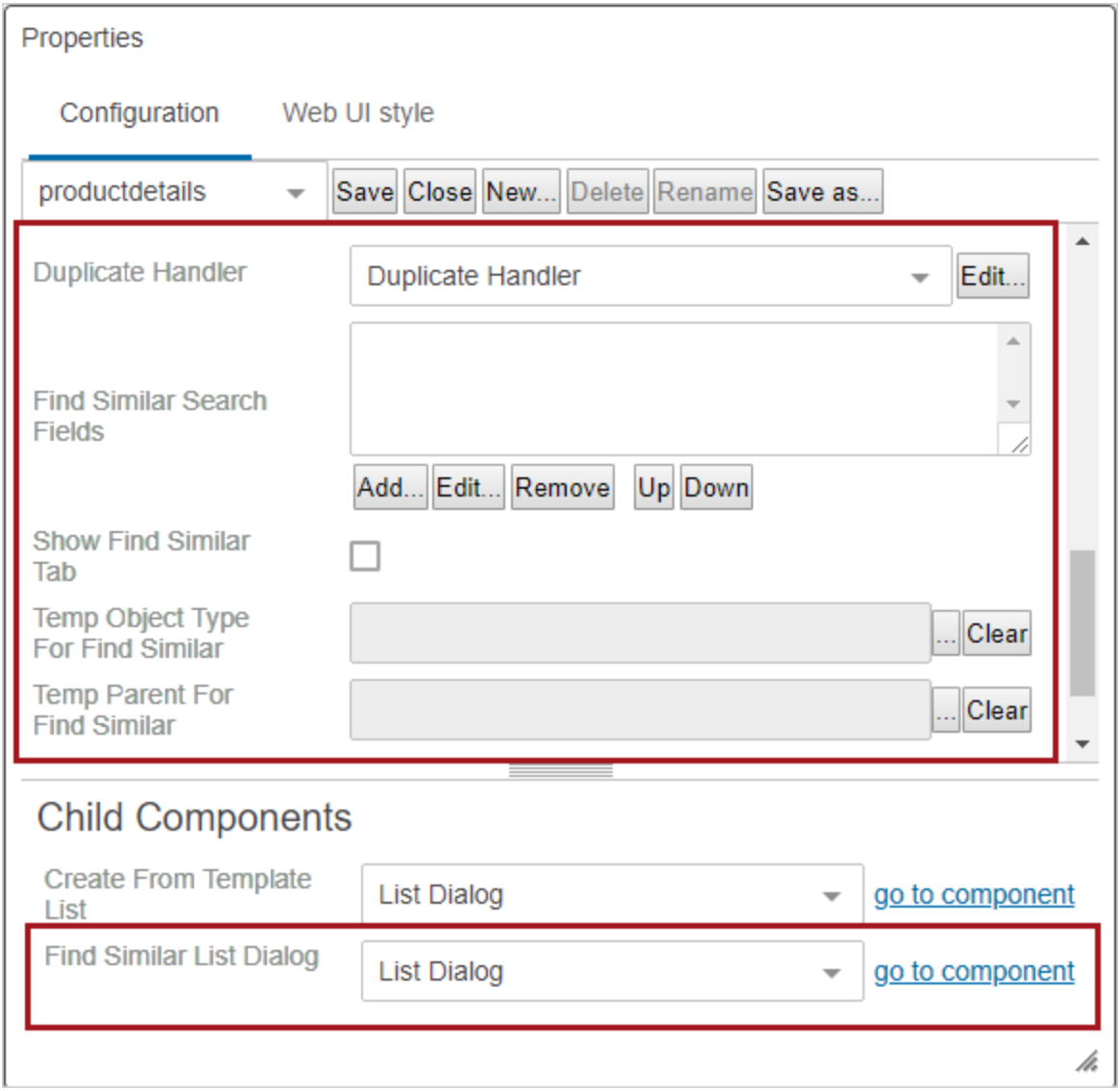




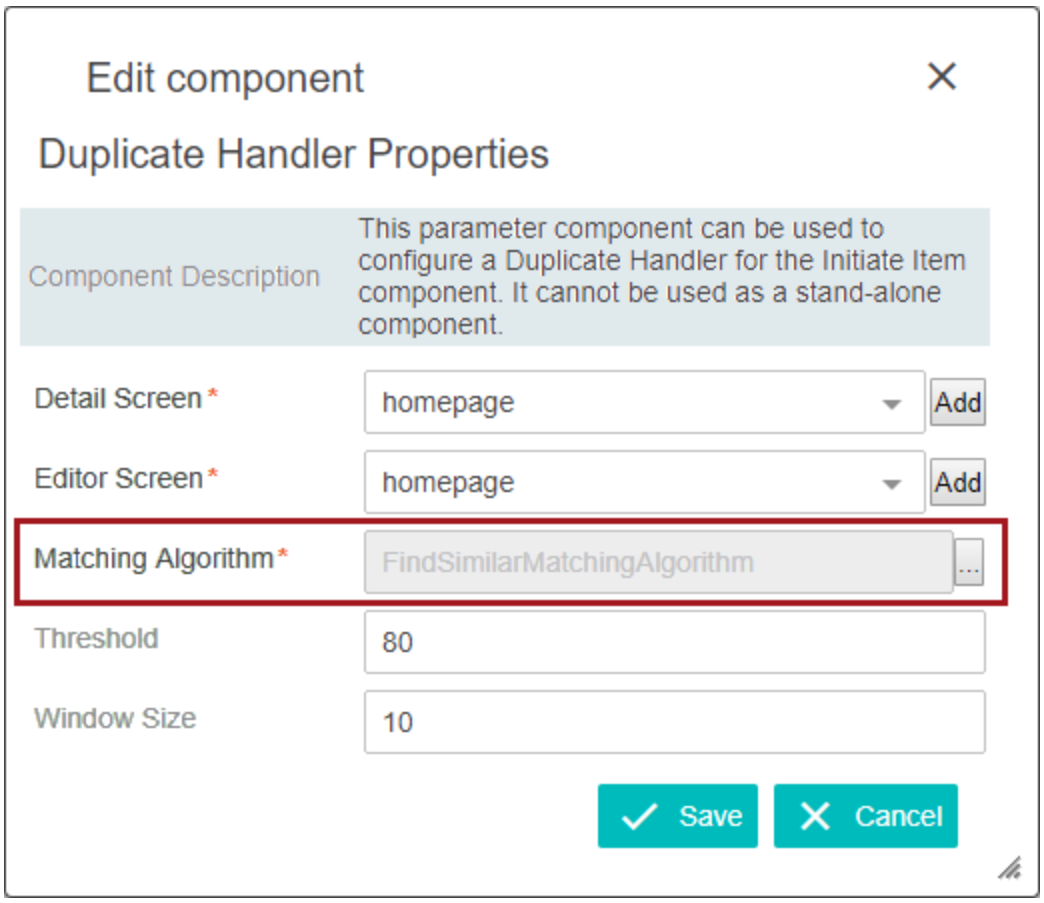
If applicable, the new object will automatically be initiated into a workflow or workflows based on existing workflow rules. For more information about workflows and auto-initiation, refer to the **Auto-Initiation of Tasks in Workflows** topic in the **Workflows** documentation. It is advisable to also make use of standard STEP tools like business rules and workflows to manage the referenced objects that are created in this manner.

Configuring Find Similar on an Add Reference Action

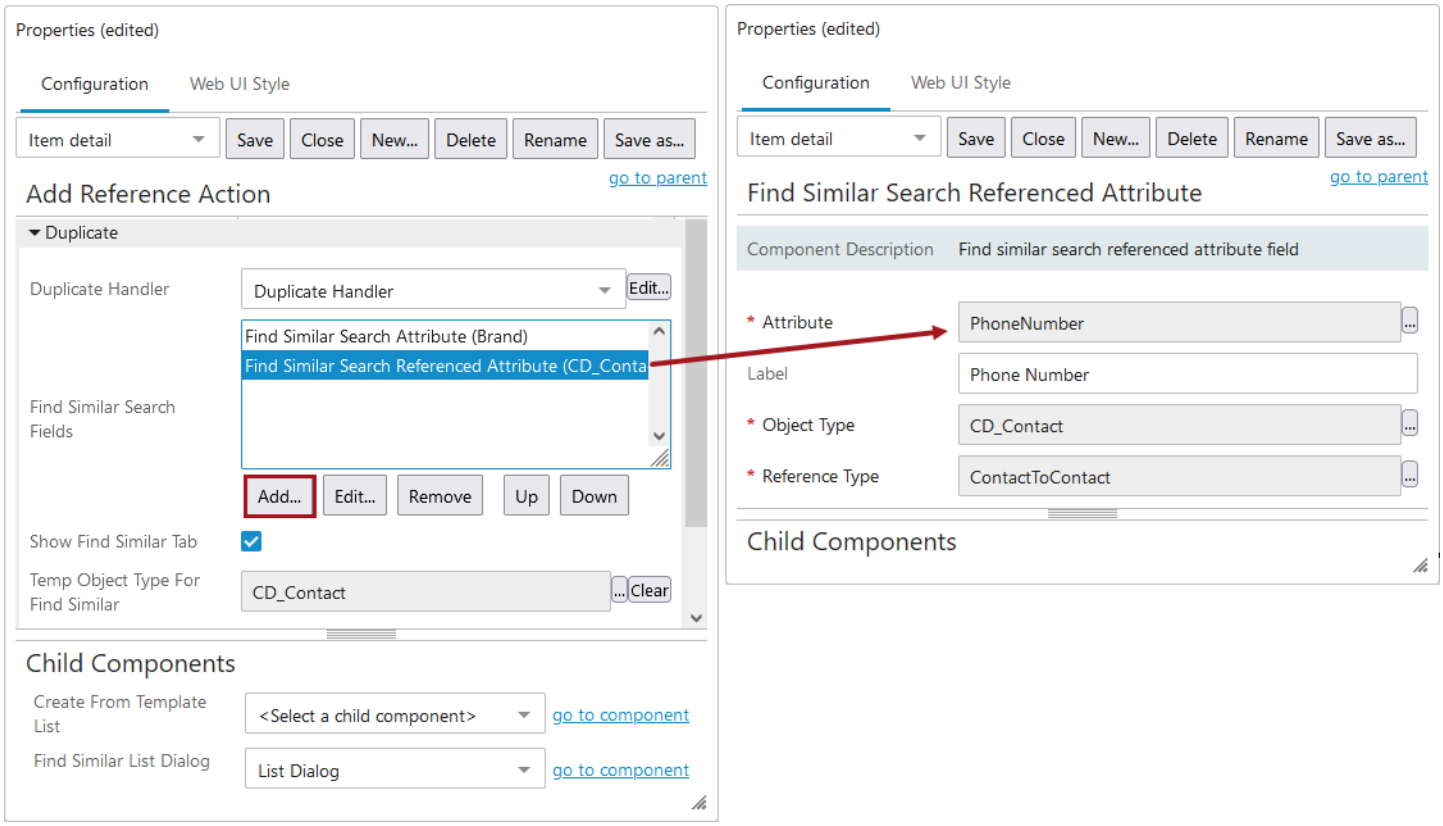
This setup information is also available in the **Add Reference Action** section of the **Web User Interfaces** documentation.



1. Edit the properties for an existing **Add Reference Action** configured for a **Multi-Reference Editor**, or add an Add Reference Action and complete the configuration.
2. In the **Add Reference Action Properties**, select **Duplicate Handler** in the dropdown for the **Duplicate Handler** parameter.
3. The **Duplicate Handler Properties** screen will display. The only required setting is the **Matching Algorithm** parameter. Click the ellipsis button (...) to the right of the value field and select a matching algorithm. Click **Save**.



4. Back on **Add Reference Action Properties**, click **Add** under the **Find Similar Search Fields** value box. Add, remove, and re-order **Attribute** and **Referenced Attributes** as desired. Remember that these search fields will need to be incorporated into the matching algorithm configured in the Duplicate Handler parameter.
5. It is important to fill in the **Label** fields during the **Find Similar Search Fields** configuration. These labels will appear on the Find Similar Search tab. If adding a **Find Similar Search Referenced Attribute**, fill in the **Attribute**, **Label**, **Object Type**, and **Reference Type** values. Save all changes.

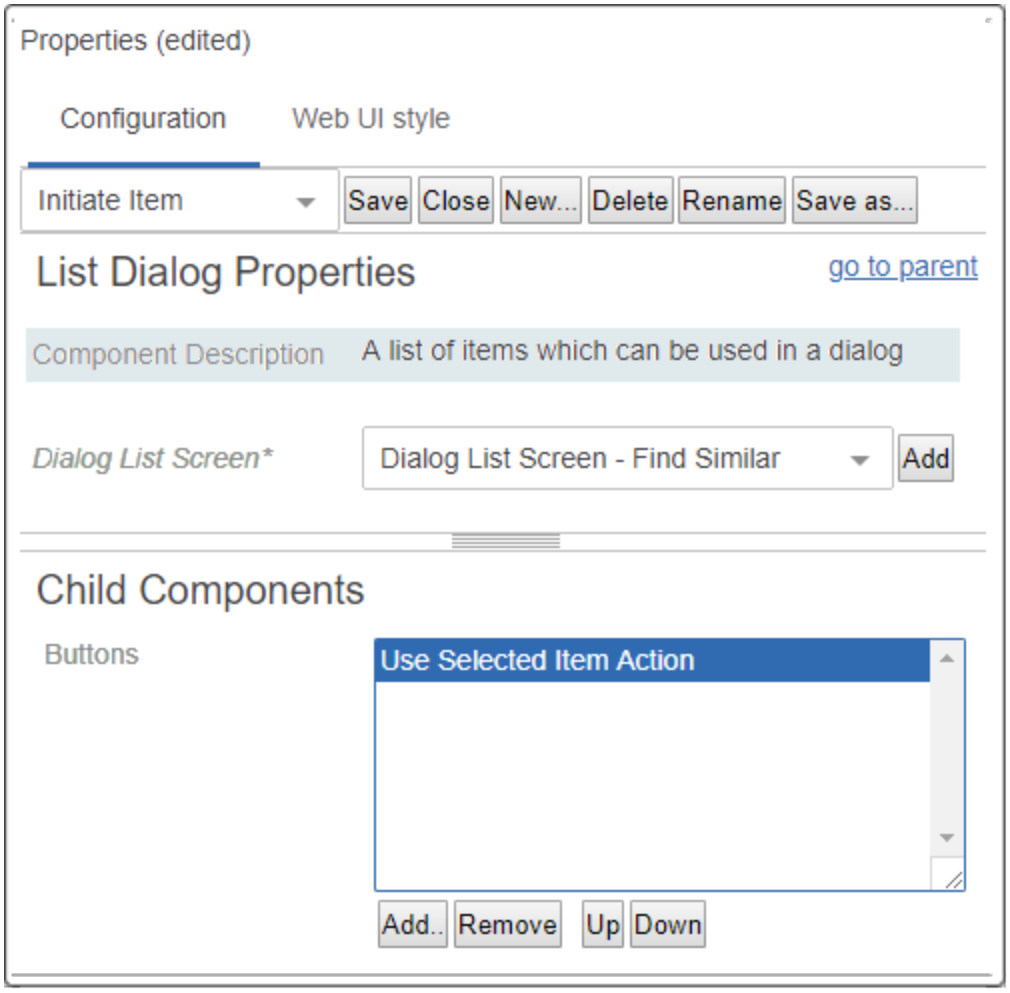


6. Enable the **Show Find Similar Tab** setting back on the **Add Reference Action Properties**.
7. Click the ellipsis button (...) to make a selection for the **Temp Object Type For Find Similar** parameter and the **Temp Parent For Find Similar** parameter. (When the matching algorithm is run, it creates temporary objects based on the input in the search fields. These objects are then used in the algorithm to compare and find similar objects. The temporary objects need a parent and object type to be created. After the user finishes the operation, the temporary objects are deleted by the system. These parameters have to be configured for the functionality to work. The object types of both the direct objects and the referenced objects need to be made valid under the location used for the Temp Parent For Find Similar parameter.)

Important: The node selected for Temp Parent For Find Similar in the configuration, must also be included in the category specified in the match code definition, if a category is specified. If this is not done, the match codes will not generate properly and the match results will be incorrect.

8. Under **Child Components** > **Find Similar List Dialog**, select **List Dialog** from the dropdown menu.
9. On **List Dialog Properties**, click **Add** to the right of the Dialog List Screen value field.
10. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.
11. If a **Dialog List Screen** already exists, skip the previous two steps and on the **List Dialog Properties**, select the **Dialog List Screen** using the dropdown.

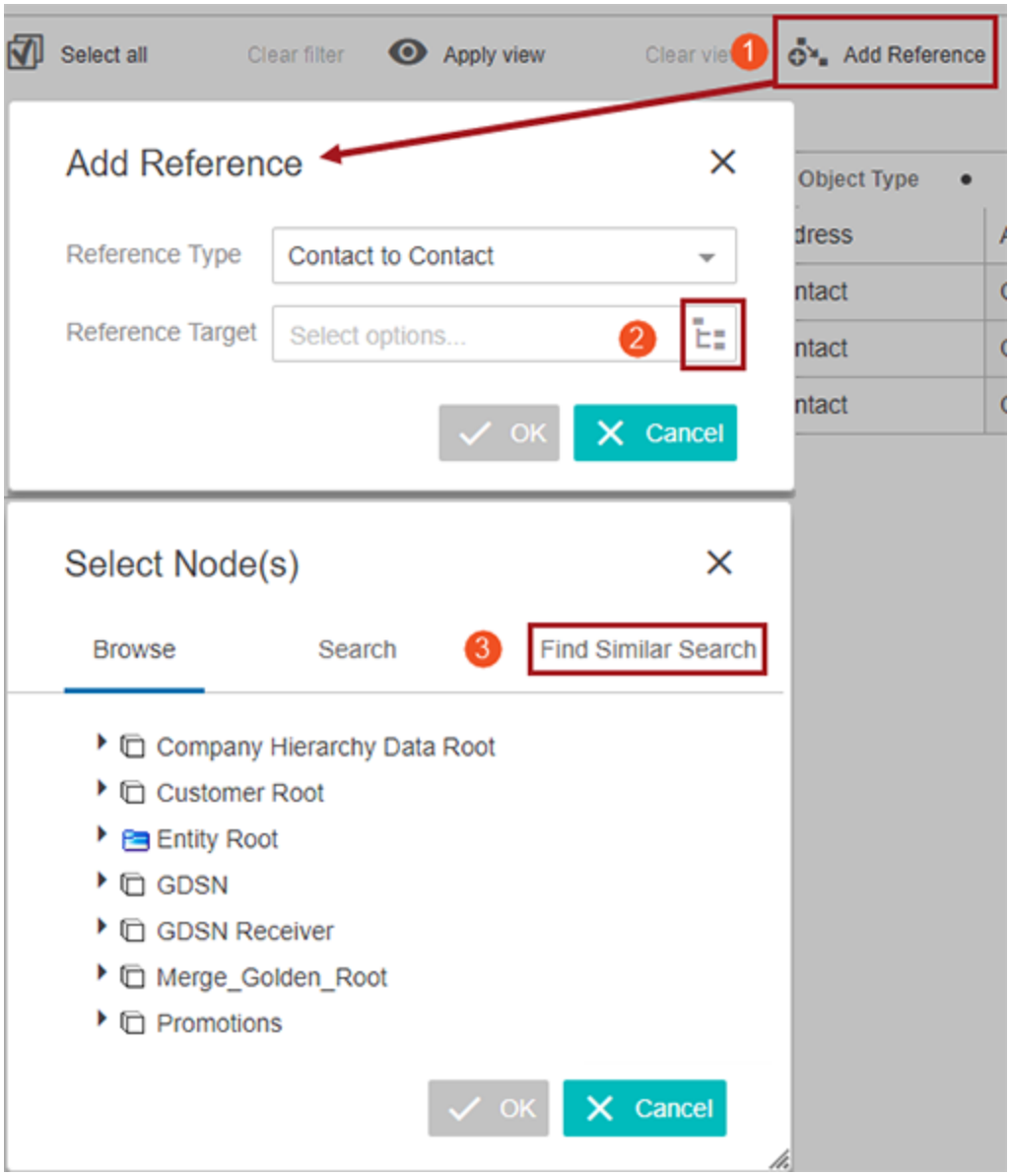
12. Also on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Use Selected Item Action**. Click **Add**, and then click **Save** in the designer window.

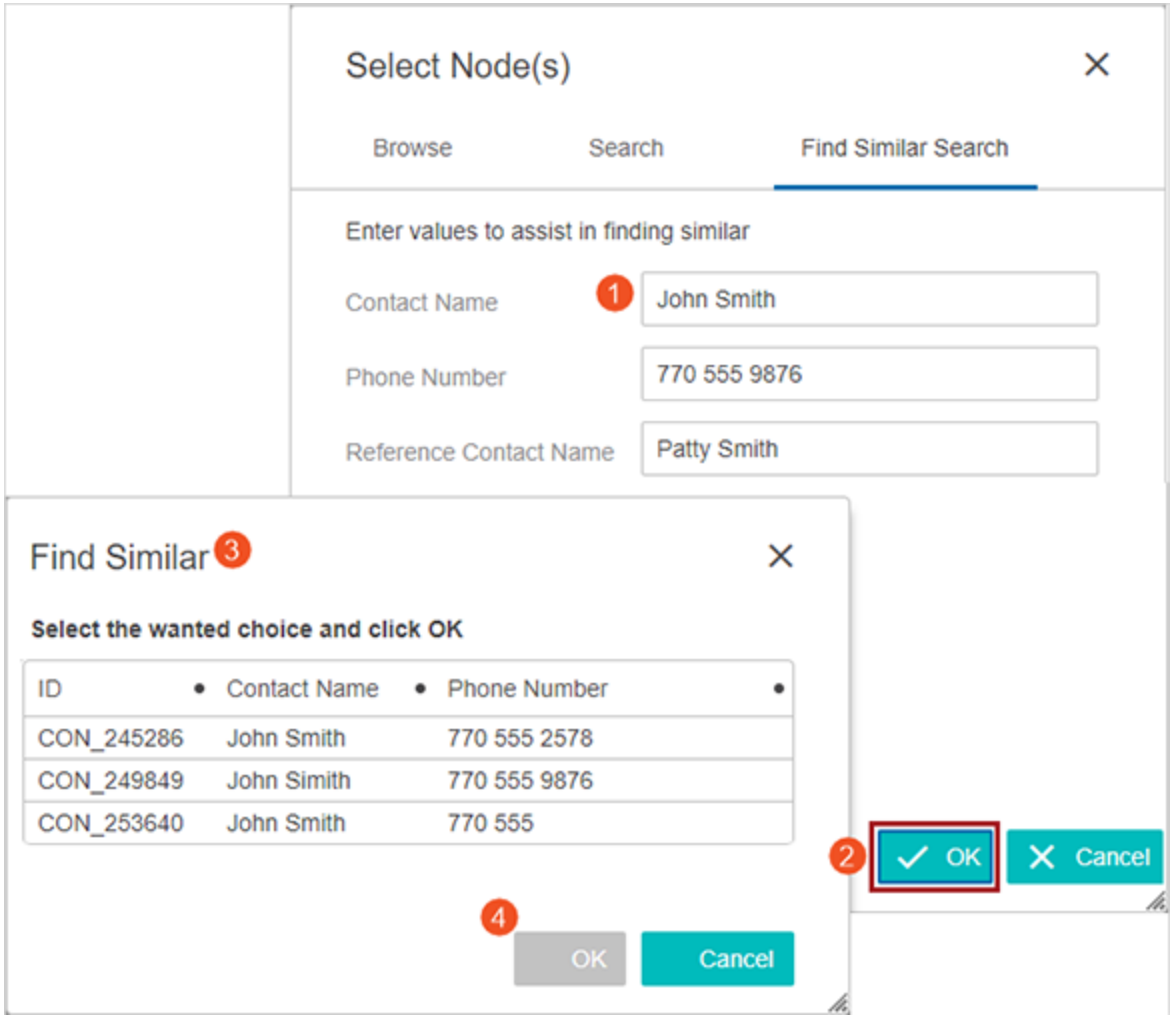


13. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen for Contacts.
14. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to set up the attributes that will display in the Find Similar Search tab for the results list. The **Help Text** is editable and will display at the top of the results list.
15. Click **Save** and **Close** design mode to return to normal Web UI mode.

Using Find Similar on an Add Reference Action

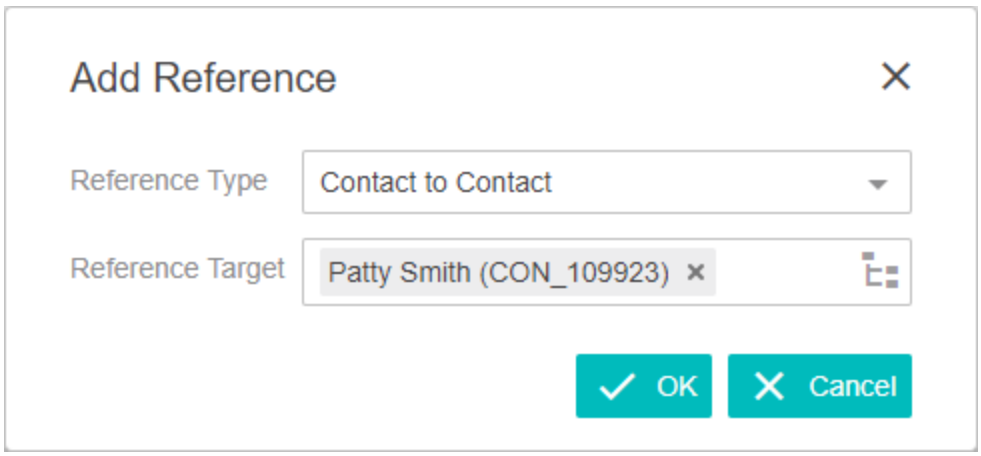
This is an example of a configured **Find Similar Search** tab. While using a **Multi-Reference Editor** component, the end user clicked 'Add reference' and then clicked the node picker icon on the 'Add reference' dialog that appeared. The **Find Similar Search** tab is displayed in the 'Select Node(s)' dialog. The end user enters data into the configured attribute fields and clicks OK. The algorithm runs in the background and the configured Dialog List Screen displays. Remember that this is not a standard search and results are based on the matching algorithm running in the background.

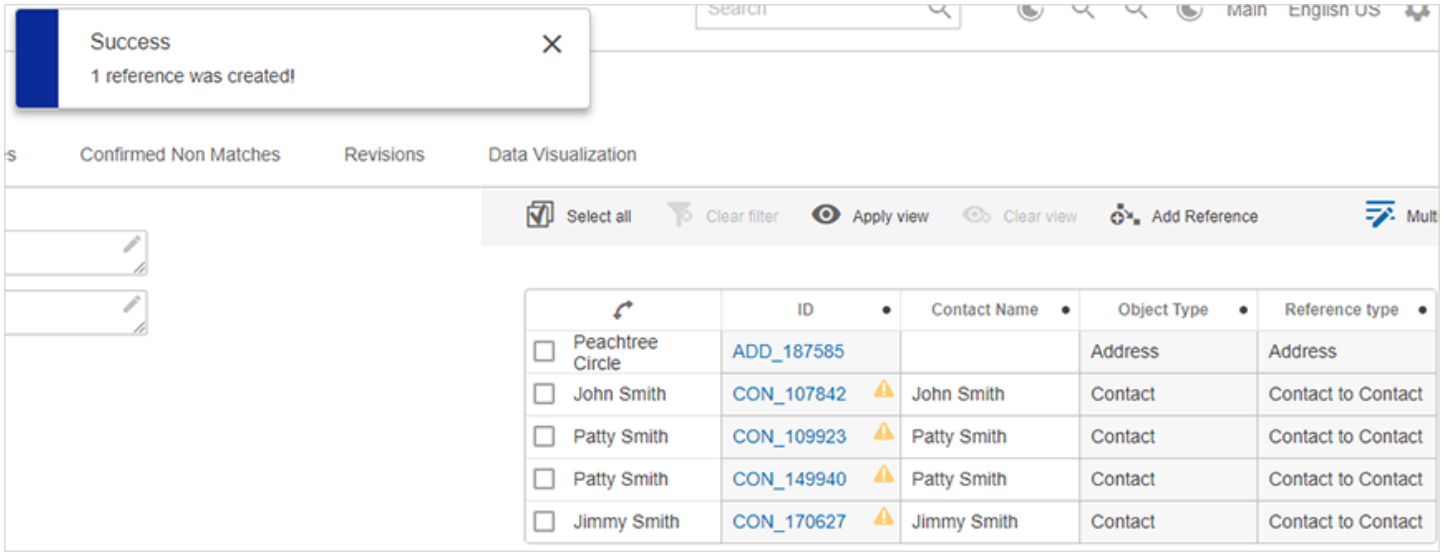

Select all
Clear filter
Apply view
Clear vie
1
Add Reference
Add Reference
Reference Type
Contact to Contact
Reference Target
Select options...
2
OK
Cancel
Object Type
dress
ntact
ntact
ntact
Select Node(s)
Browse
Search
3
Find Similar Search
Company Hierarchy Data Root
Customer Root
Entity Root
GDSN
GDSN Receiver
Merge_Golden_Root
Promotions
OK
Cancel



Important: As stated previously in this topic, the key to Find Similar functionality is the matching setup that the customer creates and uses for duplicate handling. This is important because the attributes being searched *must* be part of the list of attributes that Match Codes are generated for. If not, the search will not work as expected.

A maximum of fifty (50) objects are shown at one time on the results list. If the end user finds a reference on the results list that they want to use, they click in the row they want. When that selection is made, the OK button will be available. The end users clicks OK and now that reference is saved. If the user does not find a result to use, they can click cancel and create a new reference using the Create or Create from Template functions (both described previously in this topic).





Note: Find Similar functionality is also available when working with company data hierarchies via the Hierarchy Representations component (found in Main (Screen) Properties). For more information on the setup, which is similar to Add Reference, refer to the **Optional Configurations for the Hierarchy Representation Component** topic.

Find Similar in Workflows

On a ‘Node Details’ screen in the Web UI, 'Find Similar in Workflows' enables users to use Find Similar as a governance feature to prevent the creation of duplicates.

When creating a new object, governance is enforced by using a workflow to ensure that users cannot create objects without having to mark potential duplicates as 'Confirmed Non Duplicates'. Only after completing that step is the user allowed to continue with the creation of a new node. The task of verifying that the new node is not a duplicate can also be assigned to a second user with privileges to approve the new node.

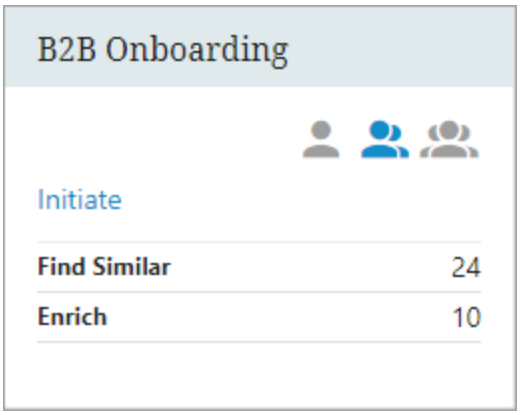
This topic includes the following sections:

- Using 'Find Similar in Workflows' on a Node Details screen
- Creating a Workflow for Find Similar on a Node Details Screen
- Configuring 'Find Similar in Workflows' in the Web UI

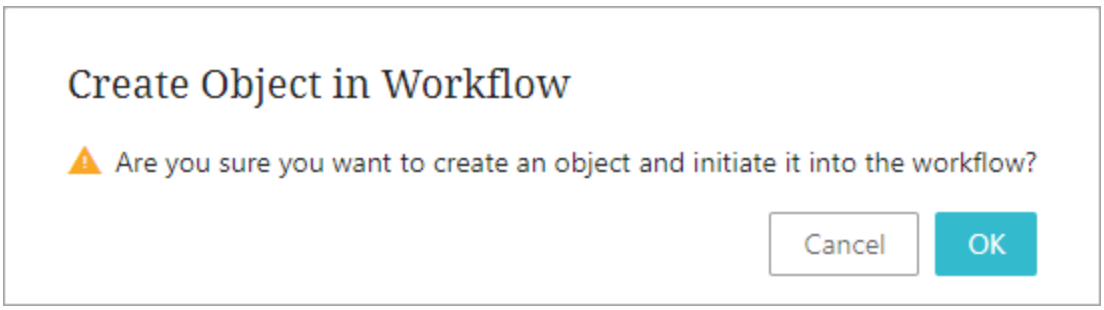
Using 'Find Similar in Workflows' on a Node Details Screen

The following example shows how to use 'Find Similar in Workflow'. When the user initiates new items, the system guides the user to ensure that the user explicitly confirms that potential duplicates are 'Confirmed Non Duplicates' before the user is able to continue.

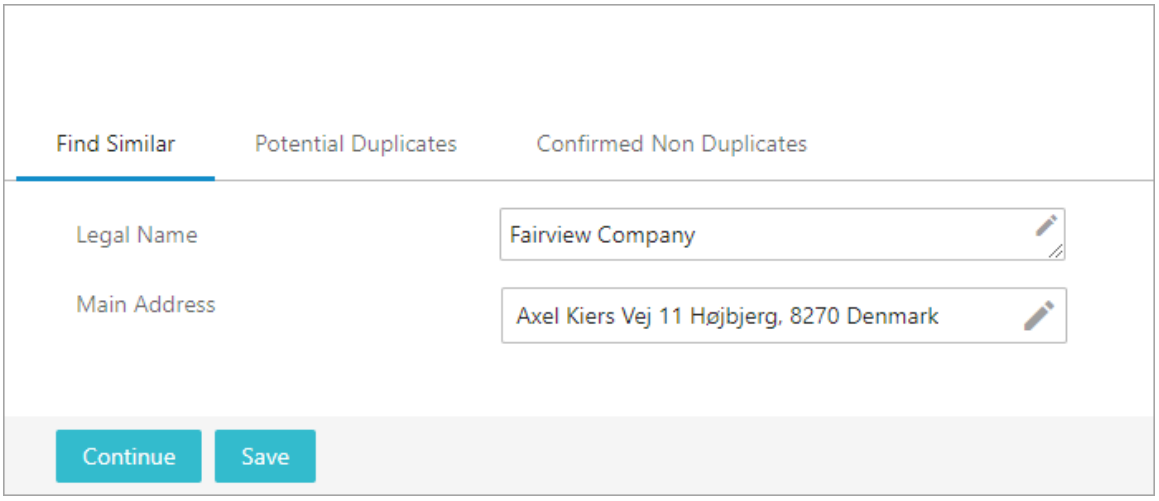
1. Create a new object by clicking the 'Initiate' link on the 'Status Selector Homepage Widget' in the Web UI.



2. In the pop-up dialog that opens, the user clicks **OK** to create an object and initiate it into the workflow.

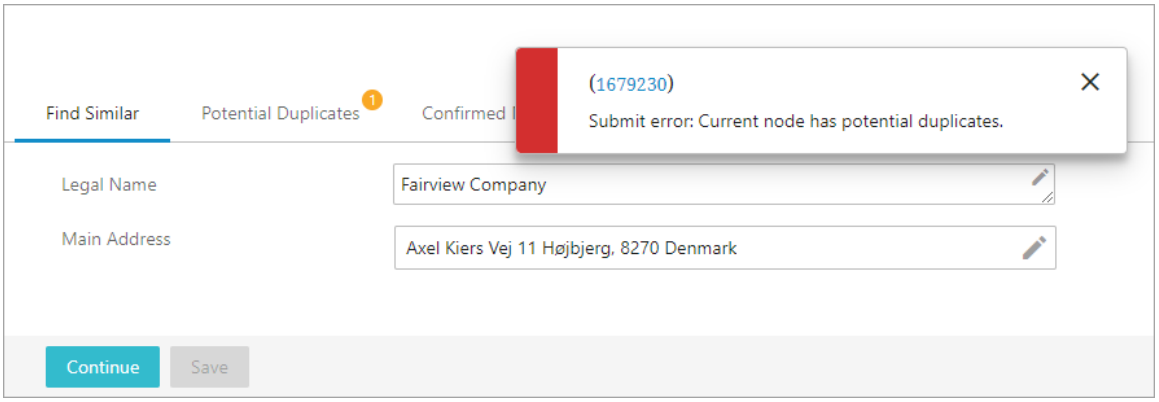


3. On the 'Node Details' screen that opens, the user enters data in the search fields, and then clicks **Continue** to submit the object.

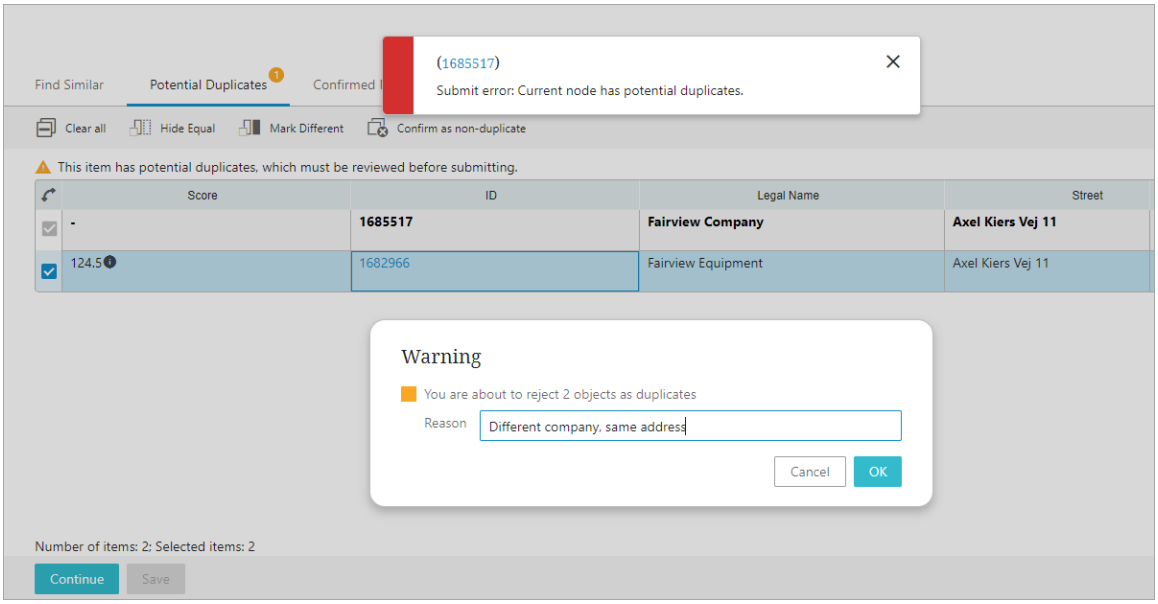


4. Upon submission, the new node is saved, and new match codes and rank scores are calculated. If there are no potential duplicates, a message displays that the new node has no potential duplicates, and the user can now continue to the next screen and enter more data.

   However, if the system finds potential duplicates, a yellow warning icon appears on the 'Potential Duplicates' tab, and an error dialog displays informing the user that the object has potential duplicates that must be resolved before the user is able to continue.

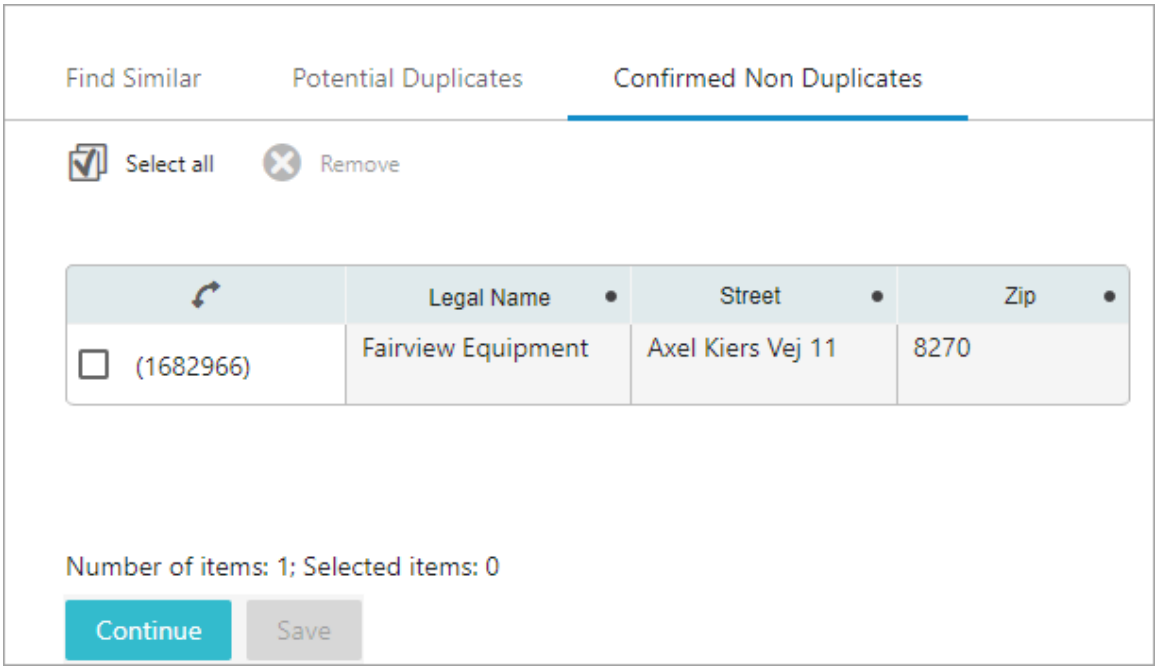


   The potential duplicates are displayed in a table on the 'Potential Duplicates' tab, where the user can review them and, if they are not duplicates, mark them as 'Confirmed Non Duplicates' and select 'Confirm as non-duplicate'.

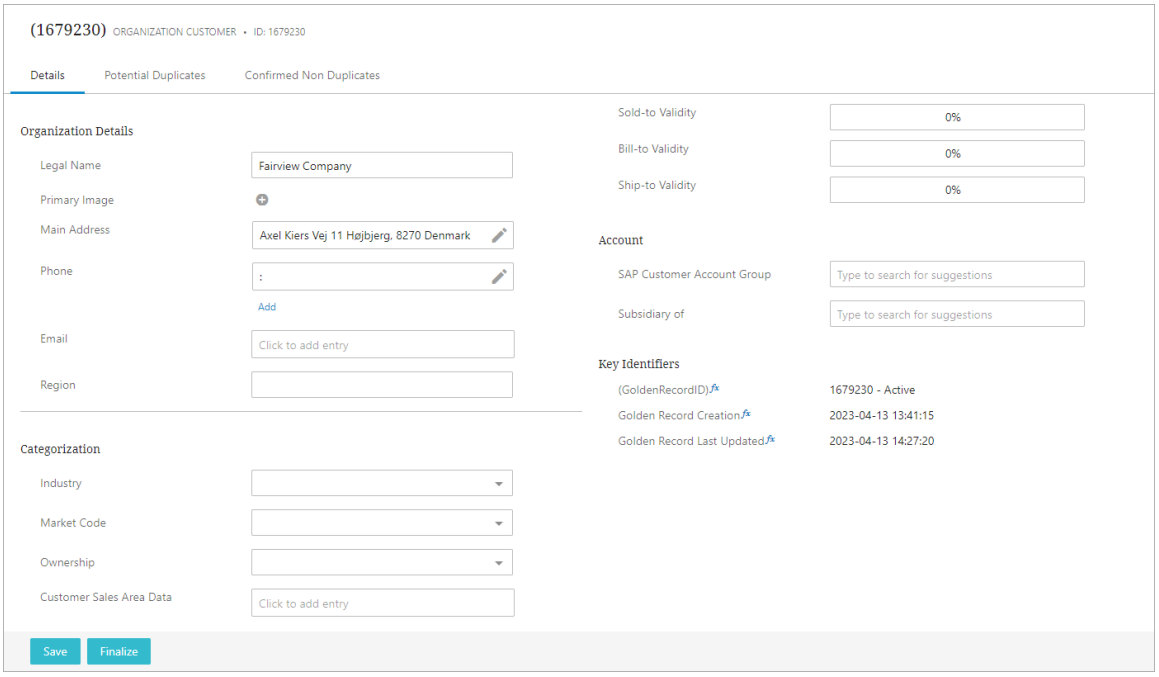


Again, a warning message displays to warn the user of the risk of rejecting the objects as duplicates, and the user has the option to write a message with the reason for the rejection.

5. If the user confirms the new objects as non-duplicates, they are moved to the result list on the 'Confirmed Non Duplicates' tab.



6. When there are no longer any potential duplicates listed on the 'Potential Duplicates tab', the user is allowed to click **Continue** and enter more data.

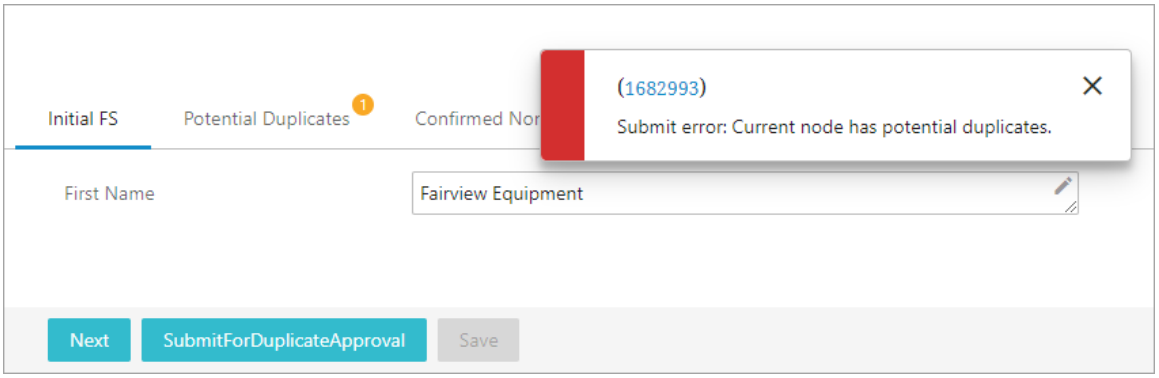


The task of reviewing potential duplicates can also be assigned to another user with privileges to either approve or reject the new objects. In this case, the user who initiates the new item, **User 1**, does not have permission to confirm any potential duplicates as non duplicates.

User 1 creates a new object:

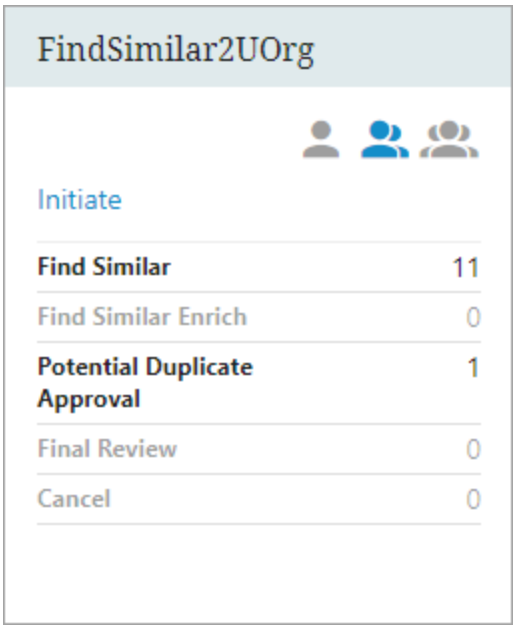
1. Clicks on the 'Initiate' link.
2. Clicks **OK** to create an object and initiate it into the workflow.
3. Enters data in the search fields and clicks the **Continue** button.

   If there are no potential duplicates, the user is allowed to continue to the next screen and enter more data. In the opposite case, if the new node has potential duplicates, when clicking **Continue**, the user receives an error message and an error symbol appears on the 'Potential Duplicates' tab. In this case, the user now has the option to select **SubmitfForDuplicateApproval**, which submits the potential duplicate for duplicate approval by another user, **User 2**, who has privileges to decide whether the new objects are duplicates.

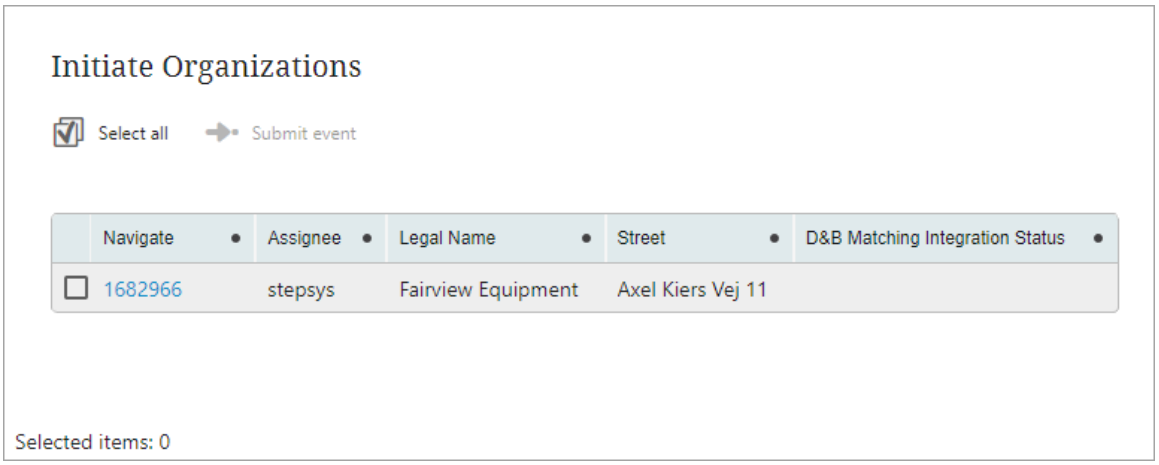


To review the new item, **User 2**:

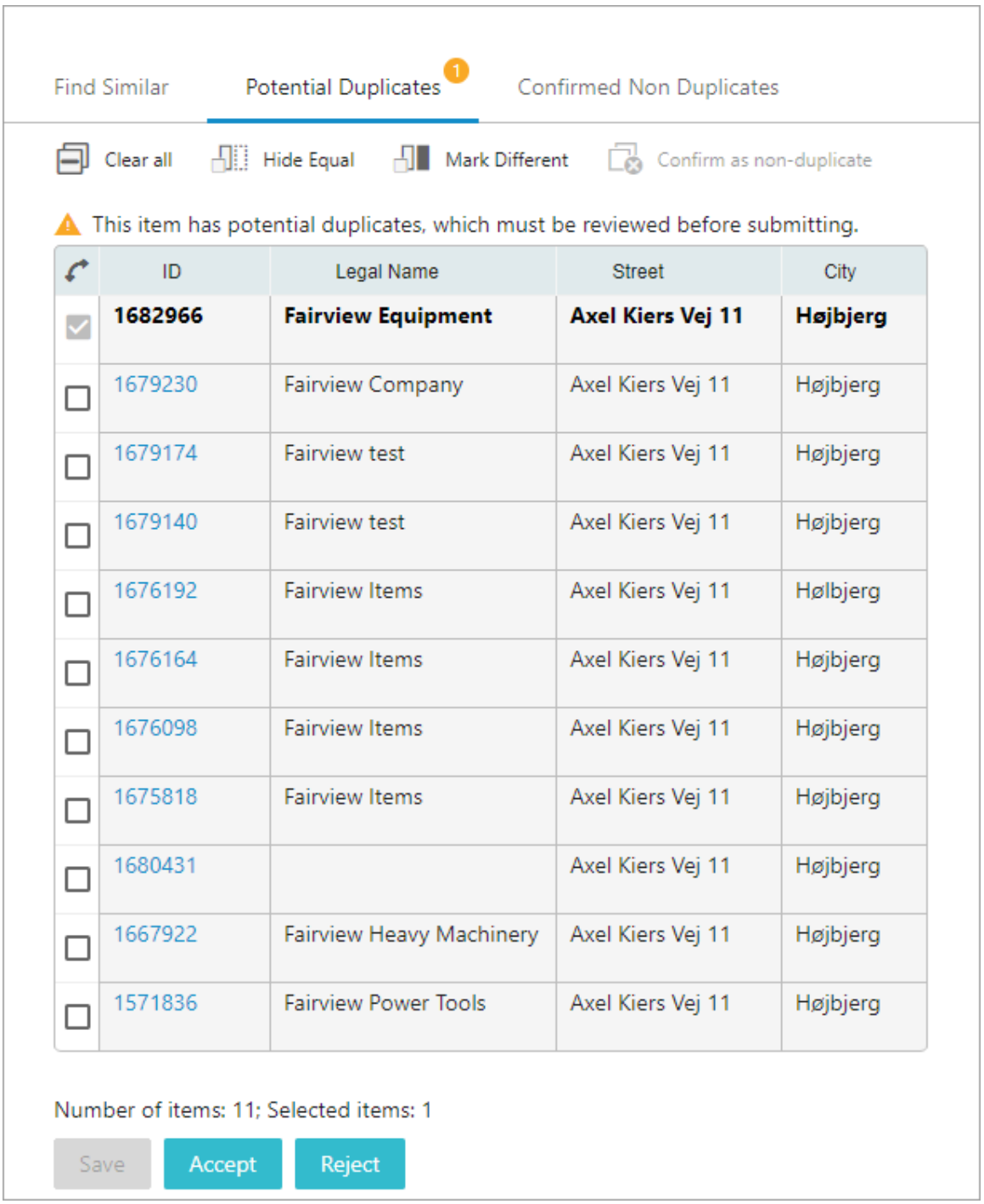
1. Clicks on the 'Potential Duplicate Approval' link on the Status Selector Homepage Widget in the Web UI.



2. On a screen similar to the one that **User 1** used when creating the new object, on the 'Potential Duplicates' tab, **User 2** can inspect the potential duplicates by clicking on the nodes to view details.



If the object is not a duplicate, **User 2** marks it and selects **Confirm as non-duplicate**. This moves the object to the 'Confirmed Non Duplicates' tab, and when **User 2** clicks the **Accept** button, the task is assigned back to **User 1** who can continue in the workflow and enter more data.



If, however, **User 2** decides that the new node is a duplicate, **User 2** clicks the **Reject** button to return the object to **User 1**, and a message might be supplied with the reason for the rejection. In this case, **User 1** has the option to either edit the node or delete it.

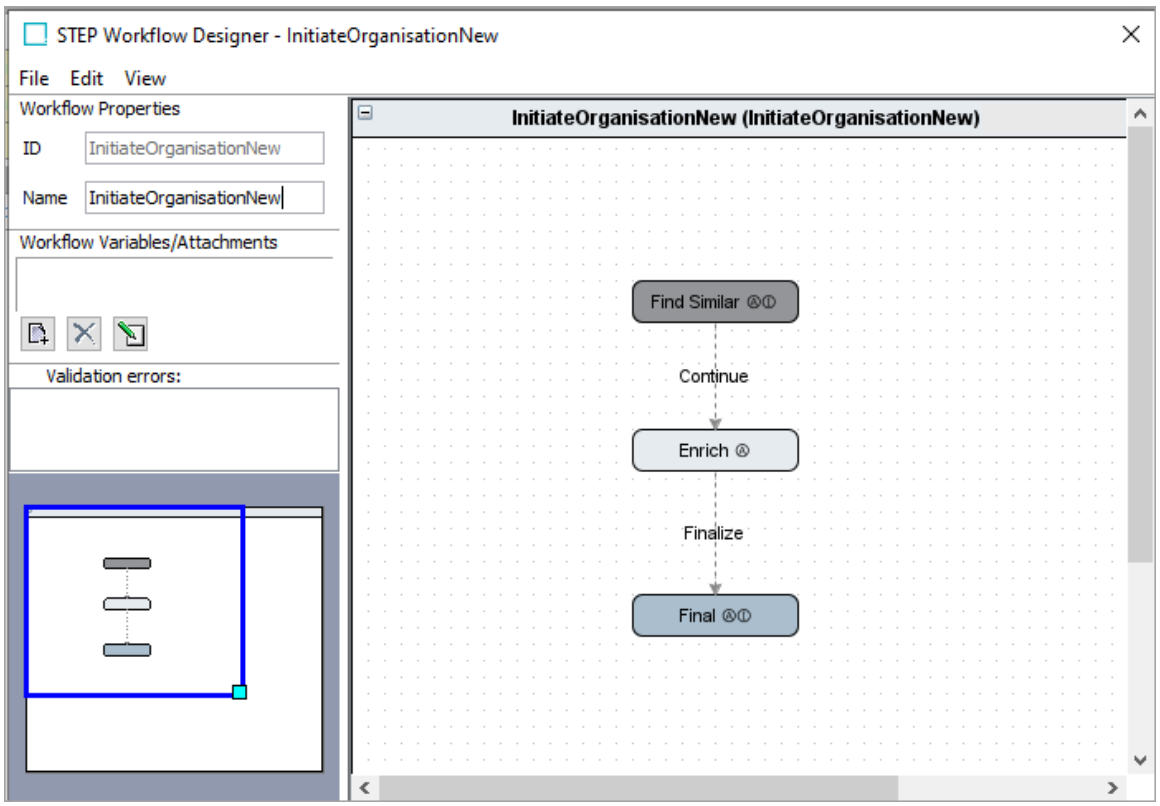
Creating a Workflow for Find Similar on a Node Details Screen

Find Similar on a 'Node Details' screen is governed by a workflow with business conditions on the transitions that prevent the user from proceeding to the next step before any potential duplicates have been resolved.

The following elements are available to configure a 'Find Similar in Workflows' solution:

- **Workflow** - Create a workflow as described in details below. Configuration requires that the user is familiar with the creation of workflows. For more information, refer to **Creating a Workflow** topic in the **Workflows** documentation.
- **'No Potential Duplicates' business condition** - The 'No Potential Duplicates' business condition is used in Find Similar workflows to only allow transition when there are no potential duplicates. For more information, refer to the **Business Condition: No Potential Duplicates** topic in the **Business Rules** documentation.
- **Matching algorithm** - The configuration of the business condition should contain a matching algorithm that is configured and available in the global configuration 'Matching on Save Configuration' (mandatory). Only identifying matching algorithms are valid. When the matching algorithm is configured, all save actions in the Web UI will result in the calculation of match codes and rank scores to verify if there are any potential duplicates within the configured threshold. For more information, refer to the **Configuring Matching Algorithms** topic in the **Matching, Linking, and Merging** documentation.
- **Business condition type 'NOT'** - The 'NOT' business condition is used in the two-user case to invert the result of the No Potential Duplicates business condition. When the 'NOT' condition is added to the No Potential Duplicates business condition, this allows transition when duplicates are found so that the user can assign them for duplicate review by another user. For more information, refer to the **Business Condition: 'NOT' Condition** topic in the **Business Rules** documentation.
- **Matching on Save Configuration** must be configured for the solution to work. For more information, refer to the **Update Match Scores on Save in Web UI** topic in the **Matching, Linking, and Merging** documentation.

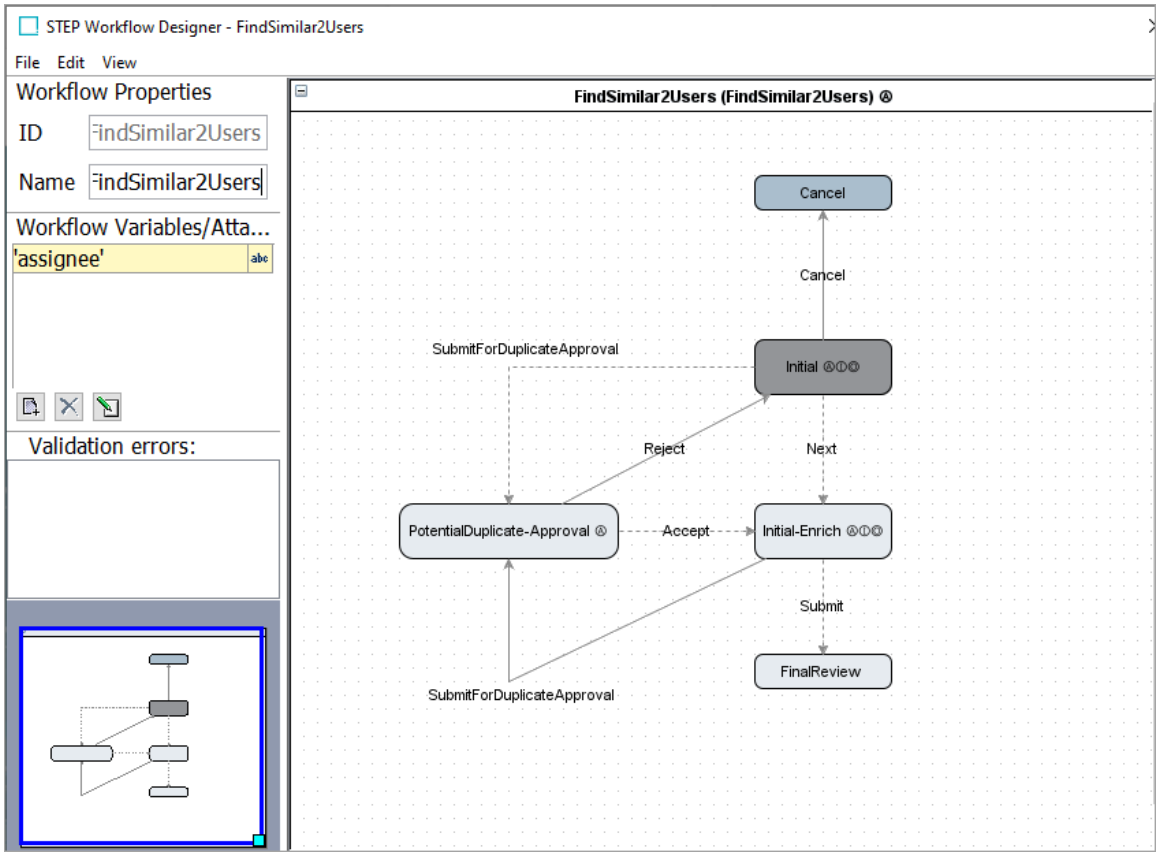
The image shows a workflow configured for a single user:



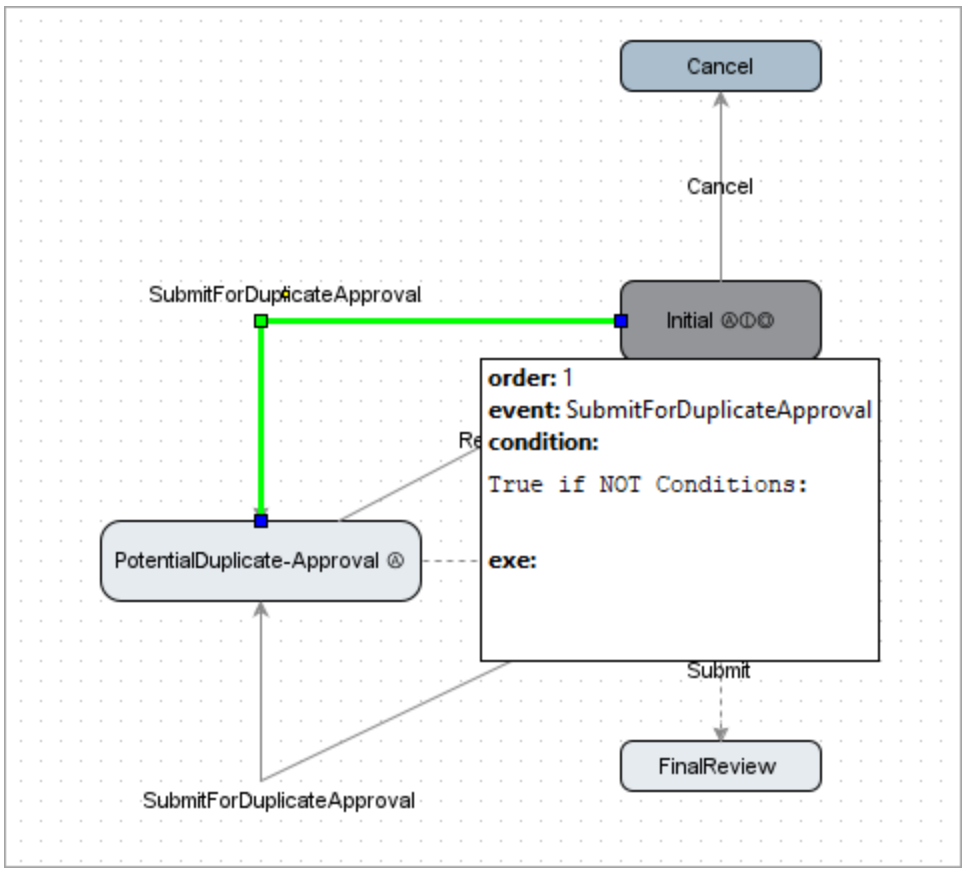
The workflow starts in an Initial state, where the user enters data required for the matching algorithm to identify potential duplicates. On saving the new node, match codes and rank scores are calculated and stored, and if no potential duplicates are found, the user can submit and transition to the Initial-Enrich state to enter more data.

To prevent the user from transitioning to the enrichment state if there are any potential duplicates to the node, the 'No Potential Duplicates' business condition is added to the transition that is executed on submit. If there are any objects with a rank score within the configured threshold in the matching algorithm, the business condition will return 'false' and prevent transition. If it identifies potential duplicates, the user must resolve them before continuing in the workflow.

If you wish to set up a two-user scenario, as in the example below with the second user added to the left, the business condition type 'NOT' can be used to invert the result of the No Potential Duplicates business condition, so that 'true' is converted to 'false' and 'false' is converted to 'true'.



Using the 'NOT' condition allows the user to only submit for duplicate approval when there are potential duplicates.



Configuration of Find Similar Workflow

To configure a Find Similar Workflow in the workbench, follow these steps:

Workflow configuration for a single user

1. Workflow start state 'initial attributes for find similar'.
2. Transition with business condition to check for potential duplicates.
3. Workflow enrichment state.

Workflow configuration for a two-user scenario

For User 1:

1. Workflow start state 'initial attributes for find similar'.
2. Transition with business condition to check for potential duplicates.
   a. If there are no potential duplicates, continue to point 3.
   b. If there are potential duplicates, move task to ‘Potential Duplicate Review’ and assign to user group.

Continue to User 2.

3. Workflow enrichment state. This will create the object, and the user has finished the task.

For User 2:

1. Workflow start state ‘Show all details for this object’.
2. Reject task if it is a duplicate and move task to User 1.
3. Accept task if it is not a duplicate and move task to User 1. By accepting, all potential duplicates are marked as ‘Non Duplicates’.

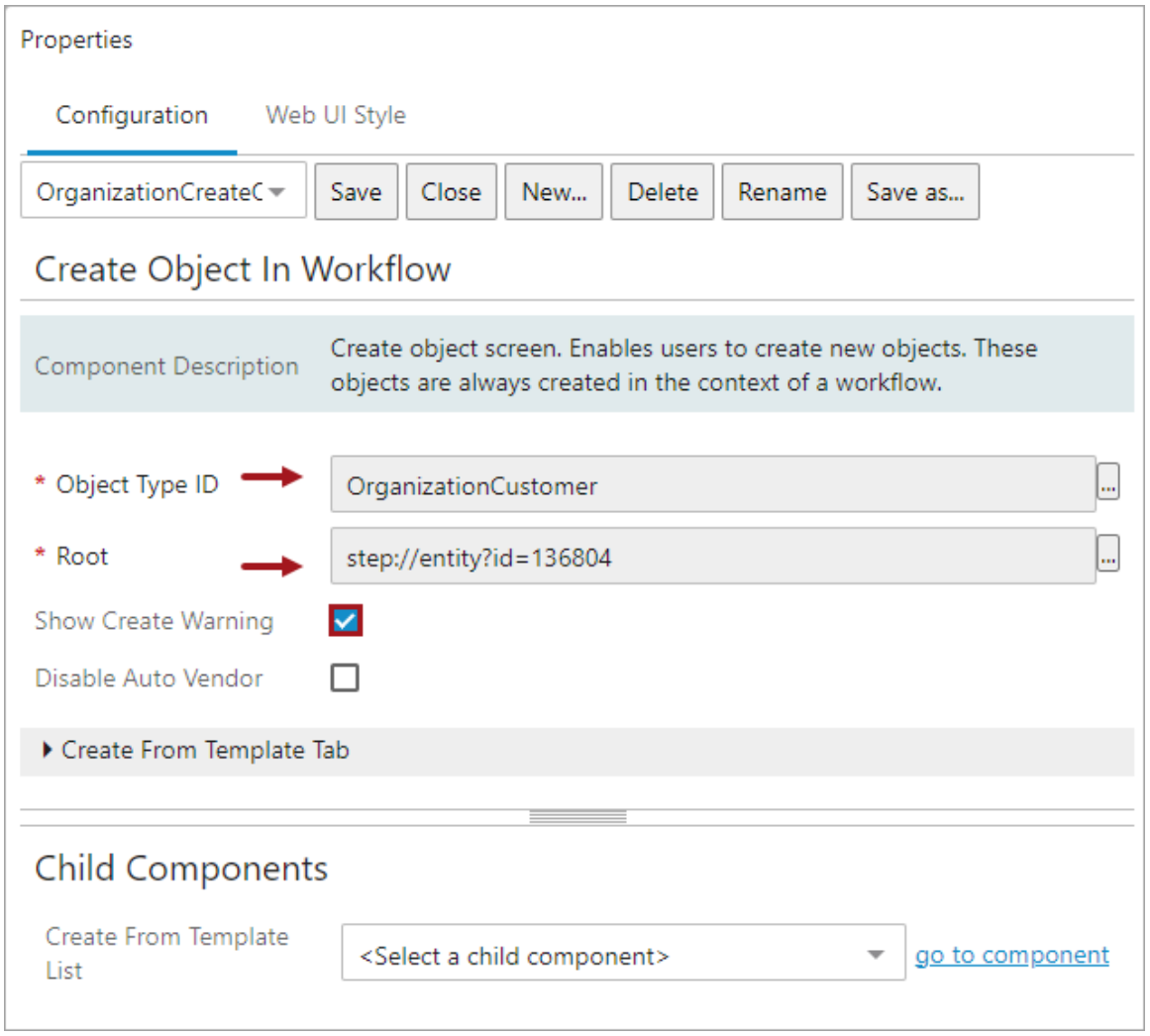
Configuring 'Find Similar in Workflows' in the Web UI

Steps for configuring 'Find Similar in Workflows' in the Web UI are outlined below. For more information on configuring workflows in the Web UI, refer to the **Workflows in Web UI** section of the **Web User Interfaces** documentation.

Log in to the Web UI and select Design Mode.

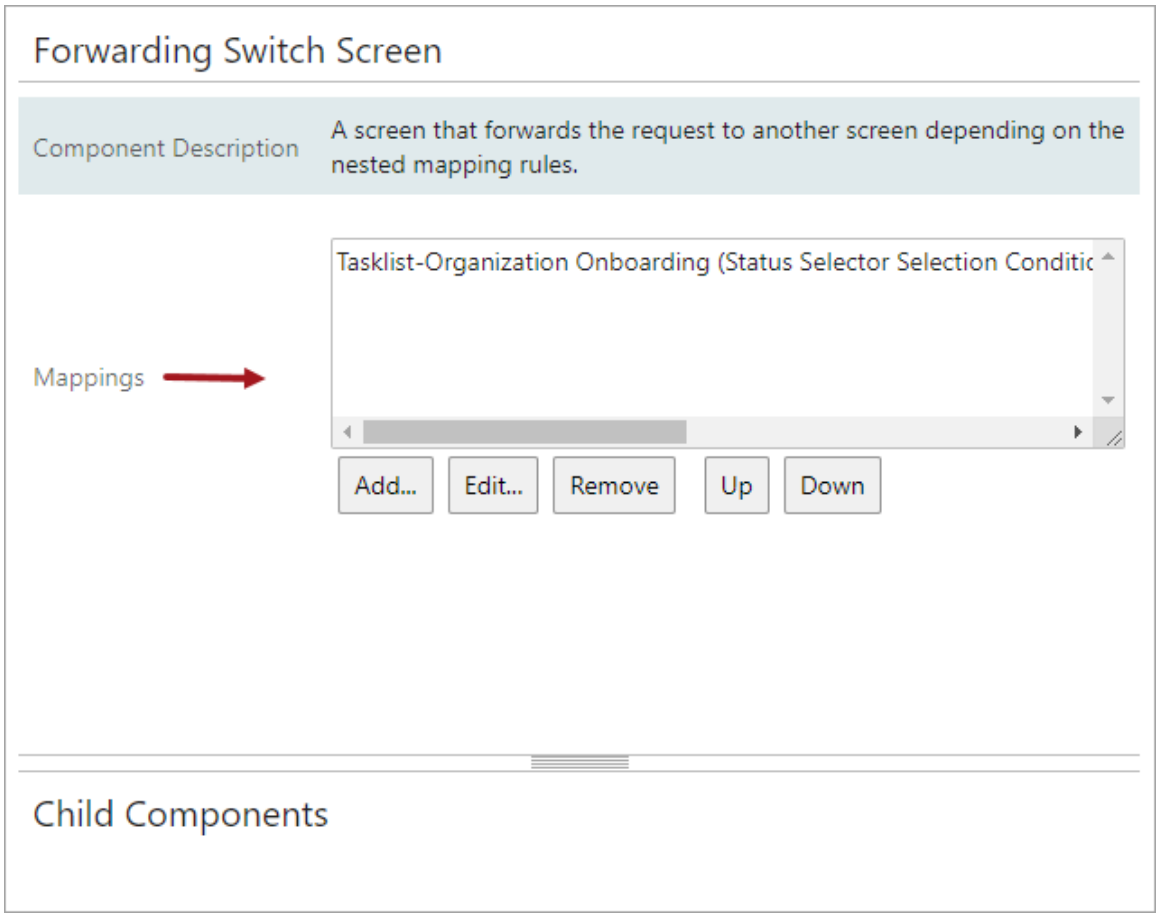
1. Create a new Web UI page 'Create Object in Workflow':
   - Set the 'Object Type ID' (in the example 'OrganizationCustomer').
   - Select the 'Root' for the new objects.
   - Check the 'Show Create Warning' checkbox if a dialog should display to inform the user that a new object

is about to be created.



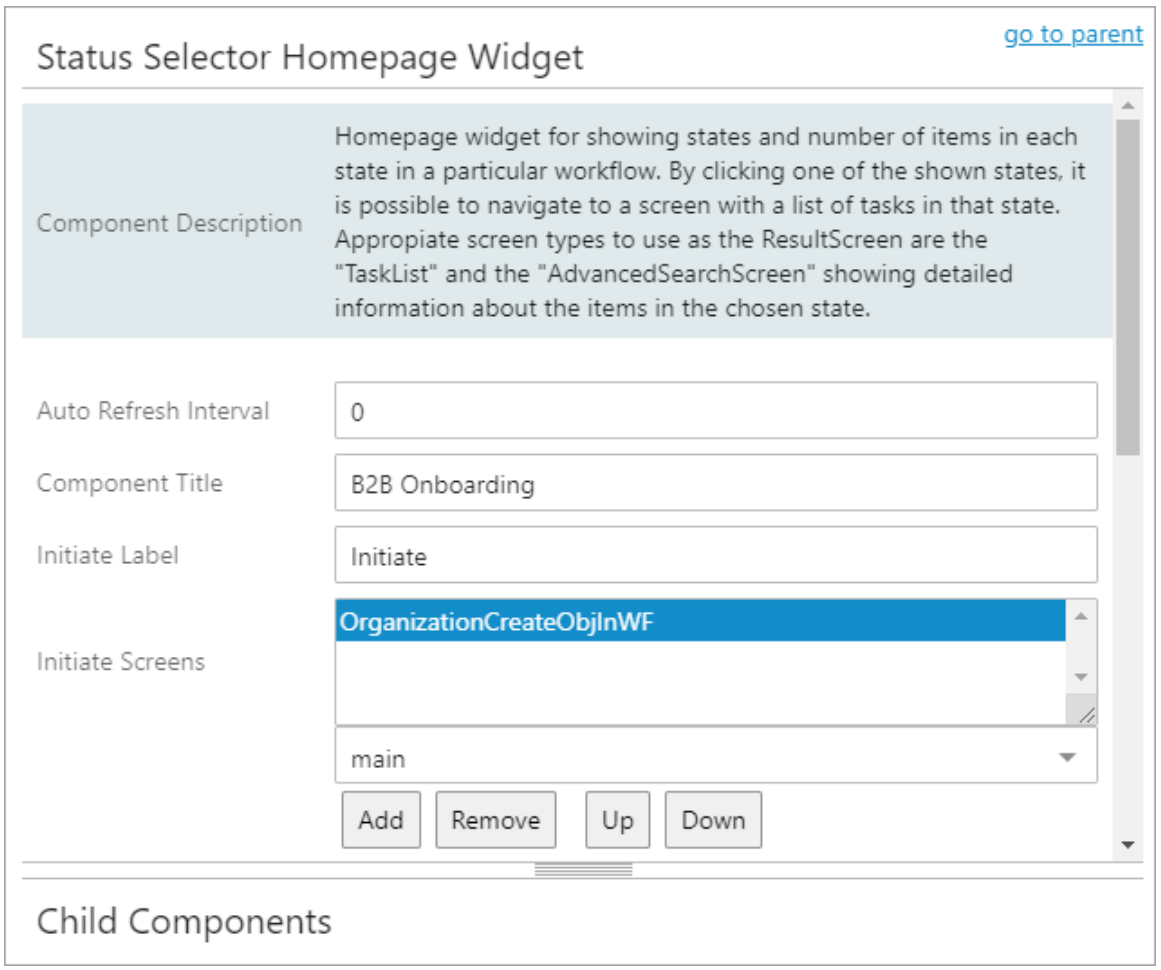
2. Create a new Web UI page 'Forwarding Switch Screen':

- On the 'Forwarding Switch Screen', click **Add** to add mappings.

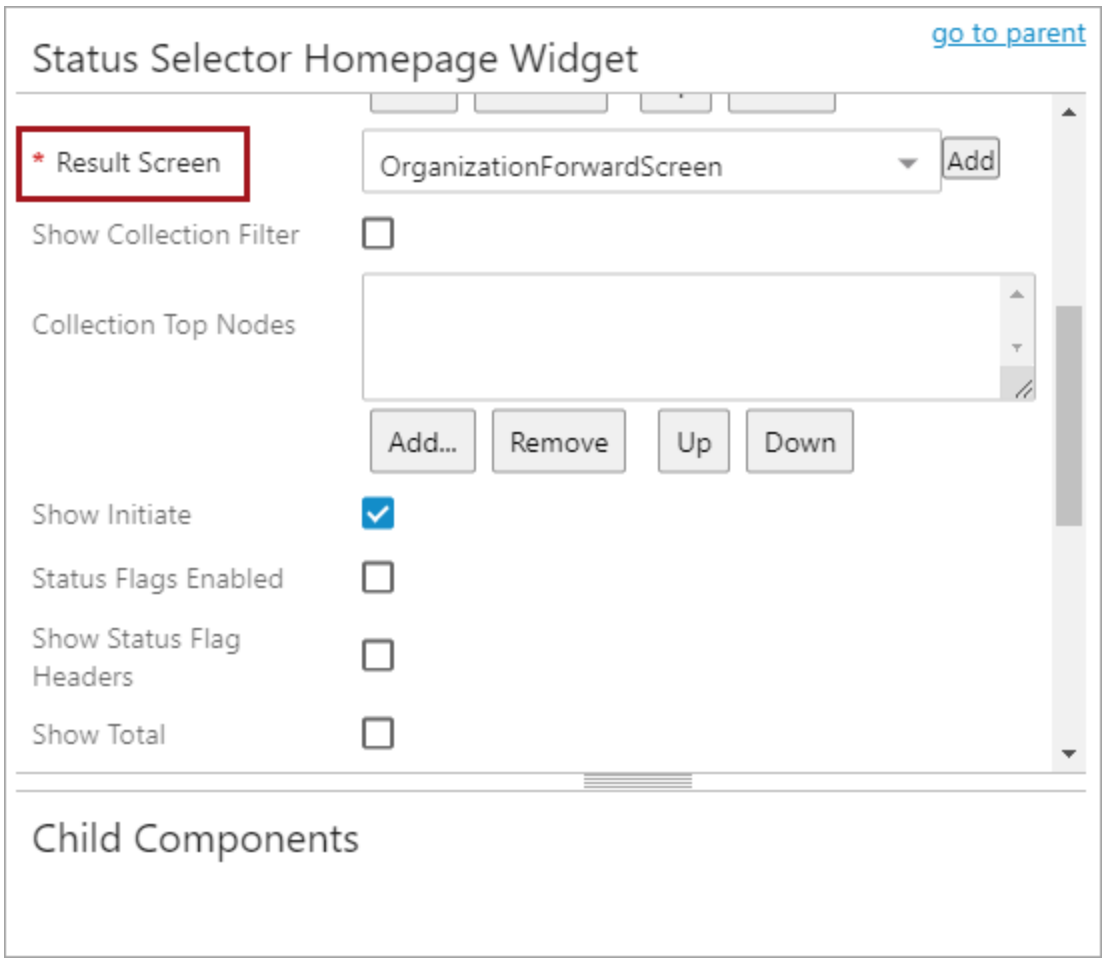


Note: To configure the workflow, it is required to create a task list. For more information, refer to the **Task List** topic in the **Workflows in Web UI** documentation

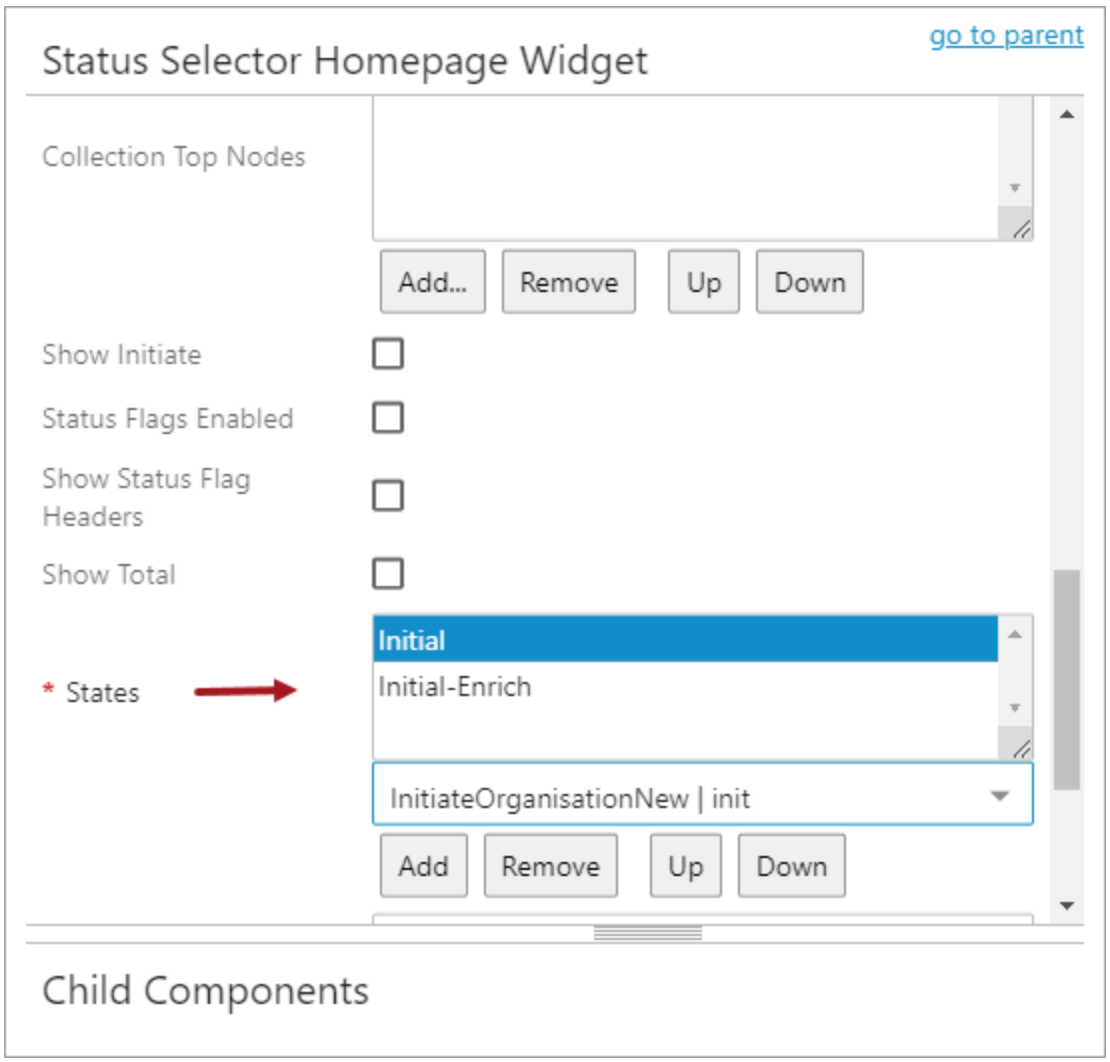
3. On the 'HOMEPAGE' screen, in the 'Status Selector Homepage Widget':
   - Set the 'Initiate Screens' parameter to 'OrganizationCreateObjInWF' to use the 'Create Object in Workflow' screen created above.



- Set the 'Result Screen' parameter to 'OrganizationForwardScreen', which will navigate to the task list of the workflow.

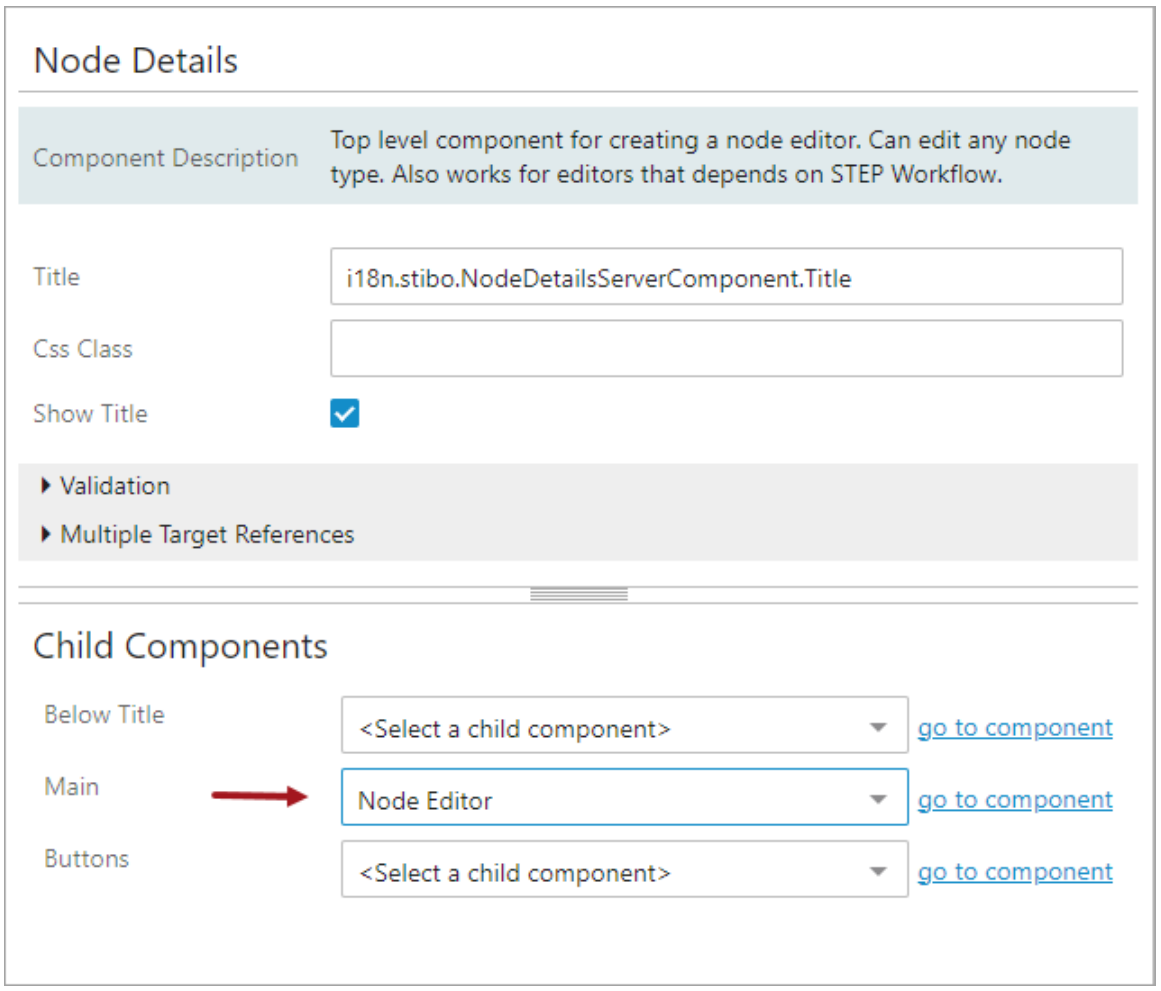


- Add 'States' into the workflow by clicking the **Add** button under the field. To change the order of the created states, select the relevant state and click the **Up** and **Down** buttons.

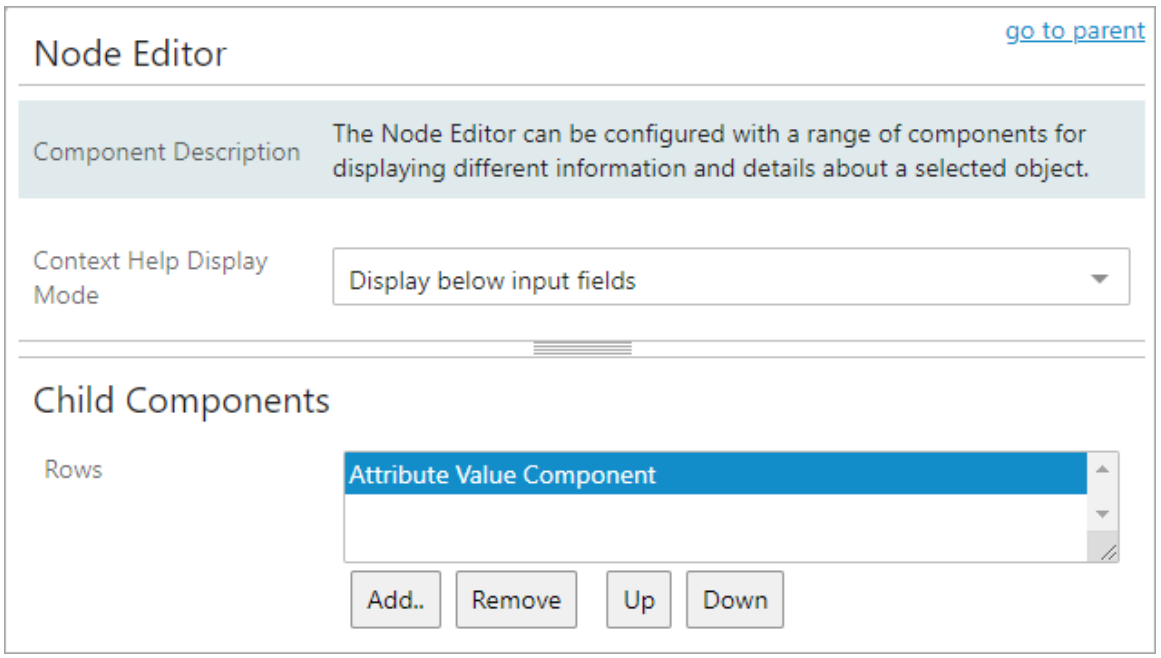


- Select the 'Workflow' (in the example above 'InitiateOrganisationNew').

4. On a 'Node Details' screen, configure the screens:
   - To add attributes, select the relevant screen type from the dropdown, and in the 'Child Components' area, from the 'Main' dropdown, select the 'Node Editor' and click the 'go to component' link.

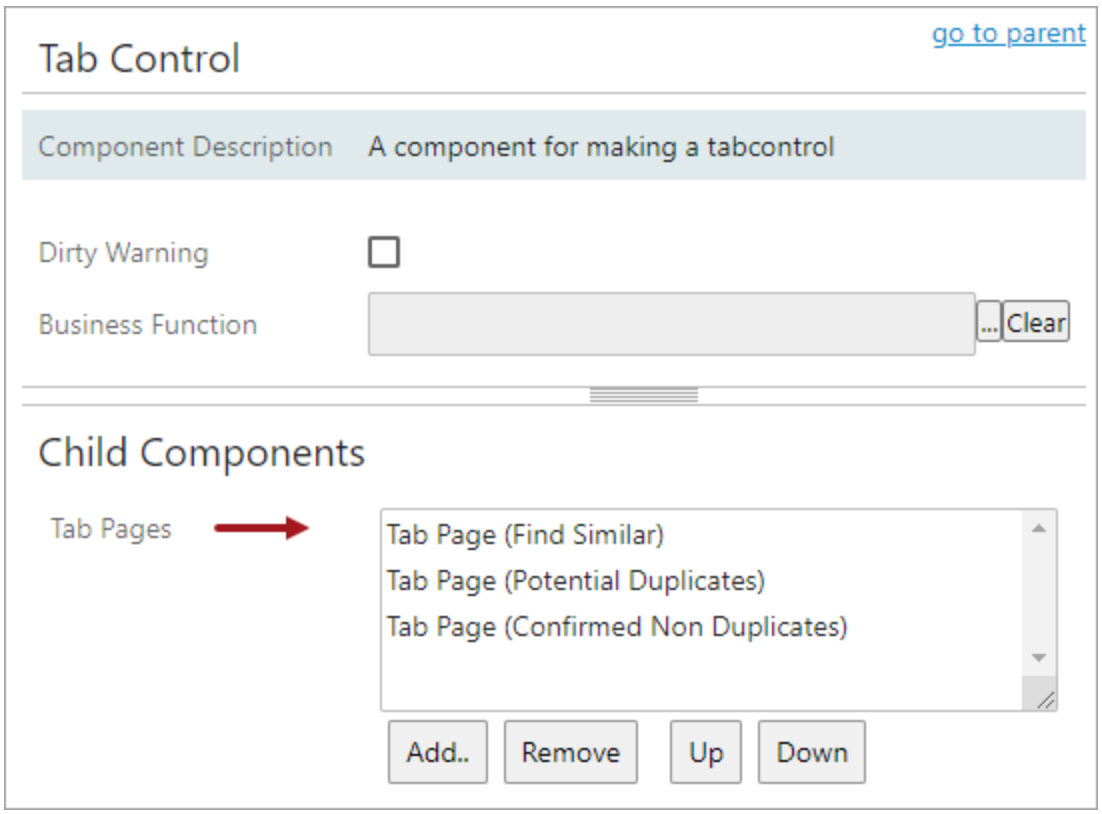


In the 'Node Editor', click the **Add** button under the 'Rows' field to add 'Attribute Value Components'.

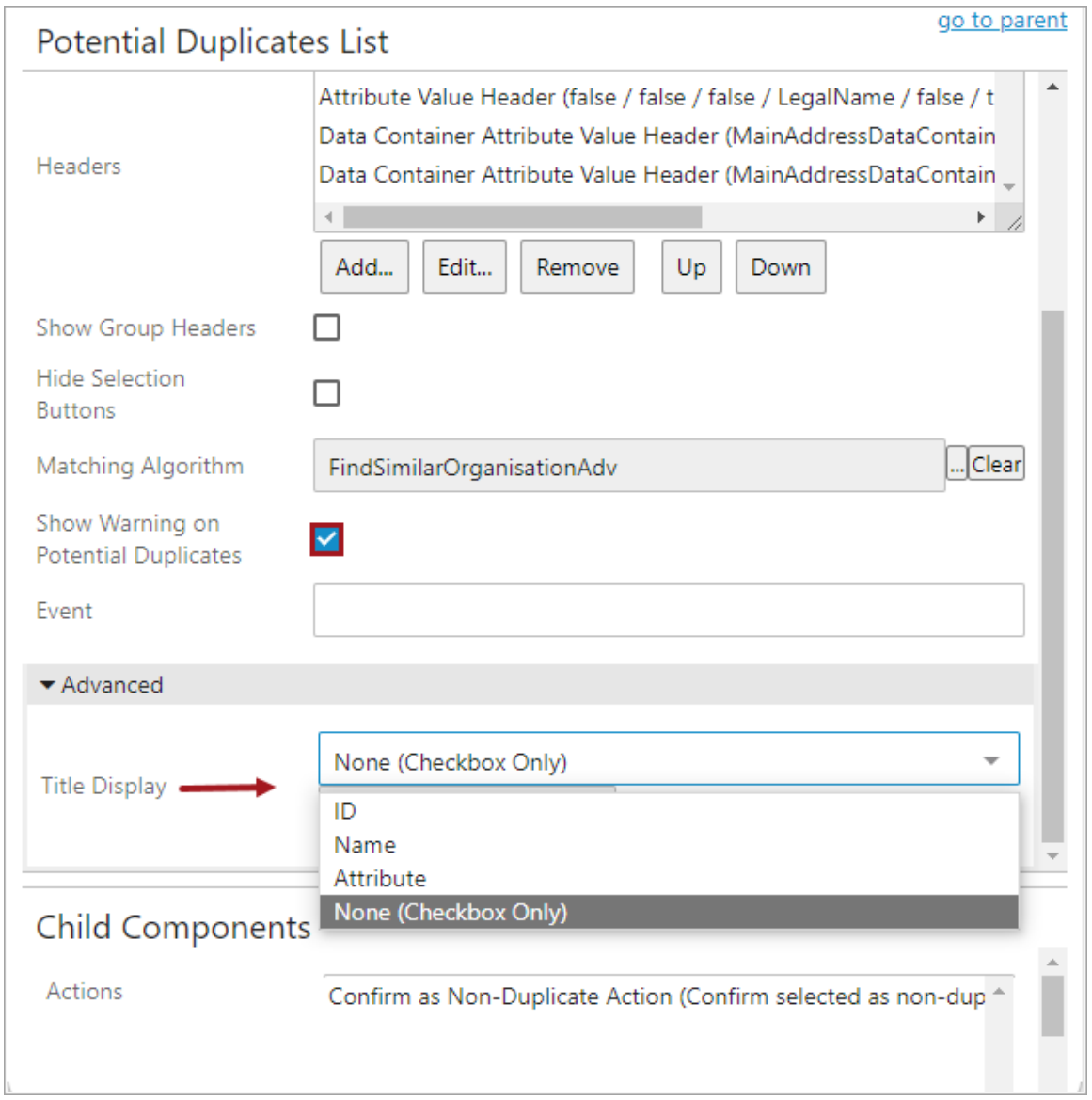


In this example, for the ‘FSInitial’ screen, only a single attribute has been added (for the first name). This will contain the sufficient amount of data for the matching algorithm to create match codes and rank scores. Continue with the creation of attributes for the ’FSInitial-Enrich’ screen, where the user can enter the remaining data to complete the object creation.

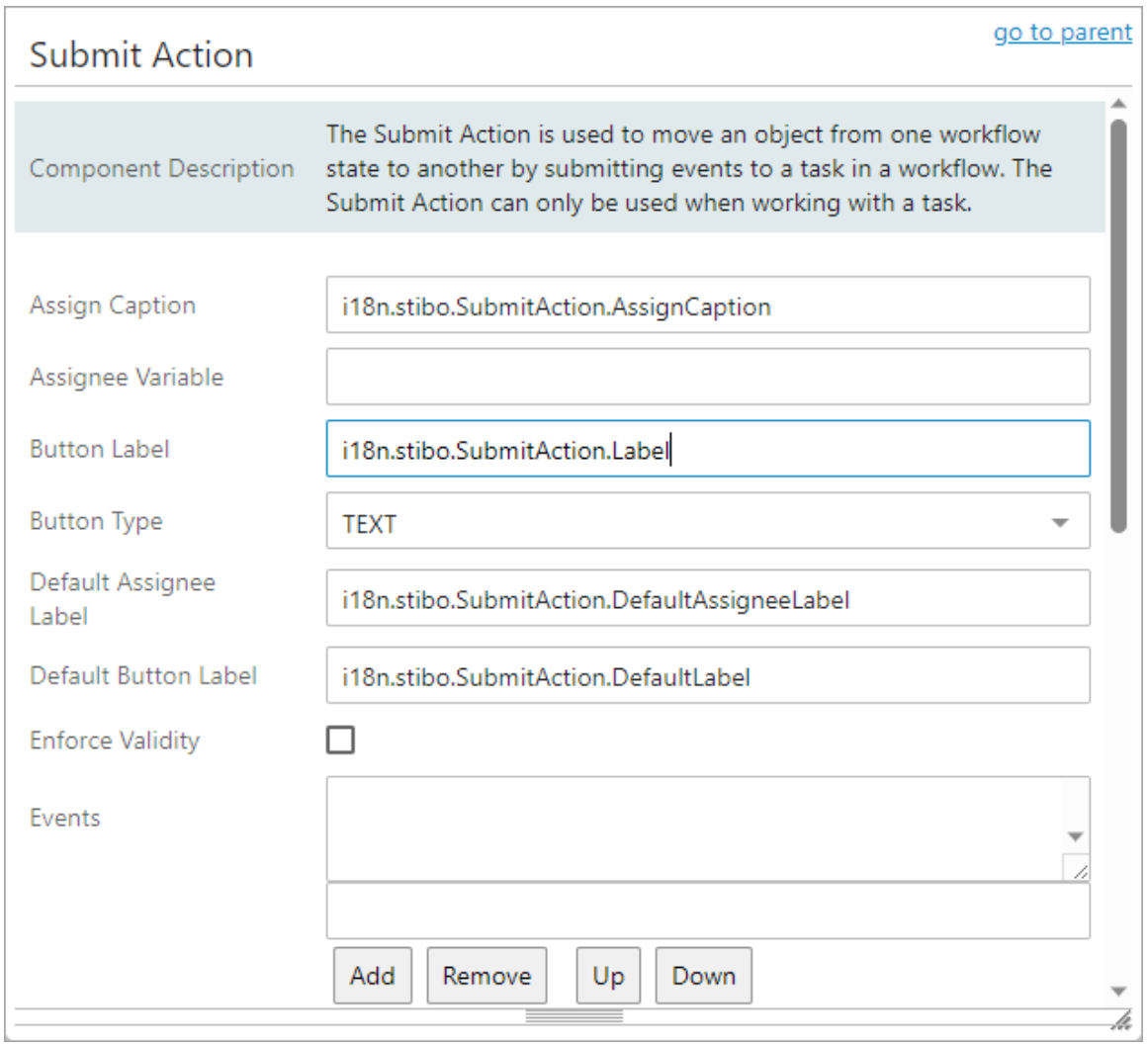
- Use 'Tab Pages' to configure the tabs 'Find Similar', 'Potential Duplicates', and 'Confirmed Non Duplicates'. While the two first are mandatory, the latter is not, but it can be useful to have for review purposes. To add the tab pages, in the 'Child Components' area, select 'Tab Control' in the 'Main' dropdown and click the 'go to component' link. In the 'Tab Control' screen, click the **Add** button under the 'Tab Pages' field.



- On the ‘Tab Page’, in the ‘Child Components’ area, select the ‘Potential Duplicates List’ in the ‘Tab Content’ dropdown, and click the ‘go to component’ link to configure the list. For instance, it is possible to enable/disable the option to 'Show Warnings on Potential Duplicates' and to select 'Title Display' on the checkmark. For more information, refer to the **Potential Duplicates List** topic in the **Matching, Linking, and Merging** documentation.

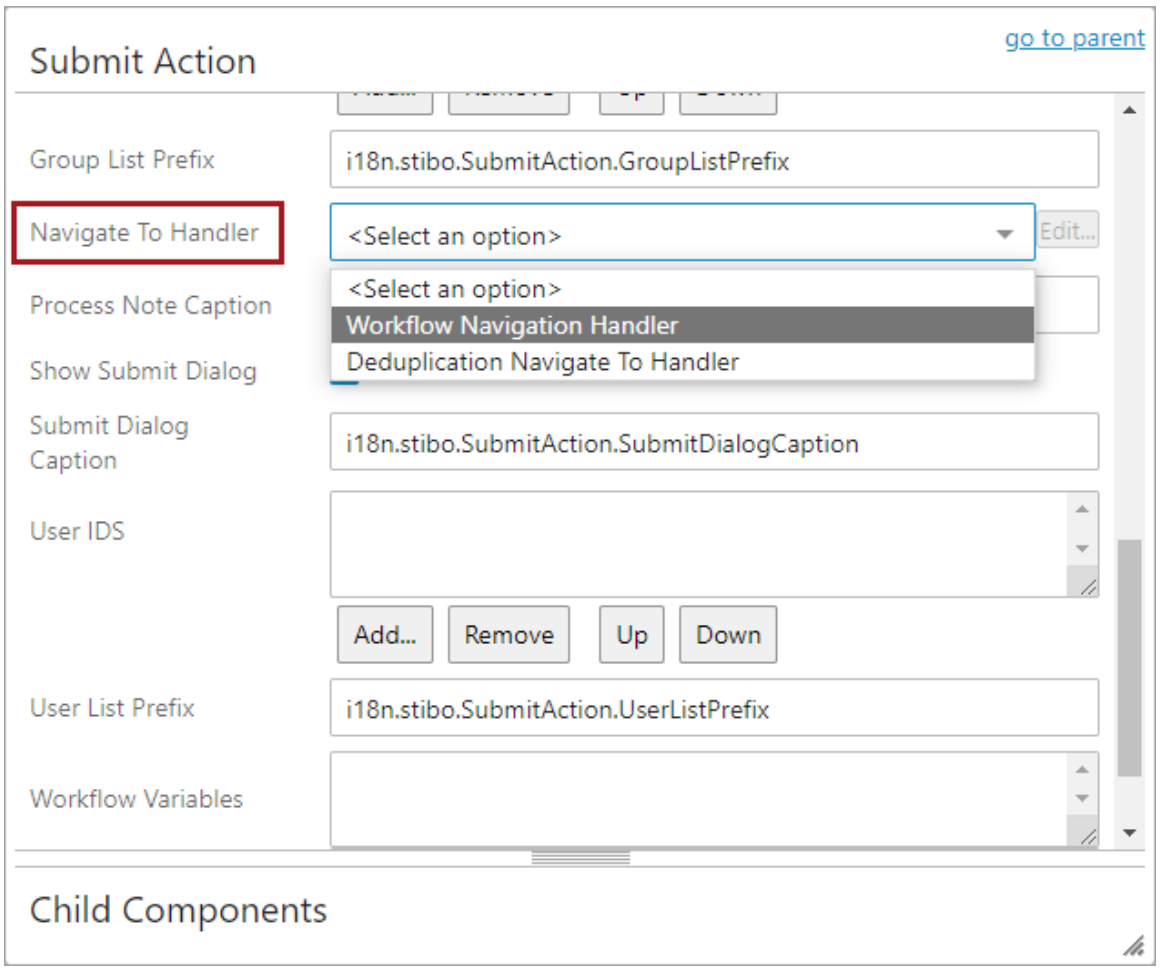


- Select 'Buttons' in the ‘Child Components’ area on the 'Node Details' screen, and click the ‘go to component’ link to configure the 'Submit Action' button and add the parameters to the workflow. For instance, if the 'Button Label' parameter is set to 'Submit', a button named 'Submit' will be created for each transition in the workflow. For more information, refer to the **Submit Action** topic in the **Web User Interfaces** documentation.



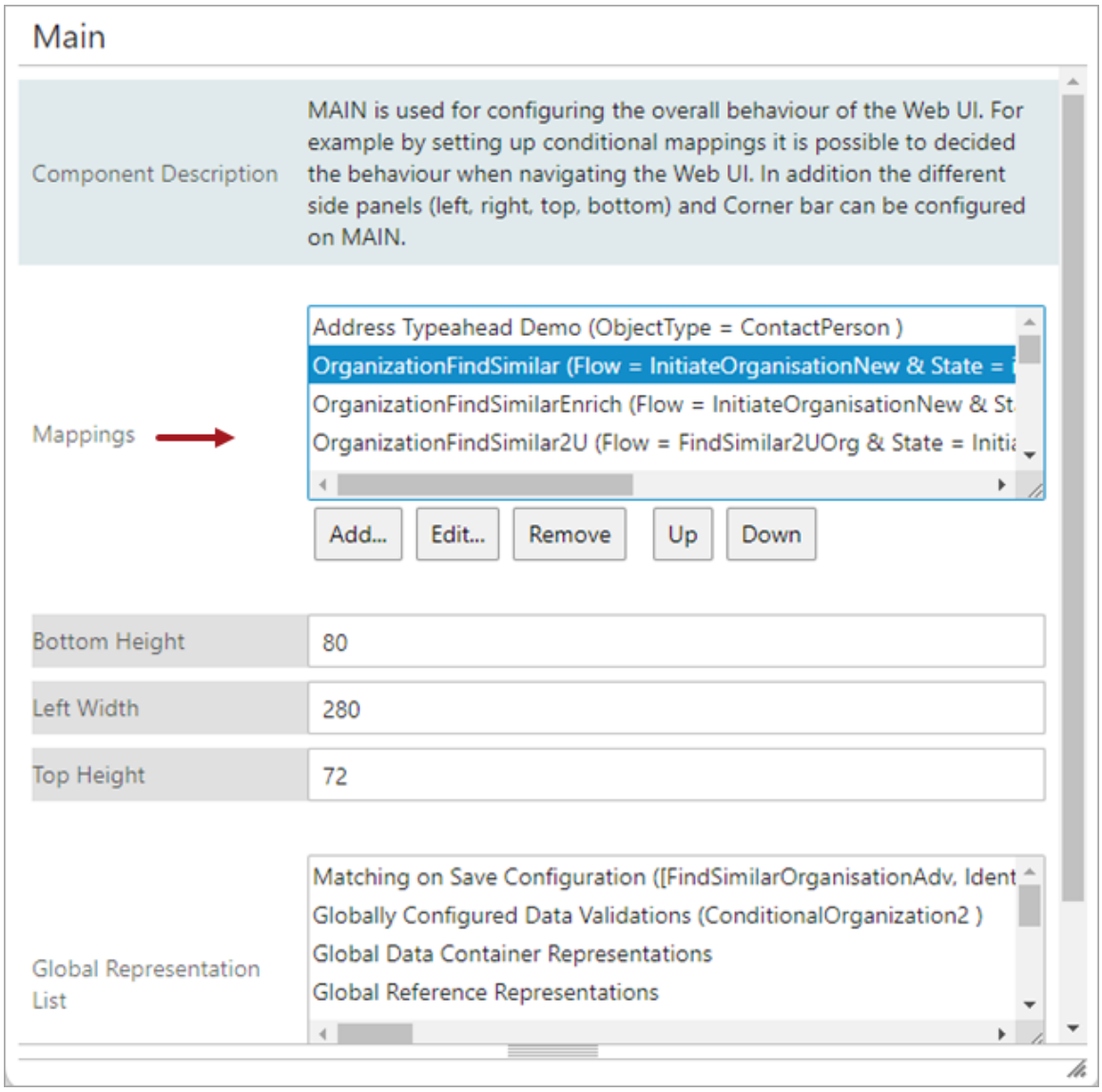
Note: If the 'Run Business Action' button is configured, 'Save before Execute' must be enabled for it to work.

- Set the 'Navigate to Handler' parameter to 'Workflow Navigation Handler'. Once it has been enabled, it follows the task through the workflow, navigating the user to the next screen for that task. For more information, refer to the **Workflow Navigation Handler** topic in the **Web User Interfaces** documentation.

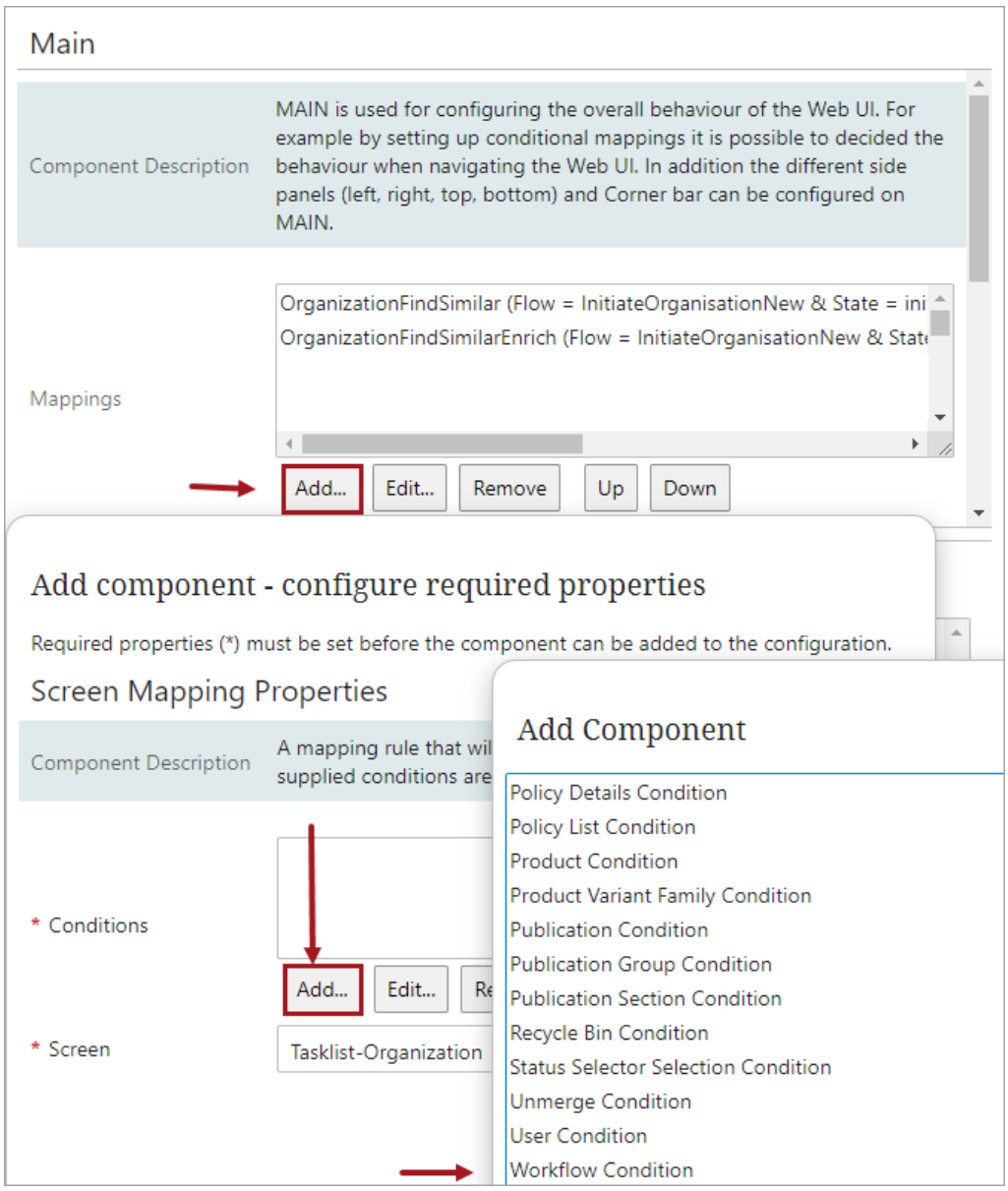


5. On the 'Main' screen, configure a mapping for the workflow:

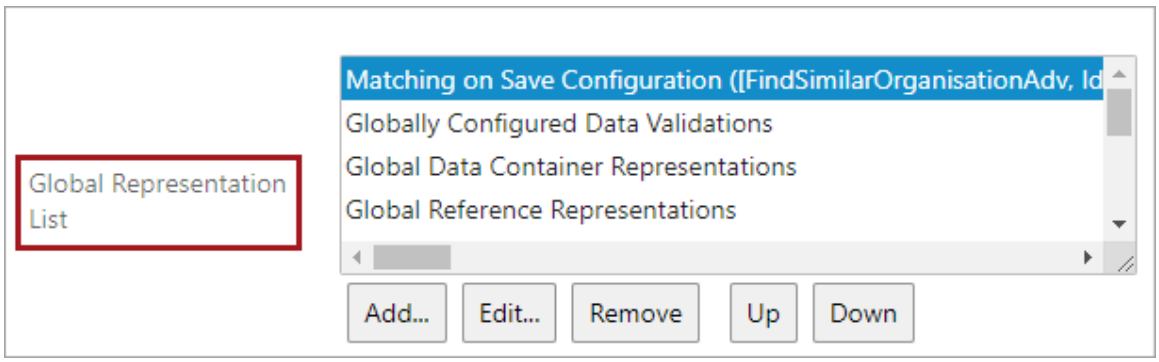
- In the 'Mappings' field', select a workflow state and click the **Add** button.



- In the 'Screen Mapping Properties' screen that displays:
  - Set the 'Conditions' parameter to 'Workflow' by clicking the **Add** button under the field and selecting from the dropdown list.
  - Set the 'Screen' parameter: Click **Add** to select the screen that should display when the condition has been met, type a 'Screen ID' for the selected screen, and click **Add**. In the below example, the 'Tasklist-Organization' screen has been selected for the 'FS-Initial' workflow state.



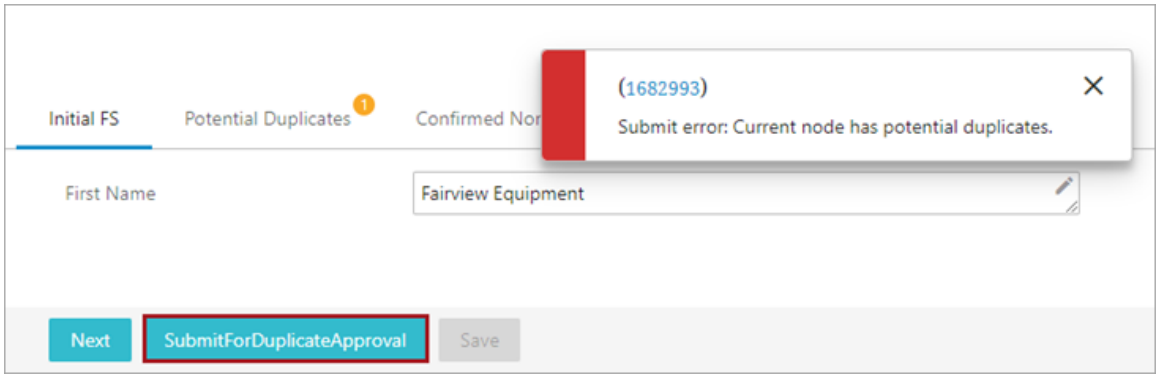
- On the 'Main' screen, set the 'Global Representation List' parameter to 'Matching on Save Configuration', which holds the identifying matching algorithms that will be used to calculate match codes and rank scores. For more information, refer to the **Update Match Scores on Save in Web UI** topic in the **Matching, Linking, and Merging** documentation



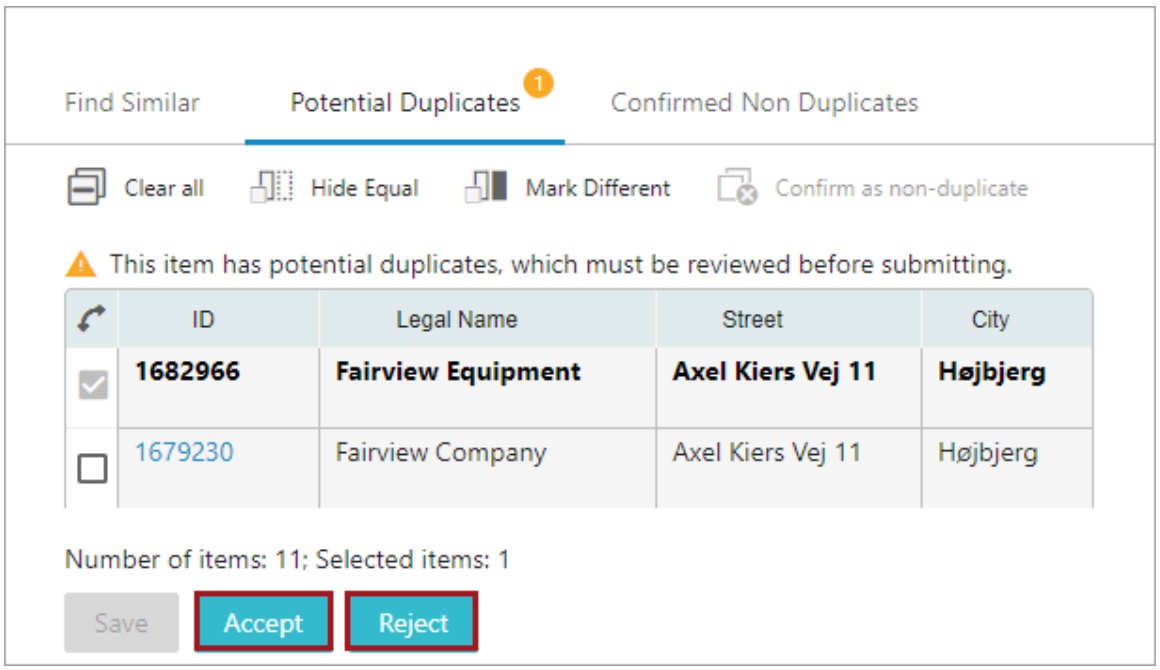
Configuring a two-user scenario in the Web UI

When configuring a two-user scenario of 'Find Similar in Workflows' in the Web UI, create the screens so that **User 1** and **User 2** each have the relevant action buttons on the screen.

In this scenario, on the 'Potential Duplicates' tab, **User 1** does not have access to the action to 'Confirm as non-duplicate', but instead needs to have an additional **SubmitForDuplicateApproval** action button to assign the approval task to **User 2**.



User 2, on the other hand, has access to the action to 'Confirm as non-duplicate', and the **Accept** and **Reject** buttons are available for accepting or rejecting the relation.



If **User 2** rejects the potential duplicate, the task is assigned back to **User 1**, who initially created the object.

Rejecting a task back to a previous state to the user who initially worked on it can be done by using a business rule. For more information, refer to the **Assigning Tasks Using Business Rules** topic in the **Workflows** documentation.

Find Similar on Initiate Item Screen

On Initiate Item screens in Web UI, Find Similar getSimilarObjects helps users identify similar objects prior to initiating new ones, limiting the number of duplicate objects in Web UI.

This topic include the following sections:

- Using Find Similar on Initiate Item Screen
- Configuring Find Similar on Initiate Item Screen

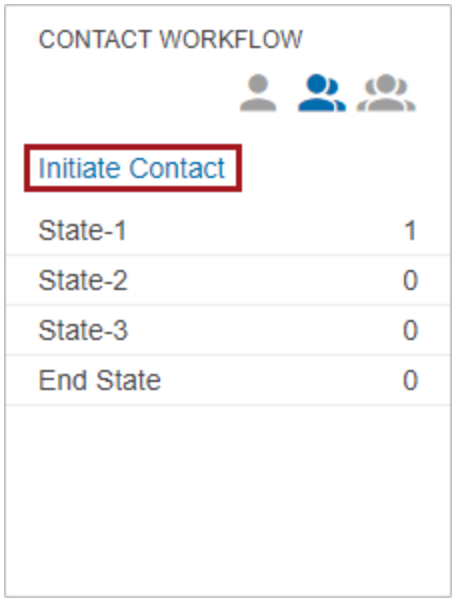
For other configuration and uses, refer to the **Find Similar Web Services** topic.

Using Find Similar on Initiate Item Screen

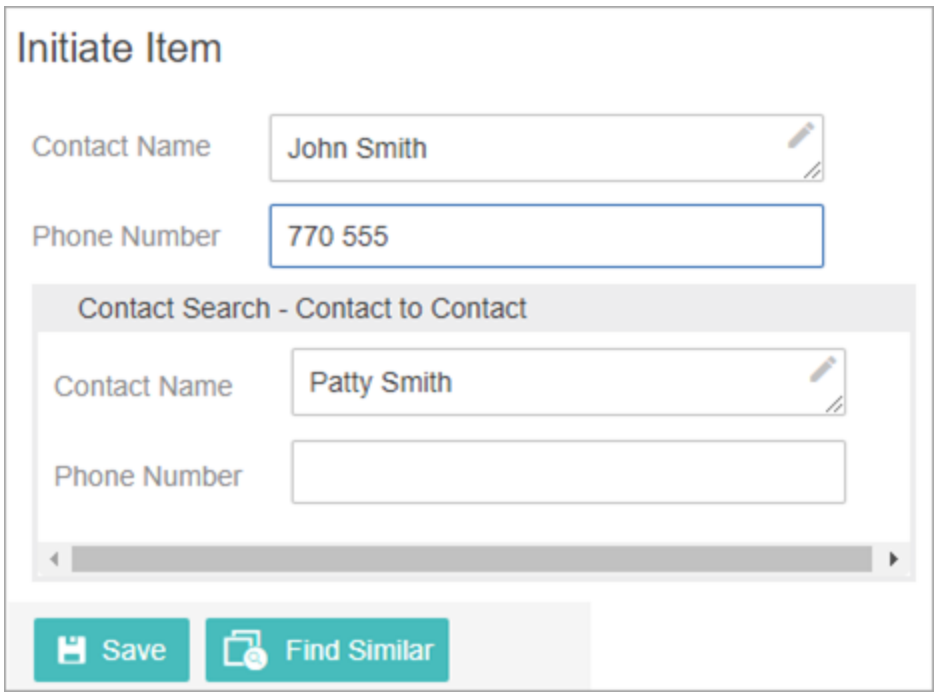
This example shows how Find Similar is used on an 'Initiate Item' screen, including a 'Store Single Referenced Target' component.

The 'Store Single Referenced Target' component is intended to find a similar record on 'Initiate Item' workflow state. The component can be used to create a single reference target with attributes and create a reference to it from the matched record.

For example, a user creates a Contact object by clicking 'Initiate Contact' on the 'Status Selector Homepage Widget.'

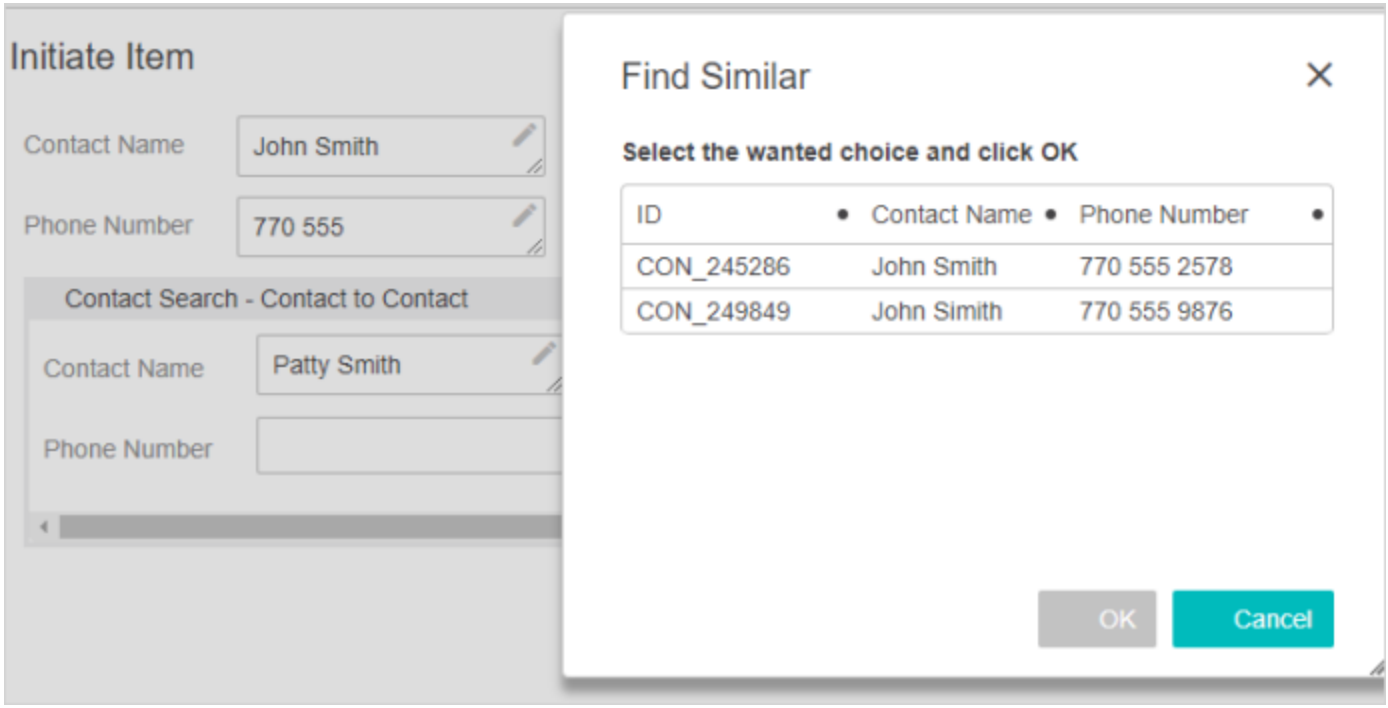


On the Initiate Screen, the user enters data into the direct object search fields and into the referenced object search fields and then clicks the 'Find Similar' button.



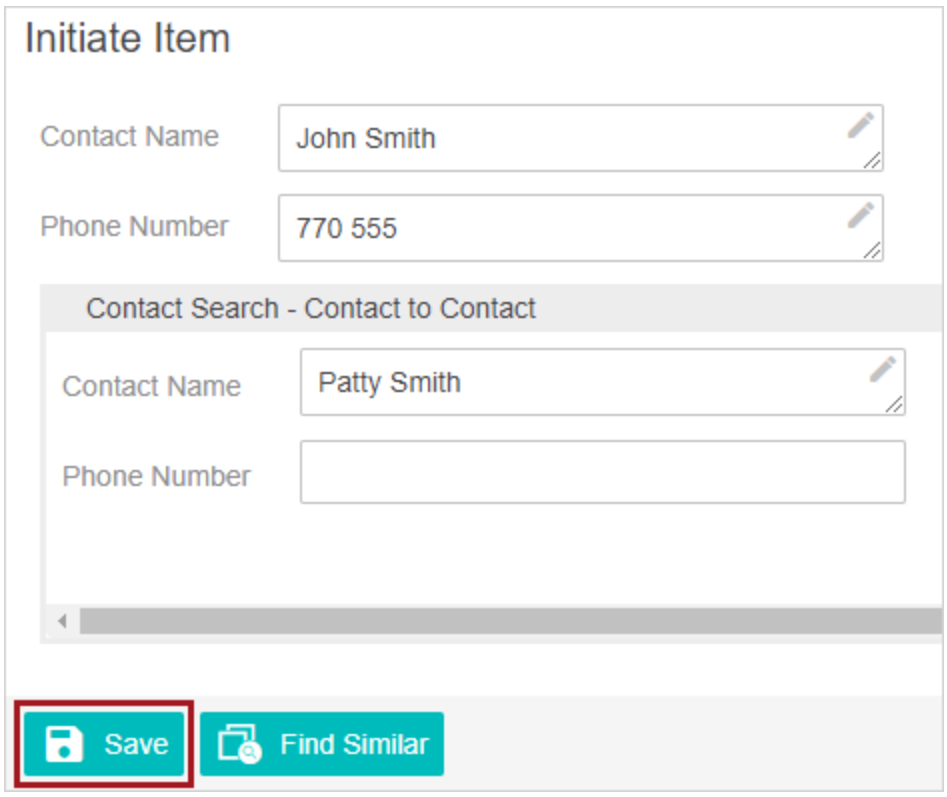
The algorithm runs in the background, and the configured Dialog List Screen displays. Be aware that this is not a standard search, and the results are based on the matching algorithm running in the background.

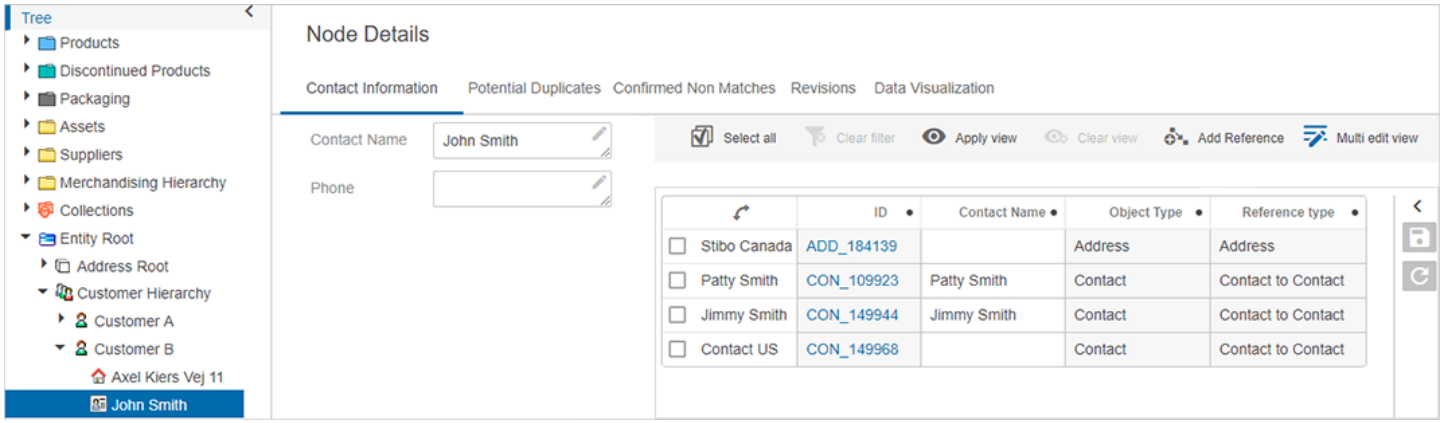
Important: As stated at the beginning of this topic, the key to Find Similar functionality is the matching setup that the customer creates and uses for duplicate handling. This is important because the attributes being searched must be part of the list of attributes that match codes are generated for; if not, the search will not work as expected.



A maximum of fifty (50) objects are shown at one time on the results list. The user can select one of the objects shown in the results list. After choosing an item, select the OK button. Clicking OK takes the user directly to that object via the appropriate Web UI screens.

If the user wants to create a new object with the search data entered, the user clicks Cancel to exit the results list. On the Initiate Screen, the user will click Save and be taken directly to the new object. The data entered into the attribute value fields, which are configured in the Store Single ReferencedTarget Properties, is also used to generate the referenced object and the reference between these objects is also created.





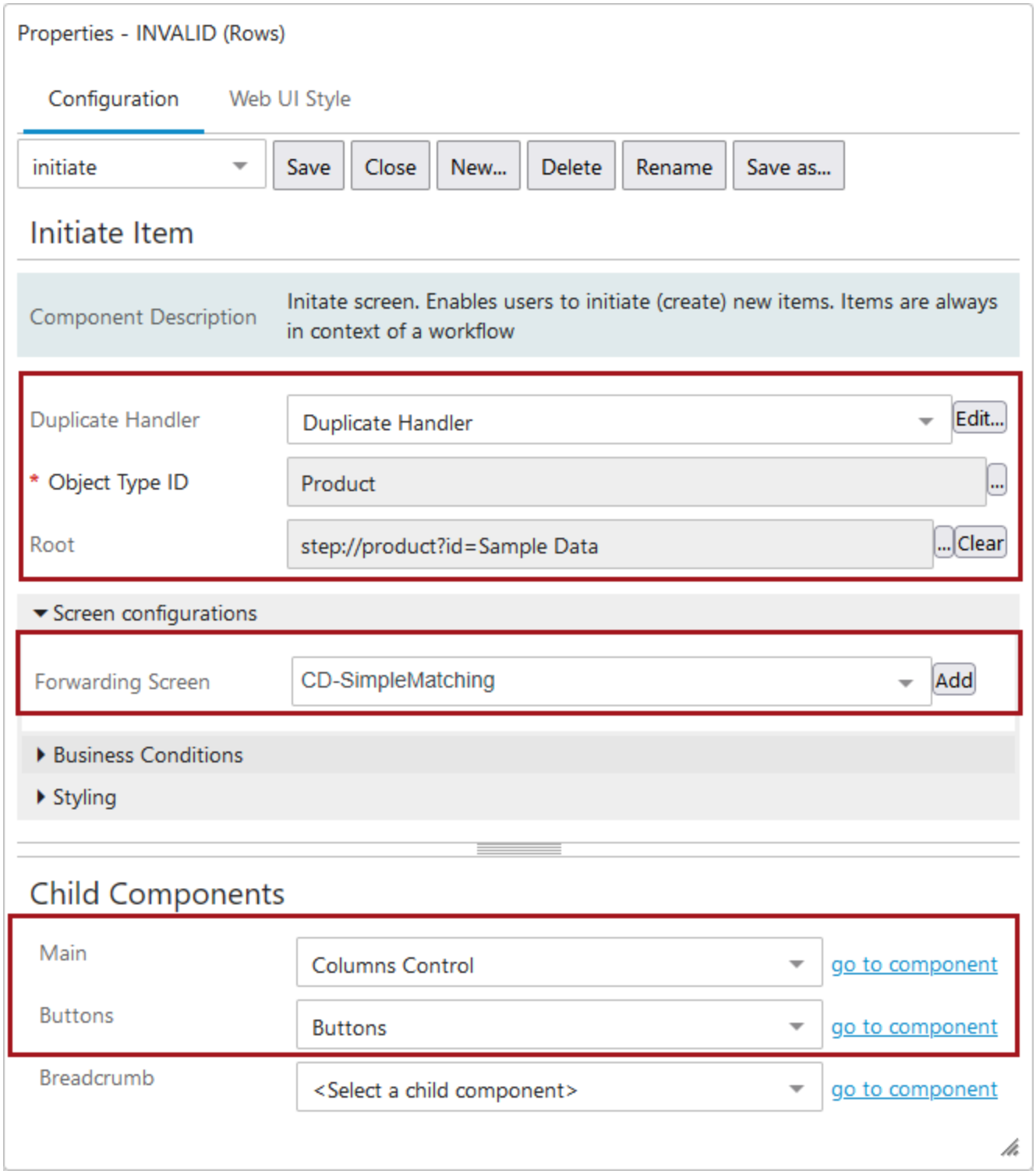
If applicable, the new object will automatically be initiated into a workflow or workflows based on existing workflow rules. For more information about workflows and auto-initiation, refer to the **Auto-Initiation of Tasks in Workflows** topic in the **Workflows** documentation. It is advisable to also make use of standard STEP tools like business rules and workflows to manage the referenced objects that are created in this manner.

Configuring Find Similar on Initiate Item Screen

Use the information in the following section for successful configuration.

Prerequisites

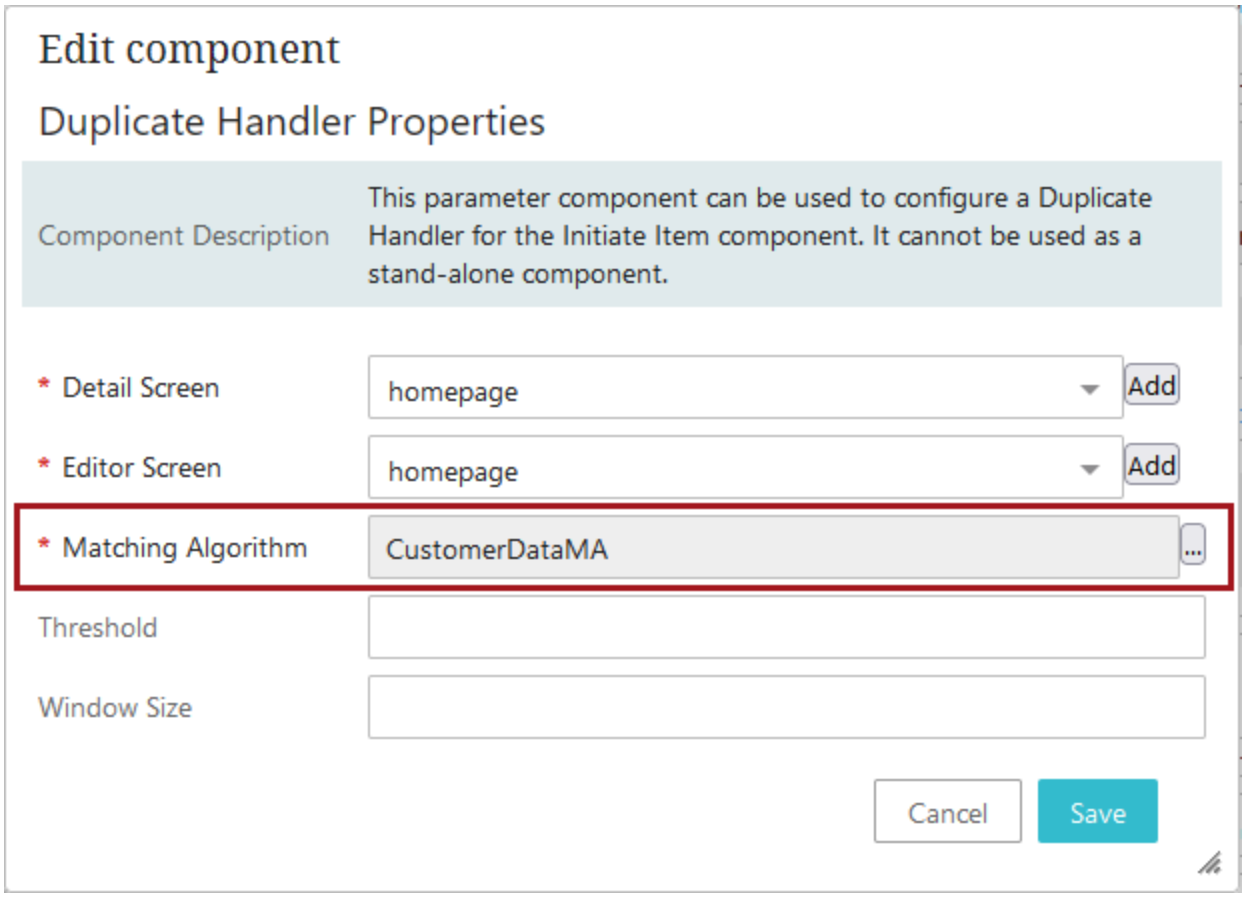
All the steps provided in this topic assume the Web UI designer is in design mode and on the applicable Properties screen prior to starting the configuration process. It is also assumed that all users have the proper privilege to work with these features. For more information about privileges and user setup, refer to the **Users and Groups** topic and **Adding User Privileges for a Group** topic of the **System Setup** documentation.



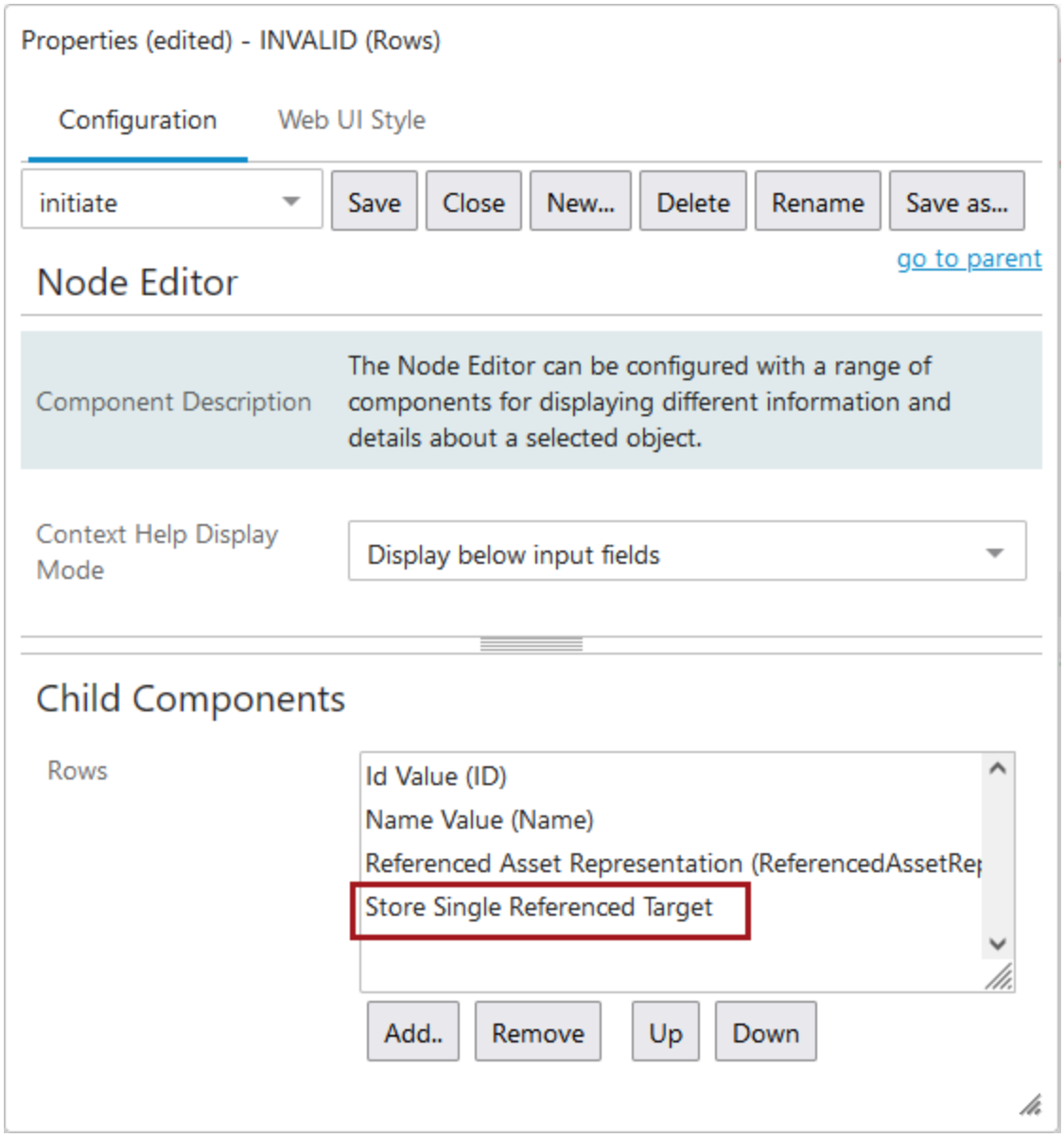
1. Create a new 'Initiate Item' screen or use an existing one.
2. In 'Initiate Item Properties,' select 'Duplicate Handler' in the dropdown for the 'Duplicate Handler' parameter.

The Duplicate Handler Properties screen will display. The only required setting is the matching algorithm parameter.

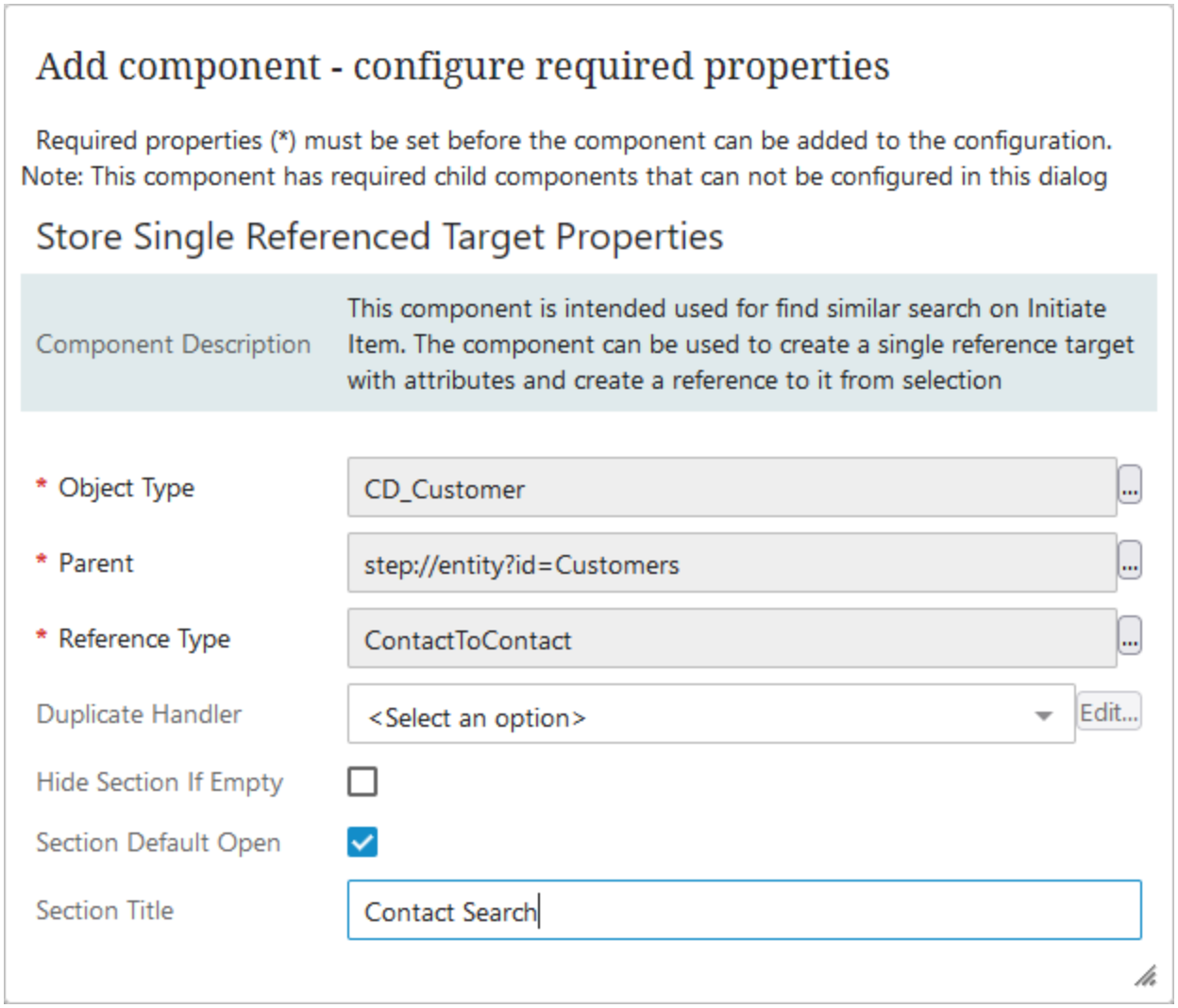
3. Click the ellipsis button (...) to the right of the value field and select a matching algorithm. Click Save.



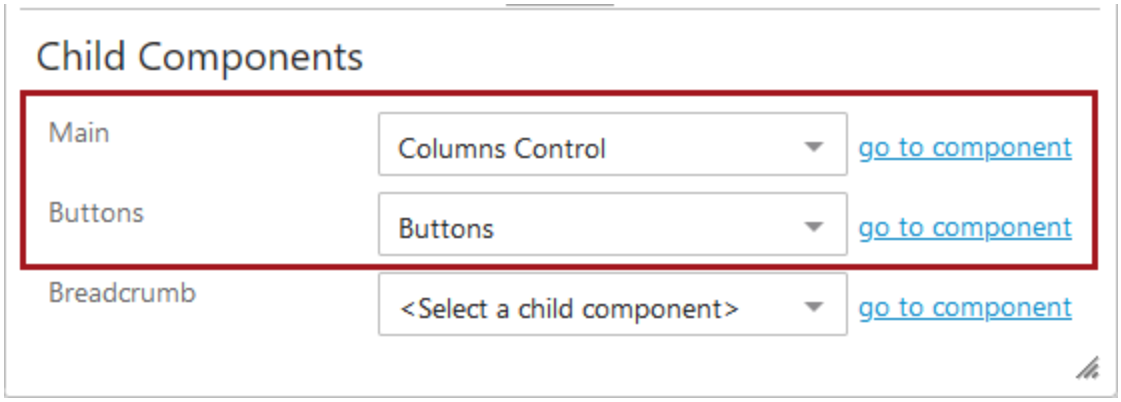
4. On the Initiate Item properties dialog, for Object Type ID, if needed, click the ellipsis button (...) to the right of the Object Type ID parameter to select the object type of the objects that will be initiated into the system.
5. Click the ellipsis button (...) to select a Root directory. New items will be created below the designated root folder. A default value will be populated.
6. Select a 'Forwarding Screen' option. This screen is what is shown once an object is created.
7. For the 'Main' child components option, choose 'Columns Control' from the dropdown. Click on 'go to component' to configure this option. Select 'Node Editor' in the Columns Control Properties.
8. Double click the Node Editor component to go to the Node Editor Properties dialog. On this dialog, the search attributes need to be configured within the Child Components > Rows value field using the add and remove buttons. These search attributes are for searching direct objects.



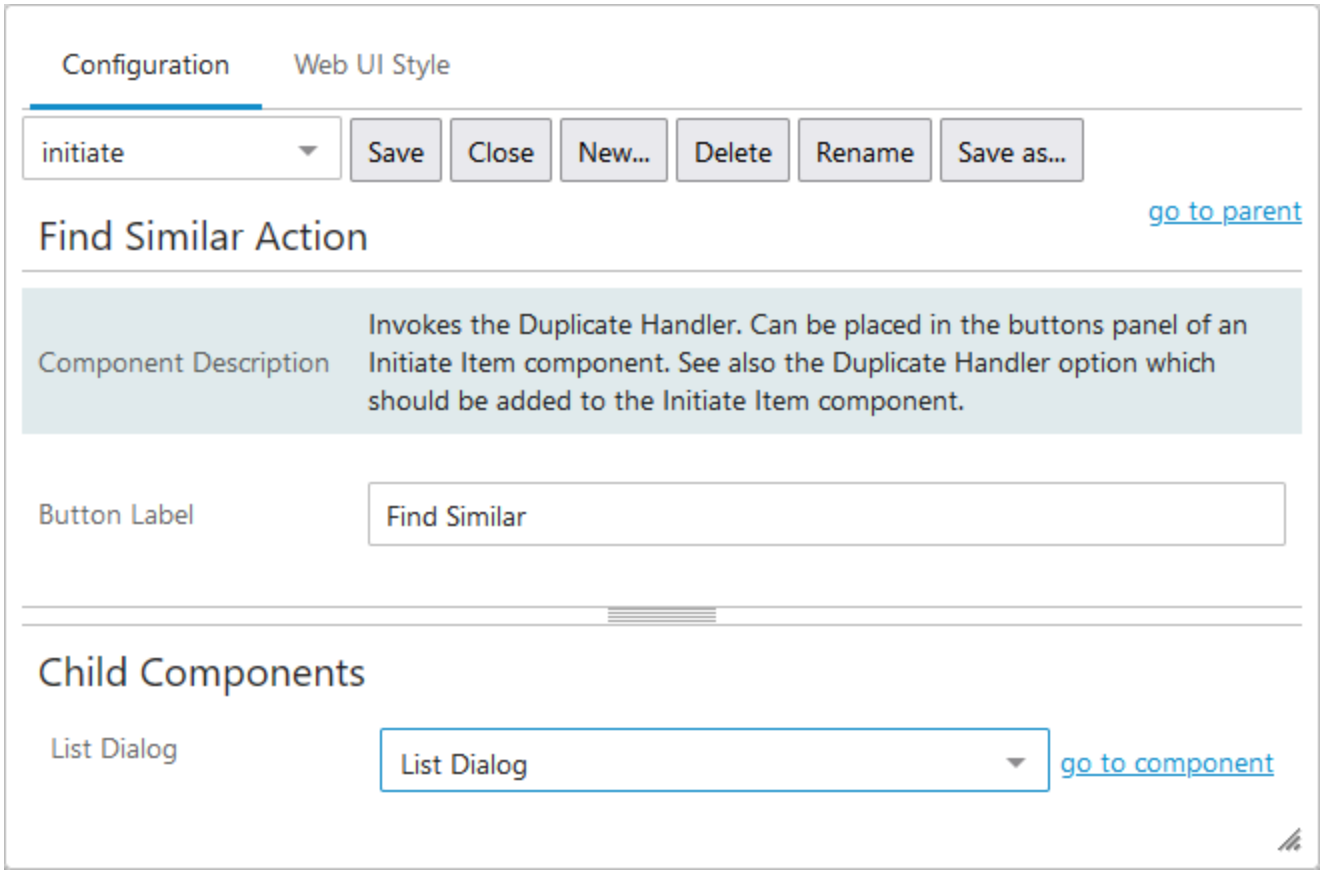
9. If the use case requires searching on referenced objects in addition to direct objects, users must add the 'Store Single Referenced Target' component. Double click on 'Store Single Referenced Target' to configure the component. The 'Object Type,' 'Parent,' 'Reference Type,' and 'Child Component > Rows' are required parameters / components. Go through each parameter one-by-one to complete the configuration.



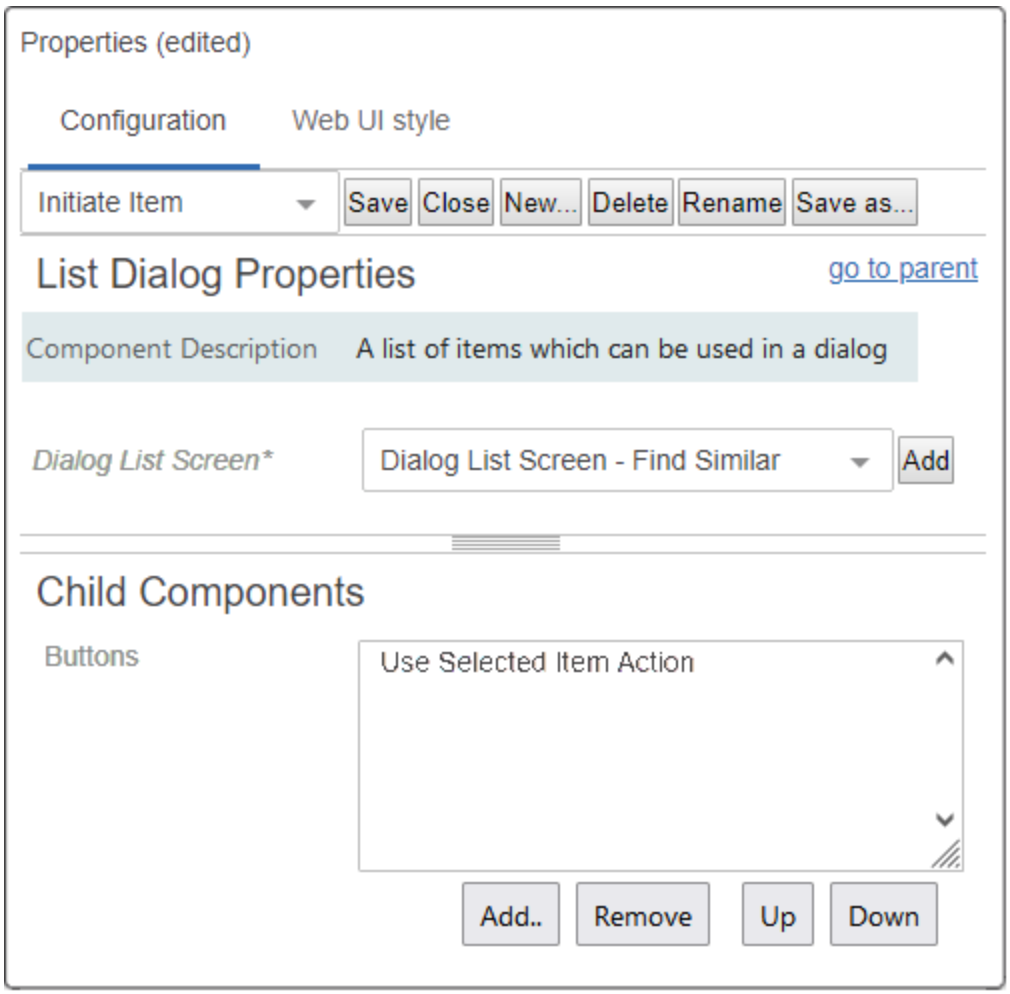
10. On the parent screen's 'Initiate Item Properties' screen, go to 'Child Component > Buttons' and click on 'go to component.' In the 'Actions' value field, select 'Add' and select 'Find Similar Action.'



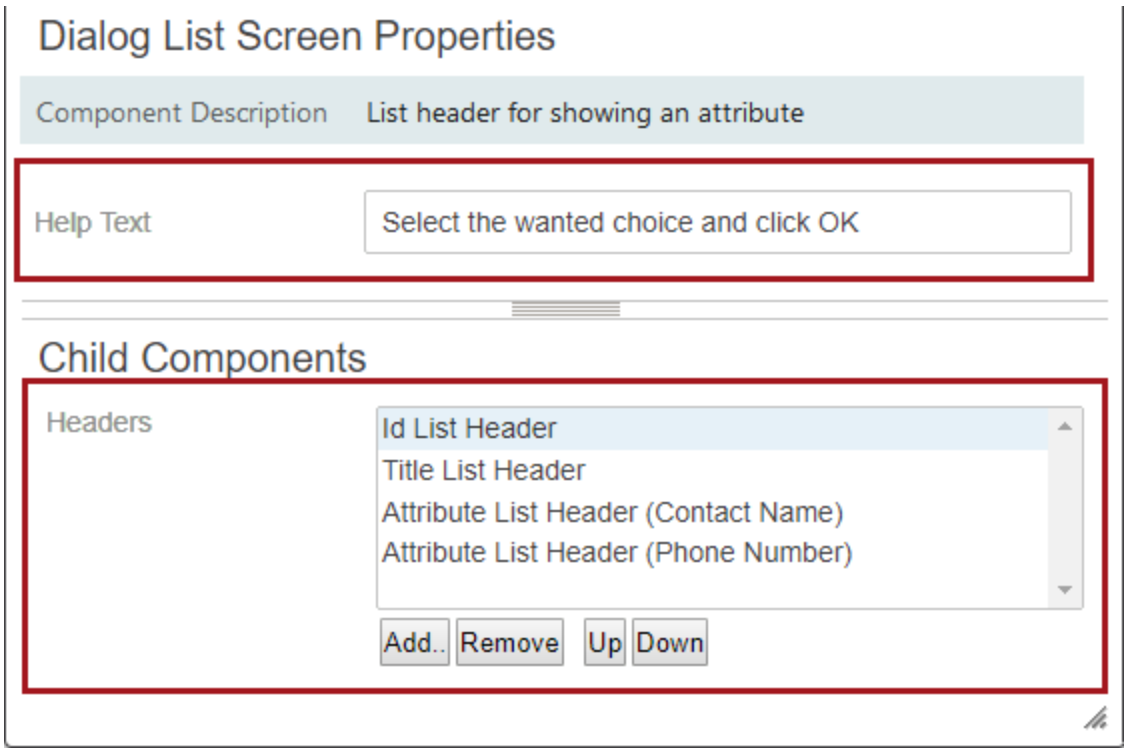
11. Double click on the 'Find Similar Action' title and open the 'Find Similar Action Properties' dialog.



12. Edit the Button Label, if desired. Under Child Components > List Dialog, select 'List Dialog' from the dropdown menu.
13. On 'List Dialog' Properties, select a Dialog List screen. If a Dialog List screen does not exist, follow the next two steps to create one.
14. Click Add to the right of the Dialog List screen value field.
15. Create a new screen by selecting Dialog List screen from the list of available screen types / components. Enter a screen ID, and then, click Add. The screen ID will automatically populate in the Dialog List Screen value field.



16. On the List Dialog Properties screen, in the Child Components > Buttons field, click Add and select Use Selected Item Action. Click Add, and then click Save in the designer window.
17. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is 'Dialog List Screen - Find Similar.'
18. Configure the Child Components > Headers section of the Dialog List Screen Properties. Click Add under the value field to set up the attributes that will display in the Find Similar Search tab for the results list. The Help Text is editable and will display at the top of the results list.



19. Click Save and Close design mode to return to normal Web UI mode.

Find Similar on Add Reference Action

The getSimilarObjects Find Similar functionality can be used to search for and identify similar objects prior to adding references and creating target objects within a Multi-Reference Editor.

This topic include the following sections:

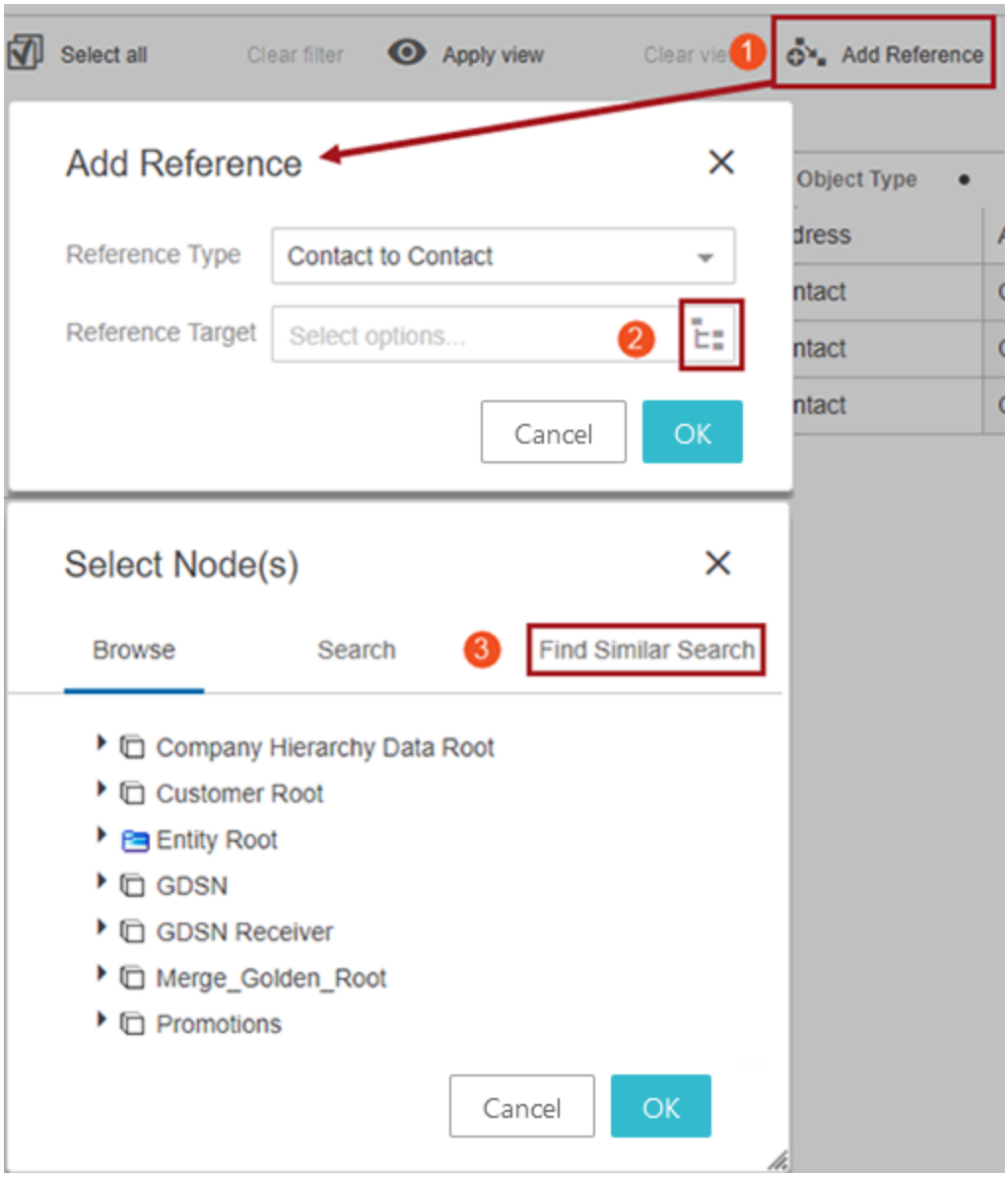
- Using Find Similar on an Add Reference Action
- Configuring Find Similar on Add Reference Action

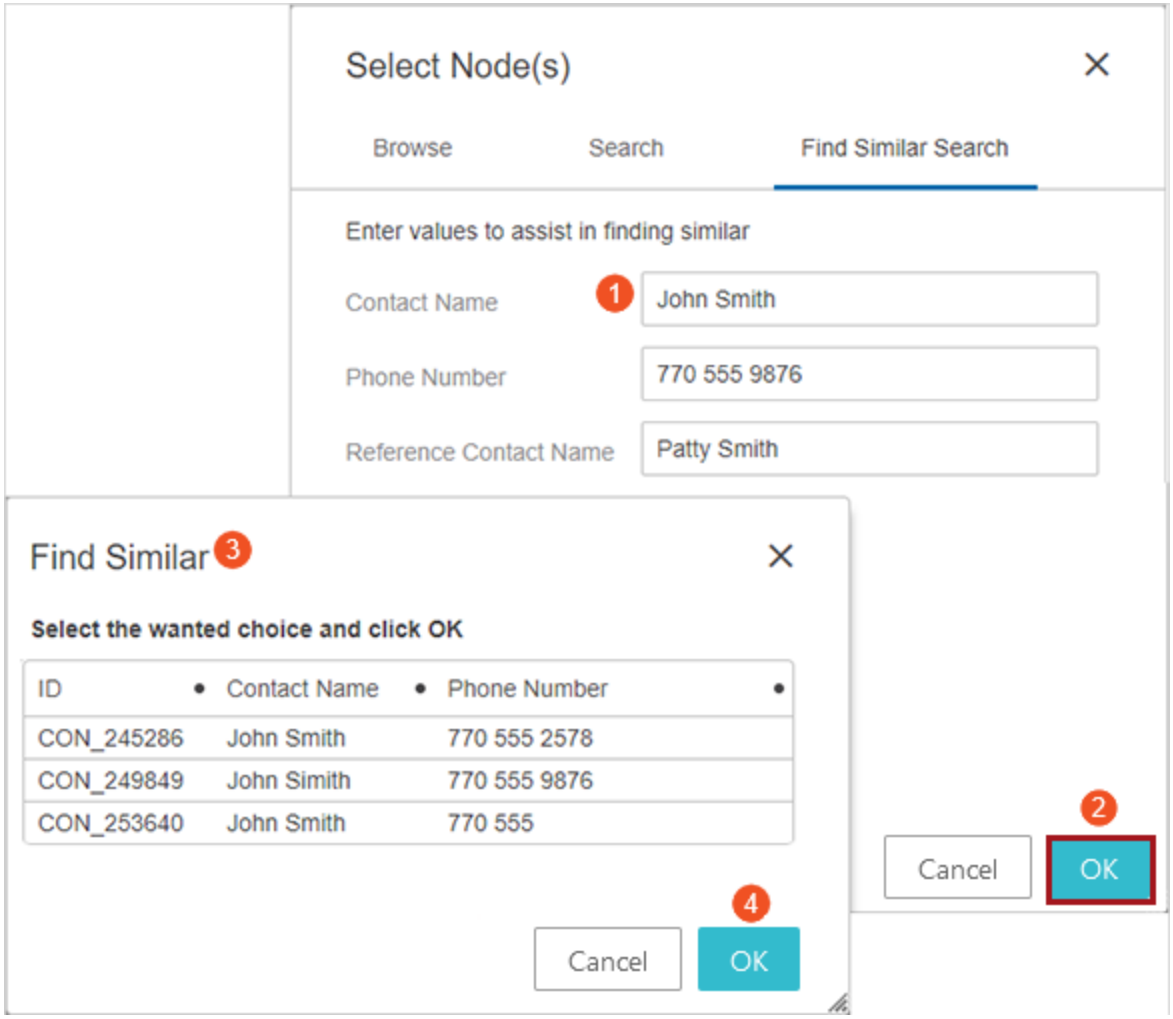
For other configuration and uses, refer to the **Find Similar Web Services** topic.

Using Find Similar on Add Reference Action

The following section details an example of a configured 'Find Similar Search' tab.

While using a 'Multi-Reference Editor' component, click 'Add Reference,' and then, click the node picker icon on the 'Add reference' dialog that appeared. The Find Similar Search tab is displayed in the 'Select Node(s)' dialog. The end user enters data into the configured attribute fields and clicks OK. The algorithm runs in the background and the configured Dialog List Screen displays. Remember that this is not a standard search and results are based on the matching algorithm running in the background.

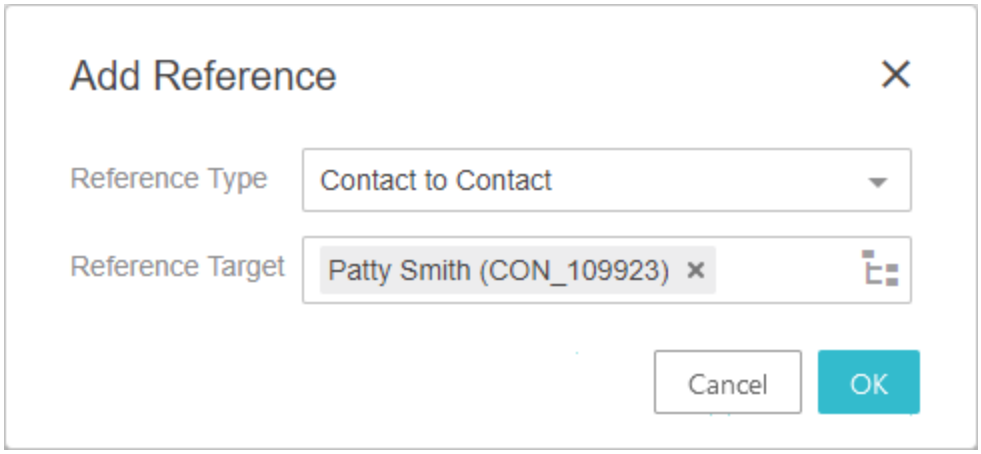

Select all
Clear filter
Apply view
Clear vie
1
Add Reference
Add Reference
Reference Type
Contact to Contact
Reference Target
Select options...
2
Cancel
OK
Object Type
dress
ntact
ntact
ntact
Select Node(s)
Browse
Search
3
Find Similar Search
Company Hierarchy Data Root
Customer Root
Entity Root
GDSN
GDSN Receiver
Merge_Golden_Root
Promotions
Cancel
OK

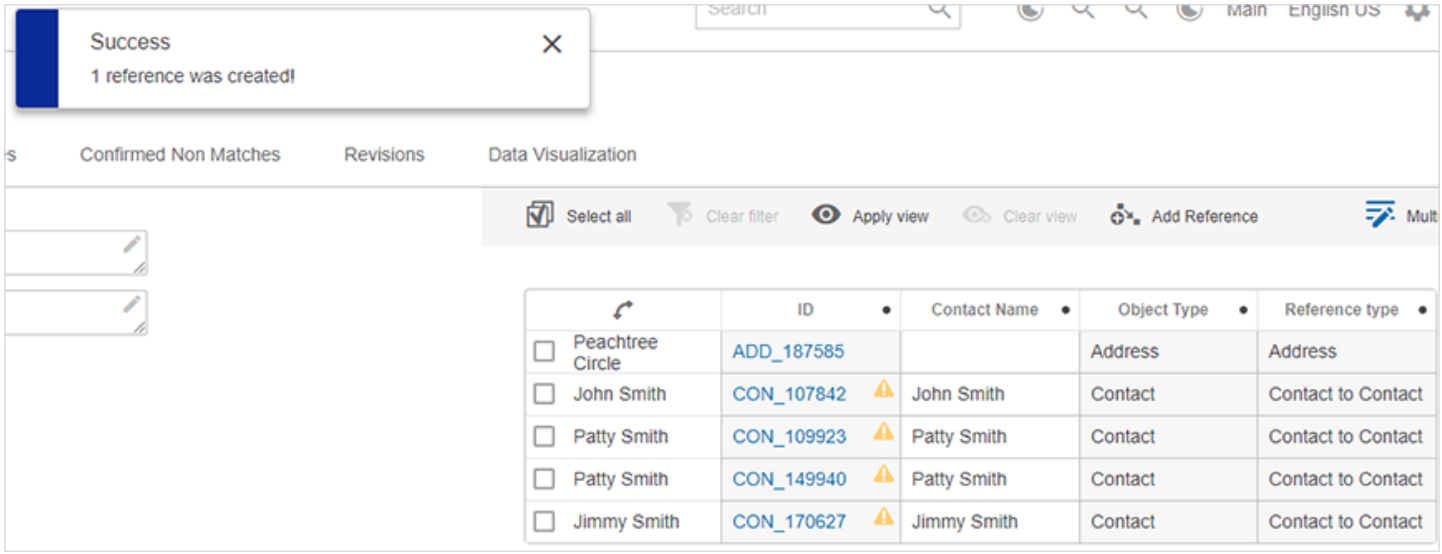


Important: The key to Find Similar functionality is the matching setup that the customer creates and uses for duplicate handling. This is important because the attributes being searched must be part of the list of attributes that match codes are generated for. If not, the search will not work as expected.

A maximum of fifty (50) objects are shown on the results list.

If the user clicks the row of a reference on the results list the OK button is enabled. Clicking 'OK' creates the reference. If the user does not find a result to use, click cancel to create a new reference using the Create or Create from Template functions, defined in **Add Reference Action** topic in the **Web User Interfaces** documentation.

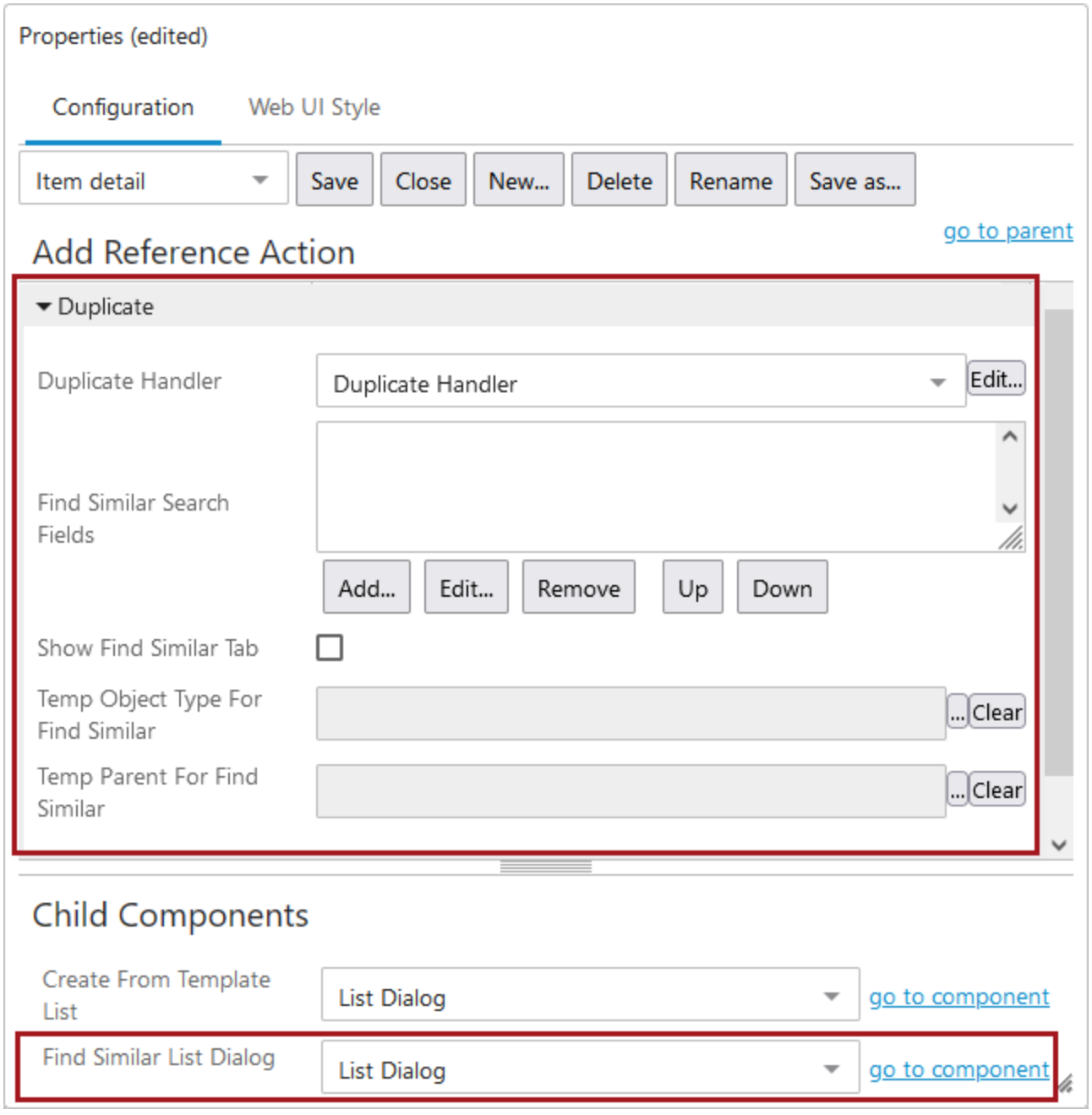




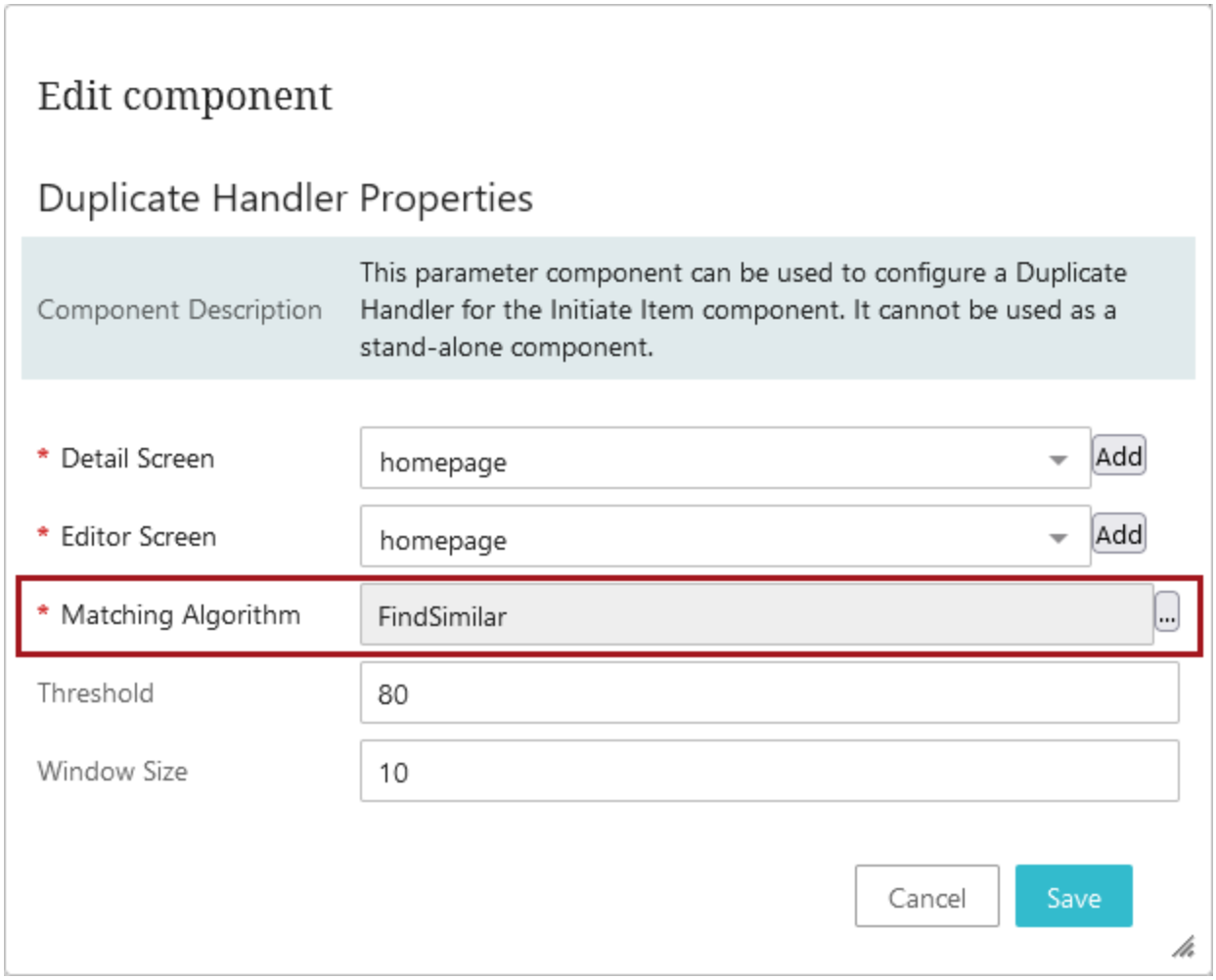
Note: Find Similar functionality is also available when working with company data hierarchies via the Hierarchy Representations component (found in Main (Screen) Properties). For more information on the setup, which is similar to Add Reference, refer to the **Optional Configurations for the Hierarchy Representation Component** topic in the **Web User Interfaces** documentation.

Configuring Find Similar on Add Reference Action

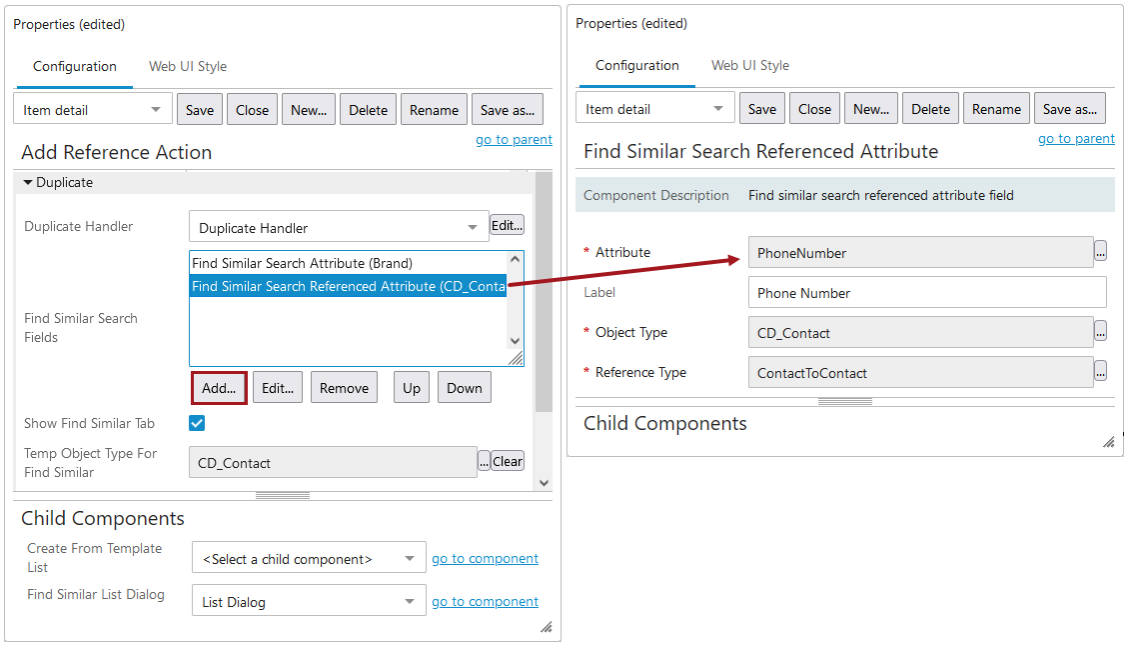
This setup information is also available in the **Add Reference Action** topic of the **Web User Interfaces** documentation.



1. Edit the properties for an existing Add Reference Action configured for a Multi-Reference Editor, or add an Add Reference Action and complete the configuration.
2. In the Add Reference Action Properties, select Duplicate Handler in the dropdown for the Duplicate Handler parameter.
3. The Duplicate Handler Properties screen will display. The only required setting is the Matching Algorithm parameter. Click the ellipsis button (...) to the right of the value field and select a matching algorithm. Click Save.



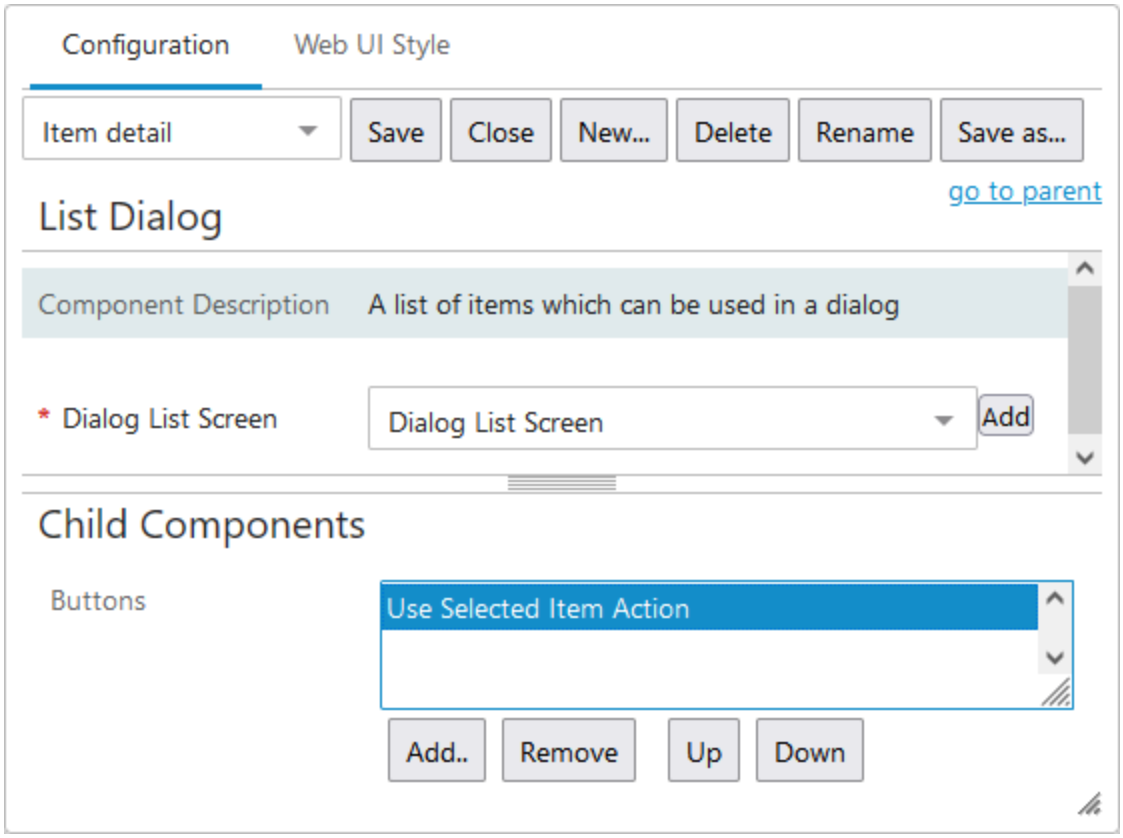
4. On the 'Add Reference Action Properties' again, click Add under the Find Similar Search Fields value box. Add, remove, and re-order Attribute and Referenced Attributes as desired. Remember that these search fields will need to be incorporated into the matching algorithm configured in the Duplicate Handler parameter.
5. It is important to fill in the Label fields during the Find Similar Search Fields configuration. These labels will appear on the Find Similar Search tab. If adding a Find Similar Search Referenced Attribute, fill in the Attribute, Label, Object Type, and Reference Type values. Save all changes.



6. Enable the Show Find Similar Tab setting back on the Add Reference Action Properties.
7. Click the ellipsis button (...) to make a selection for the Temp Object Type For Find Similar parameter and the Temp Parent For Find Similar parameter. (When the matching algorithm is run, it creates temporary objects based on the input in the search fields. These objects are then used in the algorithm to compare and find similar objects. The temporary objects need a parent and object type to be created. After the user finishes the operation, the temporary objects are deleted by the system. These parameters have to be configured for the functionality to work. The object types of both the direct objects and the referenced objects need to be made valid under the location used for the Temp Parent For Find Similar parameter.)

Important: The node selected for Temp Parent For Find Similar in the configuration, must also be included in the category specified in the match code definition if a category is specified. If this is not done, the match codes will not generate properly, and the match results will be incorrect.

8. Under Child Components > Find Similar List Dialog, select List Dialog from the dropdown menu.
9. On List Dialog Properties, click Add to the right of the Dialog List Screen value field.
10. Create a new screen by selecting Dialog List Screen from the list of available screen types / components. Enter an easily identifiable Screen ID, click Add. The screen ID will automatically populate in the Dialog List Screen value field.
11. If a Dialog List Screen already exists, skip the previous two steps, and on the List Dialog Properties, select the Dialog List Screen using the dropdown.
12. On the List Dialog Properties screen, in the Child Components > Buttons field, click Add and select Use Selected Item Action. Click Add, and then click Save in the designer window.



13. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen - Find Similar.
14. Configure the Child Components > Headers section of the Dialog List Screen Properties. Click Add under the value field to set up the attributes that will display in the Find Similar Search tab for the results list. The Help Text is editable and will display at the top of the results list.
15. Click Save and Close design mode to return to Web UI mode.

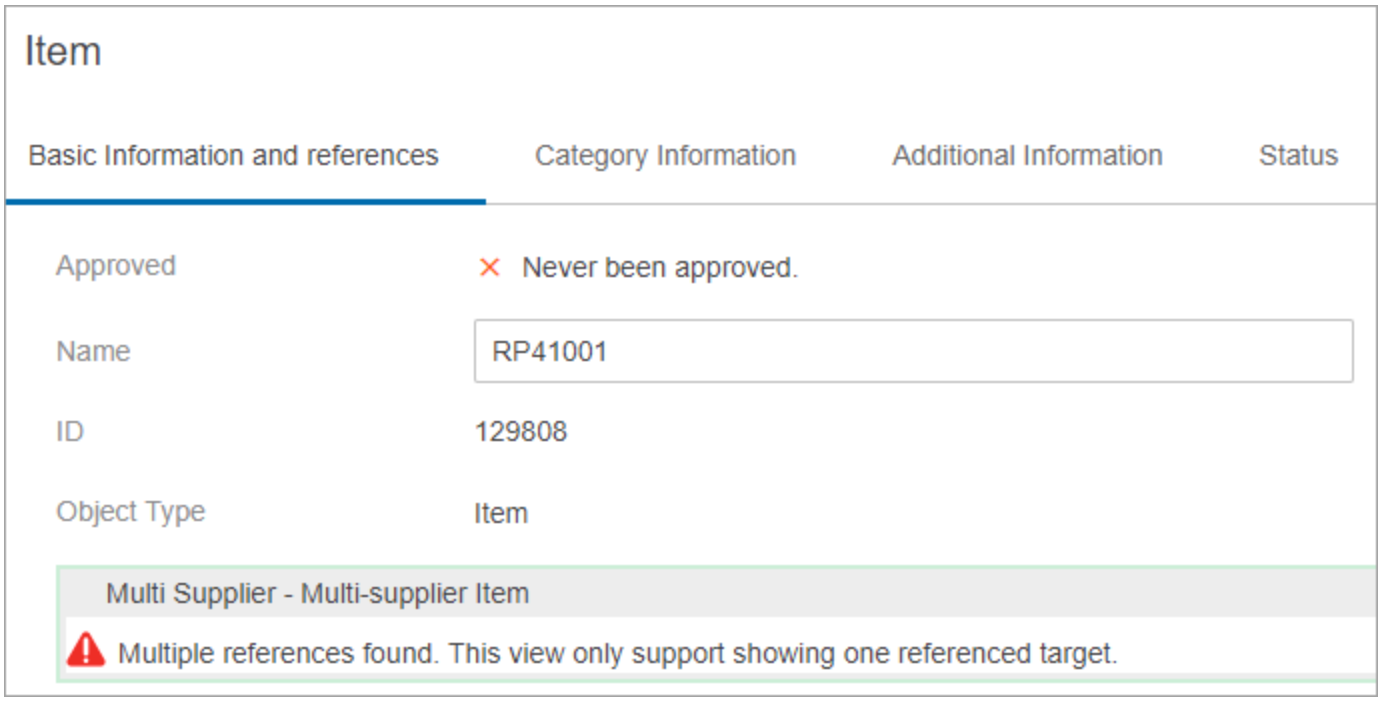
Follow Single Reference

This component in Web UI allows for editing of an object and a referenced object in a simplified interface. It enables users to view and edit data on referenced objects without navigating away from the source object. This is especially useful when a simple interface is desired for the end user who does not need awareness that the underlying data model utilizes independent objects.

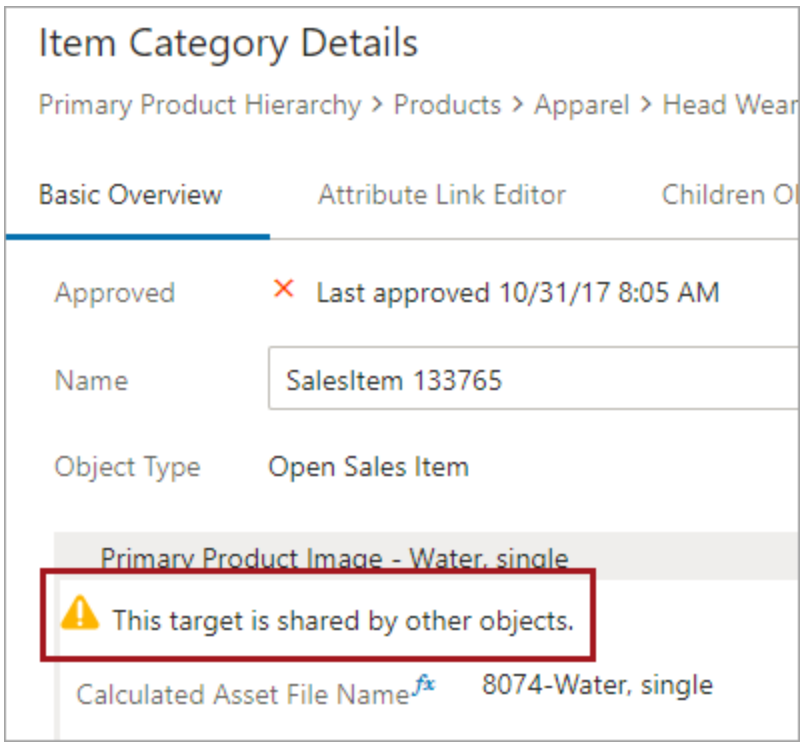
Preconditions and Considerations

The Follow Single Reference component is intended to display data where the source of the reference has only one reference of that type.

If the *source* object has more than one reference of a given reference type, an error is displayed within that section and users cannot view or edit data on any of the referenced objects using that reference type.



However, the *target* object may be referenced by more than one source, in which case a warning is displayed to the user to help prevent unintended data changes.



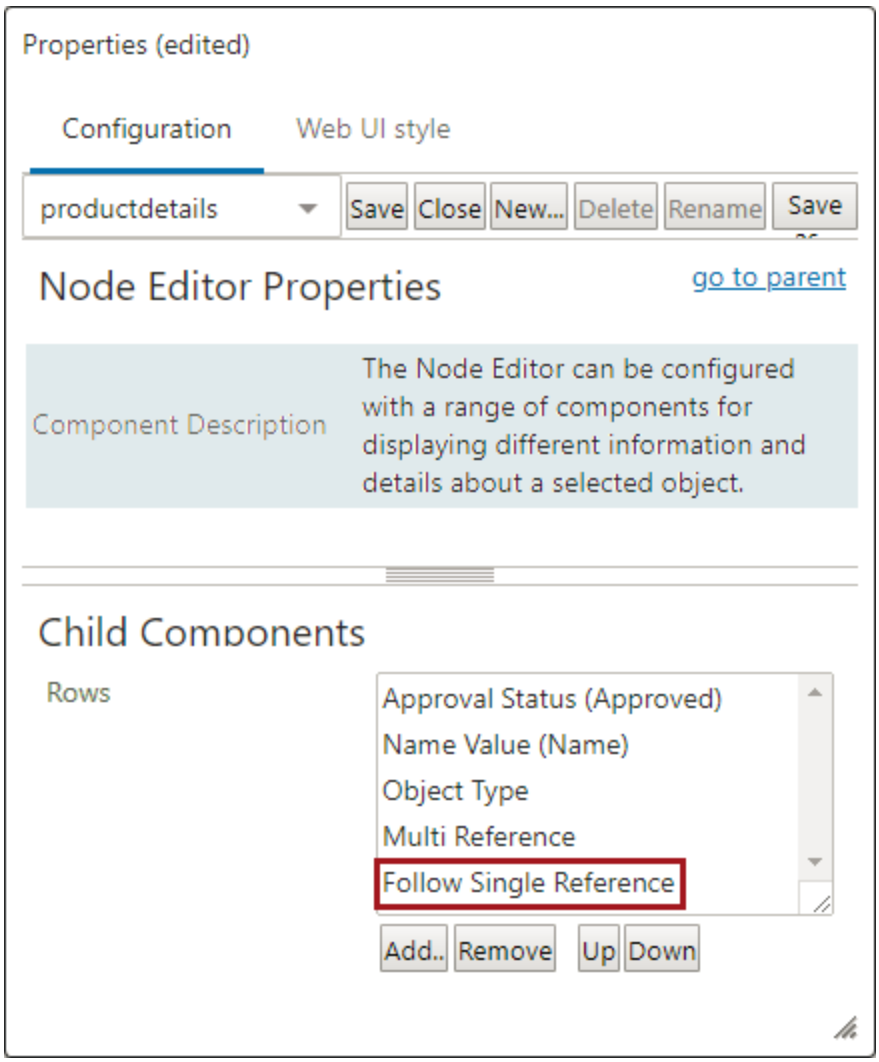
Before configuring the Follow Single Reference component, it is recommended that the data model be verified to ensure that the component is being used to display references for which the source object has only one reference of that type.

Note: When using the Follow Single Reference component in conjunction with Approve actions, it is necessary to approve the target object(s) prior to approving the source object. It is therefore recommended that the Run Business Action component be used in place of the Approve Action so that a business rule handles approval of the target object(s) (in addition to approval of the source object).

Follow Single Reference Configuration

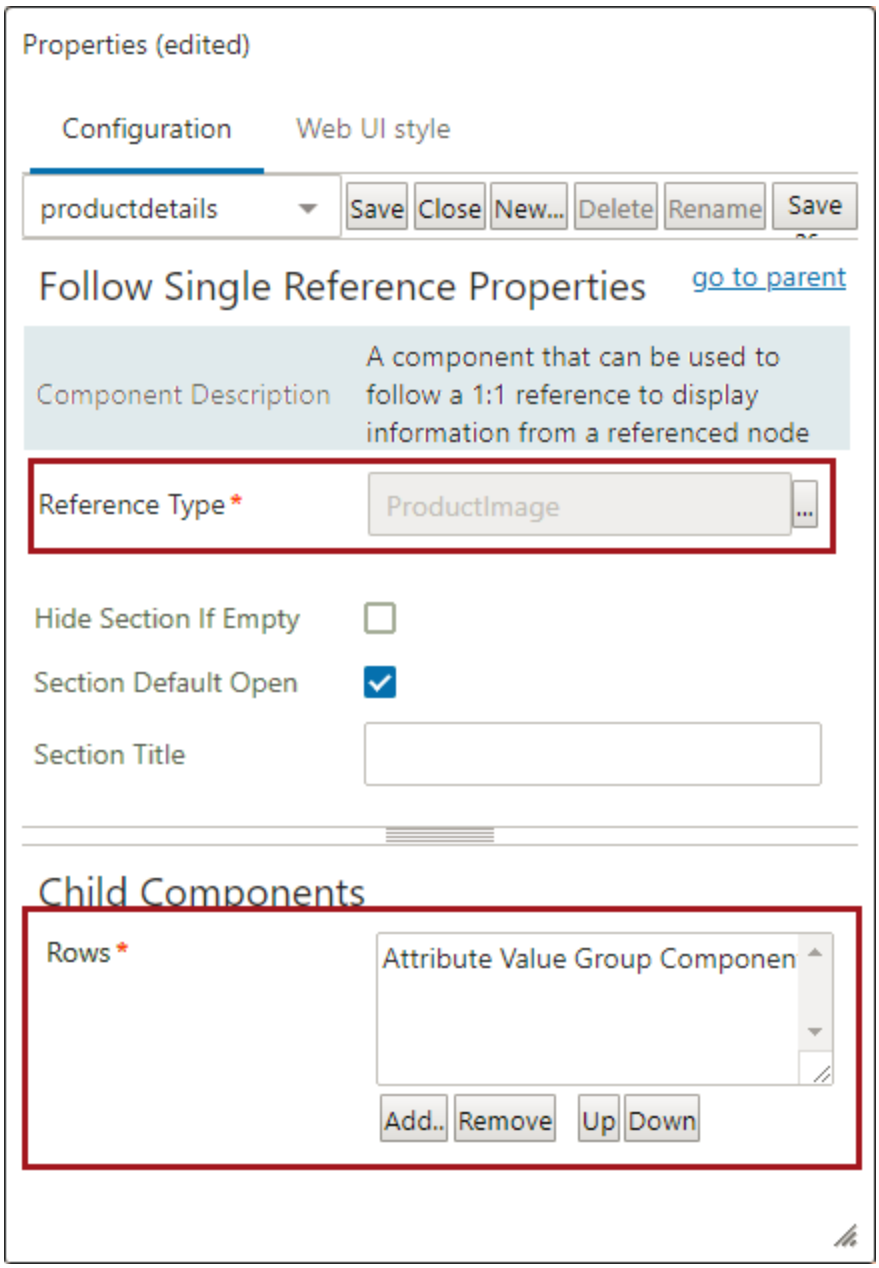
The Follow Single Reference component can be added any number of times to any Node Editor based screen. This allows users to interact with a source object and any number of referenced objects in a single screen. Users can easily adjust or isolate focus by collapsing or expanding reference types as needed.

From any screen with a **Node Editor**, add the **Follow Single Reference** component.



Double-click on the Follow Single Reference row to configure it.

- **Reference Type:** must be configured, select a reference type to display.
- **Hide Section If Empty:** When selected, the section will only display when there are references.
- **Section Default Open:** When selected, the section will initially display as open.
- **Section Title:** Enter text if a different name is needed for the panel.
- **Rows:** and at least component must be selected.


Properties (edited)
Configuration
Web UI style
productdetails
Save
Close
New...
Delete
Rename
Save
Follow Single Reference Properties
go to parent
Component Description
A component that can be used to follow a 1:1 reference to display information from a referenced node
Reference Type *
ProductImage
Hide Section If Empty
Section Default Open
Section Title
Child Components
Rows *
Attribute Value Group Componen
Add..
Remove
Up
Down

Globally Configured Reference

The Globally Configured Reference component is used to display and add / remove references on objects in the Web UI.



If desired, the component's display settings can be customized via the Global Reference Representations component. If no representation exists for a given reference type, default display settings are used. For more information, refer to the **Global References Representations** section of the **Web User Interfaces** documentation.

Note: Product Classification Links are not compatible with this component and will not display.

Note: The display of certain references cannot be suppressed via this component.

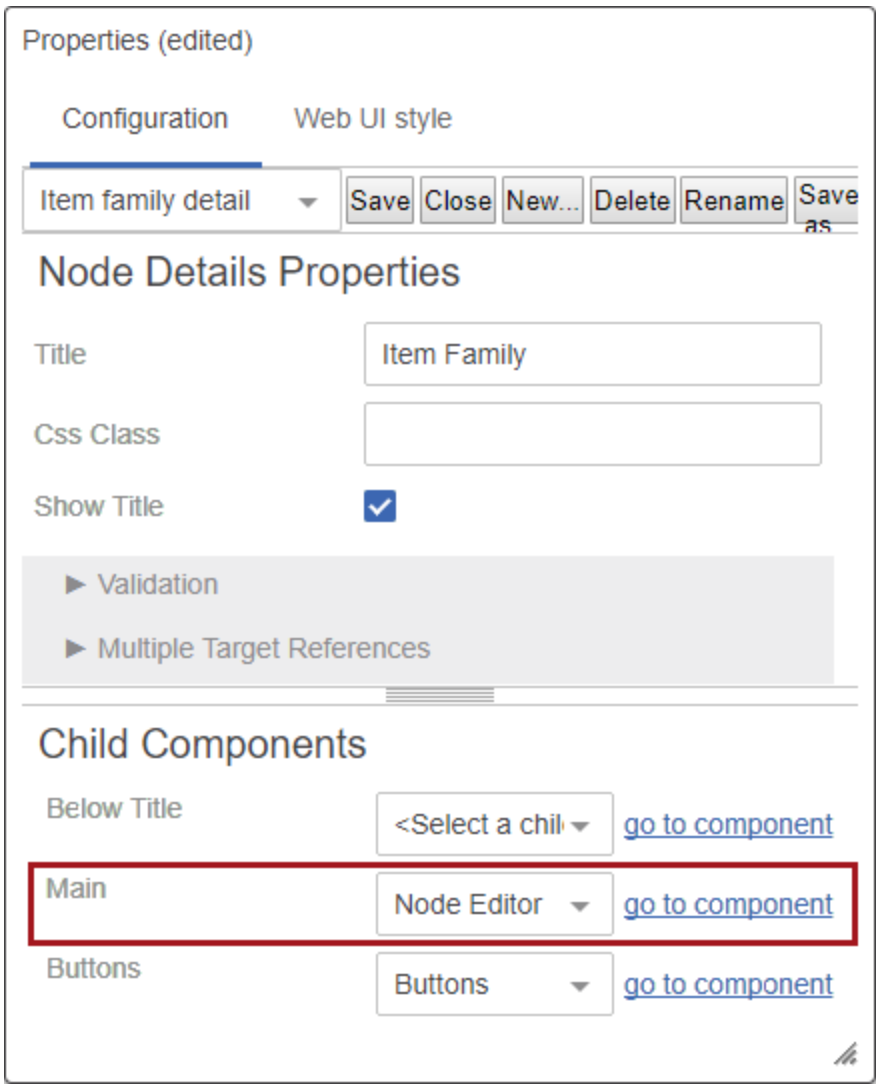
Prerequisites

It is expected that anyone configuring the Globally Configured Reference component is familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Adding a Globally Configured Reference Component

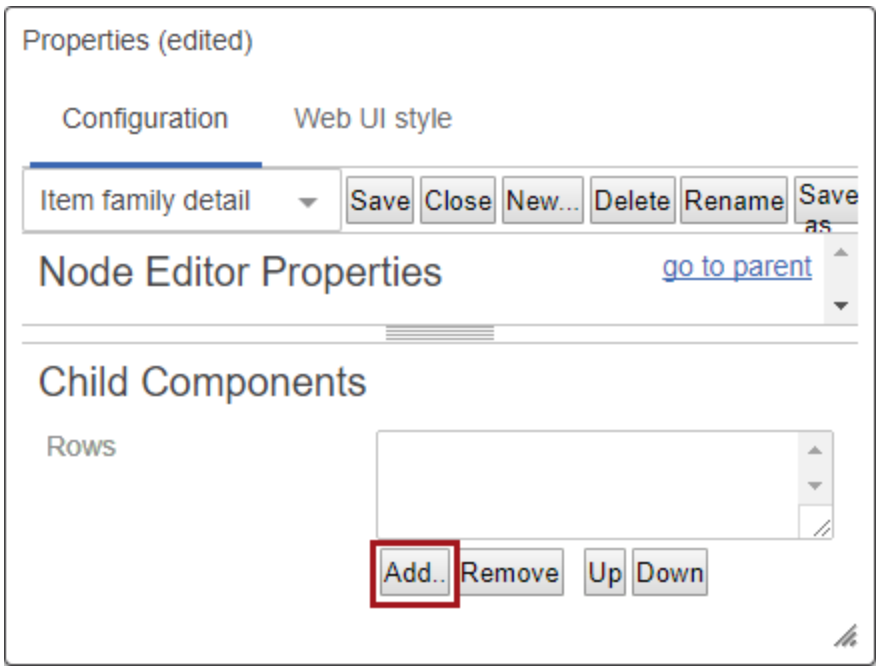
Prior to configuring this component, identify an existing Node Details screen to add the component to, or create a new screen. Steps for creating a new Node Details screen are outlined in the adding a new **Node Details Screen** topic in the **Web User Interface** documentation.

1. Once a screen is set up, in the Main dropdown menu, navigate to the applicable Node Editor > **go to component**.

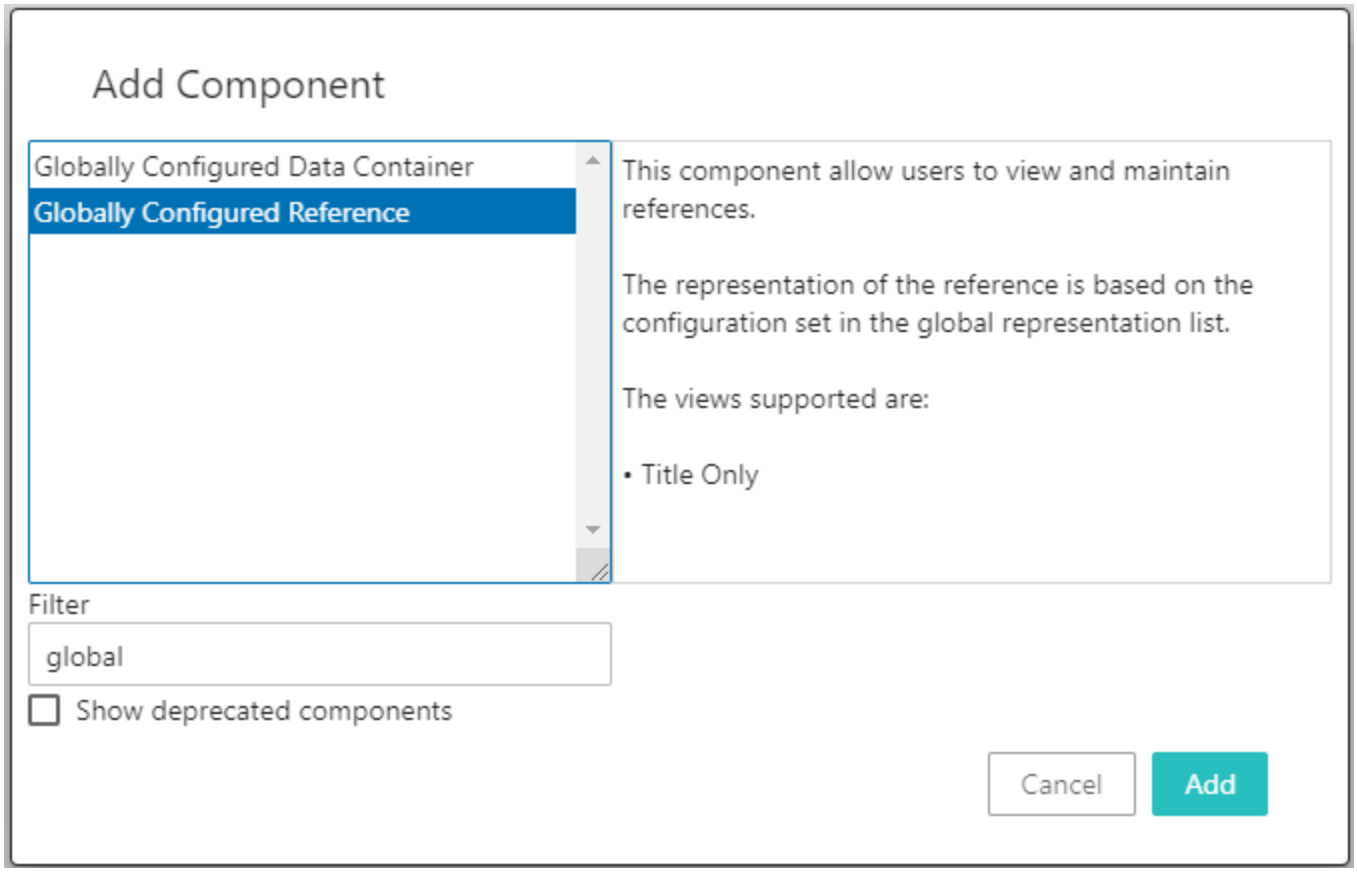


Note: Depending on how the screen is configured, the Node Editor may require more navigating to reach.

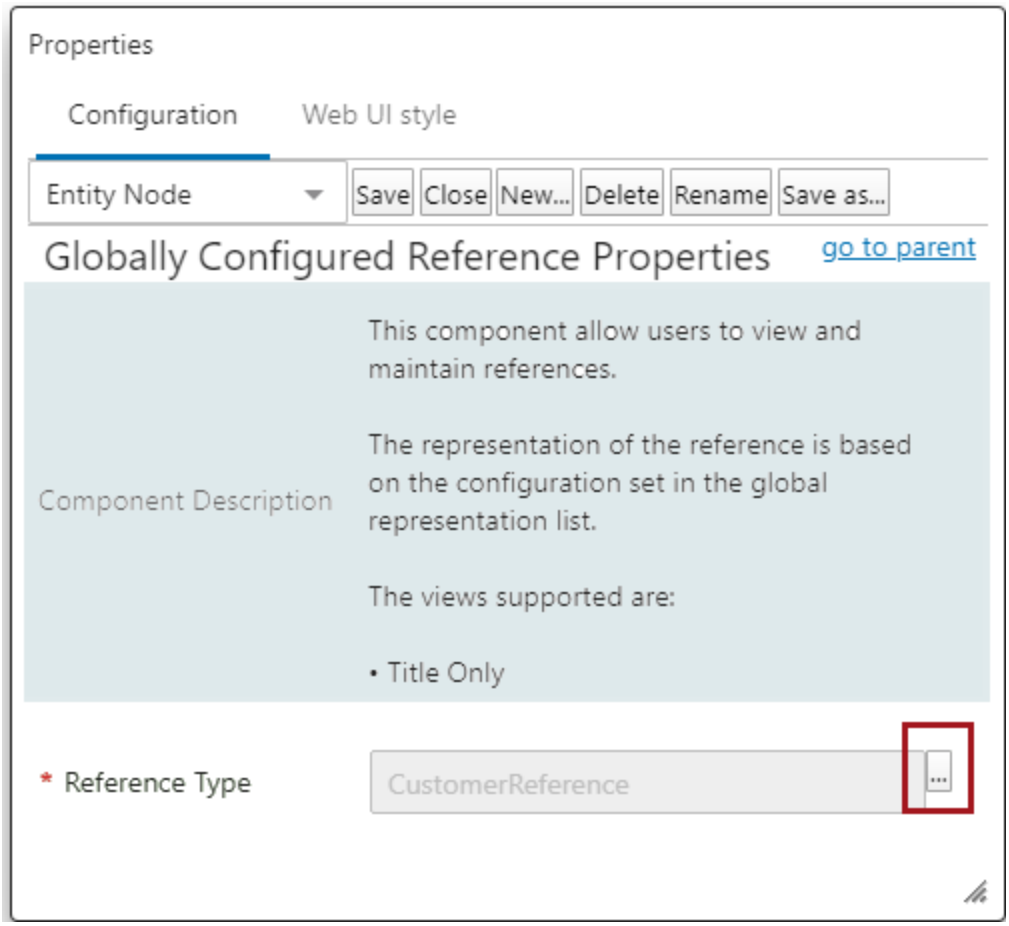
2. In Child Components > Rows, click **Add**.



3. Select **Globally Configured Reference** from the Add Component dialog, then click **Add**.



4. On the Globally Configured Reference Properties dialog, click the ellipsis button (...) for the **Reference Type** parameter, then browse or search for the reference type to display in the component.



Adding / Removing References from an Object

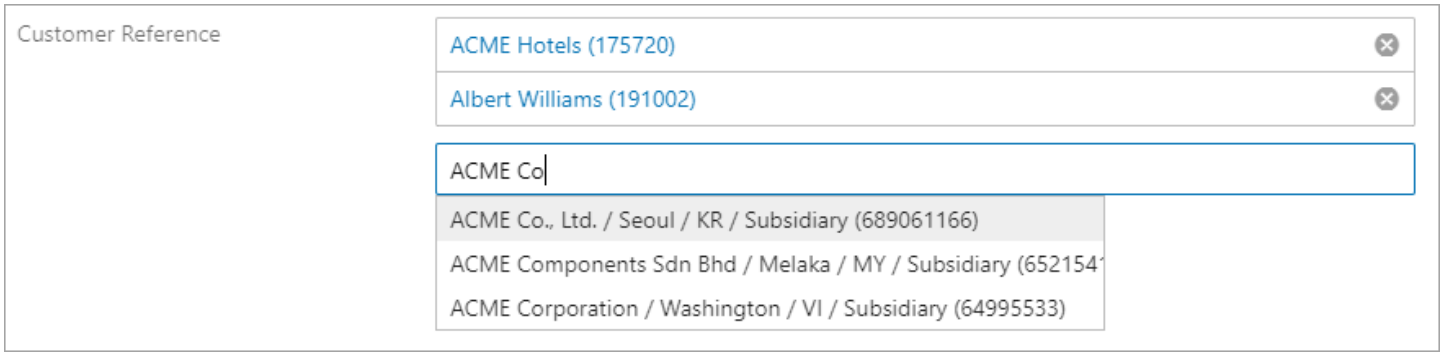
Once the component is configured, all references of the relevant type will display in a list together.

Adding References

1. To add a reference, click the **Add** link and a typeahead dropdown field will appear.



2. From the list, select the desired reference target to add it to the component.



Note: The number of results that appear within the dropdown at any given time is determined by the Global References Representations component configuration settings.

3. Once changes are complete, click **Save**.

Remove References

To remove a reference, click the 'X' icon next to the relevant reference. Once changes are complete, click **Save**.

Grouping Component

The Grouping component allows admin users to configure attributes to display on a Node Editor contingent on a value entered for a source attribute. For instance, if a product manager selects 'Yes' for the 'HAZMAT' attribute, the Grouping component can be configured so that a series of additional, or contingent attributes, display. If the user selects 'No,' or leaves the field blank, those contingent parameters will not display. If additional layers of attribute display restrictions are desired, a second Grouping component can be configured on one of the contingent attributes hidden by the first Grouping component, so that if a specific value is saved for one of the attributes that only displays when 'HAZMAT' has the 'Yes' value, a new set of contingent attributes will display. In this way, the Grouping component can be used to restrict the number of fields to only those that end users need to view, and can help streamline data entry tasks.

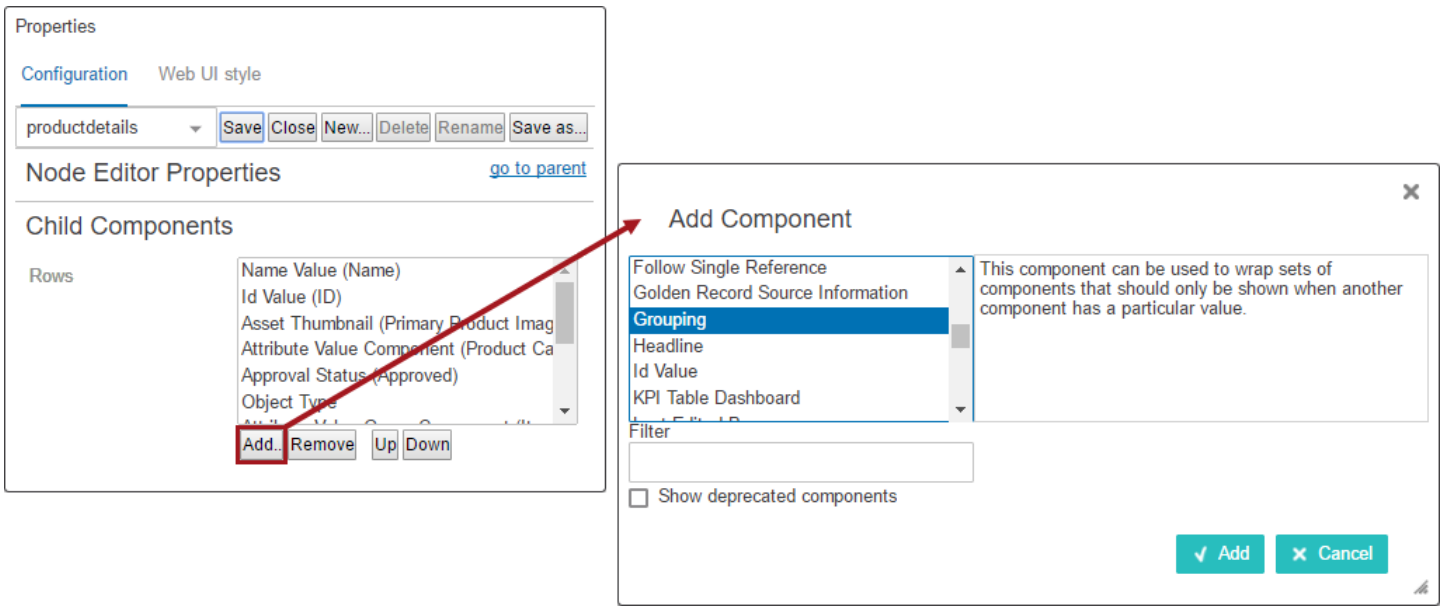
The steps described in this topic will enable admin users to add and configure one or more Grouping components to their Node Editor screens.

Prerequisites

It is expected that anyone configuring the Grouping component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the Web User Interfaces documentation.

Add a Grouping Component to a Node Editor

The first step to enable the Grouping component is to add it to a Node Editor screen.



1. Open the designer and navigate to the relevant Node Editor screen.
2. On the Node Editor Properties designer window, under Child Components (shown in the screenshot above-left), click the **Add** button below the field for the 'Rows' parameter.
3. On the 'Add Component' dialog, select the **Grouping** component, (as shown in the screenshot above-right).
4. Click the **Add** button.

Configuring Grouping Properties

Next, the Grouping component must be configured. To configure the Grouping component, admins must take the following steps:

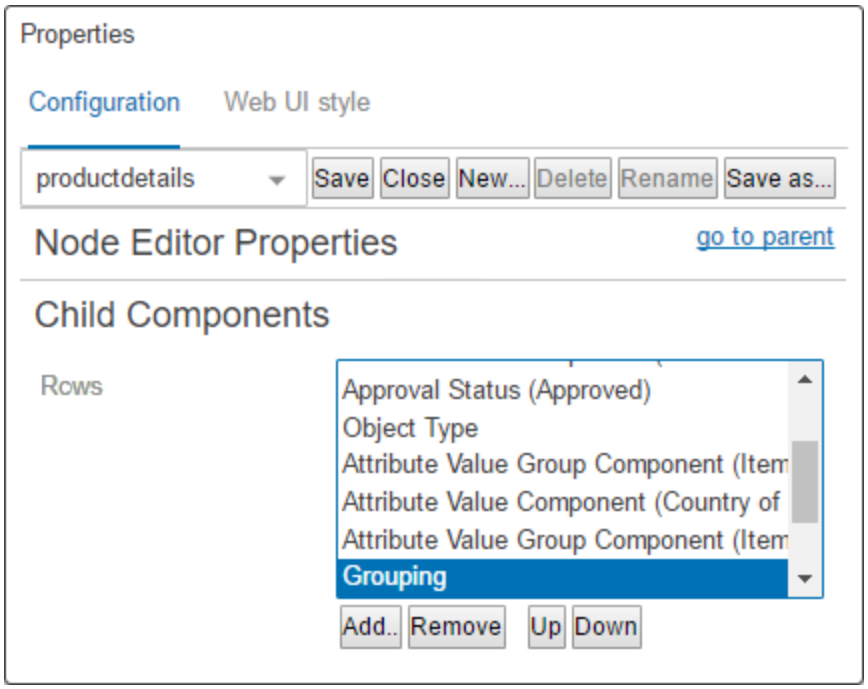
- Assign a source attribute to Grouping properties
- Add options to Grouping properties
- Configure Grouping option properties

Assign a source attribute

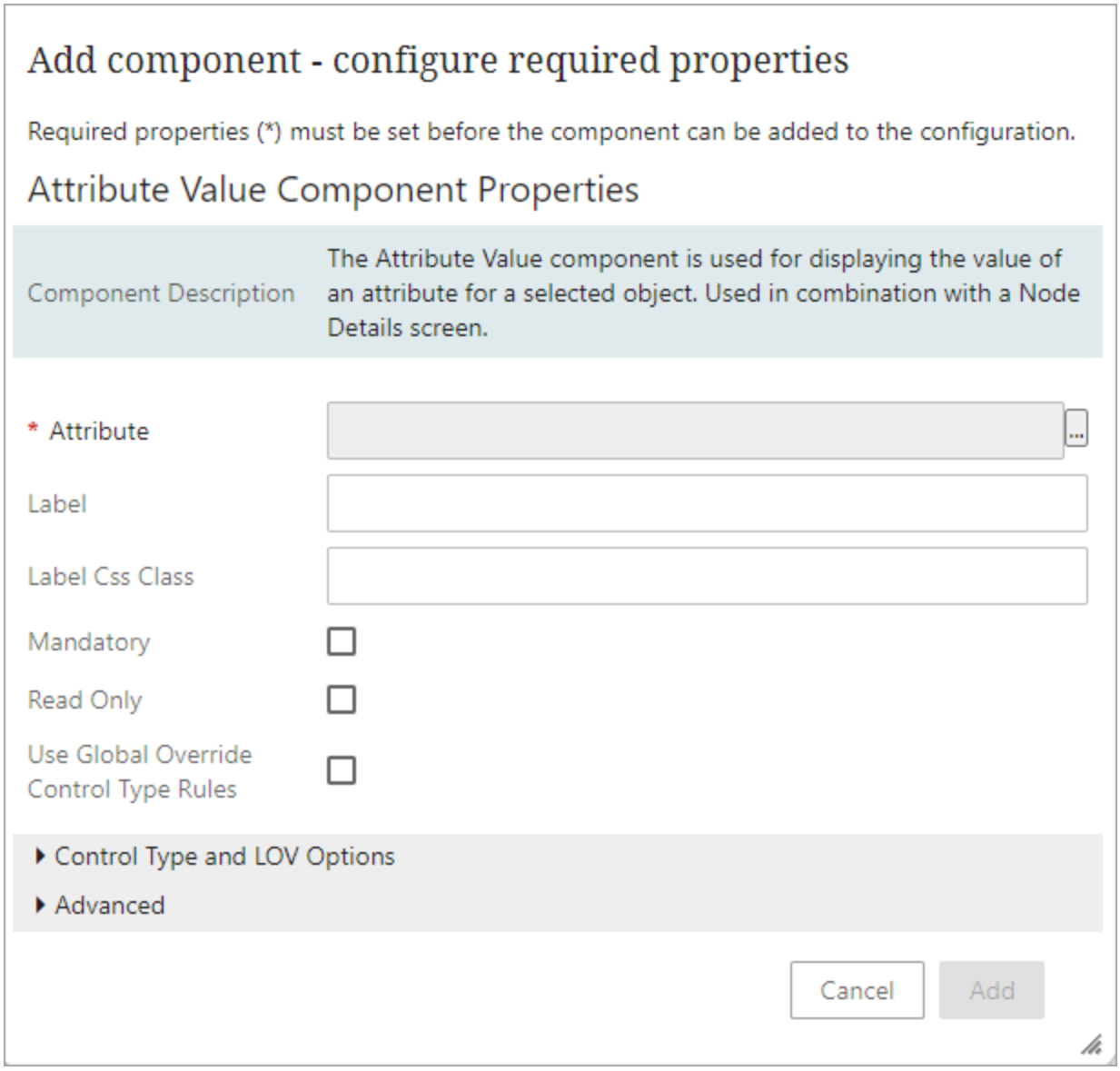
The attribute configured on the 'Source' parameter is important because specific values provided for this attribute determine whether contingent attributes display or remain hidden.

The steps required to assign a source attribute are described below:

1. Go to the Node Editor Properties > Child Components > Rows.
2. Double-click the **Grouping** component to open its configuration properties designer window.

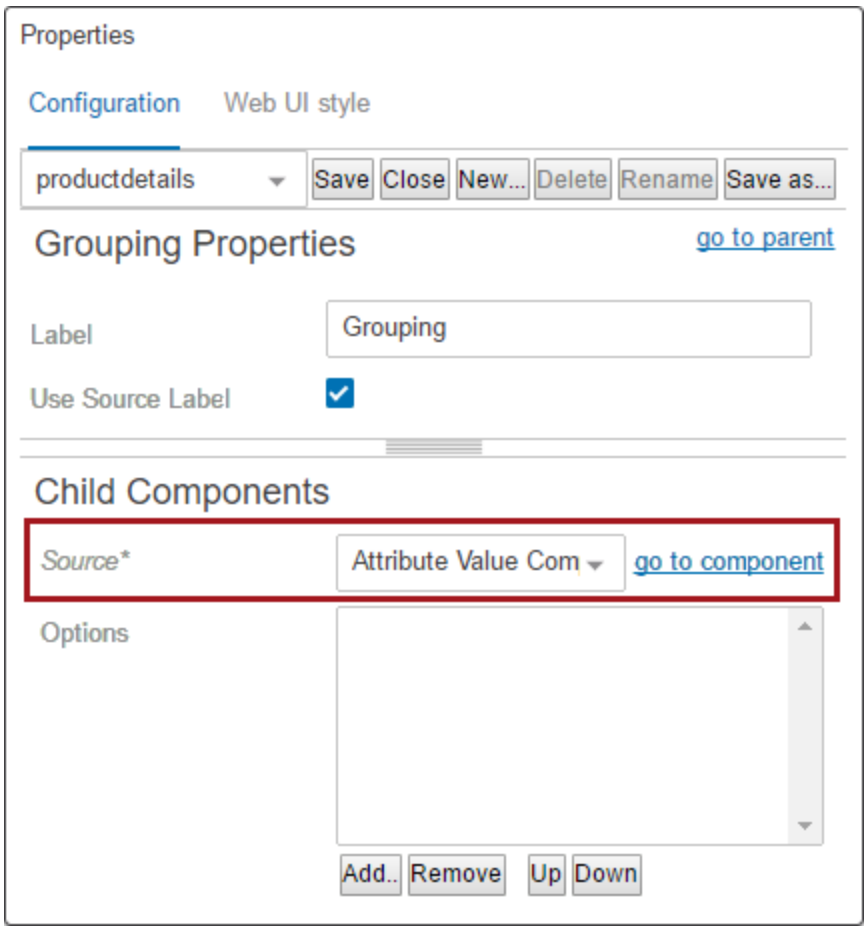


A new window called 'Attribute Value Component Properties' (shown below) displays. Using the Node Picker, select the source attribute whose value will determine whether additional attributes (to be configured later in this topic), will display or remain hidden.



3. On the 'Attribute' parameter, click the ellipsis button (...) and select the desired source attribute.
4. Click the **Add** button.

   The Attribute Value Component Properties window will close, and the Grouping Properties designer window will display with the 'Source' parameter populated with the 'Attribute Value Component' selected. Admin users returning to the Grouping component to edit the source attribute can access the 'Attribute Value Component Properties' again by clicking the 'go to component' button to the right of the 'Source' field, as shown below.

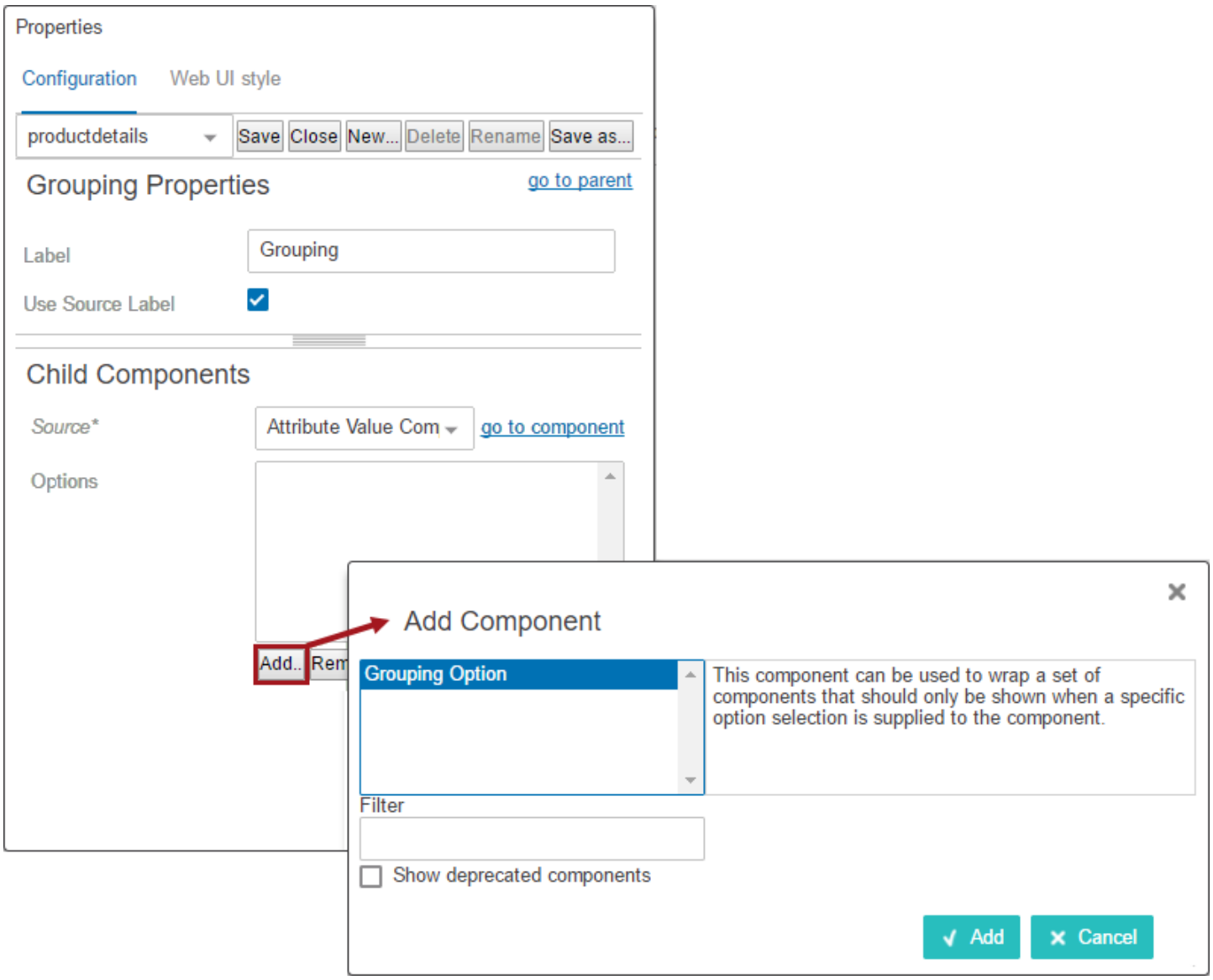


Add Grouping component to Options

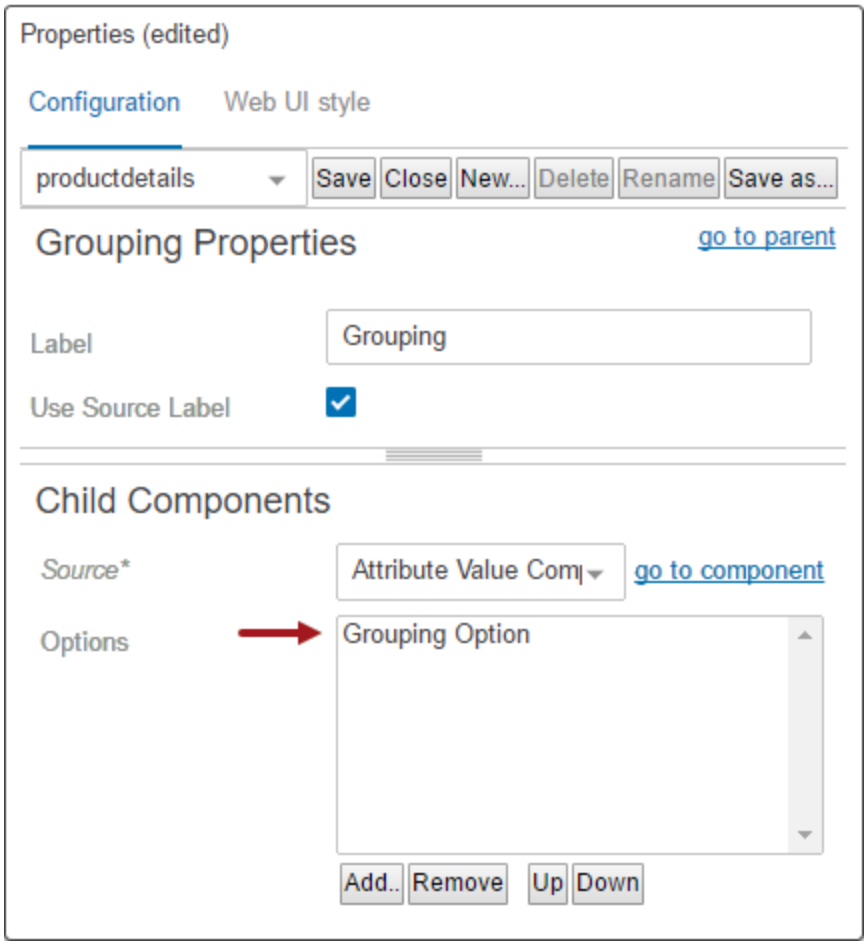
With the source attribute configured, admins can now add a 'Grouping Option' to the 'Options' field. This is the intermediary step between adding the component and defining the source attribute value and the contingent attributes that will display or remain hidden based on that value.

The steps required to add the 'Grouping Option' are described below:

1. Under the field on the 'Options' parameter, click the **Add** button. The 'Add Component' dialog will display.
2. On the 'Add Component' dialog, select the **Grouping Option** component.
3. Click the **Add** button, and the dialog will close.



The Options parameter will now list the newly added Grouping Option.

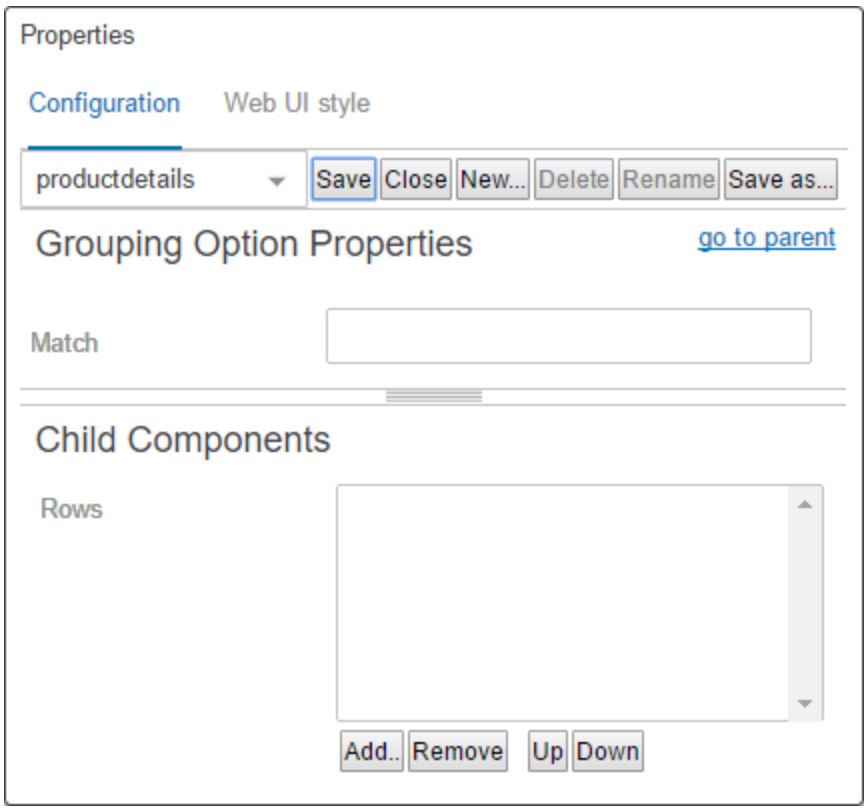


Configuring Grouping Option properties

Now the Grouping Option component can be configured to define the source attribute value that, if entered, will prompt display of contingent attributes.

The steps required to configure the Grouping Option properties are described below:

1. Double click the **Grouping Option** component that has been added to the 'Options' field. The Grouping Option Properties designer window displays.



2. **Match:** In this field, enter the precise value that must be added for the source attribute to unlock display of one or more contingent attributes. If the attribute value entered is different from the value entered in this field, the contingent attributes will not display. Because the 'Match' value requires a precise match, it is recommended that admins consider using an attribute with an LOV validation base type for the source attribute, as this disallows users from adding values that may be variations on the correct value, but not a precise match. For instance, if 'Y' is added when 'YES' is what is required to prompt display of contingent attributes, the contingent attributes will not display.
3. **Rows:** In this field, enter the 'contingent' attribute(s) that should display if the 'Match' value is provided for the source attribute. Single attributes or entire attribute groups can be added in this field.

   The steps required to add the contingent attributes in the 'Rows' field are described below:

   1. Under the field on the 'Rows' parameter, click the **Add** button. The Add Component dialog will display.
   2. Select the required component. Commonly used components are the Attribute Value Group Component and the Attribute Value Component.
   3. Click the **Add** button, and the 'Add Component' dialog will close.
4. Once the desired configurations have been made, click the **Save** and **Close** buttons on the designer.

If more than one Grouping is needed, apply the above steps as many times as needed. Each Grouping component added to the 'Rows' field on the Node Editor designer window will display as the bottom-most instance of 'Grouping,' and will need to be configured.

Adding additional Grouping components

In some instances, admins will require that a specific value added to a contingent attribute should prompt display of yet another set of contingent attributes. The Grouping component supports this 'nested' approach as well, allowing for multiple layers of grouped attributes.

In the Child Components section on the 'Grouping Option Properties,' in the 'Rows' field where the Attribute Value or Attribute Group Components have been configured, add a new 'Grouping Option' component.

On the 'Grouping Option Properties' designer window, add a 'Grouping' component to the 'Rows' field. Click into the 'Grouping' component to configure a match value and contingent attributes.

On the 'Grouping Properties' designer window, define the 'Source' attribute as described in the 'Assign a source attribute' section above. In the 'Options' field, add a new 'Grouping Option,' and double click to access. In the 'Grouping Option Properties' designer window, add the match value for the new source attribute, and then in the 'Rows' field, add the new contingent attribute(s) that will show when the match value is entered as a value for the new source attribute.

Save and close the designer, and the second Grouping component will be operable.

Repeat these steps to add additional tiers of Grouping components.

Important: To avoid issues related to display in the Node Editor, be sure that the source attribute and contingent attributes are valid for the object type being viewed and have been instantiated on the relevant product hierarchy. If this is not done, the Grouping component will not work as expected.

Guided Data Entry

Guided Data Entry is a feature that allows admin users to configure a simple data enrichment workflow in Web UI for end users. This feature can be used for end users who may not have (or need) a lot of experience or training in the STEP Web UI, as each screen displays only:

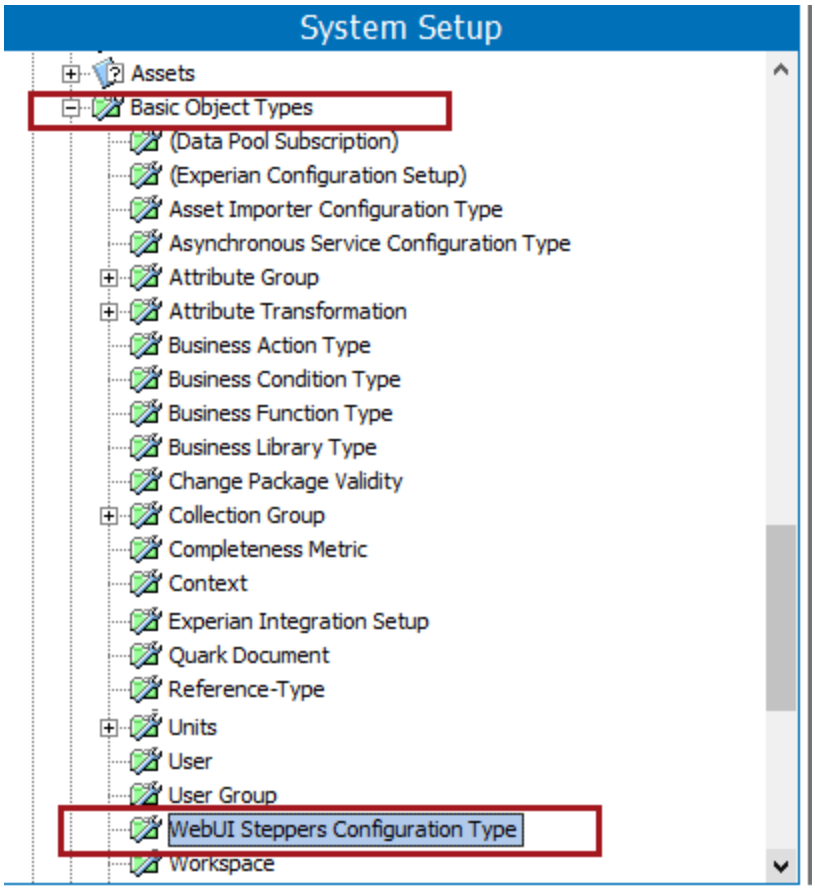
- attributes and attribute groups that require values to be added
- reference types for which a specific reference must be added

Guided Data Entry's screen-by-screen progression, or 'steppers,' can be configured to show any number of attributes and references, as well as which attribute or reference is mandatory for completion of the stepper. Non-mandatory fields can be filtered out on each screen by the end user.

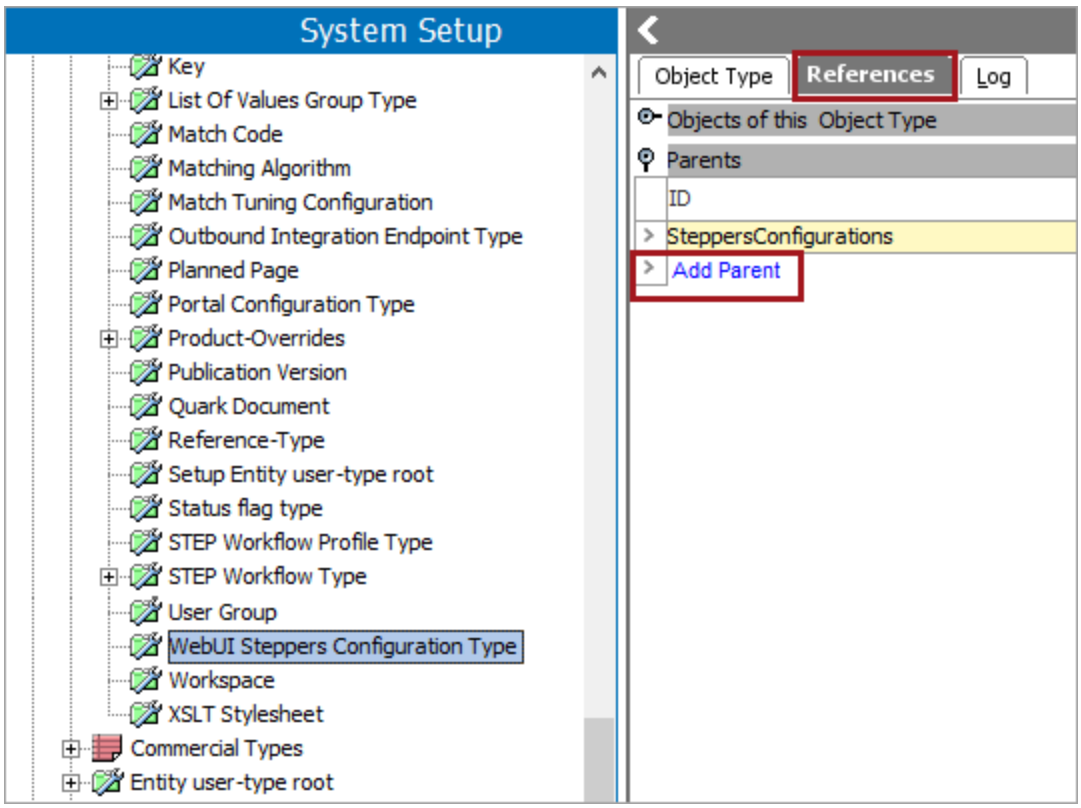
Configuring Guided Data Entry

Though Guided Data Entry is used exclusively in the Web UI, configuration of the screen-by-screen progression, or 'stepper,' is configured primarily in the workbench (with a small amount of setup required to enable this feature in the Web UI). The benefit of configuring in the workbench is that the stepper can easily be added into multiple Web UIs, rather than having to configure the same stepper for each Web UI in which it is required. Following the steps described below, an admin user can design a stepper that will take a Web UI end user, step-by-step, through a required set of screens for the purpose of structured data enrichment.

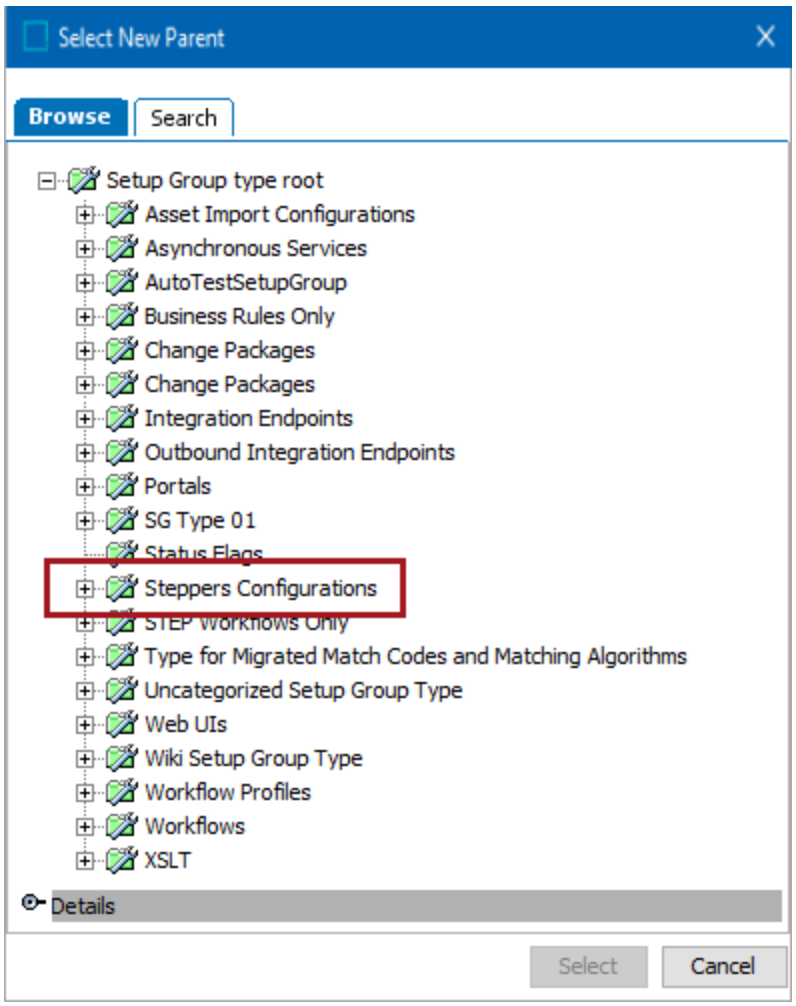
1. In the workbench, in the System Setup tab, under Basic Object Types, find 'Web UI Steppers Configuration Type' object type.



2. Once this object type has been highlighted, click on the 'References' tab in the Main Window, and then click 'Add parent.'

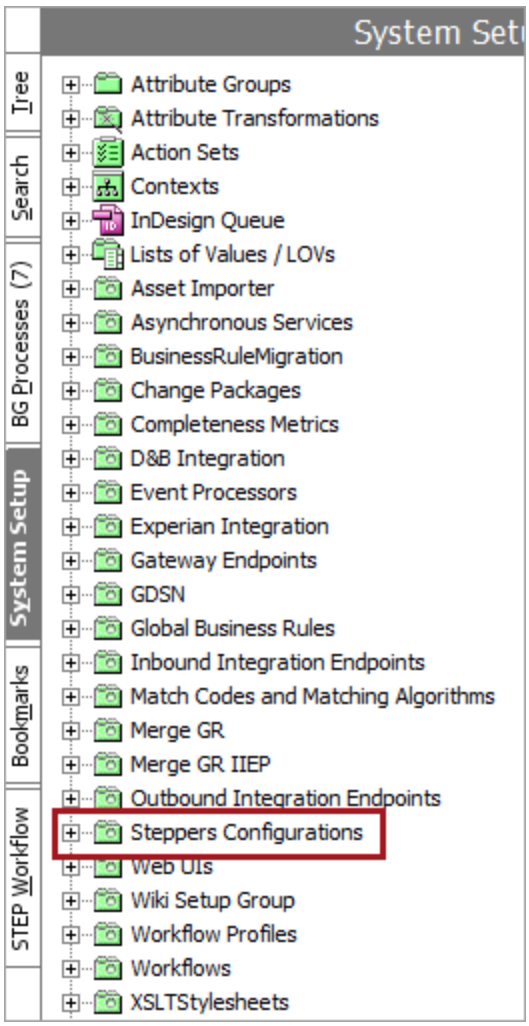


3. In the 'Select New Parent' dialog that displays, select where in STEP this and any other stepper configuration should reside. Users can select either an existing Setup Group Type root or create a new one. In the screenshot below, a new Setup Group Type root called 'Steppers Configurations' has been created and added as the parent. This is where the 'Web UI Steppers Configuration Type' object type will reside.

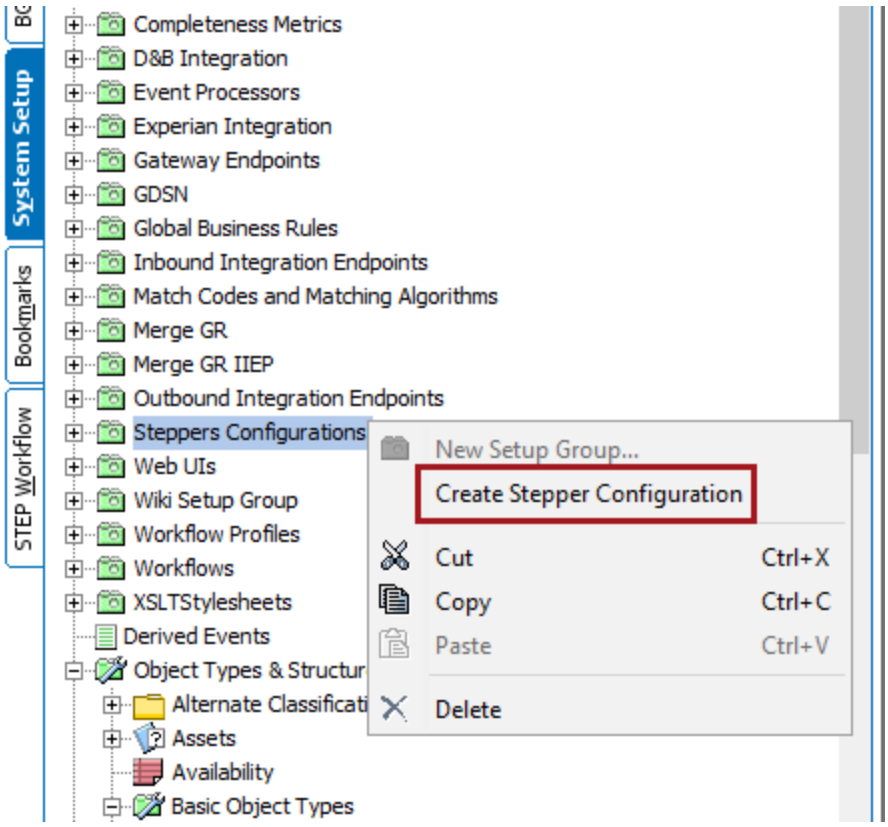


For more information on creating object types, refer to the **Creating an Object Type** section of the System Setup documentation.

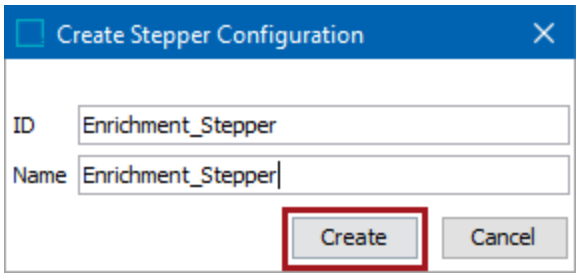
4. Now the 'Steppers Configurations' will appear as an object type root node in the 'System Setup' tab, allowing users to create stepper objects.



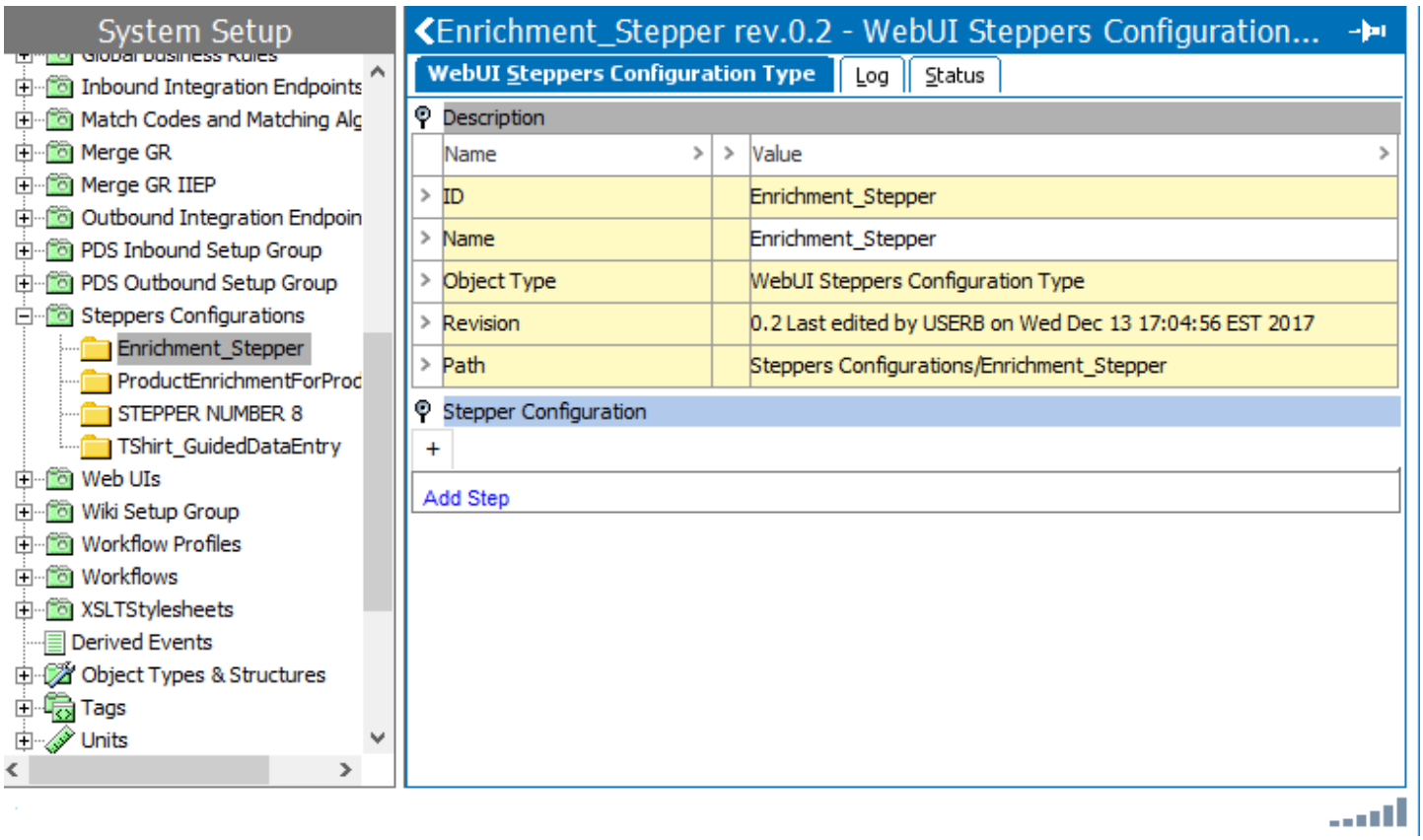
5. Right-click on your stepper object type and select 'Create Stepper Configuration.'



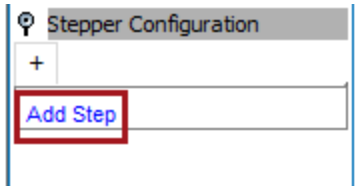
6. In the 'Create Stepper Configuration' dialog that displays, add an ID and a name and click 'Create.'



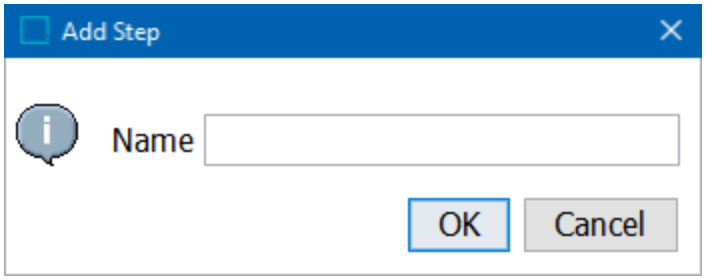
The newly created stepper configuration will display in the Main Window. An unconfigured or blank stepper will look like the screenshot below:



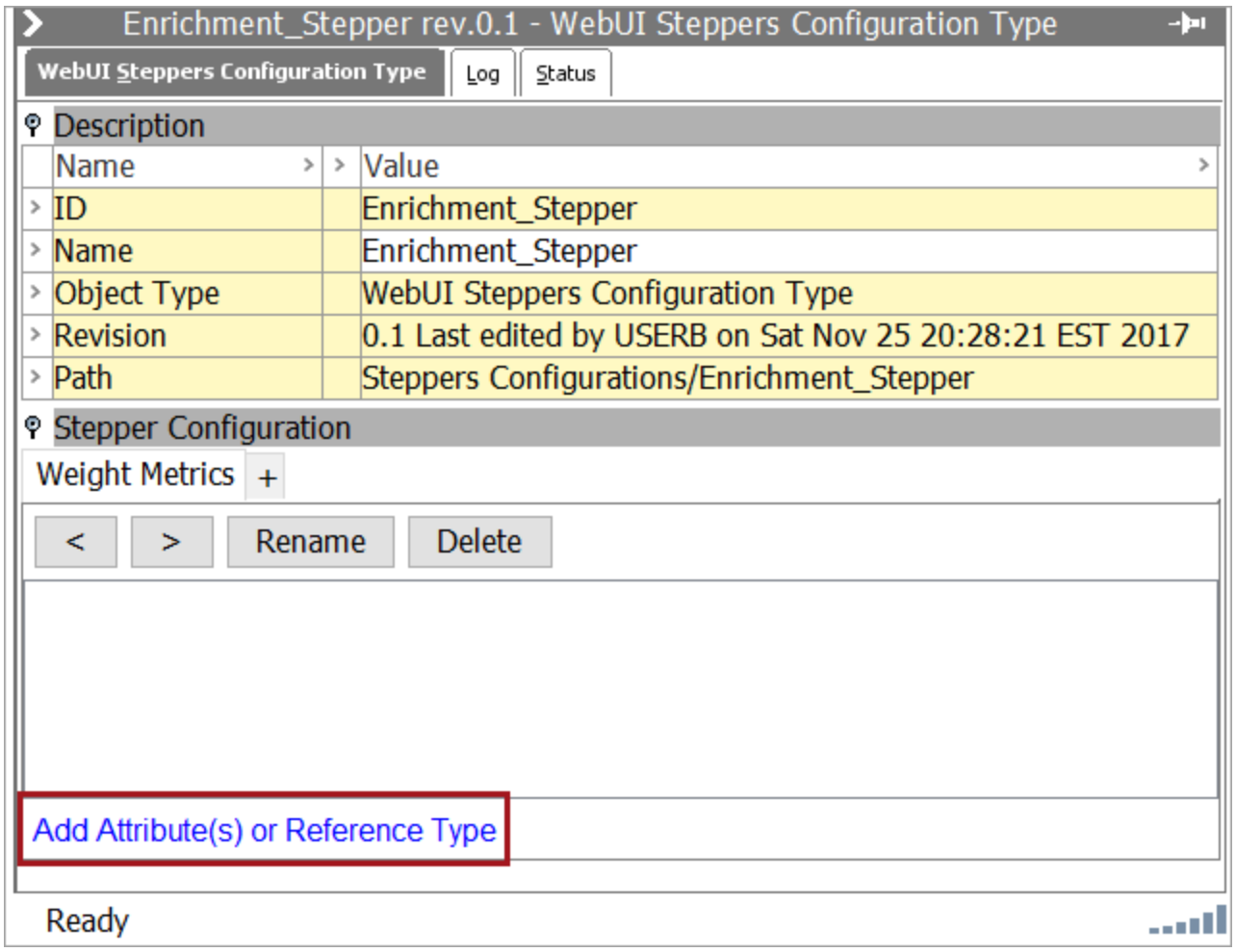
7. To configure a stepper, click 'Add Step.'



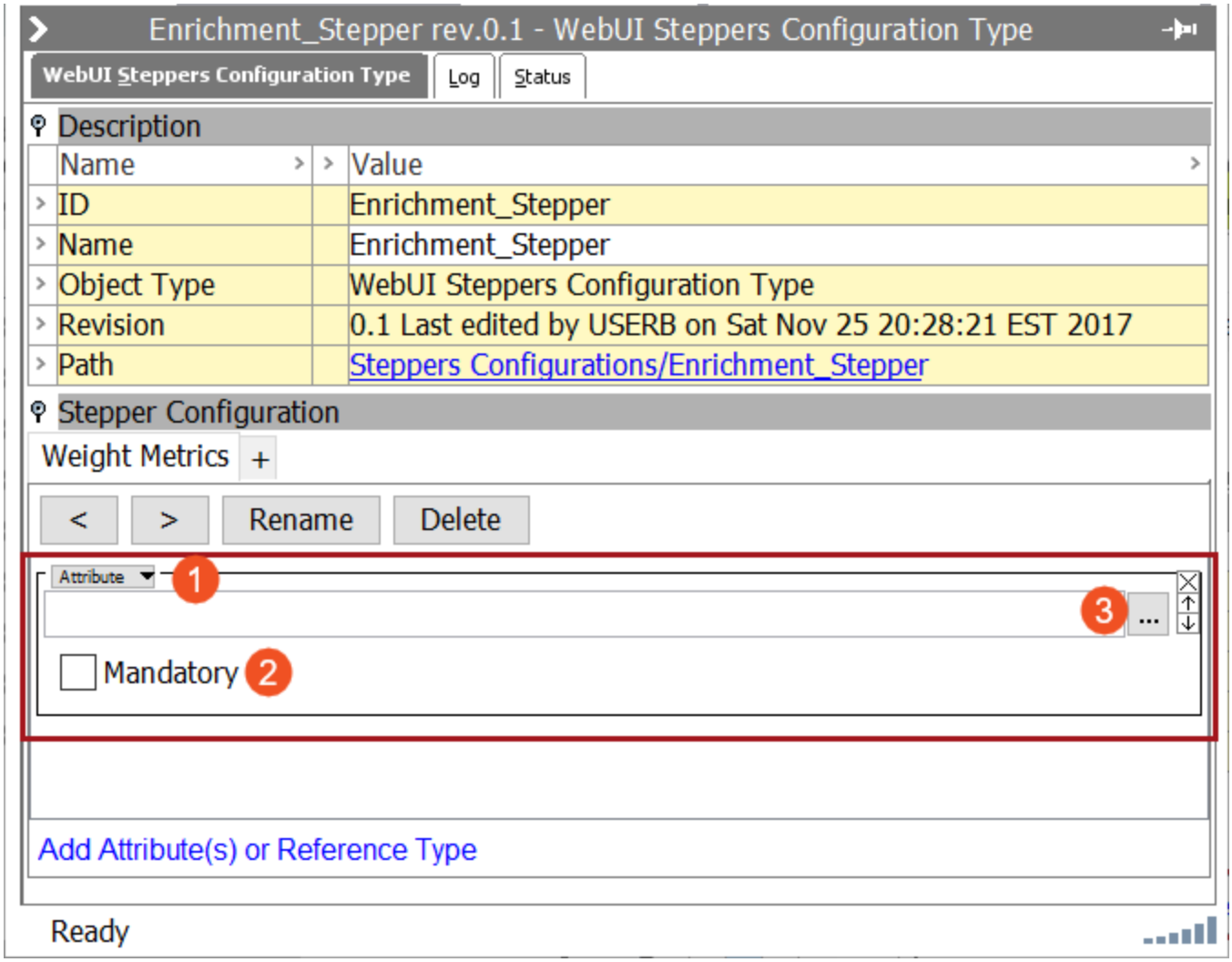
8. Name the step based on what kinds of attributes or references users will be expected to enrich.



9. To add attributes, attribute groups, or reference types to be enriched in the first step, click 'Add Attribute(s) or Reference Type.'



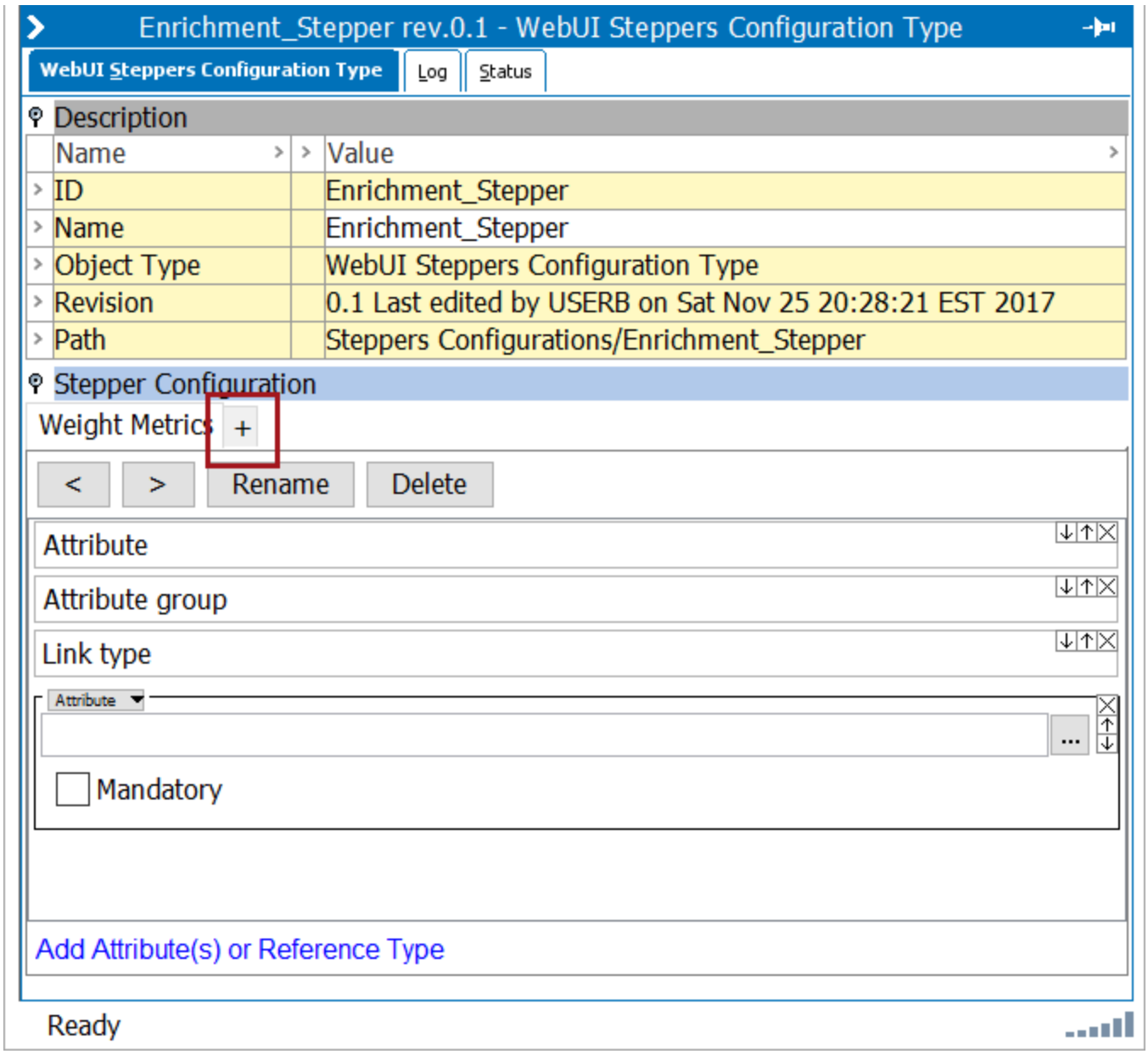
10. A new field parameter displays. There are three important aspects to this new field, all of which are numbered in the screenshot below and then described in a numbered list below the screenshot.



1. **The object type selector:** By clicking this dropdown, users may select whether the field to be added is an attribute, attribute group, or a reference type.
2. **Mandatory**: Users determine whether the added data type is mandatory for completion of the stepper, or optional.
3. **Node Picker**: Click the ellipsis button (...) to display an object selector window that allows users to select, using either the 'Browse' or 'Search' tabs, the attribute, attribute group, or reference type to add to the step.

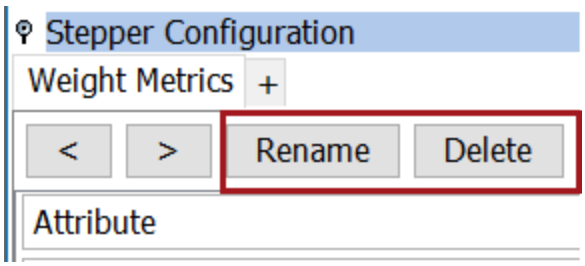
When you have finished selecting which attribute, attribute group, or reference (or link) type will be included in the step, click 'Add Attribute(s) or Reference Type' again to add another data field to be enriched.

11. When all required data fields have been added for the first step, click the '+' button to create a second step.

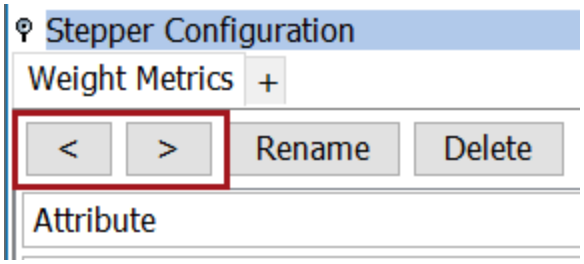


Repeat steps 8-10 for each desired stepper step.

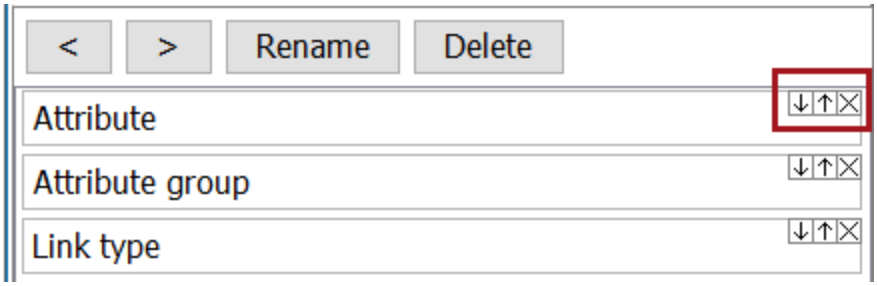
If a step must be renamed or deleted, use the 'Rename' and 'Delete' buttons just beneath the title of the stepper.



If the steps must be re-ordered, use the '<' and '>' buttons to shift the selected step left or right in the established sequence.



If the various data fields within the step need to be reordered or deleted, users may click the buttons located at the far left of each data field parameter. The up arrow button moves the selected data field up in the established sequence, the down arrow moves the data field down, and the 'X' button deletes the data field from the step.

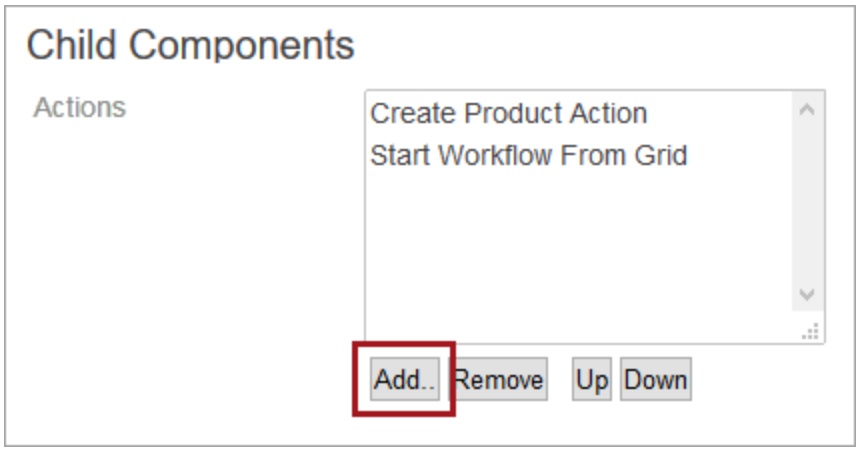


Adding Guided Data Entry to Web UI

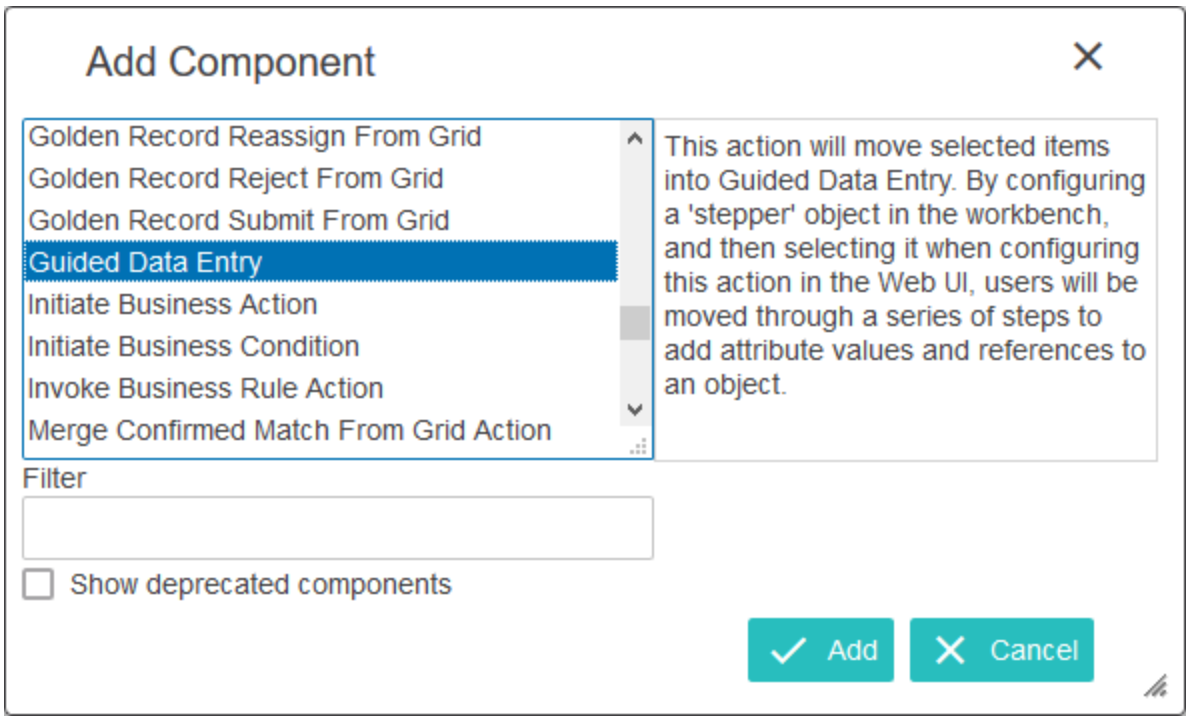
Guided Data Entry is enabled in the Web UI by adding a toolbar action button called 'Guided Data Entry' to a node list screen. When one or more items in a node list are selected, the 'Guided Data Entry' toolbar action button, if added, will display. By clicking it, users will open a Guided Data Entry window in which the configured attributes, attribute groups, and reference types for the selected objects will display. Users may then add attribute values or references to complete the Guided Data Entry 'stepper.'

To add the 'Guided Data Entry' toolbar action button, users must follow these steps:

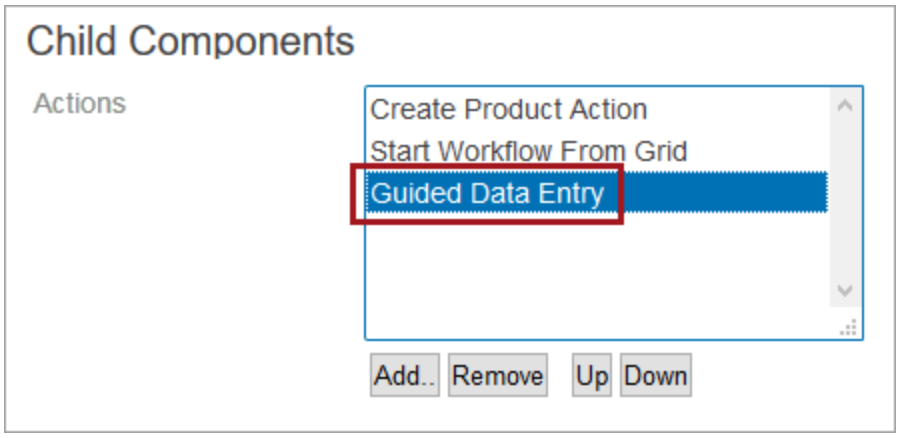
1. Navigate to the Node List onto which the Guided Data Entry toolbar action button should be added. Then enter the designer.
2. On the Node List's Child Components, under 'Actions,' click 'Add..'



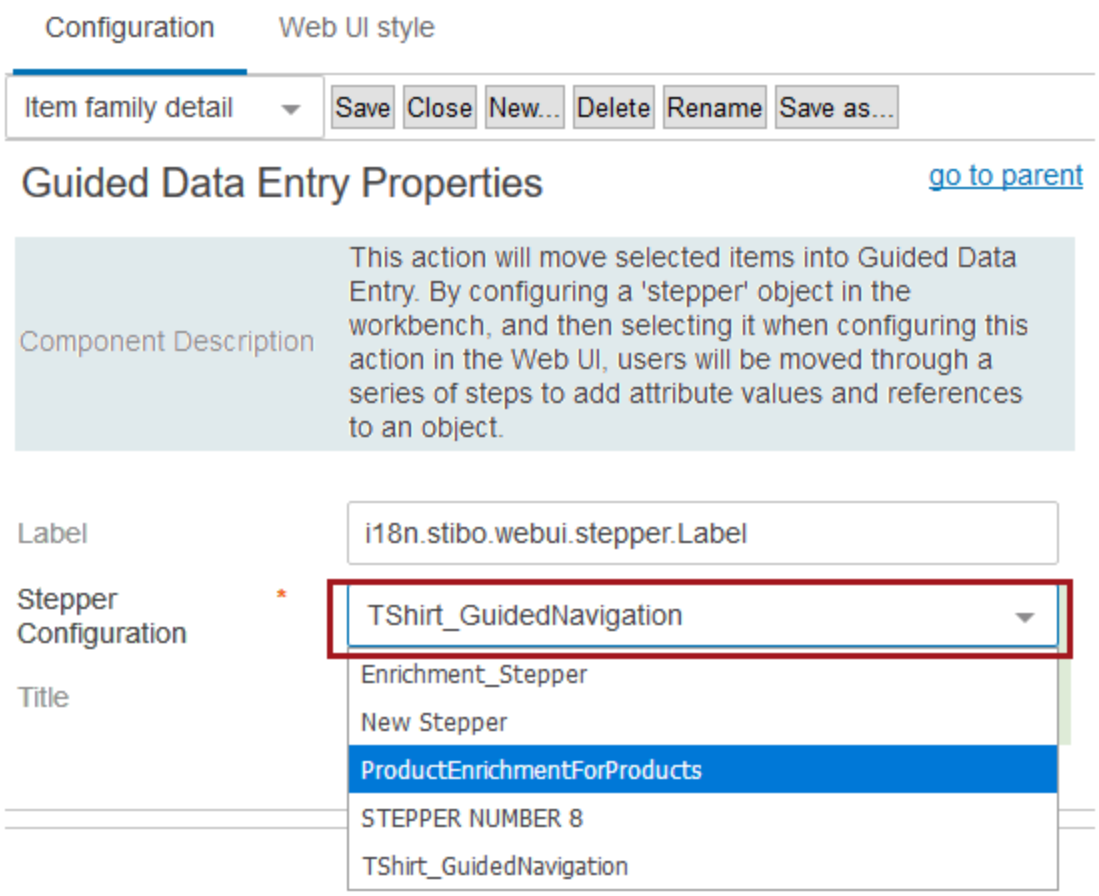
3. In the 'Add Component' dialog, select 'Guided Data Entry' and then click 'Add.'



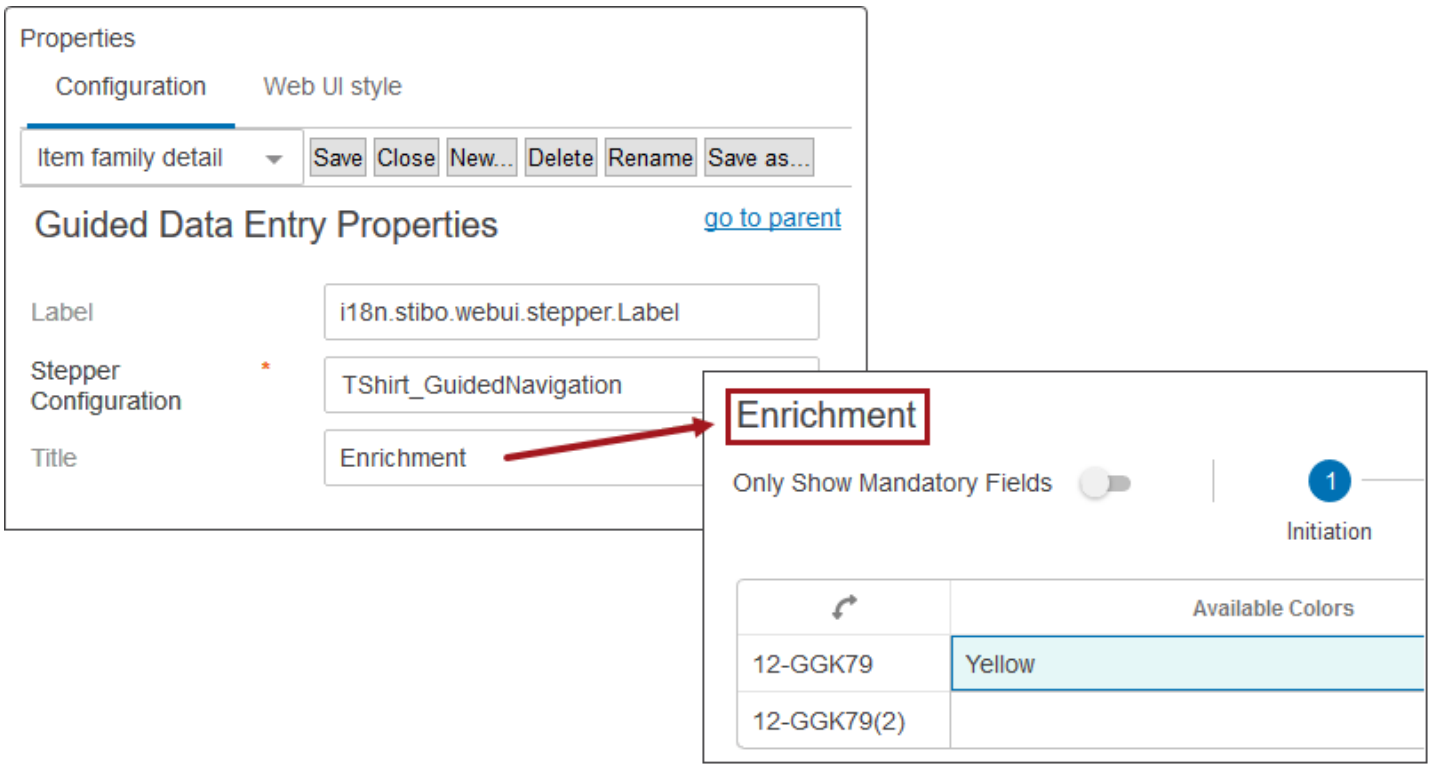
4. Back in Child Components, double click the newly added 'Guided Data Entry' toolbar action to edit the component.



5. In the 'Guided Data Entry Properties' window, users will find three parameters. The first parameter, 'Label,' determines the text that appears beside the Guided Data Entry toolbar action icon. If left unedited, the default text is 'Start Guided Data Entry.'
6. 'Stepper Configuration,' is where the user will select which stepper should be activated when the user clicks the 'Start Guided Data Entry' toolbar action. To select the stepper, click the field and select the appropriate stepper from the dropdown.



7. Text entered into the third field, 'Title,' populates the header label that displays at the top of the Guided Data Entry window. The title is static as users progress through the steps.

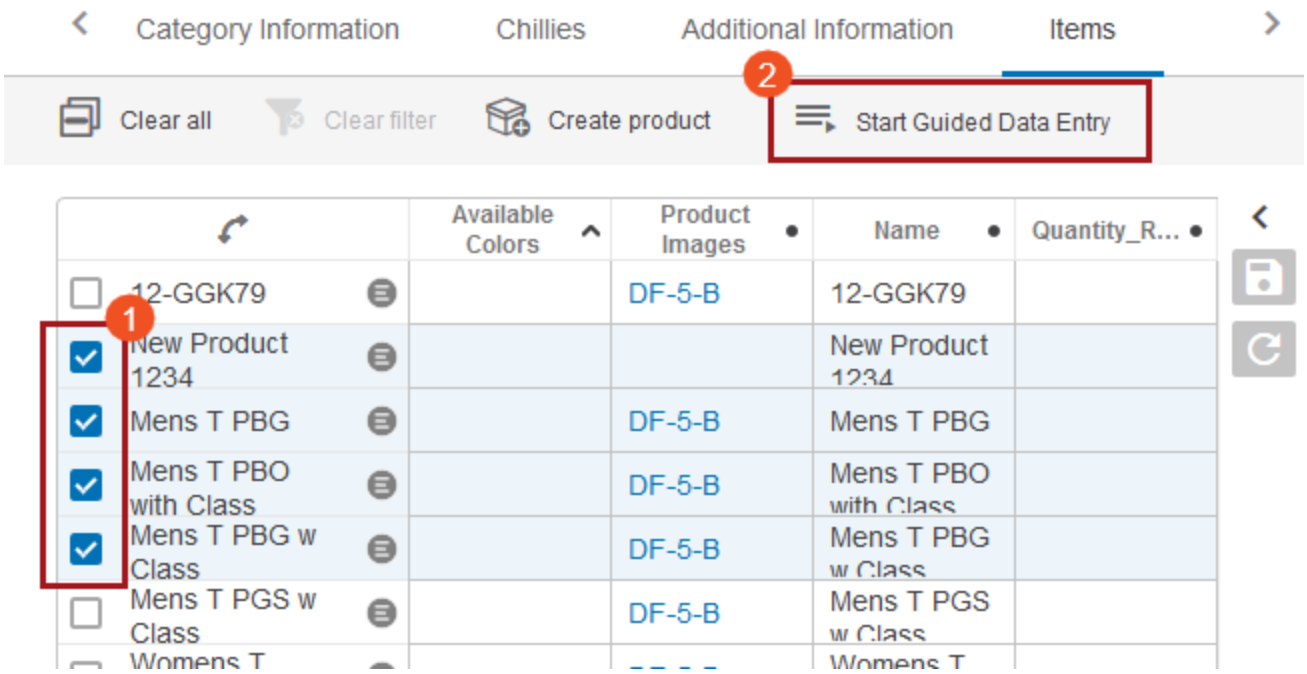


8. Save the configuration and the 'Guided Data Entry' toolbar action will be enabled on the selected node list.

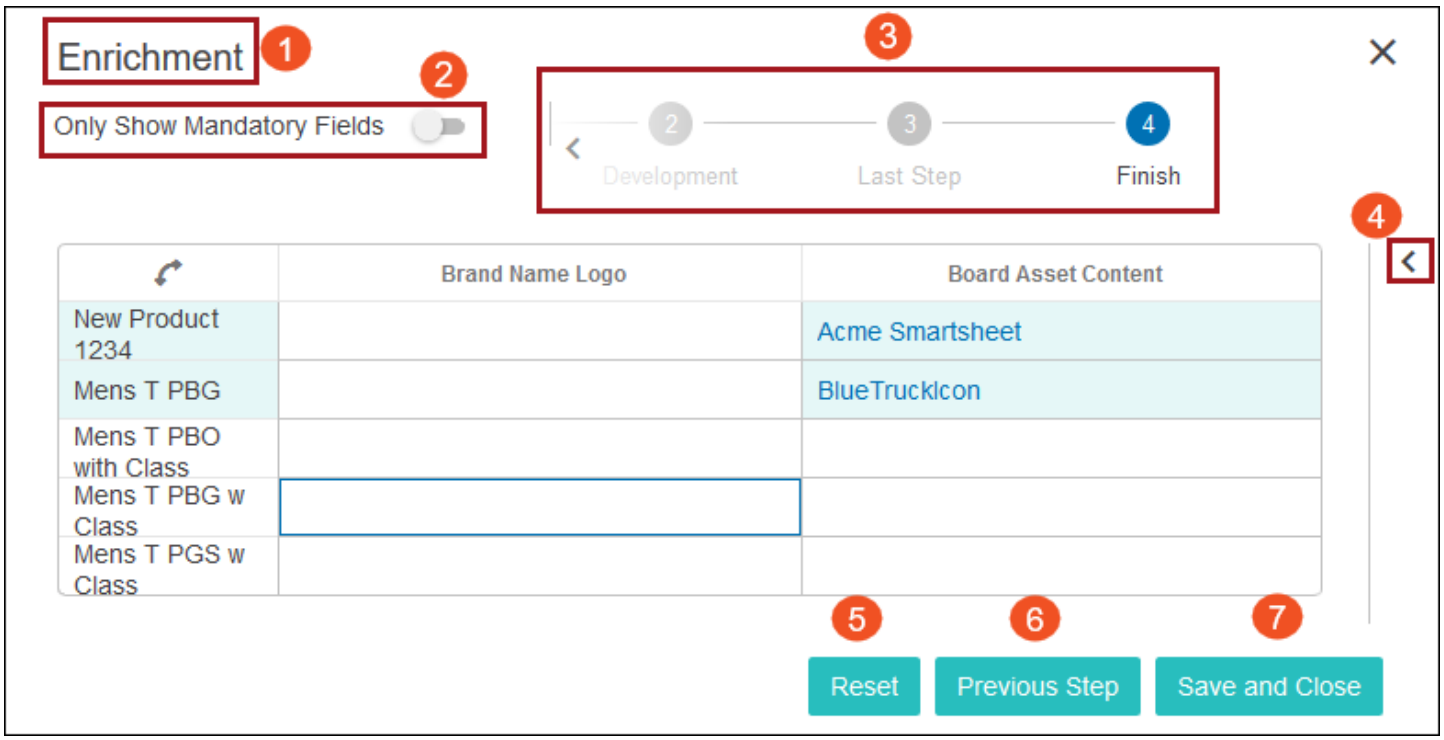
Using Guided Data Entry

To use Guided Data Entry in the Web UI, users must first have configured a screen-by-screen progression, or 'stepper' object,' in the workbench, and then added the 'Start Guided Data Entry' toolbar action in the Web UI on a Node List. Information on this can be found in the **Guided Data Entry** sections of the **Web User Interfaces** documentation.

1. On a Node List in the Web UI, select which products should be entered into Guided Data Entry. Once the desired products are selected, click the 'Start Guided Data Entry' toolbar action button. Placing the cursor over the toolbar action icon or text will bring up a tooltip that displays the name of the selected stepper object that was configured and named in the workbench. That configuration process is outlined in the **Configuring Guided Data Entry** section of the Guided Data Entry documentation.



2. The Guided Data Entry screen displays. A list of the selected products will display, as well as the attributes or reference types configured to display on the first step of Guided Data Entry. The various elements that make up the Guided Data Entry screen are numbered in the screenshot below. A list corresponding to those numbered items can be found below the screenshot.



1. **Title**: The name entered in the 'Title' field, found in the 'Start Guided Data Entry Properties' screen in the designer, will display.
2. **Only Show Mandatory Fields**: A switch that, when activated, will show only those attributes or reference types that have been designated as mandatory. It is set to inactive as default.
3. **Progress tracker**: The titles of all the steps that make up the 'stepper' display beneath the number of the step which displays in a circle. The number of the step will be highlighted blue when selected. Users may navigate between the steps by clicking on either the step number or step labels that display. For steppers with more steps than can be displayed all at once in a Guided Data Entry window, a left arrow and right arrow display at either end of the progress tracker which can be clicked to navigate a user to any step in the Guided Data Entry stepper.
4. **Expand Edited items arrow**: When users click this arrow, a panel expands rightward into the Guided Data Entry window and lists all objects that have been edited in the current Guided Data Entry step.
5. **Reset**: This button will revert any entered value in the current step to the last saved value. This button is only applicable to data that has been entered on a given step. Clicking this button will not reset all entered data on all steps of the Guided Data Entry stepper.
6. **Previous Step**: This button will navigate the user to the previous step in the Guided Data Entry window. It is inactive on the first step of Guided Data Entry. Clicking the 'Previous Step' button will move the user backward one step in the Guided Data Entry stepper, and will not cause any newly entered data to be removed.
7. **Next Step / Save and Close**: On any step that is not the final step, a button labeled 'Next Step' will display. Clicking the 'Next Step' button will move the user forward one step in the Guided Data Entry stepper, and will not cause any newly entered data to be removed. If users have added any data to any step in Guided Data Entry, on the final step the button in the lower right-

hand corner of the Guided Data Entry window will be labeled 'Save and Close.' Clicking this button is the only way to ensure that data added into the Guided Data Entry window is saved. If no data has been added to the Guided Data Entry stepper, this button will be labeled only 'Close.' As stated previously, users may safely navigate between the steps in Guided Data Entry without losing unsaved entries, but users should not exit Guided Data Entry without first navigating to the final screen and clicking the 'Save and Close' button.

Handling Duplicated Attributes in Web UI

It is common for attributes to be linked to multiple attribute groups within STEP. This can lead to redundancy and confusion as attributes may appear multiple times on a Web UI screen when configured to display attribute groups that contain overlapping attributes. To manage this, you can indicate groups of attributes that should not be displayed within the Web UI.

Even if duplication is not an issue, a single attribute group or multiple groups may contain sensitive information that should be hidden from view on the Web UI screen. A blacklisted attribute group can be used to hide this sensitive information.

To illustrate this functionality, consider attribute groups X, Y, and Blacklist. The 3 groups contain a variety of attributes, but each includes Attribute A.

If adding the Group Blacklist to the BlacklistedAttributeGroup for Group Y but not for Group X, then Attribute A will display with Group X attributes on the screen, while being omitted from Group Y attributes. This will eliminate duplicates being shown when displaying both groups on the screen.

When Group Blacklist is added as the BlacklistedAttributeGroup for both Group X and Group Y, then neither group will show Attribute A. Alternatively, if nothing is chosen as a BlacklistedAttributeGroup for either Group X or Group Y, then both groups will show Attribute A.

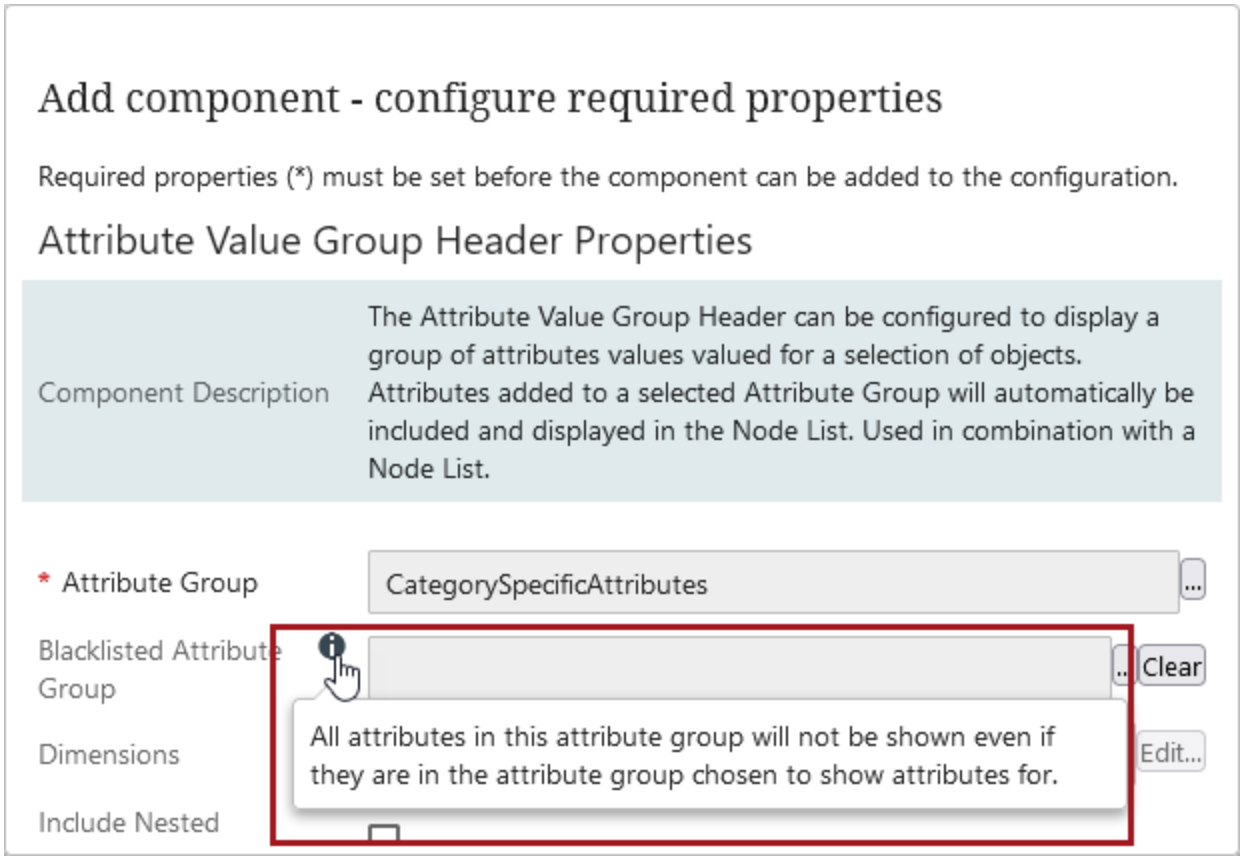
Create Attribute Group(s) to Hold Attributes Known to Exist in Multiples Groups

In the STEP Workbench, one or more attribute group(s) should be created to specifically hold attributes that should not be displayed within the Web UI.

More information about attributes and creating attribute groups is found under System Setup in STEP Help.

Setting up Blacklisted Attribute Groups in Web UI

Within the Web UI designer, the ValueGroup and ValueGroupHeader components have a BlacklistedAttributeGroup field which can be populated with an attribute group. This attribute group holds attributes that should not be displayed within the Web UI. Any attributes in the blacklisted attribute group will not appear on the screen. This feature can be used when displaying multiple attribute groups on the screen or even when using a single group.



Selecting a blacklisted attribute group in ValueGroup or ValueGroupHeader has no impact on other attribute groups shown on a screen and within Web UI. Each component operates independently of each other.

Important: To avoid confusion, it is recommended that any attribute groups created specifically to group blacklisted attributes are named accordingly.

Homepage Widgets

A grid of widgets displays useful information on the Web UI Homepage, where users are directed after logging in. The Widget Grid displays a customizable overview of typical tasks or information a user needs to more easily work in STEP. Widgets are a quick way to get an overview of a user's tasks and an easy way to access often-used actions.

Below is a list of some of the most commonly used widgets.

Prerequisites

It is expected that anyone configuring a Homepage widget is familiar with Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

Details on how to add a widget grid and widgets to the homepage can be found in the **Adding Widgets to a Homepage** topic in this guide.

Analytics Widget

STEP supports integration with data analytics tools like Tableau Server and Qlik Server in the Web UI. Data analytics dashboards can be displayed in the Web UI in either a homepage widget or in a screen.

For more information on the Analytics Widget, refer to the **Visual Integration with External Analytics Tools** section of the **Analytics** documentation.

Asset Importer Widget

The Asset Importer Widget allows users to import assets via an asset import configuration. Multiple asset importer configurations can be mapped to the same widget. The widget can also be set up to not specify a configuration at all, allowing users to choose from a full list of all configurations available in the system upon initiating an import.

For more information on the Asset Importer Widget, refer to the **Asset Importer Widget** topic within this guide.

File Loading Widget

The File Loading Widget allows users to select, or drag and drop, one or more files from their local machine for asynchronous transfer into a STEP hotfolder. More than one file loading widget can be added to a Web UI homepage, and more than one IIEP can be configured within each File Loading Widget. Depending on how the IIEP is configured, users can transfer either zipped files less than 50GB or standard files less than 600MB.

For more information on the File Loading Widget, refer to the **File Loading Widget** section of this guide.

HTML Asset Widget

The HTML Asset Widget is a versatile component that will load an asset from STEP assuming that it contains an HTML document and insert it within the widget. This can be used to display a rich message that can be updated by replacing the asset content from the STEP Workbench.

Impersonate User Widget

In support situations it is often relevant to be able to view exactly what the user experiencing the issue is observing, including data and error messages. Web UI user impersonation enables a privileged user to act as another user, but using their own password so that the impersonated user's password is not revealed. When impersonating someone, all privileges, views, and access are exactly matched to the user being impersonated.

For more information regarding setup, refer to the **Web UI User Impersonation Setup** topic in the **System Setup** documentation. For information regarding how to user impersonation, refer to the **User Impersonation** topic in the **Web User Interfaces** documentation.

KPI Widget

The KPI Widget can be configured with a range different data profiling content. The dashboard widgets available in the Web UI can all be configured as content in the KPI Widget.

For more information on what data profile widgets are available, refer to the **Data Profile Widgets in Web UI** section of this guide.

Links Widget

The Links Widget can be configured with a list of links to Web UI screens (e.g., upload screen, Import Smartsheet dialog, or processes screen), a node in STEP (product, asset, classification, entity, or publication) or to an external URL outside the Web UI. In addition, small sections of text can be placed in the list by adding a StaticText or StaticHtml component. The text components can be used to write descriptive text for the links. For more information on setting up a Links Widget, refer to the **Links Widget** section of this guide.

Mass Creation Widget

Once configured, the Mass Creation Widget enables users to start the process of creating new objects in Web UI. This widget is used in conjunction with the Mass Creation screen type, which allows users to on board multiple objects into STEP using Web UI screens instead of more complex import methods such as Smartsheets.

For more information, refer to the **Mass Creation Widget** section of this guide.

Policy Widget

The Policy Widget, when used in conjunction with a Customer MDM system and configured Data Policies, shows all the currently breached policies.

For more information, refer to the **Policy Widget** section of this guide.

Power BI Web UI Widget

The Power BI Web UI Widget is used with the Power BI Analytics solution. The Power BI Widget is used to provide high-level summary information of Power BI analytics information made available to users as widgets on the Web UI homepage. Most commonly, Power BI dashboard tiles are embedded into widgets, though Power BI reports can also be embedded into Power BI widgets.

For more information, refer to the **Power BI Web UI Widget** topic in the Power BI section of the Analytics documentation.

Search Widget

The Search Widget allows for a quick (and configurable) search of objects in the STEP system. The Search Widget can be configured to search widely through STEP, or it can be configured to search only a narrow segment of STEP (i.e., Data Containers, Golden Record IDs, and Source Record IDs), depending on the needs of the user.

For more information, refer to the **Search Widget** topic within this guide.

Simple Importer Widget

A Simple Importer Widget allows Web UI users of all skill levels to reliably initiate an import on demand from the Web UI Homepage. Administrators have many options to allow their users to easily and accurately create and/or update products, entities, classifications; and their attribute values, reference types, and object type by dragging and dropping a CSV or Excel valid import file onto the respective Web UI Homepage widget. If desired, a Simple Importer Widget can also provide more advanced on demand import functionality when configured to utilize saved import configurations.

For more information, refer to the **Simple Importer Widget** topic within this guide.

Smartsheet Export Widget

The Smartsheet Export Widget allows users to easily download Smartsheets. Depending on how the chosen template is configured, this can be used for both data and template exports.

For more information, refer to the **Smartsheet Export Widget** topic within this guide.

Status Selector Homepage Widget

The Status Selector Homepage Widget allows a user to view tasks associated with the states of a particular workflow. If desired, the widget can also be configured to allow users to initiate objects into a workflow. Similar functionality is available on the Status Selector child component in the Global Navigation Panel in --[MAIN]--.

For more information, refer to the **Status Selector Homepage Widget** topic within this guide.

Text Widget

The Text Widget allows for the display of text on the Web UI Homepage. Since all users are directed to the Homepage after login, the Text Widget is a great way to display a custom welcome message and/or instructions to users regarding next steps after logging in.

For more information, refer to the **Text Widget** section of this guide.

Translation Status Widget

The Translation Status Widget is used for showing translation jobs. This widget displays the number of jobs that are in certain states for a selected Asynchronous Configuration. It is possible to navigate to a screen showing detailed information about each displayed state's job nodes.

For more information, refer to the **Translation Status Widget Configuration** topic in the **Asynchronous Translation** documentation.

User Widget

The User Widget shows the username of the currently logged in user, and has a logout button to let the user safely log out of the Web UI.

Video Asset Widget

This widget is used to display the video content of an Asset in STEP. The assets configured in the widget has to be a video file. If it is a document or an image it will not appear in the widget.

Workflow Historical Line Dashboard

The Workflow Historical Line Dashboard widget displays historical data of the specified Workflow Profile as a line chart. This data must be generated on-demand via the Workflow Profile itself (in either STEP Workbench or Web UI).

For more information on the Workflow Historical Line Dashboard widget, refer to the **Workflow Historical Line Dashboard** topic within this guide.

Workflow Profile Chart Dashboard

The Workflow Profile Chart Dashboard widget displays live data of the specified Workflow Profile as a pie or bar chart.

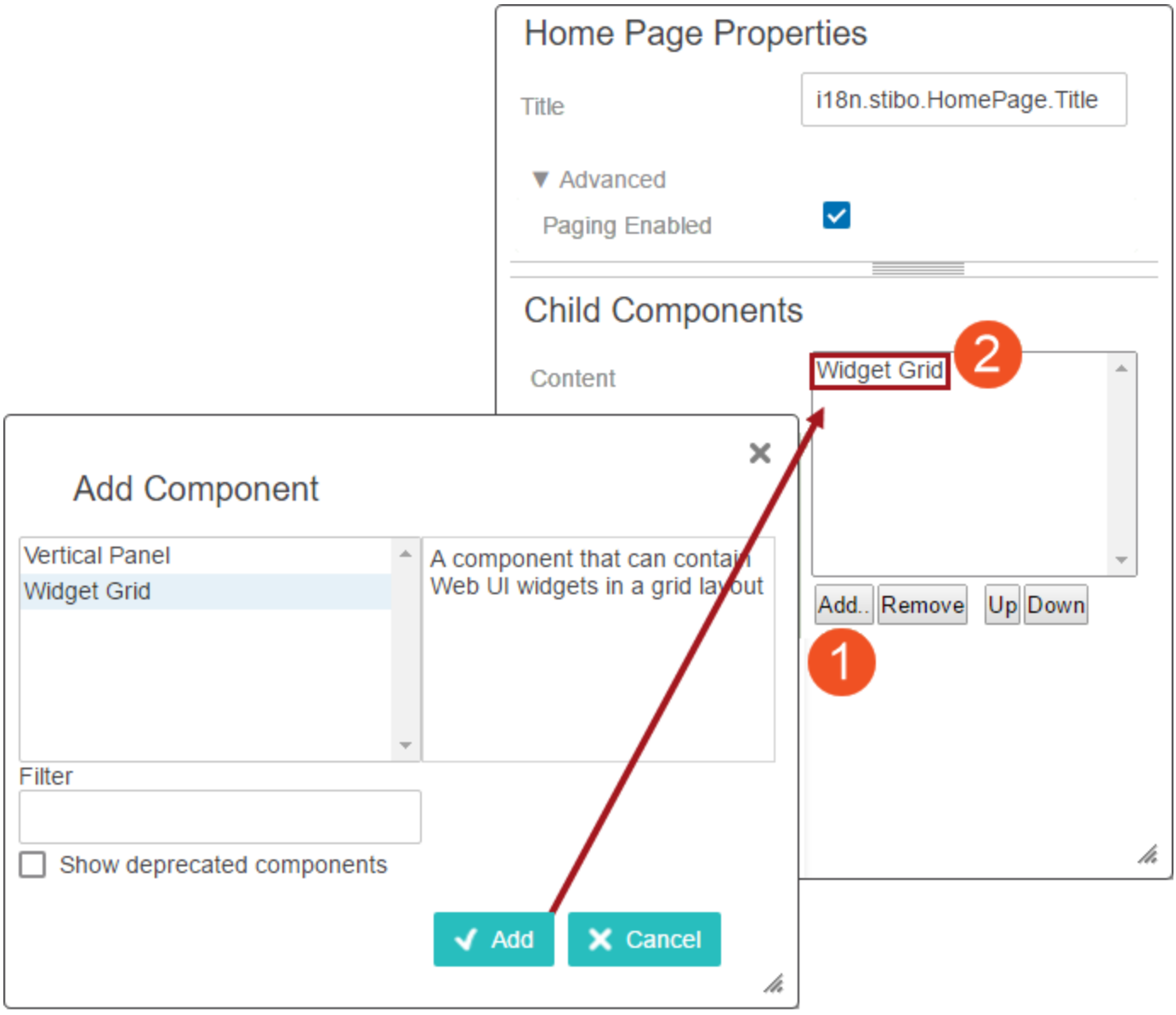
For more information on the Workflow Profile Chart Dashboard widget, refer to the **Workflow Profile Chart Dashboard** topic within this guide.

Adding Widgets to a Homepage

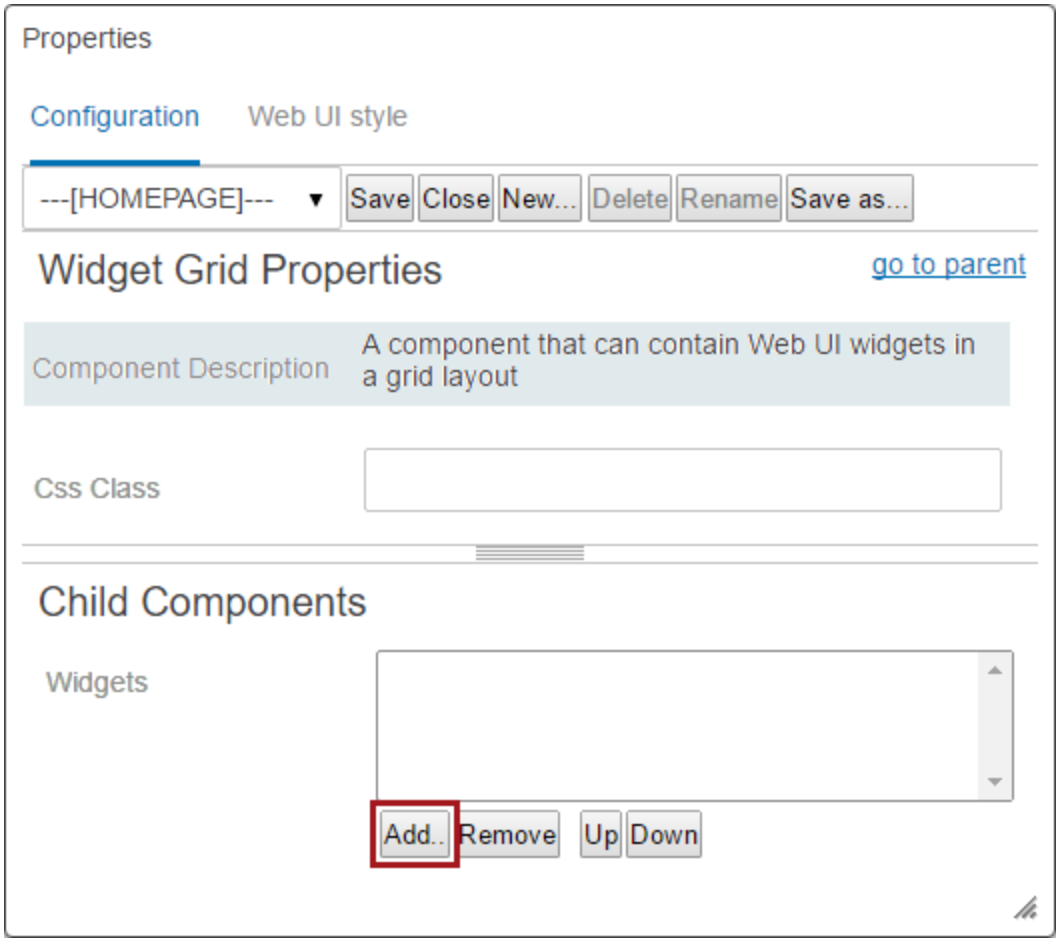
Any number of widgets can be added to a Widget Grid. Web UI designers should add all widgets to a single Widget Grid component.

To add a widget grid and widgets to the Homepage:

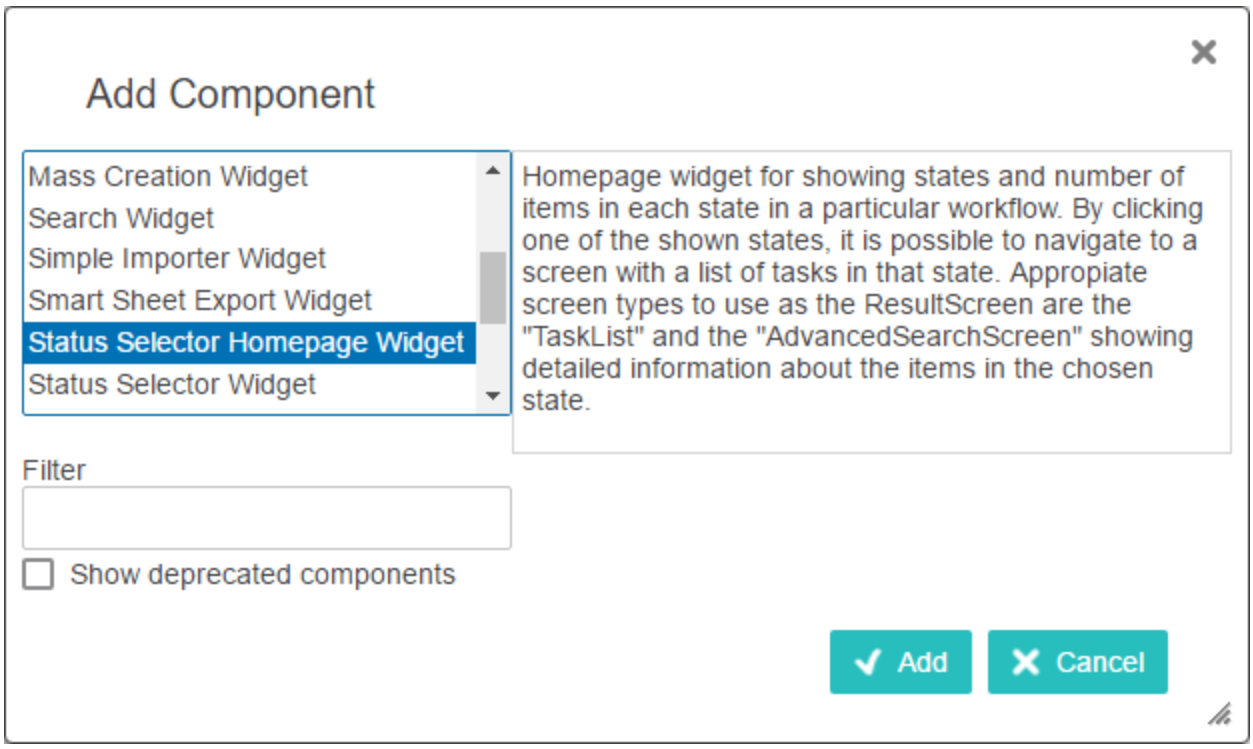
1. Enter Web UI design mode.
2. On the Home Page Properties, in the **Child Component** section on the to **Content** parameter, edit an existing **Widget Grid**.



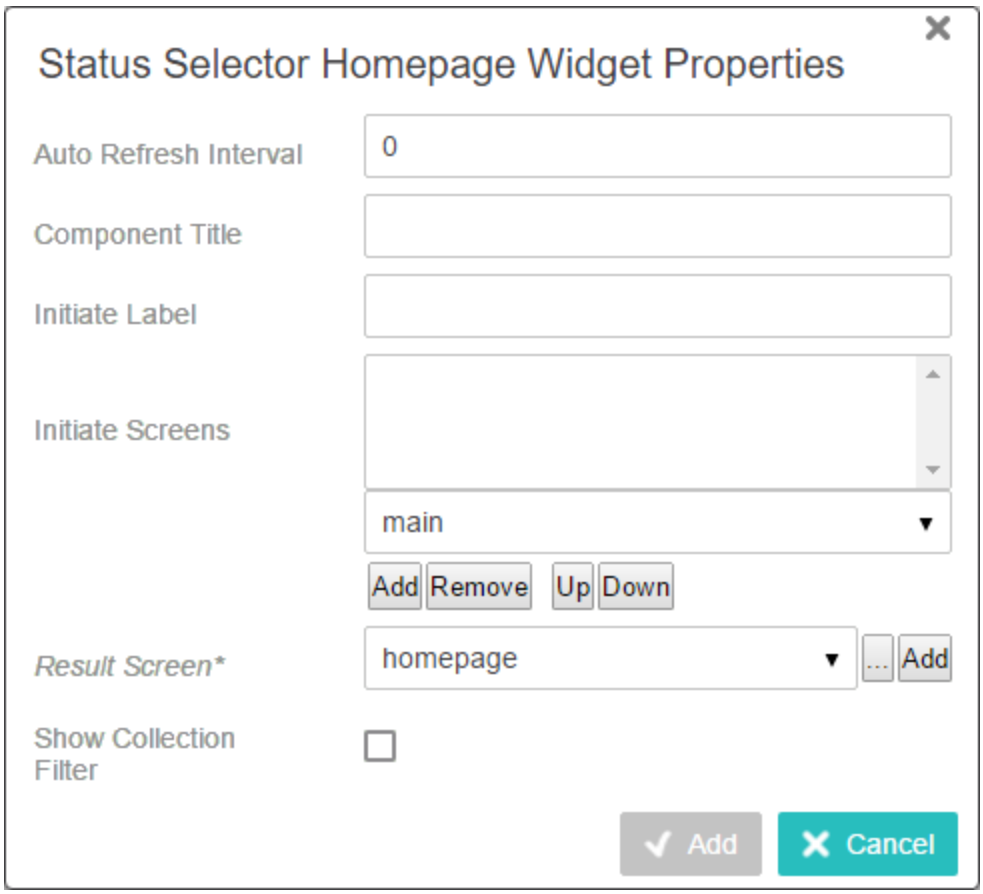
3. Double click on the **Widget Grid** to display its properties.
4. Select **Add** in the Widgets Child Component section to display the Add Component dialog.



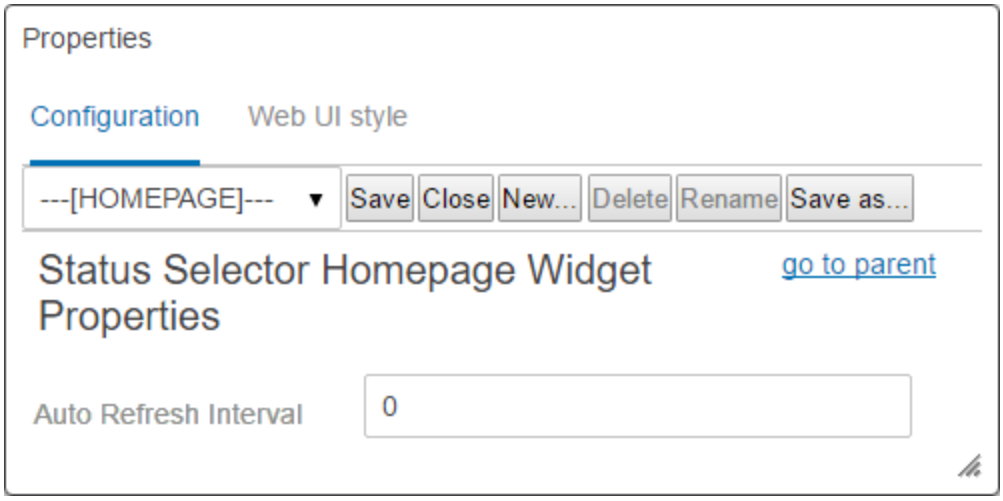
5. Choose the widget. In the example, **Status Selector Homepage Widget** is selected. Click **Add** to close the dialog and return to the Widget Grid Properties.



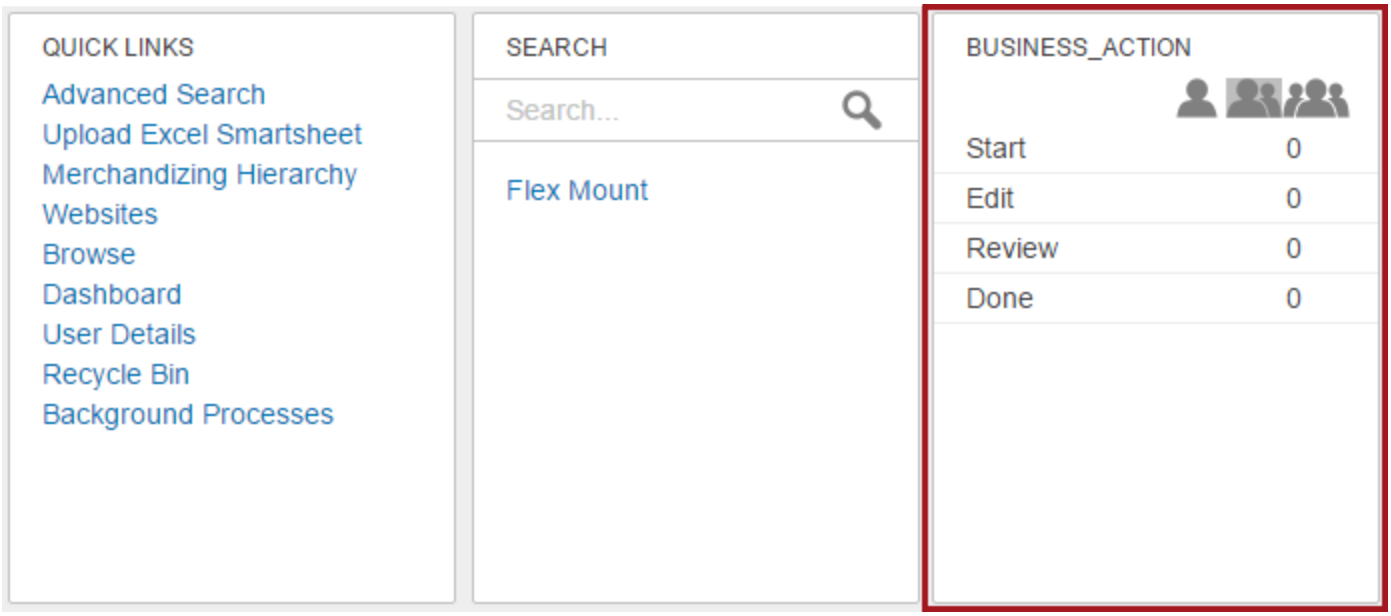
6. Configure the Widget Properties based on the parameters shown. Each widget has a different set of properties. Refer to the documentation specific to each widget for additional information.



7. When the configuration is complete, select **Save** and **Close** the designer.



8. The widget appears on the Homepage.


QUICK LINKS
Advanced Search
Upload Excel Smartsheet
Merchandizing Hierarchy
Websites
Browse
Dashboard
User Details
Recycle Bin
Background Processes
SEARCH
Search...
Flex Mount
BUSINESS_ACTION
Start 0
Edit 0
Review 0
Done 0

Asset Importer Widget

The Asset Importer Widget offers users a simple method of importing assets from the Web UI Homepage. Multiple asset importer configurations can be mapped to the same widget, which are accessed individually by dragging and dropping files into the appropriate area on the widget or by clicking on the **Select File** button for the corresponding configuration.



Before this widget can be used, ensure that the Asset Importer functionality has been enabled and that there are configurations available on the system.

For more information on enabling Asset Importer, refer to the **Asset Importer Initial Setup** section of the **Asset Importer** documentation.

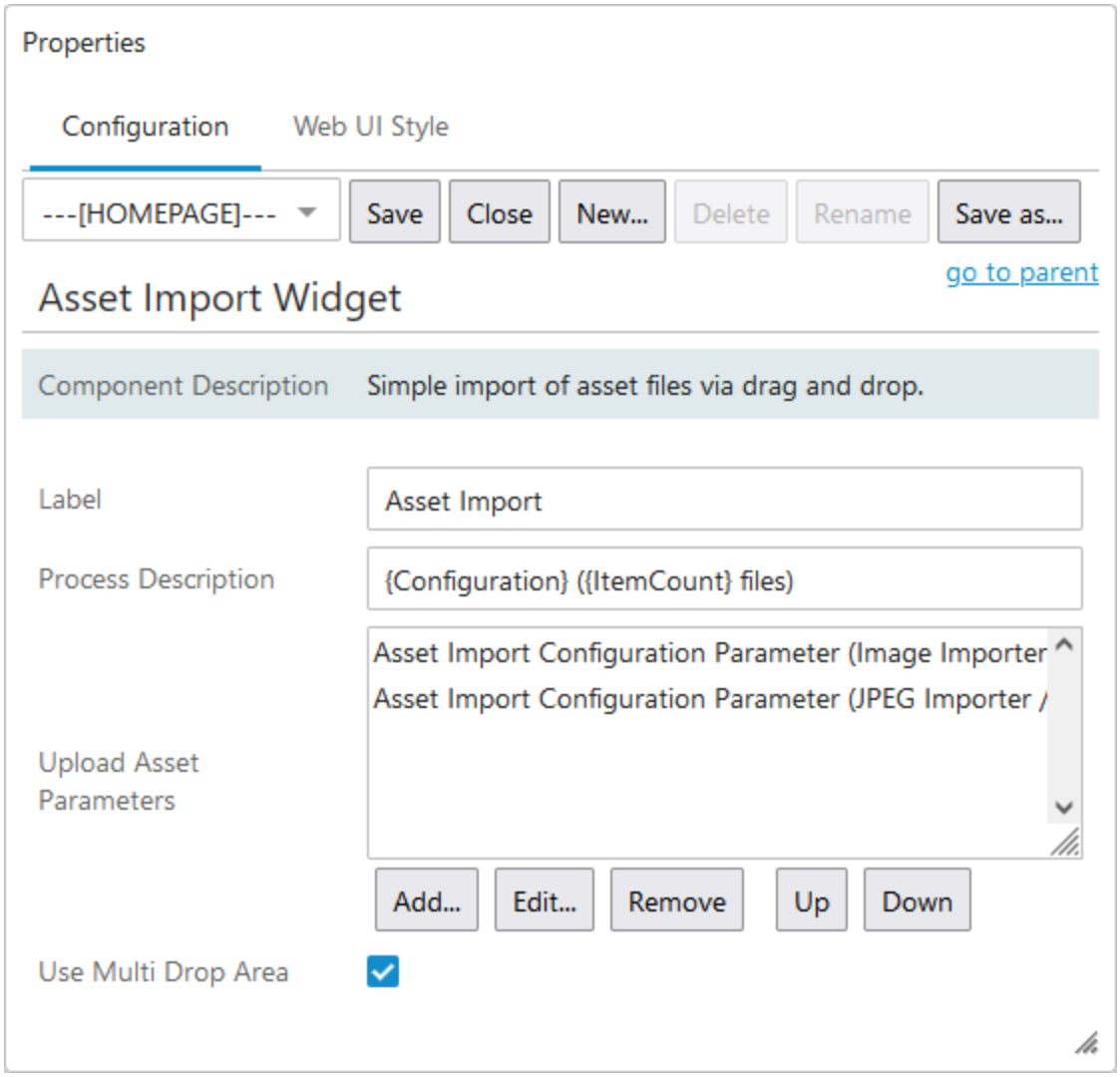
For more information on creating asset importer configurations, refer to the **Asset Importer Configuration Overview** section of the **Asset Importer** documentation.

Configuration

It is expected that anyone configuring the Asset Importer Widget is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

For information on adding a widget to the homepage, refer to **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

1. When configuring the Asset Importer Widget for the Homepage, there are four optional parameters to consider; Label, Process Description, Upload Asset Parameters, and Use Multi Drop Area.

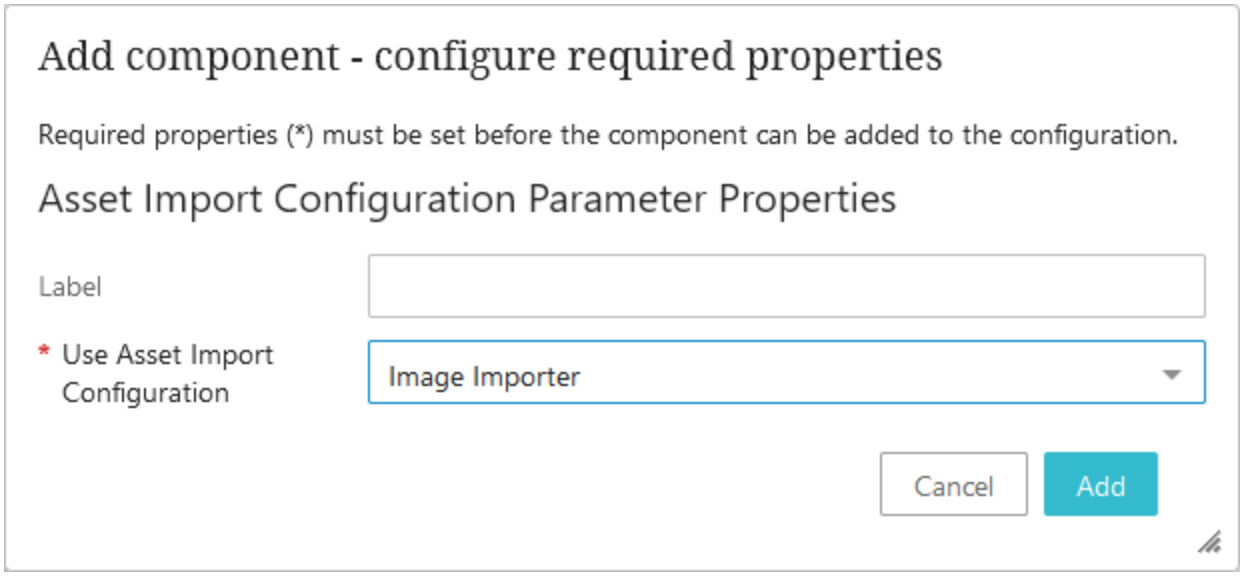


2. In the 'Label' parameter, enter a label for the widget.
3. In the 'Process Description' parameter, create a template for the background process description. The template may contain a number of place holders that are expanded when the background process is started.

   Available placeholders include:

   - **[Action]**: The name of the action.
   - **[Configuration]**: The asset importer configuration.
   - **[ItemCount]**: The number of files to import.
   - **[ImportFile]**: The name of the file(s) in a comma separated list.
4. In the 'Upload Asset Parameters' field, click **Add** (and follow the below steps) to map an asset import configuration to the widget. If no selections are made, the user will be prompted to specify which configuration to use among all those present on the system upon import.

- In the dialog that appears, enter a label for the area in which the configuration will reside.
- Select the desired Asset Configuration.
- Click **Add** when finished.



5. In the 'Use Multi Drop Area' parameter, check the box to enable multiple drop areas on the widget. Each of these drop areas represent an individual asset importer configuration that was specified in the above step. If unchecked, the widget will have one large drop area, that when used, will prompt you to select a configuration from those specified in the previous step.

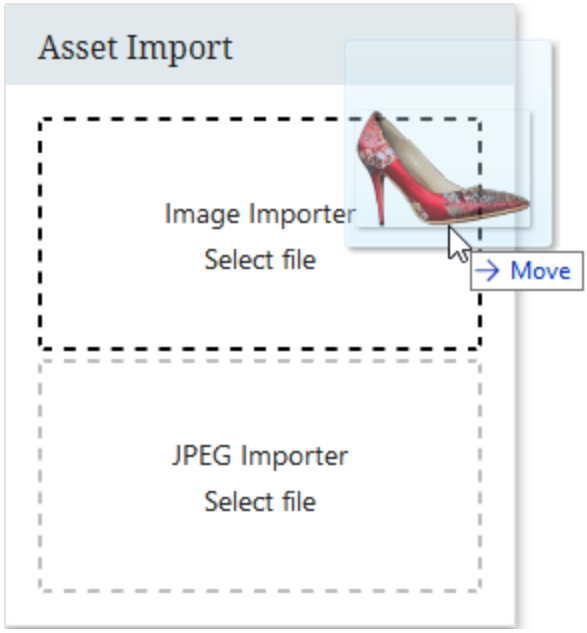
Note: It is recommended to leave the box unchecked if you want to map many different configurations to the same widget.

Importing Assets

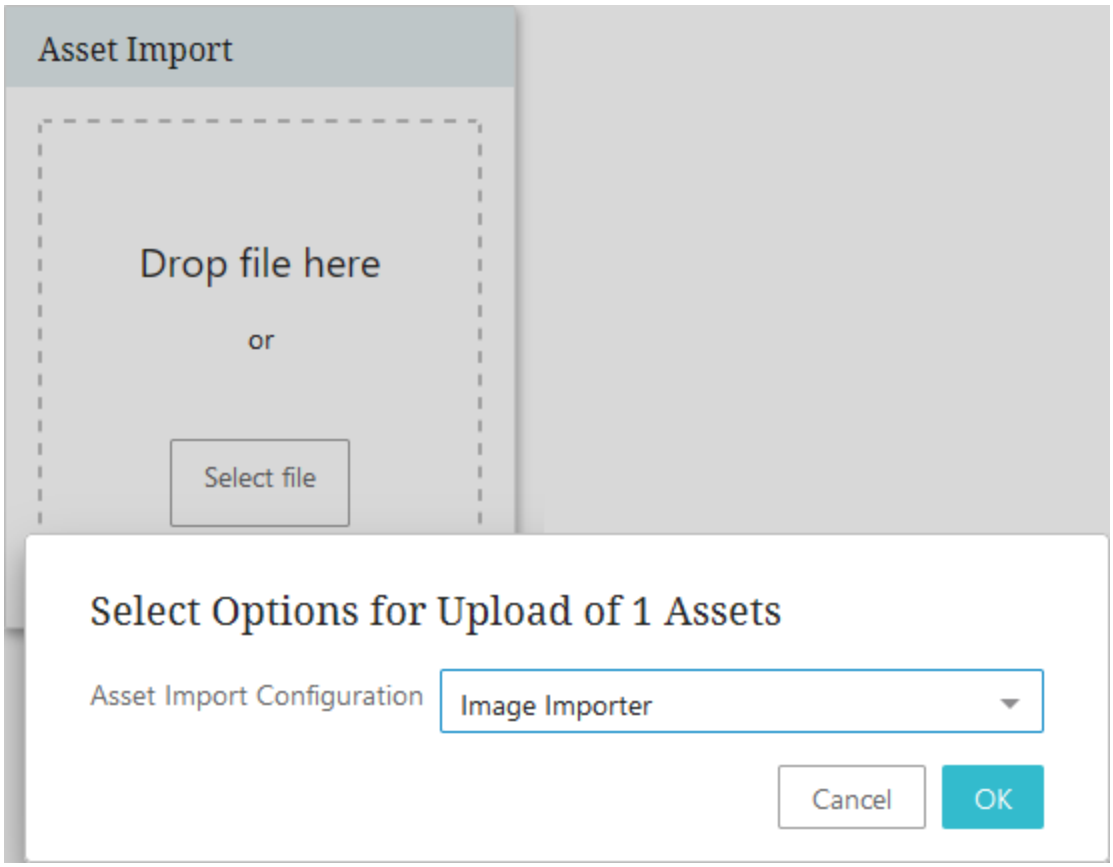
Once the widget is configured, assets can be easily uploaded by either dragging and dropping the relevant file into the widget drop area or by clicking on the **Select File** button for the corresponding configuration.

Drag and drop

Files can be dragged and dropped directly into the widget.

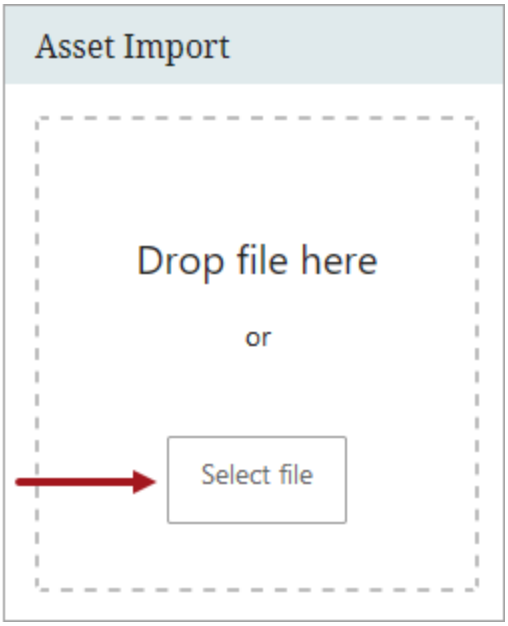


If 'Use Multi Drop Area' is not configured, the user will be prompted to select a configuration. Once a selection is made, click **OK** and the import will initiate.

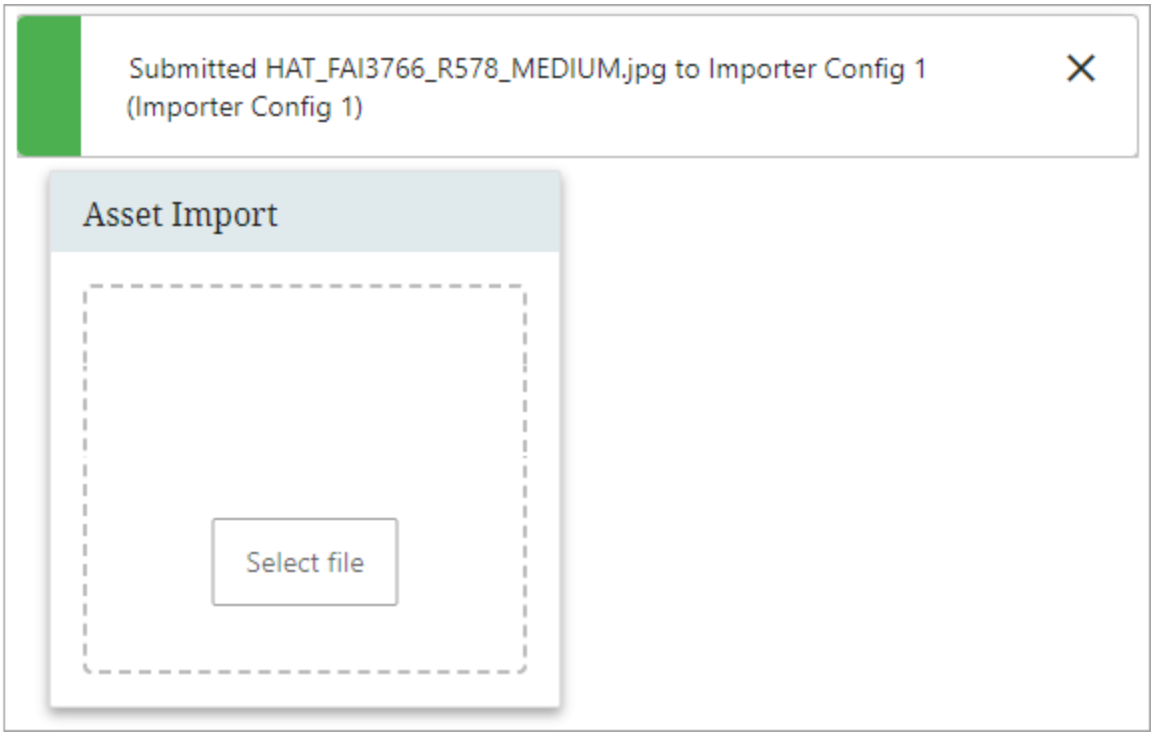


'Select file' option

In addition to drag and drop, users can click **Select file** for the corresponding importer configuration.



You are provided a notification on screen submission of the asset file.



Data Profile Widgets in Web UI

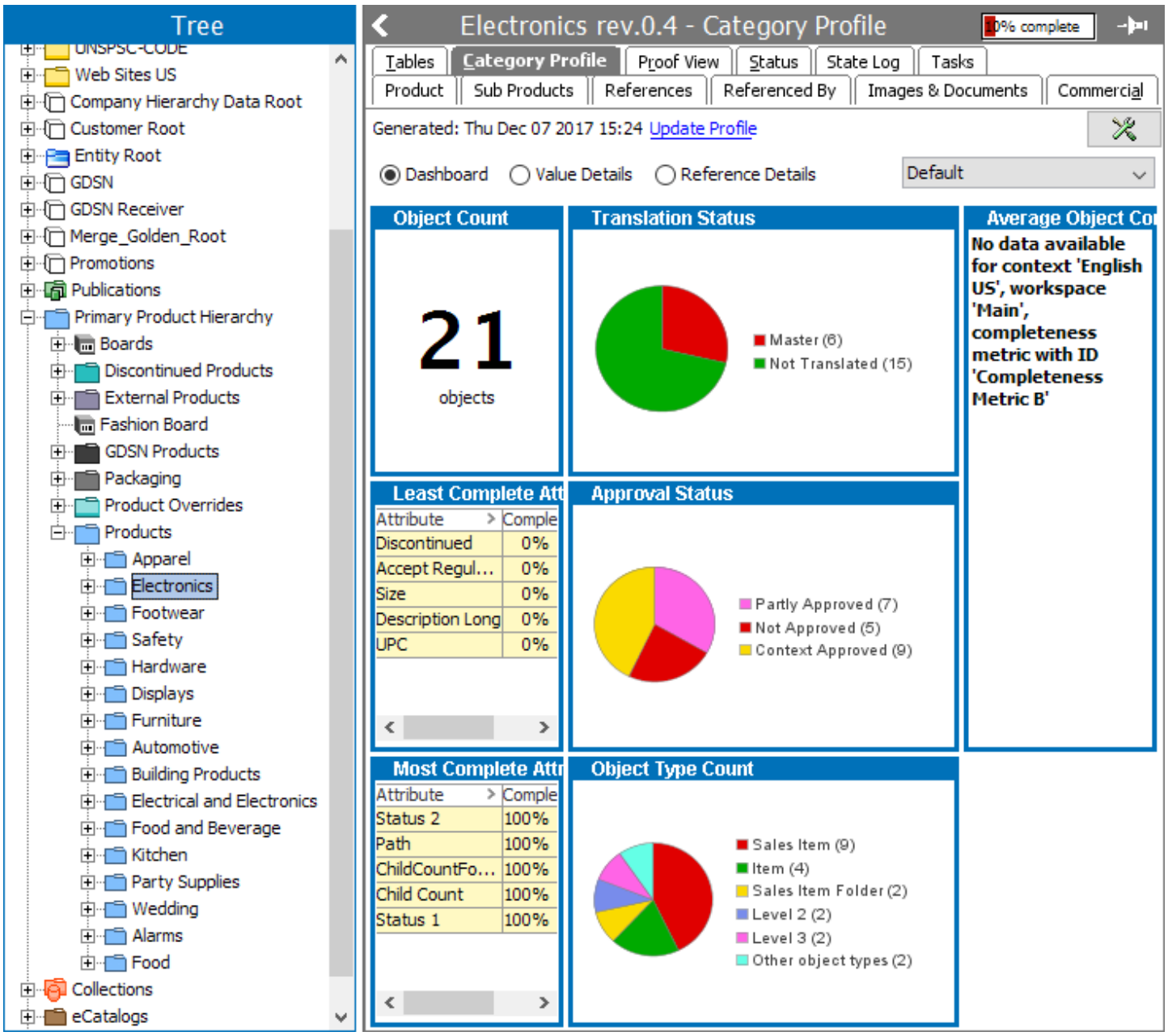
Like data profile dashboards in STEP Workbench, profiled data can also be displayed using the KPI widgets in Web UI.

To add widgets to the homepage, add the widget 'KPI Widget' to an applicable page, specify a selection (what node to display profiled data from), and choose the desired child component. To add one to a node in the hierarchy add the desired widget as a child component.

Note: Widgets added to a node in the hierarchy will pull profiled data from its child nodes automatically. When adding a widget to the homepage, however, the user must specify where to pull profiled data from via the Selection field. In either case data will only display so long as a profile has been generated for the applicable dataset.

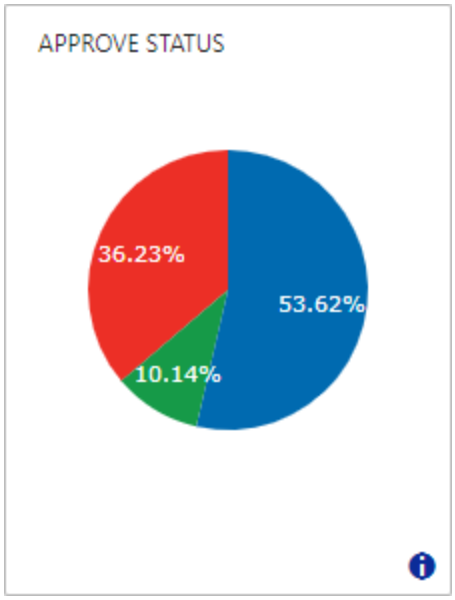
All available data profile widgets found in Web UI are detailed below.

Important: The profile has to be Generated / Updated for the selected STEP object hierarchy configured in the Data Profile widgets for the graphical representation to be visible on the Data Profile widgets. At times all the configuration will be correct, if the ability to view anything in the widget is lacking, then the user has to Generate the Profile (if it's for the first time), or update the profile if already generated. Refer to image below for reference.

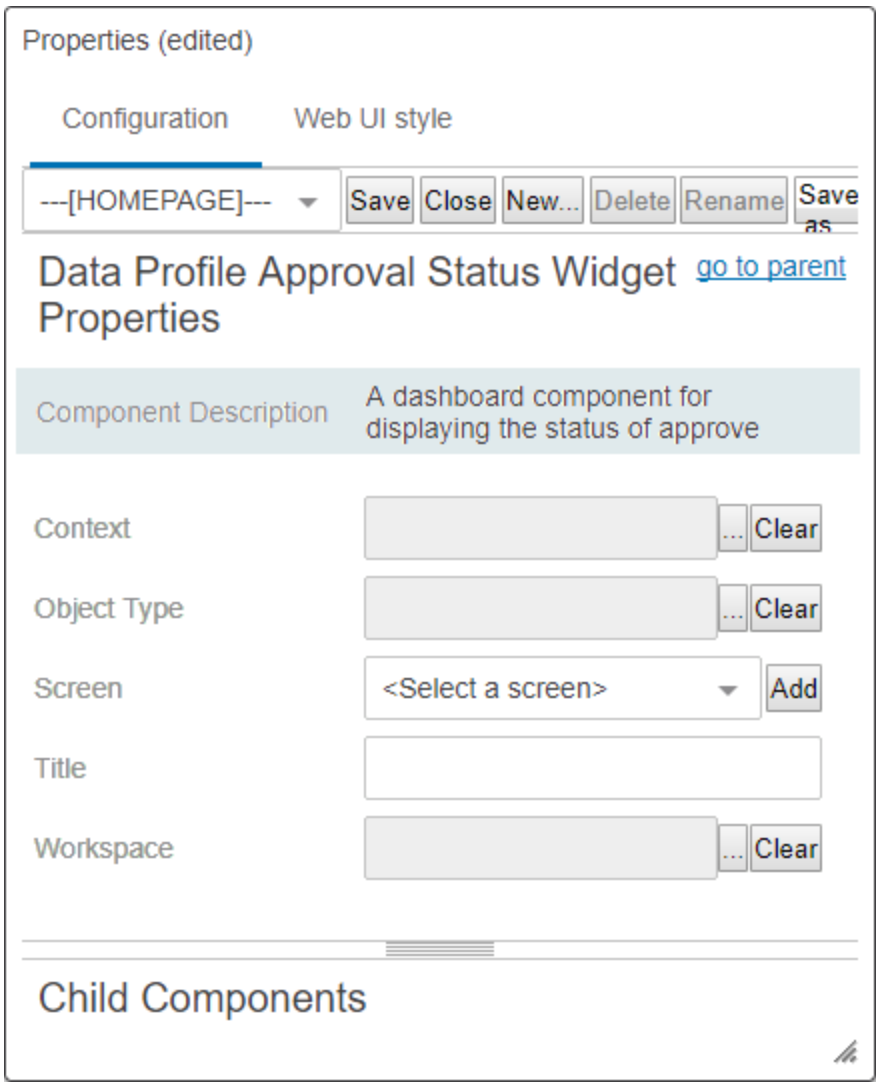


Approve Status

This widget displays the approval status of objects in the data profile.



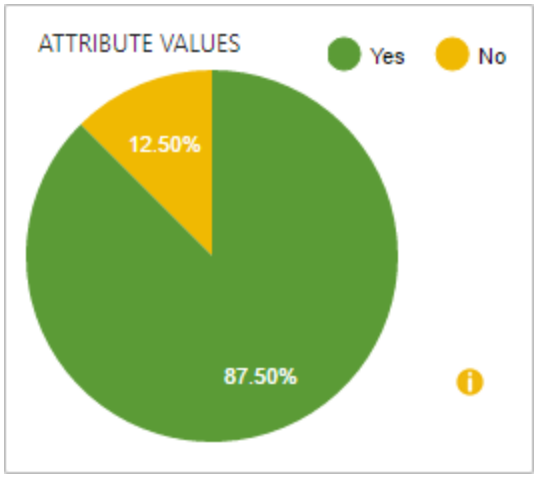
Configuration options include:



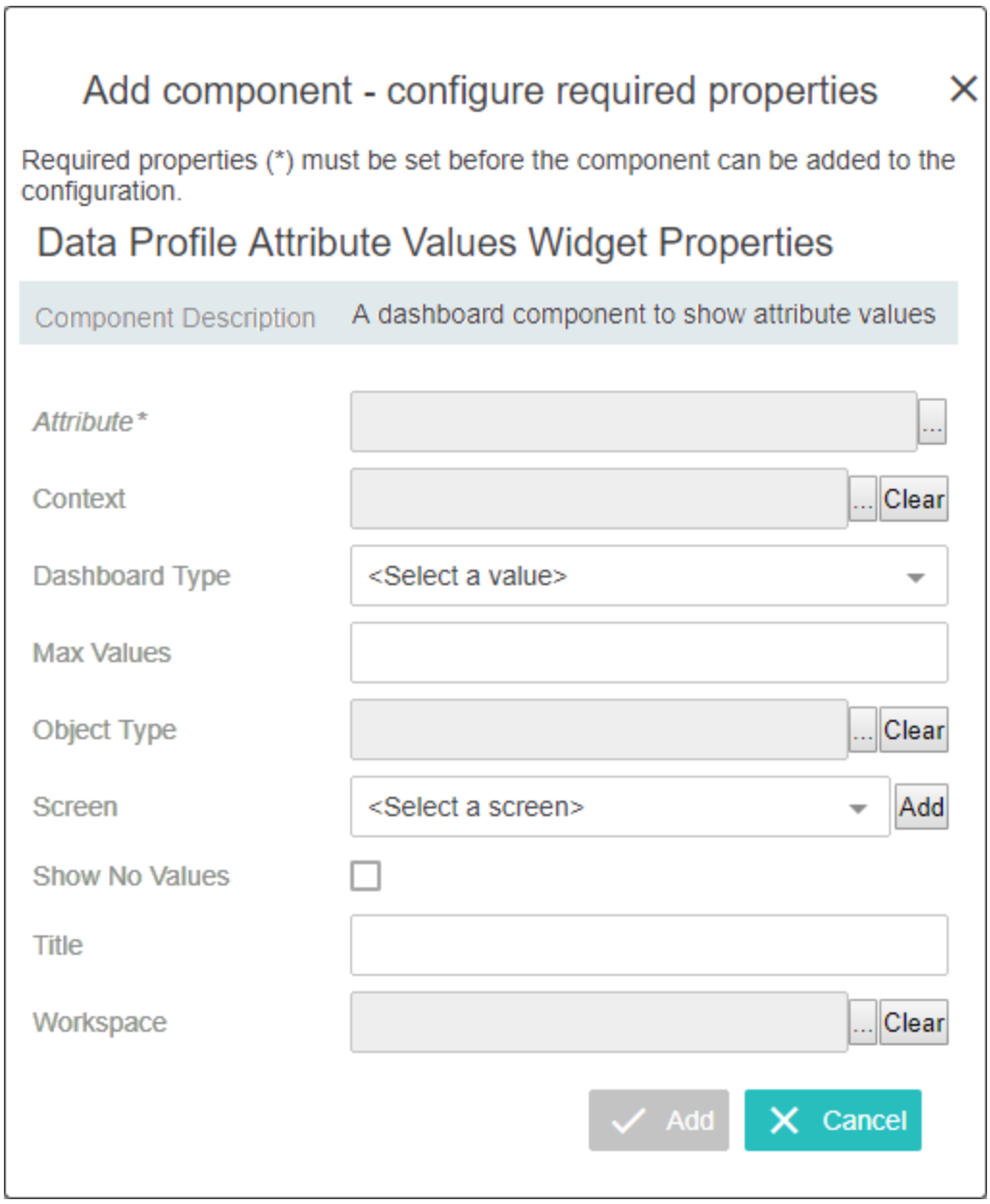
- **Context** - Pulls data from the specified context.
- **Object Type** - Filters data via object type.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Attribute Values

This widget shows the distribution of values for the specified attribute across objects in the data profile.



Configuration options include:



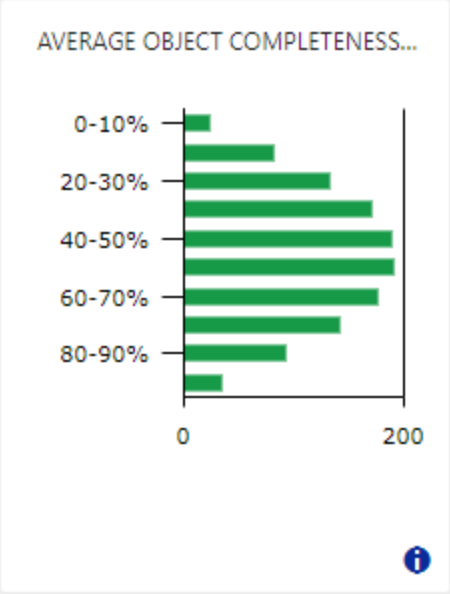
- **Attribute** - Specifies which attribute to pull values from. Defining this configuration is mandatory.
- **Context** - Pulls data from the specified context.
- **Dashboard Type** - Determines whether to display the data as a pie chart or bar chart.
- **Max Values** - Specifies the maximum number of distinct values to display. By default this field is set to -1, which means 'all values'. If the specified maximum is exceeded, the remaining (smaller) values will be placed in the "Other values" group.
- **Object Type** - Filters data via object type.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.

- **Show No Values** -Displays the number of objects that have no value for the specified attribute when the box is checked.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

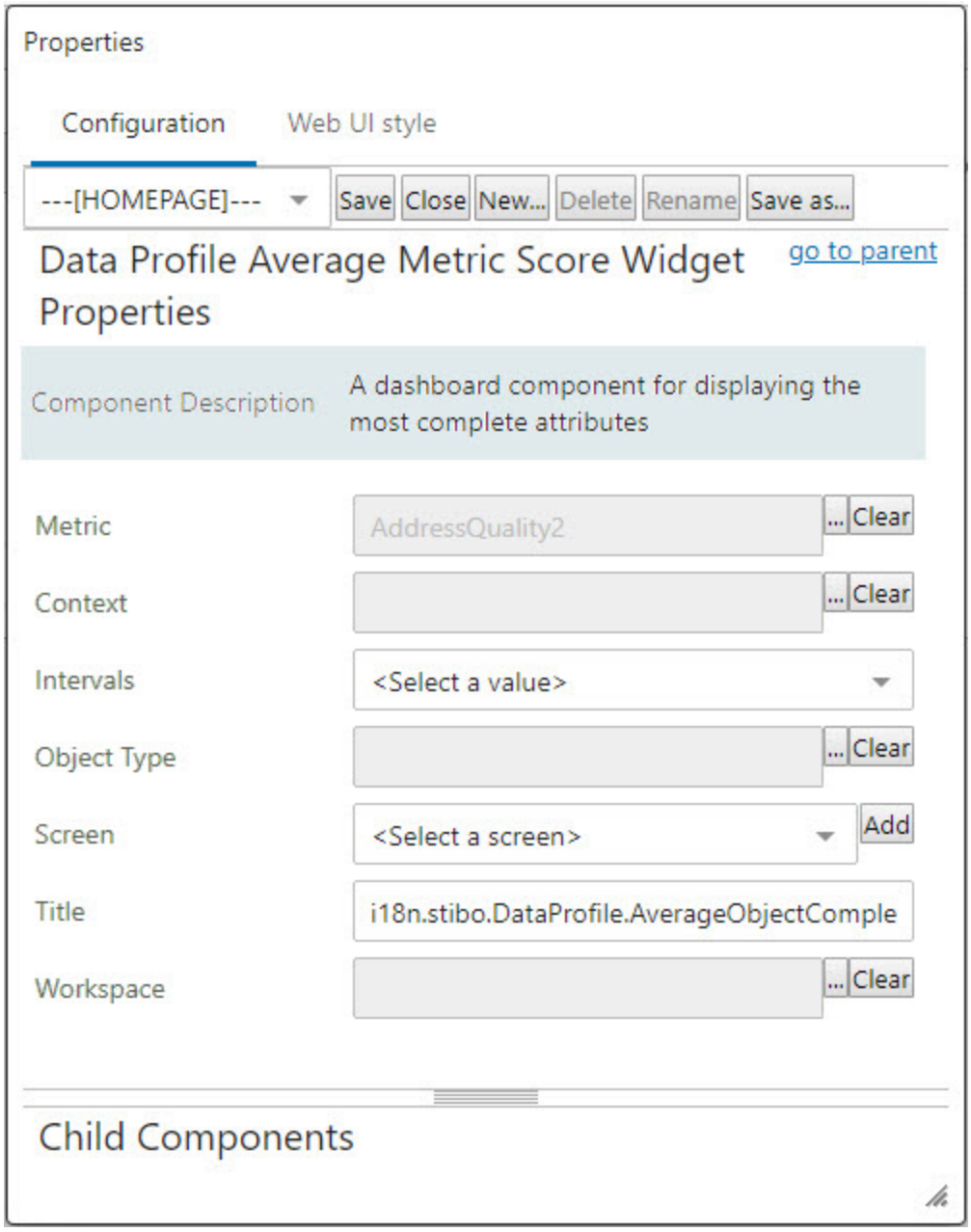
Important: Any attribute that is full text indexed, multi-valued, calculated, or has values with inline references is not compatible with this widget.

Average Metric Score

This widget displays the results of a specific metric applied to the data profile.



Configuration options include:



- **Metric** - Determines which metric to evaluate the data with. Note that the metric must be specified in the Profile Configuration and data must have been profiled using that configuration before the widget can show any data. For more information, refer to the **Profile Configuration** section of the **Data Profiling** documentation.
- **Context** - Pulls data from the specified context.
- **Intervals** - Displays the bars of the graph in intervals of 2, 4, 5, 10, or 20.
- **Object Type** - Filters data via object type.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search

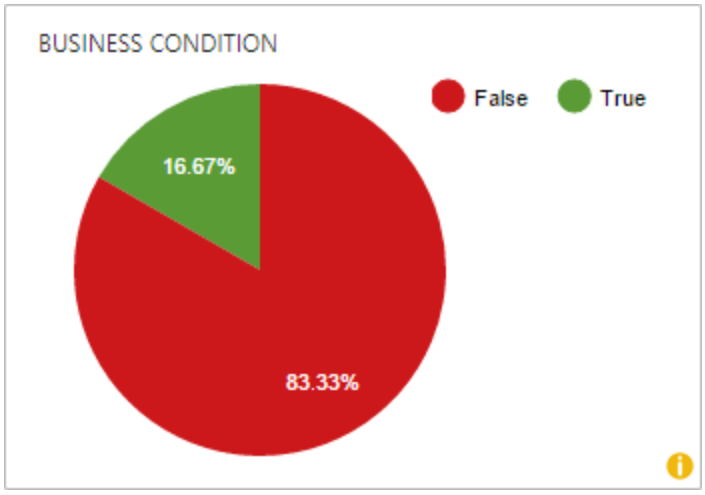
screen.

- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

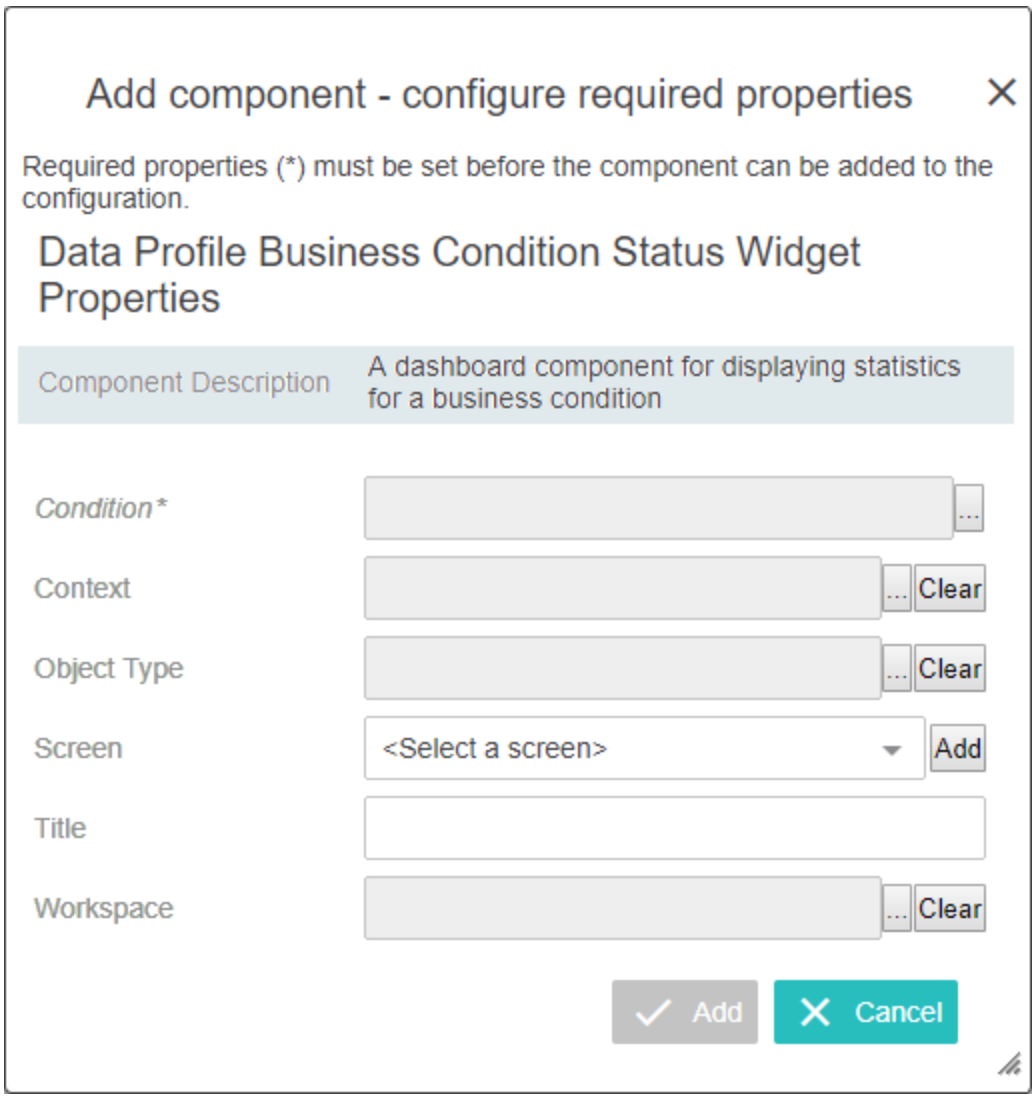
Condition Status

This widget displays the result of testing a business condition during profiling.

Note: If the test of the business condition results in an error, the test is reported as failed.



Configuration options include:



- **Condition** - Determines which business condition to test when profiling. Note that the condition must be specified in the Profile Configuration and data must have been profiled using that configuration before the widget can show any data. For more information, refer to the **Profile Configuration** section of the **Data Profiling** documentation.
- **Context** - Pulls data from the specified context.
- **Object Type** - Filters data via object type.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Least Complete Attributes

This widget displays the five least complete attributes in the data profile. Completeness is rounded to the nearest whole percentage and attributes with the same completeness are presented in the order in which they are retrieved from the database. Inherited values are included in the calculation.

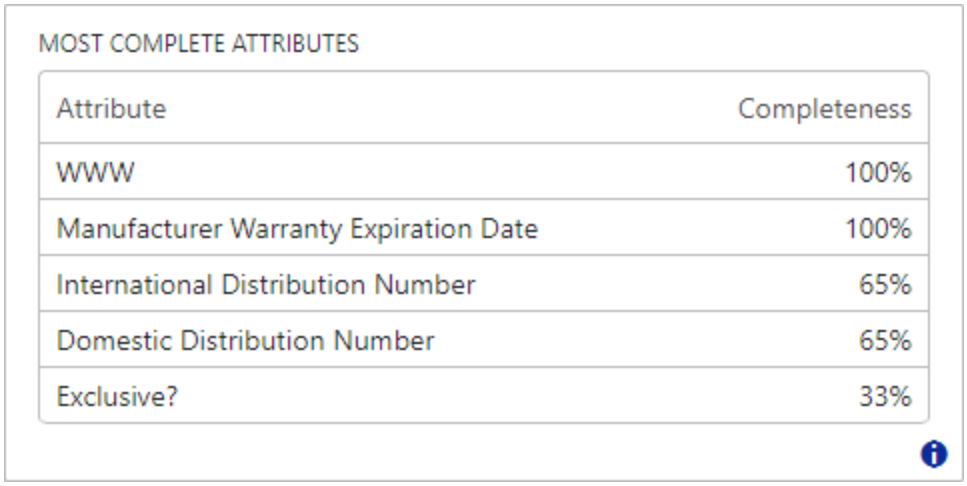


Configuration options include:

- **Context** - Pulls data from the specified context.
- **Object Type** - Filters data via object type.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Most Complete Attributes

This widget lists the five most complete attributes in the data profile. Completeness is rounded to the nearest whole percentage and attributes with the same completeness are presented in the order in which they are retrieved from the database. Inherited values are included in the calculation.



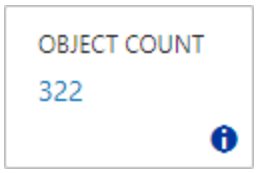
Configuration options include:

- **Context** - Pulls data from the specified context.
- **Object Type** - Filters data via object type.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Object Count

This widget displays the number of objects in the data profile.

Note: If any objects being profiled are linked multiple times in the sub-tree, they are also counted multiple times. This only applies to sub-trees under classifications and entities, as products can only link to other products once in a parent / child relationship.



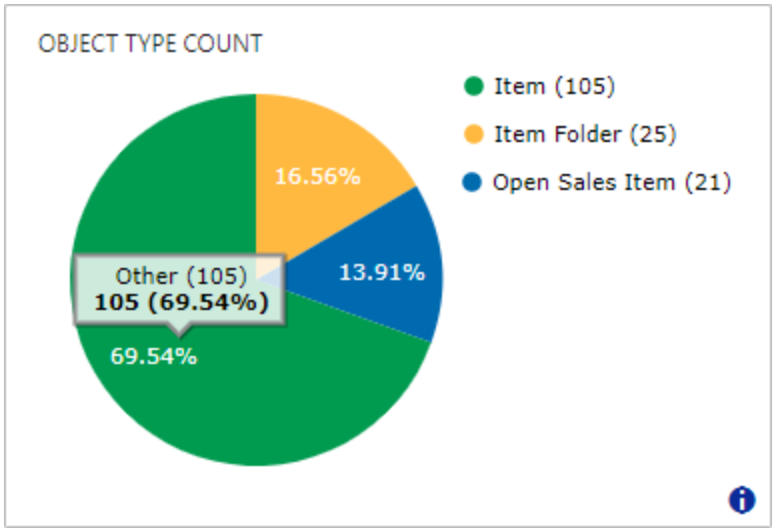
Configuration options include:

- **Context** - Pulls data from the specified context.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

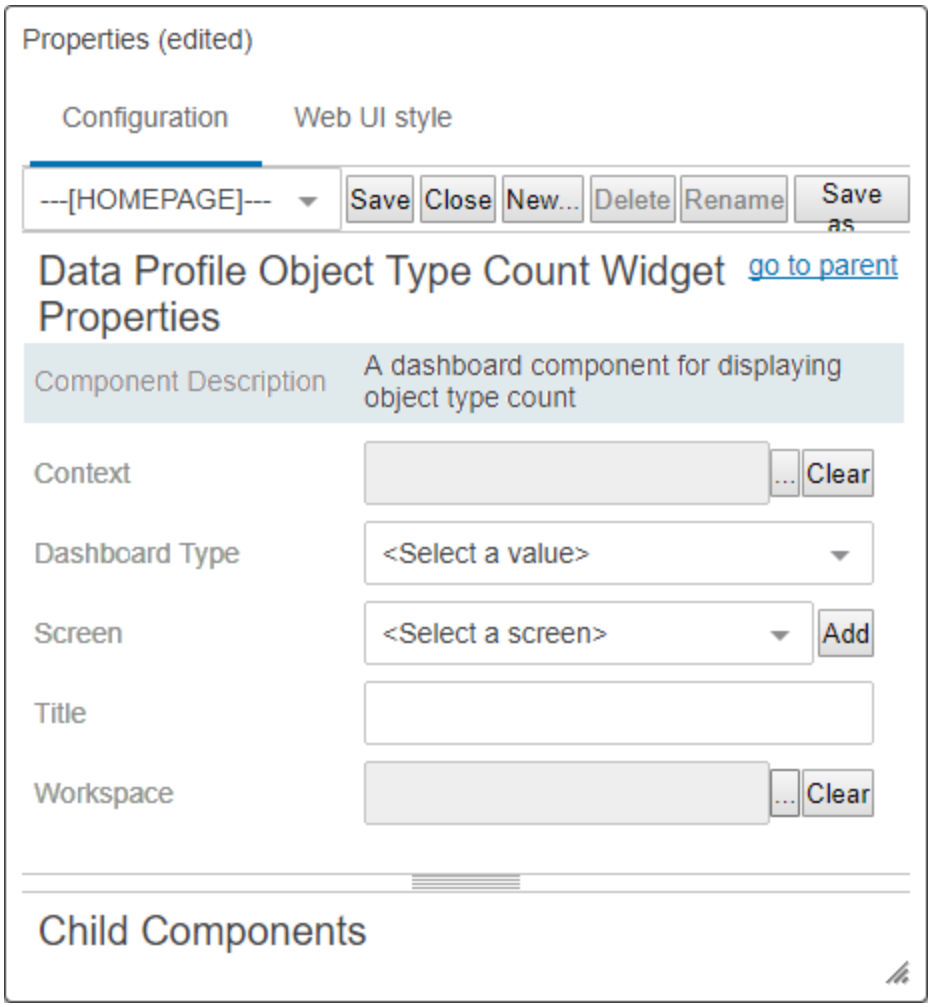
Object Type Count

This widget displays the distribution of object types in the data profile.

Note: Only the five most common types are displayed as separate entries. The remaining types are grouped in "Other object types".



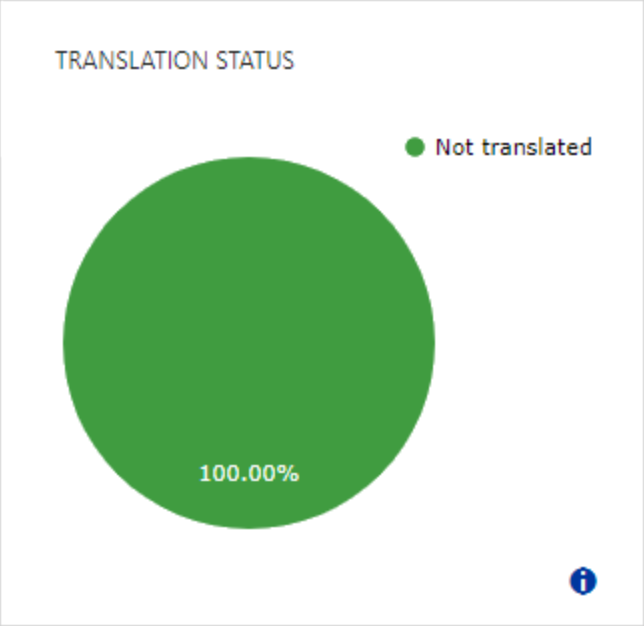
Configuration options include:



- **Context** - Pulls data from the specified context.
- **Dashboard Type** - Determines whether to display the data as a pie chart or bar chart.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Translation Status

This widget displays the translation status of the objects in the data profile.



Configuration options include:

- **Context** - Pulls data from the specified context.
- **Object Type** - Filters data via object type.
- **Screen** - Links the graph to another screen in the Web UI. The selected screen must be a Generic Search screen.
- **Title** - Changes the name that appears on the widget's title bar.
- **Workspace** - Pulls data from the specified workspace.

Note: The KPI Table Widget has been deprecated.

File Loading Widget

The File Loading Widget allows Web UI users to easily transfer files into application server hotfolders used by an IIEP, or to an IIEP that does not use a hotfolder.

Considerations and Limitations

This widget is compatible with both hotfolder-based and non-hotfolder-based IIEPs. However, to use the File Loading Widget for a non-hotfolder-based IIEP, you must also configure the IIEP receiver defined in the **Web UI File Loading Receiver** topic in the **Data Exchange** documentation.

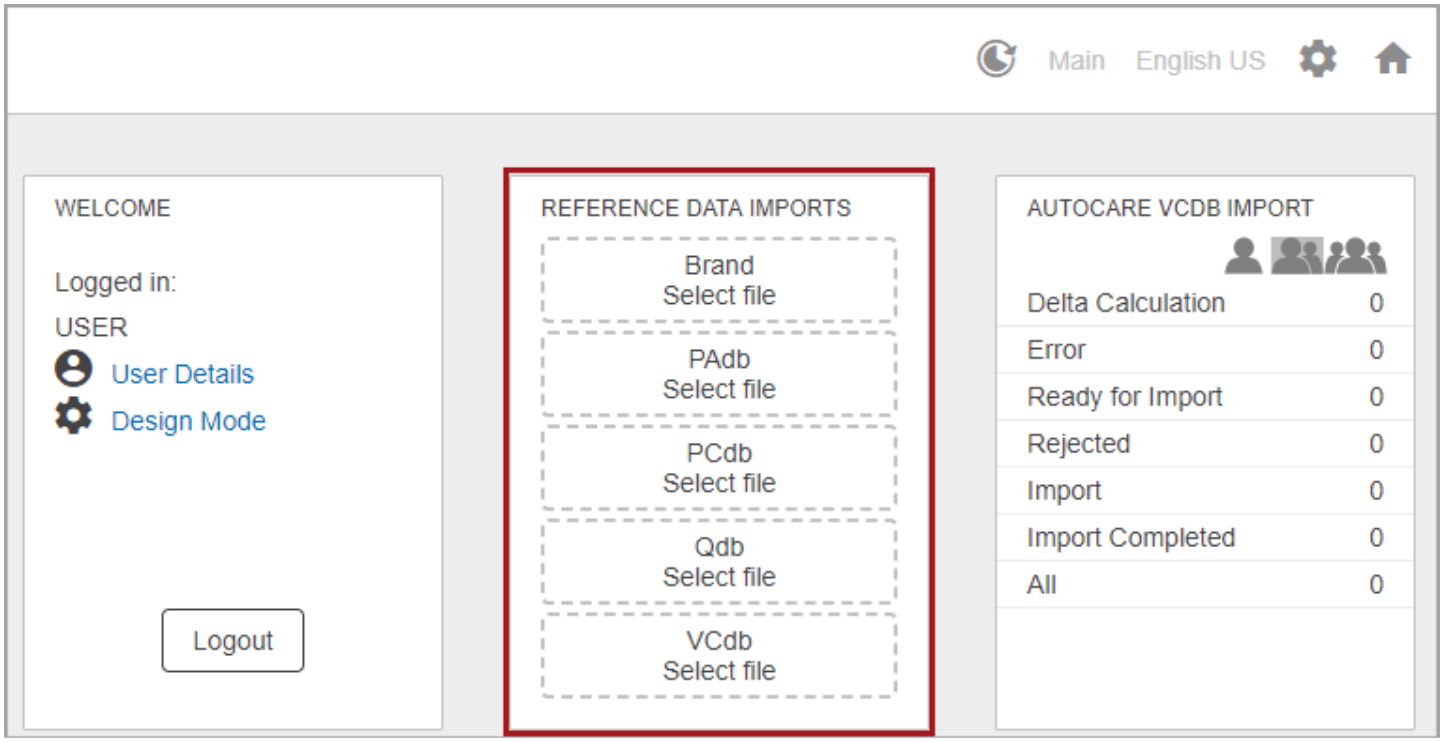
Important: The 'File Loading Widget' is an excellent tool for starting IIEPs but users should seriously consider if this is the right tool to use in all circumstances. For example, since this widget does not support the monitoring of background processes in the Web UI by individual user ID, it might not be the right widget for a vendor portal.

Users should be aware that Microsoft Internet Explorer and Edge browsers do not support drag and drop. Therefore when those browsers are used, and a file is drag and dropped onto the widget, STEP displays a message indicating that drag and drop is not supported. Instead, a file browser window is automatically displayed for the user to select a file for import.

Using the File Loading Widget

The File Loading Widget is accessible from a Web UI homepage and allows users to select, or drag and drop, one or more files from their local machine for transfer into a STEP hotfolder.

In the example below, a File Loading Widget has been configured with the title 'REFERENCE DATA IMPORTS' and allows for five different IIEP drop zones: Brand, PAdb, PCdb, Qdb, and VCdb.



Once one or more files are dragged onto a drop zone, then a dialog will display at the top of the screen confirming the file has been submitted. In the example below, one file was dragged onto the PCdb drop zone, and the dialog displays that the 'AAIA PCdb.zip' file has been submitted to the 'PCdb' hotfolder.



Important: If the dialog confirming the file is submitted does not display, then it is possible that the browser being used does not support drag and drop, or the file being used is not properly extracted.

Depending on how the IIEP is configured, users can transfer either zipped files less than 50GB or standard files less than 600MB. Subsequent handling of files will occur only if supported by the corresponding IIEP. For example, if the IIEP is configured to process a ZIP file, and a standard file is selected for import, then the IIEP will report an error.

When using the drag-and-drop feature to transfer ZIP files, the ZIP file cannot be part of a larger compressed file. In other words, before uploading a ZIP file, ensure that the ZIP file is available on its own. Dragging a ZIP file that is part of a larger compressed file onto a drop zone will not work, a dialog confirming the file has been submitted will not display, and the file conversion process will not begin.

Monitoring Progress with the 'Recent background processes' panel

Because the File Loading Widget and the 'Recent background processes' side panel have been developed to work together, users can easily track their file transfer progress. For more information, refer to the **Recent Background Processes Side Panel** topic within the **Main Properties Overview** section.

When a File Loading Widget is used to transfer files, the 'Recent background processes' side panel will display with a separate section titled 'File Uploads,' allowing users to follow the progress of their file transfers while continuing to use the Web UI.

Configuring the File Loading Widget

More than one File Loading Widget can be added to a Web UI homepage Widget Grid component, and more than one IIEP can be configured within each File Loading Widget. The ability to add more than one File Loading Widget to a homepage allows system administrators the ability to configure different widgets for different import types or processes. Additionally, each File Import Widget can be configured with more than one drop zone, allowing for different import types within one widget.

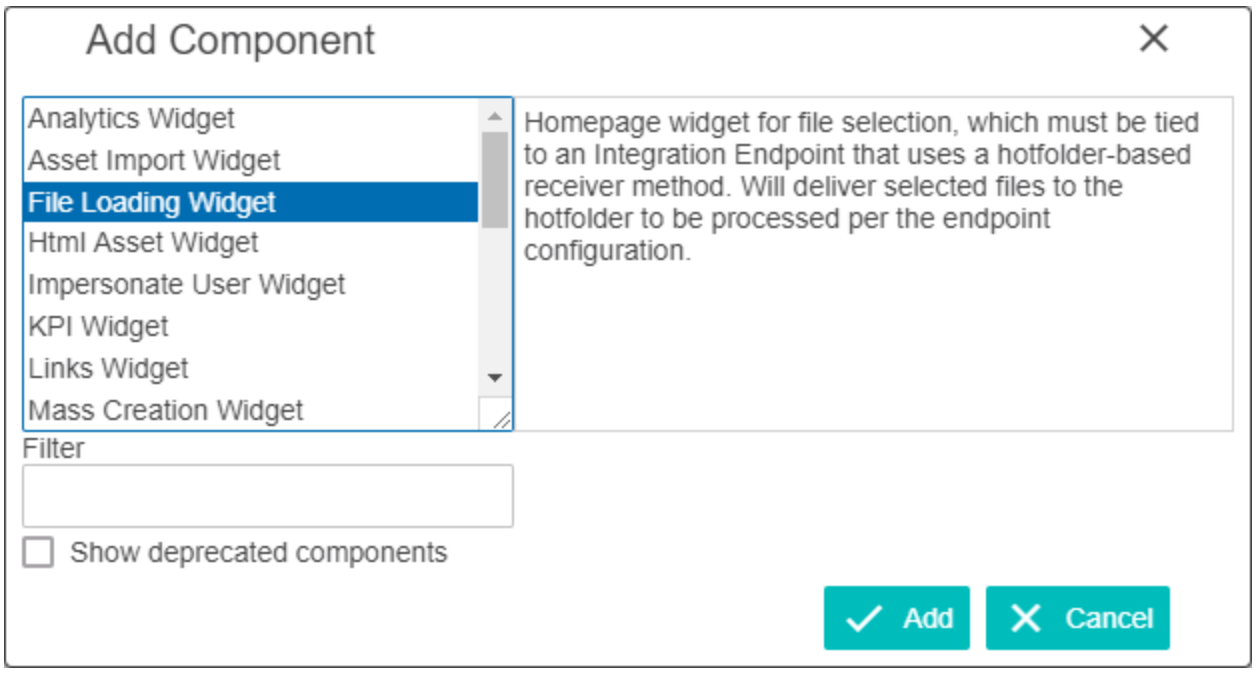
During configuration, the admin user selects an IIEP that will process the files for each of the file loading or import types. When the File Loading Widget is used to import a file, the system reads the configuration of the IIEP and determines the appropriate hotfolder to which the file will be transferred.

Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

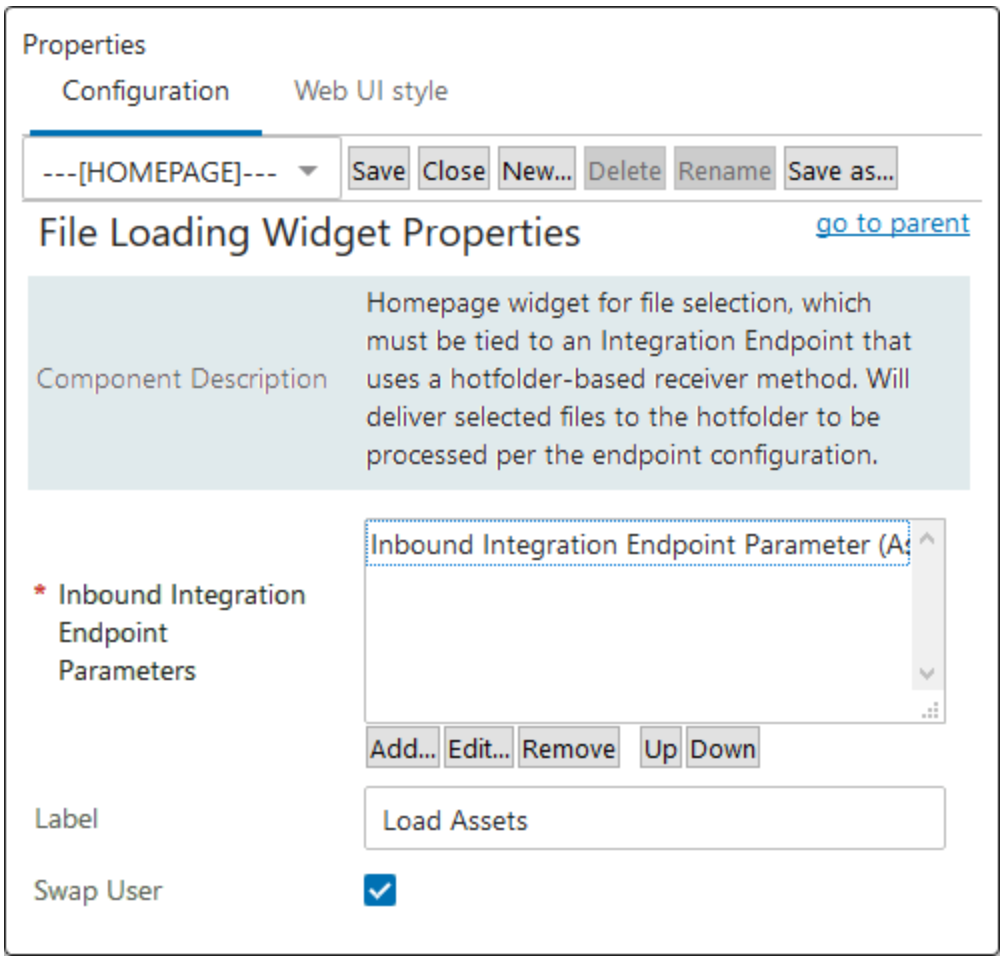
Prior to configuring the File Loading Widget, one or more IIEPs needs to be configured. For more information on configuring IIEPs, refer to the **Inbound Integration Endpoints** section within the **Data Exchange** guide.

Use the following steps to configure the File Loading Widget:

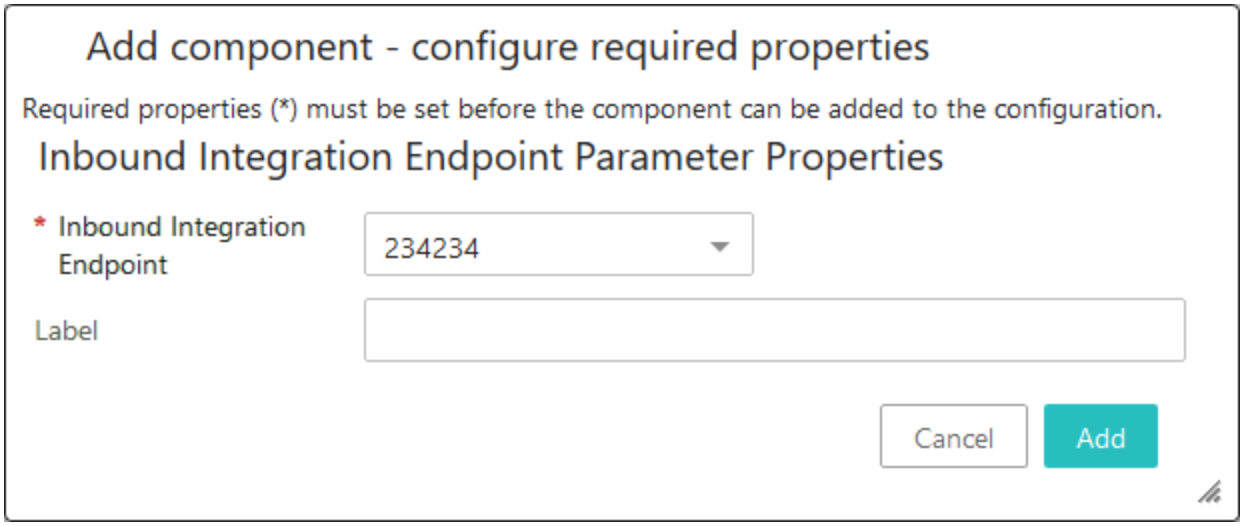
1. From the Designer, select Widget Grid Properties > Child Components > Widgets > click the **Add** button, and the Add Component dialog will display as shown below.



2. Select File Loading Widget, click the **Add** button, and the File Loading Widget Properties will display.



3. Go to the Inbound Integration Endpoint Parameters, click the **Add** button, and the Inbound Integration Endpoint Parameter Properties dialog will display.



4. For the Inbound Integration Endpoint parameter, select the previously created IIEP from the dropdown.
5. Optionally, within the Label parameter field, enter text to be displayed within the drag and drop area of the widget. When left blank, the name of the selected IIEP will display.
6. Click the **Add** button, and the File Loading Widget Properties will display with the Inbound Integration Endpoint Parameters populated.
7. Optionally, within the Label parameter field, enter text to be displayed at the top of the widget. When left blank, the default label ('FILE IMPORT') will display.

   In the example below, the IIEP selected for this configuration is named 'IMPORT,' and both Label fields within the designer have been left blank.



8. Check the box for **Swap User** to run the IIEP as the logged-in Web UI user rather than the configured IIEP user. This allows the Web UI user to view the background process (via the Background Notification Panel) initiated when the Web UI user adds a file to the widget. By swapping the user in this way, the Web UI user can monitor the progress of the background process created by the file loading action, and enable them to detect and correct any potential errors.
9. Click the **Add** button and the Widget Grid Properties will display with the newly added File Loading Widget.
10. Click **Save** and **Close** buttons to close the designer, and view the newly configured File Loading Widget.

Links Widget

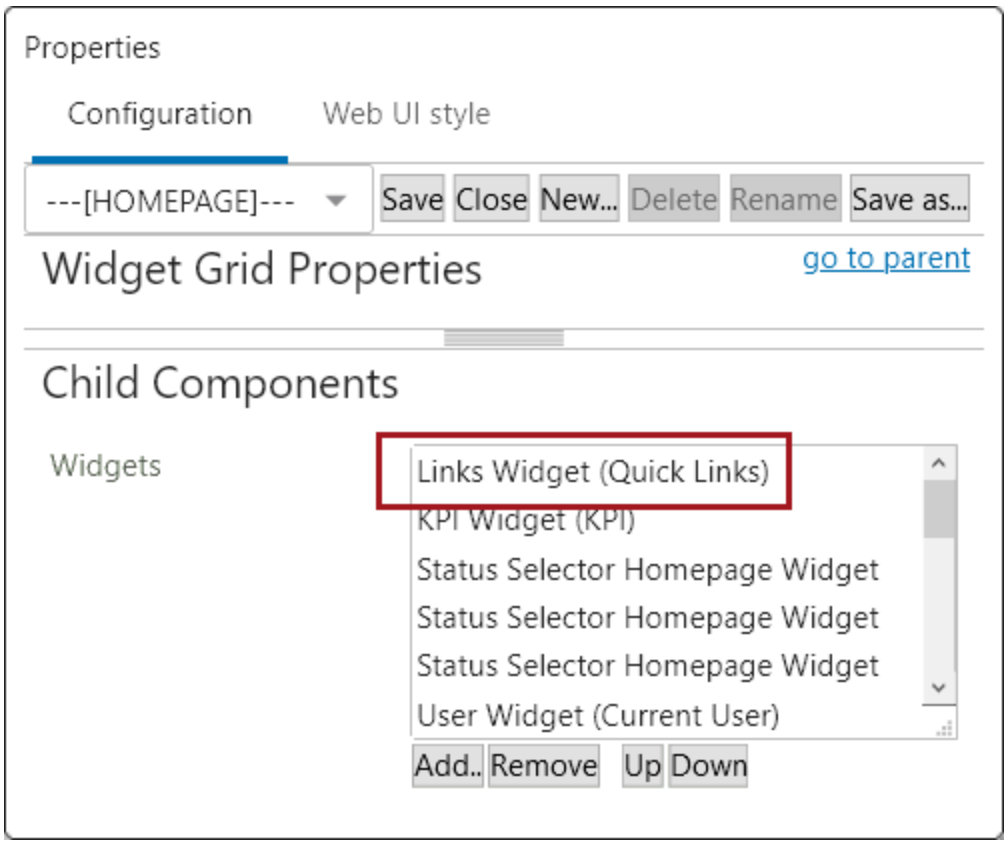
The Links Widget can contain a series of direct links to various elements in the Web UI. A link can be configured in this widget that can, for example, import Smartsheets, display static text, or navigate the user to a specific product in the hierarchy or to a specific screen. This widget is especially useful when establishing direct links to commonly accessed areas or functionality.

Adding and Configuring a Links Widget

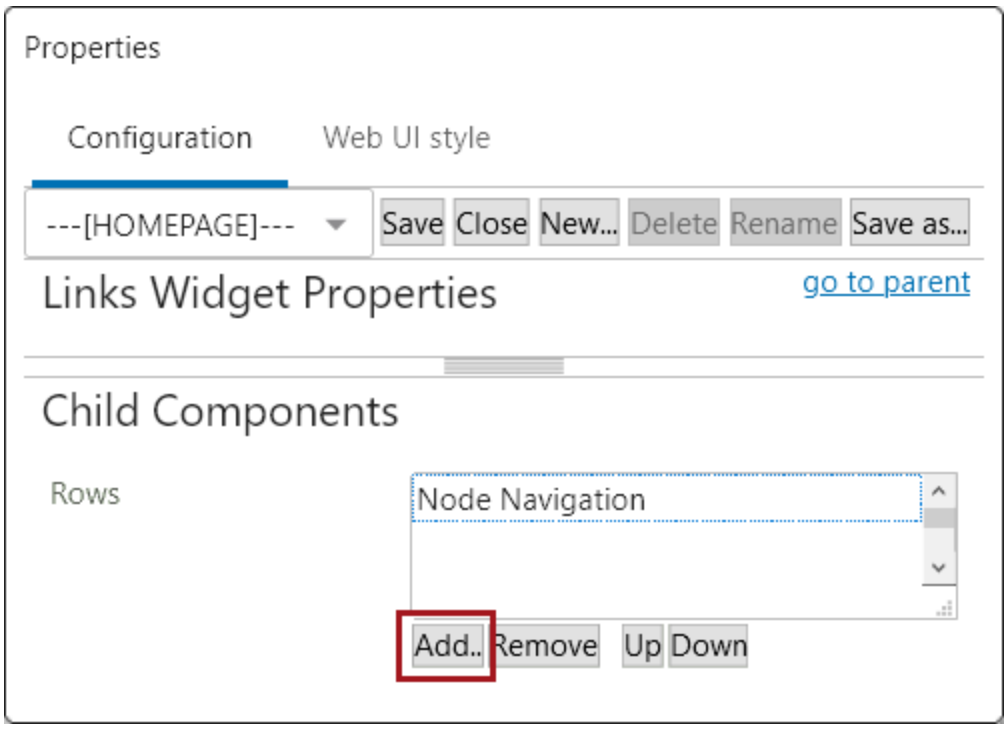
For more on adding widgets to the homepage, refer to the **Adding Widgets to a Homepage** topic in the **Web User Interfaces** documentation.

To configure a Links Widget, follow the steps described below:

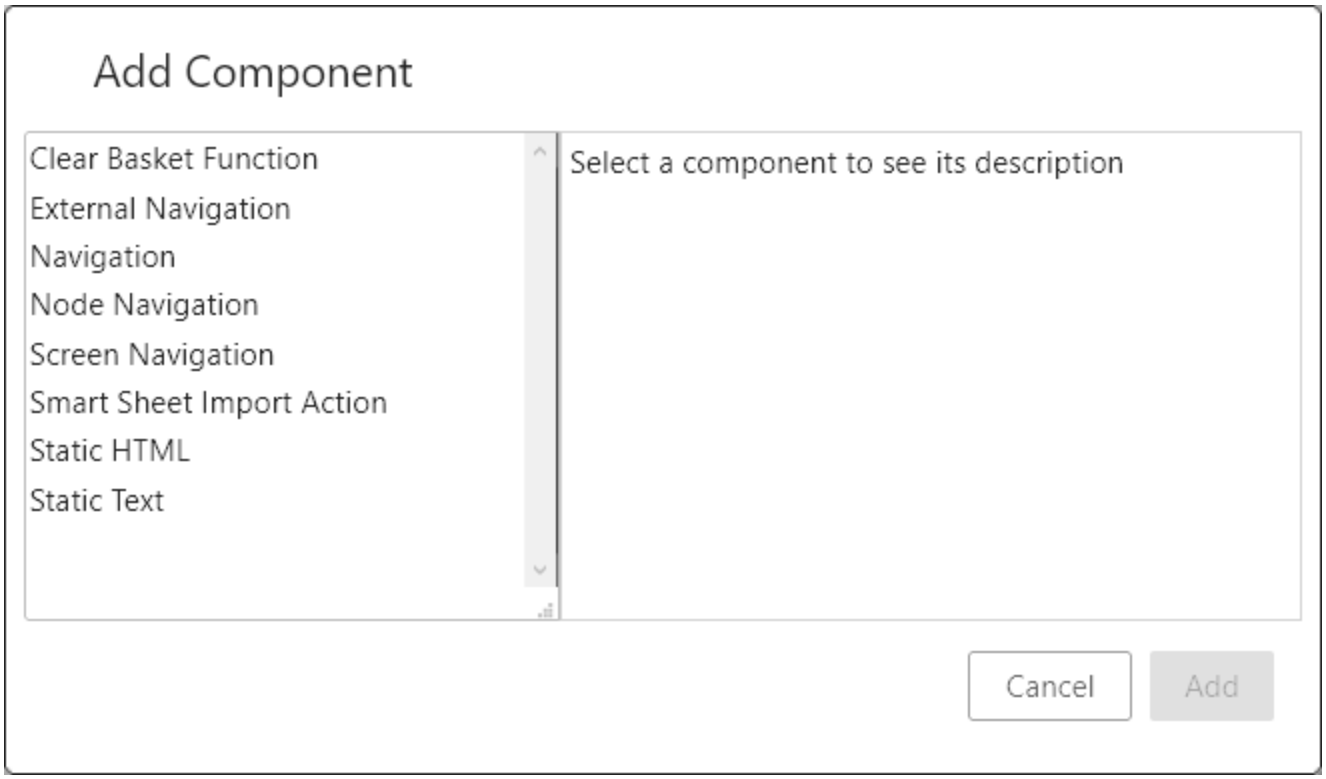
1. In the 'Widget Grid Properties' in the designer, create a 'Links Widget.'



2. To add links that will populate the widget, navigate to the 'Links Widget Properties' in the designer. On the 'Rows' field under 'Child Components,' click 'Add'.



3. In the 'Add Component' dialog, users may select a links component to configure.



Links Widget components

The Links Widget components that can be applied and configured are listed and described below.

Some Links Widget components described in this topic will only display on a system based on which licenses have been applied to a system; application of those licenses is determined by customer need. If there are components described in this topic that are not available on your system but you feel they should be, contact your account representative for more information.

Clear Basket Function

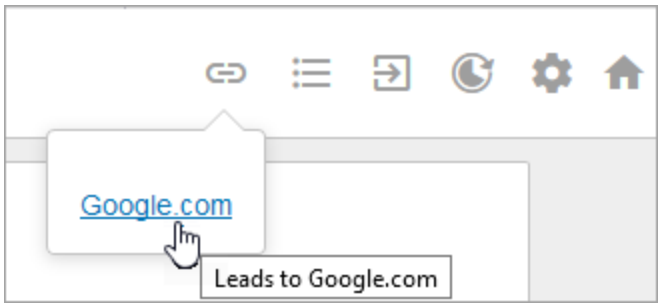
When added, the 'Clear Basket Function' allows users to click the link and clear the contents of the Basket component. Display of this component is dependent on applying the appropriate license.

GDSN Create RFCIN Link Action

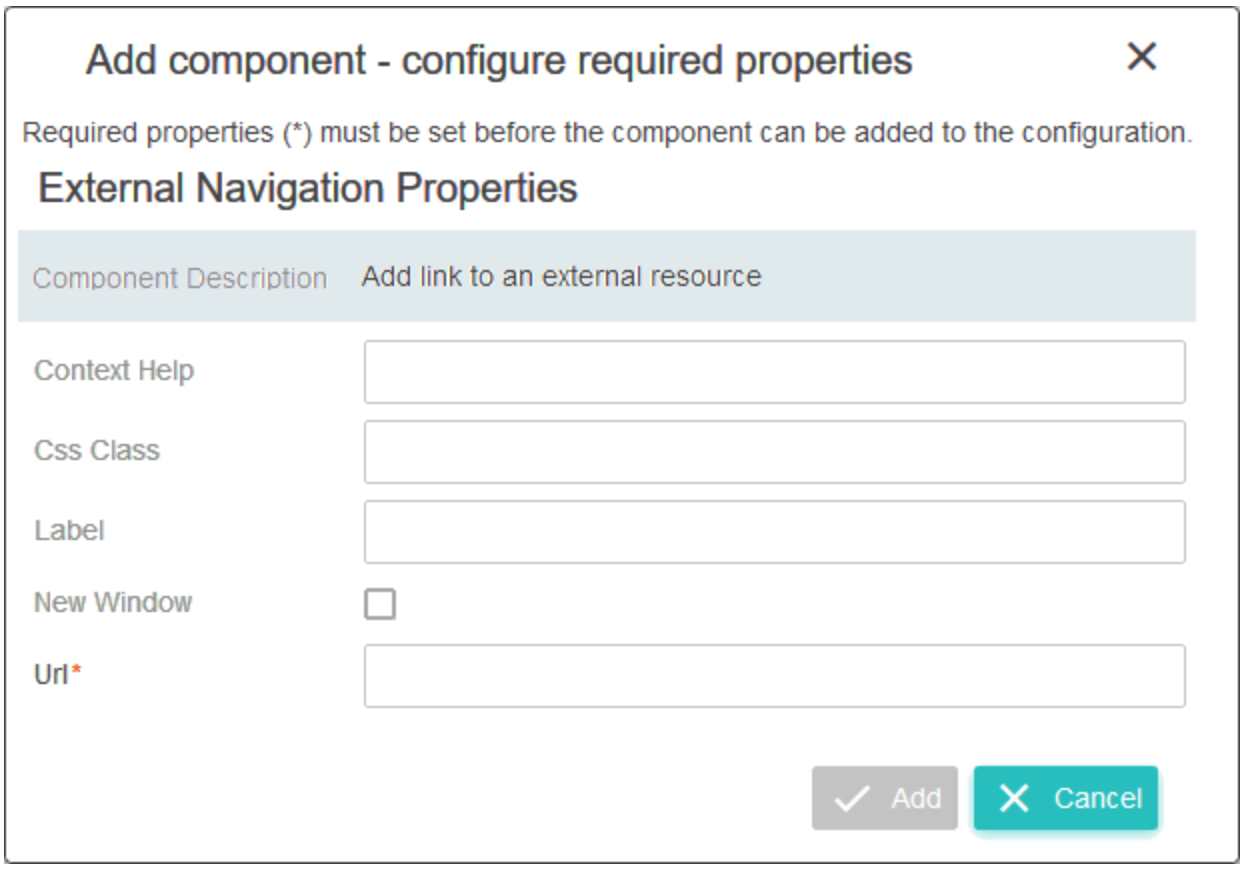
Enables configuration of a link that allows the user to create a GDSN RFCIN message. Display of this component is dependent on applying the appropriate license.

External Navigation

The External Navigation component enables a web link that navigates the user away from the Web UI to an external URL. In the example below, clicking the External Navigation-enabled link takes the user to Google.com.



When adding the External Navigation to the Links Folder, the External Navigation Properties configuration screen displays. All fields contained in this window are described below the screenshot:



Context Help: Text entered will display when the cursor is placed over the link. This text can give the user additional information about the link. An example of this is shown in the first screenshot for this component. The Context Help has been configured to read, "Leads to Google.com". If left blank, the URL will display.

Css Class: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.

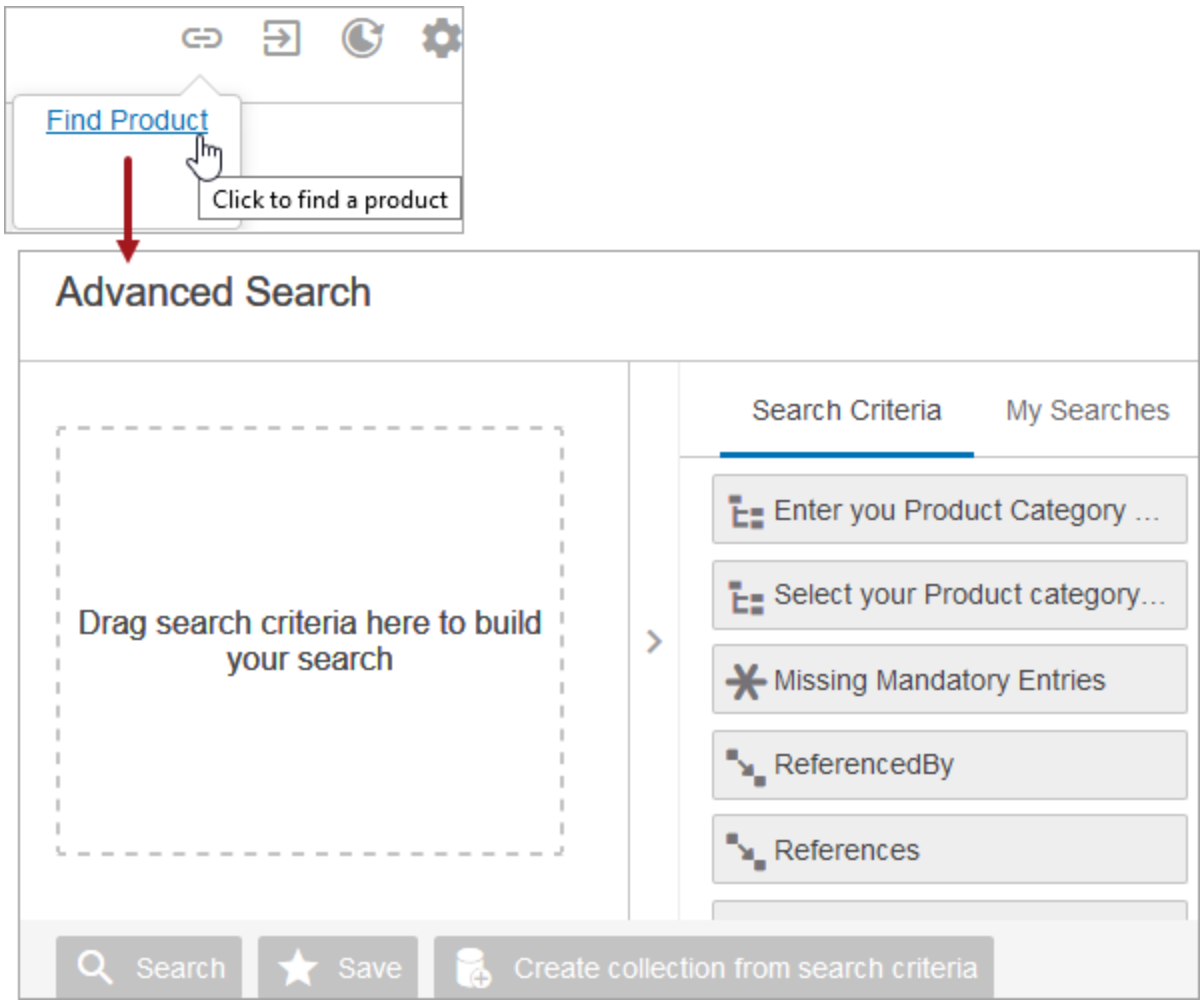
Label: Text entered in this field will display as the text of the hyperlink. In the first screenshot for the External Navigation section, the hyperlink text has been configured to read as, 'Google.com.'

New Window: Check the box for this parameter if the link should open the designated website in a new window rather than the window currently viewed.

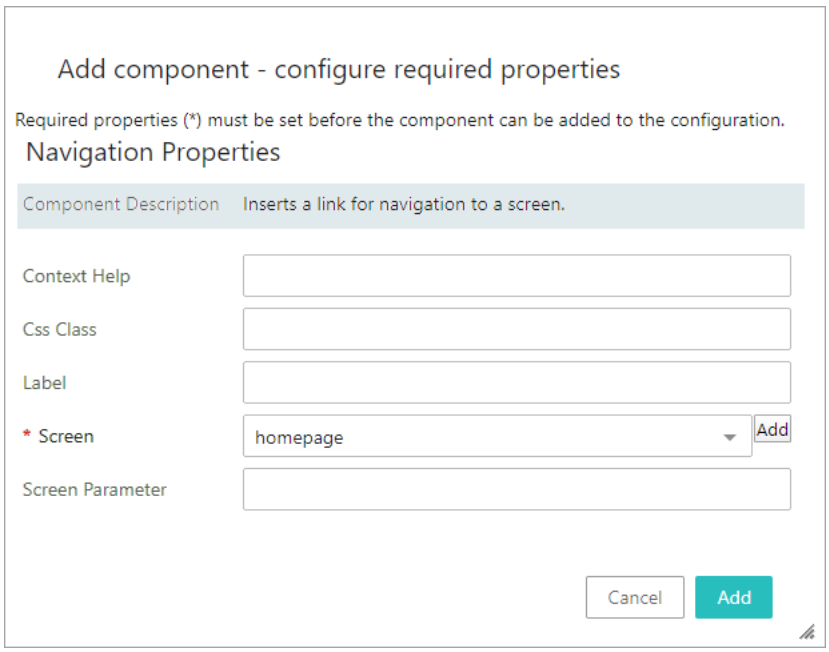
Url: This is the only mandatory field. Enter the web address that the user will be taken to when they click the link.

Navigation

The Navigation component enables admin users to configure a direct link to a configured screen. In the example below, clicking 'Find Product' brings the user to an Advanced Search screen.



When an admin adds the Navigation link to the Link Widget, the Navigation Properties configuration screen displays. All fields contained in this window are described below the screenshot:



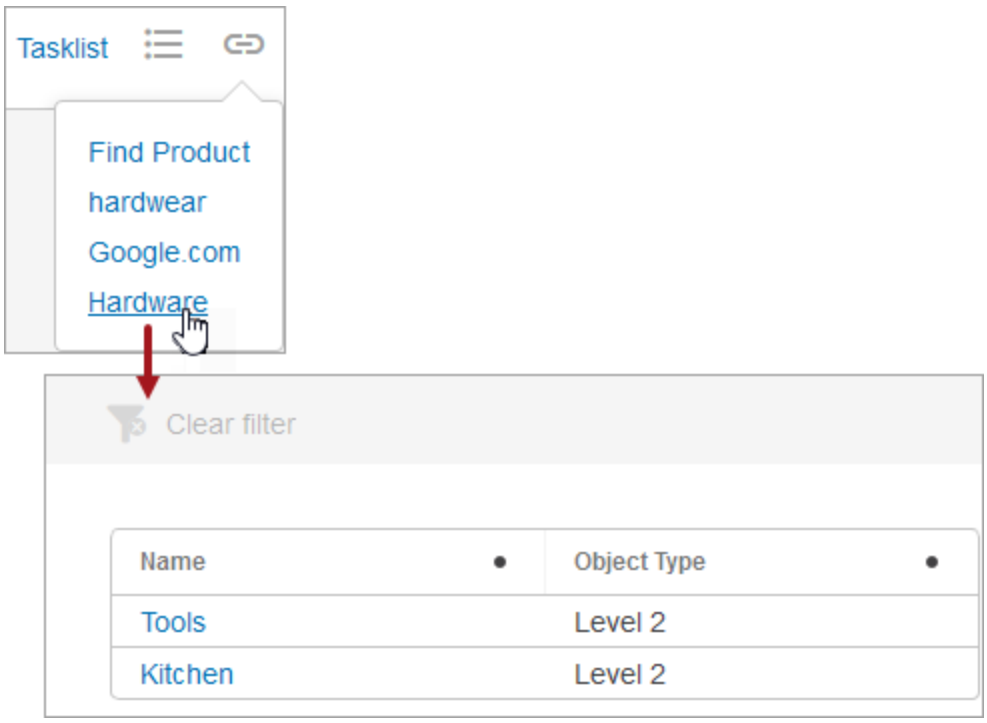
- **Context Help**: Text entered will display when the cursor is placed over the link. This text can give the user additional information about the link. An example of this is shown in the first screenshot for this component. The Context Help has been configured to read, "Click to find a product".
- **Css Class**: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.
- **Label**: Text entered in this field will display as the text of the hyperlink. An example of this is shown in the first screenshot for this component in which the hyperlink text has been configured to read as, 'Find Product'.
- **Screen**: This is the only mandatory field. Choose the screen to which the link will take the user. Alternately, admin users can click the Add button to create a new screen that the link will take users to.
- **Screen Parameter**: Applies to the screen defined in the Navigation component.

Node Navigation

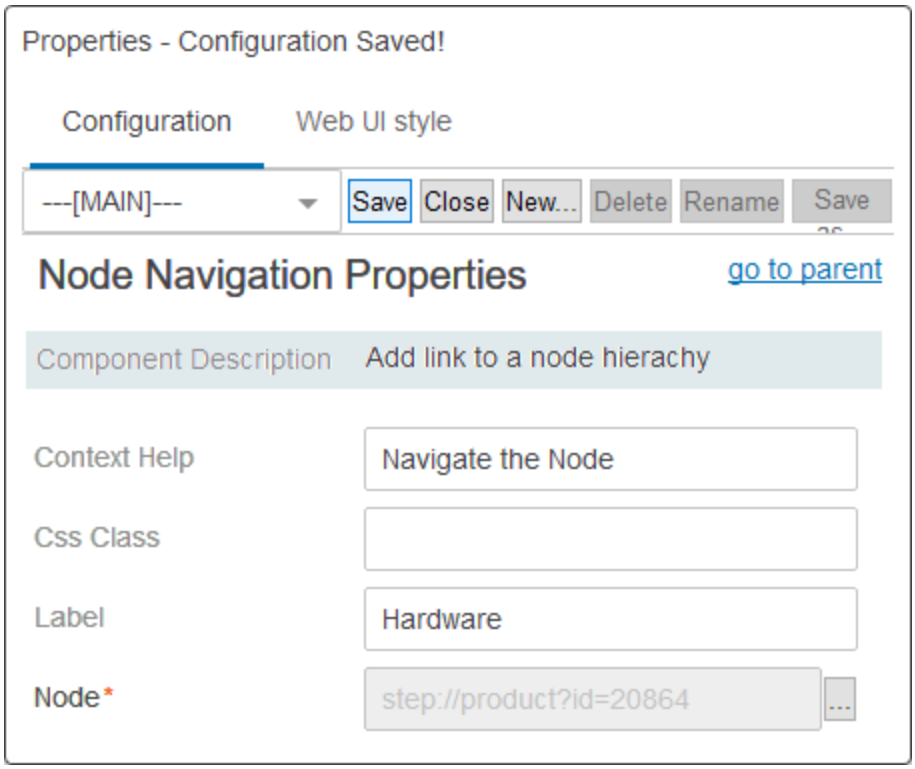
Important: A configured and mapped Children of Types Screen must be in place for this component to work. For more information, refer to the **Children of Types Screen** topic in the **Web UI Getting Started** section of the **Web User Interfaces** documentation.

Clicking the Node Navigation link will bring you to a configured and mapped Children of Types Screen. You can view, at a glance, child objects of a specified object type or types.

In the example below, the top node configured is called 'Hardware,' and clicking this displays its children.



When adding the Node Navigation, the Node Navigation Properties configuration screen displays. All fields are described below the screenshot:

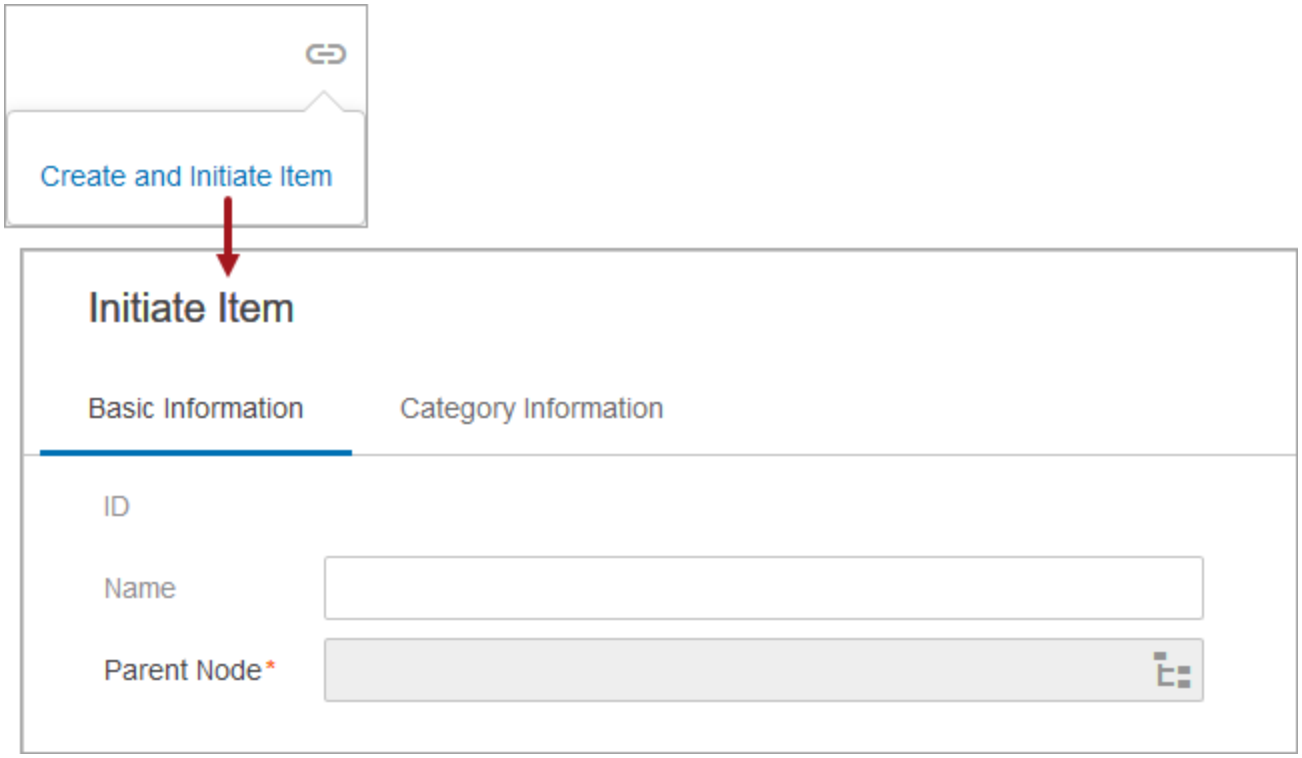


- **Context Help**: Text entered will display when the cursor is placed over the link. This text can give the user additional information about the link.
- **Css Class**: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.
- **Label**: Text entered in this field will display as the text of the hyperlink. An example of this is shown in the first screenshot for this component in which the hyperlink text has been configured to read as, 'Hardware'.
- **Node**: This is the only mandatory field. Click the ellipsis button (...) next to the field and select the desired node to which the user will access when clicking the link.

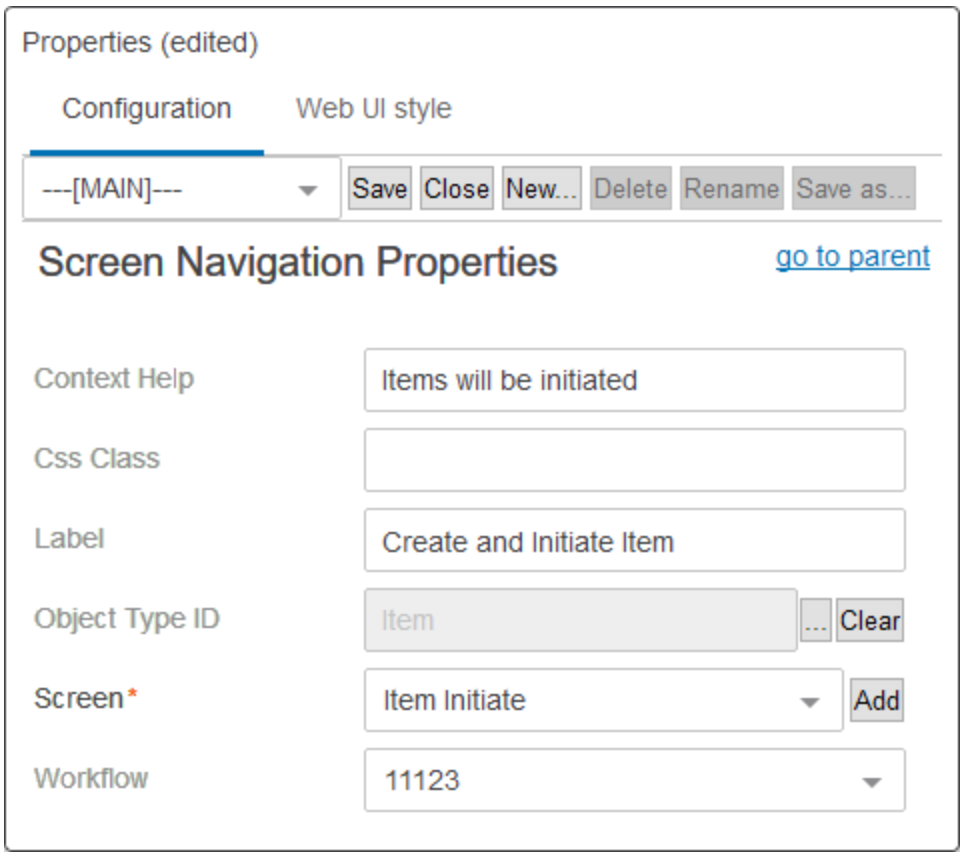
Screen Navigation

The Screen Navigation link brings you to the desired screen in the Web UI. It is primarily used for creating designated object types with the option of initiating them into workflows using the Initiate Item Screen. For more on creating and item initiating, refer to the **Initiate Item Screen** topic in the **Workflows in Web UI** section of the **Web User Interfaces** documentation.

In the following example, clicking on the 'Create and Initiate Item' link displays the Item Initiate Screen.



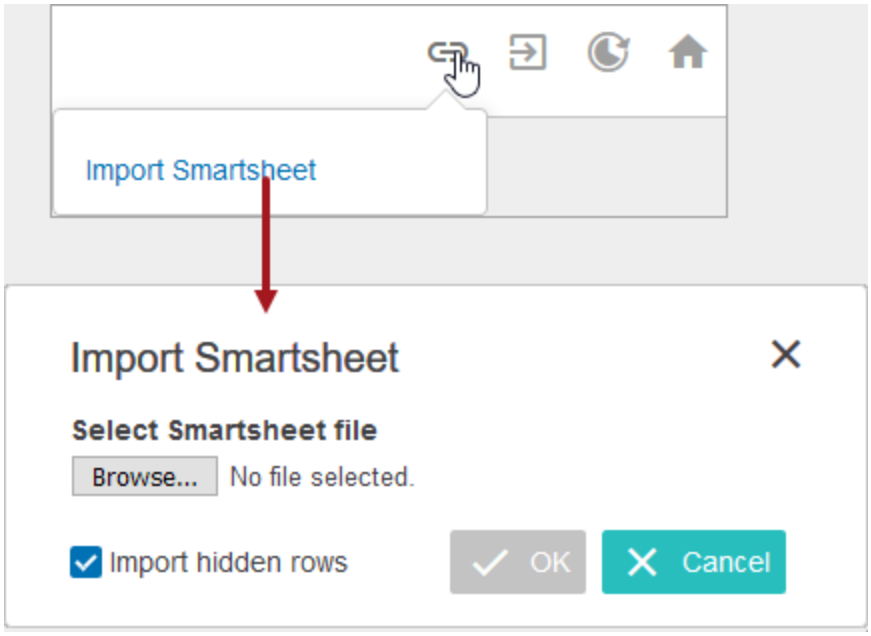
When adding the Screen Navigation, the Screen Navigation Properties configuration screen displays. All fields are described below the screenshot:



- **Context Help**: Text entered will display when the cursor is placed over the link. This text can give the user additional information about the link.
- **Css Class**: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.
- **Label**: Text entered in this field will display as the text of the hyperlink. An example of this is shown in the first screenshot for this component in which the hyperlink text has been configured to read as, 'Create and Initiate Item'.
- **Object Type ID**: Select the object type that is to be created, initiated, or both.
- **Screen**: This is the only mandatory field. Choose a screen from the dropdown, or click the Add button to create a new screen.
- **Workflow**: Select the desired workflow from the dropdown menu for the designated object type to be initiated into.

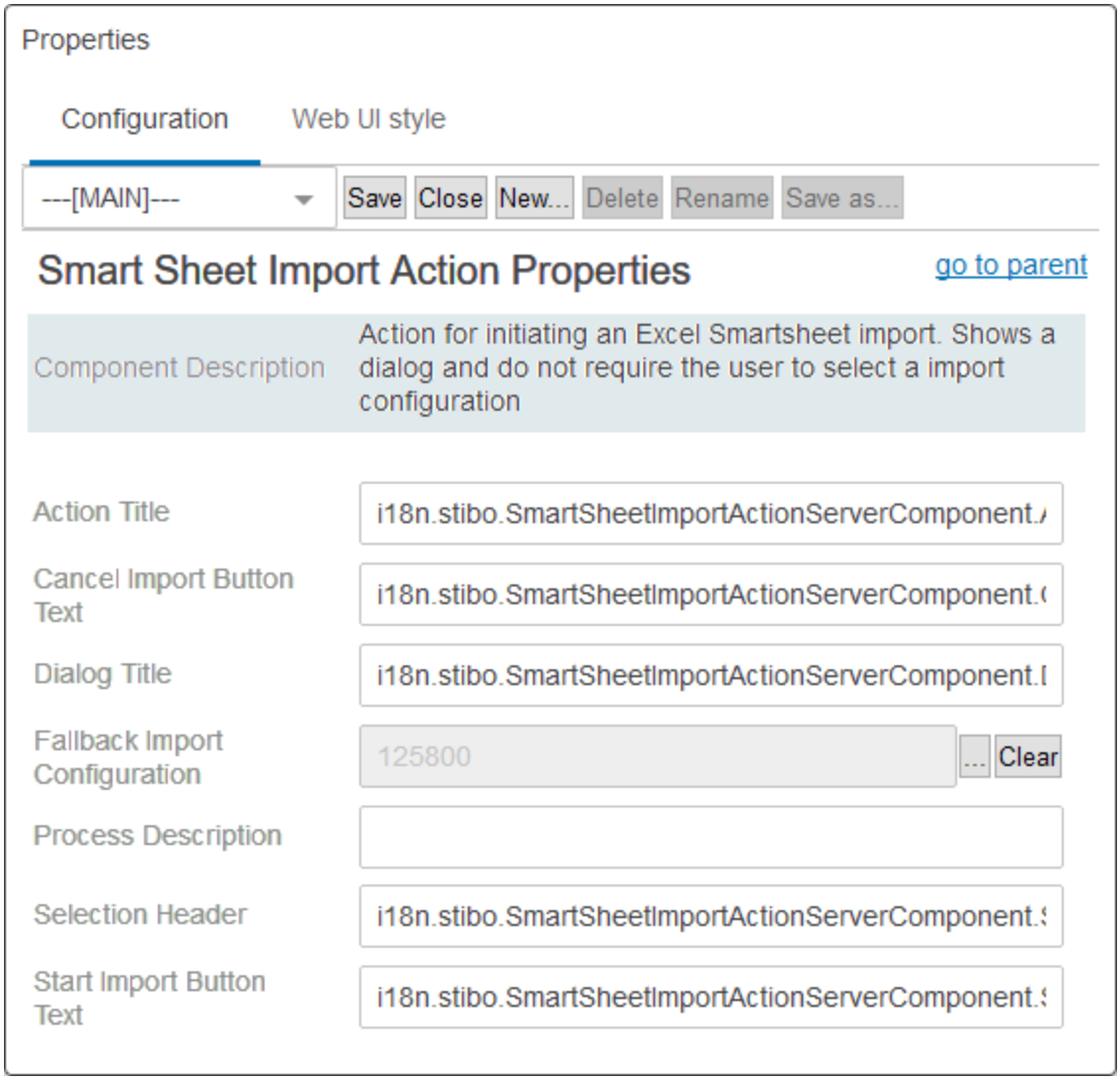
Smart Sheet Import Action

The Smart Sheet Import Action is used to import product data into STEP. Smart Sheet Import Action shows a dialog and does not require the user to select an import configuration.



For more on importing Smartsheets, refer to the **Smartsheet Import Action** topic in the **Web User Interfaces** documentation.

When adding the Smart Sheet Import Action, the Smart Sheet Import Action Properties configuration screen displays. All fields are described below the screenshot:



Note: All messages, titles, or labels in this configuration are displayed from the translation i18n keys that reside on the server. For more information about i18n keys, refer to the **Localization** topic in the **Administration Portal** documentation.

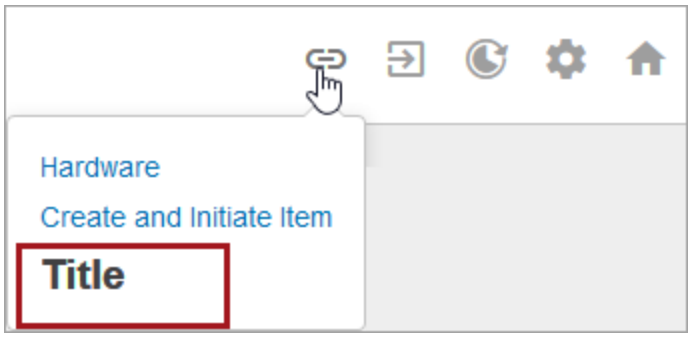
4. In the **Action Title** parameter, enter a name for the action.
5. In the **Cancel Import Button Text** parameter, enter the displayed text for the cancel button.
6. In the **Dialog Title** parameter, enter a title for the import dialog.
7. In the **Fallback Import Configuration** parameter, click the ellipsis button (**...**) and select an existing import configuration to apply to all Smartsheet imports where no import configuration was specified in the export configuration.
8. In the **Process Description** parameter, enter a template for the process description.

9. In the **Solution Header** parameter, enter a label for the select file prompt.
10. In the **Start Import Button Text** parameter, enter the text that should appear for the start import button.

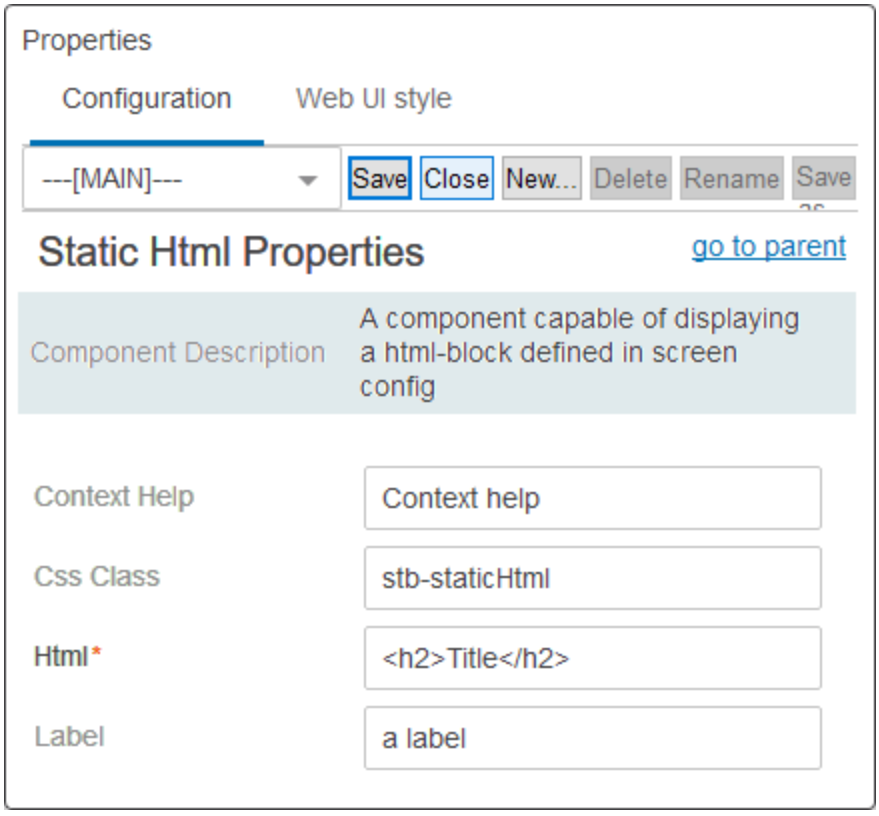
Static Html

The Static Html component is capable of displaying an html-block defined in screen configuration.

In the example below, the html tag '<h2>Title</h2>' was used.



When adding the Static Html component, the Static Html Properties configuration screen displays. All fields are described below the screenshot:



- **Context Help:** Optional help text for component to show in client (only applied in label+value view on an editor screen). Text entered will display when the cursor is placed over the static html. This text can give the user additional information about the text.

- **Css Class**: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.
- **Html**: This is the only mandatory field. Enter in the desired html code.
- **Label**: Enter a label, otherwise, if no label is provided, the node name will display.

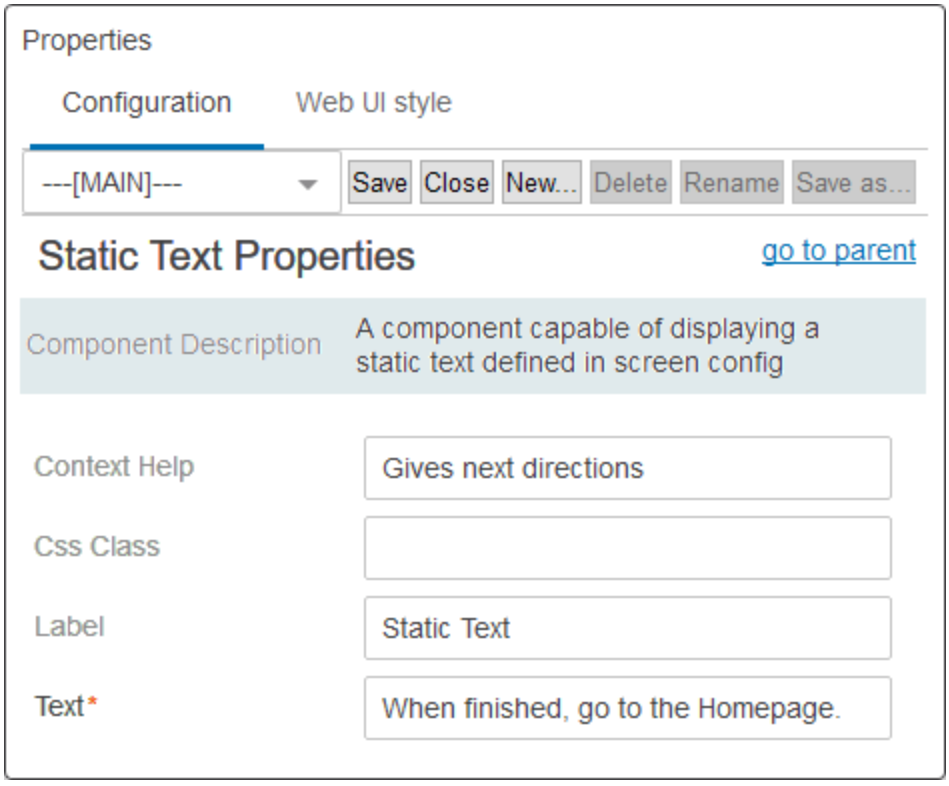
Static Text

Static Text is a component that displays text that is defined in screen configuration.

In the example below, directions are given to the user.



When adding the Static Text component, the Static Text Properties displays. All fields are described below:



- **Context Help:** Enter in text that will help the user.
- **Css Class**: Enter an optional name of a CSS-style to be set as the primary style for the component. The relevant license must be applied to make use of this field.

- **Label**: Enter a label, otherwise, if no label is provided, the node name will display.
- **Text:** This is the only mandatory field. This displays text that is defined in screen configuration.

The options listed are described in detail in the **Links Folder** topic, also in the **Web User Interfaces** documentation.

Mass Creation Widget

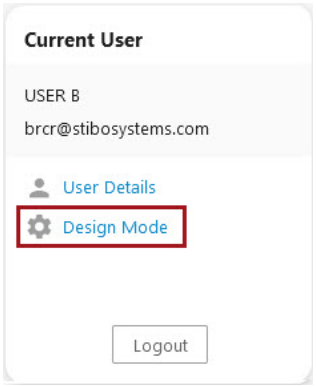
The Mass Creation Widget is a Homepage widget that, once configured, enables users to start the process of creating new objects in Web UI. This widget is used in conjunction with the Mass Creation screen type, which allows users to onboard multiple objects into STEP using Web UI screens instead of using more complex import methods such as Smartsheets.

Adding a Mass Creation Widget

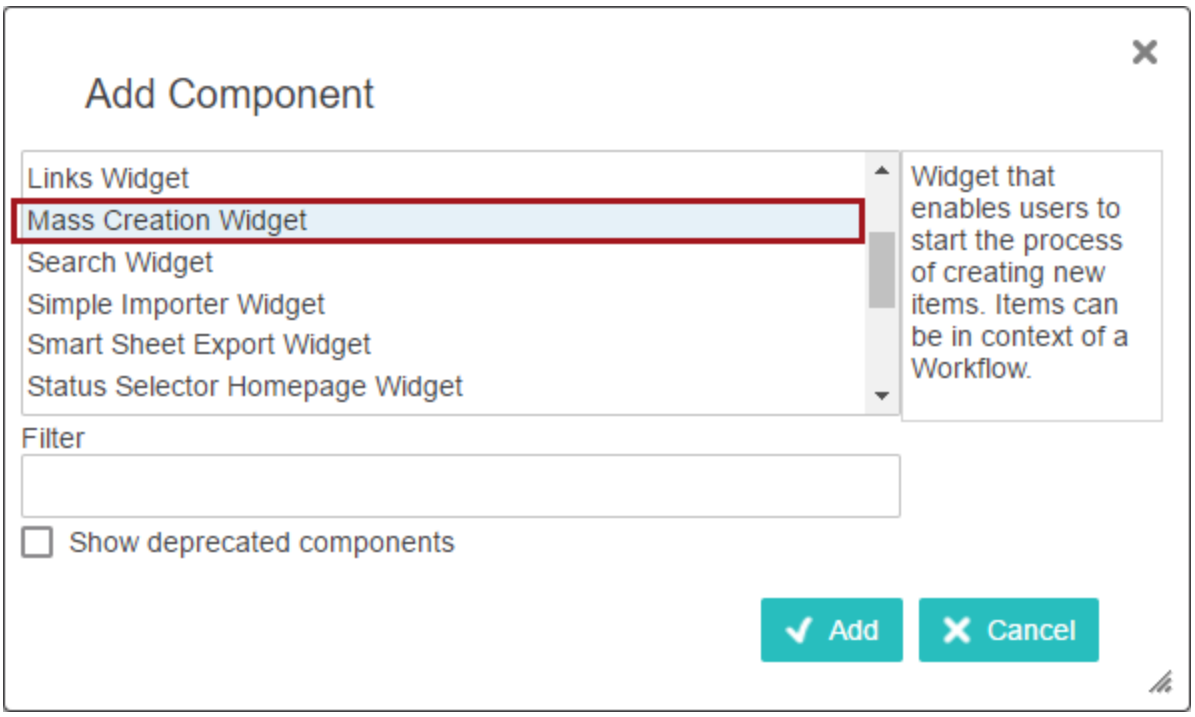
Admin users first need to add the Mass Creation Widget. Once the widget is created, configuration can begin.

To add a Mass Creation Widget to the Web UI Homepage:

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Click the 'Design Mode' launch button found on the Homepage (in the User Widget).



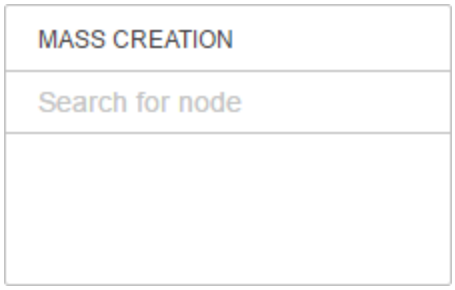
3. If not automatically shown the Home Page Properties, choose **---[HOMEPAGE]---** from the screen dropdown list.
4. Add the Mass Creation Widget to a Widget Grid:
    - If adding it to an existing Widget Grid, double-click the desired Widget Grid listed in the Child Components > Content parameter field. Click Add, choose **Mass Creation Widget** from the 'Add component' dialog, and then click Add again.
    - If adding a new Widget Grid, click the Add button under the Child Components > Content parameter field. Select **Widget Grid** in the 'Add component' dialog and then click Add. Next, double-click the new Widget Grid that is now showing at the bottom of the list in the Child Components > Content field. Click Add, choose **Mass Creation Widget** from the 'Add component' dialog, and then click Add again.



Widgets can be reordered as needed. Either reorder the individual widgets inside a Widget Grid by clicking on a widget name and then clicking the Up and Down buttons in the **Widgets Child Component** of the **Widget Grid Properties** screen. Or, as an alternative, select a **Widget Grid** in the Child Components > Content field of the Home Page Properties and click Up and Down to reorder the entire Widget Grid. Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

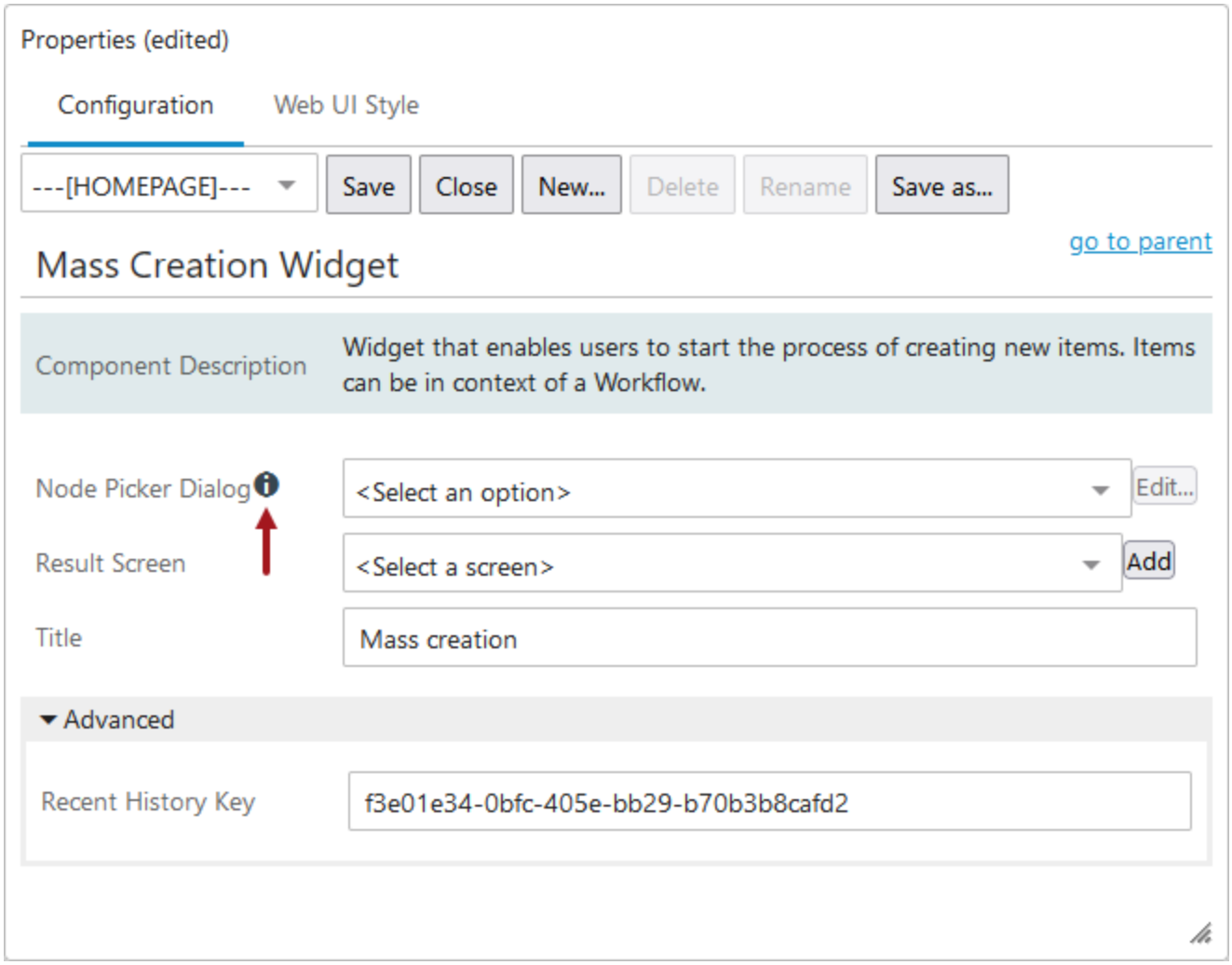
5. Click **Save** in the Designer window. At this point, either close Designer and configure the widget at a later time, or continue on with the **Mass Creation Widget Properties** configuration.

Until the widget is configured, it will sit on the Web UI Homepage and remain non-functional for onboarding purposes.



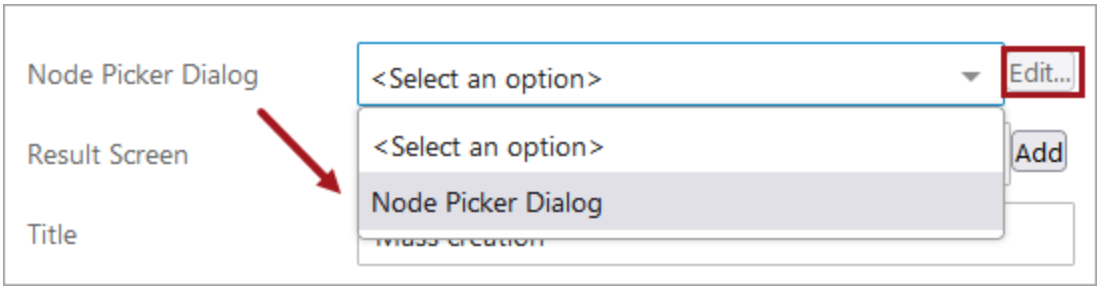
Configuring a Mass Creation Widget

An image of the default properties screen follows. Each parameter should be configured as needed and features help text, accessible by clicking the info icon to the right of each parameter name. The sections directly after the image explain what each parameter does and the steps / options for configuring them.



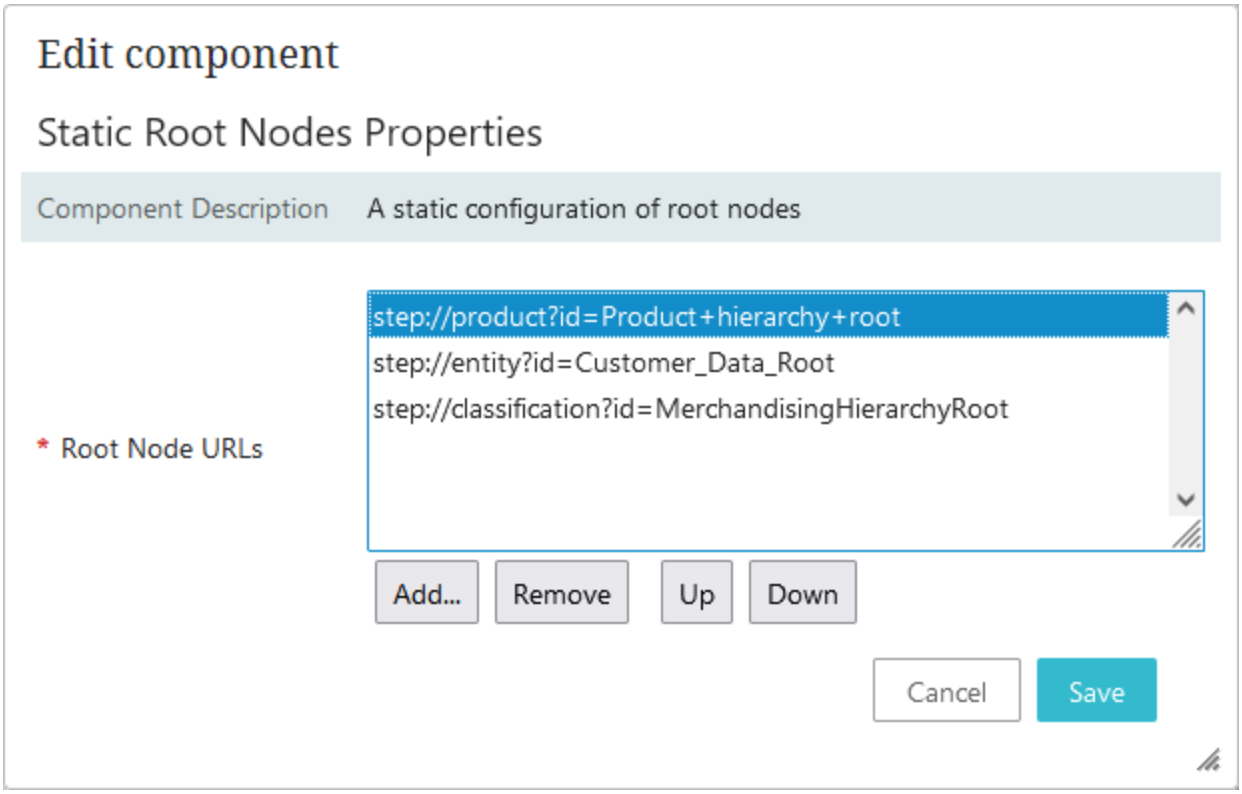
Node Picker Dialog

1. Select 'Node Picker Dialog' from the dropdown. The **Node Picker Dialog Properties** dialog automatically displays.



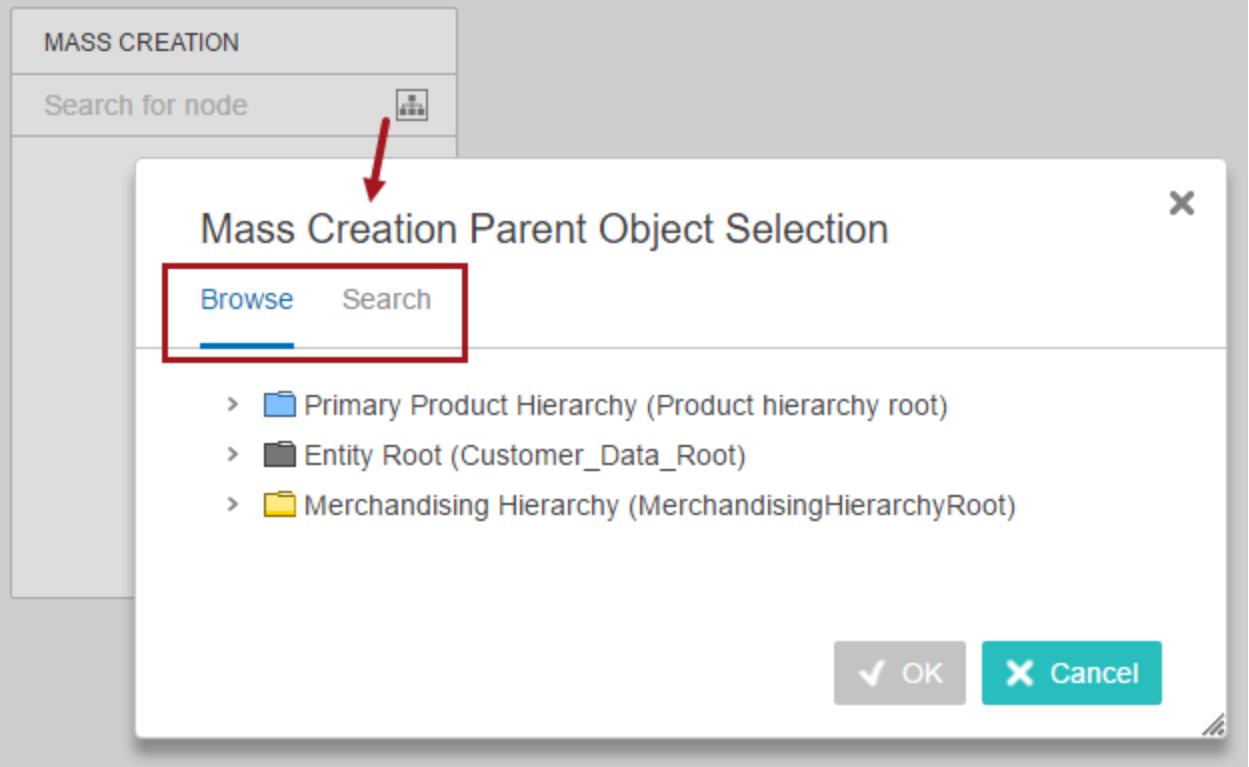
2. On the properties screen, select **Static Root Nodes** within the **Root Node Plugin** dropdown.
3. The **Static Root Nodes Properties** dialog appears. Click **Add**, under the **Root Node URLs** field, to make selections. This selection will determine what nodes are presented to the end user when using the

widget and should be limited to **Product**, **Entity**, or **Classification** nodes. Re-order and remove existing root node selections as needed.



4. A selection must be made for the **Tab Pages** parameter. Two valid options work with the Mass Creation functionality: Browse and Search. After adding a Browse tab, double-click the Browse title in the parameter field to set, if needed, any Tree navigation limitations for end users. If adding a Search Table tab, there is additional configuration to be done to the Search Table Tab Properties to maximize the search feature.
5. Leave **Title** as-is or type in a meaningful title for end users. This title will display above the tabs (created in the previous step) when users click the node picker icon on the widget.





Note: All the steps above cover setting up the parameters for the first time. Where applicable, click the Edit button to the right of the parameter value field (or beneath it) to edit existing settings.

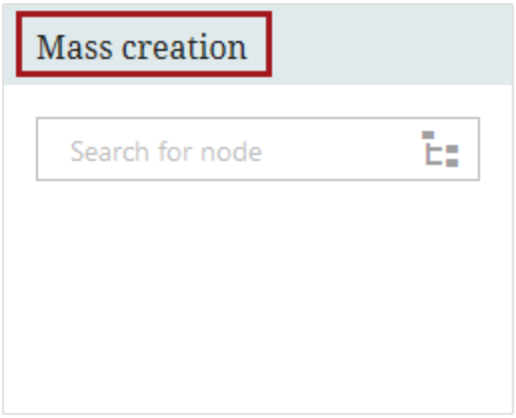
6. Click **Save** and you will be returned to the **Mass Creation Widget Properties**.

Results Screen

1. Using the '<Select a screen>' dropdown for the **Result Screen** parameter, choose the screen ID for the Mass Creation screen that will be tied to this widget. End users will click on the widget, select a parent object, and be directed to the Mass Creation screen designated by this parameter.
2. If the desired Mass Creation screen does not already exist, click **Add** and create a new screen using the screen type Mass Creation Screen. The screen ID that you give the new screen will automatically populate in the parameter value field. Once all widget settings are made and saved, the Mass Creation screen can be configured following the directions outlined in the **Configuring a Mass Creation Screen** documentation.

Title

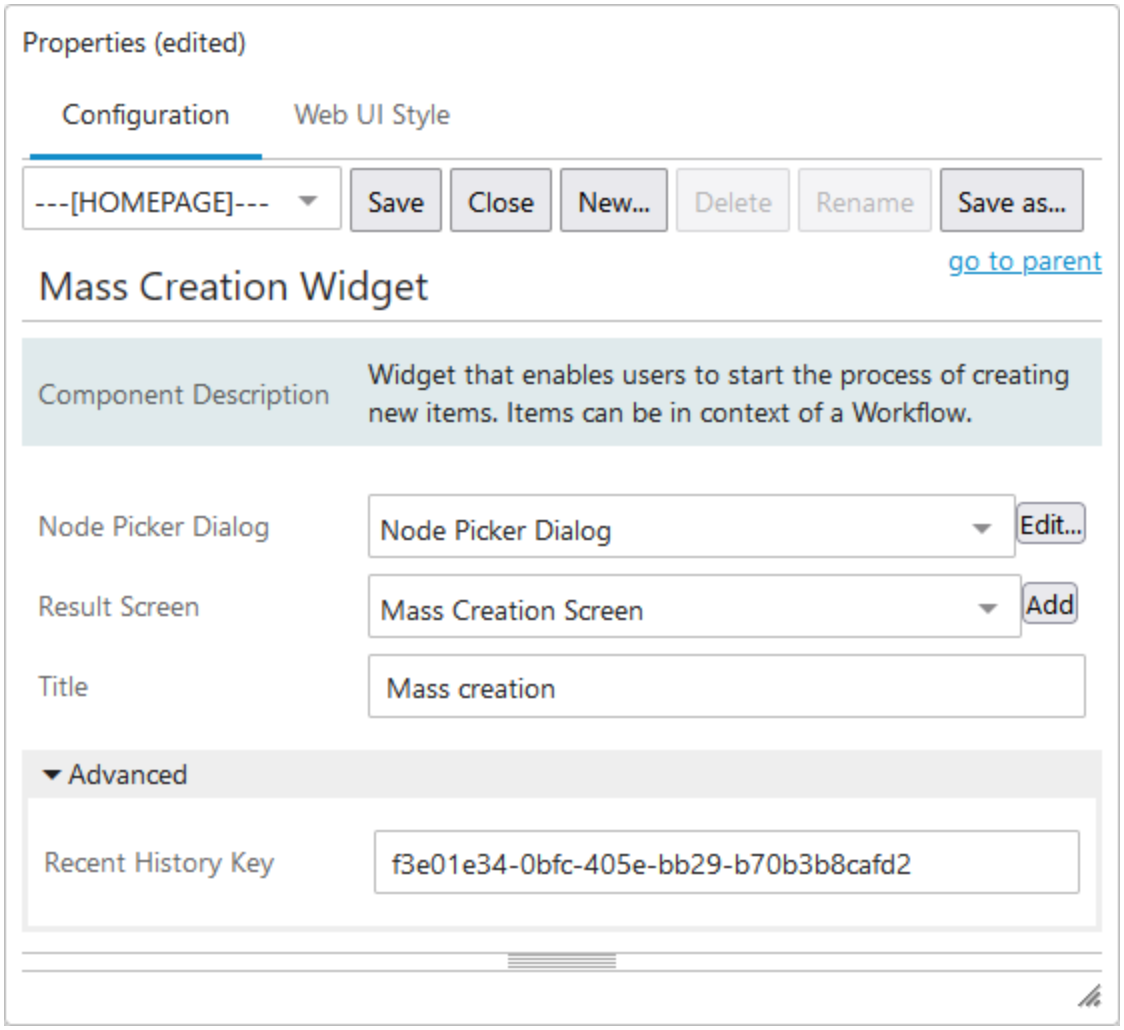
The default title displayed at the top of a Mass Creation Widget is 'Mass creation.' Since multiple widgets can be created for different onboarding needs, the title can be renamed to something more descriptive for end users.



Recent History Key

Under **Advanced** there is a **Recent History Key** parameter. The key in the value field may be copied and pasted / used within another widget. The widgets would then share the same **Latest searches** history information.

Below is an example of the **Mass Creation Widget Properties**, fully configured:



After parameter selections have been made, click **Save** at the top of the Designer window. Close the Designer window to exit design mode and return to normal Web UI operation. If a Mass Creation Screen has not been configured yet, instead of exiting design mode, select an existing (or create a new) Mass Creation Screen to continue on with the setup process.

For more information, refer to the **Configuring a Mass Creation Screen** section of the **Web User Interfaces** documentation.

For more information about using the Mass Creation components, refer to the **Using a Mass Creation Screen and Widget** section of the **Web User Interfaces** documentation.

Policy Widget

The Policy Widget is a Homepage widget that shows the breaches policies which are active in the system. The most recent breaches will be shown and clicking on these policies will link to the configured Policy Details screen.

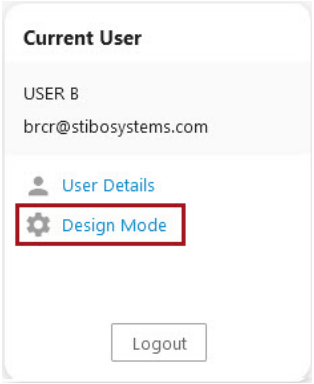
Before using the Policy Widget, the Data Policy Web UI must be configured. For information how to set up the Web UI, refer to the **Web UI Configurations for Policies** topic of the **Data Governance** documentation.

Adding a Policy Widget

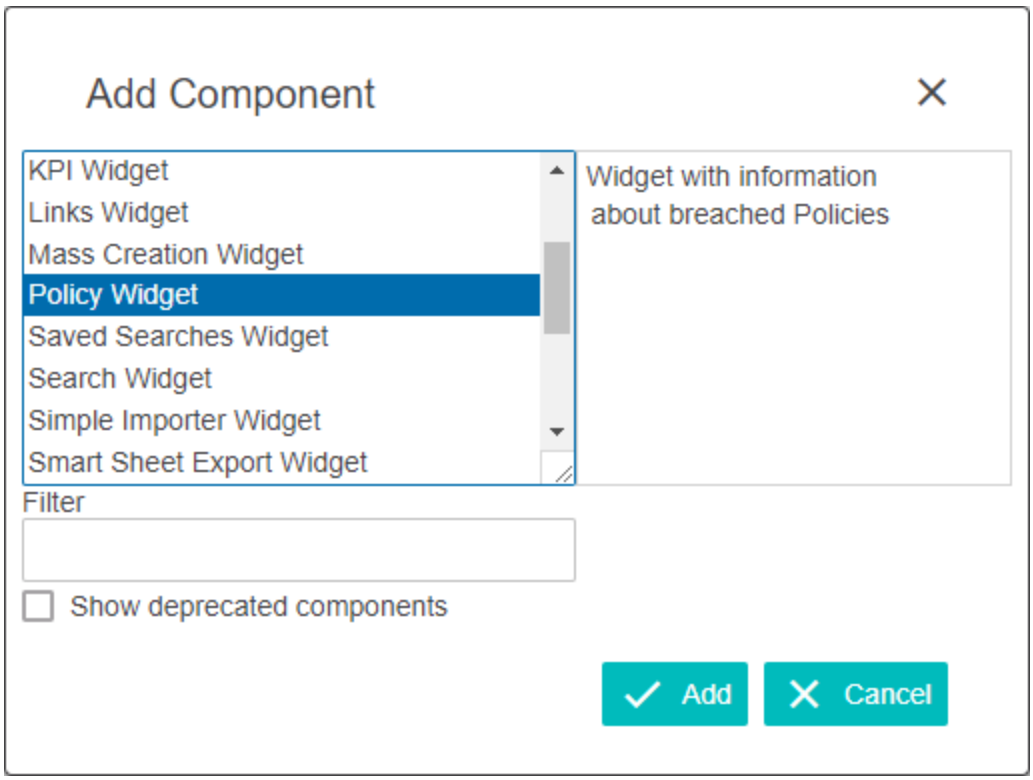
The Policy Widget is pre-configured to show the breached policies.

To add a Policy Widget to the Web UI Homepage:

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Click the 'Design Mode' launch button found on the Homepage (in the User Widget).

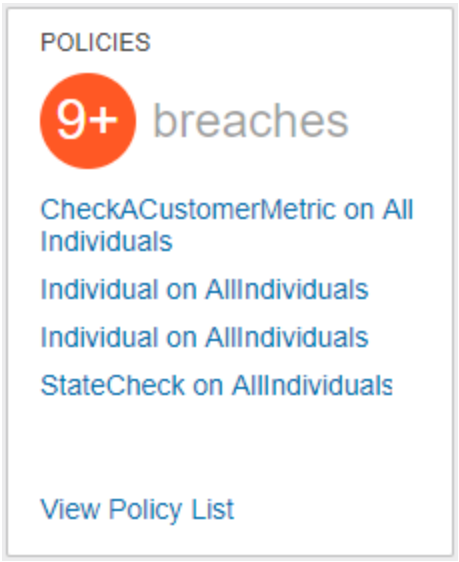


3. If not automatically shown the Home Page Properties, choose **---[HOMEPAGE]---** from the screen dropdown list.
4. Add the Policy Widget to a Widget Grid:
   - If adding it to an existing Widget Grid, double-click the desired Widget Grid listed in the Child Components > Content parameter field. Click Add, choose **Policy Widget** from the 'Add component' dialog, and then click Add again.
   - If adding a new Widget Grid, click the Add button under the Child Components > Content parameter field. Select **Widget Grid** in the 'Add component' dialog and then click Add. Next, double-click the new Widget Grid that is now showing at the bottom of the list in the Child Components > Content field. Click Add, choose **Policy Widget** from the 'Add component' dialog, and then click Add again.



Widgets can be reordered as needed. Either reorder the individual widgets inside a Widget Grid by clicking on a widget name and then clicking the Up and Down buttons in the **Widgets Child Component** of the **Widget Grid Properties** screen. Or, as an alternative, select a **Widget Grid** in the Child Components > Content field of the Home Page Properties and click Up and Down to reorder the entire Widget Grid. Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

5. Click **Save** in the Designer window. At this point, the Policy Widget will display any breached policies.



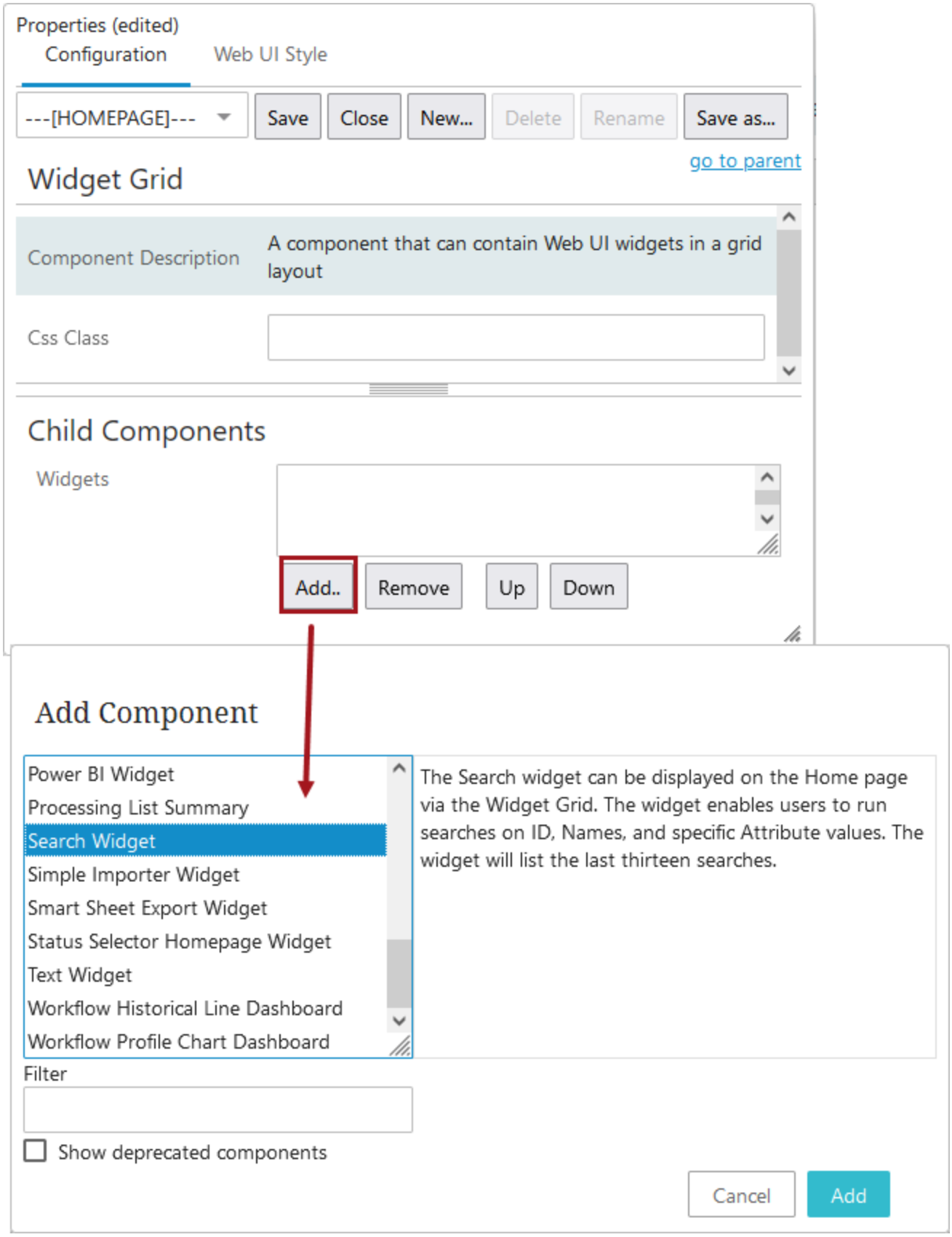
Search Widget

The Search Widget allows for a quick (and configurable) search of objects in the STEP system. The Search Widget can be configured to search widely through STEP, or it can be configured to search only a narrow segment of STEP, depending on the needs of the user.

Adding Search Widget

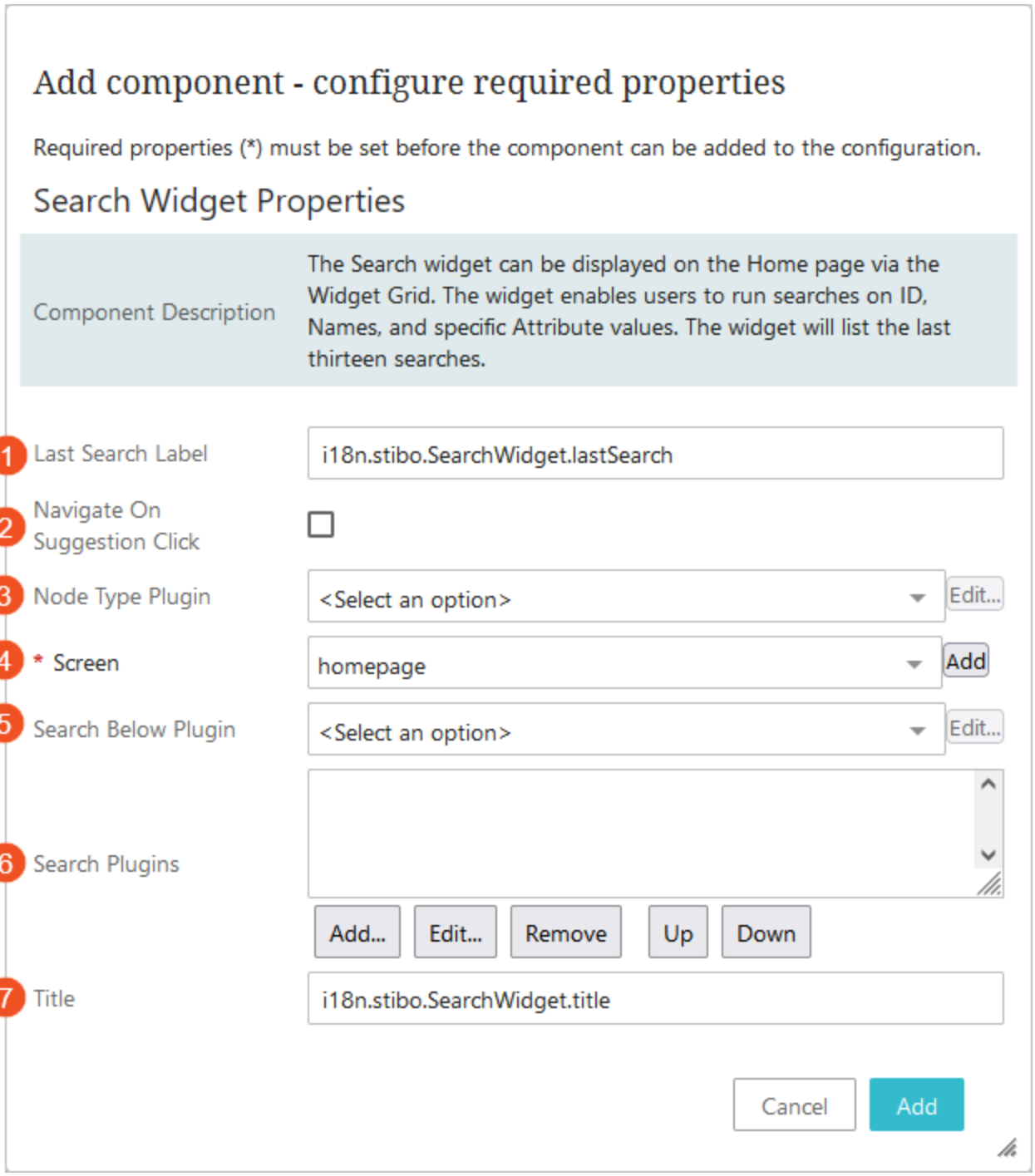
Note: Adding the Widget Grid is explained in the **Homepage Widgets** section of the **Using a Web UI** topic in the **Web User Interfaces** documentation.

1. In design mode, double click on the desired 'widget grid' from the **Homepage Properties** screen.
2. Click on the **Add** button from the child components of the widgets field.
3. Select the **Search Widget** from the **Add Component** screen and click **Add**.

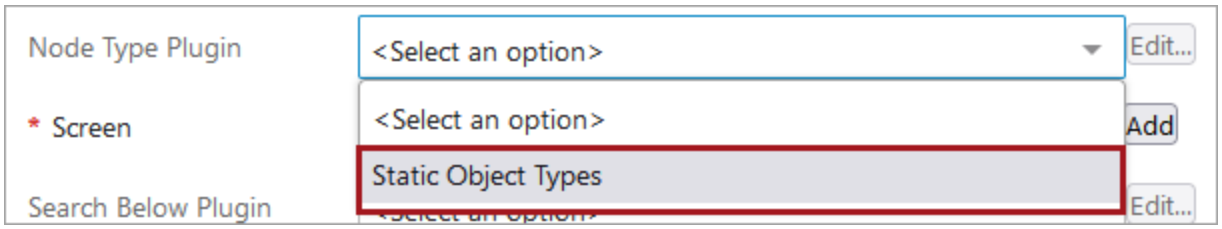

Properties (edited)
Configuration
Web UI Style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Widget Grid
Component Description
A component that can contain Web UI widgets in a grid layout
Css Class
Child Components
Widgets
Add..
Remove
Up
Down
Add Component
Power BI Widget
Processing List Summary
Search Widget
Simple Importer Widget
Smart Sheet Export Widget
Status Selector Homepage Widget
Text Widget
Workflow Historical Line Dashboard
Workflow Profile Chart Dashboard
The Search widget can be displayed on the Home page via the Widget Grid. The widget enables users to run searches on ID, Names, and specific Attribute values. The widget will list the last thirteen searches.
Filter
Show deprecated components
Cancel
Add

Configuring a Search Widget

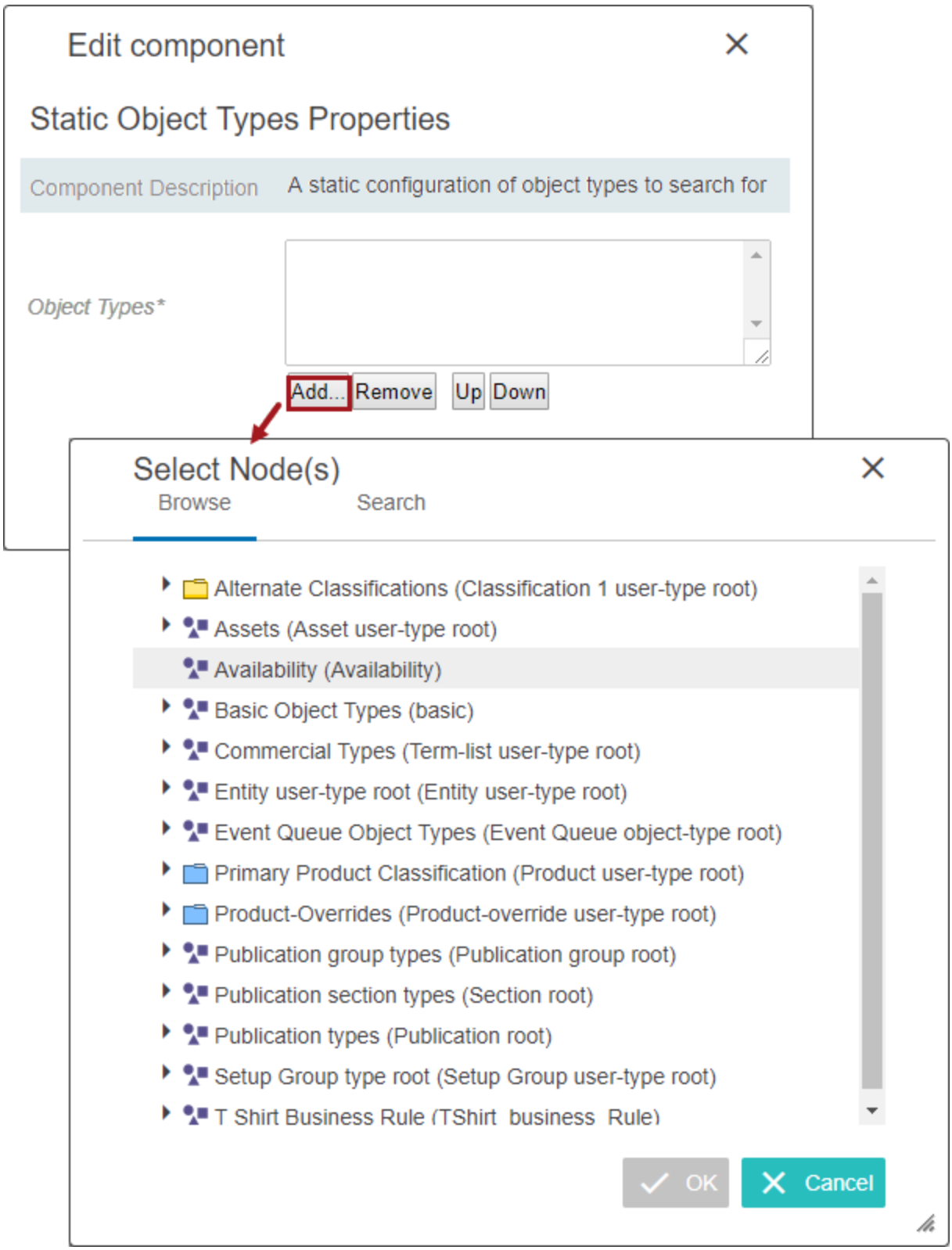
Each parameter should be configured as needed. The following section explain what each parameter does and the steps / options for configuring them.



1. **Last Search Label**: Used for the title of the last searched phrases.
2. **Navigate On Suggestion Click:** This parameter is set to enable immediate navigation to the suggested item when the item is clicked.
3. **Node Type Plugin**: This is used to determine the type of nodes to search for. If not set, the widget will search for all Assets, Classifications, Entities, and Products.



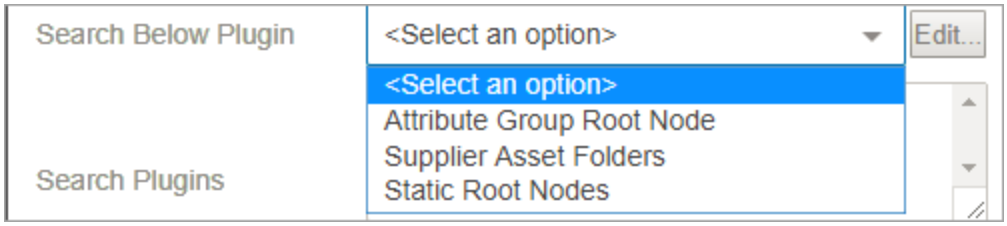
- **Static Object Types**: Selecting this option and clicking on edit will display the 'Static Object Type Properties' screen. Clicking on the 'Add' button will display all the object types in STEP. The user has to select the relevant object type and click the Save button.


Edit component
Static Object Types Properties
Component Description
A static configuration of object types to search for
Object Types*
Add...
Remove
Up
Down
Select Node(s)
Browse
Search
Alternate Classifications (Classification 1 user-type root)
Assets (Asset user-type root)
Availability (Availability)
Basic Object Types (basic)
Commercial Types (Term-list user-type root)
Entity user-type root (Entity user-type root)
Event Queue Object Types (Event Queue object-type root)
Primary Product Classification (Product user-type root)
Product-Overrides (Product-override user-type root)
Publication group types (Publication group root)
Publication section types (Section root)
Publication types (Publication root)
Setup Group type root (Setup Group user-type root)
T Shirt Business Rule (TShirt business Rule)
OK
Cancel

4. **Screen**: The screen that should be used to display hyperlinked objects from the widget. The screen must be either a 'Generic Search' or 'Node List Browser' type. The Node List Browser will show one product at a time with the option to go forward and back in the search results, whereas the Generic Search will show the result in a Node list table or multieditor format.

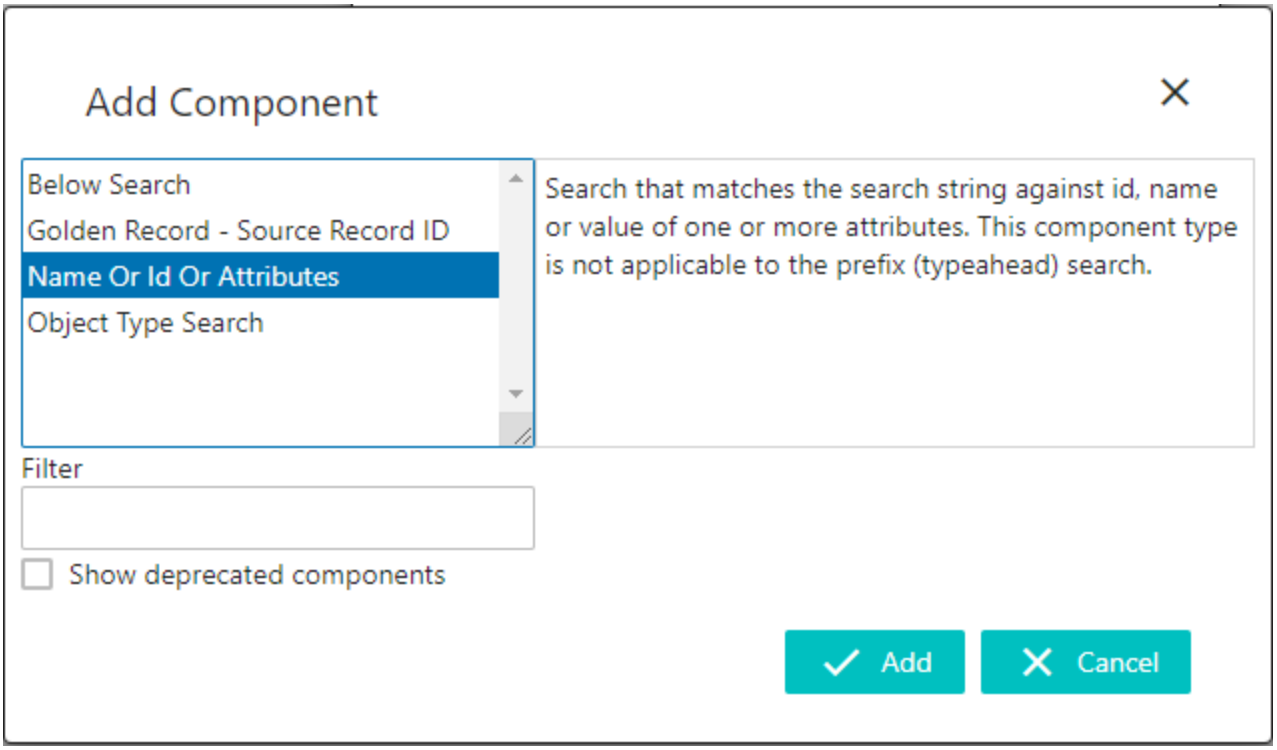
   The user can select a pre-configured screen or the user can click on the 'Add' button where the user enters a valid Screen ID and select the 'Generic Search' screen.

5. **Search Below Plugin**: This parameter defines the node below which the search is to be carried out. Three options will be displayed when the dropdown of the 'Search Below Plugin' is clicked.



- **Attribute Group Root Node**: When the Attribute Group Root Node option is selected, the Attribute Group Root Node Properties screen will be displayed where the valid Attribute Group node will be selected. Selected attribute group node will act as the top root node for the Node Picker dialog.
- **Supplier Asset Folders**: When this option is selected the search result will list the asset folders for the suppliers that the user is a member of.
- **Static Root Nodes**: This parameter allows the required Root Node URLs. Multiple root nodes of Product Classification, Entity, Assets, Publication, and Collections can be added. Selecting this option will display the 'Static Root Nodes Properties' screen where the Root Node URLs are added.

6. **Search Plugins**: In this parameter, two options are available when the 'Add' button is clicked.



- **Below Search**: This plugin determines under which nodes to run the search. Every node will be searched if this parameter is not configured.
- **Golden Record- Source Record ID**: Performs a search that matches the Golden Record IDs, or the IDs of the Source Records, that contribute to a Golden Record and returns the active Golden Record. Unless it is explicitly required, this search should not be configured together with any other parameters as doing so might cause poor performance / empty results.
- **Name Or Id Or Attributes**: This plugin is used to add attributes to search against. Once this search plugin is added, the user has to select the plugin and click on the 'Edit' button to add the attributes. This action will display the Name or Id Or Attributes Properties screen. There are two parameters that can be chosen:
  - **Attributes**: Attributes are added and removed based on the search criteria. Clicking on Add will display the screen for the attribute selection.
  - **Search in Data Containers**: This is explained further in the section below.
- **Object Type Search**: This determines which object types to search for.

7. **Title**: This is the Search Widget Title. It is recommended to use a descriptive title.

Search Results

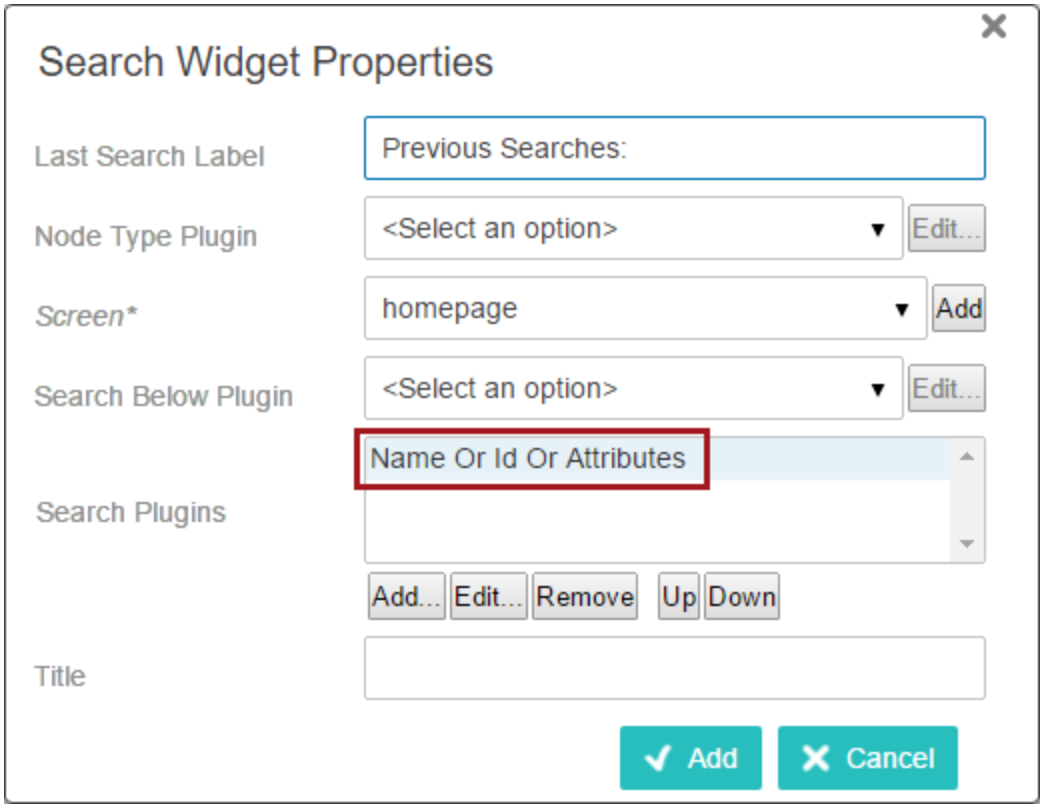
The results of a search can be displayed on either a screen of type generic Search or of type Node List Browser. The generic search screen can be configured with one or more display modes to show the results, and the Node List Browser screen will show a detail screen with the first result and the option of paging through the result list.

Note: The maximum number of search results returned is 10,000 to prevent memory and performance issues. This value can be edited to be less than 10,000 via the Portal.MaxResultCount config property, which can be set on the server by advanced users or by Stibo Systems technical support.

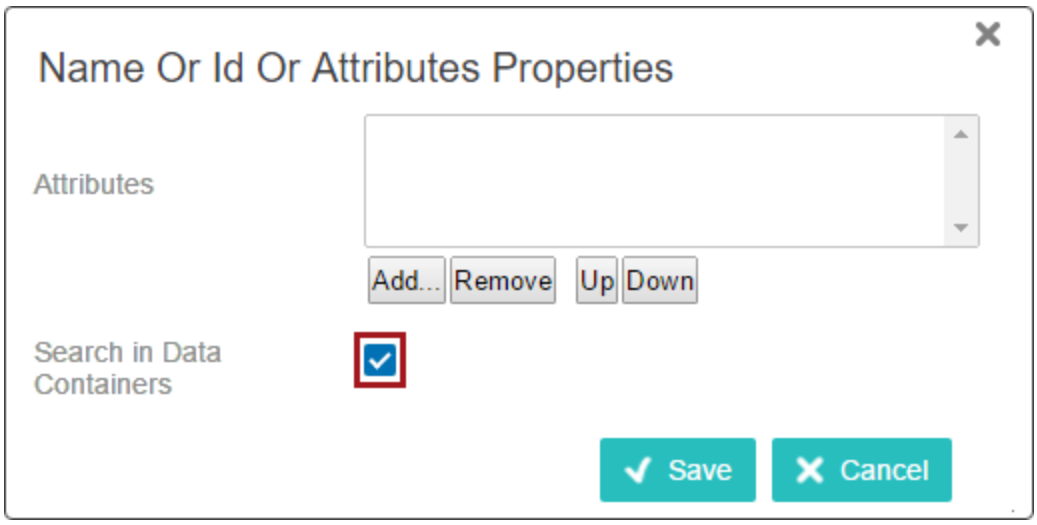
Search in Data Containers

The Search Widget can be configured to search within data containers, if required.

Editing the Search Widget Properties in the designer, the user must first add the 'Name Or Id Or Attributes' value in the **Search Plugins** field, and then click on the value to open the **Edit component** window.



In the **Edit component** window, add attributes and check the box beside **Search in Data Containers**. Once this configuration is saved, any search initiated in the Search Widget will also search through data containers and return applicable entities within the search results.



Search Golden Record or Source Record IDs

The 'Golden Record - Source Record ID' plugin can also be configured. This plugin alters the search logic so that it matches the search string against golden record IDs or the IDs of the source records that contribute to a golden record, and returns the active golden record.

To use this plugin, one or more matching algorithms must be set on the widget by selecting the plugin once it has been added and clicking **Edit...**. In the Golden Record - Source Record ID Properties window, click **Add...** and browse or search for the desired matching algorithm, then click **OK**. Once the selections have been made, click **Save**.

Note: Unless it is explicitly required, the 'Golden Record - Source Record ID' plugin should not be configured together with any other parameters. Doing so can cause poor performance / empty results.

Simple Importer Widget

A Simple Importer Widget allows Web UI users of all skill levels to reliably initiate an import on demand from the Homepage screen. Administrators have many options to allow their users to easily and accurately create and/or update products, entities, and classifications; and their attribute values, reference types, and object type by dragging and dropping a CSV or Excel valid import file onto the respective Web UI Homepage widget.

More than one Simple Importer Widget can be added to the Homepage, allowing users easy access to many on-demand imports.

Who can create / update what

The user's ability to create or update objects is limited to only the attribute values, and reference types valid for the object type(s) they have permission to access. Unique keys can also be implemented to ensure a user has uniquely identified an object before being allowed to start an import. Additionally, the Simple Importer Widget does not allow a user to map to an attribute that is not valid for the specified object type. In other words, attributes may appear as mapping selections, but when selected, if they are not valid for the object type being handled by the import, then the user will not be able to start the import. This restriction makes this widget ideal when a user with limited STEP access needs to create or update data for only those objects they have permission to access.

Auto Map or Pre-configure

Administrators can configure the Simple Importer Widget to allow users to map data on the fly or to use preexisting import configurations as a starter template. If both options are desired, then a separate widget must be configured for each.

When an administrator chooses to allow users to map data on the fly, the user is assisted with the STEP Auto Map feature that compares data in the input file's header row with the IDs / names of the attributes in STEP. When a match is found, the column is automatically mapped to the corresponding object attributes. For more information about Auto Map, refer to the **Inbound Map Data - Auto Map** topic within the **Data Mapping** documentation.

When an administrator chooses to use pre-configured import configurations, they allow for more advanced on demand import functionality (i.e., business rules). This is useful for frequently-used imports where the parameters and options are always (or nearly always) the same. However, when a Simple Importer Widget is configured to use a saved import configuration, the Auto Map feature is disabled.

Topics in this guide

- Valid File Types
- Import File Considerations
- Using Simple Importer Widget
- Create Objects Using Simple Importer Widget
- Update Objects Using Simple Importer Widget
- Import Preview and Mapping

- Configuring Simple Importer
- Unique Keys and the Simple Importer Widget

Valid File Types

The valid file types are Excel Workbook (.xlsx), Excel 2010 to higher versions, and CSV. It is recommended that users use the newest, supportable version of Excel.

For more information, refer to the **CSV Format** topic and/or the **Excel Format** topic within the **Data Exchange** documentation. Also, for more information on supported versions of Excel, refer to the current **Platform and Software Support** documentation in the **System Release and Patch Notes**.

Import File Considerations

If the import file contains:

- data that does not need to be imported into STEP, then the mapping field column needs to be blank, or unmapped, so that STEP will ignore the data.
- column header labels '<ID>' or '<Name>', then the preview will display with the ID and/or object Name as auto mapped. For more information, refer to the **Predefined Header Text** section of the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.
- column header labels that should be used as the new object ID, either because the import file does not contain an '<ID>' column or because the column labeled as '<ID>' is not ideal to be used as the STEP ID, then the user can manually map new object IDs to a preferred import file column. For more information, refer to the **Mapping ID** topic of the **Import Preview and Mapping** section of this guide.
- column header labels that match STEP attribute IDs / names, then the import preview will display with those columns auto mapped. For more information, refer to the **Mapping Attribute** topic of the **Import Preview and Mapping** section of this guide.
- column header labels that do not match the STEP attribute ID / name, but the data needs to be imported, then the user can manually map those columns. For more information, refer to the **Mapping Attribute** topic of the **Import Preview and Mapping** section of this guide.
- reference types, then the user will need to manually map the reference types to the import file column, because auto mapping of reference types is not supported. However, once manually mapped, the standard parent/child inheritance will automatically occur. For more information refer to the **Mapping Reference Type** topic of the **Import Preview and Mapping** section of this guide.
- data not valid for the attribute type (for example, a text value in a numeric attribute, or an invalid LOV value), then the user will be visually warned and can choose to edit the data prior to importing, or ignore. For more information, refer to the **Check Attribute Data Validity** topic of the **Import Preview and Mapping** section of this guide.
- column(s) with attribute values required for a unique key, then the 'Unique key - mapped by Attribute' feature can be used to properly create and/or update objects. For more information, refer to the **Using Unique Key Mapped by Attribute** topic within the **Unique Keys and the Simple Importer Widget** section of this guide.
- a column with each object's unique key, then the objects can be updated using the mapping to 'Unique key' feature. For more information, refer to the **Using Unique Key to Update Objects in Web UI** topic within the **Unique Keys and the Simple Importer Widget** section of this guide.

Using Simple Importer Widget

Once configured, the Simple Importer Widget can be used to quickly and easily create or update products, entities, or classifications; and their attribute values, reference types, and object type.

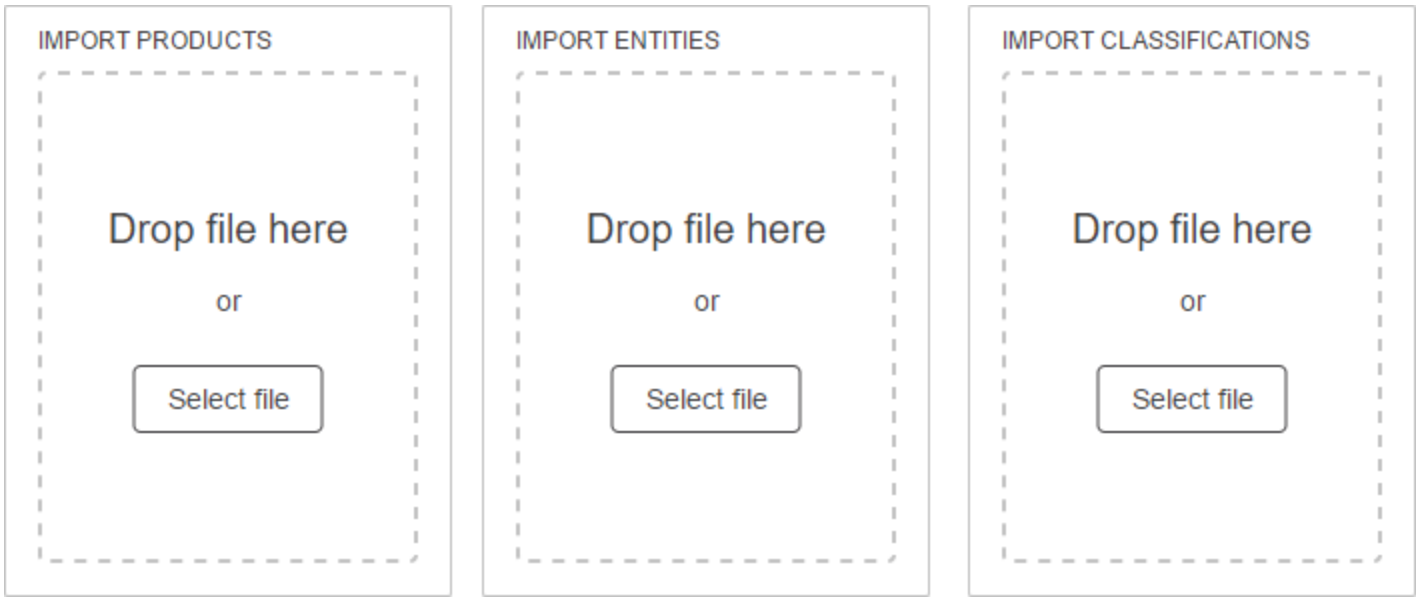
This topic is an overview of the steps involved when using a Simple Importer Widget.

1. Initiate an Import
2. Choose to Update or Create Objects
3. Preview an Import File and Map Data to STEP
4. Start an Import

Initiate an Import

To initiate an import from the Web UI Homepage, drag and drop a valid CSV or Excel file onto the Simple Importer Widget or use the 'Select file' button to find and select the valid file.

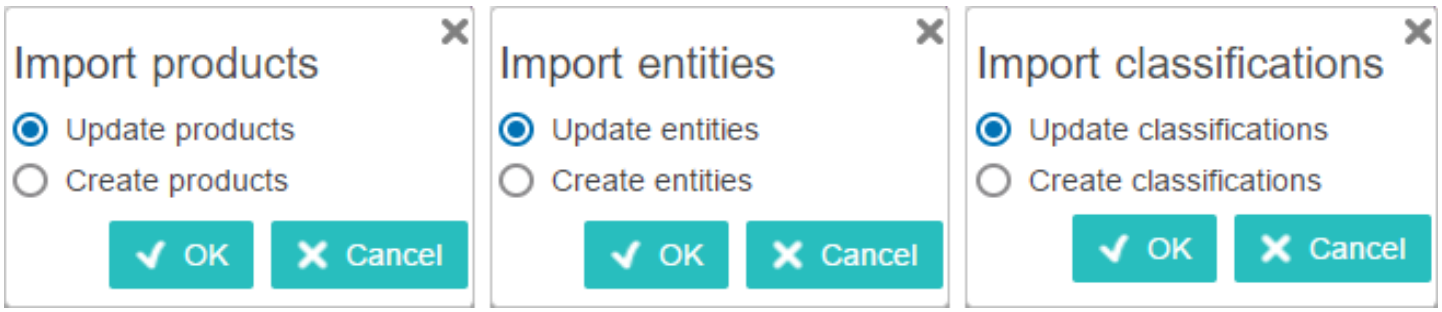
For this example, a Simple Importer Widget with basic configurations for each of the three import node types (Products, Entities, and Classifications) has been configured to display on the Homepage.



Choose to Update or Create Objects

Once an import file has been selected (or drag and dropped onto a Simple Importer Widget), a dialog specific to the widget configuration will display, prompting the user to choose to update existing objects or create new ones.

Below are examples of the respective dialog that displays when each of the three import node types is initiated and a default title is used.



If an import file includes objects to be updated and objects to be created, the same import file can be used for both the update and create functions. However, each function will need to be completed separately (e.g., the file will need to be imported twice, once using the update option, and once using the create option).

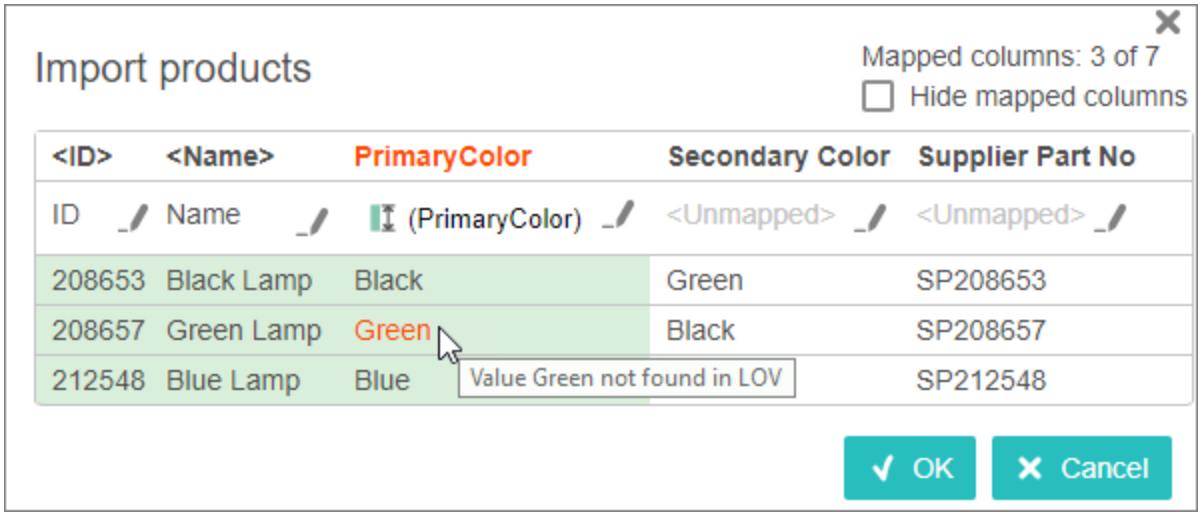
For more information on the update functionality, refer to the **Update Objects Using Simple Importer** section of this guide.

For more information on the create functionality, refer to the **Create Objects Using Simple Importer** section of this guide.

Preview an Import File and Map Data to STEP

After an import has been initiated using the Simple Importer Widget, the import preview will display. The purpose of the import preview is to display a representation of less than 100 rows of information from the import file and the STEP system in one view. This allows users to approve automatically mapped data, edit mappings, manually map data, and confirm attribute value validity before actually starting the import, or cancel the import.

Note: The only mappable objects in the Simple Importer Widget are ID, name, object types, attributes, or reference types.



Important: The import preview displays differently depending upon the system settings configuration of a STEP Unique Key. For more information, refer to the **Unique Keys and the Simple Importer Widget** topic within this guide.

For the example shown above:

- 3 of 7 columns are mapped, and all columns are displayed.
- The import file column '<ID>' is automatically mapped to the STEP ID, and the OK button is enabled. Mapping the ID (or Unique Key) is the only requirement to enabling the OK button.
- The ID, Name, and PrimaryColor columns are automatically mapped because the import file column headers match the Auto Map requirements for case-sensitive header text, and STEP attribute ID and/or name. (Optionally, an import configuration could be used to map headers according to the import configuration. For more information, refer to the **Configuring Simple Importer Widget** topic within this guide.)
- The import file column 'Secondary Color' and 'Supplier Part No' are unmapped, and display with the '<Unmapped>' light gray text.
- The import file column 'PrimaryColor' displays using orange text because the STEP Primary Color attribute uses an LOV that does not include Green as an option.

For more information, refer to the **Import Preview and Mapping** topic within this guide.

Important: If any unique keys are active in STEP, the import will fail for objects with ID values that already exist within unique key values. Even when the 'Unique key - mapped by Attribute' option is not selected, an error will occur when the ID value from an import conflicts with the unique key configuration. For more information, refer to the **Unique Keys and the Simple Importer Widget** topic within this guide.

Start an Import

Once mapping is complete, from the import preview click the **OK** button to start the import. The import preview will close, and a process message indicating an import background process has initiated will display with a link to the Background Process Node Details.

In the example below, the default process description is used.



If configured, the user can track the progress of the import by clicking and opening the 'Recent background processes' panel in the upper right corner of Web UI, or via the Background Process List Screens. For more information, refer to the **Background Process List Screen** section of the **Using a Web UI** documentation.

Important: If an object is being created with an object type that is not valid for the existing parent, then the background process will report 'The object type with ID (ID of import file object type) is not valid under object type with ID (ID of parent / category).' The object will be skipped.

Configuring Simple Importer Widget

A Simple Importer can only be accessed from a Simple Importer Widget on a Web UI Homepage. This topic addresses prerequisites, and the parameters available for configuring a Simple Importer Widget.

Prerequisites

It is expected that anyone configuring a Simple Importer Widget is familiar with Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

A Simple Importer is accessed via a Simple Importer Widget on the Homepage. Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

To create objects using the Simple Importer Widget, users must have privileges allowing them to create, modify, and update the products, entities, classifications, and their attribute values, reference types, and object type in STEP (as appropriate for the data being imported). Also, the attributes mapped during import must be valid for the object type being created or updated.

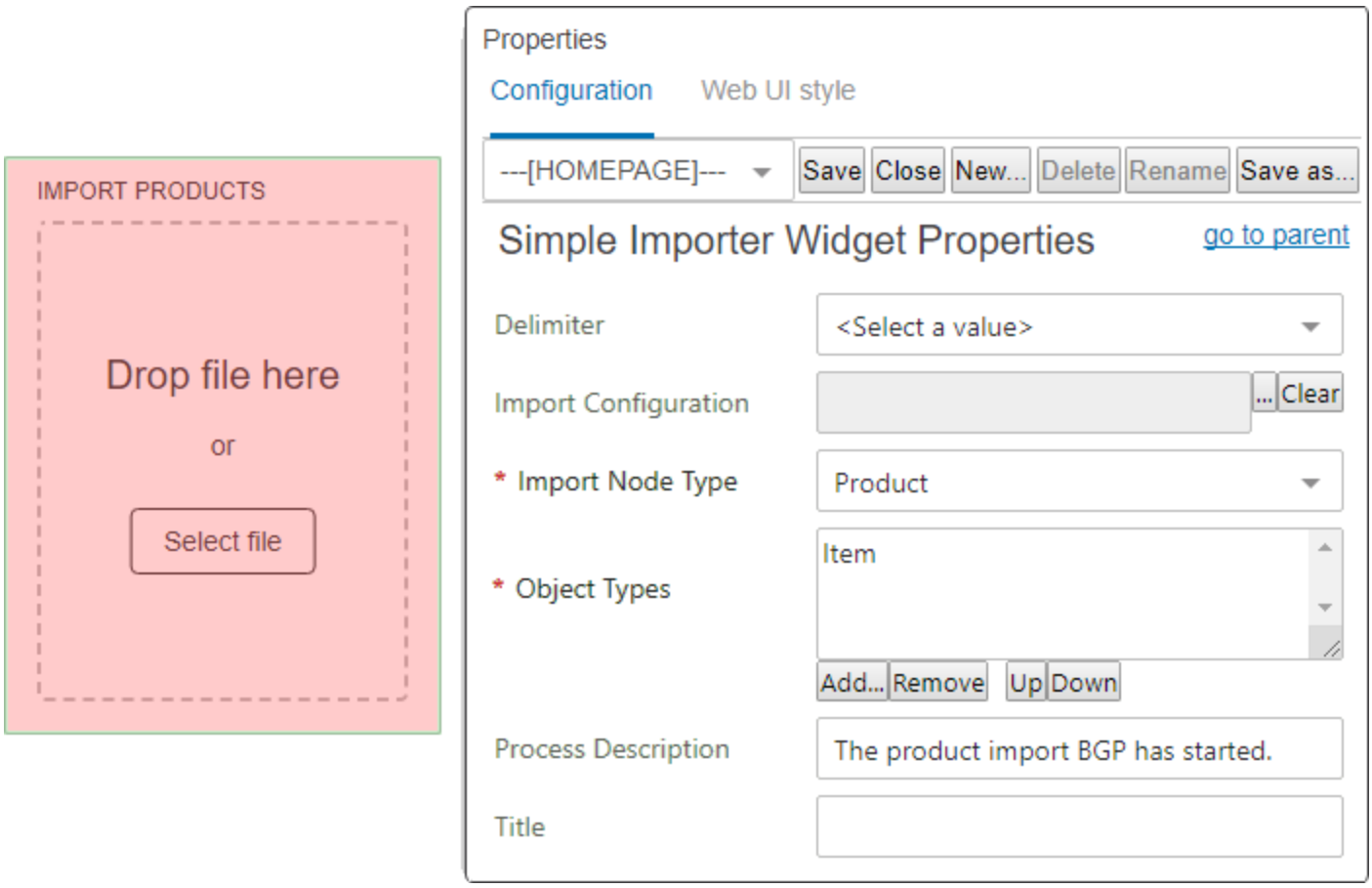
The Simple Importer has the same default settings as the Import Manager in workbench, with an exception: Attribute Transformations are not supported. For more information, refer to the **Import Manager** section of the **Data Exchange** documentation.

If expected results are not achieved, then a firm understanding of Action Sets, Privilege Rules, and Keys is very important. More information can be found in the **Action Sets** section within **System Setup**, the **Privilege Rules** section within **Users and Groups**, and the **Unique Keys** section within **System Setup**.

Configure a Simple Importer Widget

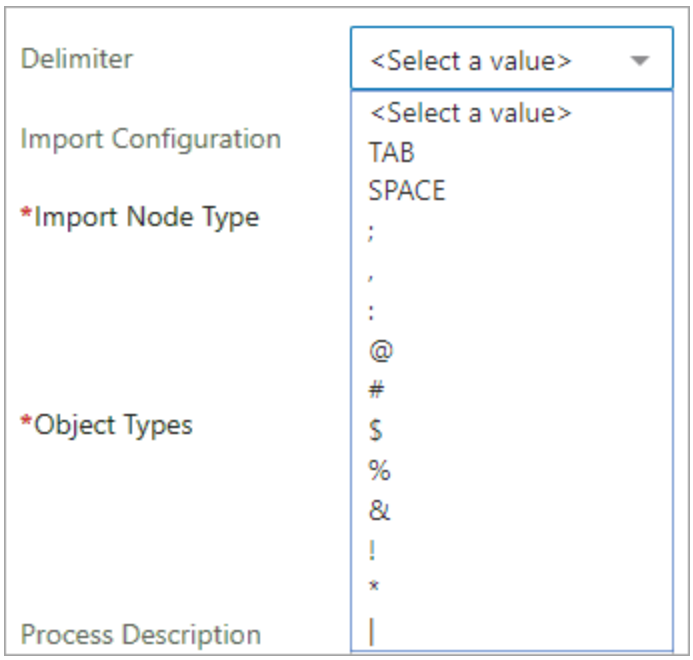
Any number of Simple Importer Widgets can be added to a Homepage, but each one can be configured with only one of the three import node types: products, entities, or classifications. However, more than one Simple Importer Widget can be configured for the same importer node type.

Note: An easy way to access the properties for an existing widget is to open Web UI designer from the Homepage, and select the widget to configure. The designer will display the properties of the selected widget.



When adding a Simple Importer Widget to the Homepage Widget Grid, two parameters (Import Node Type and Object Types) are required, as indicated by the asterisk (*). This section describes all parameters in detail.

- **Delimiter:** With CSV file types, the delimiter parameter allows users to specify which type of data separator will indicate what data is different from each entry. An empty value defaults to a comma (,).



- **Import Configuration:** Provides a template mapping, which users can then edit as needed. This is useful if advanced Import Manager features are needed (beyond basic create or update of objects, attribute values, and references). For example, if business rules are to be run as part of the import, an import configuration must be used as the simple importer does not allow selection of business rules. For more information, refer to the **Business Rules in an Import Configuration** topic within the **Business Rules** documentation.
  - Optionally, click the ellipsis button (...) and select a saved Import Configuration to provide users with pre-configured mapping.
    - Before an importer configuration is available for selection in the widget configuration, it must be created in the workbench by a user with required privilege rules.
    - Choose the import configuration carefully. An error displays if the object selected is not a configuration for import, however no validation is performed to ensure the selected import configuration matches the next parameter of this widget (Import Node Type).

Important: Configuring the widget to use a saved import configuration will disable the Auto Map feature. If users need to import files different from the configured import configuration, then an additional widget should be created for users to benefit from the Auto Map feature when importing a file. Auto Map can be a great time saver, however the auto mapping of reference and object types is not supported. Reference and object types must be mapped manually. For more information, refer to the **Inbound Map Data - Auto Map** topic and the **Import Manager** section of the **Data Exchange** documentation.

- Leaving the Import Configuration parameter blank will result in the following default settings when an import is initiated using the Simple Importer Widget:
  - Auto-Initiate STEP Workflows on Item Creation is enabled
  - Auto Select Import Mode is enabled
  - Match units by name is enabled

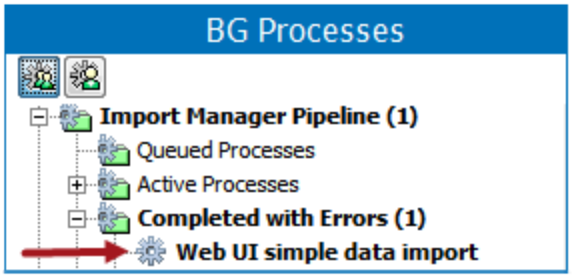
- Approver will be the current user initiating the import
- Import Workspace will be the workspace used when initiating the import
- Context will be the context chosen by the user when logging in to the Web UI.

For more information, refer to the **Import Manager - Advanced Settings** topic of the **Creating a Data Import** section within the **Import Manager** documentation.

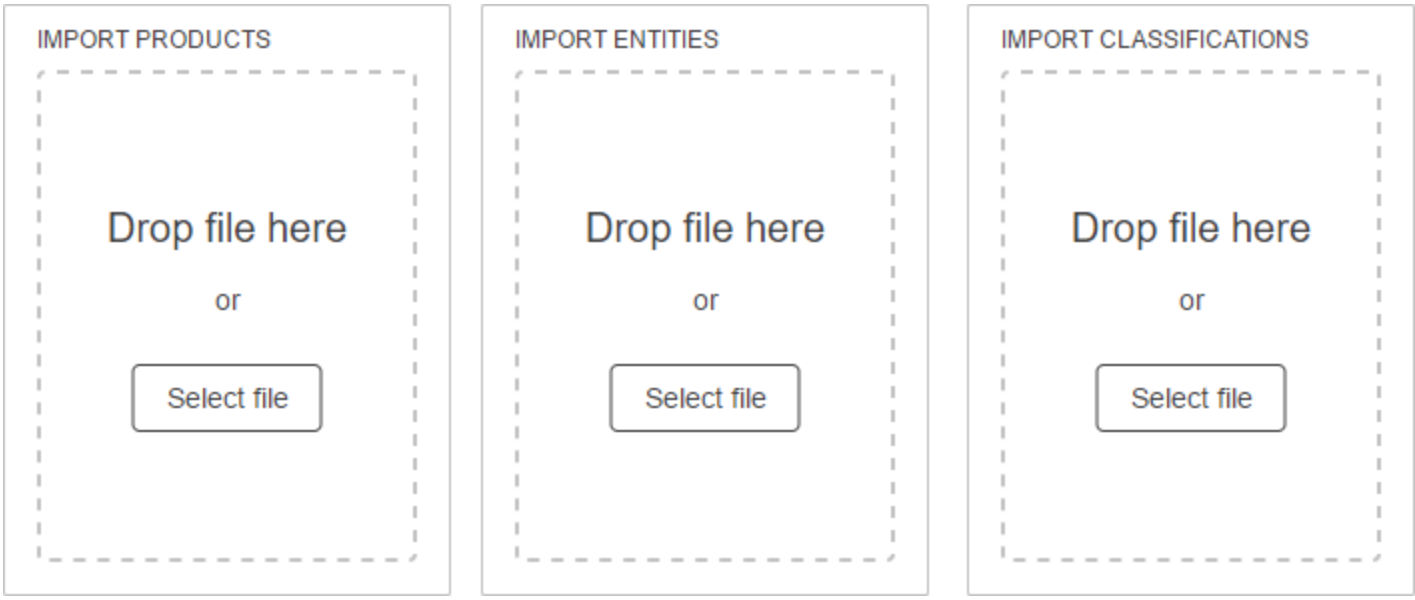
- **Import Node Type*:** One of the following Import Node Types must be selected: Product, Entity, or Classification. Additional widgets can be made for each node type, if necessary.
- **Object Types*:** Provides the ability for the simple importer to create or update products, entities, or classifications for the added object types. At least one object type must be added to create and save the widget. Only the defined object types will display for the user to select from when initiating the import. Multiple valid object types of the same super type can be selected.
  - All object types selected should be within the same super type (e.g., all products, all entities, or all classifications). Mixing of super types (e.g., one product and one entity) is not supported.
  - When using the simple importer, the user will be able to select from only the object types listed during mapping.
  - Click the **Add** button to add one or more object types and the **Remove** button to eliminate a displayed object type.
  - Click the **Up** and **Down** buttons to display a list of Object Types in a specific order to the user.
- **Process Description:** The default process description is 'Web UI simple data import.' Optionally enter in a process description for monitoring background processes. The background process description in workbench will be updated with the populated text.
  - Within Web UI, when the user starts an import, the following displays:



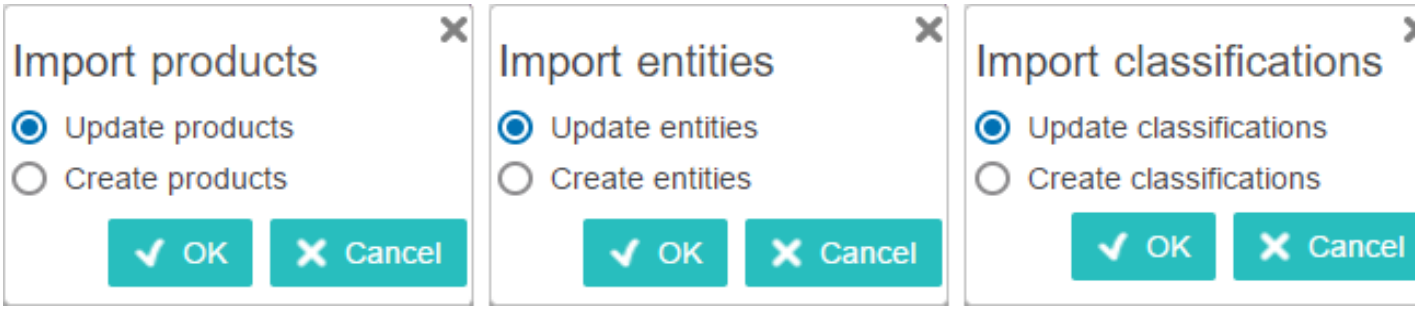
  - Within workbench, once the Simple Importer has started, the BG Processes tab will display the background process within the Import Manager Pipeline using the process description as configured within the Web UI Simple Importer Properties. In the example below, the process has completed and the default process description 'Web UI simple data import' is used.



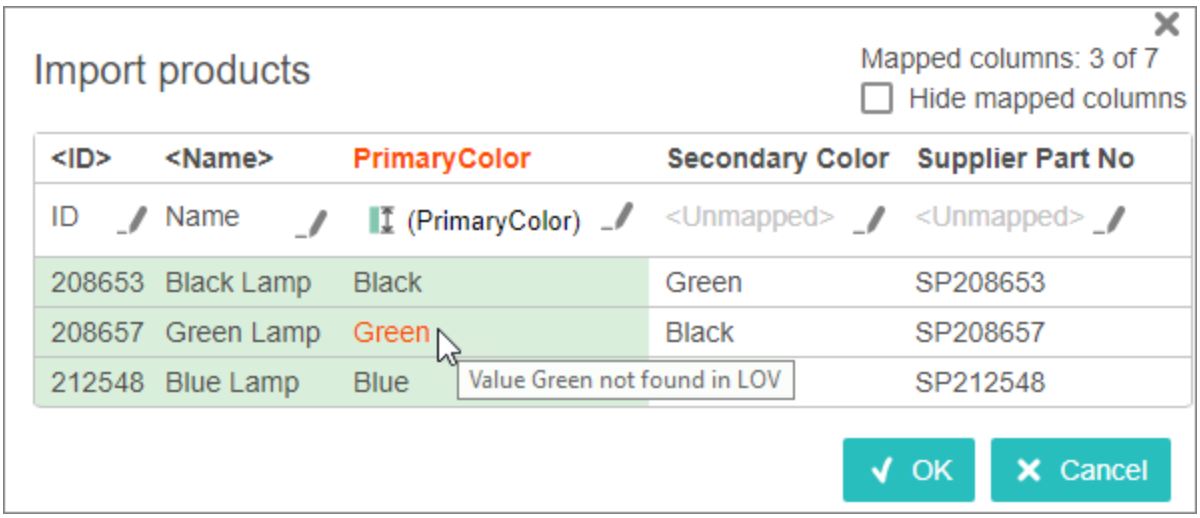
- **Title:** Optionally enter a title. If the parameter is left blank, then the default title will display within the designer as 'Import <nodetype>,'and will display for the user as Import products, Import entities, or Import classifications.
  - The Title parameter will display on the widget, the Update / Create dialog, and the Import Preview dialog.
  - The screenshot below is an example of how the default Title parameter for the product, entity, and classification node types display when the Simple Importer Widget is added to the Homepage.



  - The screenshot below is an example of how the default Title parameter for the product, entity, and classification node types display once an import is initiated and the Update / Create dialog displays.



  - The screenshot below is an example of how the default Title parameter for the product node type will display when an import preview dialog displays.


Import products
Mapped columns: 3 of 7
Hide mapped columns
<ID>
<Name>
PrimaryColor
Secondary Color
Supplier Part No
ID
Name
(PrimaryColor)
<Unmapped>
<Unmapped>
208653 Black Lamp Black Green SP208653
208657 Green Lamp Green Black SP208657
212548 Blue Lamp Blue SP212548
Value Green not found in LOV
OK
Cancel

Create Objects Using Simple Importer Widget

The create function within Simple Importer provides a user friendly tool for creating new products, entities, or classifications; and their attribute values, reference types, and object type. During the creation process, STEP will not allow any existing objects to be updated. Any existing objects in the import file will be ignored. However, if an import file includes both objects to be updated and created, follow the process as described below, and then using the same import file, follow the process described in the **Update Objects Using Simple Importer Widget** section within this guide.

Prerequisites

To create objects using the Simple Importer Widget, users must have privileges allowing them to create, modify, and update the data being imported. This may include products, classifications, entities, and their attribute values, object types, and reference types.

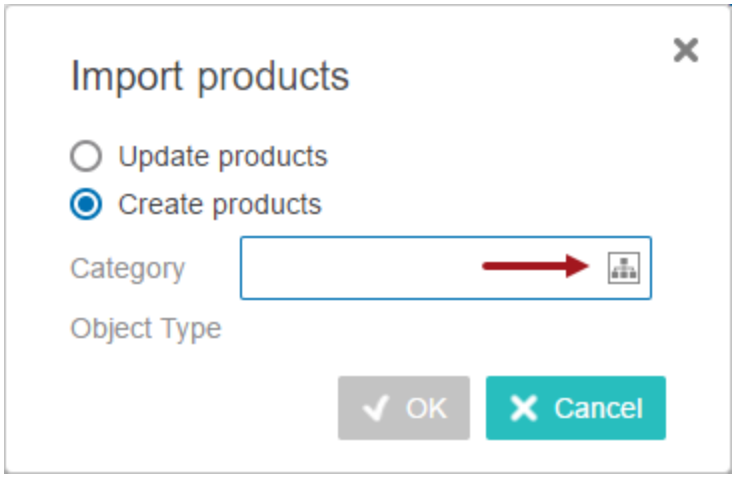
Creating objects requires the import file to include either a STEP ID or unique key. For information on using unique keys with the simple importer, refer to the **Unique Keys and the Simple Importer Widget** section within this guide.

Steps to Create Objects

Below are steps to create objects after an import is initiated using the Simple Importer Widget, as described in the **Using Simple Importer Widget** section of this guide.

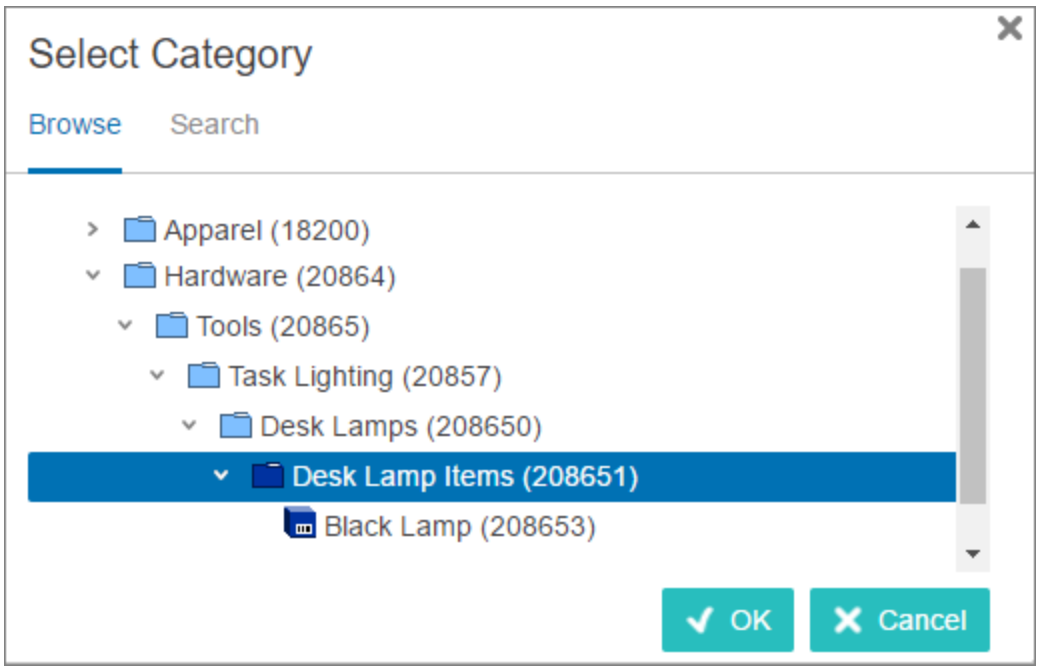
> **Note:** For this example, products are being created, however the steps are comparable for entity and classification creation.

1. Select **Create products**, and the Category and Object Type parameters will display.

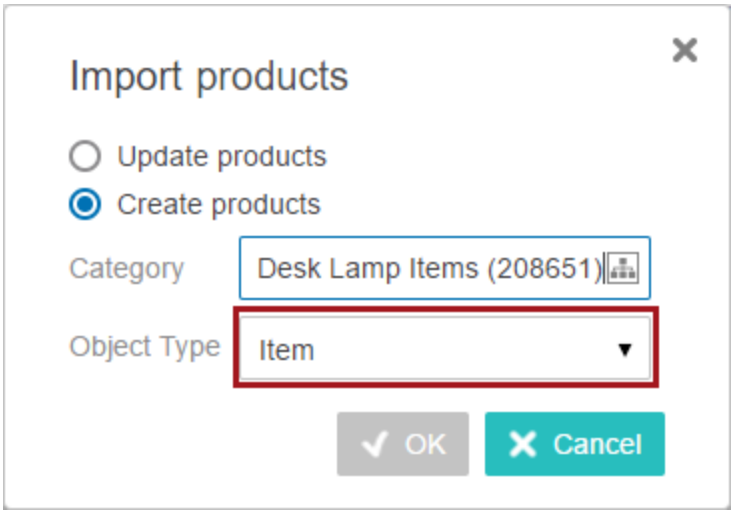


2. Enter the name or ID of the category, or click on the **Category node picker**, and the Select Category dialog will display. Select **the parent under which all objects should be created**.

   In this example, 'Desk Lamp Items' is used.



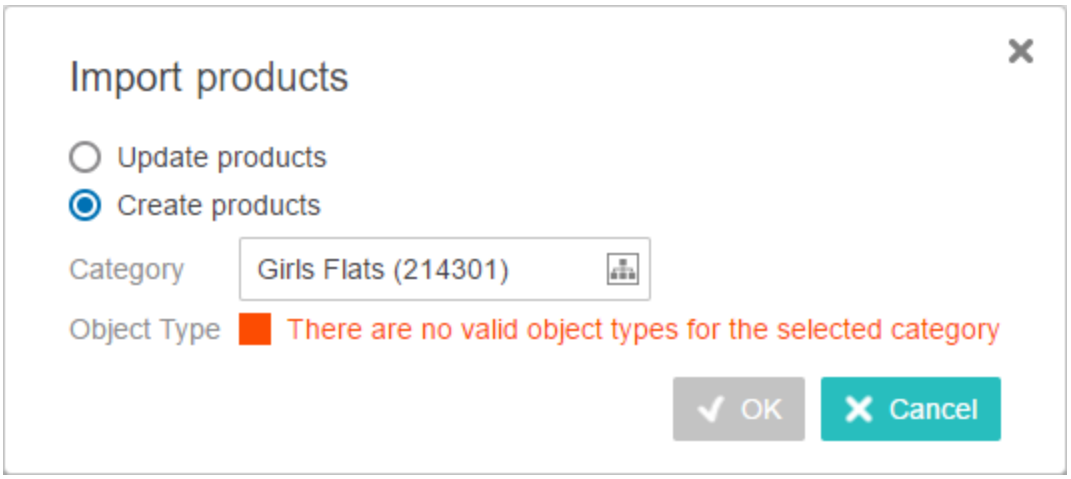
3. Click the **OK** button, and the dialog displays the parent selection and resulting object type options. Once the import is complete, the selected option applies to all newly created objects unless the user manually maps a data import column to object type.
   - If a single object type is valid for the selected parent, it will be displayed with no additional options.
   - If multiple object types are valid for the selected parent, the available options will display in a dropdown, and one must be selected.



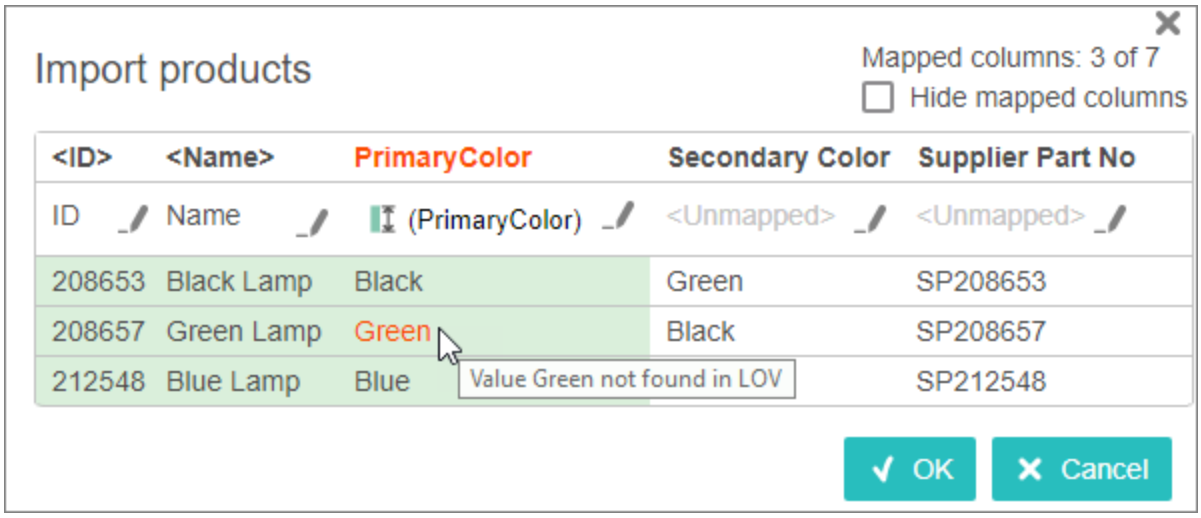
Important: When new objects need different object types, then the import data file column can be manually mapped to an object type. Any blank rows within the import data file mapped to an object type will be created

with the Category and Object Type selections made during the import initiation. For more information, refer to the **Mapping Object Type** topic within the **Import Preview and Mapping** section of this guide.

- If there are no valid object types for the selected parent, STEP will notify the user and the OK button will remain disabled.



4. Once a valid object type is selected, click the **OK** button, and the import preview will display. Auto mapping is performed for all columns with attribute IDs or names that match between the import file and STEP.



Note: In the example above, 'Import products' displays as the title of the import preview because the import was initiated using a Simple Importer Widget configured with the import node type of Product, and the default title. When other Simple Importer Widgets are used to initiate a Simple Importer, the respective title will display.

5. Mapping an ID column or unique key is required to properly identify the objects (in this example products) intended to be created. The OK button will not become active until an ID is mapped. Only the valid data in mapped fields (identified by the green background and black text) is imported. For more information about the import preview and how to use the mapping functionality, refer to the **Import Preview and Mapping** section within this guide.
6. Once the necessary fields are mapped, the user is now ready to start the import, as defined in the **Start an Import** section within the **Using Simple Importer Widget** topic within this guide.

Update Objects Using Simple Importer Widget

The update function within Simple Importer provides a user friendly tool for updating existing products, entities, or classifications; and their attribute values, reference types, and object type. During the update process, STEP will not allow any new objects to be created. Any new objects in the import file will be ignored. Only objects with a matching ID or unique key within the selected object type will be updated. However, if an import file includes both objects to be updated and created, follow the process as described below, and then using the same import file, follow the process described in the **Create Objects Using Simple Importer** section within this guide.

Prerequisites

To update objects using the Simple Importer Widget, users must have privileges allowing them to modify and update the data being imported. This may include products, classifications, entities, and their attribute values, object types and reference types.

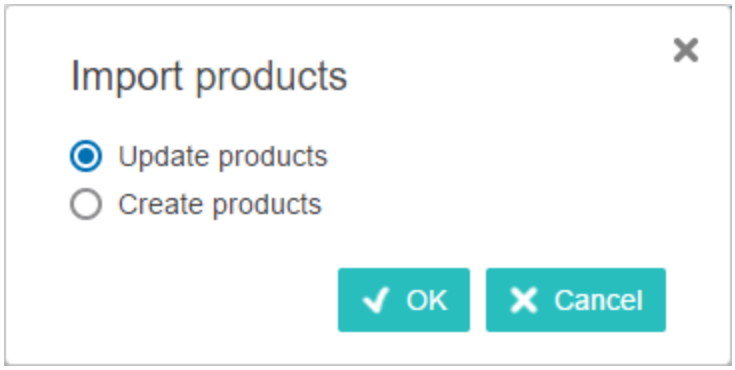
Updating objects requires the import file to include either a STEP ID or unique key. For information on using unique keys with the Simple Importer, refer to the **Unique Keys and the Simple Importer Widget** section within this guide.

Steps to Update Objects

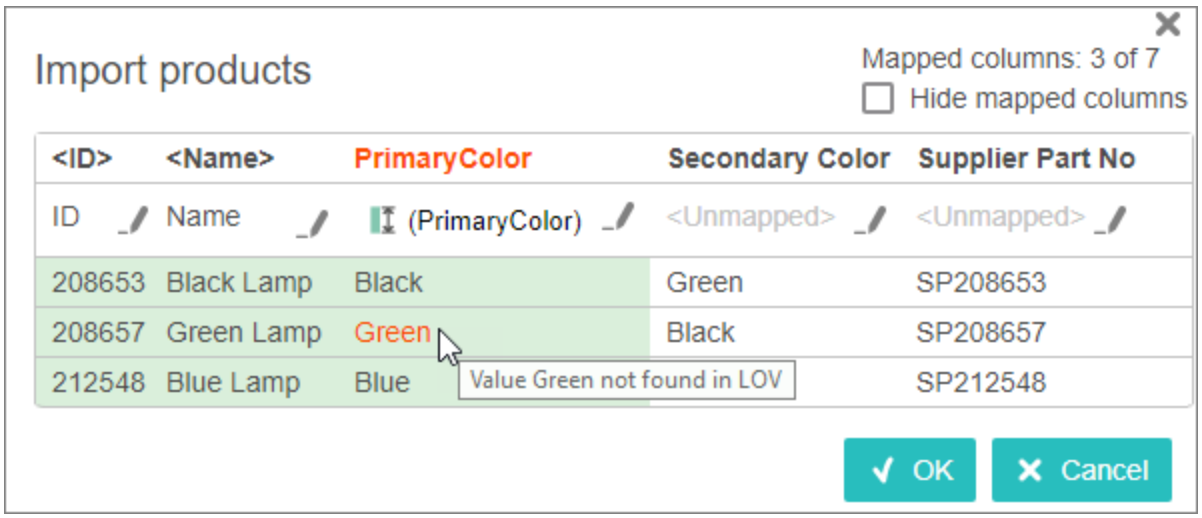
Below are steps to update objects after an import is initiated using the Simple Importer Widget, as described in the **Using Simple Importer Widget** section of this guide.

Note: For this example, products are being updated, however the steps are comparable for entity and classification updates.

1. Select **Update products**.



2. Click the **OK** button, and the import preview will display. Auto mapping is performed for all columns with attribute IDs or names that match between the import file and STEP.



Note: In the example above, 'Import products' displays as the title of the import preview because the import was initiated using a Simple Importer Widget configured with the import node type of Product, and the default title. When other Simple Importer Widgets are used to initiate a Simple Importer, the respective title will display.

3. Mapping an ID column or unique key is required to properly identify the existing products intended to be updated. Only the valid data in mapped fields (identified by the green background and black text) is imported. For more information about the import preview and how to use the mapping functionality, refer to the **Import Preview and Mapping** section within this guide.
4. Once the necessary fields are mapped, the user is now ready to start the import, as defined in the **Start an Import** section within the **Using Simple Importer Widget** topic within this guide.

Import Preview and Mapping

The import preview will display after an import has been initiated using the Simple Importer. The purpose of the import preview is to display a representation of less than 100 rows of information from the import file and the STEP system in one view. This allows users to approve auto mapped data, edit mappings, manually map data before actually starting the import, or cancel the import.

This section addresses:

- Prerequisites
- Import Preview Features
- Check Data Validity for Attribute Types
- Mapping Attribute
- Mapping ID
- Mapping Name
- Mapping Object Type
- Mapping Reference Type
- Remove Mapping

Prerequisites

The import preview uses the STEP Auto Map functionality. For more information, refer to the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.

Import Preview Features

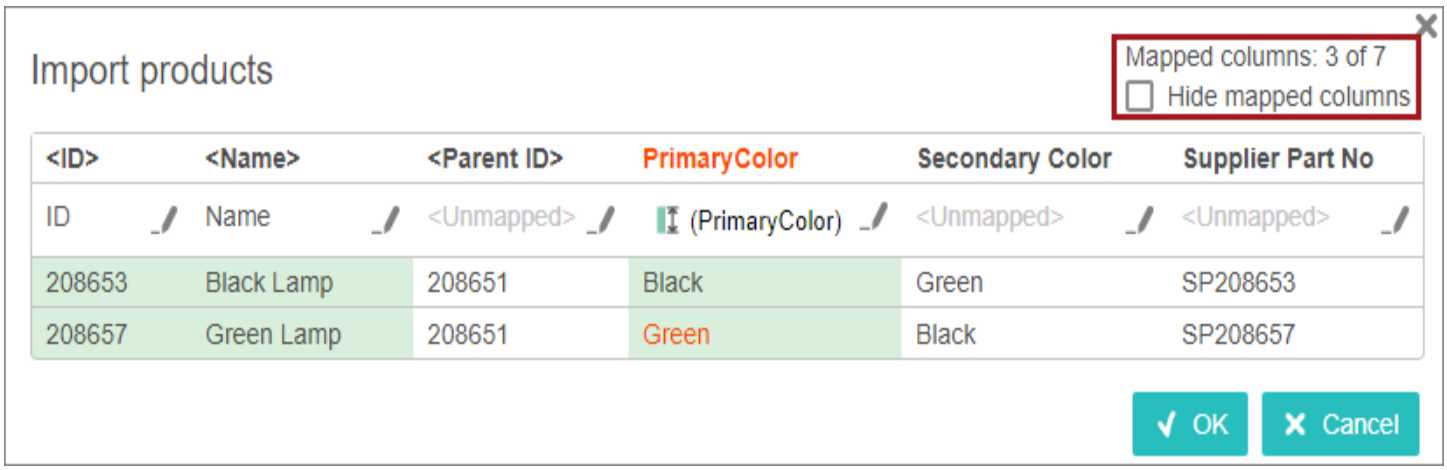
This section describes the different features available within the import preview.

Title

In the example below, 'Import products' displays as the title of the import preview because the Simple Importer was initiated using a Simple Importer configured with the import node type of Product, and the default title 'Import <nodetype>.' When other Simple Importer Widgets are used to initiate a Simple Importer, the respective title will display.

Mapped columns count and Hide mapped columns

In the top right of the import preview, 'Mapped columns:' indicates the number of columns from an import file that are mapped, and the 'Hide mapped columns' checkbox (when enabled) allows users to easily focus on the columns that are not mapped. These features are most useful when an import file contains more columns than can be displayed without scrolling.

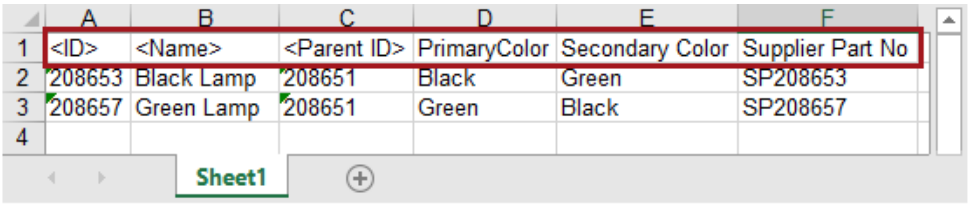


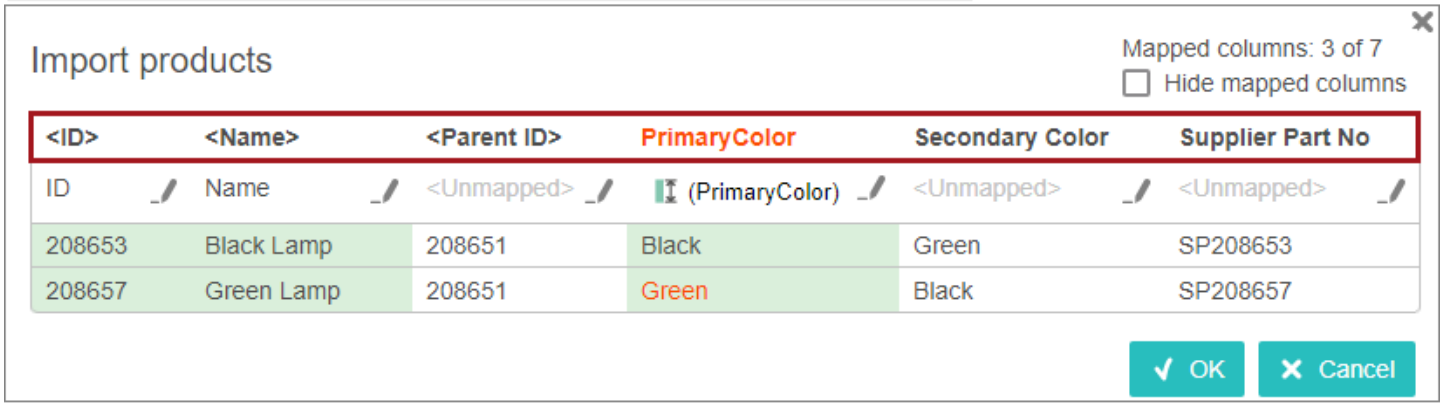
Important: The import preview displays differently depending upon the system settings configuration of a STEP unique key. For more information, refer to the **Unique Keys and the Simple Importer Widget** topic within this guide.

Header row

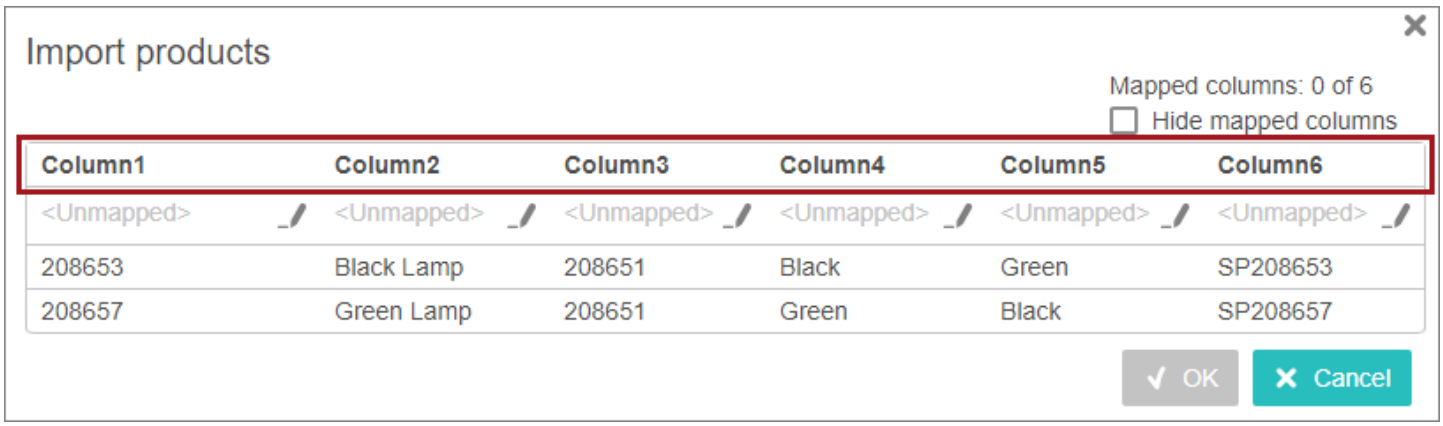
The import preview displays the import file information as a table. The first row of the table is used to display column headers with bold text. Import files can be used with or without a header row.

If the import file includes a header row, then the import preview header row will display with the import file column header labels.





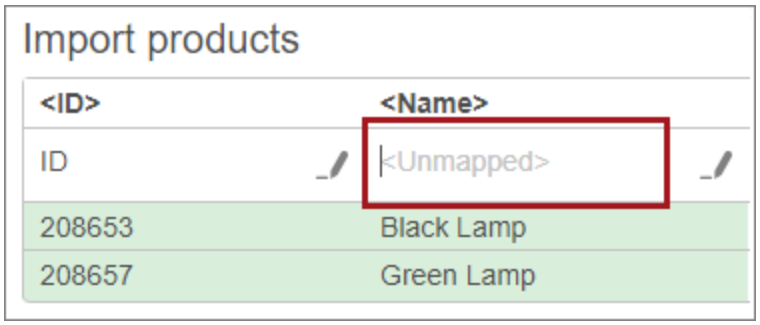
If the import file does not include a header row, then the import preview header row will display with each column numbered using bold text (as shown below).



Mapping row and Edit button

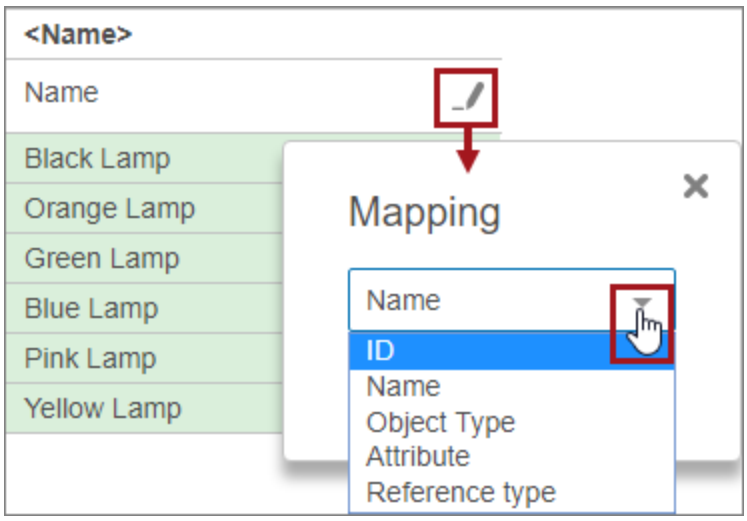
The second row (under the header row) is used to map the import file data to STEP objects. Import file columns can be unmapped, auto mapped, and manually mapped.

The mapping row displays unmapped data as '<Unmapped>' using light gray text, and mapped values display with the STEP object ID.



For information on how to remove a mapped value, refer to the **Remove Mapping** topic within this section.

The mapping row also displays an Edit button ( ) for each column. The Edit button opens a Mapping dialog with a dropdown that can be used to manually map the STEP ID, Name, Object Type, Attribute, and Reference type to import file columns.

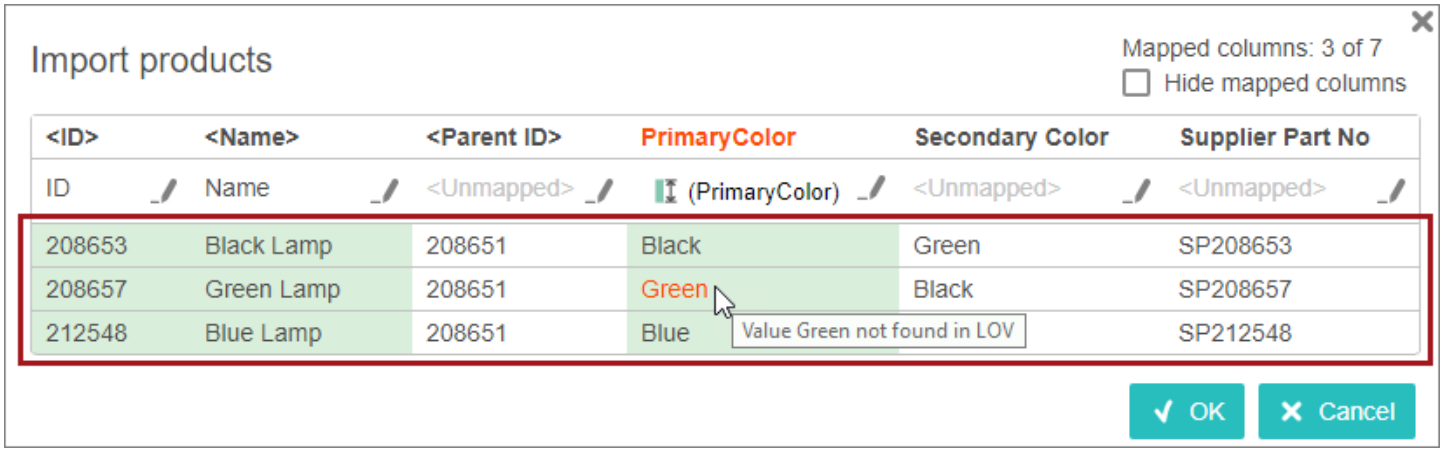


Important: The Mapping dropdown displays differently depending upon the system settings configuration of a STEP unique key. For more information, refer to the **Unique Keys and the Simple Importer Widget** topic within this guide.

Data preview

Below the mapping row, a representation of up to 100 rows of information from the import file displays. Data within the mapped columns display with green shading, and unmapped columns display white (no shading). If any values within the import file are mapped to STEP attributes, but do not match the STEP attribute validation base type, a tool-tip will display information as to why the import data does not meet the attribute validation base type. For more information, refer to the **Check Attribute Data Validity** topic of this guide.

Important: Only the valid data in mapped fields is imported.



OK and Cancel Buttons

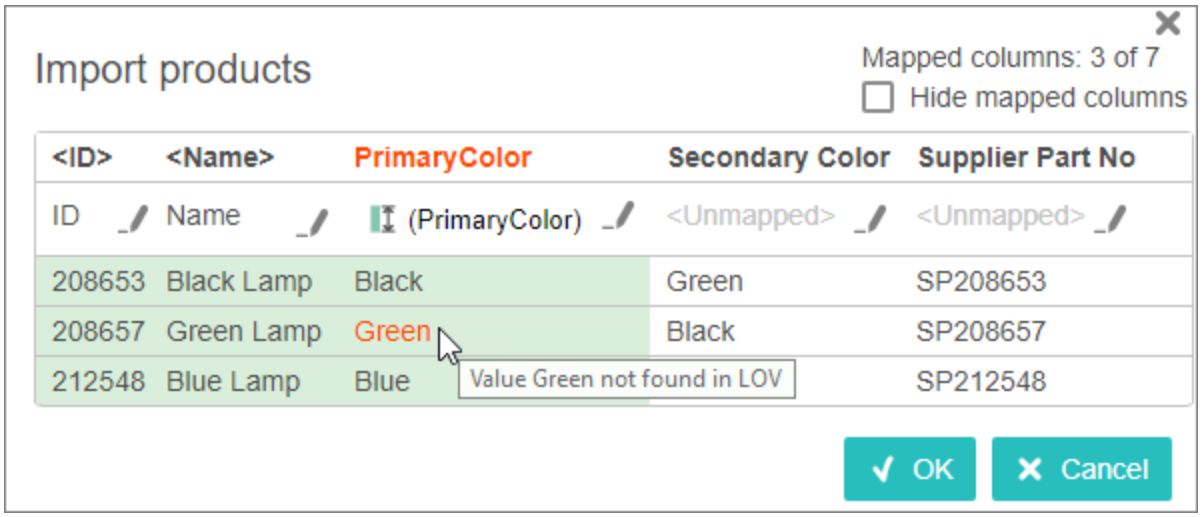
The import preview displays with OK and Cancel buttons. STEP data remains unchanged until the OK button is clicked. Only an ID field or unique key field is required to complete the mapping, and enable the OK button that will start the import background process. However, if only an ID or unique key is mapped, no changes will be made in STEP.

The Cancel button is always enabled, allowing the user to cancel the import preview at anytime, making no changes to the STEP data.

Check Attribute Data Validity

On the import preview, as mappings are created, STEP confirms the data type or validation base type mapped to the attribute is valid (for example, a text value in a numeric attribute, or an invalid LOV value). The preview uses orange text to indicate when the data supplied in an import file is not valid for the validation base type of the attribute it has been mapped to. When a user hovers over the orange text (as shown in the screenshot below), a tool-tip will display information as to why the import data does not meet the attribute validation base type.

For example, the import file column 'PrimaryColor' header displays using orange text because the attribute value 'Green' within the import file is not valid. In this example, the STEP Primary Color attribute uses an LOV that does not include Green as an option. If this import file is processed without adding Green to the STEP LOV, then the attribute value for the relative object will not be updated, because the data is not valid for the attribute.



Mapping Attribute

When using the Simple Importer Widget, if an import file column label matches a STEP attribute ID and/or name, then it can auto map to the STEP attribute. The auto mapping can be confirmed when the preview displays with the auto mapped column(s). For more information, refer to the **Predefined Header Text** section of the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.

A user can manually map a column within the import file to a STEP attribute. However, only one attribute can be mapped per column.

For example, a user may want to map to a STEP attribute when an import file column:

- label does not match a STEP attribute ID and/or name.
- labeled as '<Name>' was auto mapped, but is not preferred for creating new STEP objects.

Below are steps to map a column within the import file to the STEP attribute.

Note: It is recommended to map the object ID / unique key before any other mappings to enable the Suggestions functionality described below.

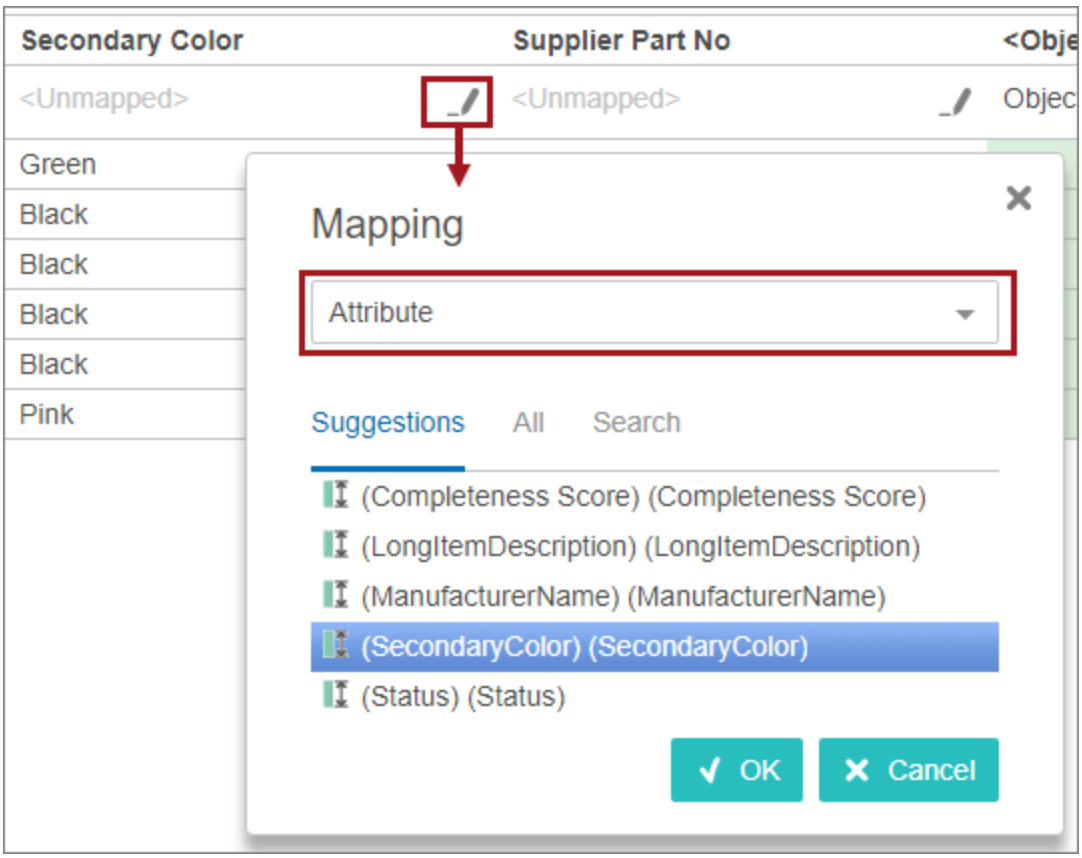
For this example, the import file included a 'Secondary Color' column label that was not auto mapped to the STEP attribute because the column label does not match the STEP attribute ID and/or name.

1. From the import preview dialog, select the **Edit button** in the top right of the column that needs to be mapped (Secondary Color), and the mapping dialog will display.

   Alternatively, type an attribute name or ID into the text field to the left of the Edit button, where '<Unmapped>' is displayed in the image below. Typeahead functionality lists the attributes that match the text and the required attribute can be selected from the list.

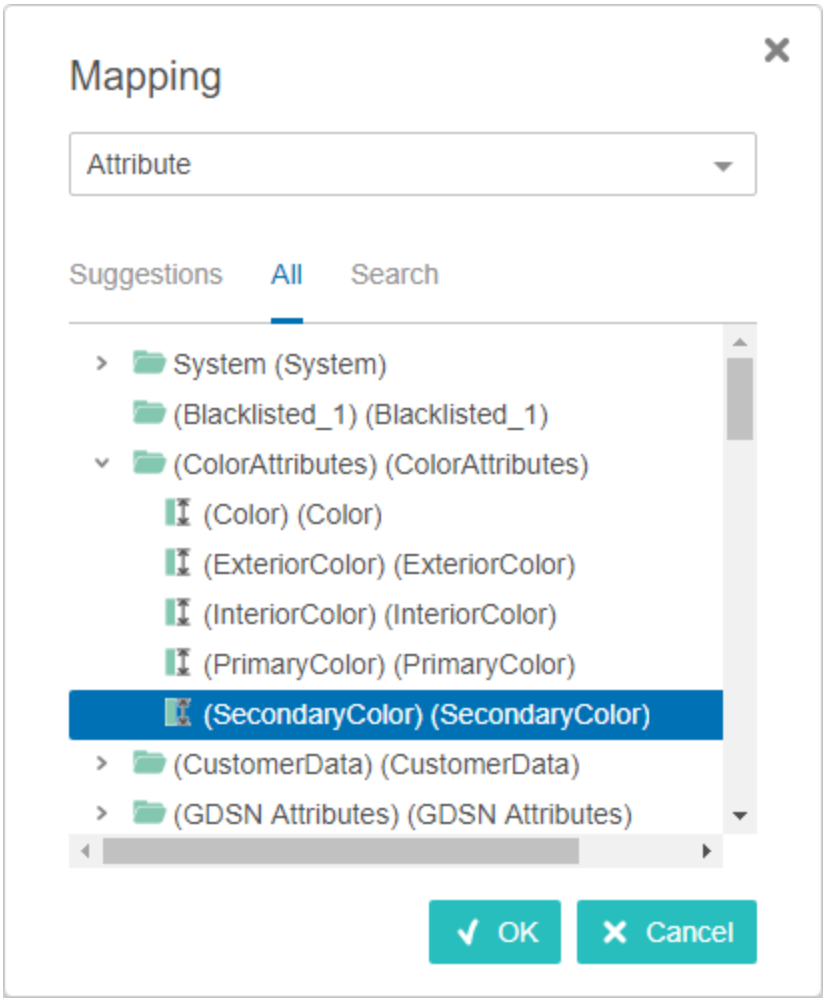
2. Select **Attribute** from the dropdown, and the Suggestions, All, and Search tabs will populate accordingly.

   - **Suggestions Tab:** When selected, a list of attributes will display based upon the object type defined for the import. For an attribute to be suggested, the attribute must be valid for both the object types of the items that are imported, and the object type of the parent under which they are imported.

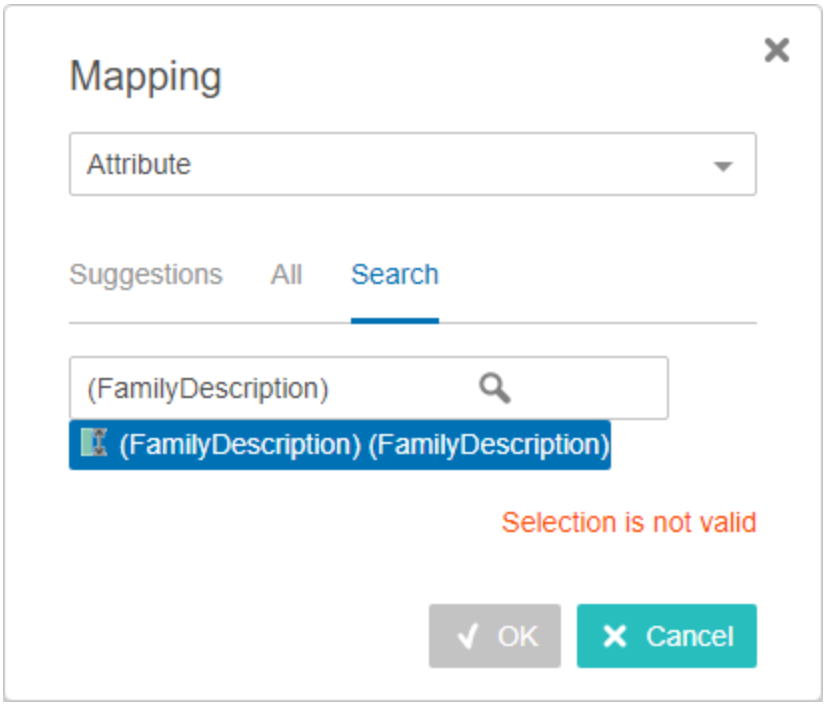


The Suggestions tab is based on the object type being imported. Suggestions function properly when creating objects because an object type is specified when initiating the import. When updating objects, the Suggestions tab returns results only after the object ID is mapped, which also identifies the object type. Therefore, it is recommended to map the ID / unique key before any other mappings.

- **All Tab:** When selected, all attribute group folders accessible by the user display. Expand the attribute group folders to locate the necessary attribute. The **OK** button will enable once a valid attribute is selected. Click the **OK** button to return to the import preview.



- **Search Tab:** When selected, a blank search field displays. Enter an attribute name or ID into the search field, and the available attribute will display for selection. Select the attribute.
    - If the attribute selected is not valid, then the user will be notified with orange text, 'Selection is not valid,' and the **OK** button is not enabled (as shown below).



Note: When selecting an attribute to be mapped on any of the tabs, if the user selects an LOV, a checkbox will display in the 'Mapping' window that reads 'Match value ID in LOV'. Checking this box will allow the value incoming from the import file to be matched by either the LOV value's name or its ID. Leaving it blank means the system will only match the incoming value against the LOV values' names.

3. Once a valid attribute is selected, the **OK** button will enable. Click the **OK** button to return to the import preview.
4. Once mapping is complete, from the import preview, select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this guide.

Results for this example

Once the import is complete, the objects will have the valid attribute values per the mapping selections.

Mapping ID

When using the Simple Importer Widget, the ID column can auto map if the column header label is '<ID>'. The auto mapping can be confirmed when the preview displays with the ID auto mapped. For more information, refer to the **Predefined Header Text** section of the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.

A user can manually map the STEP object ID to a column within the import file.

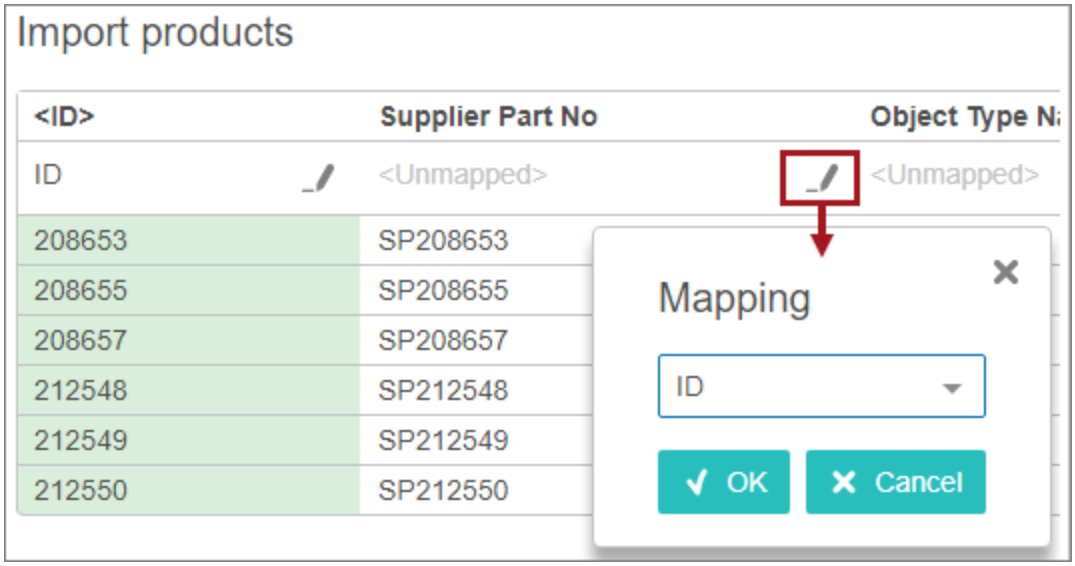
For example, a user may want to map to a STEP object ID when an import file column:

- does not include a column with the '<ID>' label.
- labeled as '<ID>' was auto mapped, but is not preferred for creating new STEP objects, and the user needs to manually map ID to the column with a preferred ID.

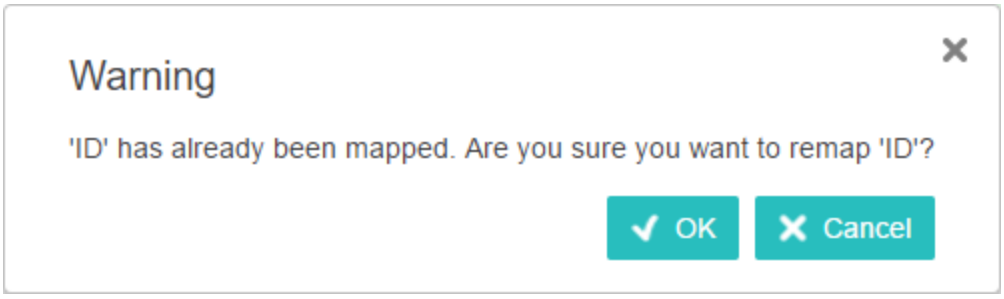
Below are steps to map a column within the import file to the STEP object ID.

For this example, the import file included an '<ID>' column that was auto mapped to the STEP new object ID. However, the 'Supplier Part No' column is better suited as the STEP new object ID, and needs to be manually mapped to ID.

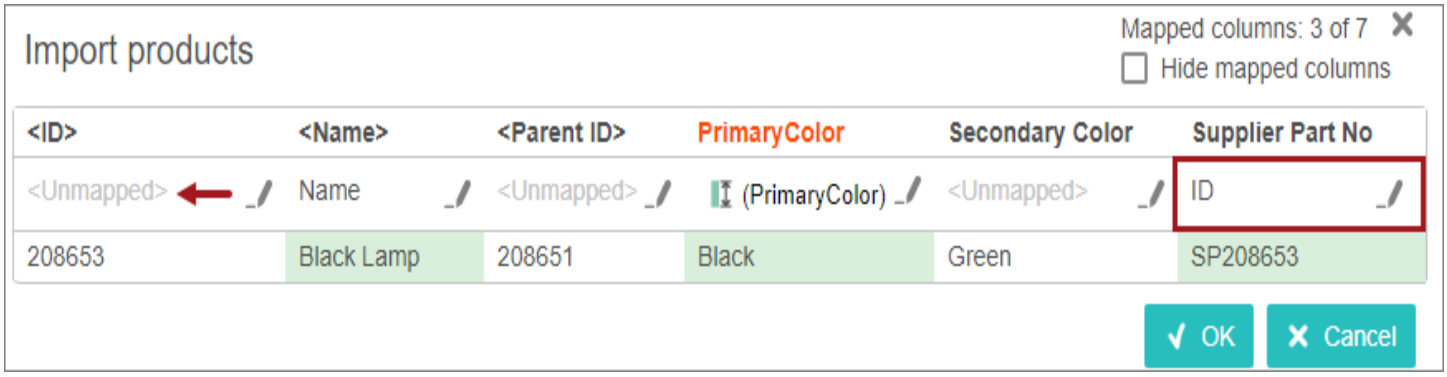
1. From the import preview dialog, select the **Edit button** in the top right of the column that needs to be mapped (Supplier Part No), and the mapping dialog will display.



2. Select **ID** from the dropdown.
3. Click the **OK** button.
   - Because the ID was already mapped, a Warning dialog will display.



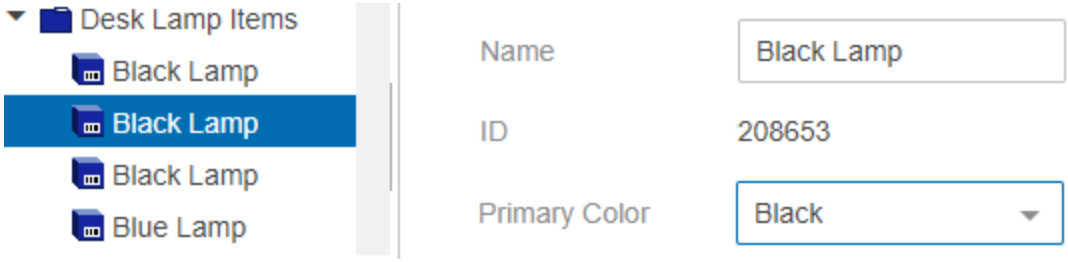
4. Click the **OK** button, and the import preview will display the <ID> column as <Unmapped>, and the Supplier Part No column as ID.



5. Once mapping is complete, from the import preview select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this guide.

Results for this example

Once the import is complete, the new objects will have the IDs as listed in the Supplier Part No column.



Important: If any keys are active in STEP, the import will fail for objects with ID values that already exist within key values. Even when the 'Unique key - mapped by Attribute' option is not selected, an error will occur when the ID value from an import conflicts with the unique key configuration. For more information, refer to the **Unique Keys and the Simple Importer Widget** topic within this guide.

Mapping Name

When using the Simple Importer Widget, if an import file column is labeled as '<Name>', then it can auto map to the STEP object name. The auto mapping can be confirmed when the preview displays with the object name auto mapped. For more information, refer to the **Predefined Header Text** section of the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.

A user can manually map a column within the import file to the STEP object name.

For example, a user may want to map to a STEP object name when an import file column:

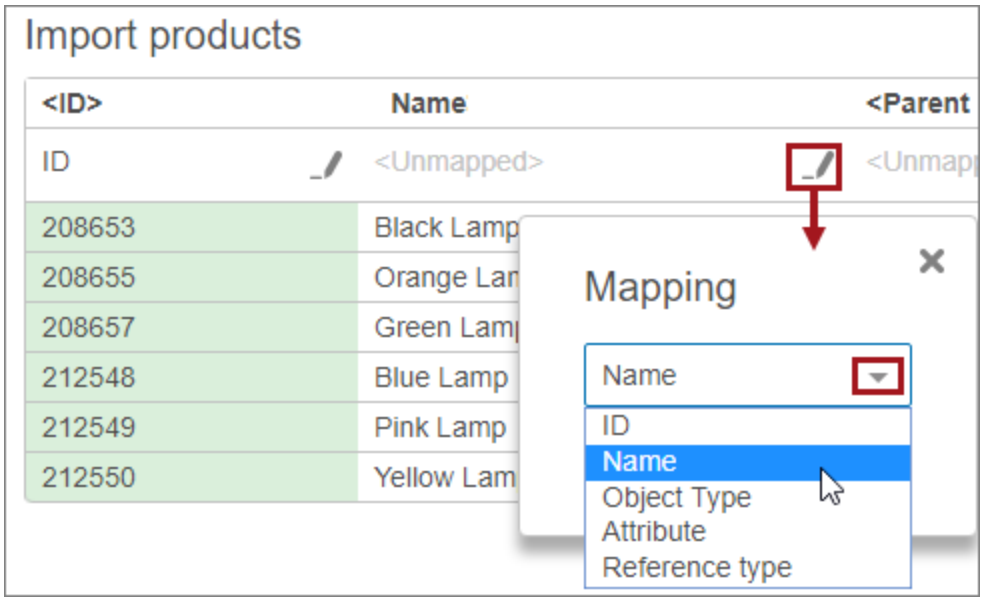
- does not include the '<Name>' label, and the user needs to manually map to an existing column.
- labeled as '<Name>' was auto mapped, but is not preferred for creating new STEP objects. The user needs to manually map name to the column with a preferred object name.

Below are steps to map a column within the import file to the STEP object name.

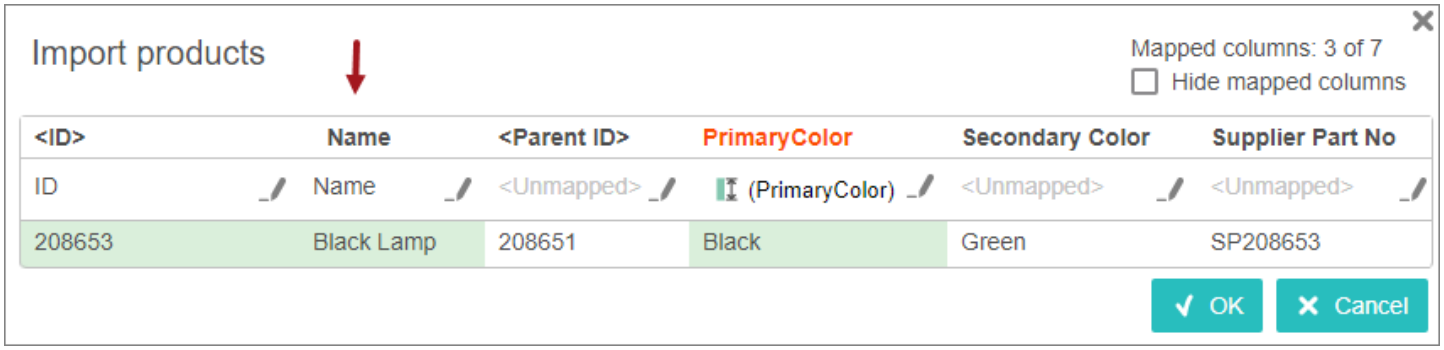
Note: It is recommended to map the object ID / unique key before any other mappings to enable the Suggestions functionality.

For this example, the import file included a 'Name' column that was not auto mapped to the STEP object name because the Auto Map functionality requires the object name column heading within the import file to be '<Name>' for the auto mapping to occur.

1. From the import preview dialog, select the **Edit button** ( ) in the top right of the column that needs to be mapped (Name), and the mapping dialog will display.
2. Select **Name** from the dropdown.



3. Click the **OK** button, and the import preview will display the Name column as mapped to the STEP object name.



4. Once mapping is complete, from the import preview select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this guide.

Results for this example

Once the import is complete, the object names will display per the import file Name column.

Mapping Object Type

When using the Simple Importer Widget to edit object type information, Auto Map functionality is not available, however a user can manually map a column within the import file to a STEP object type.

For example, a user may want to map to a STEP object type when:

- objects need to be created for more than one object type.
- the current object type needs to be changed to a new object type.

To create objects using different object types, after initiating the import, and selecting the category and object type, then the selected object type will apply to all newly created objects unless the user manually maps the import object to a different object type. The manual mapping overrides the object type selection made when initiating the import, therefore any objects created will be given the object type manually mapped. Any blank rows within the import data file mapped to object type will be created with the object type selection made during the import initiation. For more information, refer to the **Create Objects Using Simple Importer** section of this guide

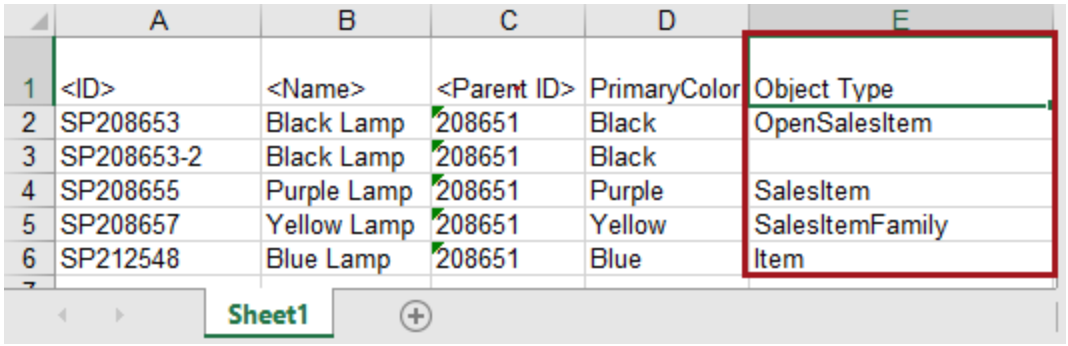
To update an existing object to a new and/or different object type, the new object type must be valid below the existing object type parent.

Note: In the following two cases, the object will be skipped during import and reported as described: 1. If an object is being created or updated with an object type that is not valid for the existing parent, then the background process detail will report 'The object type with ID (ID of import file object type) is not valid under object type with ID (ID of parent / category).' 2. If the object type does not exist in STEP, the background process detail will report 'The object type with ID (ID of import file object type) could not be found.

Steps for Manually Mapping Object Type

Below are steps to manually map an import file column that contains object type IDs to a STEP object type. It is recommended to map the object ID / unique key before any other mappings.

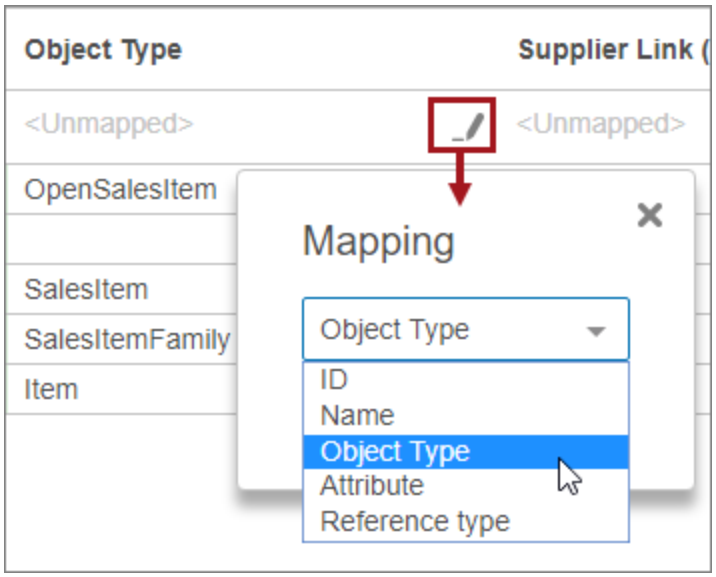
For this example, the import file includes a column heading labeled 'Object Type' that cannot be auto mapped, and must be manually mapped to the STEP object type. Of the five (5) product objects within the import, each belongs to a different object type (OpenSalesItem, SalesItem, SalesItemFamily, and Item) or an object type is not identified (field left blank in import file).



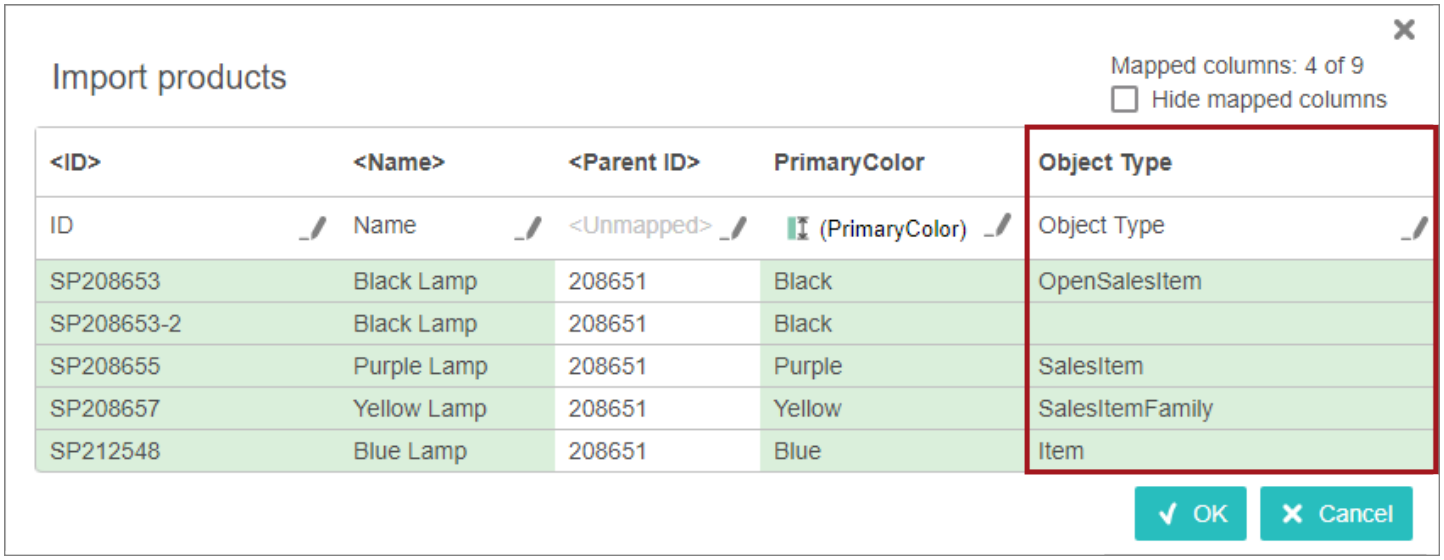
	A	B	C	D	E
1	<ID>	<Name>	<Parent ID>	PrimaryColor	Object Type
2	SP208653	Black Lamp	208651	Black	OpenSalesItem
3	SP208653-2	Black Lamp	208651	Black	
4	SP208655	Purple Lamp	208651	Purple	SalesItem
5	SP208657	Yellow Lamp	208651	Yellow	SalesItemFamily
6	SP212548	Blue Lamp	208651	Blue	Item

Sheet1

1. From the import preview dialog, select the **Edit button** ( ) in the top right of the column that needs to be mapped (Object Type), and the mapping dialog will display.
2. Select **Object Type** from the dropdown, and the OK button will enable.



3. Click the **OK** button on the Mapping dialog and the import preview will display with the object type mapped.



4. Once mapping is complete, from the import preview select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this guide.

Results for this example

- Row 1 contained the invalid object type ID 'OpenSalesItem,' will be skipped, and the background process detail will report 'The object type with ID (OpenSalesItem) is not valid under object type with ID (ID of parent / category).'
- Row 2 contained a blank cell within the manually mapped object type.
  - If the Update objects function was used to initiate the import, then the row will be updated, but no change will be made to the Object type.
  - If the Create objects function was used to initiate the import, then the new object will be created with the Object type selected during the initiate import.
- Rows 3 through 5 contained valid object type IDs, and will be properly created / updated in STEP.

Mapping Reference Type

When using the simple importer widget, Auto Map is not supported for reference types. A user can manually map a STEP reference type to a column within the import file. However, the reference type must be valid for the object.

Note: If a reference type is being referred to, which is not valid for the object type, then the background process detail will report 'The reference type with ID (ID of the reference type) is not valid for target product with ID (ID of the Product).'

When importing data using the simple importer widget, columns can be mapped to the Image and Document References (Assets), Classification, Entity, and Product reference types.

It is important to note that multi reference functionality is not available with this widget. Only one reference type can be added to an object using this widget.

Multi objects can be referred for a single reference type adding separate rows for each object in import file as shown in the below screenshot.

	A	B	C	D
1	<ID>	<Name>	<Object Type Name>	Primary Product Image
2	SP208653	Black Lamp	Item	20585
3	SP208653	Black Lamp	Item	20586
4	SP208653	Black Lamp	Item	20584
5				

For example, a user may want to map to a STEP reference type when an import file column includes the ID of :

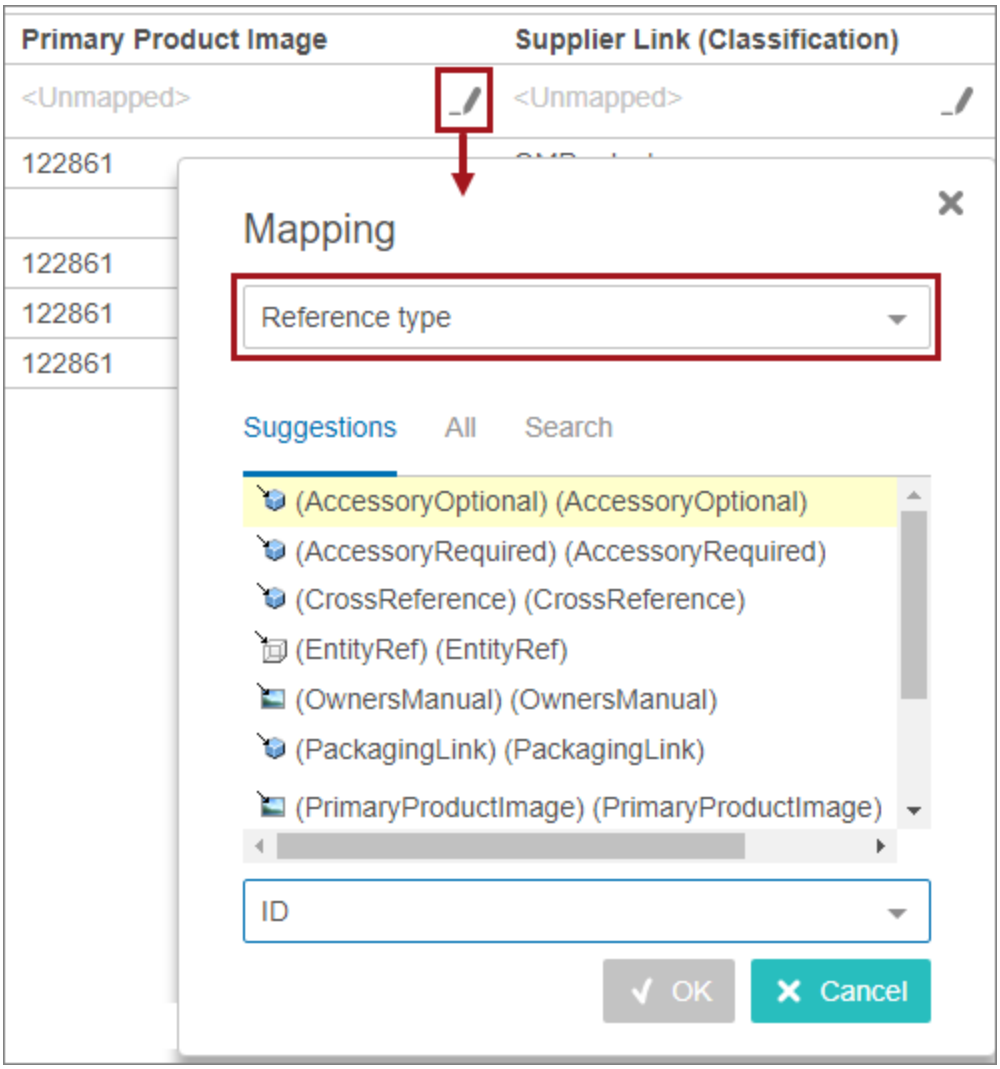
- an image that needs to display as the primary product image.
- a supplier that needs to display as a classification reference.
- a current location where the parts are stored that needs to display as an entity reference.
- a product that can be used as a substitute that needs to display as a product reference.

Below are steps to map a column within the import file to the STEP reference type.

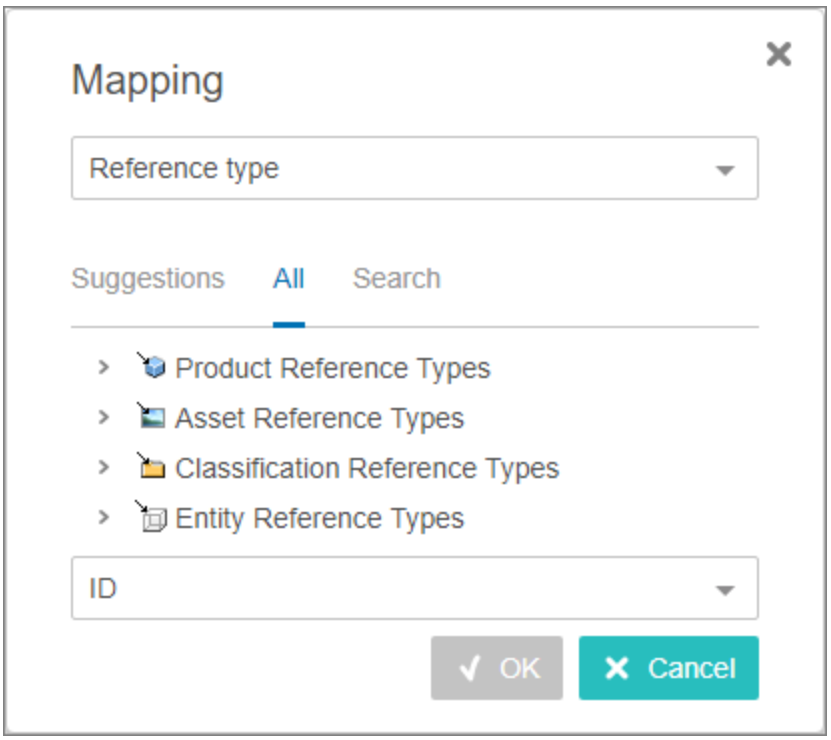
Note: It is recommended to map the object ID / Unique Key before any other mappings to enable the Suggestions functionality.

1. From the import preview dialog, select the **Edit button** in the top right of the column that needs to be mapped, and the mapping dialog will display.
2. Within the Mapping dialog, select **Reference type** from the dropdown dialog and the Suggestions, All, and Search tabs will populate accordingly.

- **Suggestions Tab:** When selected, a list of reference types will display based upon the object type defined for the import. For a reference type to be suggested, the reference type must be valid for the object types of the items that are imported. Once a valid selection is made, click the **OK** button to return to the import preview.

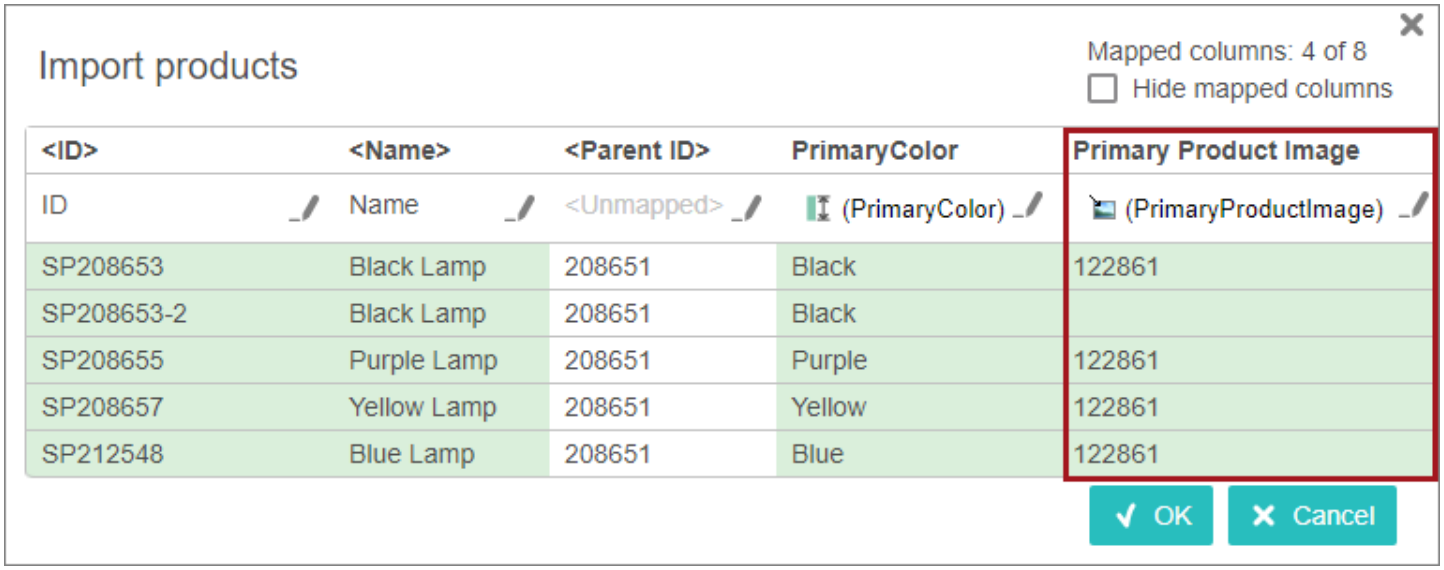


- **All Tab:** When selected, all reference type groups display. Expand the reference type group to locate the necessary reference type. The OK button will enable once a valid reference type is selected. Click the **OK** button to return to the import preview.



- **Search Tab:** When selected, a blank search field displays. Enter a reference type name or ID into the search field, and the available reference types will display for selection. Select the valid reference type, and the OK button will enable.

3. Select a valid reference type and click the **OK** button and the Import preview will display with the reference type mapped.

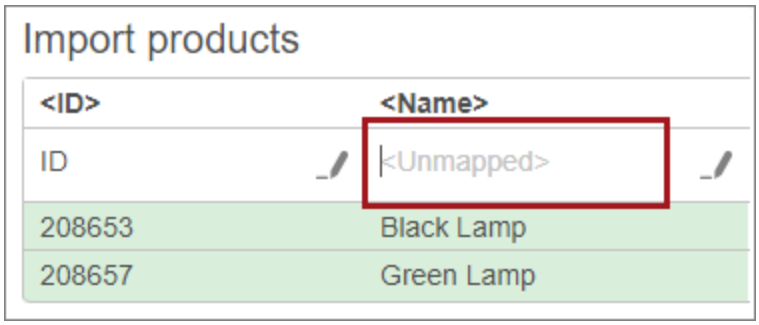


4. Once mapping is complete, from the import preview, select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this

guide.

Remove Mapping

To remove a mapped value, use the mouse pointer to select the value within the mapping row, then use the delete key to remove the value. The cell will display as '<Unmapped>', and once the cursor is removed from the cell, the column values will no longer display with green shading.



Unique Keys and the Simple Importer Widget

When using the Simple Importer Widget, the import preview displays differently depending upon the workbench System Setup configuration of STEP Keys (unique keys). Within the import preview, two unique key options are available; 'Unique key' and 'Unique key - mapped by Attribute.'

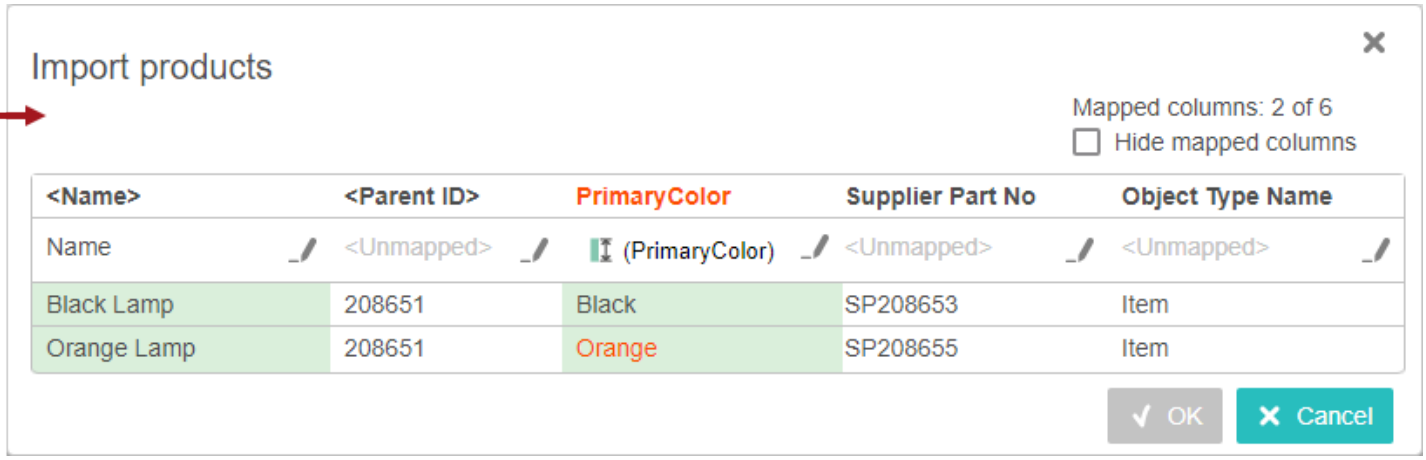
This topic addresses:

- Displaying Unique Key Options
- Unique Key Considerations
- Using Unique Key to Update Objects in Web UI
- Using Unique Key Mapped by Attribute.

Displaying Unique Key Options

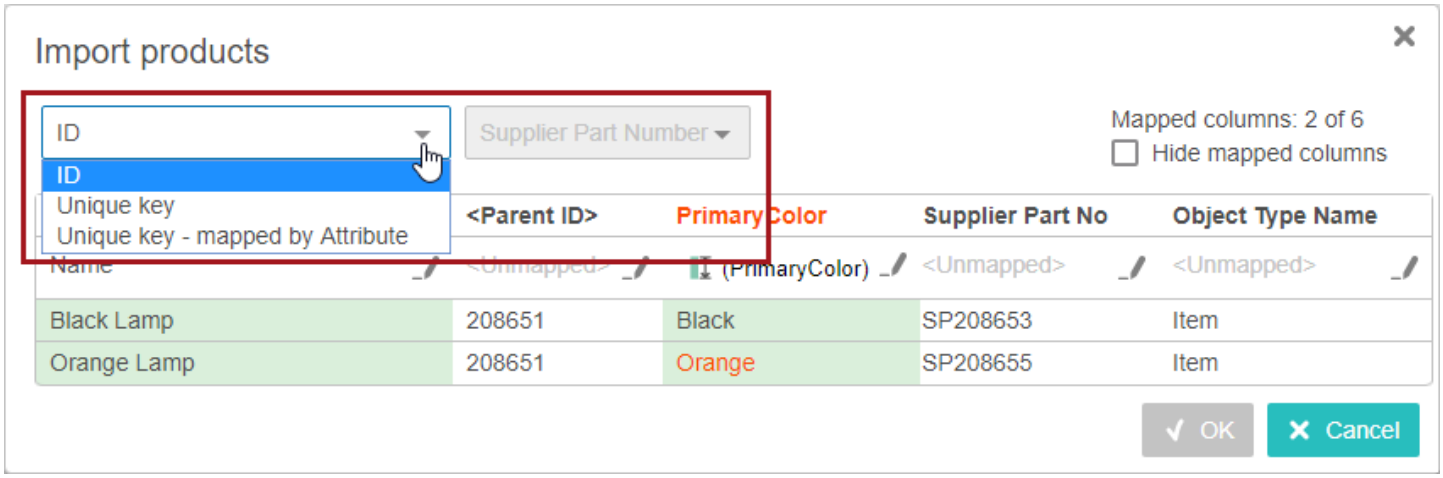
The options to map unique keys will only be available when an applicable imported object type is selected and when there is a valid key active in the system. For more information on unique keys, refer to the **Keys** section of the **System Setup**.

If a STEP key is not valid and/or active, the dropdown is not located below the import preview title (as shown in the screenshot below).



If at least one STEP key is valid and active, then a user can choose to:

- Create objects using
  - ID
  - Unique key - mapped by Attribute
- Update objects using
  - ID
  - Unique key - mapped by Attribute
  - Unique key (As shown in the screenshot below.)



For more information, refer to the **Using Unique Key Mapped by Attribute** topic and/or the **Using Unique Key to Update Objects in Web UI** topic within this guide.

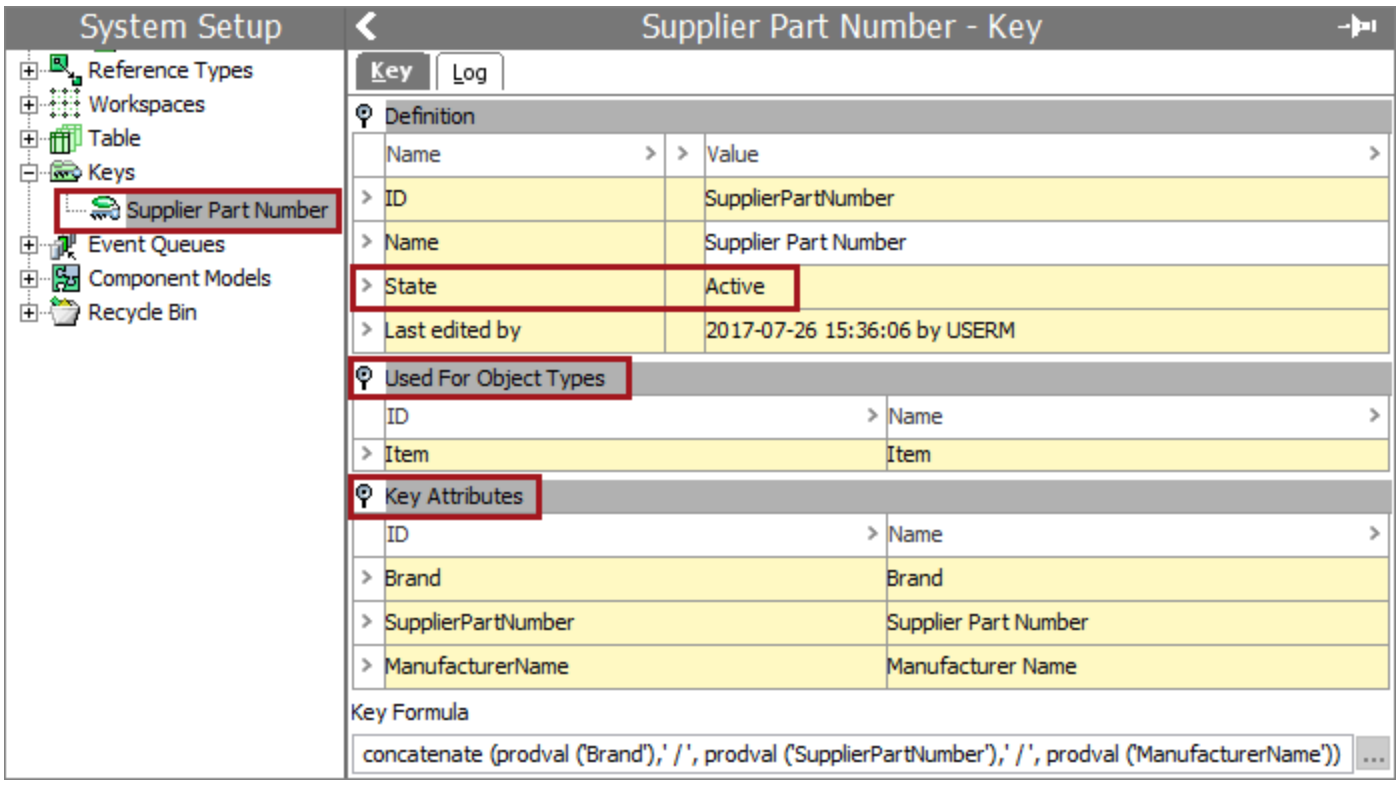
Unique Key Considerations

Before using this feature it is a good idea to confirm the status and settings of your unique key.

The screenshot below displays the Workbench > System Setup > Keys settings for the unique key used for the examples within this topic.

For the key examples within this section, it is important to notice the key is:

- Named 'Supplier Part Number'
- Active
- Used for the Object Type 'Item'
- Created using the following Key Attributes: Brand, Supplier Part Number, Manufacturer Name
- Configured with a Key Formula that concatenates the key attributes.

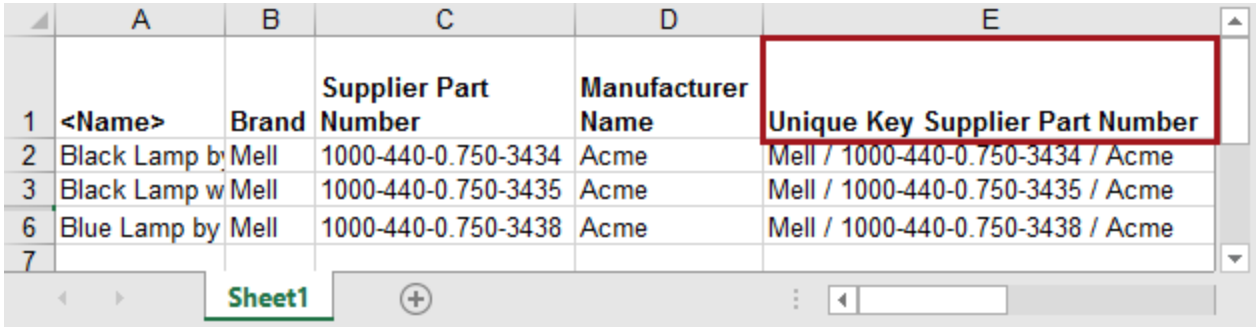

System Setup
Reference Types
Workspaces
Table
Keys
Supplier Part Number
Event Queues
Component Models
Recycle Bin
Supplier Part Number - Key
Key
Log
Definition
Name
Value
ID
SupplierPartNumber
Name
Supplier Part Number
State
Active
Last edited by
2017-07-26 15:36:06 by USERM
Used For Object Types
ID
Name
Item
Item
Key Attributes
ID
Name
Brand
Brand
SupplierPartNumber
Supplier Part Number
ManufacturerName
Manufacturer Name
Key Formula
concatenate (prodval ('Brand'),' / ', prodval ('SupplierPartNumber'),' / ', prodval ('ManufacturerName'))

Using Unique Key to Update Objects in Web UI

The 'Unique key' option allows for unique keys to be mapped directly in the Web UI, when using Simple Importer Widget to update objects. If the STEP ID is omitted from the update import file, then it is possible to match an existing object via its unique key instead. The unique key must be manually mapped in place of the STEP ID, using the 'Unique key' option.

Below are steps to update objects using the 'Unique key' feature, once an import is initiated and the update feature is selected using the Simple Importer Widget, as described in the **Using Simple Importer Widget** section of this guide.

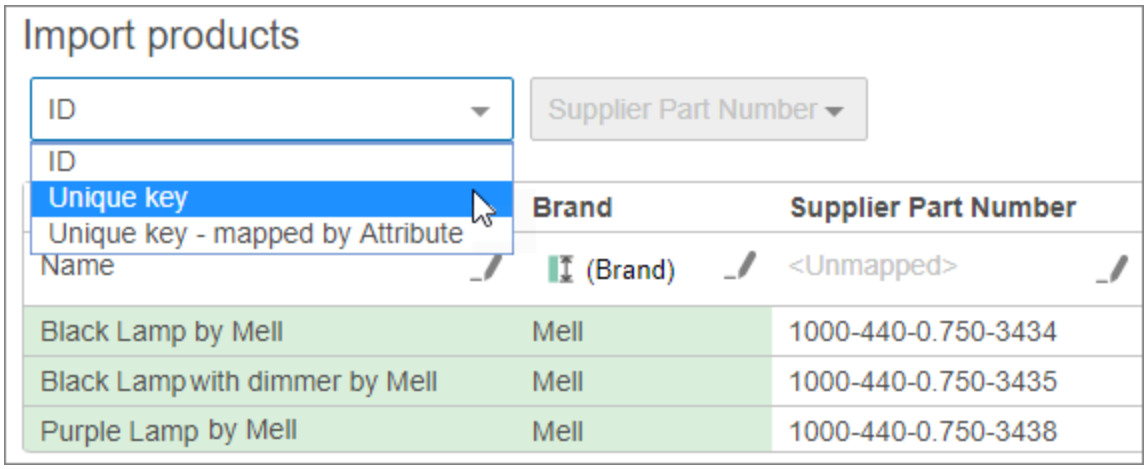
For this example, the import file contains a column with each object's unique key that can be mapped to the STEP unique key.



	A	B	C	D	E
1	<Name>	Brand	Supplier Part Number	Manufacturer Name	Unique Key Supplier Part Number
2	Black Lamp b	Mell	1000-440-0.750-3434	Acme	Mell / 1000-440-0.750-3434 / Acme
3	Black Lamp w	Mell	1000-440-0.750-3435	Acme	Mell / 1000-440-0.750-3435 / Acme
6	Blue Lamp by	Mell	1000-440-0.750-3438	Acme	Mell / 1000-440-0.750-3438 / Acme
7					

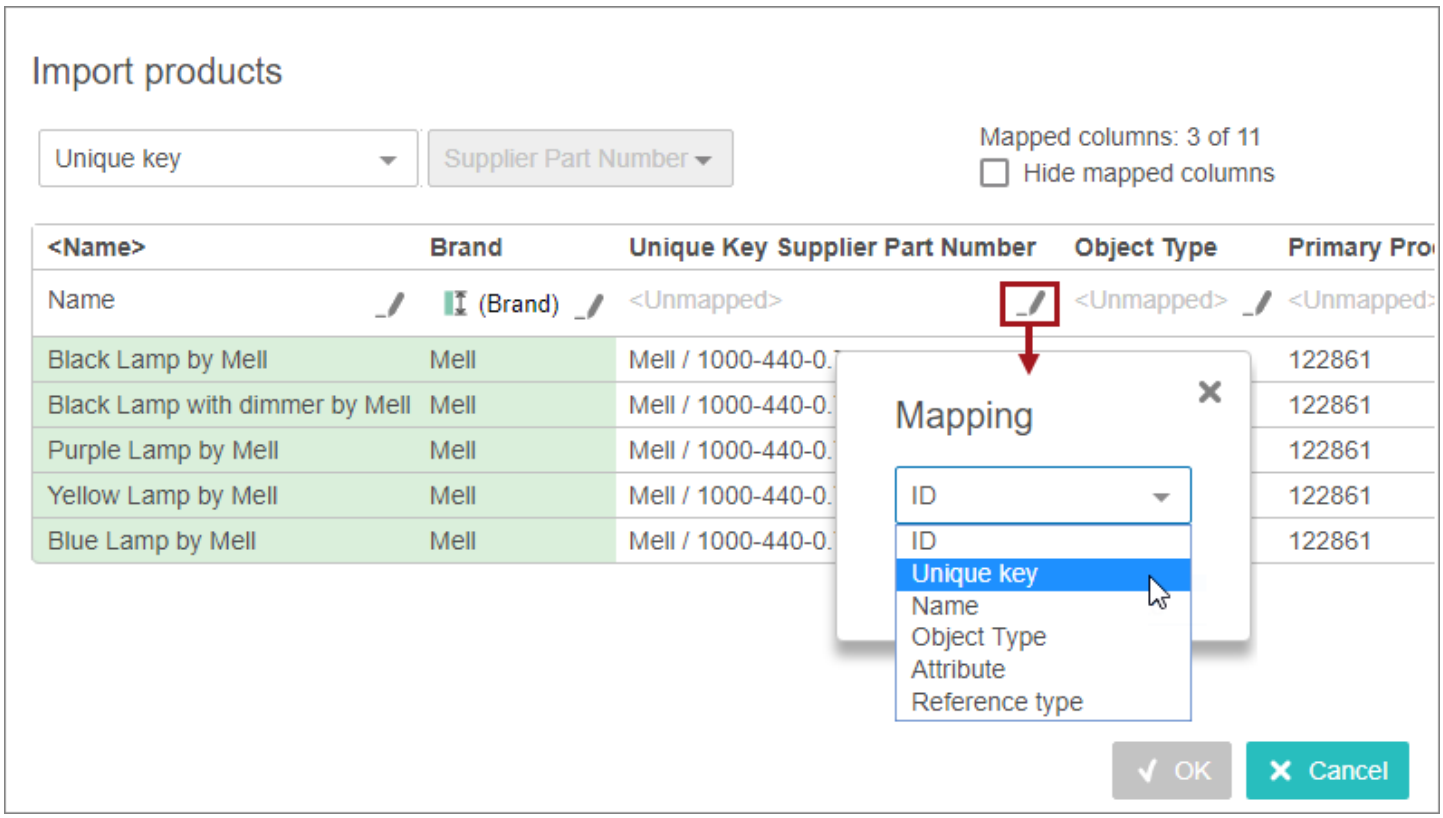
Sheet1

1. Once the Import Preview displays, select **Unique key** from the dropdown.

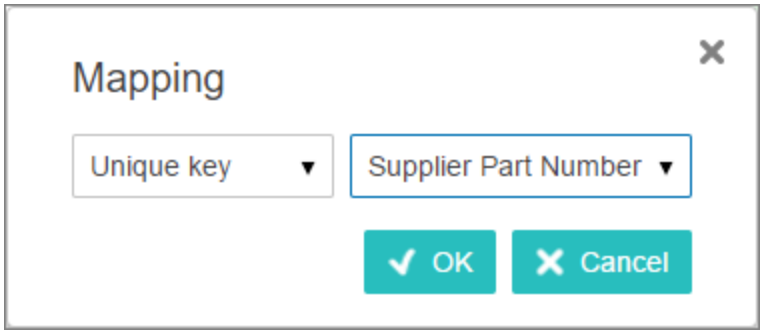


The unique key selection will remain grayed out, and the OK button will remain disabled until the unique key is mapped.

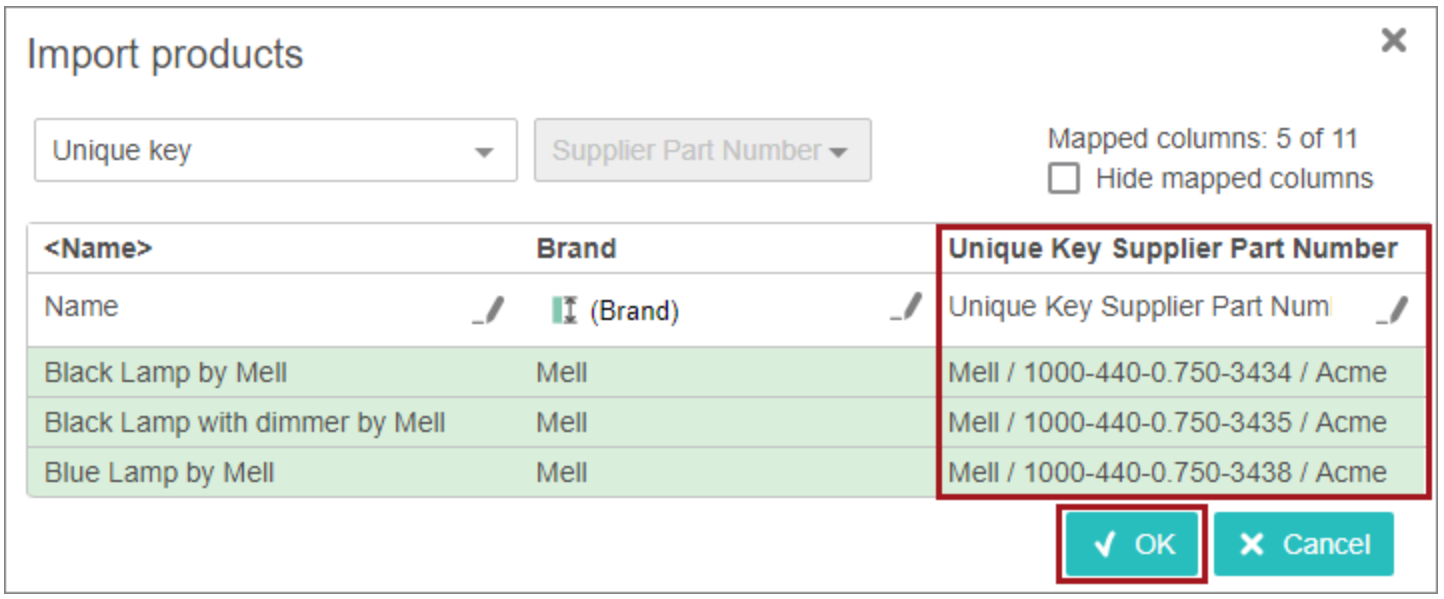
2. Click the **edit button** ( ) in the desired field, and the Mapping dialog will display.



3. Select **Unique Key** and the mapping dialog will display with the available unique key options, as shown below.



4. Select **the desired unique key** from the dropdown.
5. Click the **OK** button, and the import preview will display with the column now mapped to the unique key, and the **OK** button enabled.



6. Once all the necessary mapping is complete, from the import preview select the **OK** button to start the import. For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic within this guide.

Once the import is complete, the valid objects and data will be updated in STEP.

Using Unique Key - Mapped by Attribute

Keys can be automatically generated (or matched) when the underlying attributes are mapped during import. If an import file does not include a column with the ID label (or if the import file column labeled as ID is not preferred), and the import file contains column(s) with attribute values required for a unique key, then the 'Unique key - mapped by Attribute' feature can be used to properly create and/or update objects.

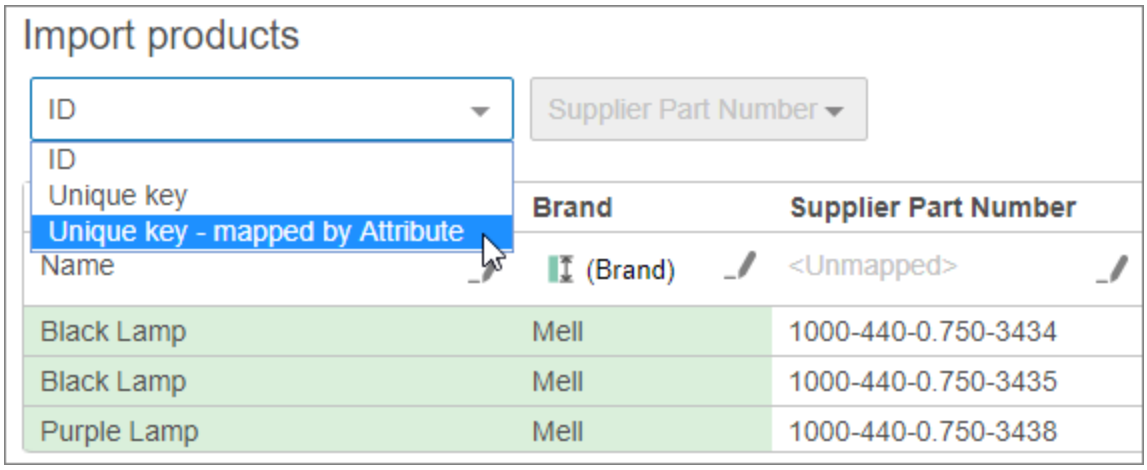
Below are steps to create or update objects using the 'Unique key - mapped by Attribute' feature, once an import is initiated using the Simple Importer Widget, as described in the **Using Simple Importer Widget** section of this guide.

For this example, the import file does not contain a column with the ID label, but the import file does contain columns that can be mapped to the 3 'Key Attributes' (per the Key settings in the workbench screenshot shown previously): Brand, Supplier Part Number, and Manufacturer Name.

	A	B	C	D	E	F	G
1	<Name>	Brand	Supplier Part Number	Manufacturer Name	PrimaryColor	Object Type	Primary Product Image
2	Black Lamp	Mell	1000-440-0.750-3434	Acme	Black	Item	122861
3	Black Lamp	Mell	1000-440-0.750-3435	Acme	Black	SalesItem	
4	Purple Lamp	Mell	1000-440-0.750-3436	Acme	Purple	SalesItemFamily	122861
5	Yellow Lamp	Mell	1000-440-0.750-3437	Acme	Yellow	Item	122861
6	Blue Lamp	Mell	1000-440-0.750-3438	Acme	Blue	Item	122861

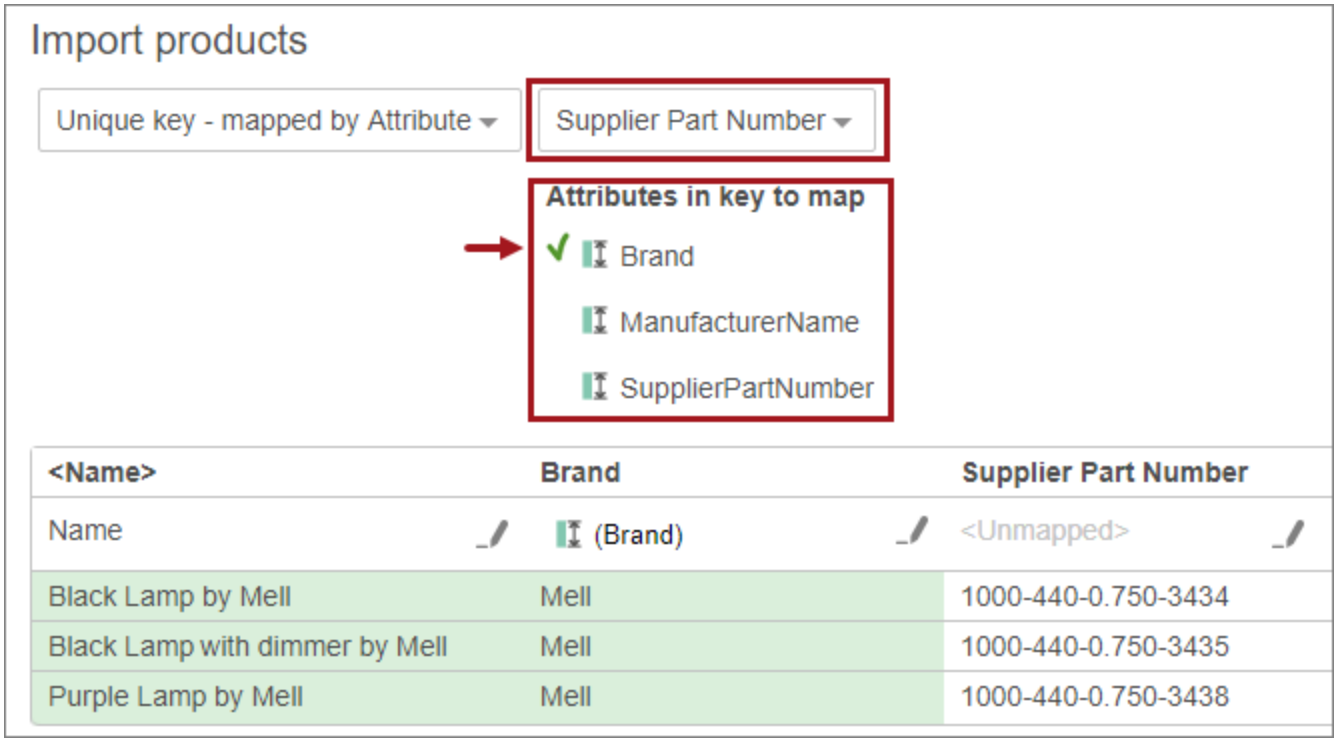
Sheet1

1. Once the Import Preview displays, select **Unique key - mapped by Attribute** from the dropdown.



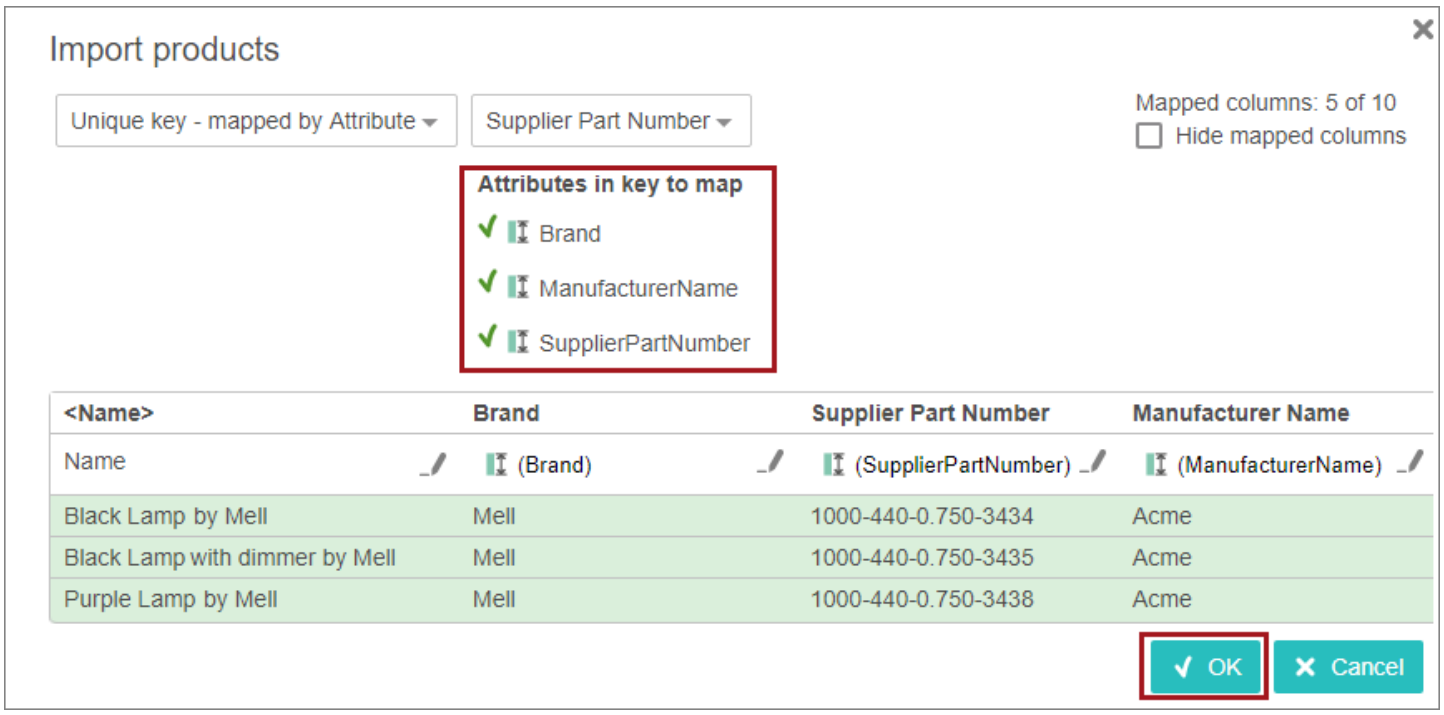
Note: The 'Unique key' option only displays when updating objects. For more information refer to the **Displaying Unique Key Options** section of the **Unique Keys and the Simple Importer Widget** topic within this guide.

2. Once the Unique key - mapped by Attribute option is selected, the unique key dropdown is enabled. If more than one unique key is available, select **the unique key to be used for this import** from the dropdown.
3. Once the desired unique key is selected the 'Attributes in key to map' will display with the list of attribute IDs necessary for the selected unique key.



- Once a unique key attribute is mapped to an import column, under the 'Attributes in key to map,' a green check mark will display to the left of the unique key attribute ID.
- Because the attribute ID (Brand) is one of the import column headings, the unique key attribute is auto mapped.
- The **OK** button is disabled until all the required attributes are mapped.

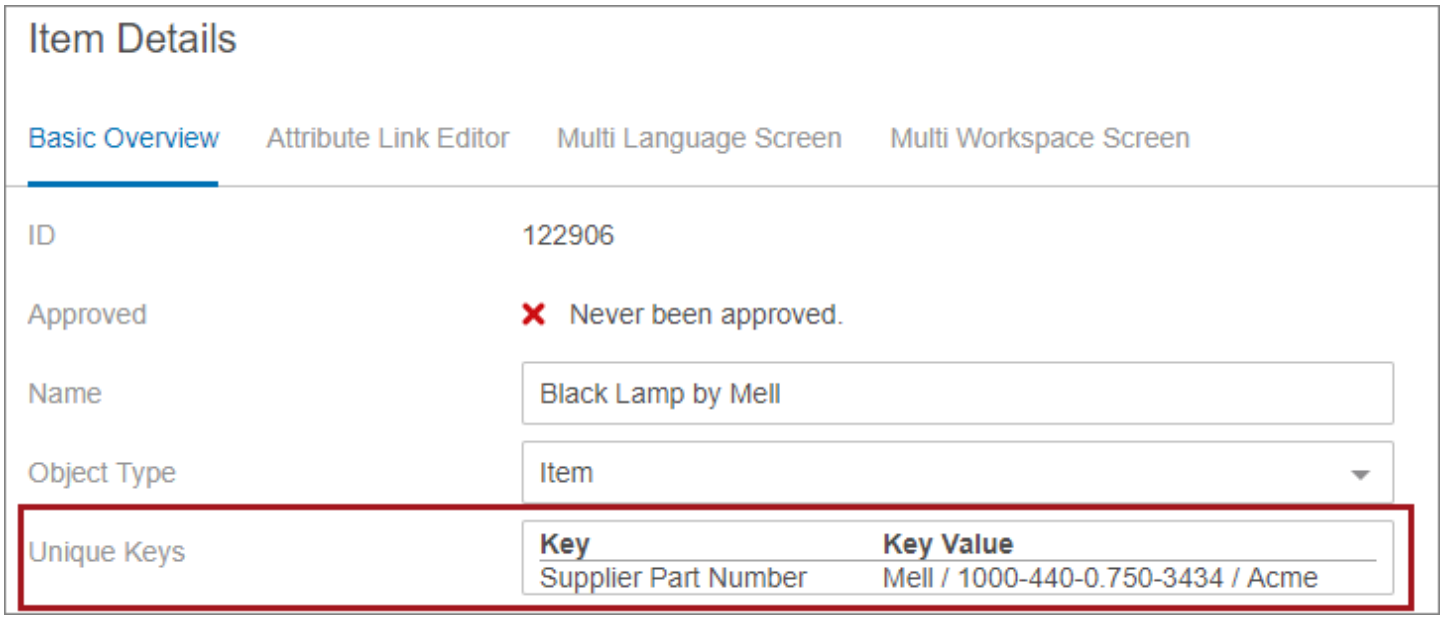
4. Map the remaining attributes in the key as described in the **Mapping Attribute** topic within the **Import Preview and Mapping** section of this guide.
5. Once all the attributes in key to map have been mapped, each of the unique key attribute IDs listed will display with a green check mark, and the **OK** button will enable.



6. Once all the necessary mapping is complete, click the **OK** button to start the import.

Once the import is complete, the new objects will have auto generated STEP IDs, and a unique key based upon the attribute values provided within the unique key formula.

In the example below, the Web UI is configured to display unique keys on a Node Details screen. The Key Value displayed below was created using the above steps.



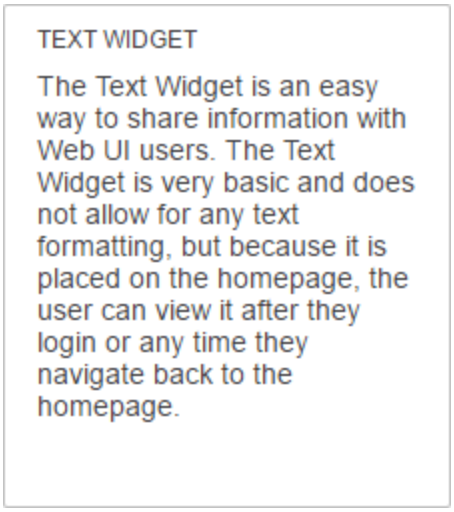
For more information, refer to the **Start an Import** section of the **Using Simple Importer Widget** topic.

Important: The import will fail when import data mapped to unique key attribute values already exist in STEP. New products cannot be created with unique key attribute values that already exist.

Text Widget

The purpose of the Text Widget is to provide an easy way to display custom text to all Web UI users. The Text Widget, which supports HTML formatting in the Text parameter, is a great way to display a custom message of welcome or next steps after logging in because it can be displayed on the homepage, where users are directed after login.

The purpose of this section is to describe each of the parameters within the Text Widget Properties.



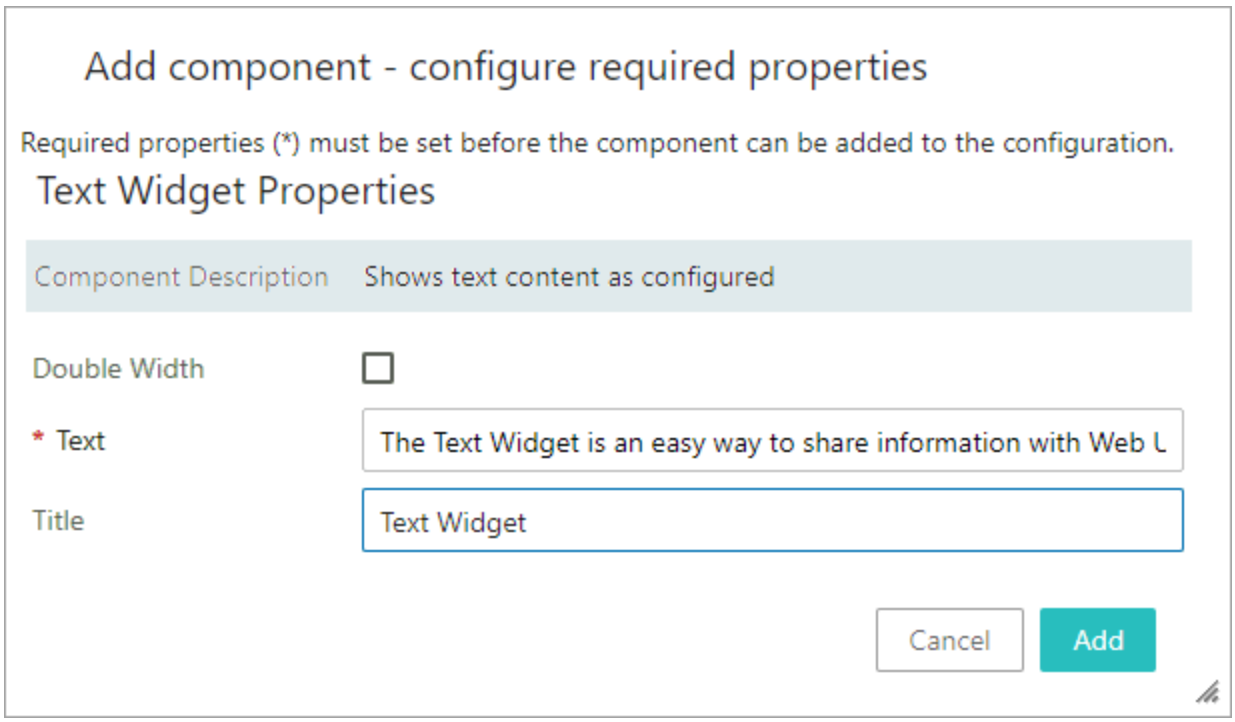
Prerequisites

It is expected that anyone configuring the Text Widget is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

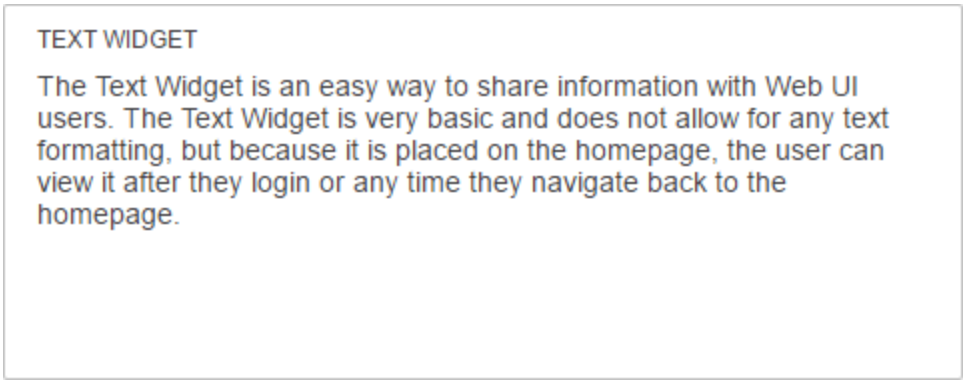
Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

Configuring the Text Widget

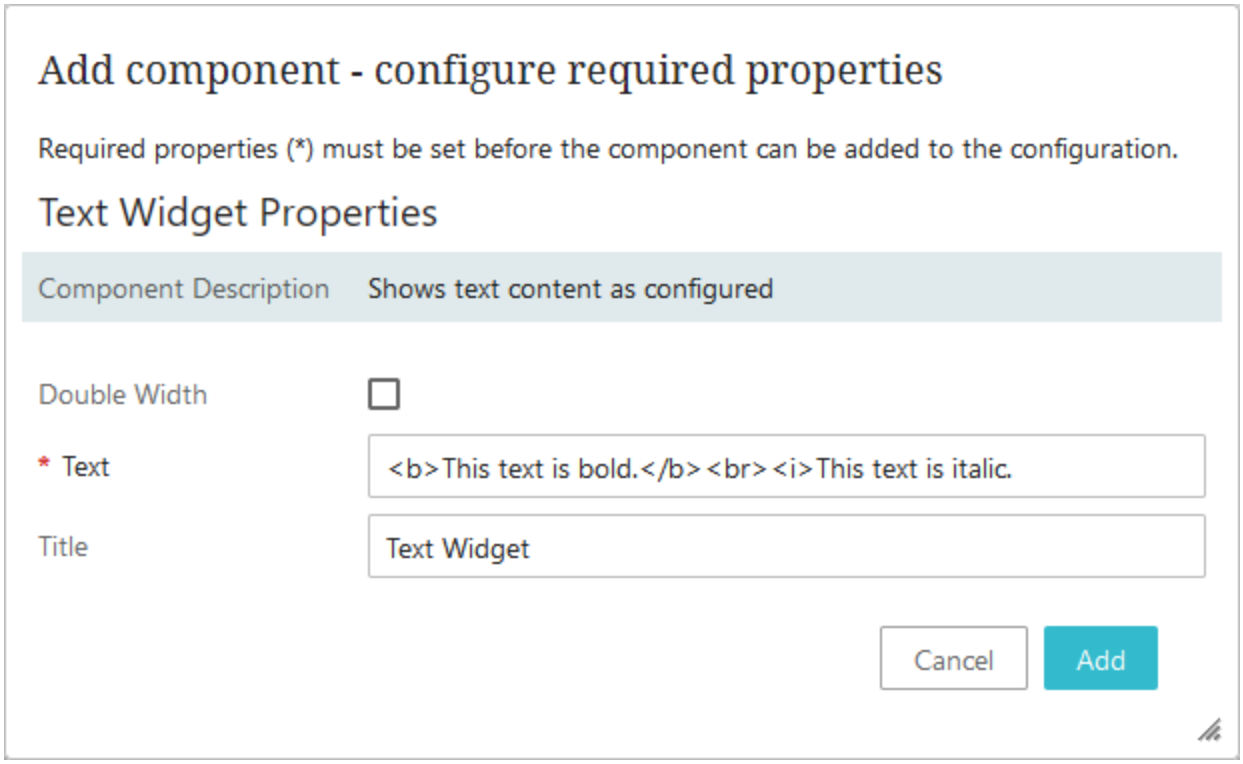
When configuring the Text Widget for the Homepage, there are three parameters to consider; Double Width, Text and Title.



If the **Double Width** parameter is checked, the widget is doubled in size form the from the standard widget single width.



The **Text** parameter must be populated for the widget to be added to the homepage. When the Double Width parameter is checked, the widget can display approximately 1300 characters. When the Single Width parameter is checked, the widget can display approximately 600 characters. HTML tags can be used in the Text Widget Text parameter to display formatted text.

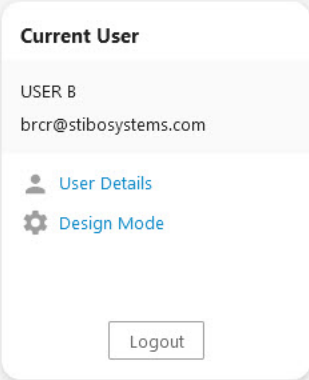




The **Title** parameter is optional. When blank, the default title, 'Text', appears. When the Double Width parameter is checked, the Title can display approximately 50 characters. When the Single Width parameter is checked, the Title can display approximately 25 characters.

User Widget

The User Widget allows users to quickly access basic administrative functions in the Web UI, such as confirming the system user currently signed into the Web UI and the email address associated with that user, accessing a configured User Details screen via a link, and logging out via a 'Logout' button. It should be noted that appearance and access to elements in the User Widget may differ than the graphic below depending on the user's administrative privileges.



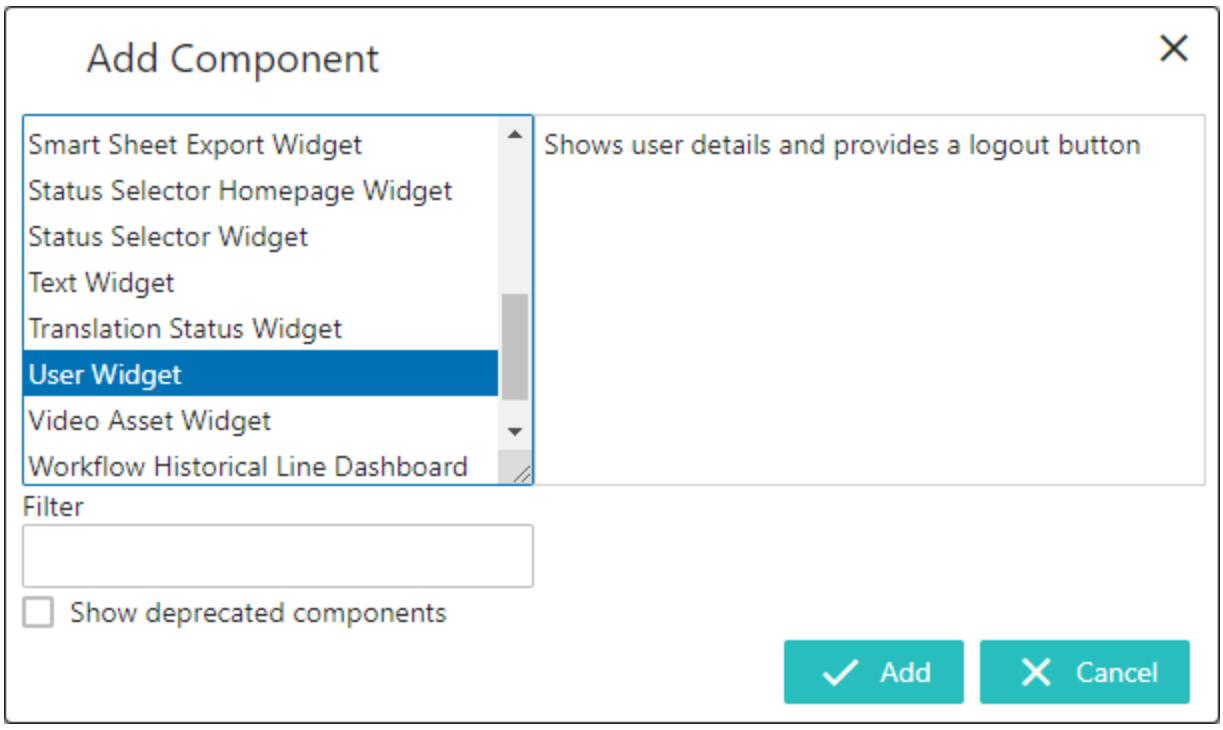
Prerequisites

Because basic concepts for working with the designer are not covered in this section, it is recommended that users configuring homepage widgets be familiar with the Web UI designer. For more information on the basics of working in the designer, refer to the **Design Mode Basics** topic in the **Homepage Widgets** documentation.

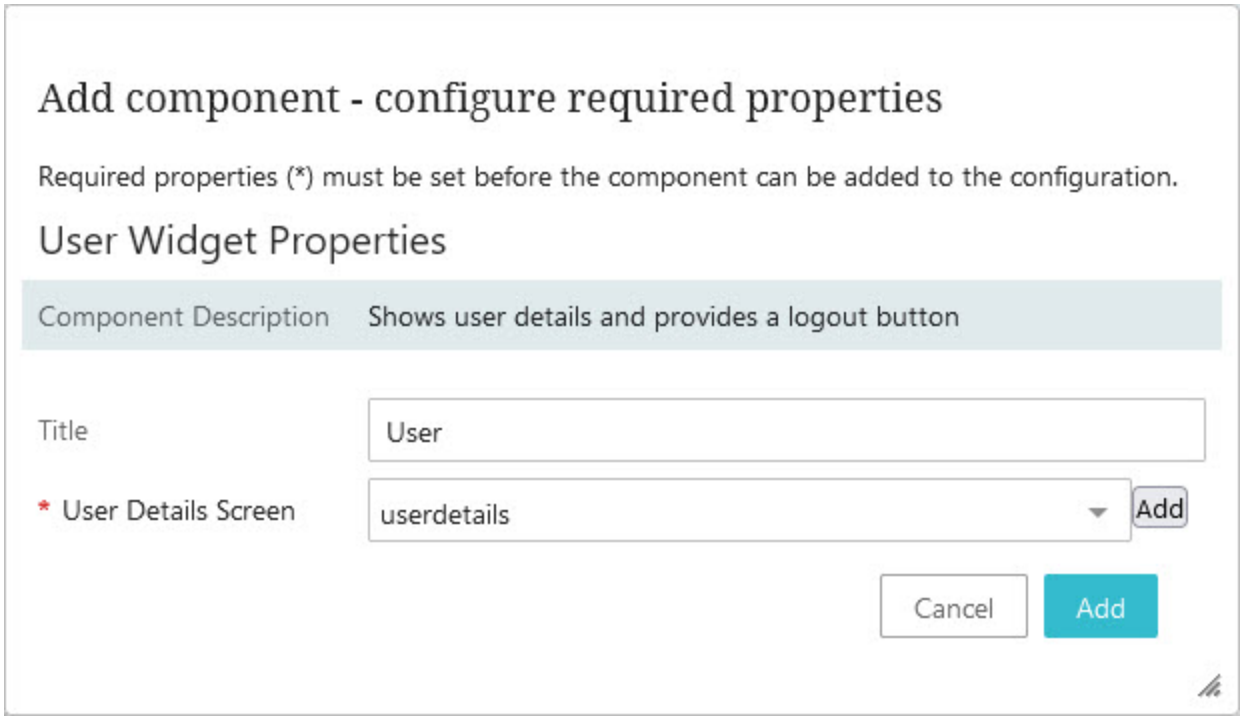
Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

Configuring the User Widget

When adding the User Widget to the widget grid, choose the 'User Widget' in the 'Add Component' window, and then click 'Add'.



A 'User Widget Properties' window then displays in which the user can configure the User Widget.



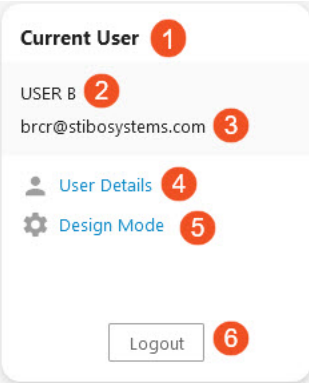
The two configurable parameters are:

- **Title**: In this field, add a title that will display as a header at the top of the User Widget. If the field is left blank, the default title 'Current User' will display on the User Widget. In the above example, the Title 'User' has been added.
- **User Details Screen**: Select the User Details screen from the dropdown and then click the 'Add' button at the bottom of the window. For information regarding configuration of the User Details screen, refer to the **User Details Screen** topic in the **Web User Interfaces** documentation.

  Note: Clicking the 'Add' button to the right of the 'User Details Screen' field allows users to select from a larger list of screens. This function is used to create and configure a new User Details screen.

Using the User Widget

Once configured, the User Widget will display on the Web UI homepage. In the screenshot below, all elements that can be displayed on a User Widget are shown with a number. In the numbered list below the screenshot, each element is described based on its corresponding number.



1. **Title**: Displays the title added by the user. If no title text was added, 'Current User' will display.
2. **Current User's Name**: Shows the currently signed in user's 'Name'.
3. **Current User's Email Address**: Shows the email address added for the currently signed in user.
4. **User Details**: Clicking this link takes the user directly to the designated User Details screen.
5. **Design Mode**: Clicking this link opens the designer.
6. **Logout**: Clicking this button logs the user out of the Web UI.

Image Deduplication Clerical Review Screen

The Image Deduplication Clerical Review screen component enables users to review and manage sets of duplicate images after running the image deduplication process. Each potential duplicate set in clerical review is represented in the workflow as a single task, with all assets in the duplicate set being displayed in this screen.

Prerequisites

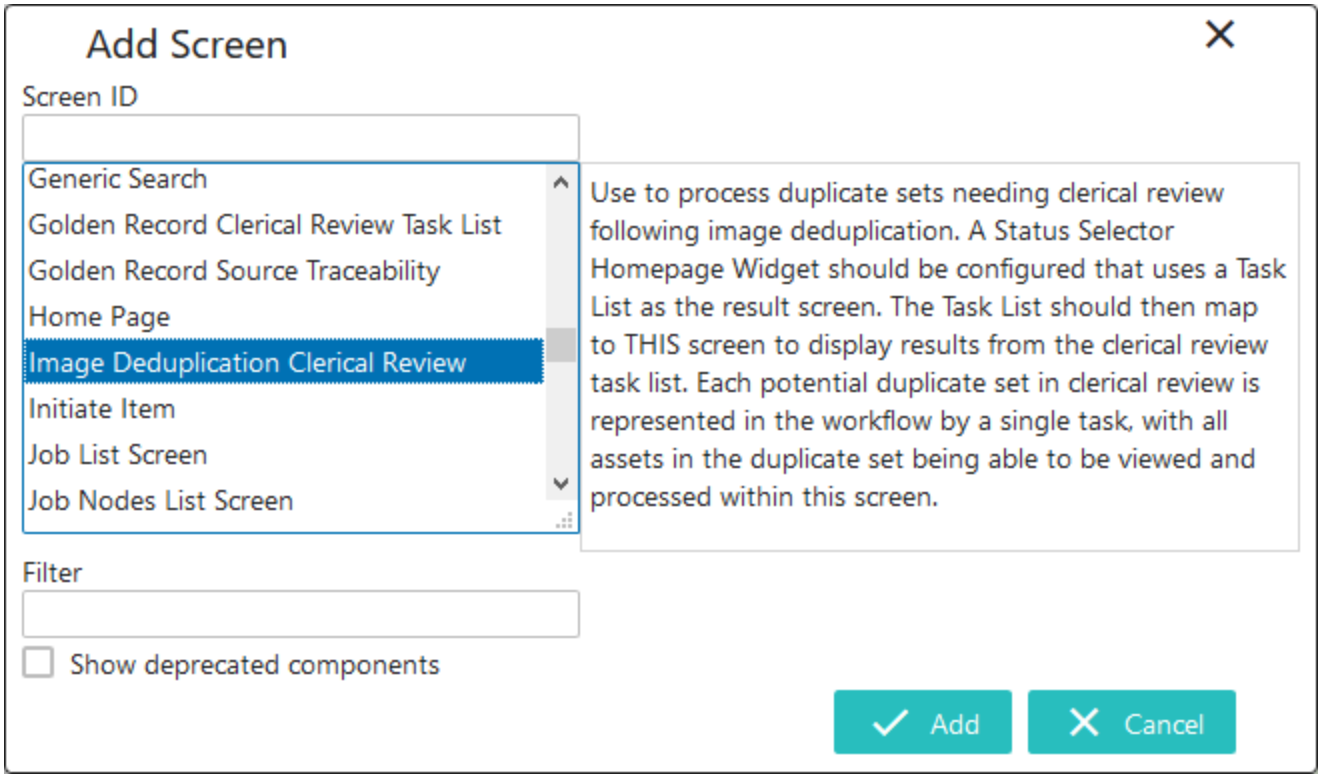
It is expected that anyone configuring the Image Deduplication Clerical Review Screen component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Additionally, to use the image deduplication functionality, the Image Deduplication component must be activated as described in the **Deduplicating Images** topic in the **Digital Assets** documentation.

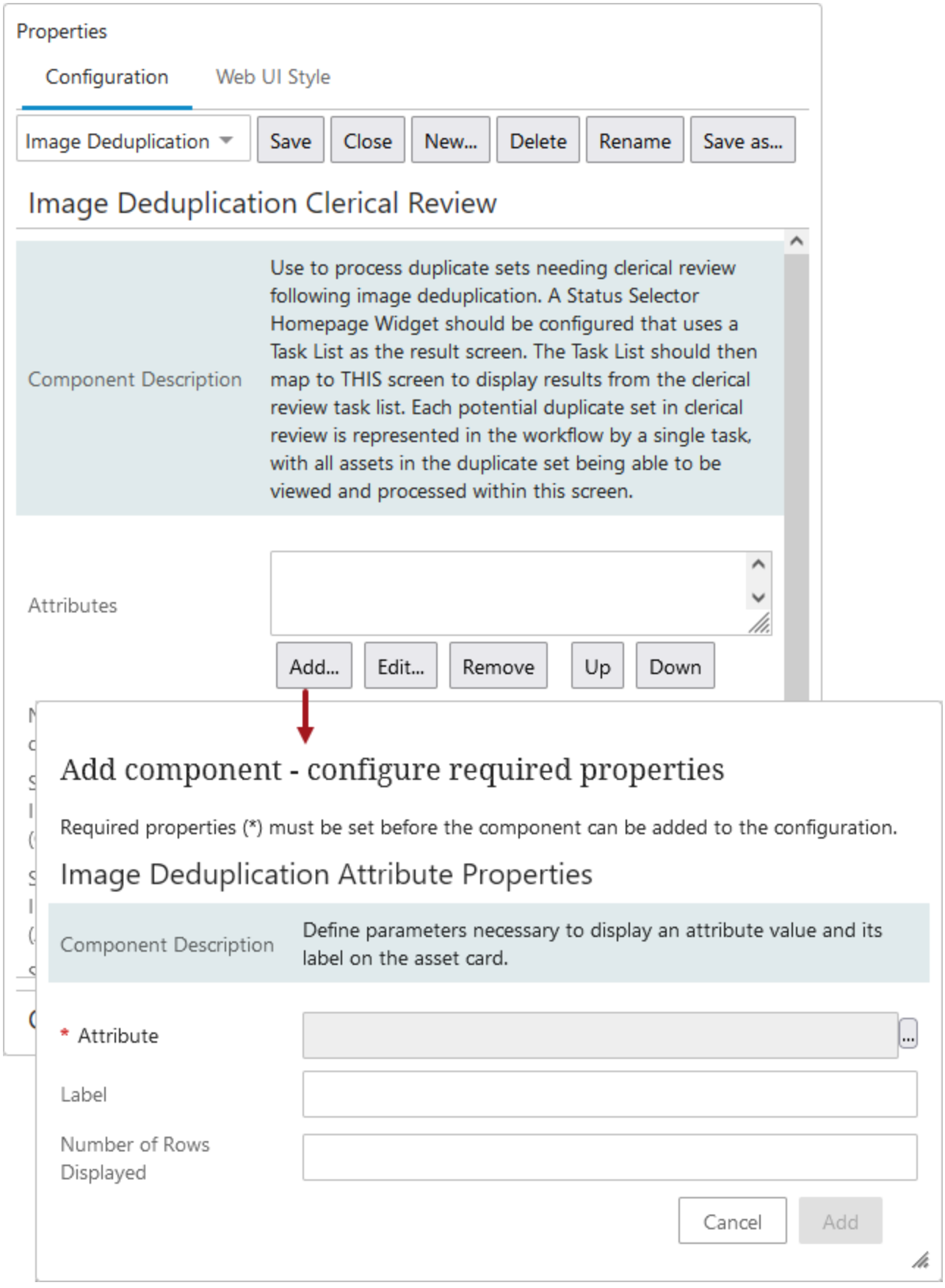
Adding and Configuring the Screen

Use the following steps to create and configure an 'Image Deduplication Clerical Review' screen.

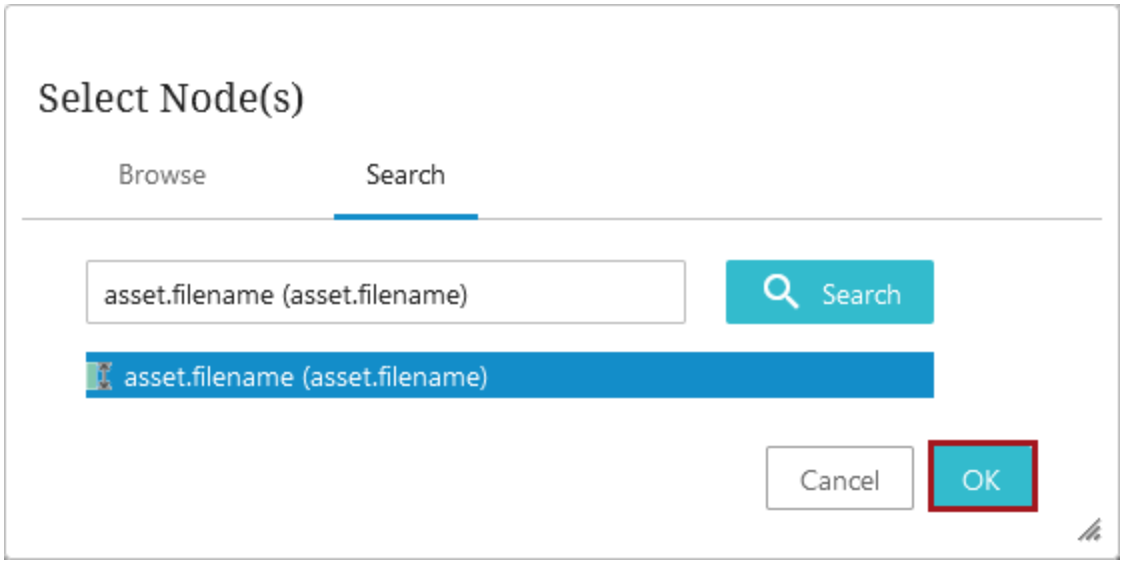
1. Create an 'Image Deduplication Clerical Review' screen. Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Select 'Image Deduplication Clerical Review' as the screen type.



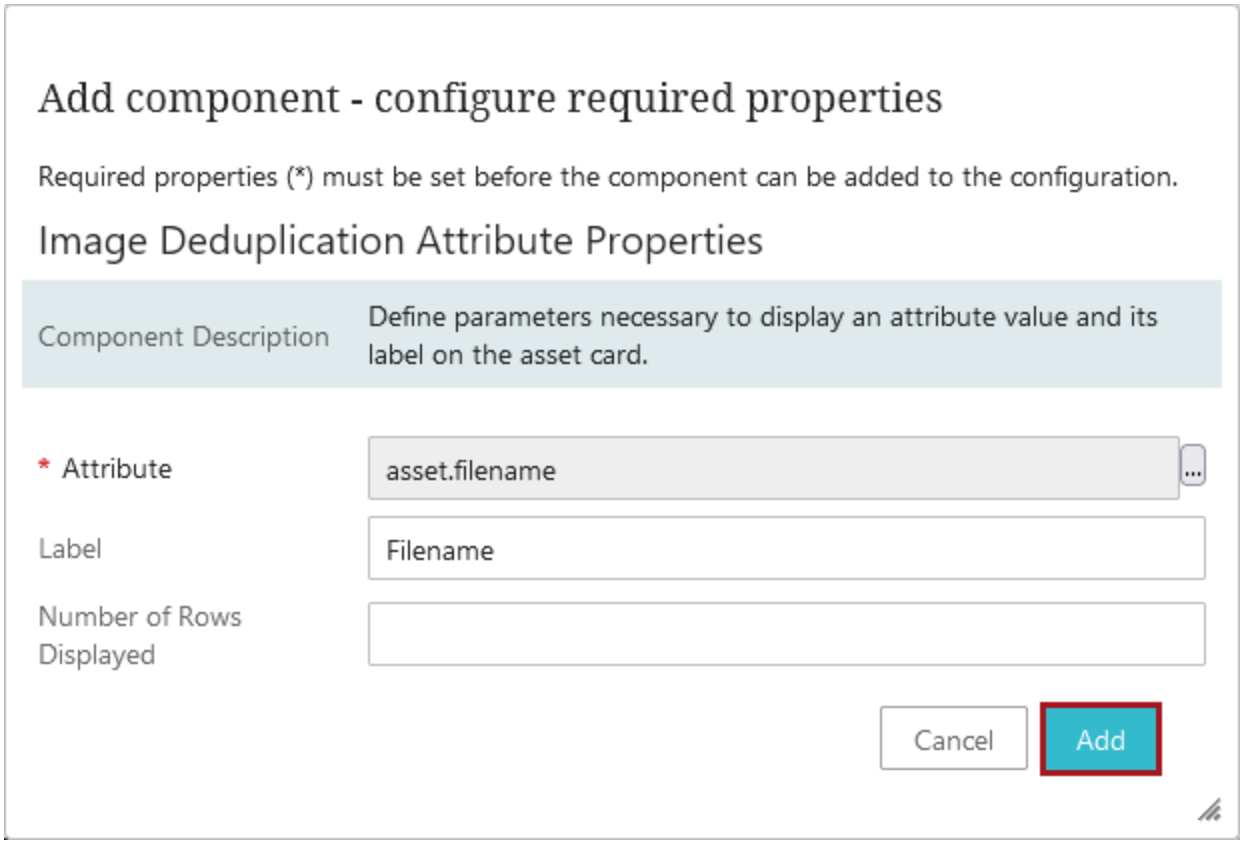
2. After creating the new 'Image Deduplication Clerical Review' screen, determine the image attributes that should display on the screen. On the Attributes parameter, click 'Add' to display the Image Deduplication Attribute Properties dialog, then click the ellipsis button (...) on the Attribute parameter to make your selections.


Properties
Configuration
Web UI Style
Image Deduplication
Save
Close
New...
Delete
Rename
Save as...
Image Deduplication Clerical Review
Component Description
Use to process duplicate sets needing clerical review following image deduplication. A Status Selector Homepage Widget should be configured that uses a Task List as the result screen. The Task List should then map to THIS screen to display results from the clerical review task list. Each potential duplicate set in clerical review is represented in the workflow by a single task, with all assets in the duplicate set being able to be viewed and processed within this screen.
Attributes
Add...
Edit...
Remove
Up
Down
Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Image Deduplication Attribute Properties
Component Description
Define parameters necessary to display an attribute value and its label on the asset card.
* Attribute
Label
Number of Rows Displayed
Cancel
Add

3. Use the 'Search' or the 'Browse' option to select the asset metadata attributes that will appear in the screen and click 'OK.'



4. Optionally, add a Label and Number of Rows Displayed:
   - Label - By default, the user will view the attribute name on the screen.
   - Number of Rows Displayed - By default, only one row is used and additional text can be viewed by hovering over the value. If most values require more than one row, add an integer to define how many should be used.



5. Click 'Add' to close the Image Deduplication Attribute Properties dialog. Repeat as needed to add more metadata attributes.

Note: While any number of attributes can be displayed, the screen is optimized for a small number. Adding an excessive number of attributes will result in a poor user experience.

All added attributes and the settings are displayed in the Attributes parameter.

Properties (edited)

Configuration | Web UI Style

Image Deduplication | Save | Close | New... | Delete | Rename | Save as...

Image Deduplication Clerical Review

Component Description	Use to process duplicate sets needing clerical review following image deduplication. A Status Selector Homepage Widget should be configured that uses a Task List as the result screen. The Task List should then map to THIS screen to display results from the clerical review task list. Each potential duplicate set in clerical review is represented in the workflow by a single task, with all assets in the duplicate set being able to be viewed and processed within this screen.

Attributes

- Image Deduplication Attribute (asset.filename / 2 / Filename)
- Image Deduplication Attribute (asset.size / Size)
- Image Deduplication Attribute (asset.format / 2 / Format)
- Image Deduplication Attribute (asset.colorspace / Colorspace)

Add... | Edit... | Remove | Up | Down

Number of rows to display image name	2
Select Duplicates Instructional Text (Clerical Review)	i18n.stibo.assetdeduplication.webui.server.component.ImageDe
Select Duplicates Instructional Text (Auto-Handling Error)	i18n.stibo.assetdeduplication.webui.server.component.ImageDe
Select Master Instructional Text	i18n.stibo.assetdeduplication.webui.server.component.ImageDe

Child Components

6. On the Image Deduplication Clerical Review dialog, for the **Number of rows to display image name** parameter, set a number. Text wraps as required, up to the number of rows set. Additional text can be viewed by hovering over the value.
7. The following parameters include default instructional text. To replace the default settings, remove the i18n.* text and enter your own text:
   - Select Duplicates Instructional Text (Clerical Review)
   - Select Duplicates Instructional Text (Auto-Handling Error)
   - Select Master Instructional Text

Once configured and set as an Asset Selection Screen and a Multi Selection Screen on a Node List component, or as an Advanced Search with Enable Workflow Selection enabled, the Image Deduplication Clerical Review screen will display image cards for all suggested duplicates from a group.

Localizable Dates in Web UI

While STEP handles ISO dates better than localized dates when doing search, compare, and order operations, many users want to view localized dates and times displayed when they are in the Web UI.

Attributes with 'ISO Date' and 'ISO Date and Time' validation types can be configured to display in a localized format when set up to display using an Attribute Value, Parent Value, and Attribute Value Group Component within a Node List or while displayed using an Attribute Value and Attribute Value Group Component within a Node Editor.

Just like the Web UI localization of the Date attribute, which is shown localized by default, the locale is defined by the selection made during login.



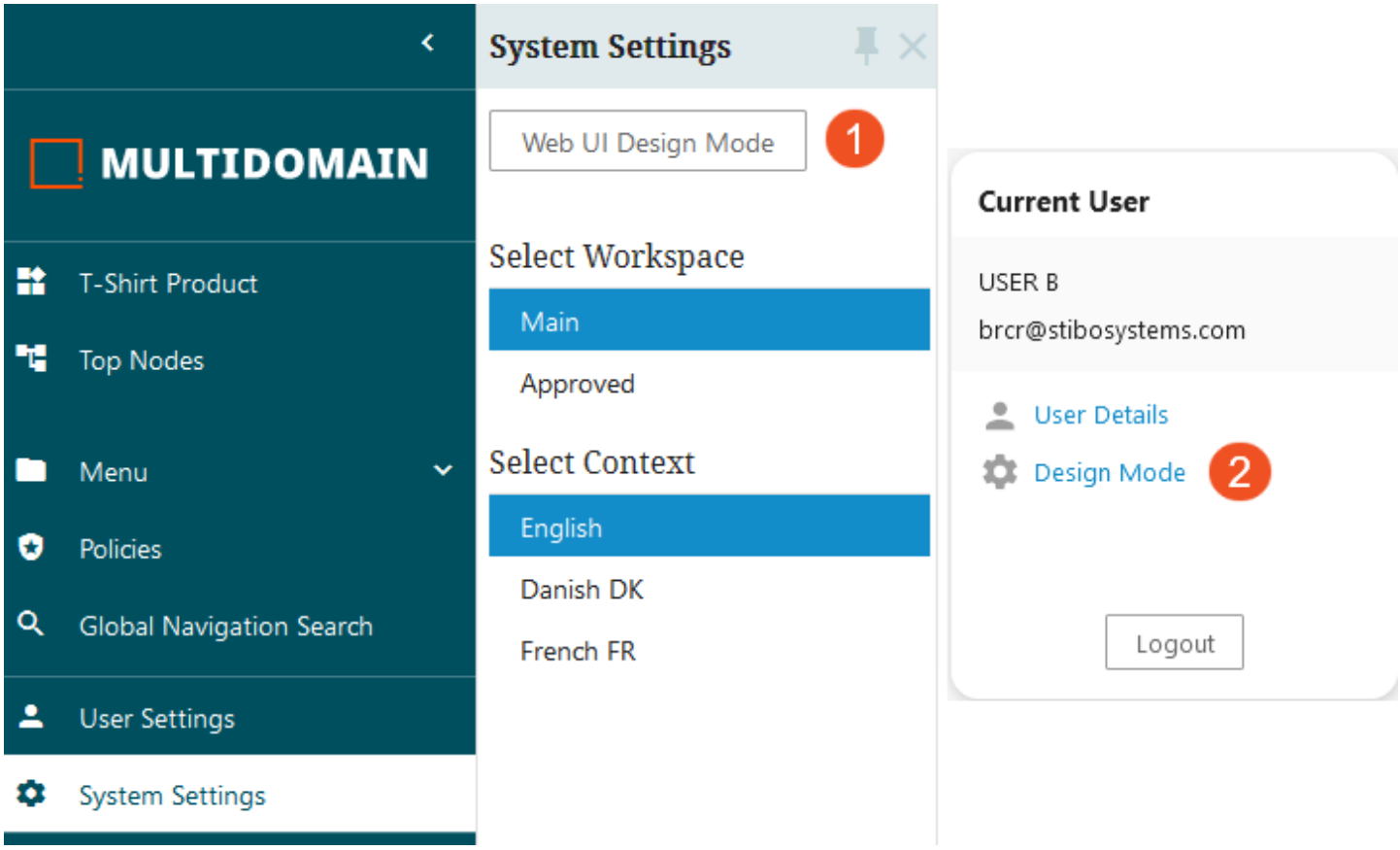
Dates converted to locale will follow the DateFormat.SHORT Java formatting style. Times converted to locale will be the DateFormat.MEDIUM formatting style.

Locale Date and Time (DateFormat) Samples	English (United States)	Danish (Denmark)	French (France)
Date (SHORT)	8/14/15	14-08-15	14/08/15
Time (MEDIUM)	11:25:40 AM	11:25:40	11:25:40

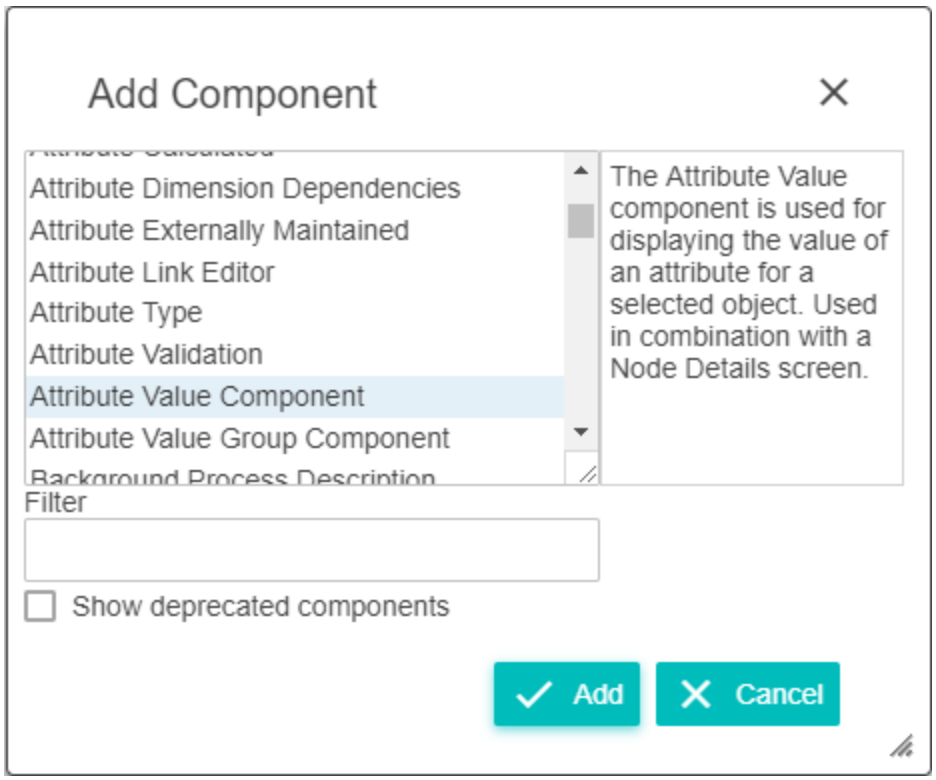
Localization Setup

To localize the 'ISO Date' and 'ISO Date and Time' attributes displayed in Web UI, follow these steps.

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Click the 'Design Mode' launch button found on the homepage (in the User Widget) or from the toolbar in the top right.



3. Navigate to the Node Editor or Node List properties screen to add / edit the date attributes.
4. Click on Add button in Child Components section.

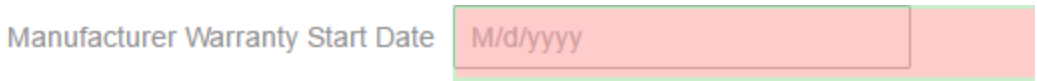


5. On the Attribute Value Component, Parent Value, or Attribute Value Group Component properties screens (for Node Editor) or the Attribute Value Header and Attribute Value Group Header properties screens (for Node List), click on the Advanced arrowhead to expand the Advanced options.
6. Click on the box to the right of Enable Locale Formatting.
7. Select the required Attribute in Attribute option on Attribute Value Component Properties.
8. Click the Add button.
9. Save and close the Node Editor / Node List properties screen.

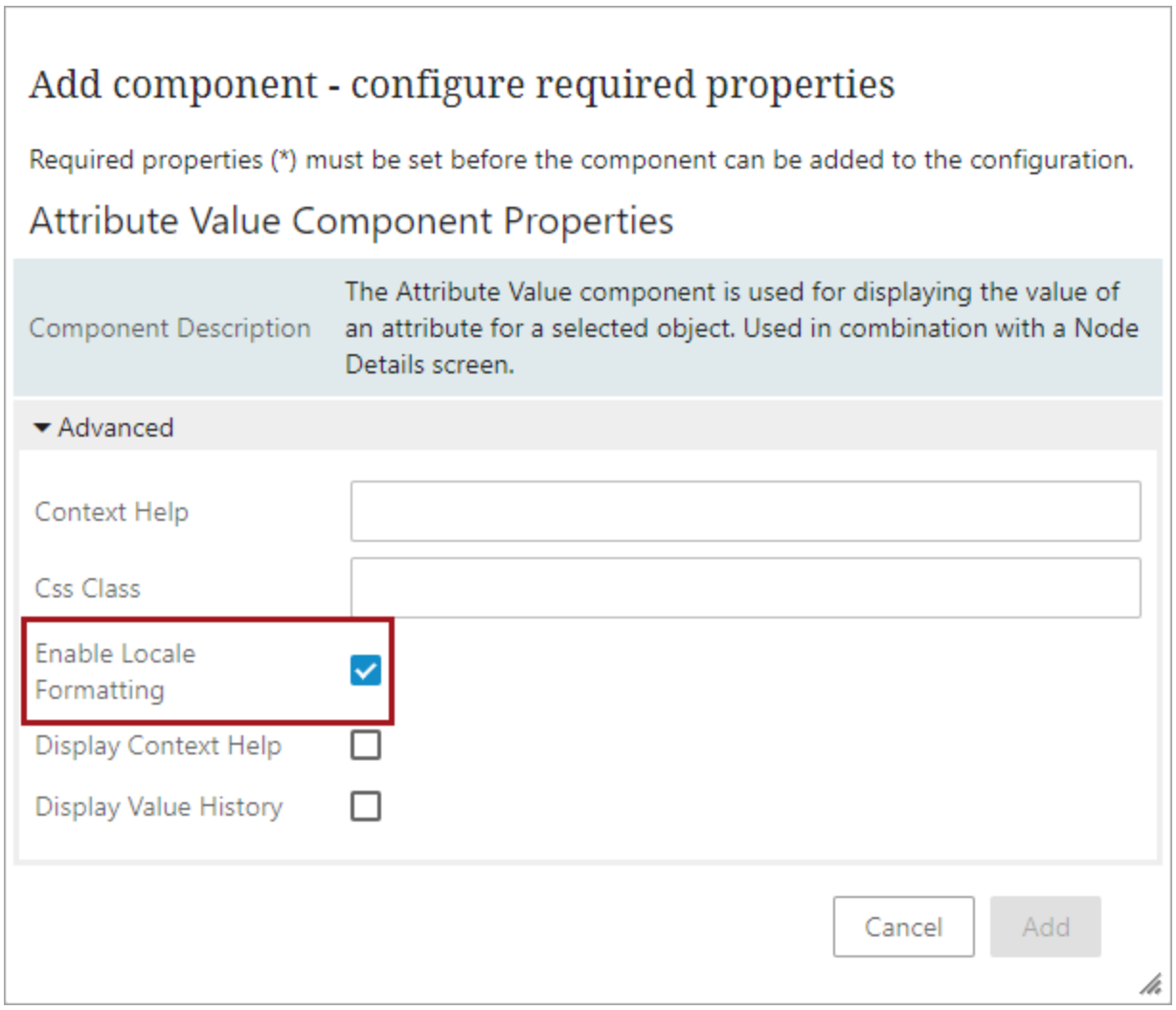
The dates will now show as localized on the screen. The values will continue to display localized based on the login locale until the Enable Locale Formatting parameter is disabled.

The below example explains using Attribute Value Component in Node Editor Properties screen.

As an example, this is an attribute with an 'ISO Date' Validation Base Type prior to localization as shown in Web UI designer mode:



Under Advanced, the properties screen is now configured to localize the selected attribute.



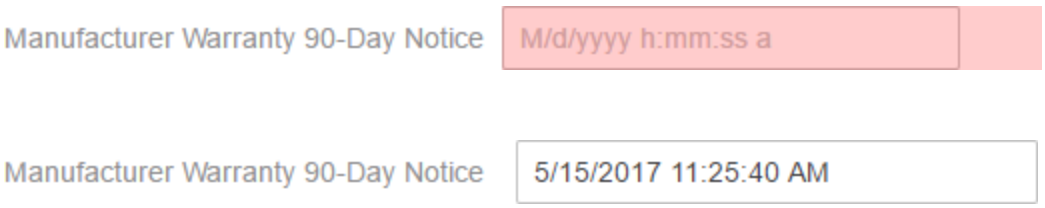
This is the same 'ISO Date' Validation Base Type attribute after being localized (English / US locale):



Also, for example purposes, this is an 'ISO Date and Time' attribute before and after Enable Locale Formatting is selected.







Note: Follow the above steps to configure Attribute Group Component in Node Editor Properties Screen. To View the display of ISO date on other context, change the locale on the Login page.

The below example explains using Attribute Group Header Component in Node List Properties screen. The Multi Edit Display Mode is used in the example below:

1. Navigate to the Node List Properties screen.
2. Click on 'Multi Edit Display Mode' in Child Component of Node List, or Add the 'Multi Edit Display Mode.'
3. In Multi Edit Display Mode Properties, Add 'Attribute Value Group' or 'Attribute Value Group Header' in Headers section.

4. In Attribute Value Header Properties screen, check the check box of Enable Locale Formatting option.

5. Select the required Attribute in Attribute option in Attribute Value Component Properties.

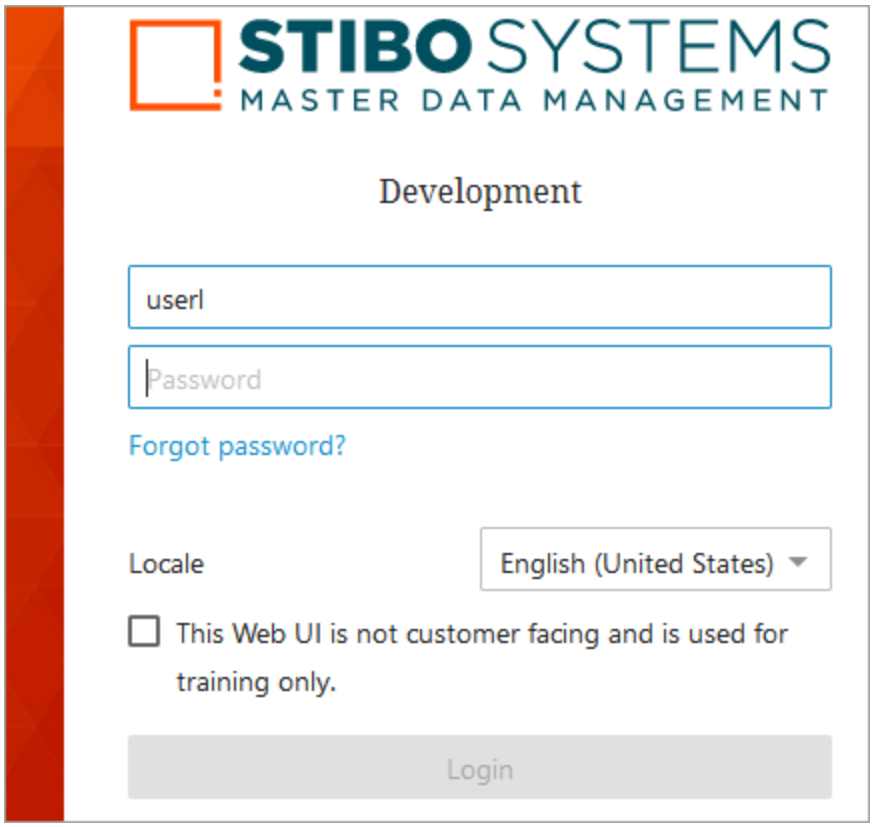
6. Click on Add button.

Considerations and Limitations

- Date localization only works on attributes with these validation base types: Date (DD-MON-YYYY), ISO Date (YYYY-MM-DD), and ISO Date and Time (YYYY-MM-DD HH24:MI:SS). Changing the way these attributes display in Web UI does not impact the validation base type.
- Web UI ISO Date display settings are configured per component and display mode, meaning that they must be individually set in each instance where the localized display is desired.
- For information regarding converting existing attributes from Date to 'ISO Date' validation type, refer to the Converting Attributes from Date to ISO Date topic in the System Setup documentation.
- For information regarding Localization, refer to the Localization topic in the Administration Portal documentation.

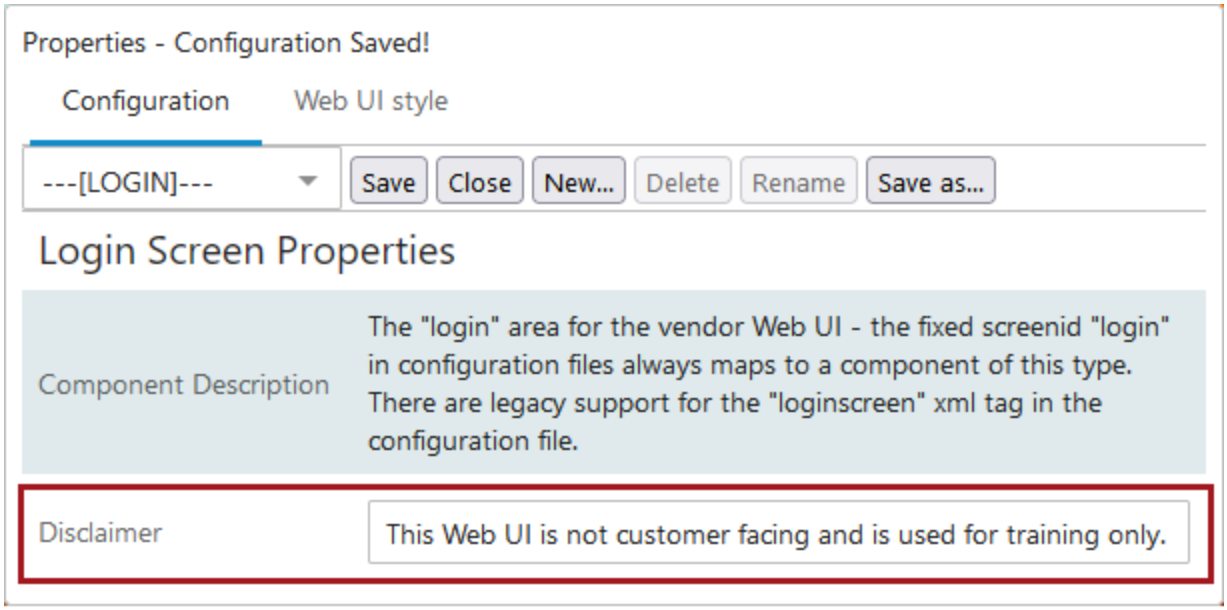
Login Screen Properties

The Login screen for the Web UI allows users to enter their user credentials, acknowledge any disclaimers on the Web UI if applicable, and log in to proceed with their work.



For administrators, the only parameter to set in the designer on the Login Screen Properties is the **Disclaimer** parameter. This field allows Web UI designers to set a message that users must acknowledge with a checkmark before the system will allow a user to log in. This parameter can only contain plain text.

To set the Disclaimer parameter, open the designer and go to --[LOGIN]--.





Note: If an announcement is needed, STEP allows Web UI designers to create announcements that display on the login page. This is valuable for alerting users to, for example, scheduled downtime related to system maintenance. For more information, refer to the **Adding Announcements to the Login Page** topic in the **Web User Interfaces** documentation.

Main Properties

The **Main Properties** configuration determines the overall behavior of a Web UI. The Main Properties parameters are found within the three sections: Main, Advanced, and Child Components. Below is an overview and links to more details (when applicable) for each of the parameters listed in the order they appear on the Main Properties.

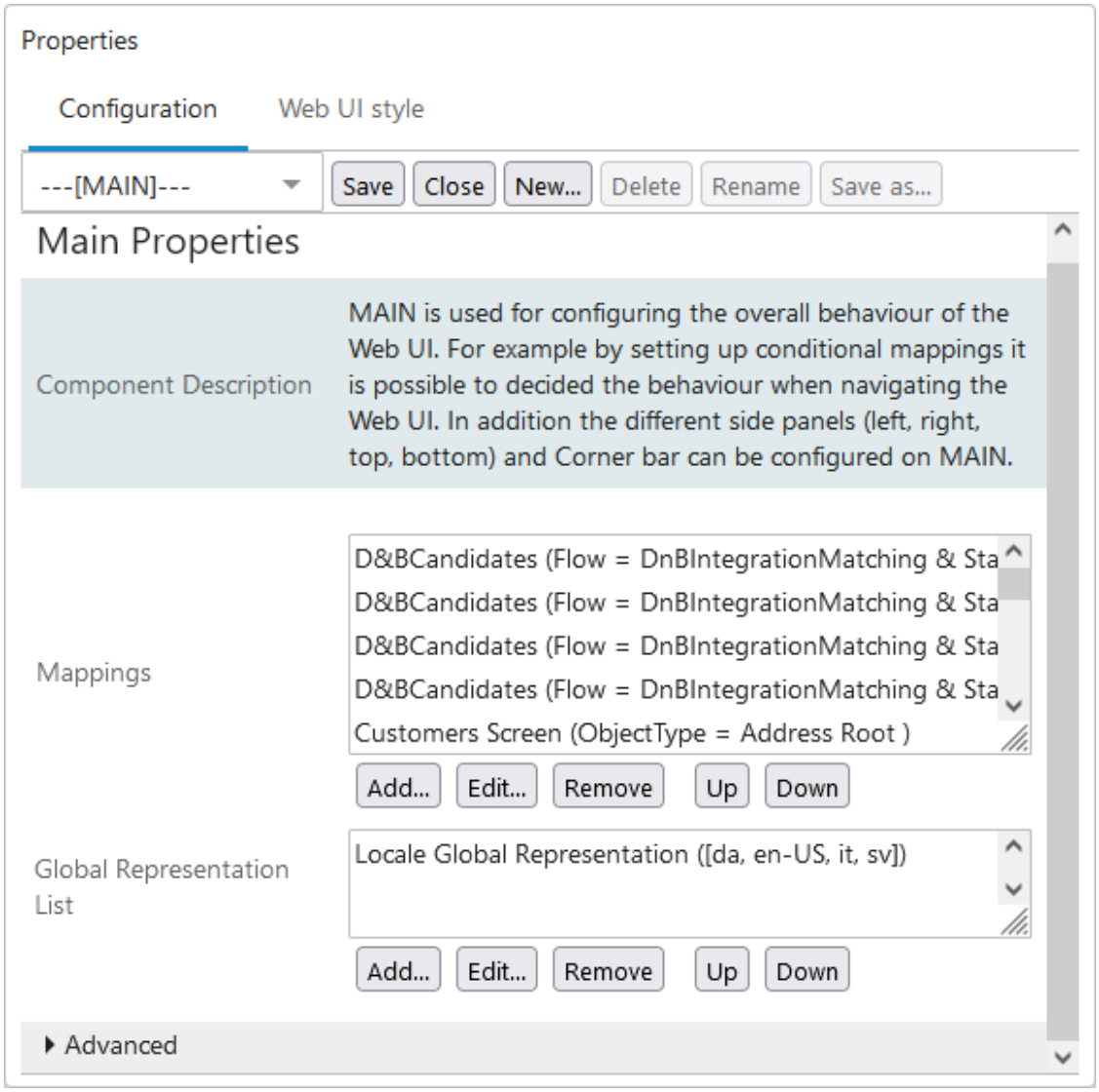
Prerequisites

All the steps provided in this topic assume the Web UI designer is in design mode and on **Main Properties** prior to starting the configuration process. For more information about getting started using a Web UI and details about design mode access / usage, refer to the **Web UI Getting Started** topic.

Configuring the Parameters

Main Parameters

Configure the parameters as needed.



- **Mappings:** Screens display in Web UI based on the Mappings values. When a new screen is created, typically a mapping also needs to be set up. The mappings are shown as 'screen ID (condition)' for the Mappings parameter and are evaluated one-by-one in the order shown. When the first mapping condition is met, the evaluation stops, and the screen configured for that condition is displayed. If no mappings match, then the default target screen is the Homepage. For more information, refer to the **Mappings** topic.
- **Global Representation List:** This parameter allows Web UI designers to add a global representation of specific functionality. Each global representation can only exist once in this list. Details for each of the available representations can be found below.
  - **Alternate Node Appearance:** This option allows users to configure nodes in the Tree Navigator to display with a colored dot to indicate that objects in that node contain a specific attribute value on a particular attribute. Hover text can also be configured for each trigger value to quickly inform users about the meaning of each indicator. For full details on how to configure this component, refer to the **Configuring Alternate Node Appearance** section of the **Tree Navigator Component**

documentation.

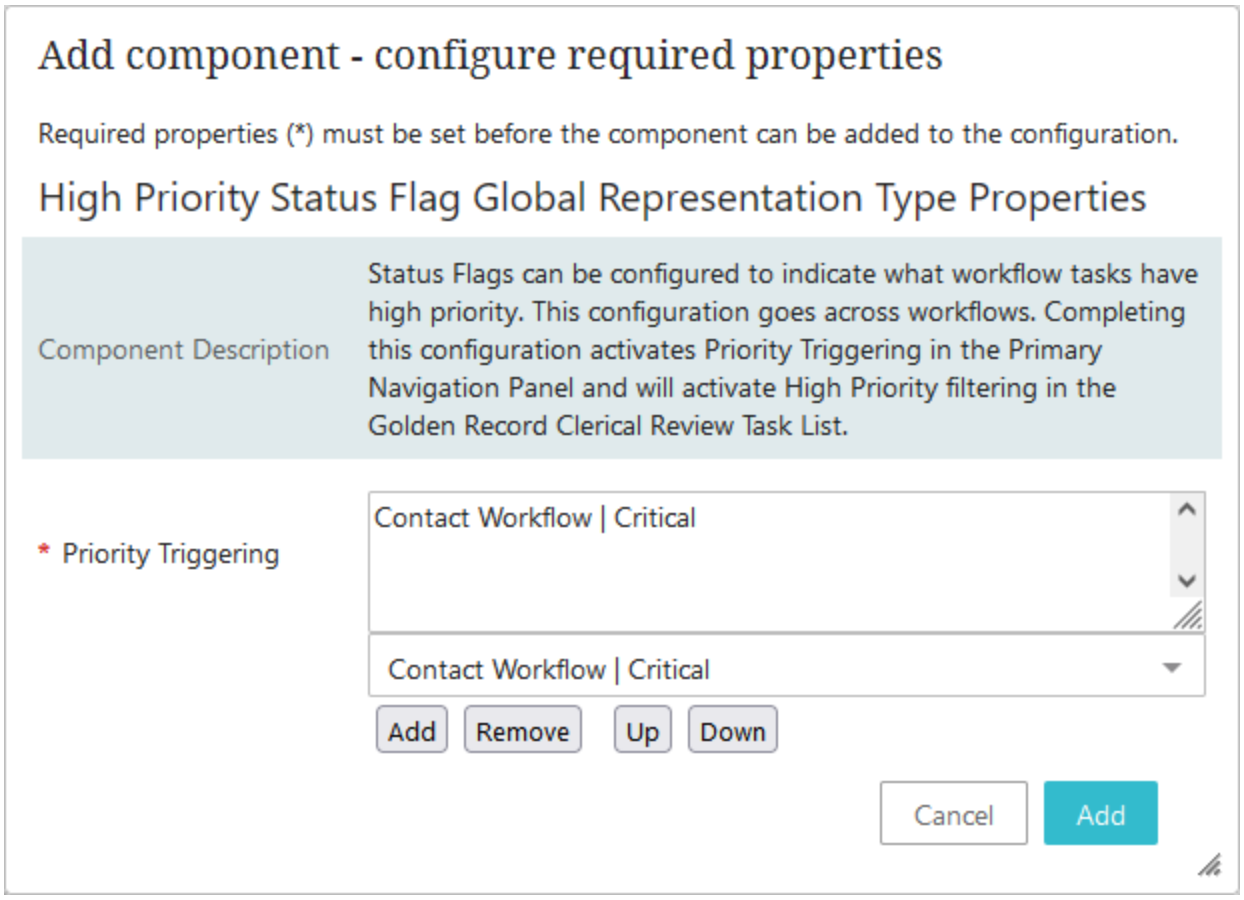
- **Context Global Representation:** This component allows admin users to configure which contexts are available to appropriately privileged end users in the 'Select Context' menu, which is accessible via the 'Settings' menu. When the 'Context Global Representation' component is added to the Global Representation List, admin users can select from a list of all configured contexts (listed by name) which contexts are accessible for viewing and editing by end users in the Web UI. If the component is added but no contexts are selected, only the first context (as determined by alphabetical order) displays.
- **Data Visualization Representation:** Data Visualization in Web UI allows users to view a visual representation of objects in STEP and how they relate to one another. If a Display Relations Screen type is not in use anywhere in the Web UI, then skip this parameter. For full details on how to configure this parameter and the subsequent component, refer to the **Configuring Data Visualization** section of **Data Visualization** topic.
- **Dynamic Table Layout Settings:** The Dynamic Table Layout Settings component is used to define behavioral rules for a table using the display modes Multi Editor or Compare View. By setting a minimum and maximum value for 'row height' and 'column width' a range is defined within which a table is allowed to increase the height of rows and width of columns to display the most cell content. A table increases the width of a column before increasing the height of a row. When defined the settings apply globally for all tables in a Web UI configuration.
- **Global Address Typeahead Configurations:** This component allows integration with an external address search service to display verified mailing address data. Selected entity address attributes are displayed in the Web UI with an address search field. For more information, refer to the **Web UI Configure and Use Address Typeahead** topic.
- **Global Data Container Representations:** This component provides a centralized configuration for data container displays in Web UI. Multiple configurations can be stored for any number of different data container types within this component. For more information, refer to the **Global Data Container Representations** topic.
- **Global Orphan Attribute Representation:** The setting configured using this component determines how orphan attribute errors display globally in the Web UI. Users can select between 'Information,' which notifies users that a given attribute is orphaned, 'Warning,' which presents the notification that a given attribute is orphaned using the warning styling, and 'Error,' which presents the notification that an attribute is orphaned using the error styling and prevents users from saving data until the value is either removed from the attribute field, or the attribute is relinked.
- **Global Reference Representations:** This component provides a centralized configuration for reference displays in Web UI. Multiple configurations can be stored for any number of different reference types within this component. For more information, refer to the **Global Reference Representations** topic.
- **Globally Configured Data Validations:** This option enables business conditions to be run for selected 'triggering data types' on any suitable Web UI screen. Attributes and references can trigger the business condition. For more information, refer to the **Data Validation in Web UI** topic.
- **Hierarchy Representation:** This option is only displayed as part of the Company Data Visualization component and defines the representation of pairs of object types and reference types in the Hierarchy Screen. If a Hierarchy Screen type is not in use anywhere in the Web UI, then skip this parameter. For full details on how to configure this parameter and the subsequent component, refer to the **Configuring a**

Company Hierarchy Screen section of **Company Hierarchy Visualization and Maintenance** topic.

- **High Priority Status Flag Global Representation Type:** Configuring this component activates priority triggering in the Global Navigation Panel. When high priority tasks exist in a clerical review workflow, a high priority alert appears beside the task list name in the Tasks child component. For more information, refer to the **Global Navigation Panel Component** topic.

> **Note:** While multiple high priority flags are allowed for a single workflow, this is not recommended due to the negative impact on performance.

To configure this component, navigate to the **Priority Triggering** status flag parameter and use the dropdown to select the desired workflow / status flag combination, then click **Add**. When added to the list, any tasks flagged as such in the workflow display an alert next to the task list name in the Global Navigation Panel component. Likewise, when those tasks are present in the currently selected workflow state, a High Priority filter is displayed.



- **Golden Record Clerical Review Task List:** The High Priority Status Flag Global Representation component activates High Priority filtering in the Golden Record Clerical Review Task List. The High Priority Status Flag Global Representation overrides the homepage widget status flag when the 'Status Flags Enabled' option is checked on the Status Selector Homepage Widget for the task list. For more

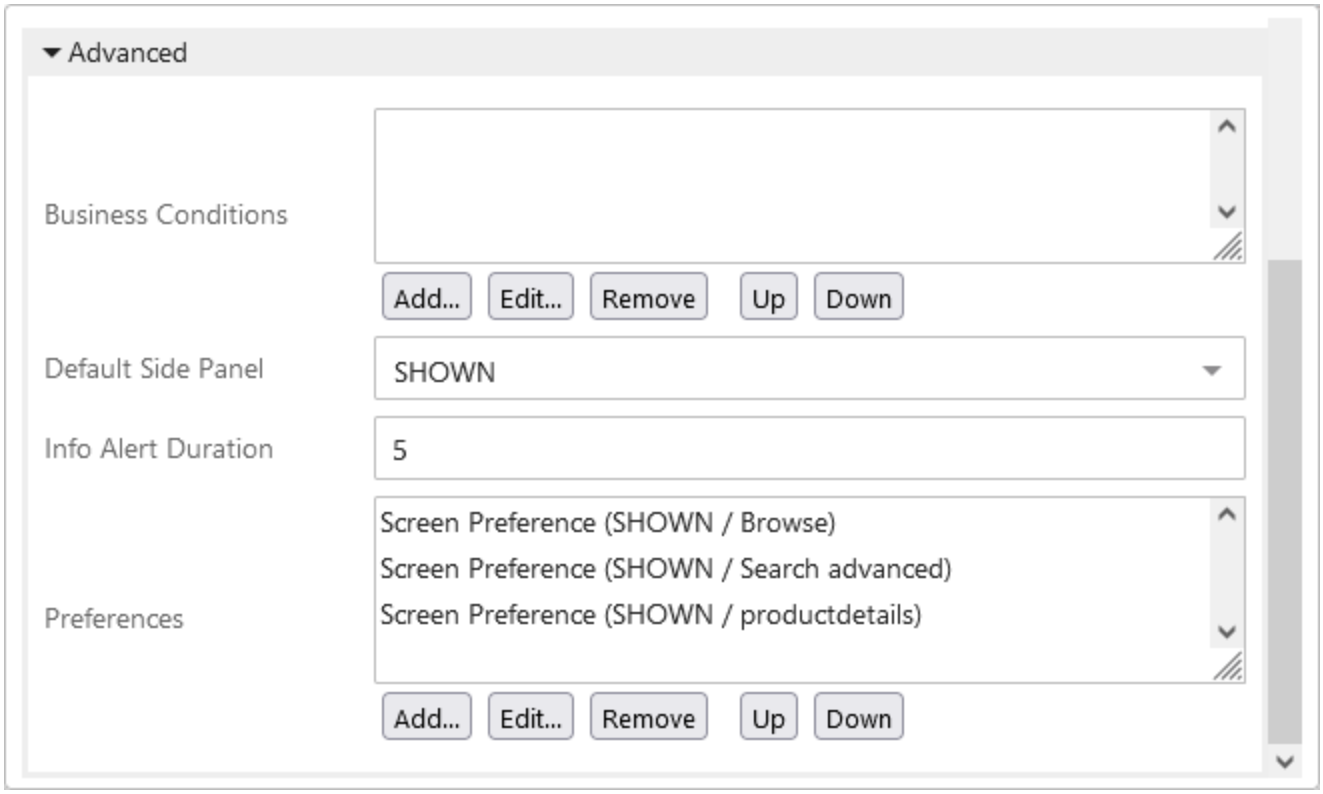
information, refer to the **Status Flags in Web UI** topic and the **Golden Record Clerical Review Task List** section of the **Matching, Linking, and Merging** documentation.

- **Locale Global Representation:** Configuring this determines which locales are available to end users for selection on the Login Page and in the 'Select Locale' section of the 'User Settings' menu in the Global Navigation Panel. All locales display if this Local Global Representation component is not configured. The Login Page dropdown and the 'Select Locale' section of the 'User Settings' menu in the Global Navigation Panel does not show if the component is added, but no locales are selected. For more information and setup, refer to the **Localization** topic in the **Administration Portal** documentation.
- **Override Control Type Rule:** Add the Override Control Type Rule component to globally change the appearance and behavior of attribute values that use the validation base types: LOV, Numeric Text, Numeric Text (exclude tags), Text, and Text (exclude tags). For added flexibility, the Override Control Type Rule component can be overwritten when a local control type is set for the attribute definition on the Attribute Management screen type or on the Attribute Value component when configured on a Node Details screen.
- **Workspace Global Representation:** This component allows admin users to configure which workspaces are available to appropriately privileged end users in the 'Select Workspace' menu, which is accessible via the 'Settings' menu. When the 'Workspace Global Representation' component is added to the Global Representation List, admin users can select from a list of all configured workspaces (listed by name) which workspaces are accessible for viewing and editing by end users in the Web UI. If the component is added but no workspaces are selected, only the first workspace (as determined by alphabetical order) displays.

  Note: The Primary Navigation Panel has been replaced by the Global Navigation Panel. Users who upgrade to 10.1+ with the Primary Navigation Panel configured on their Web UI view their left navigation component switched automatically to the Global Navigation Panel. The 'High Priority Status Flag Global Representation Type' component is also available for the Global Navigation Panel and is carried over following a conversion.

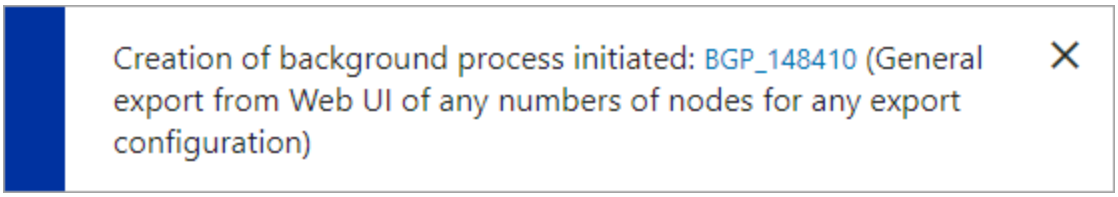
Advanced Parameters

Click the arrowhead next to the **Advanced** heading to view the parameters available. A description of each parameter follows. Configure the parameters as needed.

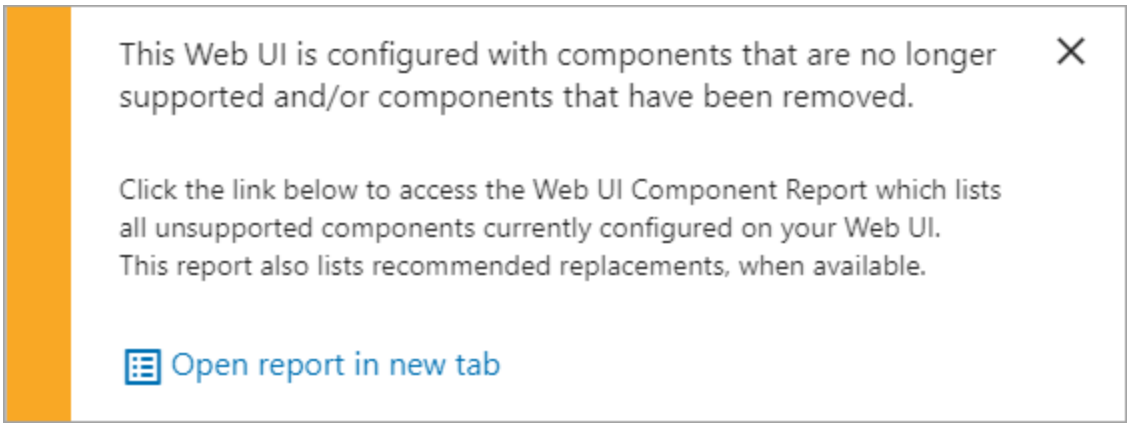


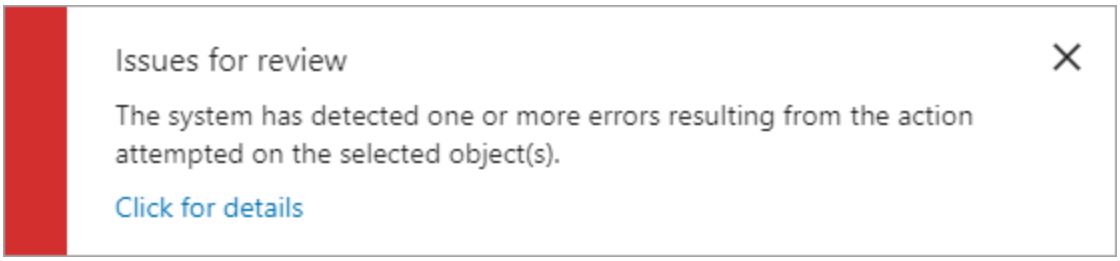
- **Business Conditions:** Any business conditions added become global conditions. This means that the conditions are evaluated together, as applicable, with any additional business conditions configured for a screen, component, or parameter that you may be working with. For more information about business conditions, refer to the **Configuring Business Conditions in Web UI** in topic.
- **Default Side Panel:** Determines the behavior of the Left child component on all the pages within Web UI. Select using the dropdown. An explanation of each option follows.
  - **HIDDEN**: (Default) The component is not automatically displayed on the screen.
  - **SHOWN**: The component remains static on the left side of the screen as you navigate through Web UI.
  - **COLLAPSED**: The component does not automatically display on the screen but is accessible by clicking on a show / hide button (›) shown on the left side of the screen.
- **Info Alert Duration:** Info alert boxes, like the acknowledgment and information notifications shown below, automatically close after the specified time (seconds). Respectively, they display when a user-prompted action has completed or when a system action or process has begun or when it is completed. The default value is 3 seconds. If you remove the 3 (or any value) from this field and save the designer changes without a value, a 3 automatically populates upon save. To set the alert box to remain on the screen until the user manually clicks the close button on the message box, set the value to 0 or a negative number.





- If an alert requires a user action such as clicking a button to make a decision or acknowledge a message, then the alert duration value does not apply. These alerts include warning notifications that display when a user-attempted action can proceed but aspects of the request may require additional caution, and error notifications that display when a user-attempted action cannot be completed. Examples of these alert types are below:

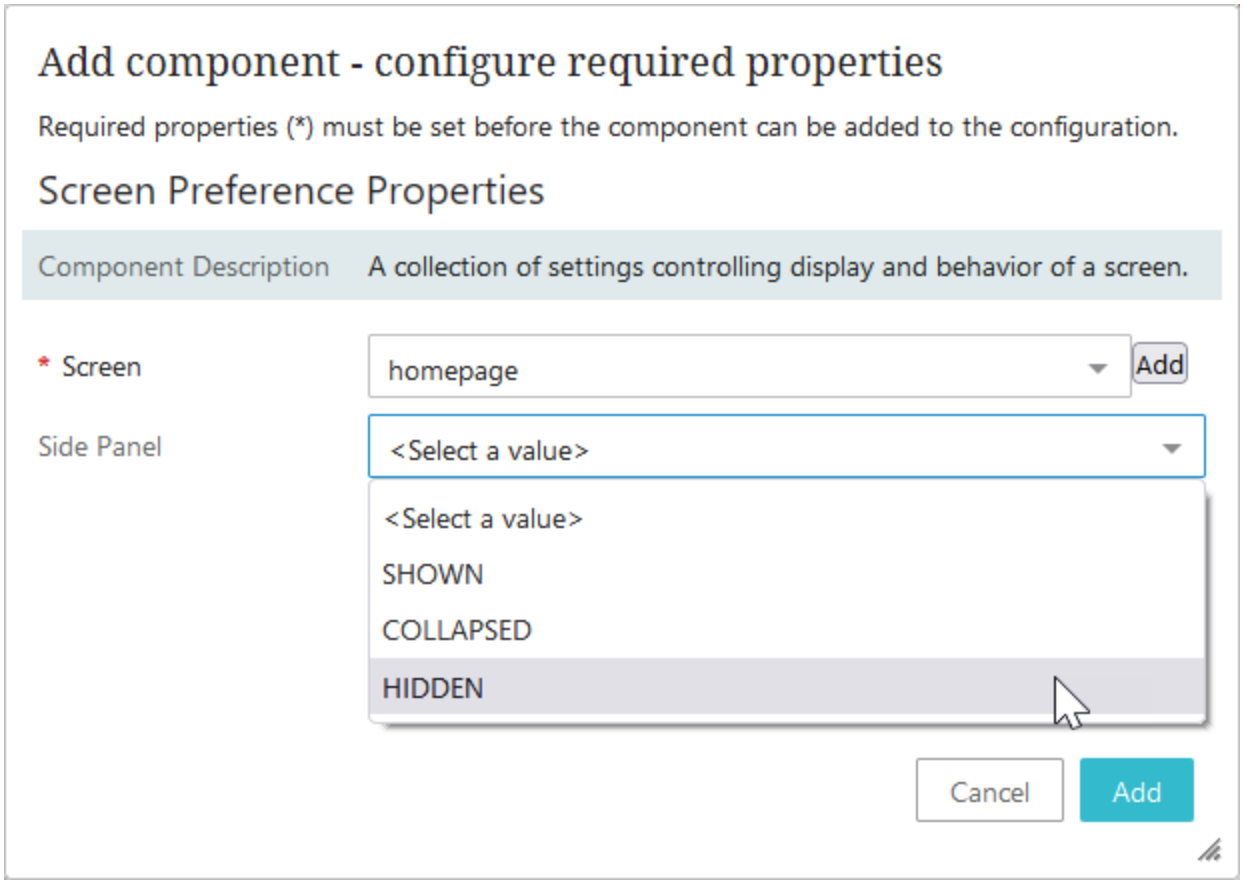




- **Preferences:** Use the Preferences parameter to overwrite the Default Side Panel settings for screens. As an example, you may decide that it is best to display the Left child component on some screens (e.g., Homepage) although the Side Panel default is HIDDEN.

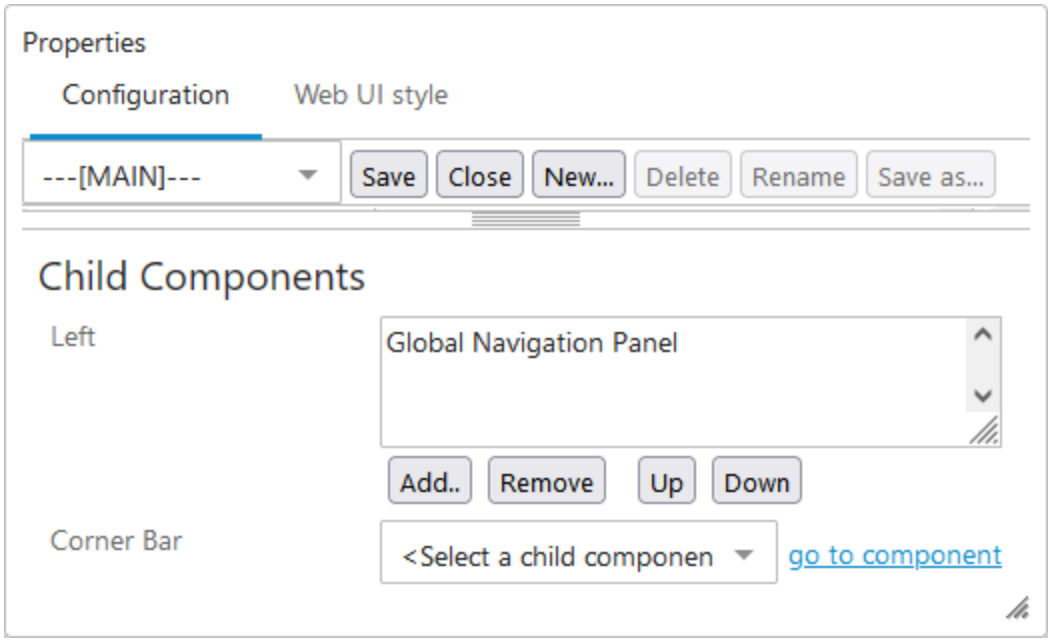
  To add a screen to the Preferences parameter:

1. Click **Add...** and make or select a Screen and Side Panel setting on Screen Preference Properties.
2. Repeat to add additional screen preferences.
3. Optionally, use the **Edit...** or **Remove** buttons to modify the selected screen preferences.
4. Optionally, use the **Up** and **Down** buttons to alter the order of the screen preferences.



Child Components

Add components to all screens using the Child Components section of Main Properties. Once added, components can be reorganized and removed.



- **Left:** Allows designers to add components designed to display on the left side of a Web UI screen. The default display width of the component is determined by the settings configured using the Left Width parameter (described in the Main parameters section above). Most of the same add component options are available for the Right child component, allowing designers to configure screen layouts to best fit the needs of their users. Common setup is to add a Tree Navigator component to a Global Navigation Panel.

  For step-by-step instructions on how to add the Tree Navigator Component to display in the Web UI, refer to the **Tree Navigator Component** document in the **Web User Interfaces** documentation.

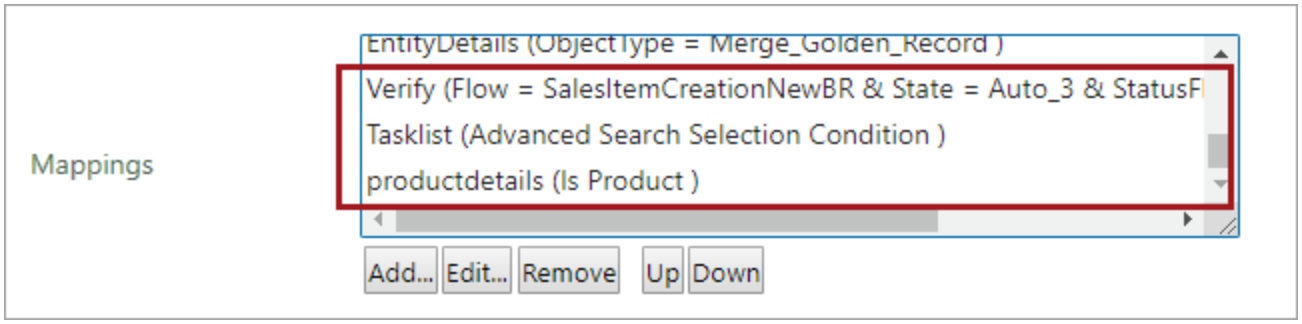
Mappings

One of the ways Web UI screens can be configured to display is through values established in the Mappings field, located on the MAIN screen in the designer.

When a screen is created, it must also be set up to display at certain points depending on which actions the end user takes. Mappings, which are created using conditions that point to specific screens, are the directions admins provide the system to determine when screens display, and under what circumstances. In many cases, without a mapping created for the screen, the screen will not display.

For example, a mapping can be set up that will direct the Web UI to display a 'Product Details' screen if a user selects from the hierarchy any object of the 'Product' super type. To enable this desired outcome, admin users will configure a mapping using an 'Object Type condition,' specifying the object type (in this case, any 'Product' object, which is the third mapping shown in the screenshot below), and the screen to display when the specified object is selected (in this case, a 'Product Details' screen).

The format for the mappings that display in the 'Mappings' field (shown in the screenshot below), is structured like this: the user-assigned screen title displays first, followed by the condition, in parentheses, that enables the mapping. Multiple conditions can be applied in a single mapping to enable more advanced use cases.



The sequence of mappings in this field are important. When an action is taken in the Web UI, the system performs an evaluation to determine if any of the mapping conditions listed in this field have been met. When the first mapping condition in the sequence is met, the evaluation stops and the screen configured for that mapping displays. If no mappings match, then the default target screen, the Web UI Homepage, displays. The mapping order should be set based on the requirements of the specific Web UI. Admin users should take care to avoid mapping conflicts (e.g., multiple mappings that use the same condition but different screens) as they often result in errors or unexpected UI behavior.

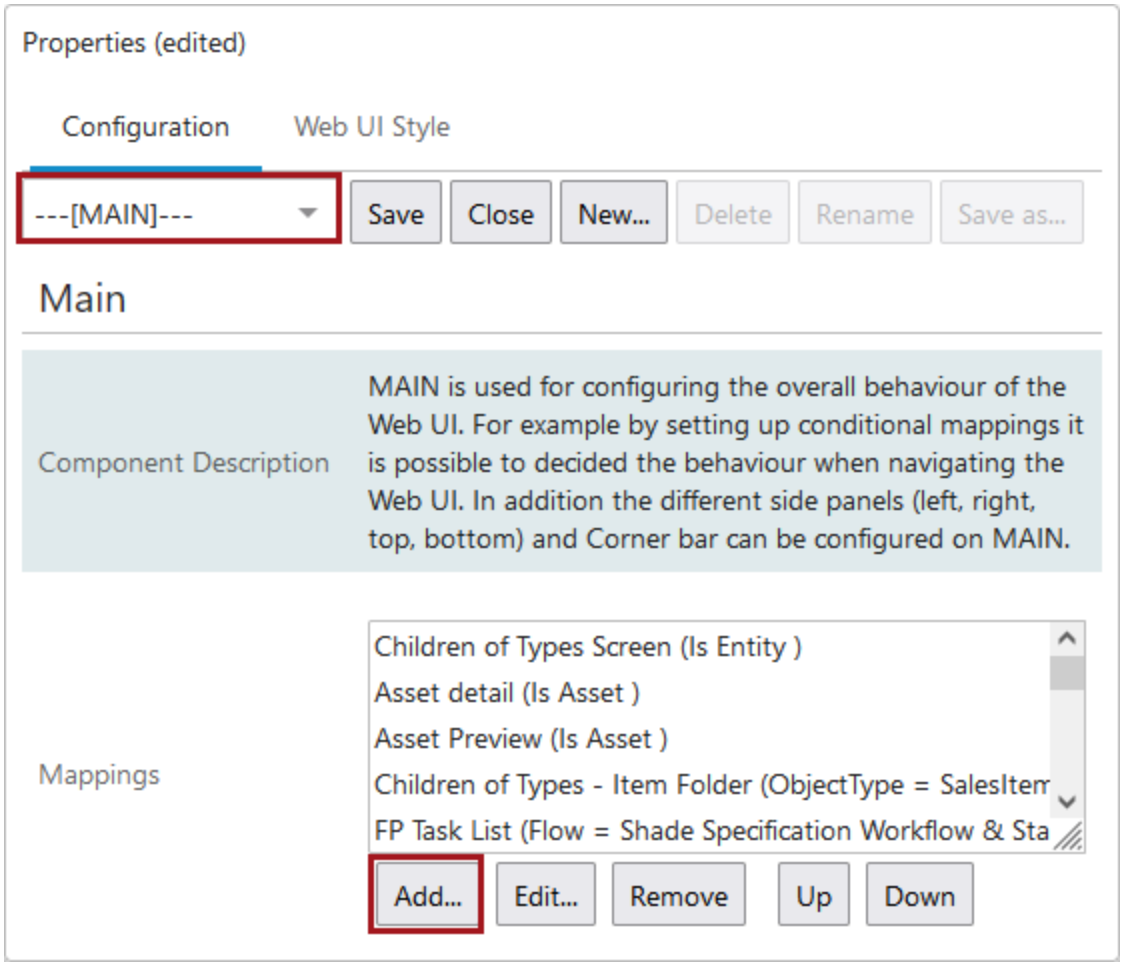
To demonstrate the importance of the mapping sequence, let us say an admin has created a mapping that uses a 'Product Condition' to display a 'Product Details' screen when the user stands on any product. The admin has also created a different, more targeted mapping that uses an 'Object Type Condition' to display a 'Sales Item Screen' when the user stands on a Sales Item product-object. The expectation is that when end users select a 'Sales Item' object, they will view the 'Sales Item Screen,' and if they click on any other product object type, they will view 'Product Details' screen. However, if the mapping that shows the more general 'Product Details' screen has been set higher in the sequence than the mapping that shows the more specific 'Sales Item Screen,' the system evaluation will end once the first encountered mapping condition has been met. The result is that when a user clicks on a 'Sales Item' object expecting to view the 'Sales Item Screen', the user will instead view the 'Product Details' screen. To correct this, the mapping using the 'Object Type Condition' should be moved higher in the sequence than the more generalized mapping for all product objects.

If a user encounters an unexpected screen when navigating Web UI, users can often review the mappings to solve the issue. The condition / screen combinations and mapping sequence may be configured incorrectly.

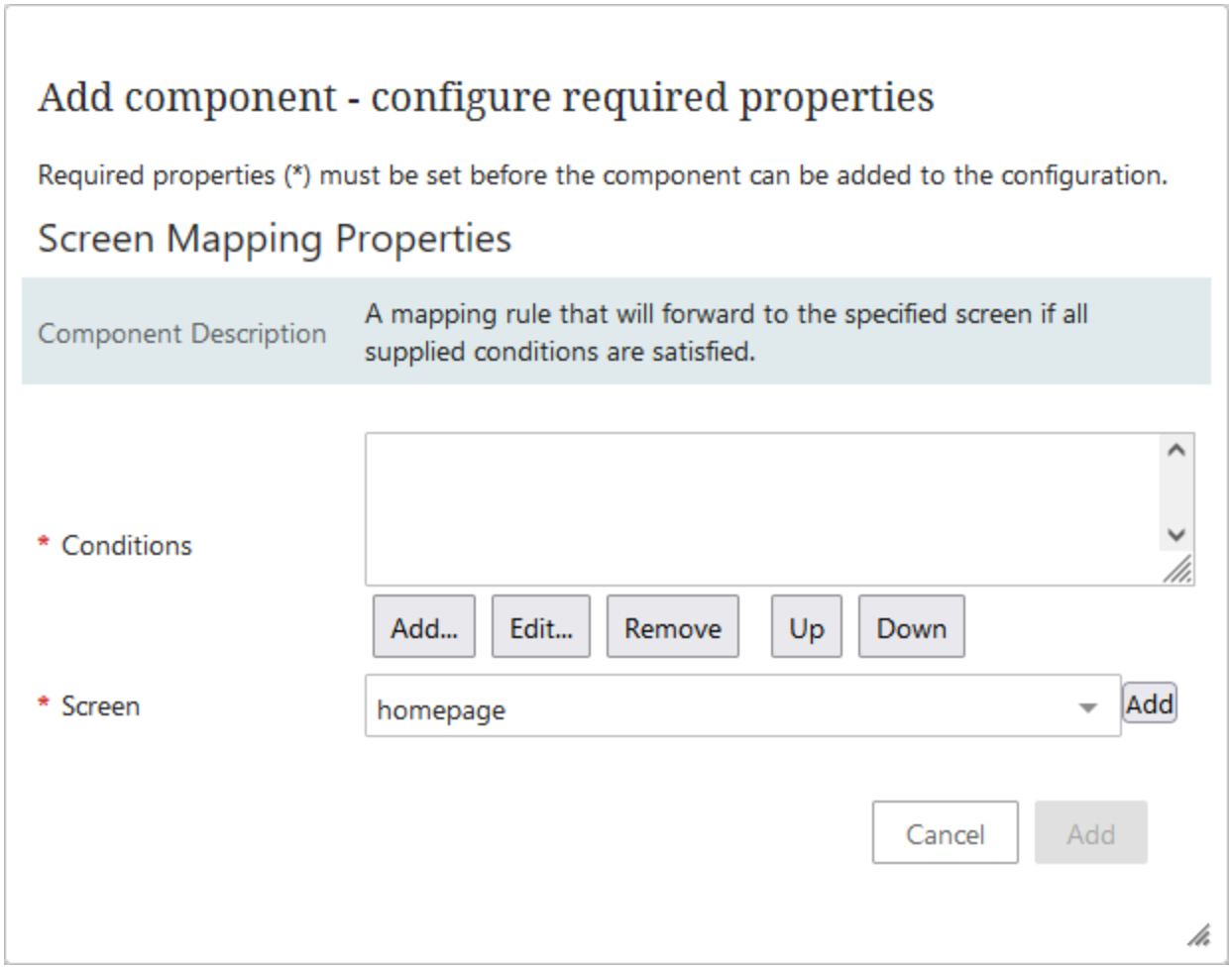
Configuring Mappings

To configure a mapping, follow the directions described below.

1. Navigate to [MAIN] in the designer. Then click the 'Add' button under the 'Mappings' field.



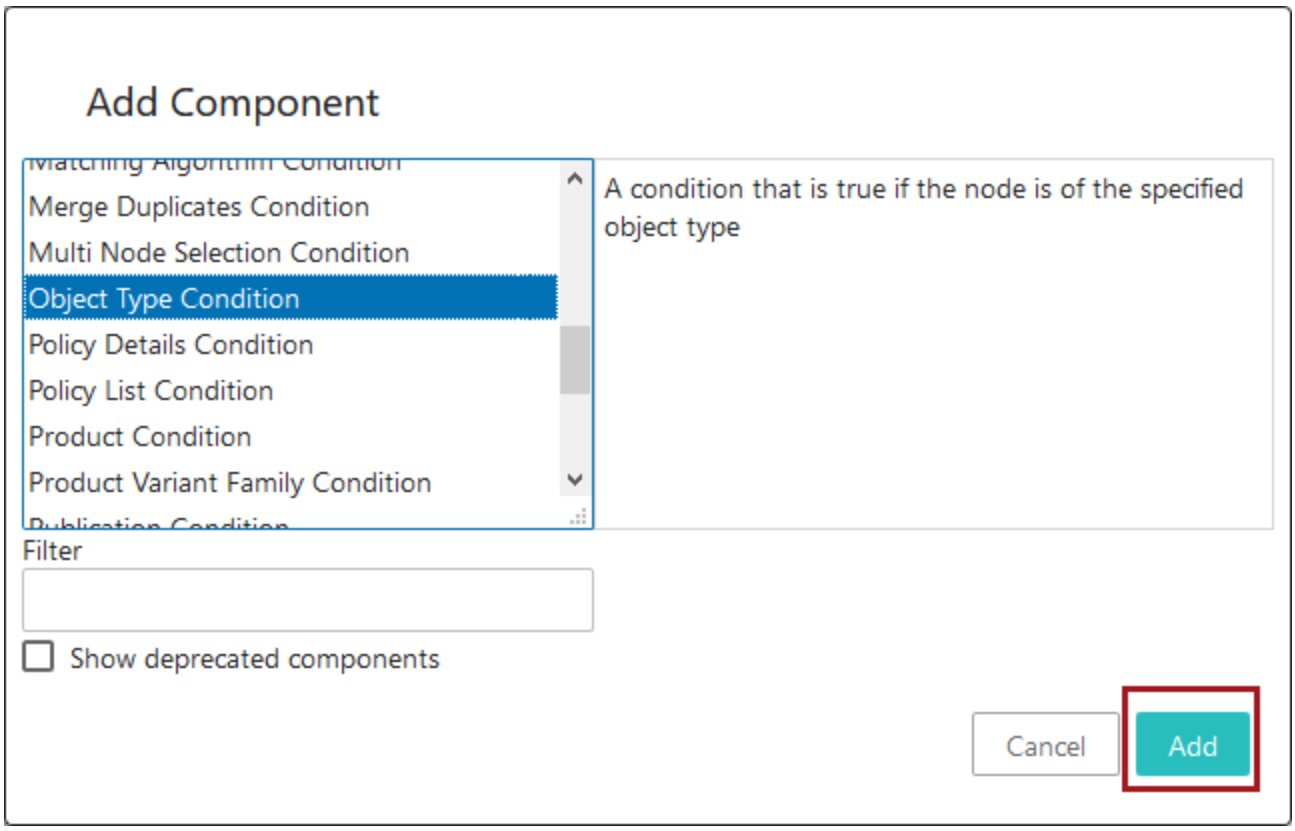
2. In the 'Screen Mapping Properties' window that displays, there are two parameters: 'Conditions' and 'Screen'. Both must be configured to successfully create a mapping.



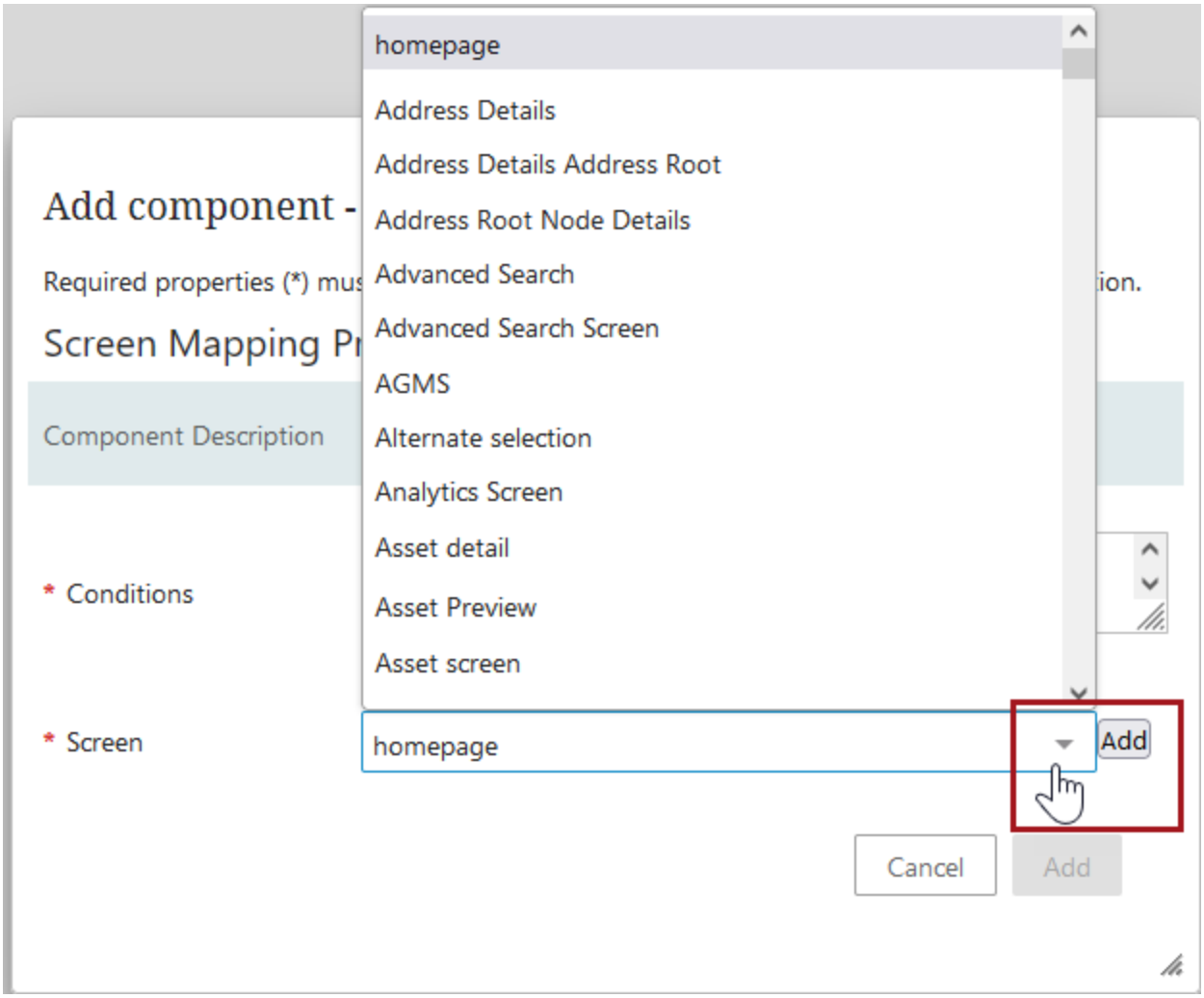
3. To add a condition to the mapping, click the 'Add...' button beneath the 'Conditions' field.



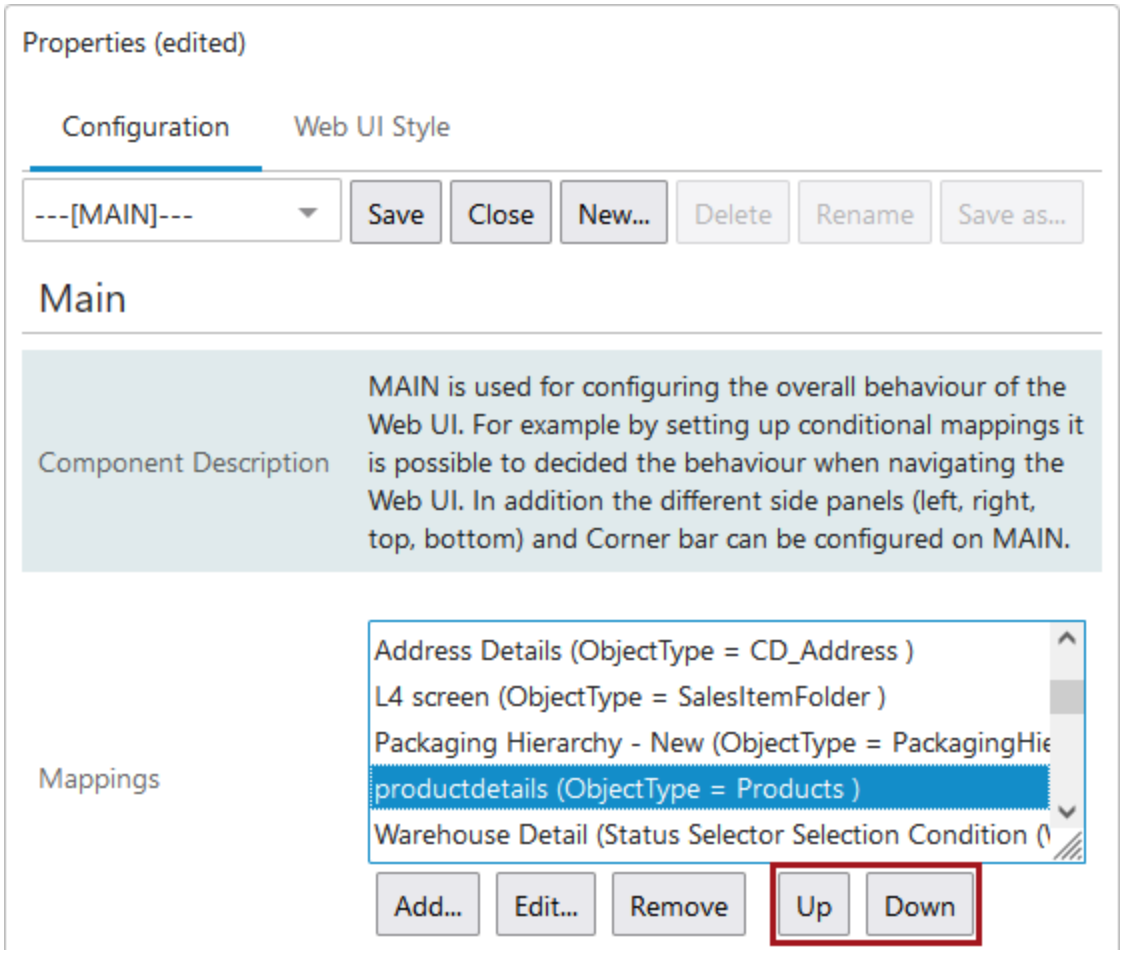
4. In the 'Add Component' window that displays, users will find a list of all available conditions that can be added to a mapping. To add a condition, select the desired condition and click 'Add.'



5. Within the 'Screen Mapping Properties' window, select the screen that should display when the condition has been met. To select the screen, click the dropdown to view a list of all screens that have been created in the Web UI. Users may also click 'Add' to initiate creation of a new screen that can be selected for the mapping.



6. To move the newly created mapping up or down in the ordering, users can select the relevant mapping and then click the 'Up' and 'Down' buttons to change the position of the mapping.



7. Save the configuration and close the designer. Test the mapping to ensure it has been configured correctly.

Available Conditions

The conditions available to apply to mappings are numerous and varied. Some can be used in tandem with one or more conditions to further manage Web UI behavior when a user is working in the Web UI. Below is a list of the available conditions accompanied by a short description of their purpose and the best use case for that condition.

Condition	Purpose of Condition	Best Use for Condition
Advanced Search Selection Condition	When applied to a mapping, this condition displays objects of search criteria configured in the Advanced Search Screen.	When clicking on an object in a set of advanced search results, it might not always make sense to go to that object's primary screen. For instance, a product page is often composed of many data-rich tabs of information that might be a challenge for an end user to navigate. If the admin prefers that a more focused

Condition	Purpose of Condition	Best Use for Condition
		set of data should display when clicking on an object in search results, this mapping can enable display of a screen with a subset of object details that may better enable decision-making.
Always True Condition	This condition will show the mapped screen no matter which object is selected. Mapping using this condition helps ensure that users will not receive a mapping error when they select, or are navigated to, an object for which no corresponding mapping is configured.	A basic screen with a few configured aspects (e.g., ID, Name and other common details) would be useful to map with this condition and keep at the bottom of the mappings list. Using this method, all other configured mappings would be applied first, and if no mapping is configured for the current object, the screen configured using this condition will display.
Asset Condition	When applied to a mapping, this condition displays the mapped screen if the selected object is of the Asset super type.	This condition is used when users want to view assets using either the Table, Gallery, or Film Strip view, etc., and/or maintain assets, i.e., upload new assets, replace asset content, edit metadata, etc.
Background Process Condition	The condition will display the mapped screen (recommended to be a Background Process Node Details screen) if the selected object is a background process. Provided the Background Process Node Details screen is mapped using this condition, the entire background process report will display.	Enables users to view background processes (BGPs) in the Web UI. Viewing the Background Process Node Details screen using this condition, users can review execution reports to determine whether the triggered BGP completed successfully or not. If any errors were generated in the process, they will display on this screen.
Background Process List Condition	When mapped to the Background Processes Screen, this condition enables display of a list of the active, ended, and failed background processes (BGPs) initiated by the user in the Web UI. One way to enable this view is to create a 'Navigation'-type link in the Links Homepage Widget, and set the 'Screen' parameter to a configured Background Processes Screen.	Enables users to review a list of background processes in the Web UI, including which user initiated the process, what status it is in, and when the BGP was started and when it finished.
Business Condition Condition	The Business Condition Condition can be used to set a screen mapping based on criteria described in a business condition. If the condition returns true, the screen mapping is used; if it returns false, the system continues to evaluate other mapping options.	Because this mapping condition makes full use of the broad utility of business conditions, there is no limit to the number of scenarios where this condition could be applied. One example: a Business

Condition	Purpose of Condition	Best Use for Condition
		Condition Condition can be used in conjunction with a Multi Node Selection Condition to show one screen when multiple objects of one object type are selected in one section of the hierarchy, and show an entirely different screen when multiple objects of the same object type are selected in a different section of the hierarchy.
Classification Condition	When applied to a mapping, this condition will display the configured screen if the selected object is of the Classification super type.	This condition is used primarily as a kind of default screen for suppliers and vendors with privileges to view classification folders containing assets and products. If a classification object is selected, the screen configured with this condition will display, unless the admin overrides this mapping with another mapping.
Collection Condition	When applied to a mapping, this condition will display the configured screen if it is an object of the Collection object type. Often used with the 'Collection Content Screen' type.	When a user wants to apply STEP processes to objects contained in a collection, (e.g., Refresh Collection, Run Bulk Update), mapping a Collection Content Screen using this condition can provide a clear and useful screen for when a collection is selected.
Collection Group Condition	When applied to a mapping, this condition will display the configured screen if it is an object of the Collection Group object type. Often used with the Collection List Screen.	Users can easily view how many collections reside within each group using this condition / screen pairing. This view allows users to, for example, determine whether the existing collections are sufficient, or if a new collection should be created. Each collection listed in this screen will show the number of items contained within that collection.
Data Profile Condition	When mapped to a Data Profile Screen, this condition enables users to view data profile information on collections and entities in the Web UI.	When users click the 'Profile Findings' button in the upper right-hand corner of data profiling-enabled collection or entity screens, users may run a data profile and then view the relevant information when using this pairing of condition and screen. This works for collection and entity object types.
Entity Condition	When applied to a mapping, this condition displays the mapped screen if the object is of the entity super type.	To ensure that a screen with relevant information displays when a user selects an object of the super type

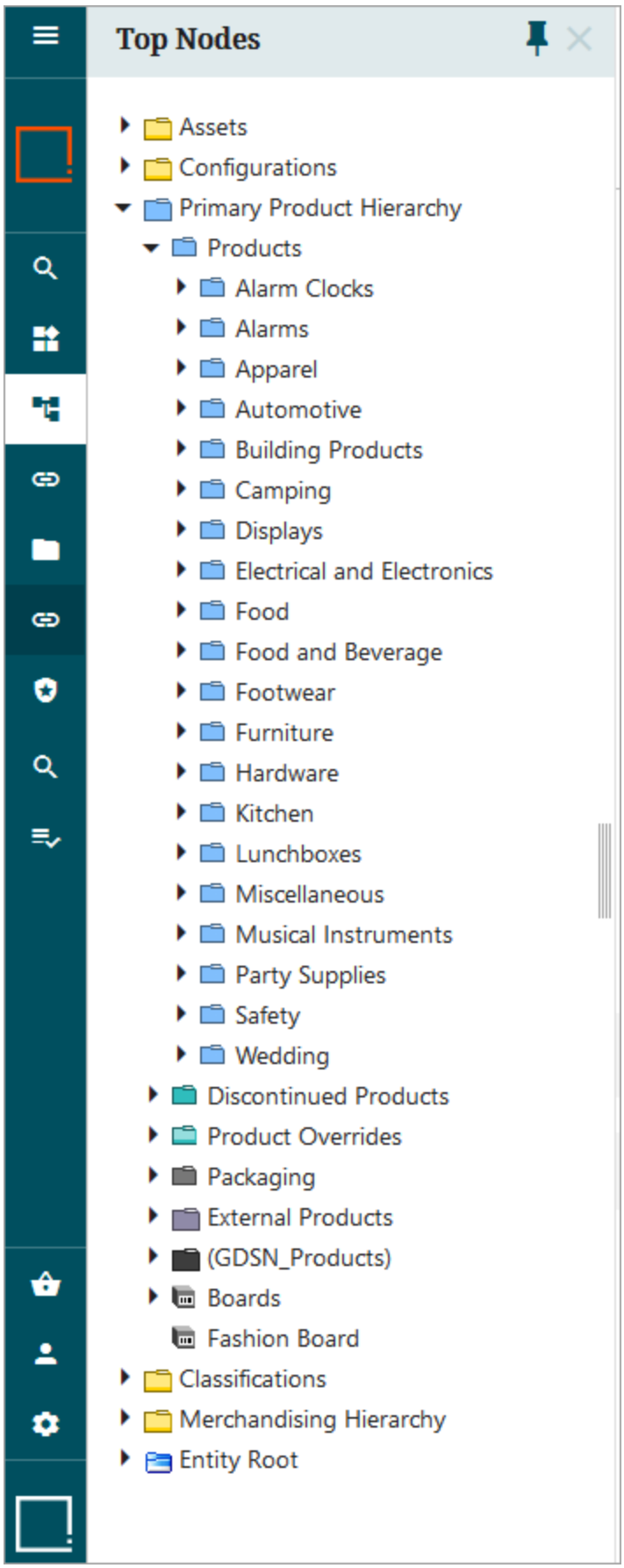
Condition	Purpose of Condition	Best Use for Condition
		Entity, it is recommended that users map a screen using this condition. A mapping using this condition can serve as a kind of default screen for entities unless a more specific mapping is created that may override this one.
Golden Record Condition	When applied to a mapping, this condition displays the mapped screen if the object is of the golden record object type.	When the customer wants to configure a specific screen to view a golden record object, then this screen mapping condition can be used. The mapped screen should include display information like key attributes and references related to the golden record object.
Matching Algorithm Condition	When applied to a mapping, this condition displays the mapped screen if the object is of a matching algorithm selection.	Best used when configuring a match and merge functionality of the kind described in the Merging Confirmed Matches topic.
Merge Duplicates Condition	A condition that is only true for Merge Duplicates selection, e.g. used to map confirmed duplicates screen to merge screen.	Best used when configuring a match and merge functionality of the kind described in the Merging Confirmed Matches topic.
Multi Node Selection Condition	When applied to a mapping, this condition displays the mapped screen when multiple objects in the hierarchy are selected.	This condition is useful in those instances when a user wants to manually select a series of objects in the hierarchy and view and/or edit those objects them in a configured screen. Additionally, multiple Multi Node Selection Conditions can be set up along with Object Type Conditions so that when multiple objects of a specific object type is selected, one screen will show, and if objects of a different object type are selected, yet another screen will display.
Object Type Condition	When applied to a mapping, this condition displays the mapped screen if the object is of a specific object type.	This screen mapping condition can be used to configure display of any product, classification, asset, entity or publication object. Whenever a 'Product Condition' or 'Classification Condition' or 'Entity Condition' or 'Asset Condition' is mapped, then, make sure that the 'Object Type' condition is mapped above these condition in the 'Mappings' section of the 'Main Properties' in the designer.

Condition	Purpose of Condition	Best Use for Condition
Policy Details Condition	When used to create a mapping to the Policy Details screen, this condition enables display of the Policy Details screen when a policy is selected from the Policy List screen.	This condition / screen combo enables users to select a policy from the Policy List screen and then view details about the selected policy on the Policy Details screen.
Policy List Condition	When applied to a mapping to the Policy List screen, this condition displays the 'Policy List' screen when the Policies button in the Global Navigation Panel is clicked.	This condition / screen combination provides users with a list of all existing policies. Additionally, in this use case, users can view breached items, daily breaches, and items breached over the last 30 days. Users can also create new data policies which can apply to either existing or new (incoming) data.
Product Condition	When applied to a mapping, this condition enables display of the mapped screen if the object is of the object super type Product.	To ensure that a screen with relevant information displays when a user selects an object of the super type Product, it is recommended that users map a screen using this condition. A mapping using this condition can serve as a kind of default screen for products unless a more specific mapping is created that may override this one.
Product Variant Family Condition	When applied to a mapping, this condition displays the mapped screen if the selected object is a product variant.	This condition is particularly useful when a user needs to view which products beneath a parent node are product variants. A standard set up for this condition would be to map a Children of Types screen using this condition. When standing on the parent node and viewing the variant products, users can easily execute validation actions to find duplicates and missing variants.
Publication Condition	When applied to a mapping, this condition displays the mapped screen when the object is of the publication object type.	This condition is best applied when a user wants to view the details of a publication configured for print. By mapping to a screen configured to display the Actual Page Viewer, this condition can also be used to view pages in a publication. Additionally, users can use this condition to map to a screen displaying the Actual Page Revision Compare Viewer; this allows a user to compare revisions of print document pages.
Publication Group Condition	When applied to a mapping, this condition displays the mapped screen	This condition is best applied when a user wants to view the contents (and

Condition	Purpose of Condition	Best Use for Condition
	when the object is of the publication group object type.	other details) of a publication group or folder.
Publication Section Condition	When applied to a mapping, this condition displays the mapped screen when the object is of the publication section object type.	This condition is best applied when a user wants to view the details of a publication configured for print. By mapping to a screen configured to display the Actual Page Viewer, this condition can also be used to view sections of a publication.
Recycle Bin Condition	When applied to a mapping to a configured Recycle Bin screen, this condition displays the contents of the Recycle Bin in the Web UI.	Users can add a Recycle Bin component to a Tree Navigator component within the Global Navigation Panel. When using this condition / screen pairing, clicking the Recycle Bin will bring up the Recycle Bin screen. This screen shows a list of items in the recycle bin. From the information displayed on this screen, users may then determine which items to revive and which to permanently delete.
Status Selector Selection Condition	When applied to a mapping, this condition displays the mapped screen if the object / node is in the specified workflow with the specified status flag.	This condition is different from the Workflow Condition in that configuration of this condition requires a specific workflow and a specific workflow status flag. If status flags are part of how a given system has been set up to manage workflows, using this condition can be useful to direct a user to a specific screen if, for example, an item is in a workflow with an 'Error' status flag or with a 'Critical' error flag.
User Condition	When applied to a mapping, this condition enables display of the mapped screen (typically a User Details screen) when the selected item is a user.	When the 'User details' base screen is used to configure a screen, then to map this screen 'User Condition' mapping should be used in order to display the required details about a user.
Workflow Condition	When applied to a mapping, this condition displays the mapped screen if the selected object is in a workflow.	This screen mapping condition can be used to view object details when it is viewed from within a workflow state. When the object is selected from the hierarchy, for instance, the system will display the mapped screen based on other conditions configured for that object.

Global Navigation Panel

The Global Navigation Panel is a centralized task and navigation hub for the Web UI. Located to the left of the Web UI screen, the panel can display as a narrow column or be expanded, and it contains both default and user-selected buttons. For many of the Menu Items in the Global Navigation Panel, when a button is clicked, a secondary column slides out that allows the user to progress in the task associated with the clicked button. When the user begins work in the Web UI screen, the column retracts to give the user the maximum amount of working space.


Top Nodes
Assets
Configurations
Primary Product Hierarchy
Products
Alarm Clocks
Alarms
Apparel
Automotive
Building Products
Camping
Displays
Electrical and Electronics
Food
Food and Beverage
Footwear
Furniture
Hardware
Kitchen
Lunchboxes
Miscellaneous
Musical Instruments
Party Supplies
Safety
Wedding
Discontinued Products
Product Overrides
Packaging
External Products
(GDSN_Products)
Boards
Fashion Board
Classifications
Merchandising Hierarchy
Entity Root

Using the Global Navigation Panel, users can do the following:

- navigate to any node in the hierarchy
- access Advanced Search
- display workflow states or the tasks within
- access design mode
- log out of the Web UI
- access user information

Additionally, users may select different contexts, workspaces, or users to impersonate using the Global Navigation Panel.

When the Global Navigation Panel is added, in the top right corner of Web UI, there are two side panels that are also added, the 'Recent background processes' side panel, and the 'Recent warning notifications' side panel. Either of these side panels can be opened or closed by clicking on the 'Recent background processes' icon,  , or clicking the 'Recent warning notification' icon,  .

For more information on the 'Recent background processes' side panel, refer to the **Recent Background Processes Side Panel** topic.

For more information on the 'Recent warning notifications' side panel, refer to the **Recent Warning Notifications Side Panel** topic.

Note: If faceted search (powered by Elasticsearch) is enabled for your system and the ui-search component is installed, then two search buttons () are displayed in the Global Navigation Panel. The first search button gives users access to the faceted search functionality regardless of how the Global Navigation Panel is configured. The next search button opens the standard search functionality. To specify which Web UIs include the faceted search option (and to remove it from other Web UIs), add the following case-sensitive property to the sharedconfig.properties file:

```
Elasticsearch.IncludeSearchScreen=[Web UI IDs]
```

For the bracketed part of this property, [Web UI IDs], add a comma-separated list of all Web UIs (by their ID) that should feature the faceted search functionality. Do not include spaces between the IDs, as shown below:

```
Elasticsearch.IncludeSearchScreen=CustomerWebUI,BuySideSellSide_
Supplier,GDSNReceiver
```

Configuring the Global Navigation Panel

This section describes the steps admin users can take to fully configure the Global Navigation Panel.

Prerequisites

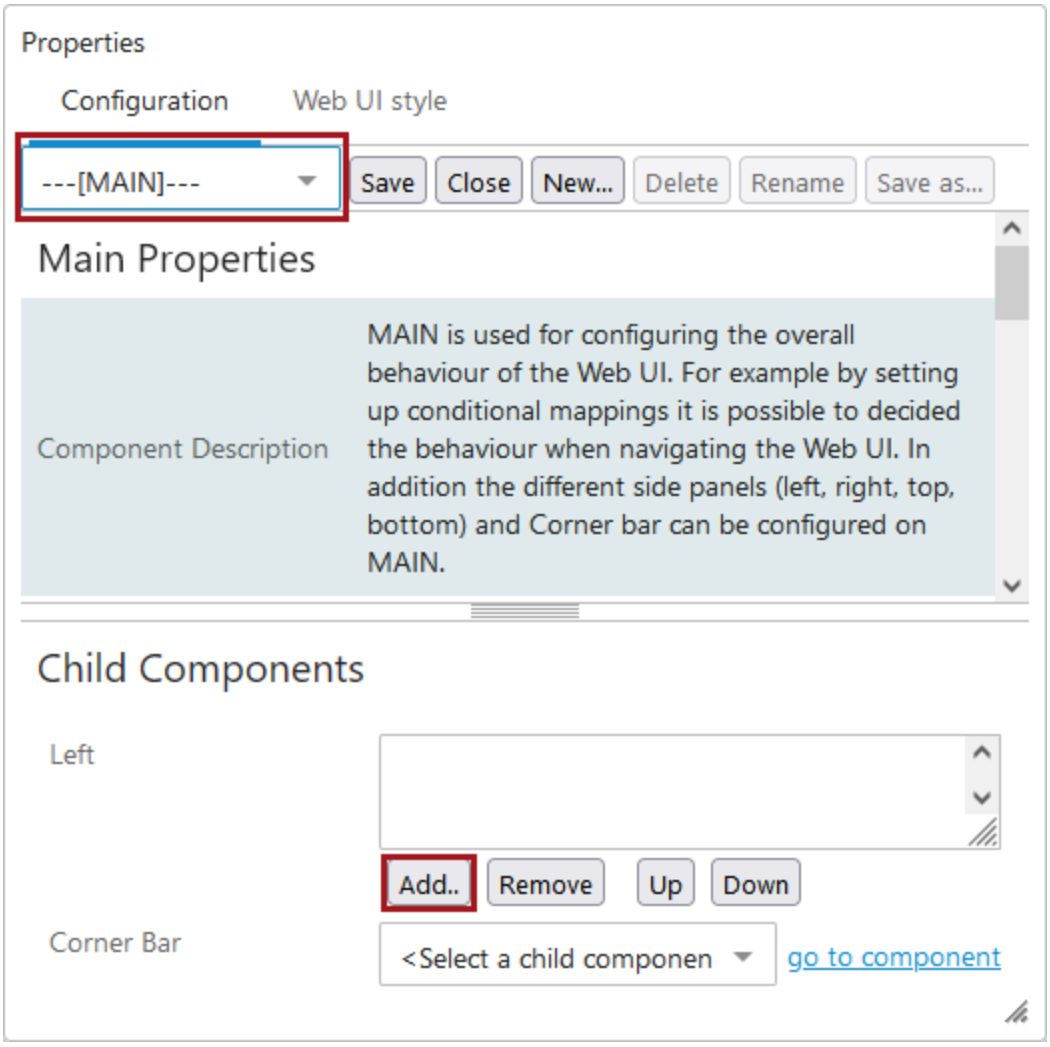
It is expected that anyone configuring the Global Navigation Panel is familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

The Global Navigation Panel includes many features that enable efficient navigation through the Web UI. Descriptions of those features and the steps required to configure those features are listed below.

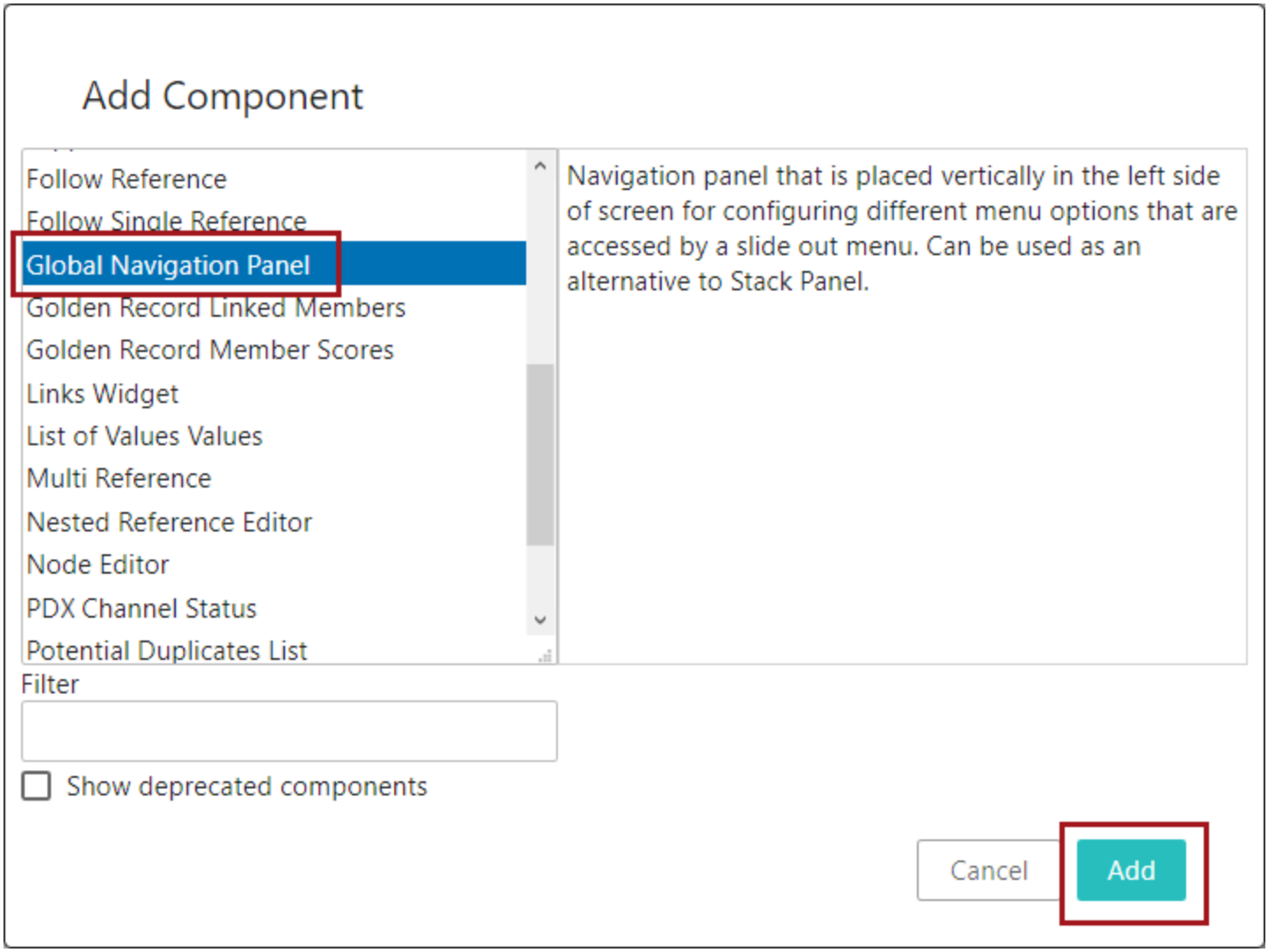
Adding the Global Navigation Panel

The first step in configuring the Global Navigation Panel is to add the component to the Web UI. Follow the steps listed below to add this component.

1. Enter the designer and navigate to 'MAIN'. Under the field for the 'Left' parameter and click 'Add.'



2. In the 'Add Component' dialog, select 'Global Navigation Panel,' and click 'Add.'

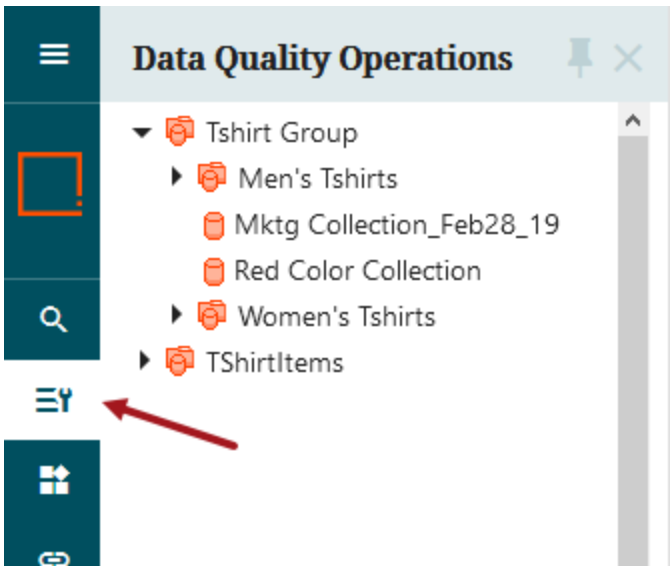


Once the user saves the configuration and closes the designer, the Global Navigation Panel is added. Certain features are available without additional configuration, like the ability to change context, log out, access the designer, or impersonate other users. More on those features later in this topic.

Adding and configuring Global Navigation Panel Menu Items

The Global Navigation makes certain features accessible without configuration, while many others are only accessible by adding and configuring one of twelve available 'Menu Items' in the designer. This section describes each of the Menu Items and how to configure them.

Data Quality Operations - This component enables users to create collections and can be configured to provide quick access to existing collections.

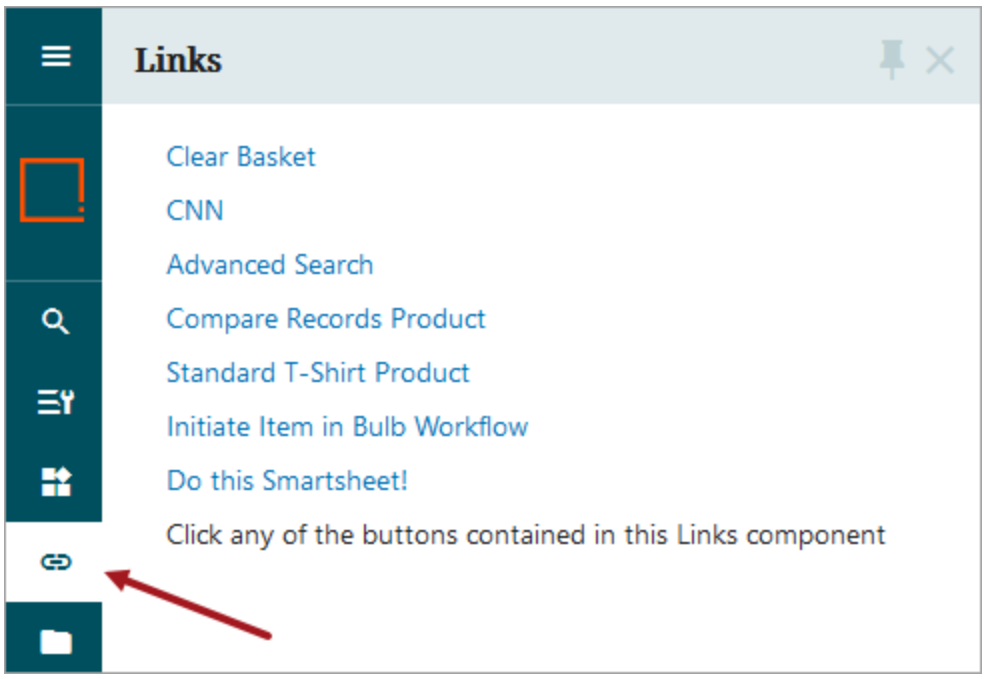


To configure, users must select the collection nodes that can be accessed via the Data Quality Operation button, as well as the screen that the user is navigated to when they select a collection, or click the 'Create Collection' button.

Direct Navigation - Enables one-click navigation to an external site or configured Web UI screen, though not to a specific node. Users may customize the name and icon for this button.

To configure, for the Result Screen parameter, select a configured Web UI screen that should be displayed when clicking the button. Also, an external URL may be added. If both a screen is selected and the external URL is added, the external link is honored and the selected screen ignored.

Links - Enables users to configure one of nine tasks that can be executed or initiated with the click of a button. Clicking on the Links button prompts a Links column to slide out displaying all configured tasks as text. Clicking the Links button again (or the 'X' button in the upper right-hand corner) causes the column to slide out of view.



Users can configure one or more of the following components for their Links button:

Note: Depending on what components or licenses you have installed / enabled on your system, you may not have all the options listed.

- **Clear Basket Function** - When added, allows users to click the link and clear the contents of the Basket component. Requires the appropriate license.
- **External Navigation** - Allows admin users to configure a link to a web page outside of the Web UI. The URL is only recognized if 'http://' is added to the beginning of the entered URL.
- **GDSN Create RFCIN Link Action** - Enables configuration of a link that allows the user to create a GDSN RFCIN message. Requires the appropriate license.
- **Navigation** - Inserts a link for navigation to an existing Web UI screen (e.g., Advanced Search), but not to a specific object in the hierarchy. Users can customize the button label, as well as the help text that displays when the user hovers their cursor over the link.
- **Node Navigation** - Inserts a link that, when clicked, navigates the user directly to an object in the hierarchy. To configure, select the node to which users are navigated when they click the button. Users can customize the button label, as well as the help text that displays when the user hovers their cursor over the link.
- **Screen Navigation** - Inserts a link for navigation to a screen. Unlike the 'Navigation' component, 'Screen Navigation' has no concept of selection. It is possible to supply an object type that can be sent to screens that support creation of new objects. This component is primarily intended for calling "static" screens or the Initiate Item screen type with overloading object types. Also, it supports optional configuration of workflows and allows initiation of items into workflows.

- **Smart Sheet Import Action** - Action for initiating an Excel Smartsheet import. Shows a dialog and does not require the user to select an import configuration. Users can customize the link label, as well as most of the texts that show in the dialog that displays when the button is clicked.
- **Static HTML** - The component is configurable to provide easy access to collections and provides the ability to create collections, for example via Advanced Search.
- **Static Text** - Displays static text. In the screenshot above, the 'Static Text' example is the text that reads, 'Click any of the buttons contained in this Links component'.

Menu Group - A button that can expand vertically within the collapsed Global Navigation panel to show a series of configured buttons within the group. All configurable options are a mirror of the components available to configure on the Global Navigation Panel, enabling nested groups of selections. The icon and button label for the Menu Group component can also be customized.

Policies - Navigates to a Policy List screen. No configuration required; however you do need a Policy List screen created and mapped for the link navigation to work. Refer to the Web UI Configurations for Policies topic in the Data Governance section for more information.

Search - When clicked, enables standard global search functionality directly from the Global Navigation Panel. Users may configure the following search plug-ins for this button: Below Search, Golden Record - Source Record ID, Name or ID or Attributes, or Object Type Search. The button label and the icon can be customized.

Search Panel - Enables quick access to a granular search component. The configurability available for this button brings much of the Advanced Search screen functionality into the Global Navigation Panel. By configuring various search criteria that can be used individually or in concert, and then labeling each of those various search types, users can select their desired search from a dropdown available in a secondary column that displays when the user clicks the 'Search Panel' button. Button label and icon may be customized.

Smartsheet Export - Widget used for starting a download of multi-level Smartsheets using a specified export configuration. Properties set in the configuration are applied to the export. These settings are derived from the current user's supplier classifications, so the component is excluded if the user is not a member of a supplier group. This component can only export Smartsheet templates (i.e., empty Smartsheets) that can be used to onboard new products.

Status Selector - Provides a display of selected workflow states in a secondary column, and how many objects are contained within each workflow state. If configured, clicking one of the states can navigate a user to a Task list screen showing detailed information about the nodes in the chosen state. The configuration for this component is similar to the configuration for the Status Selector Homepage Widget. For more information on this widget, refer to the **Status Selector Homepage Widget** topic.

Task - Workflow tasks from states belonging to different workflows can be configured to show together using the Task component. This can be useful as quick access for a user tasked with maintenance of various states in multiple workflows.

Tree Navigator - Enables display of tree components in a secondary column when the button is clicked. The title and icon are configurable.

Using the Global Navigation Panel

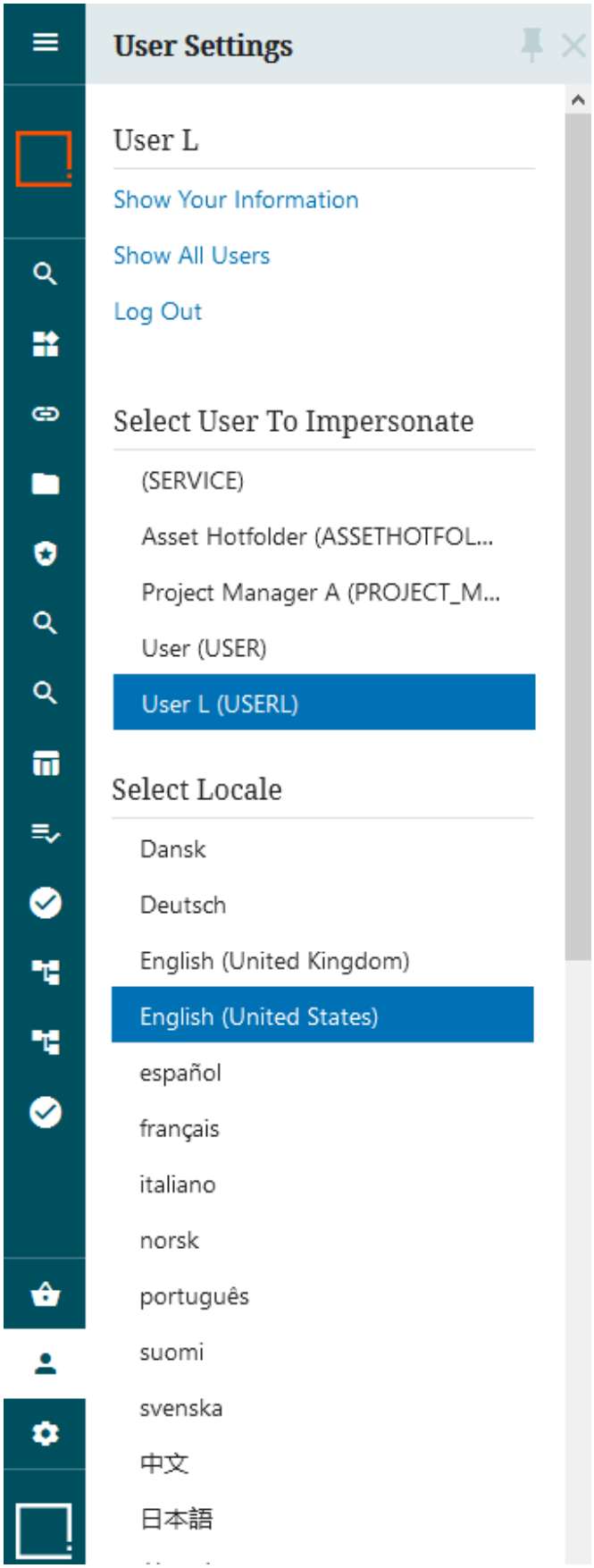
Though the customizable components of the Global Navigation Panel provide a lot of functionality, the default features accessible on the panel encompass an equally significant portion of task and navigation tasks in the Web UI. Described below are the buttons that display on the Global Navigation Panel by default:

Main Menu button - (☰) The trio of horizontal lines that displays at the top of the Global Navigation Panel. When clicked, the collapsed form of the Global Navigation Panel expands into a full column. When the Global Navigation Panel is in its expanded form, the button icons display with their button labels. To collapse the full column, click the left-pointing arrow in the upper right-hand corner of the expanded column.

Logo button - A configured logo displays just above the top of the configured Menu Items. The logo doubles as a button that navigates the user directly to the Web UI homepage. Whether a logo has been configured or not, clicking the space that the logo would occupy navigates a user to the homepage.

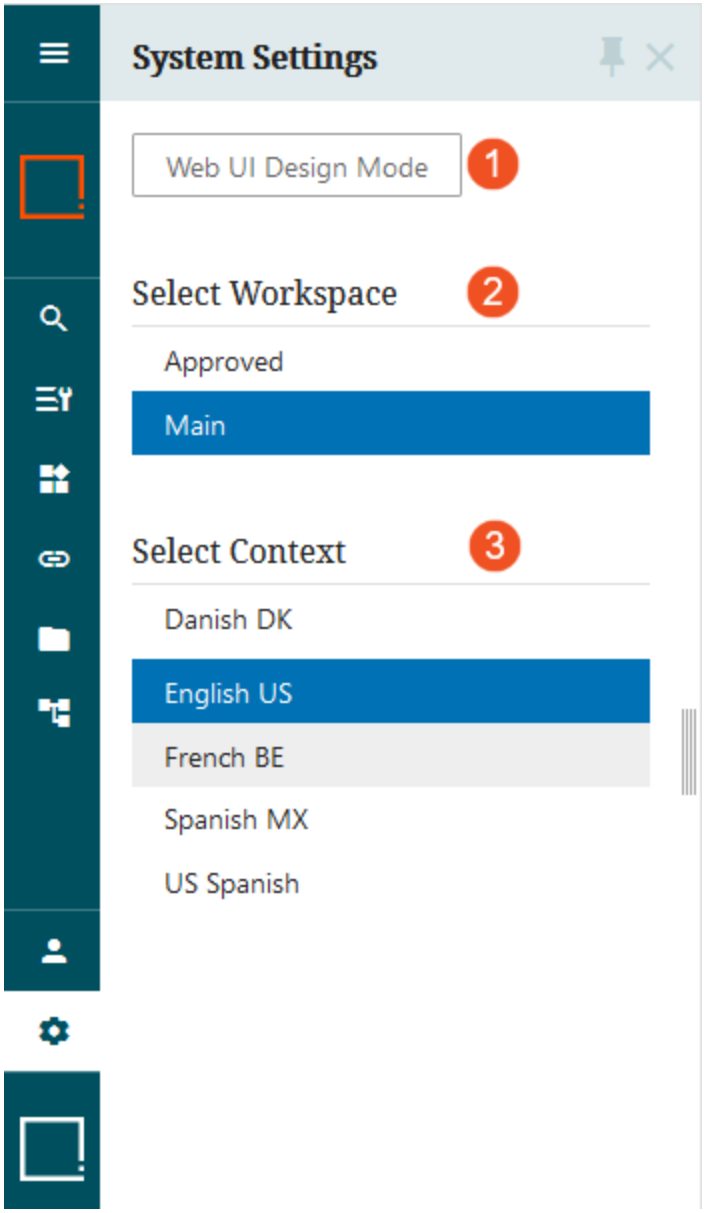
Basket - (🧺) If required, the Basket button can be added as an add-on component. When installed on an instance of STEP, the Basket button displays. Users who do not require Product Data Exchange (PDX) integration and who do not have the add-on component added do not view button. For more information, refer to the **Search Screen Basket** topic.

User Settings - (👤) When clicked, the User Settings button displays a full column containing user-focused features.


User Settings
User L
Show Your Information
Show All Users
Log Out
Select User To Impersonate
(SERVICE)
Asset Hotfolder (ASSETHOTFOL...
Project Manager A (PROJECT_M...
User (USER)
User L (USERL)
Select Locale
Dansk
Deutsch
English (United Kingdom)
English (United States)
español
français
italiano
norsk
português
suomi
svenska
中文
日本語

1. **Show Your Information** - Clicking 'Show Your Information' opens a User Details screen with details related to the logged-in user. A User Details screen already exists for newly created Web UIs. If not creating a Web UI from scratch, verify that the screen has been created, configured, and mapped to enable the functionality.
2. **Log Out** - Click the 'Log Out' button to log the current user out of the Web UI. Clicking this button has the effect of logging the user out of the current Web UI session, and any other Web UI sessions the user may also be logged into.
3. **Select User to Impersonate** - This option is available only if the logged-in user has the relevant privileges. To effectuate an impersonation of a different user, select one of the user names displayed in the list below the button. For more information on user impersonation, refer to the **Web UI User Impersonation** topic in the **System Setup** documentation.
4. **Select Locale** - If the logged in user wishes to change the locale, they can do so. There are thirteen locales that come standard with each Web UI: Danish, German, English, Spanish, French, Italian, Norwegian, Portuguese, Finnish, Swedish, Chinese (simplified), Japanese, and Korean. Depending on user settings, all locales, some locales, or no locales may be present for the user to select.

System Settings - ( ) When clicked, the System Settings button displays a full column containing features related to accessing the designer, selecting the workspace, and selecting the context.



1. **Web UI Design Mode** - To access the Web UI designer, users must access System Settings and then click 'Web UI Design Mode.' Doing so brings up the designer, where most Web UI configuration is done. For more information on accessing the designer, refer to the **Designer Access** topic. For more information on using the designer, refer to the **Design Mode Basics** topic.
2. **Select Workspace** - Allows users to toggle between the Approved workspace and the Main workspace. For more information on workspaces, refer to the **Workspaces** topic in the **System Setup** documentation.
3. **Select Context** - Allows users to select from any configured context in which to set their Web UI to. To change context, users can click any of the contexts displaying in the list inside the column.

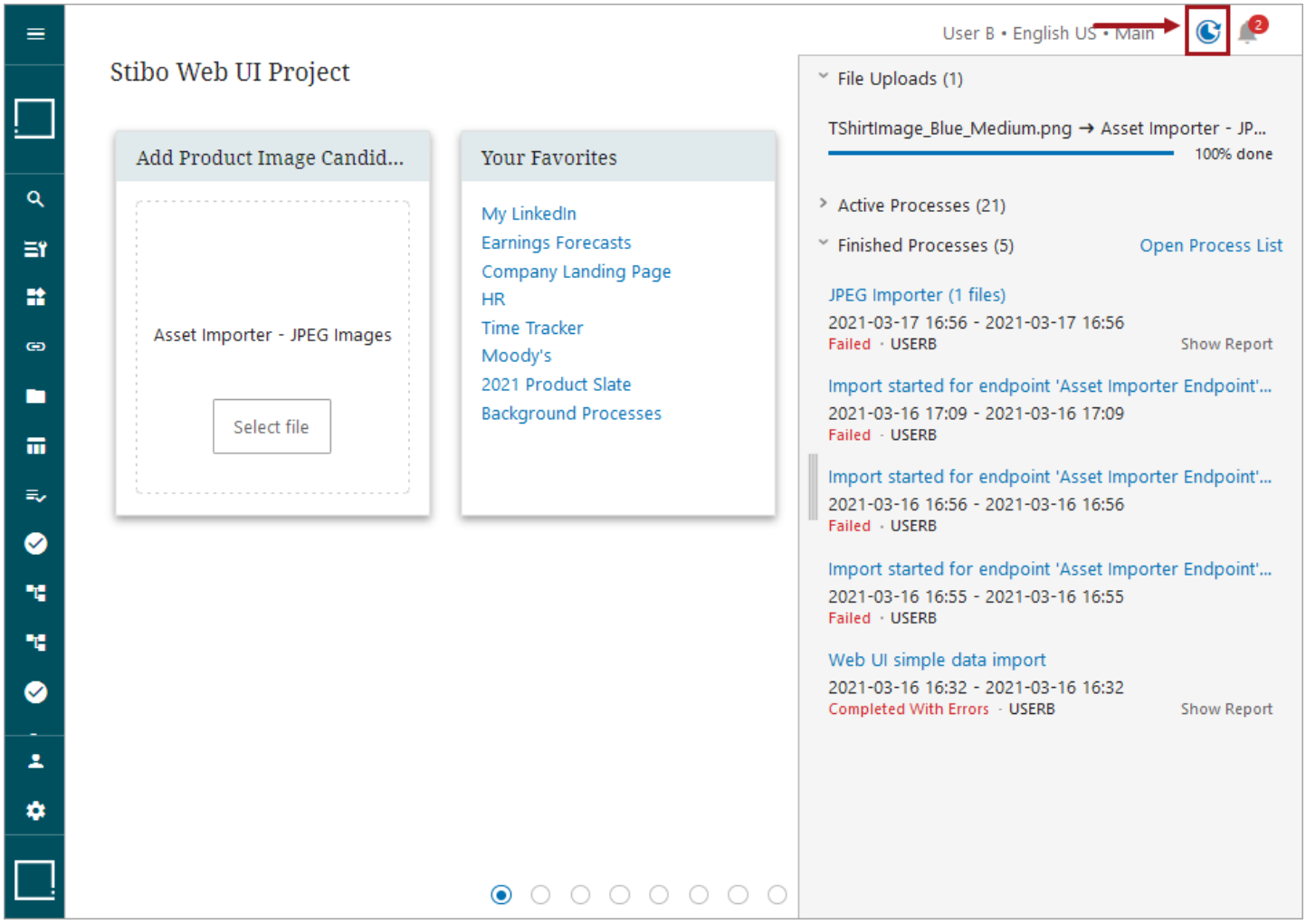
Additionally, for any Global Navigation Panel features that enable a secondary column display, a pin () can be applied. When the secondary column is displayed, the pin displays. When the pin is active (not grayed out), the column remains expanded while the user works in the Web UI screen. Further, the Web UI screen auto-fits into the available space. When the pin is disengaged, the Web UI screen expands to fit into the space behind the expanded column. When the user begins to work in the Web UI screen, the secondary column collapses.

Recent Background Processes Side Panel

The 'Recent background processes' side panel is added automatically when configuring the **Global Navigation Panel** and helps users manage background processes (BGPs) more efficiently. Users can view the status and important details of their latest BGPs while continuing to use or edit objects in the desired Web UI screen. This means, as an example, that a user can view the detail page of the imported object (e.g., product details page) and the error messages generated during import at the same time, allowing users to correct data referenced in the error messages in a convenient interface.

When a BGP has completed successfully, the 'Recent background processes' icon displays with a green dot, . When it finishes with errors, it displays with a red dot, .

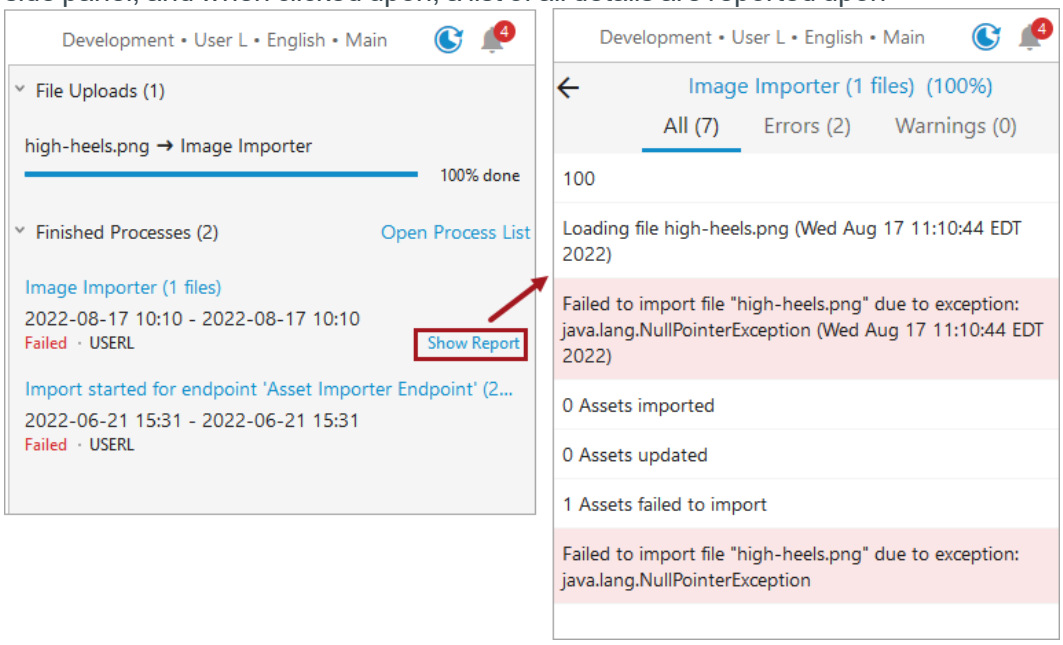
Clicking the 'Recent background processes' icon (gray when the side panel is not displayed) displays the 'Recent background processes' side panel on the right side of the screen. When the 'Recent background processes' side panel is displayed, the 'Recent background processes' notification icon turns blue ( ) indicating the panel is active. To hide the side panel, click the blue 'Recent background processes' notification icon again.



In the example above, the just-finished background process (BGP) displays in the 'File Uploads' section. The Active Processes section of the 'Recent background processes' is collapsed, but when expanded, shows all active processes currently waiting to finish. Beneath this is the 'Finished Processes' section where the most recent completed BGPs are listed.

At a glance, the user has access to an overview and functionality (for up to 99 BGPs) that includes:

- An 'Active Processes' section which displays active BGPs (if there are no active BGPs, this section is not visible)
- An enhanced title that incorporates the BGP description and links to the BGP Details screen (if one is configured)
- Active processes will display a progress bar along with a progress status of 'Waiting...' or a percentage of completion
- A 'Finished Processes' section displays the completed BGPs, which for exports includes the name of the export configuration and the name of the export file
- An 'Open Process List' link will display a Background Processes List screen (if one is configured) on the main screen
- Warning messages, such as 'Failed' or 'Completed With Errors,' will display in red text beneath the time stamp for each BGP
- Once an import has completed, a 'Download' link will display as a 'save as' dialog (when applicable)
- A 'Show Report' link will display the Import Summary Report within the 'Recent background processes' side panel, and when clicked upon, a list of all details are reported upon



Note: When more than one file is initiated for transfer or import, then the notification within the side panel will display a file count instead of the file name.

Because the 'Recent background processes' side panel and the File Loading Widget have been developed to work together, it may be helpful to view the **File Loading Widget** topic within the **Web User Interfaces** section of **STEP Online Help**.

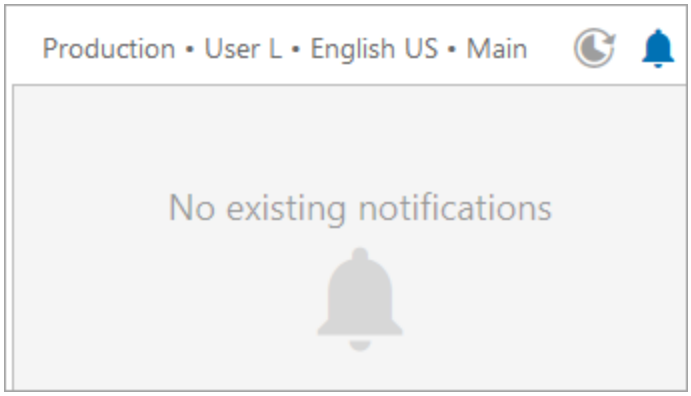
Recent Warning Notifications Side Panel

The 'Recent warning notifications' side panel is added automatically when configuring the **Global Navigation Panel** and provides users with a clear and easily accessible panel that displays all recent errors and warnings encountered in the Web UI.

Using the Recent Warning Notifications Side Panel

The 'Recent warning notifications' side panel can be opened by clicking the panel's icon, gray bell when not opened (), in the upper right corner of Web UI. The panel holds all recent warning and error notifications until manually dismissed.

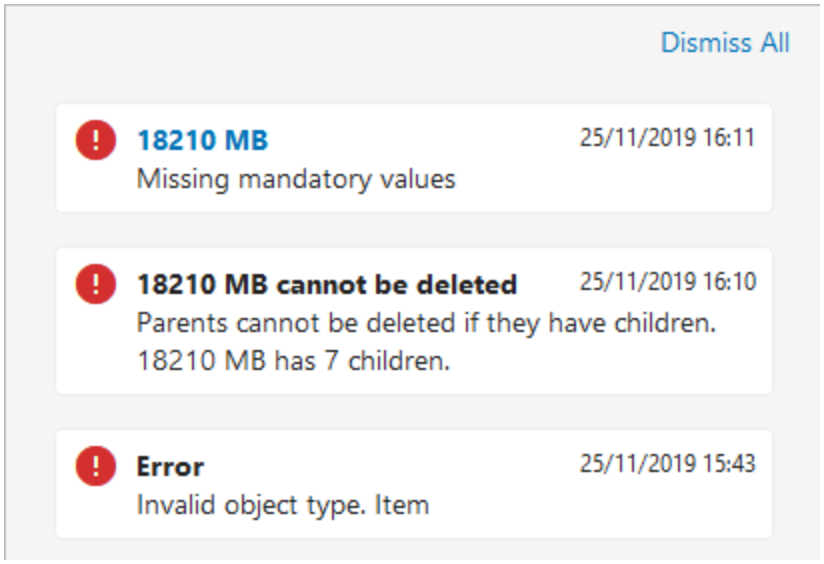
- When showing no errors or warnings, the panel will display the text, 'No existing notifications,' inside the 'Recent warning notifications' side panel.



- When an action taken in the Web UI prompts a warning notification popup, a red dot with the number of warning notifications will appear to the upper right of the 'Recent warning notifications' icon, . This marker means the warning notification is now listed in the side panel. When the panel is opened, any warning notifications display on a card in the 'Recent warning notifications' side panel. Contained in the card is the icon (in this case a yellow triangle containing an exclamation point), a warning notification header, warning notification text, a link to the relevant object when applicable, and the date and time the warning was generated.



- When an action taken in the Web UI prompts an error notification, the error notification is listed and described in the panel. When the 'Recent warning notifications' side panel is opened, the new error notification displays on a card. Contained in the card is the icon (in this case a red circle containing an exclamation point), an error notification header, error notification text, a link to the relevant object when applicable, and the date and time the error was generated.



- Clicking the 'Click for details' link in some error and warning notifications popup dialogs (which display at the top of the screen when generated) will open the 'Recent warning notifications' side panel.

Override Control Type Rule

Within Web UI, attribute values are commonly displayed using a Node Details screen configured with the following components: Attribute Value, Attribute Value Group, and Grouping. Each of these components offer optional settings that allow a Web UI administrator to configure the display and behavior of the attribute values. However, the Web UI administrator can also use the Override Control Type Rule component to create global rules for overriding the default control types for attributes with the following validation base types: List of Values, Numeric Text, Numeric Text (exclude tags), Text, and Text (exclude tags). This is especially beneficial for when users create new attributes or add attributes to an attribute group, because the newly added attributes can properly display in Web UI, without further involvement of the Web UI designer.

The Override Control Type Rule allows designers to globally control:

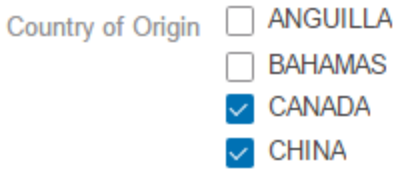
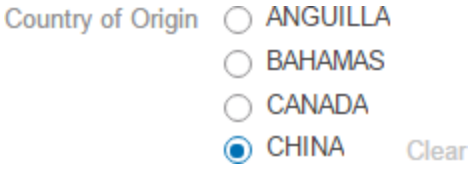
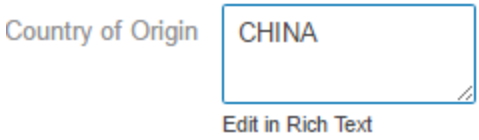
- The display of attribute values depending on the attribute validation base type, control type, LOV hardness (ability to add values), and multi-value settings.
- The display of LOV attribute values that contain a specified number of values. E.g., if an LOV contains between 2 - 6 values, then display the values using the Radio button control type.
- The number of columns and/or rows to be used when displaying LOV attribute values. E.g., if an LOV contains more than 10 values, then display the values across 5 columns.

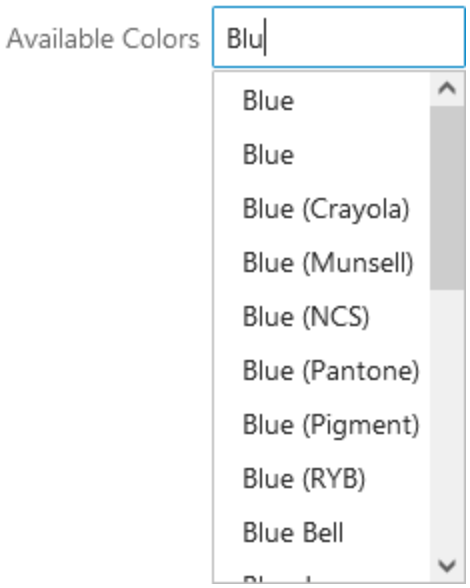
For example, it is possible to display LOVs that are multi-valued using the checkbox control type, and then display LOVs that are not multi-valued using the radio control type. LOVs with more values than a specified number can be displayed using a typeahead control type, and LOVs with values between two specified numbers can be displayed using a radio with clear options control type. Also, to manage exceptions, when an Attribute Value component or Attribute Management screen type is configured to use specific control type settings, then those local settings will override the global Override Control Type Rule. This allows for the efficiencies of a global rule, with localized control when you need it.

In addition, it is also possible to use the Override Control Type Rule to create local rules for overriding the default control types for specified attributes. This enables Web UI administrators to display the validation base type of specific attributes differently if required. For instance, it might be useful to display attribute values with different control type settings on different screens. Steps for adding local control types for specific attributes are outlined below in the Adding an Attribute Override Control Type Rule definition to the Override Control Type Rule component section.

Important: The Attribute Override Control Type is not applicable to tables. Only Validation Base Types are supported.

The following control type overrides are available, but their availability is determined by the validation base type of the attribute. The table below describes the available control types and their options.

Override Control Type	Description	Validation Base Type	User Added Values	Multi Value	Row and Column	Display Example
Checkbox	Displays each LOV with a checkbox.	LOV	No	Yes	Yes	
Radio	Displays each LOV with a radio button.	LOV	No	No	Yes	
Radio with clear option	Displays each LOV with a radio button, and an additional 'Clear' button.	LOV	No	No	Yes	
Rich Text	Displays a re-sizable value field with access to a text editor for entering rich text.	Text, Text (exclude tags), Numeric Text, Numeric Text (exclude tags)	Yes	Yes	No	
Text Area	Displays a re-sizable value field that can accommodate long values.	Text, Text (exclude tags), Numeric Text, Numeric Text (exclude tags)	Yes	Yes	No	
Text Box	Displays a single line value field for entering the attribute value.	Text, Text (exclude tags), Numeric Text, Numeric Text (exclude tags)	Yes	Yes	No	

Override Control Type	Description	Validation Base Type	User Added Values	Multi Value	Row and Column	Display Example
Typeahead	Allows the user to enter the first three alpha or numeric characters into a value field before it begins to filter down the number of suggestions provided in the dropdown list. The more characters added, the more the list refines.	LOV	Yes	Yes	No	

Important: By default, all attribute values using the Number validation base type (multi-value and single value) will display in Web UI as text boxes. No other control type is applicable, therefore an option for Number validation base types is not offered as an override control type.

Configuring

Recommended practice when displaying attributes within Web UI is to use the Attribute Value Group component and then manage the display behavior of the validation base types using one or more global rules created using the Override Control Type component.

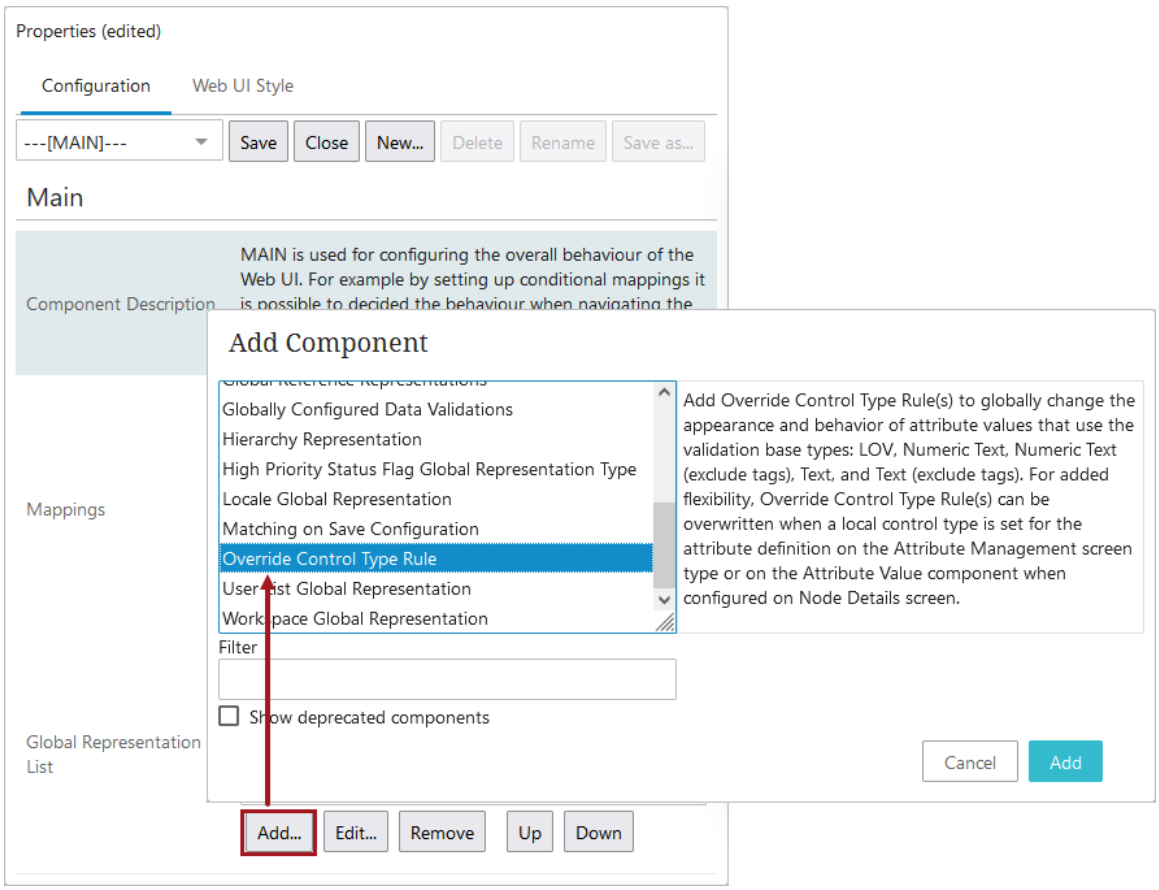
Steps for configuring the Override Control Type Rule are below.

Adding the Override Control Type Rule to the Main Properties Global Representation List

Before Control Type Rule Definitions can be created, the Override Control Type Rule component must be added once to the Main Properties Global Representation List. The Override Control Type Rule component can only exist once, however many Control Type Rule Definitions can be created within the component.

Steps for adding the Override Control Type Rule component to the Main Properties Global Representation List are below.

1. In the designer window, select the **---[MAIN]---** screen.
2. Go to the Global Representation List, click the **Add** button, and the Add Component dialog will display.



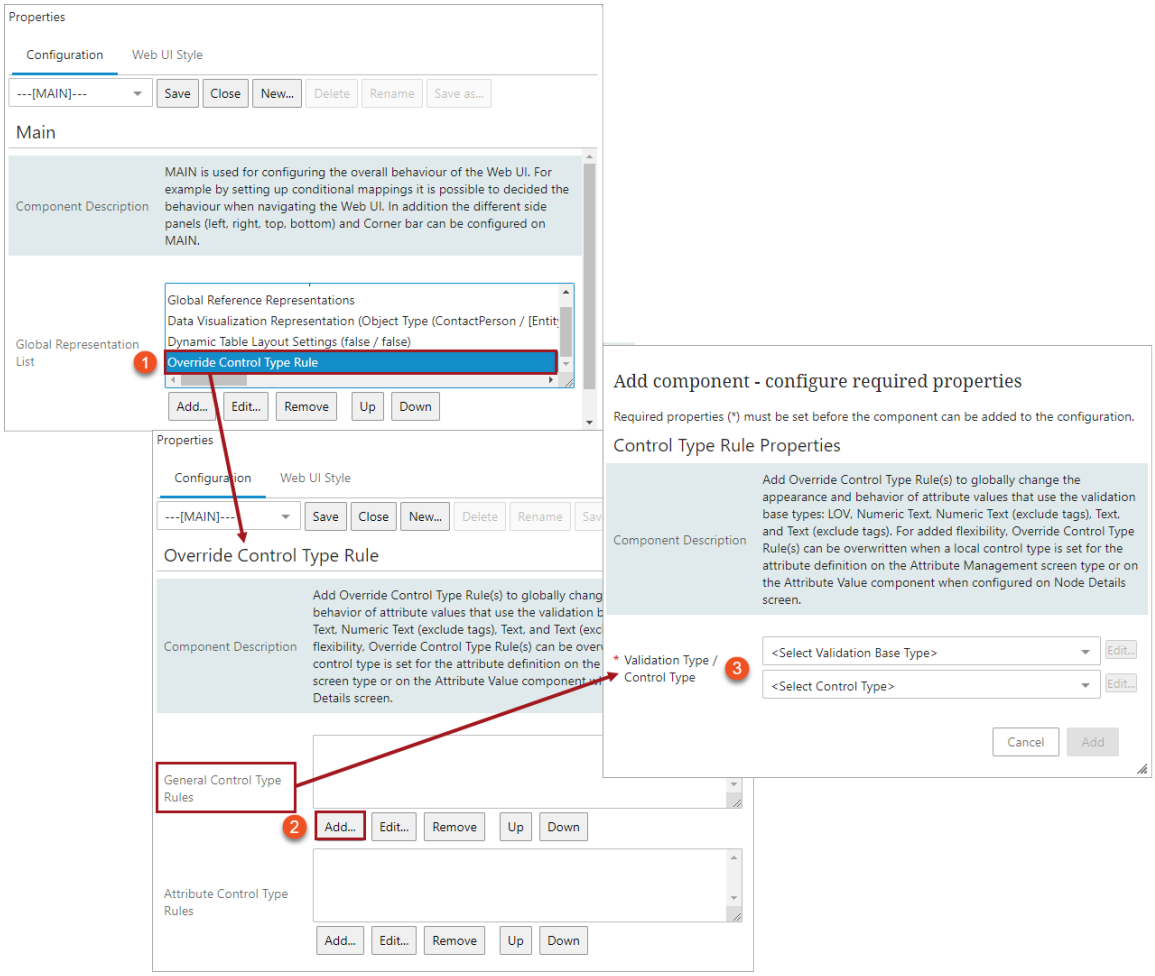
3. Select the **Override Control Type Rule**, click the **Add** button, the Add Component dialog will close, and the Global Representation List parameter will display with the Override Control Type Rule.
4. Click the **Save** button for the designer.

Once the Override Control Type Rule component has been added to the Main Properties Global Representation List, one or more Override Control Type Rule definitions can be added to easily display attribute values in more preferred ways.

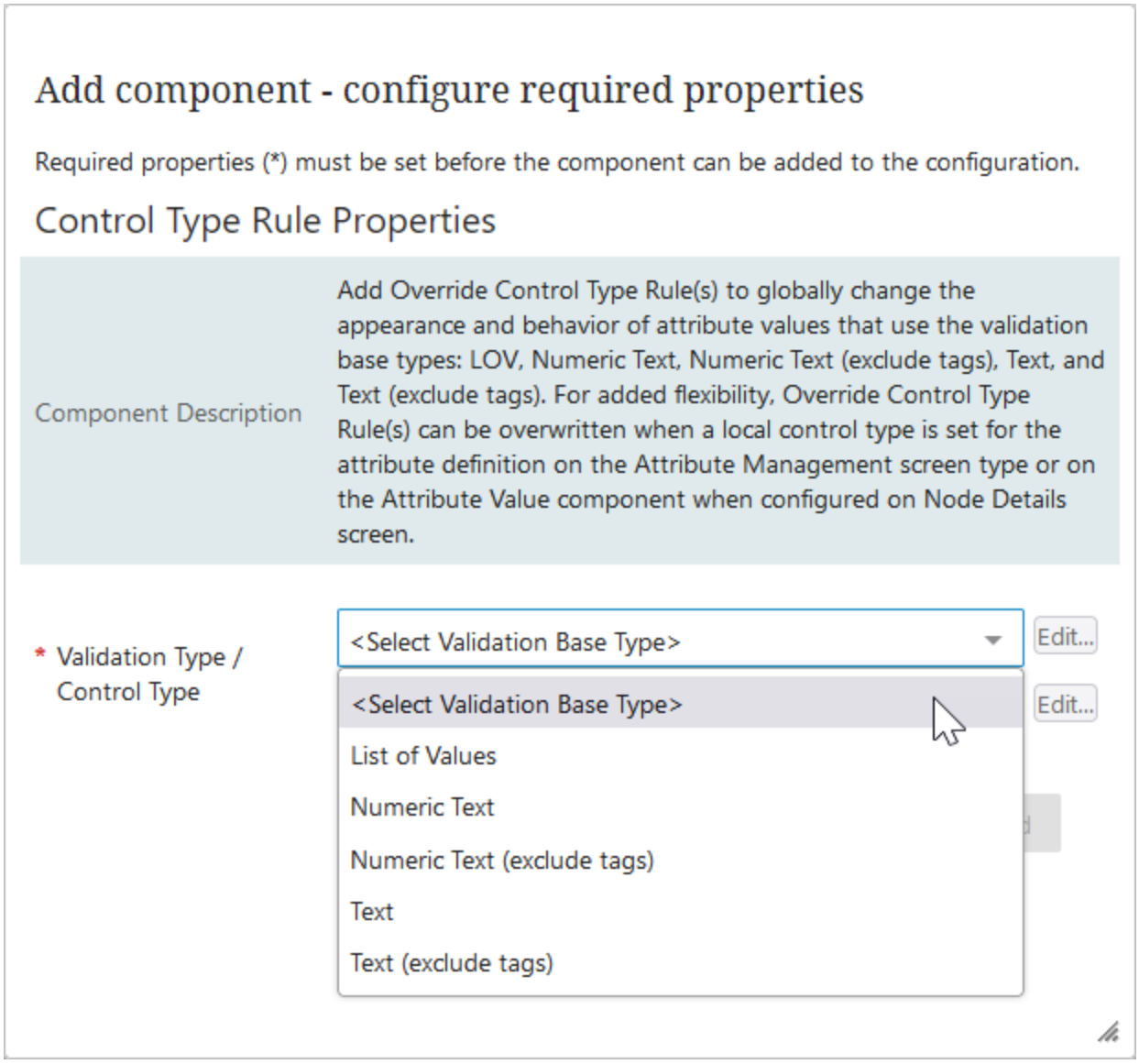
Adding a General Override Control Type Rule definition to the Override Control Type Rule component

Steps for adding a 'General Override Control Type Rule' definition to the Override Control Type Rule component are below.

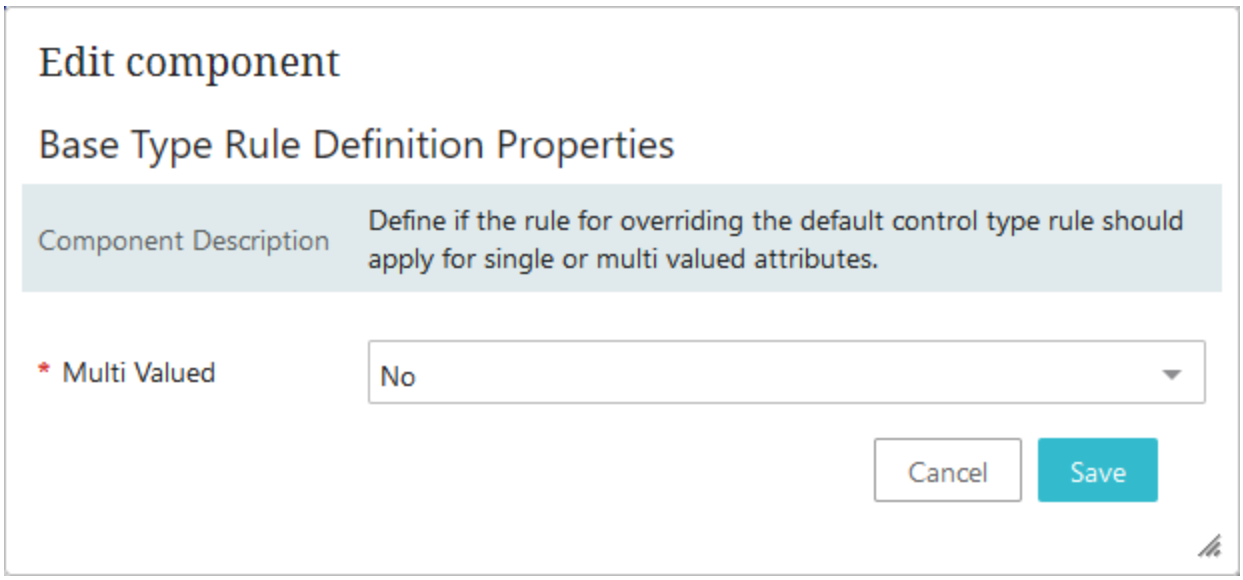
1. Go to the Main Properties in the designer. In the 'Global Representation List' field, double-click on the previously added **Override Control Type Rule** component, or select the 'Override Control Type Rule' from the list and click the **Edit** button, and the 'Override Control Type Rule' screen displays with the Control Type Rules parameters.
2. Select the **General Control Type Rules** parameter and click the **Add** button under the field. The Add component Control Type Rule Properties dialog will display the Validation Type / Control Type parameters.



3. Select a validation base type from the dropdown list, and a dialog will display based upon your selection.

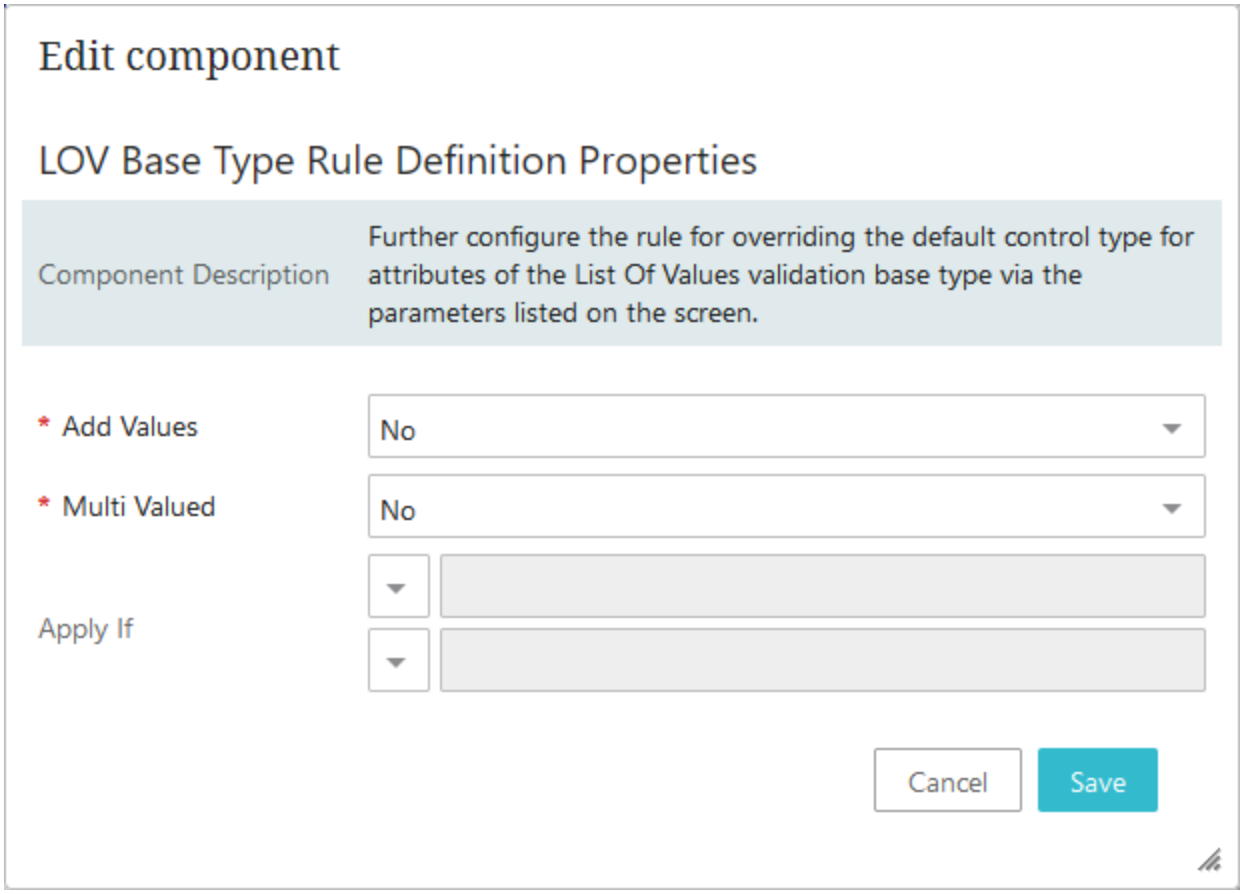


When the **Numeric Text**, **Numeric Text (exclude tags)**, **Text**, or **Text (exclude tags)** Validation Base Types are selected, the Base Type Rules Properties dialog displays, prompting selection for the Multi Valued parameter.

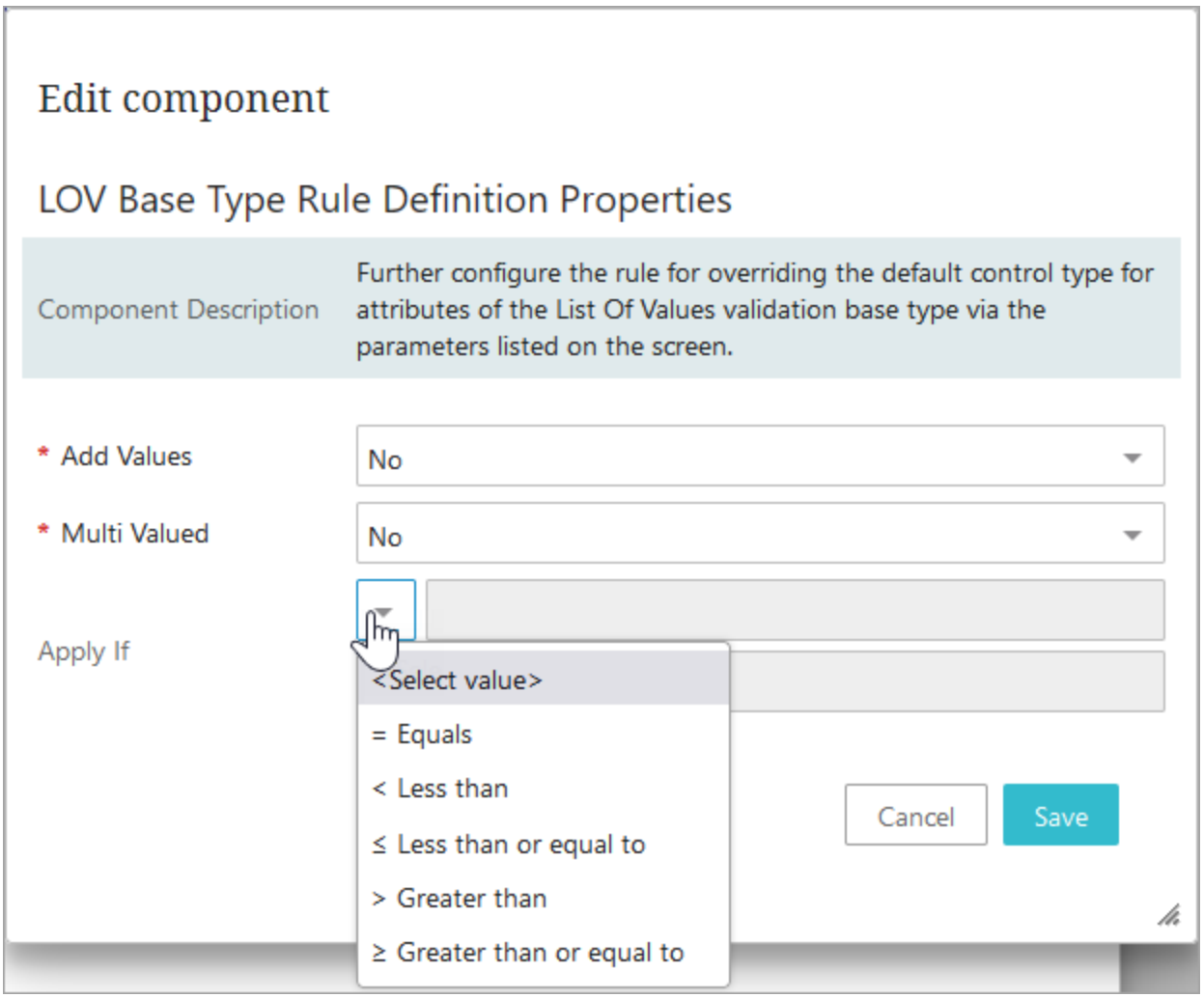


- **Multi Valued:** Determines the types of attributes to which the rule should apply.
  - Select **Yes** (default) if the rule should affect attributes with the default setting of Multi Valued enabled.
  - Select **No** if the rule should affect attributes with the default setting of Multi Valued disabled.

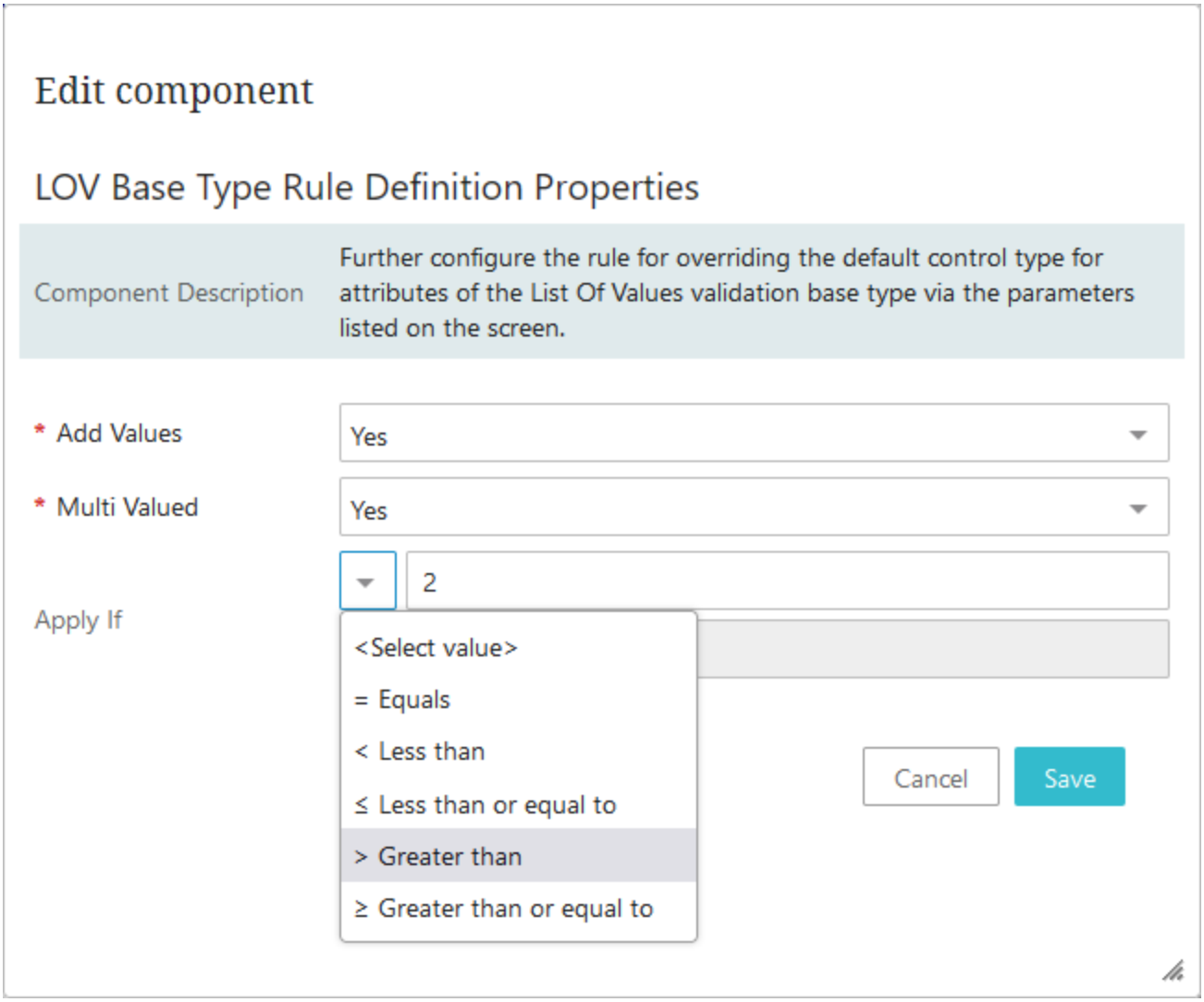
When the **List of Values** Validation Base Type is selected, the LOV Base Type Rule Definitions Properties displays, prompting selection for the following parameters:



- **Add Values:** Determines the types of LOVs to which the rule should apply.
  - Select **Yes** if the rule should affect LOVs with the default setting of Add Values enabled.
  - Select **No** (default) if the rule should affect LOVs with the default setting of Add Values disabled.
- **Multi Valued:** Determines the types of attributes to which the rule should apply.
  - Select **Yes** if the rule should affect attributes with the default setting of Multi Valued enabled.
  - Select **No** (default) if the rule should affect attributes with the default setting of Multi Valued disabled.
- **Apply If:** Determines if the rule should apply to attribute values that contain a specified number of values (i.e., If an LOV contains between 2 - 6 values, then display the values using the Radio buttons control type).
  - Select an option from the first dropdown, and the relative parameter to the right will become editable.

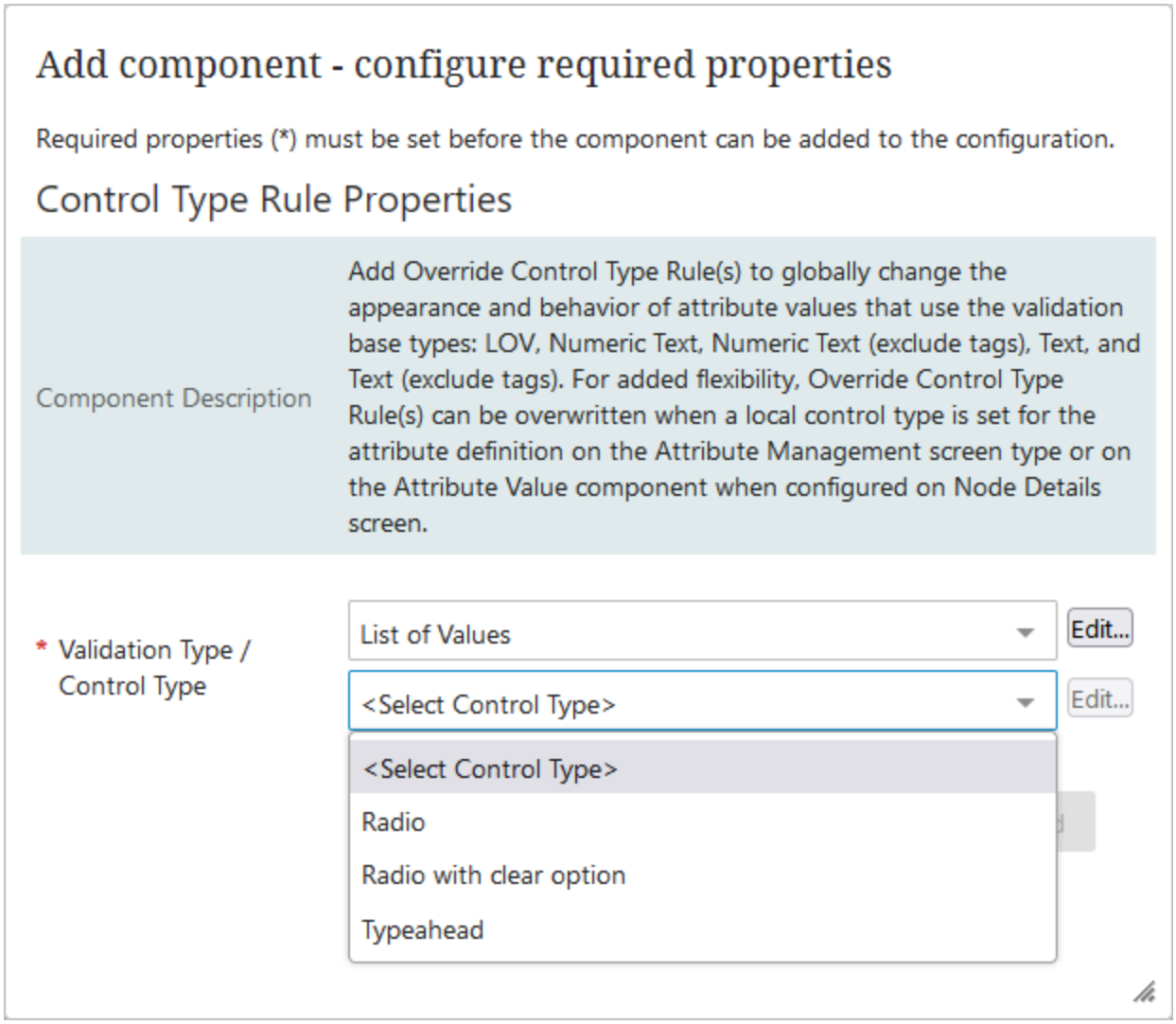


- Enter a numeric value in the relative parameter, and optionally choose from the dropdown list on the second parameter.



Important: When using the Apply If parameter options, if the second row is used, then the first row must be populated. The second row cannot be used without the first row; however, the first row can be used with the second row blank. For example, if an LOV contains '> Greater than' 20 values, then display the values using the Checkbox control type.

4. Once the desired settings are chosen, click the **Save** button, the dialog will close and the Control Type Rule Properties dialog will display. To return to the previous dialog, click the Edit button next to the Validation Type parameter.



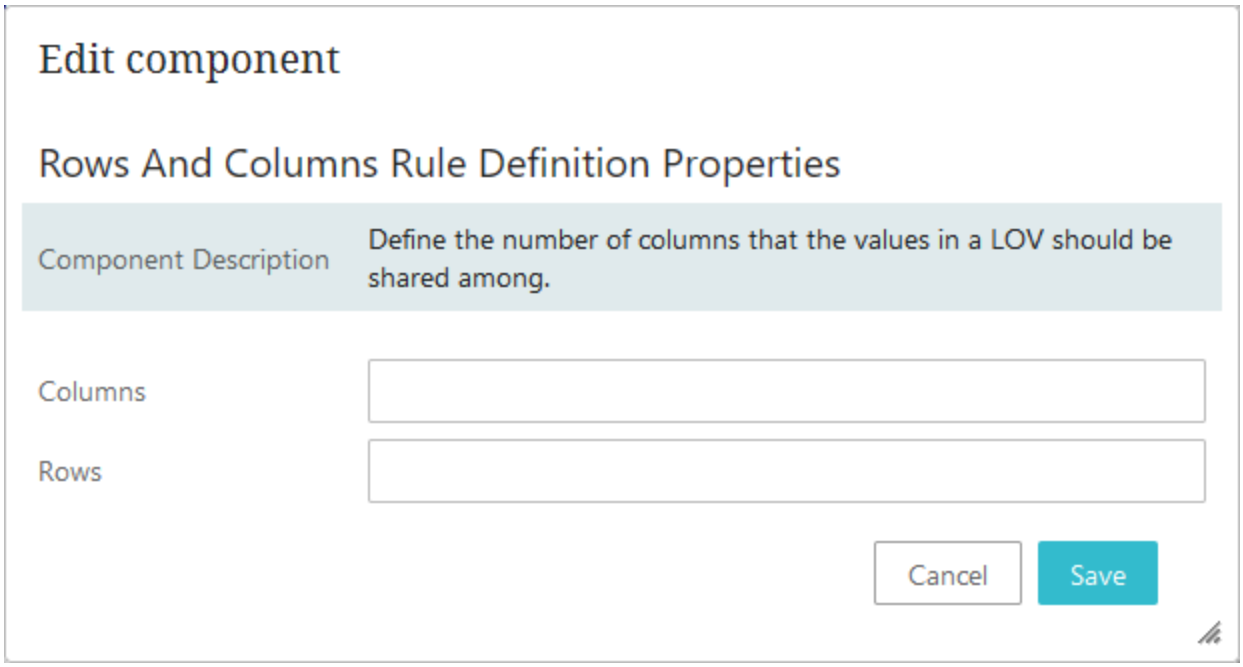
5. Select a control type from the dropdown list, and a dialog will display based upon your selection.

Control types drop down list depends on the LOV Base Type Rule definition Properties - Add Values and Multi Valued parameters as described in the below table:

Control Types Available	Add Values parameter	Multi Valued Parameter
Radio, Radio with clear option, Typeahead	No	No
Typeahead	Yes	No
Checkbox, Typeahead	No	Yes
Typeahead	Yes	Yes

Important: The selections made previously within the LOV Base Type Rule Definitions Properties affect the valid control types that will display. (i.e., Multi Valued LOVs must use Checkboxes or Typeahead, and Single Valued LOVs must use Typeahead, Radio, or Radio with clear option.)

When the Checkbox, Radio, or Radio with clear option is selected, a Rows and Columns Rule Definition Properties dialog will display with the following parameters:



- **Columns:** Determines the number of columns that should be used to distribute the LOV values across.
- **Rows:** Determines the number of rows to display before a scroll bar is displayed to the user.

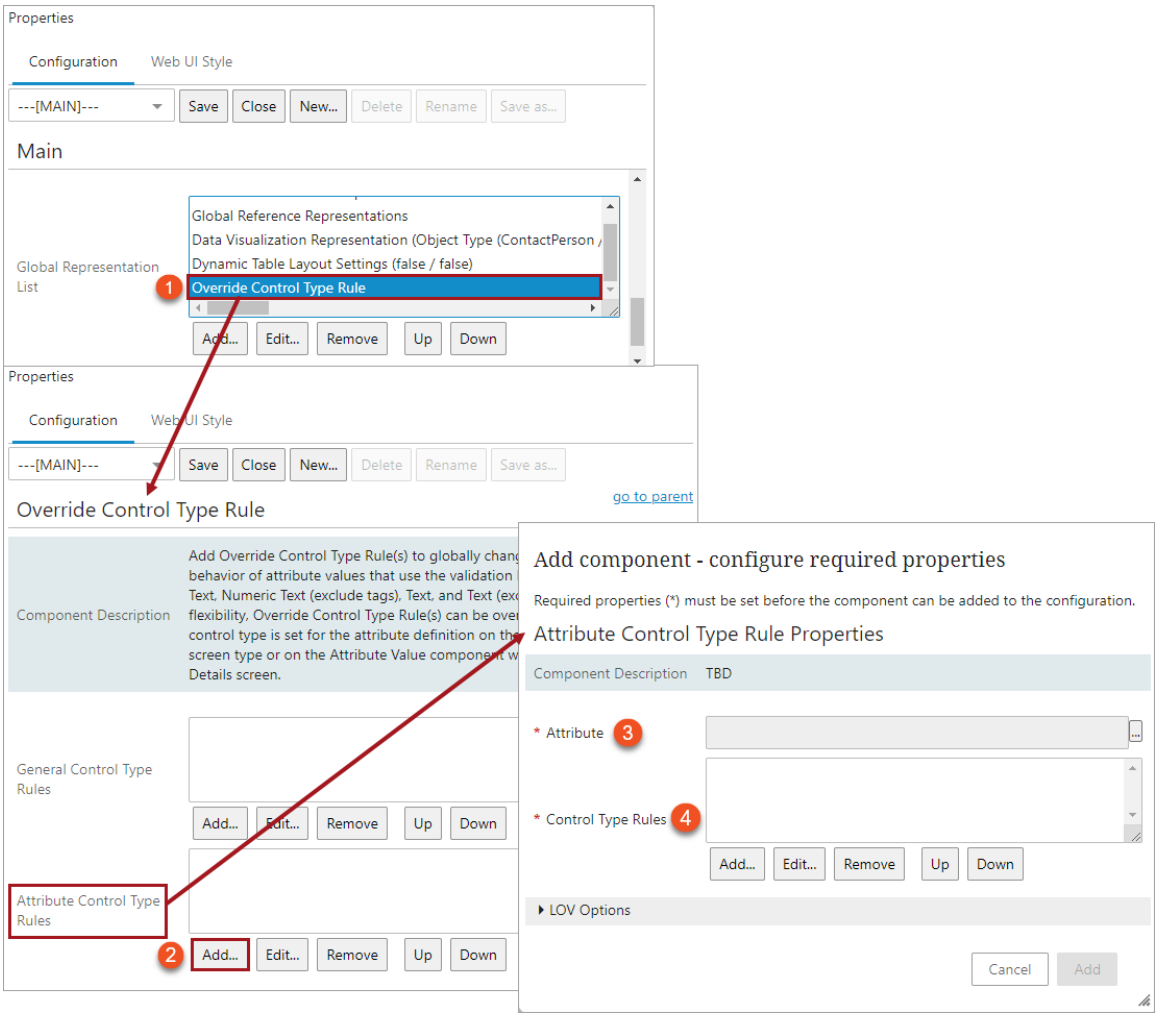
6. Once the desired settings are chosen, click the **Save** button, the dialog will close and the Control Type Rule Properties dialog will display again.
7. Click the **Add** button, the dialog will close, and the Override Control Type Rule Properties dialog will display with the newly added control type rule definition.
8. Click the **Save** button to close the dialog, and the Main Properties will display.
9. Click the **Save** button for the designer.
10. Click the **Close** button for the designer.

Adding an Attribute Override Control Type Rule definition to the Override Control Type Rule component

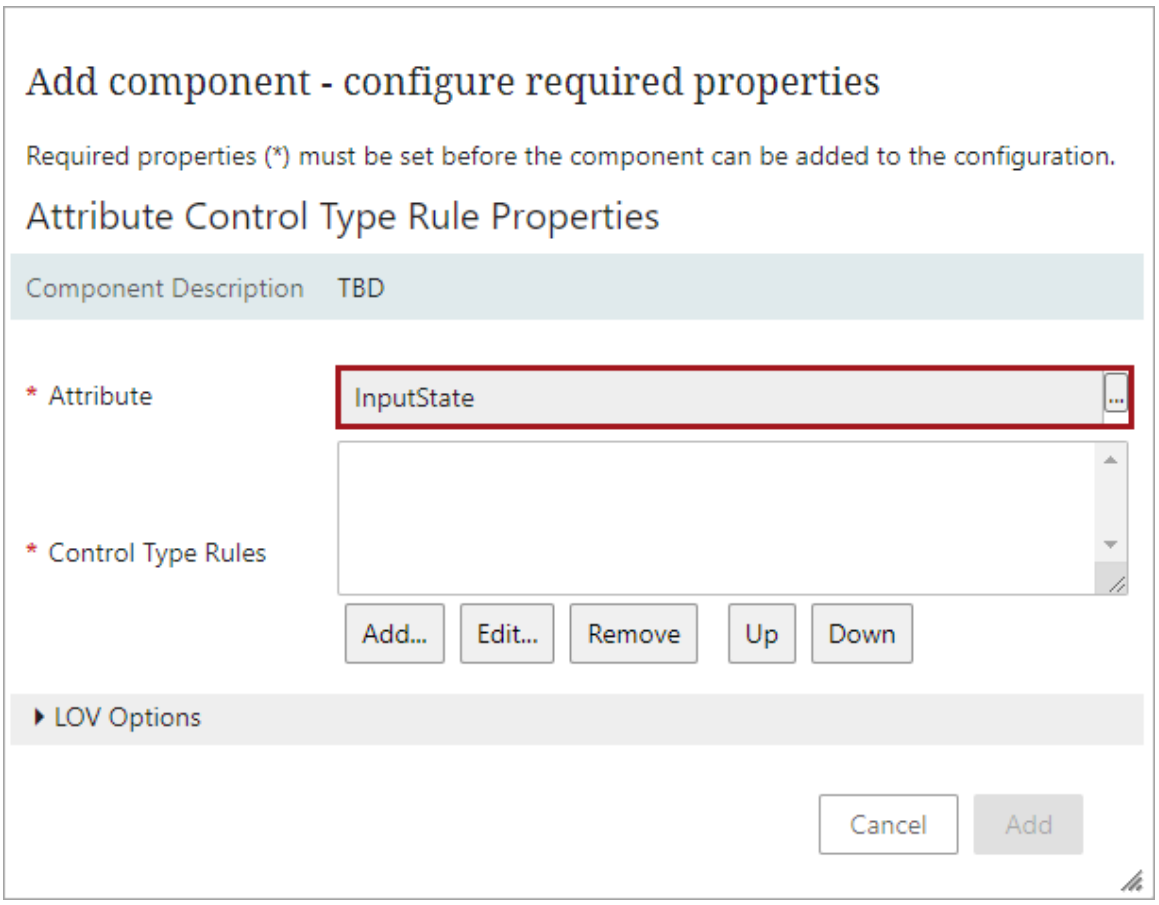
Steps for adding an 'Attribute Control Type Rule' definition to the Override Control type Rule component are below.

1. Go to the Main Properties in the designer. In the 'Global Representation List' field, double-click on the previously added **Override Control Type Rule** component, or select the Override Control Type Rule from the list and click the **Edit** button, and the 'Override Control Type Rule' screen displays with the Control Type Rules parameters.

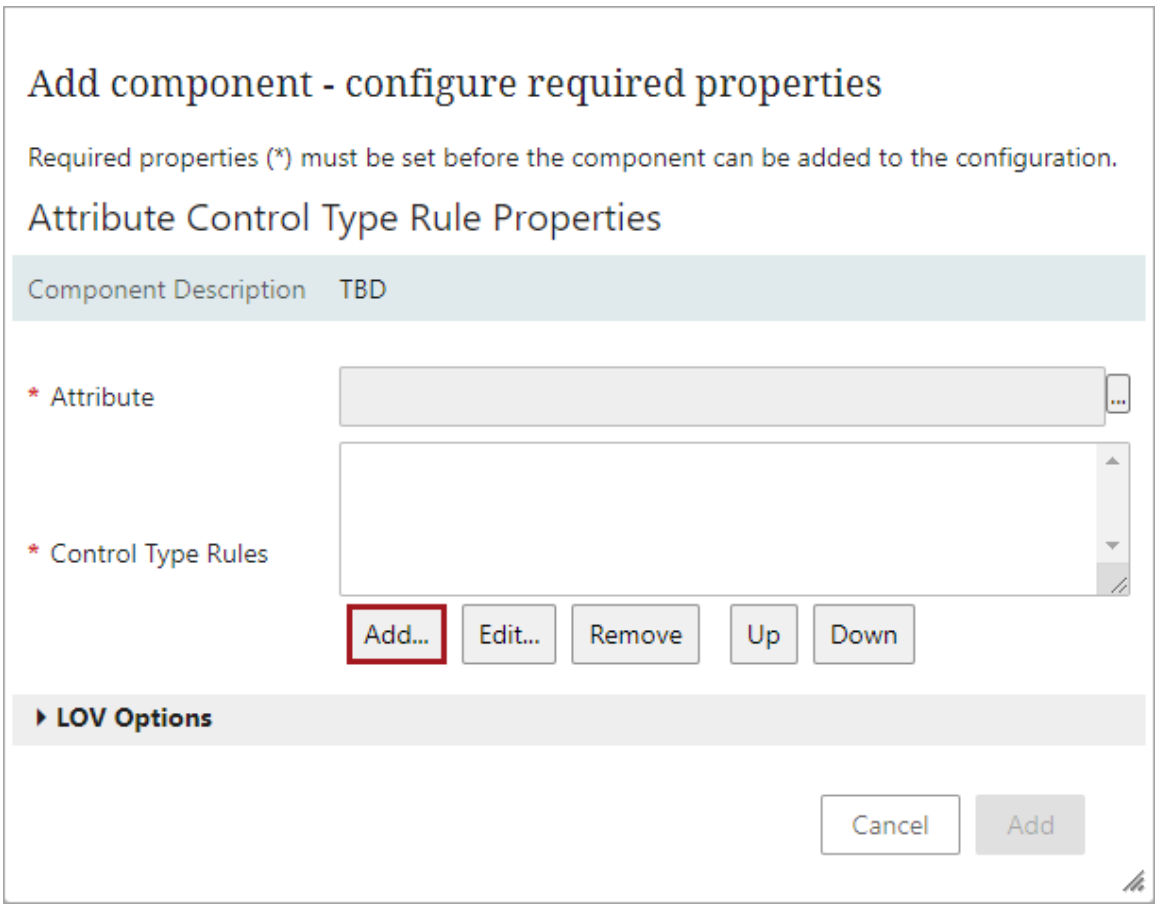
2. Select the **Attribute Control Type Rules** parameter and click the **Add** button under the field. The 'Add component - Attribute Control Type Rule Properties' dialog will display the Attribute / Control Type Rules parameters.



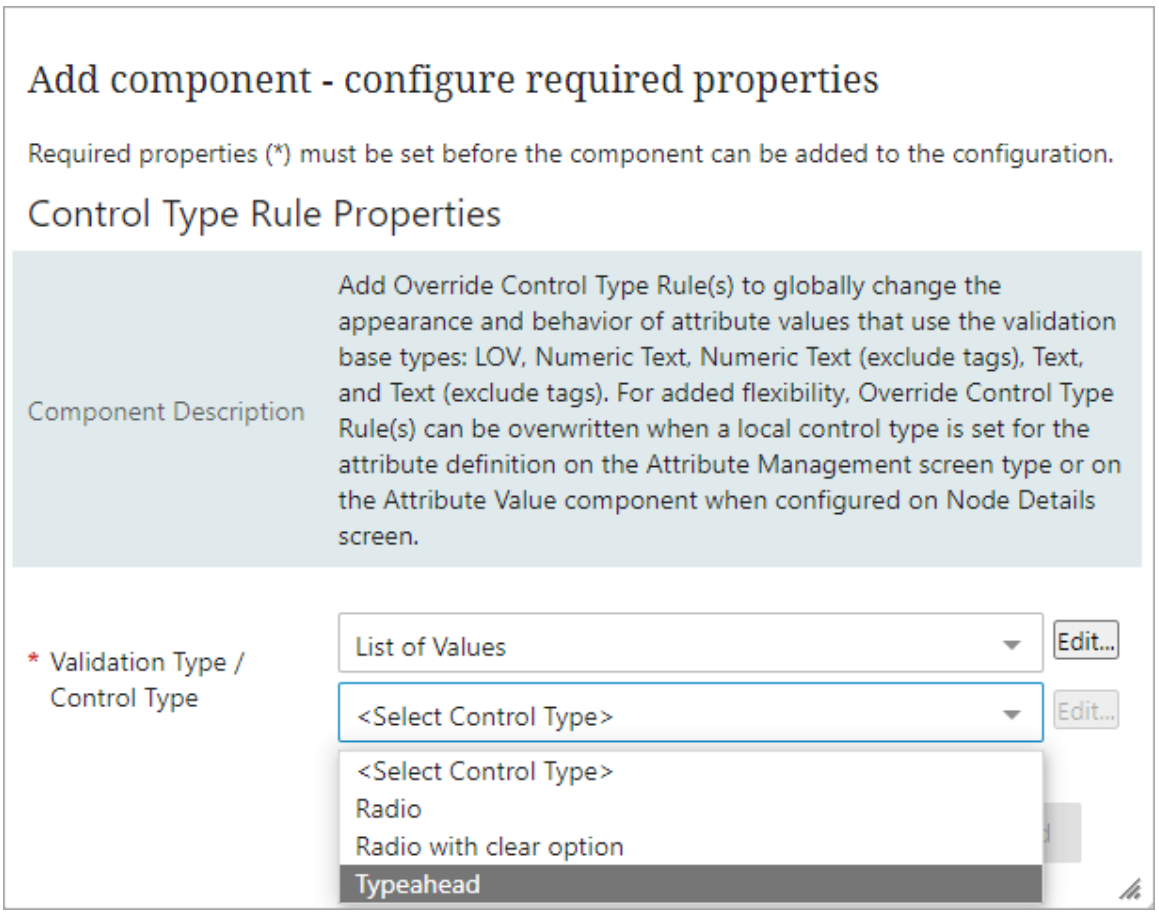
3. Select an attribute by clicking the ellipsis button (...) to the right of the 'Attribute' field. A dialog displays based upon your selection. (In the example below, the attribute 'InputState' has been selected).



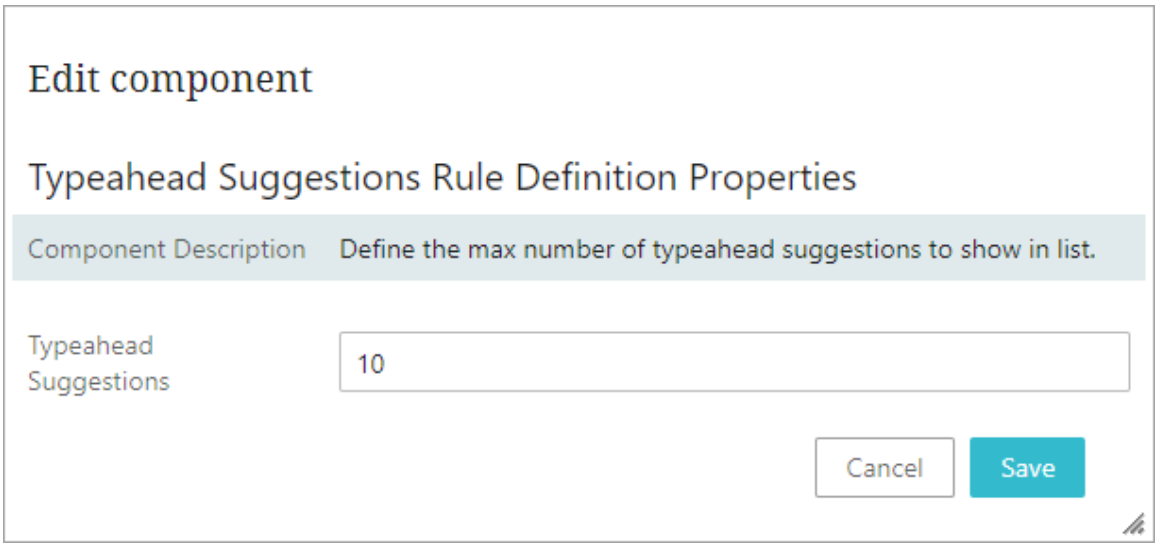
4. Add a Control Type Rule to the attribute selected by clicking **Add** under the 'Control Type Rules' field.



The 'Add component - Control Type Rule Properties' dialog displays. Click the field for 'Validation Type / Control Type' to display a dropdown list with the control type options.

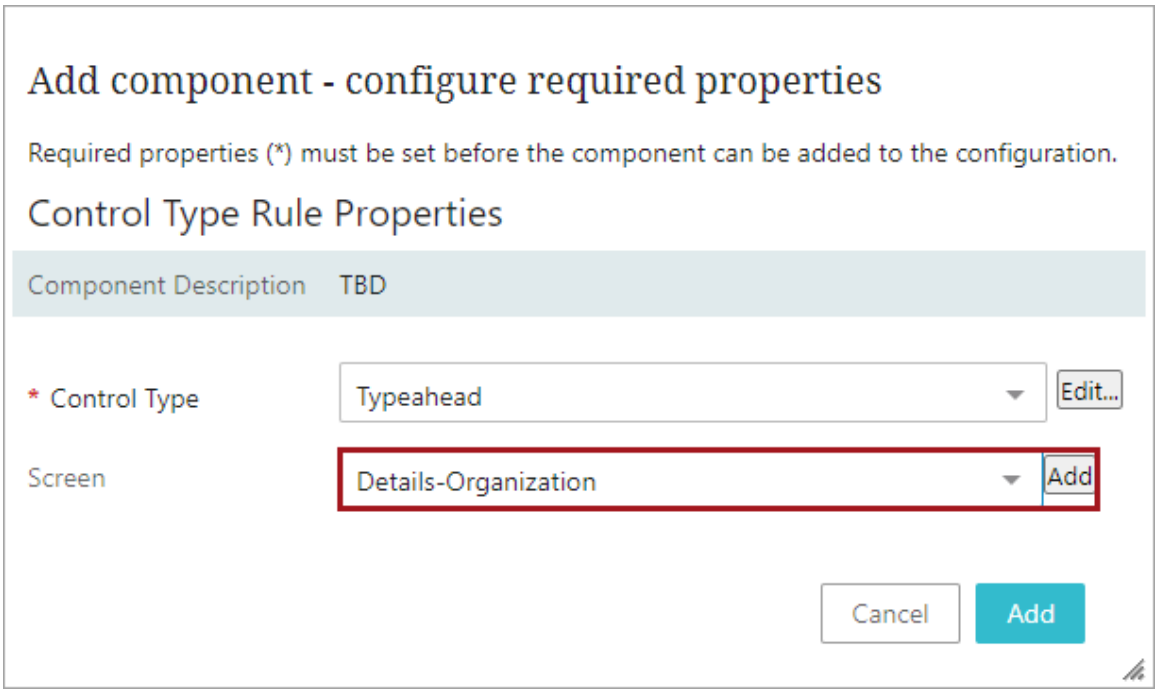


When 'Checkbox', 'Radio', 'Radio with clear option', or 'Typeahead' are selected, another dialog displays where additional properties can be specified. For instance, when the 'Typeahead' control type option is selected, an 'Edit component' dialog displays. In the 'Typeahead Suggestions' field, enter the maximum number of suggestions that can display.

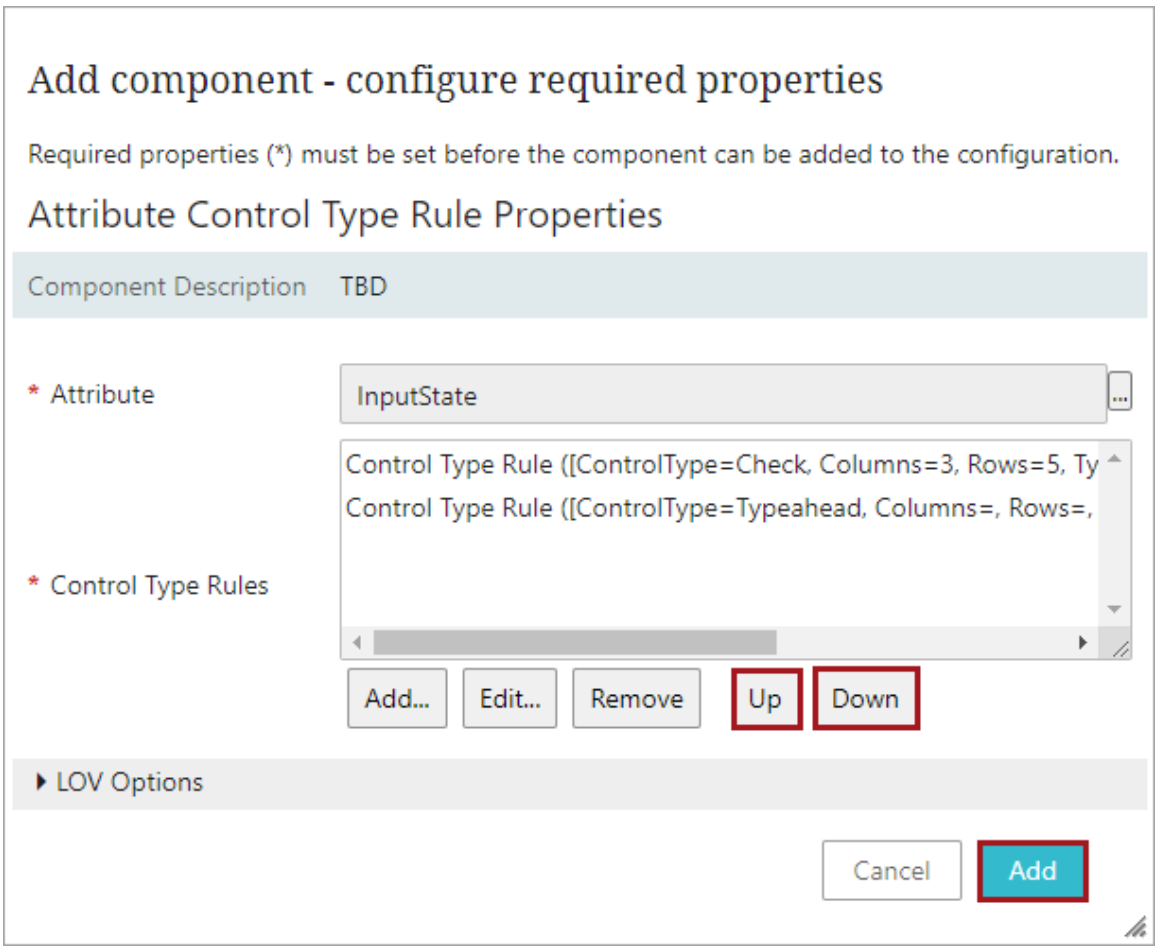


Note: It is possible to add several Control Type Rules to the specified attribute if they are configured to display on different screens. If the user attempts to add different control types on the same screen, an error message will appear.

5. Select which screen the settings should apply to by choosing a screen from the dropdown list or by clicking the **Add** button to the right to choose a screen from the 'Add Screen' dialog that displays. (In the example below, the screen 'Details-Organization' has been added). If no screen is selected, the settings will apply to all the configured screens in the Web UI.



6. Once the desired settings are chosen, click the **Add** button. This closes the dialog and the 'Attribute Control Type Rule Properties' dialog displays with the newly added control type rule definition.



The order of the added Control Type Rules is important as the first rule that matches the configured criteria will be used. The ordering can be changed by selecting the control type rule to be moved, and then clicking the **Up** and **Down** buttons.

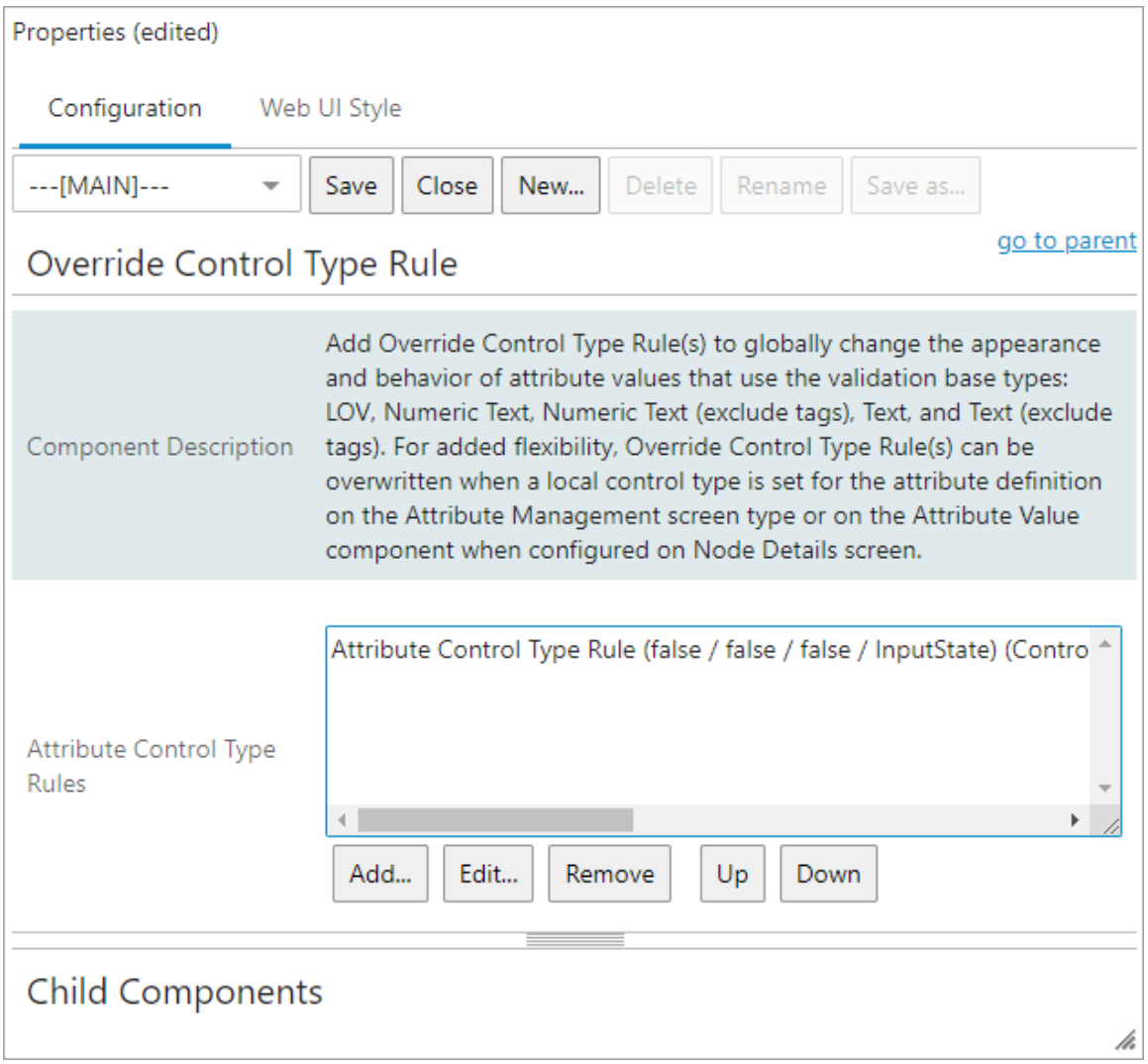
7. To view the configurations available in the 'LOV Options' section, click the arrowhead next to the 'LOV Options' heading. Configure the parameters as needed.



- **Show LOV IDs:** Determines if the attribute's LOV ID displays for the end user.
  - If not checked (default), then the LOV IDs are not displayed.
  - If checked, and the attribute's LOV has IDs enabled, then the LOV ID will display next to the value.
- **Sort LOV By ID:** Determines if the LOV displays in ascending order using the LOV name or ID.
  - If not checked (default), then the LOV is sorted by name.
  - If checked, and the attribute's LOV has IDs enabled, then the LOV ID will display ascending order based on the LOV ID. It is recommended to also enable the 'Show LOV IDs' parameter, because the list may appear to be sorted incorrectly if the IDs are not displayed.
- **Reverse LOV Value ID Presentation:** Determines if the LOV values display before or after the LOV ID.
  - If not checked (default), then the LOV value will display before the LOV ID.
  - If checked, then the LOV ID will display before the LOV value.

> **Important:** Settings within the Reverse LOV Value ID Presentation Parameter will only apply when the attribute LOV is configured with IDs, and the 'Show LOV IDs' parameter is enabled. For more information, refer to the Adding IDs to Existing Values in LOV topic in the System Setup documentation.

8. Click **Add** to close the dialog and display the added rule in the 'Attribute Control Type Rules' field.



9. Click the **Save** button on the designer.
10. Click the **Close** button on the designer.

Important: Override Control Type rules can be overwritten if a local control type is set on the attribute definition of the Attribute Management screen or on the Attribute Value component. To manage exceptions, when the override control type setting is used on the Attribute Value component within a Node Editor, it will take precedence over settings used on the Attribute Management Screen (via the Attribute Validation component), and the settings used on the Attribute Management Screen will take precedence over the global rules set using the Override Control Type Rule. Additionally, General Control Type Rules can be overwritten by Attribute Control Type Rules, and local control type settings on the Attribute Value component can overwrite the Attribute Control Type Rules unless the 'Use Global Override Control Type Rules' parameter has been enabled on the component.

For more information on managing how attribute values display and behave in Web UI, refer to the following topics in the Using Web UI documentation:

- Attribute Value Component
- Attribute Value Group Component
- Attribute Management Screen

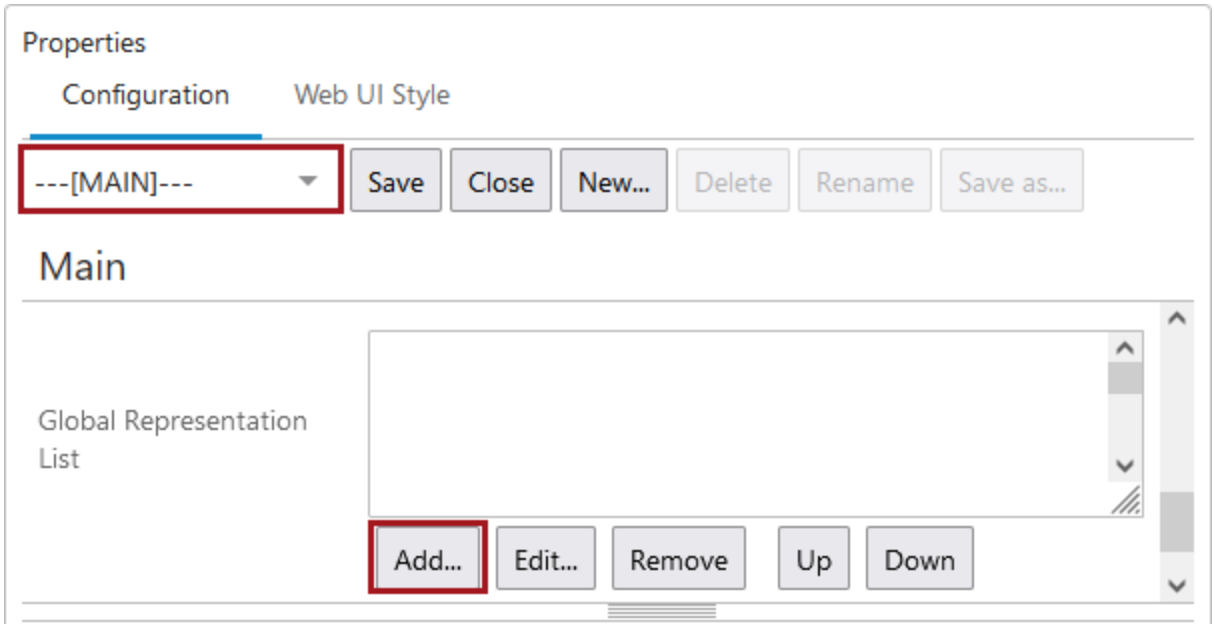
To control the attribute override type from workbench once this setup is done in Web UI, refer to the Control Override Meta-Attribute section of the Web UI Settings topic in the System Setup documentation. This can be found under Users and Groups within the System Setup documentation.

Dynamic Table Layout

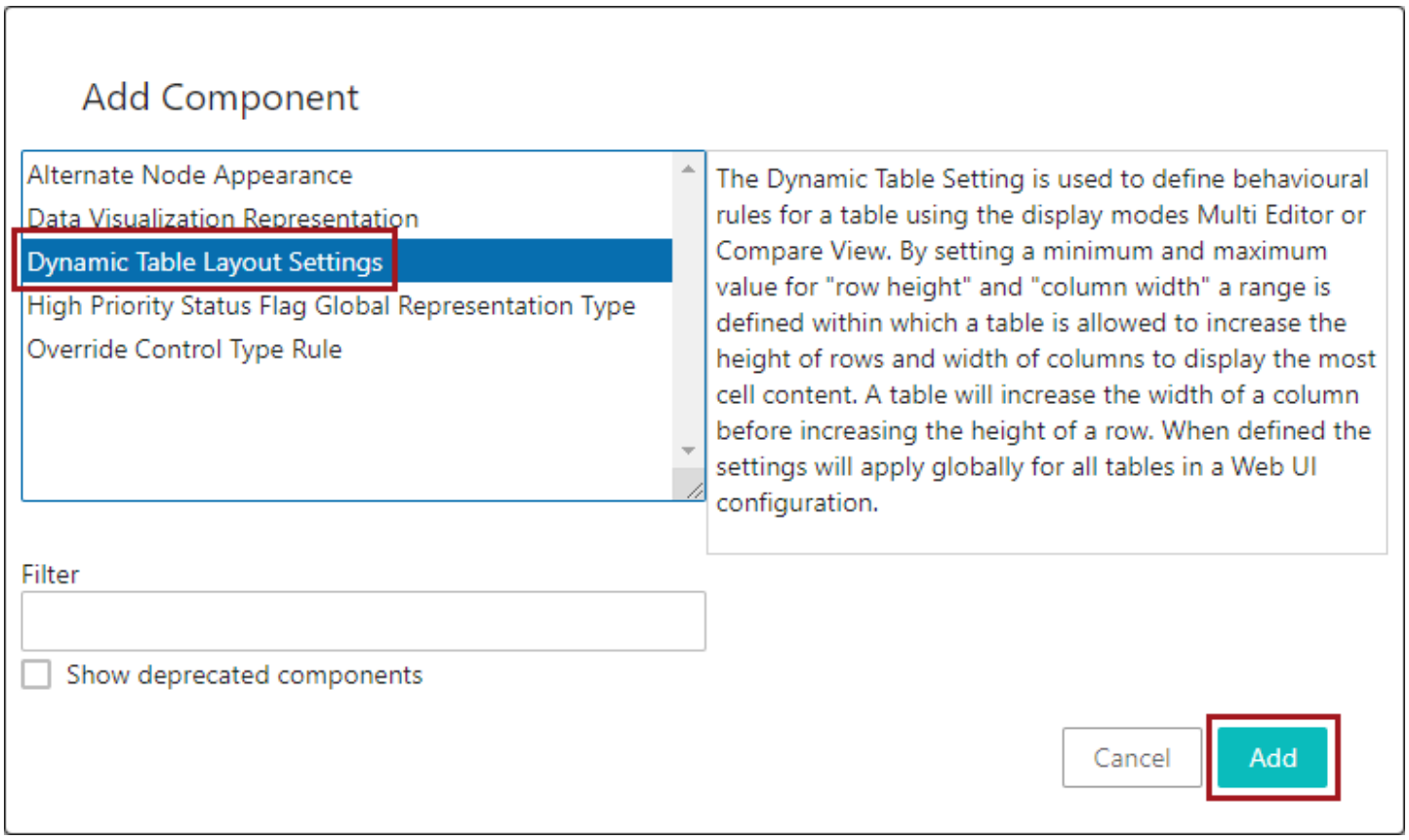
With the Dynamic Table Layout component enabled for the Web UI, tables that display on a Node List in either the Multi Edit or Compare View display modes will expand (or contract) dynamically based on the content in the cell. The dynamic formatting will be done both to accommodate existing table content and new content added in real-time. Enabling the Dynamic Table Layout Settings component and any settings configured therein apply to Web UI tables across the Web UI.

To enable Dynamic Table Layout, follow the steps below:

1. In the designer, navigate to [MAIN], and then to the Global Representation List. Click **Add...**.

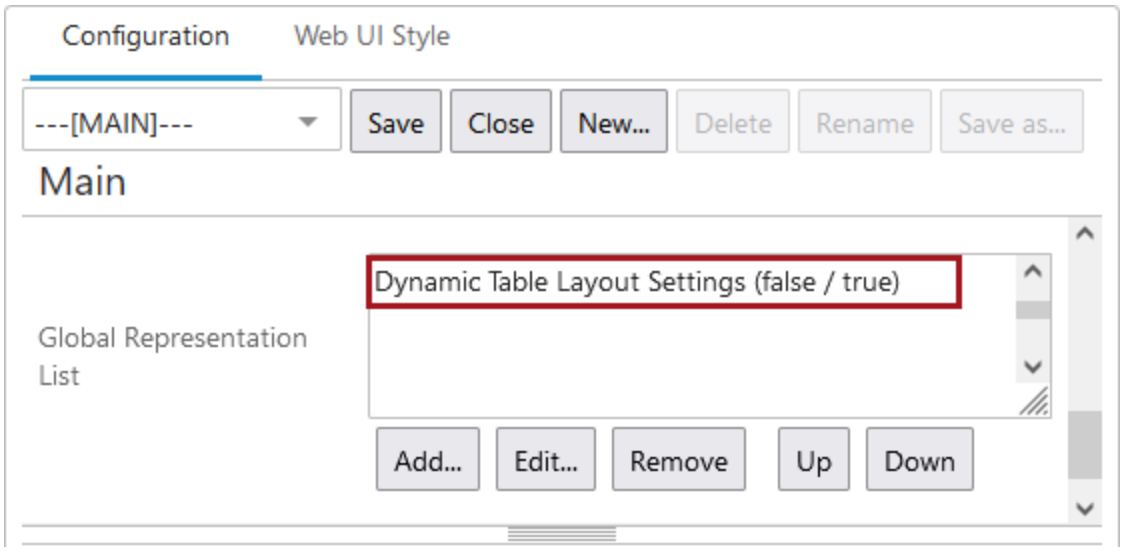


2. In the 'Add Component' dialog that displays, select the 'Dynamic Table Layout Settings' component, and click **Add**.

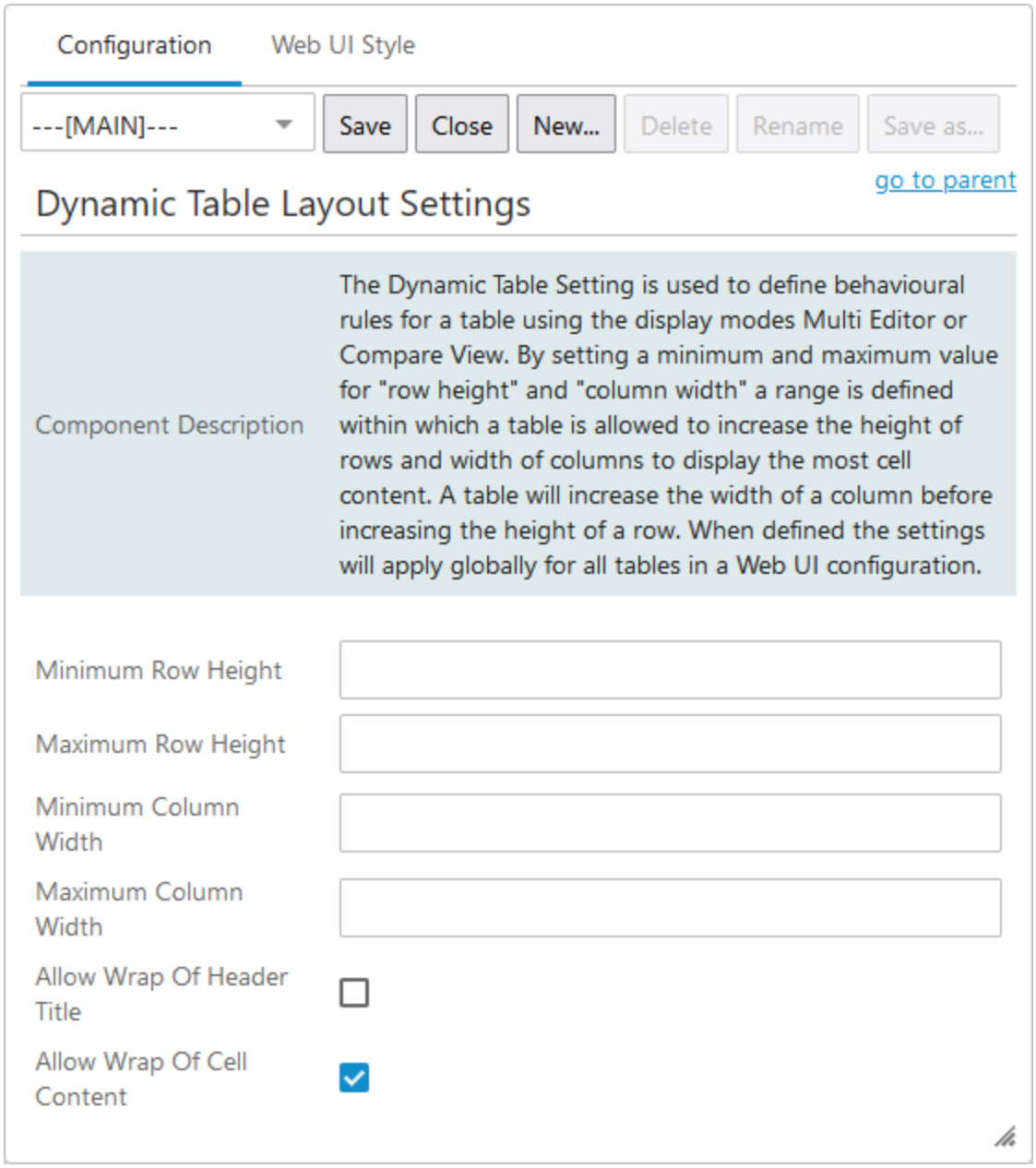


With the 'Dynamic Table Layout Settings' component added and the configuration saved in the designer, much of this feature's utility will already be applied to the relevant tables. To configure further, additional settings must be applied.

3. Back on the Global Representation List, double click the newly added 'Dynamic Table Layout Settings' component to edit it.



4. This opens the 'Dynamic Table Layout Settings Properties' window.



Configuration of the minimum and maximum row / column height / width parameters on this screen in the designer allows users to further define how much the tables will adjust to fit the cell content. Once added, the tables will dynamically adjust row width until reaching either a default (or configured) maximum width, and then expand row height as needed. This 'First out, then down' logic helps ensure dynamically formatted tables do not expand to the point where readability is negatively impacted. These are the parameters available to be configured on this designer screen:

Minimum Row Height: The number (in pixels) added in this field determines the minimum height of table rows. This number becomes the baseline height of table rows. As a rule of thumb, twenty pixels for height translates roughly into one line of text.

Maximum Row Height: The number (in pixels) added in this field determines the maximum height of table rows.

Minimum Column Width: The number (in pixels) added in this field determines the minimum column width. This number becomes the baseline width of a table column based on the largest cell in that column.

Maximum Column Width The dynamic table layout component follows a logic that directs the cell to fit the cell content to the maximum width set in this field (number value in pixels) before increasing in height up to the Maximum Row Height setting.

Allow Wrap of Header Title: When checked, header titles will break, or 'wrap,' into multiple lines, enabling display of as much of the header title as allowed by either the default dimensions of the Dynamic Table Layout feature or the row and column dimensions specified in the Dynamic Table Layout Settings Properties window. No header content displays an ellipsis button (...) for additional data

Allow Wrap of Cell Content: When checked, cell content will break, or 'wrap,' into multiple lines enabling display of as much of the cell content as allowed by either the default dimensions of the Dynamic Table Layout feature or the row and column dimensions specified in the Dynamic Table Layout Settings Properties window. No cell content displays an ellipsis button (...) for additional data.

Important: Enabling the Dynamic Table Layout component overrides the table dimension defaults or any dimension settings manually applied to affected tables. As examples, the Multi Edit Display Mode, which allows users to set the table dimensions, and the Attribute Value Group Header component, which allows users to determine whether the cell content will wrap to multiple lines, will be overridden by the Dynamic Table Layout component.

Global Data Container Representations

The Global Data Container Representations component provides a centralized space for data container display configurations. Any number of configurations can be stored for different data container types and under various display conditions.

For more context about this component and its use, refer to the Data Containers in Web UI section of the Web User Interfaces documentation.

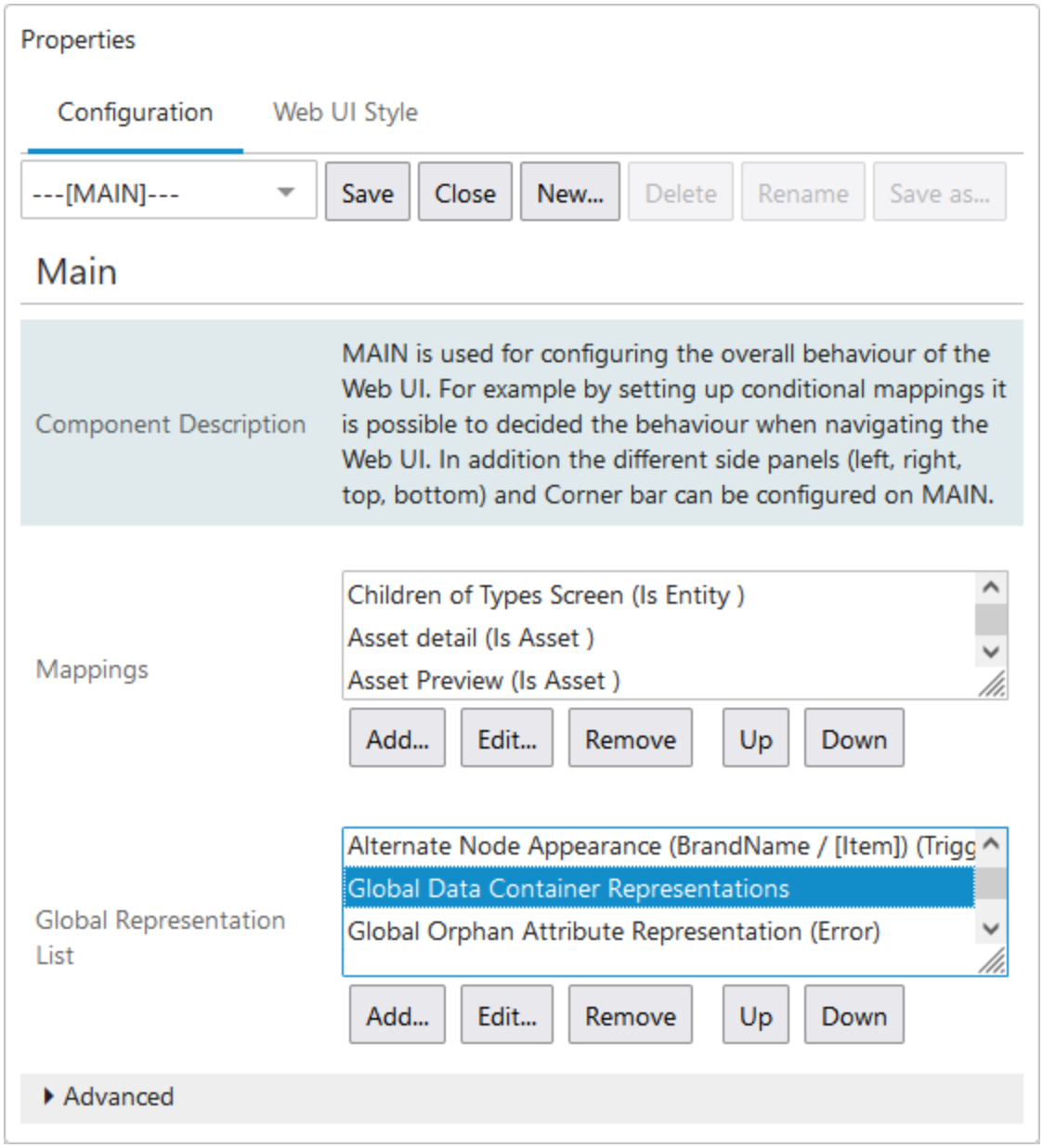
Prerequisites

It is expected that anyone configuring the Global Data Container Representations component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the Designer Access topic of the Web User Interfaces documentation.

Initial Setup

Before data container configurations can be created, the component must be configured in **MAIN** properties.

1. Enter design mode and select **--[MAIN]--** from the screen dropdown list.
2. Go to the **Global Representation List** parameter.
3. Click the **Add...** button under the value field.
4. Select **Global Data Container Representations** from the Add Component dialog.



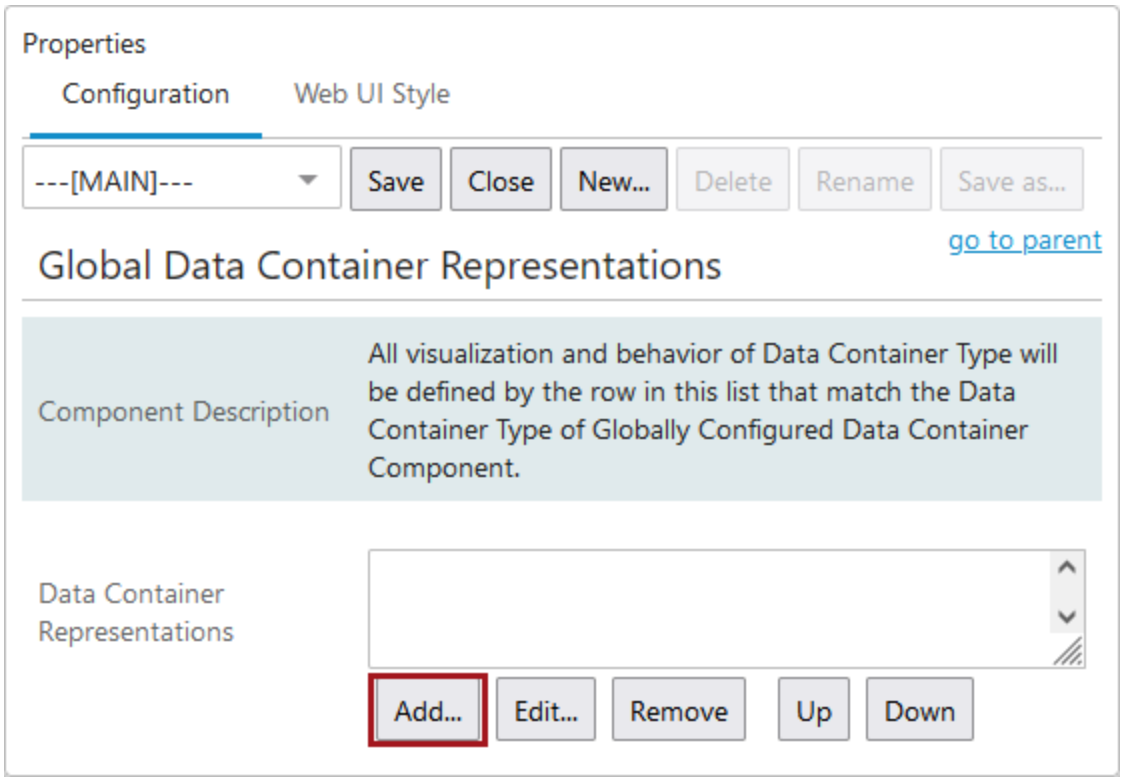
Creating a Configuration

Once the component has been added to **MAIN** properties, any number of data container representations can be created within it. A representation is a series of configuration settings tied to a data container type. Within each representation, the relevant data container type must be specified, along with its display settings.

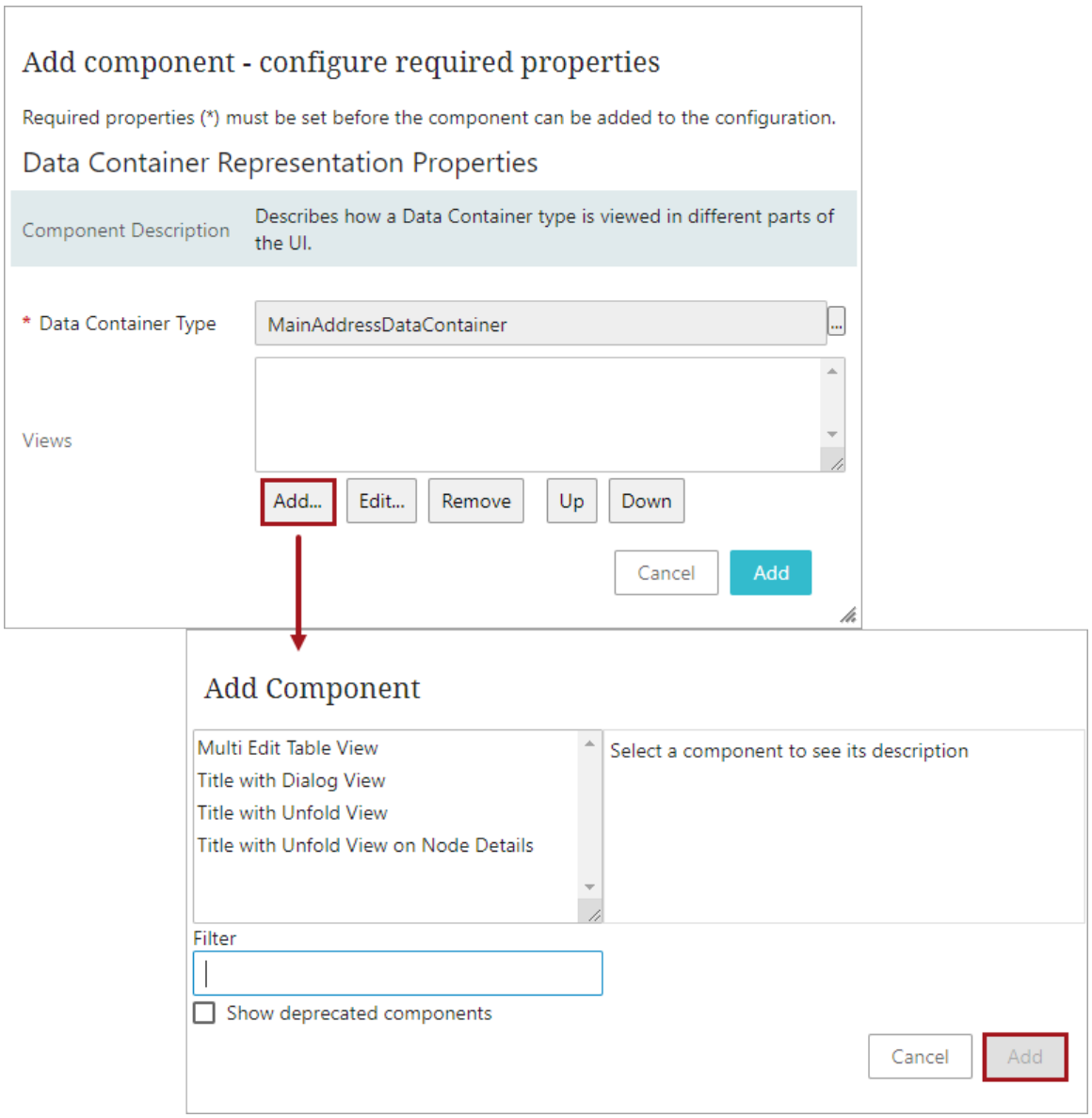
If multiple data container types require configuration, a separate representation must be created for each one. Additionally, if display settings vary due to which screen they appear on, multiple views must be created within each representation.

Important: These configuration settings dictate the display of data containers for the **Globally Configured Data Container** and **Advanced Merge Globally Configured Data Container Header** components only. This configuration also applies to the **Unmerge Wizard** screen, so long as a Title with Unfold view is configured for the data container type in question. All other components that display data containers use their own native configuration settings.

1. Double-click on **Global Data Container Representations** from within the **Global Representation List** field.
2. In the **Global Data Container Representations Properties** window, click **Add...** to add a new representation.



3. When the **Data Container Type Representation Properties** window appears, specify the relevant data container type, along with its display options and the conditions in which this particular representation should be applied.



4. To specify the data container type, click the ellipsis button (...) under the **Data Container Type** parameter. Browse or search for the relevant data container type, select it, and click **OK**.
5. Several different ways of displaying the specified data container type can be configured via the **Views** field. The view used to display the data is determined by conditions set on each view instance. If more than one view setting is valid for the specified data container type, the view that appears highest on this parameter's list is used.

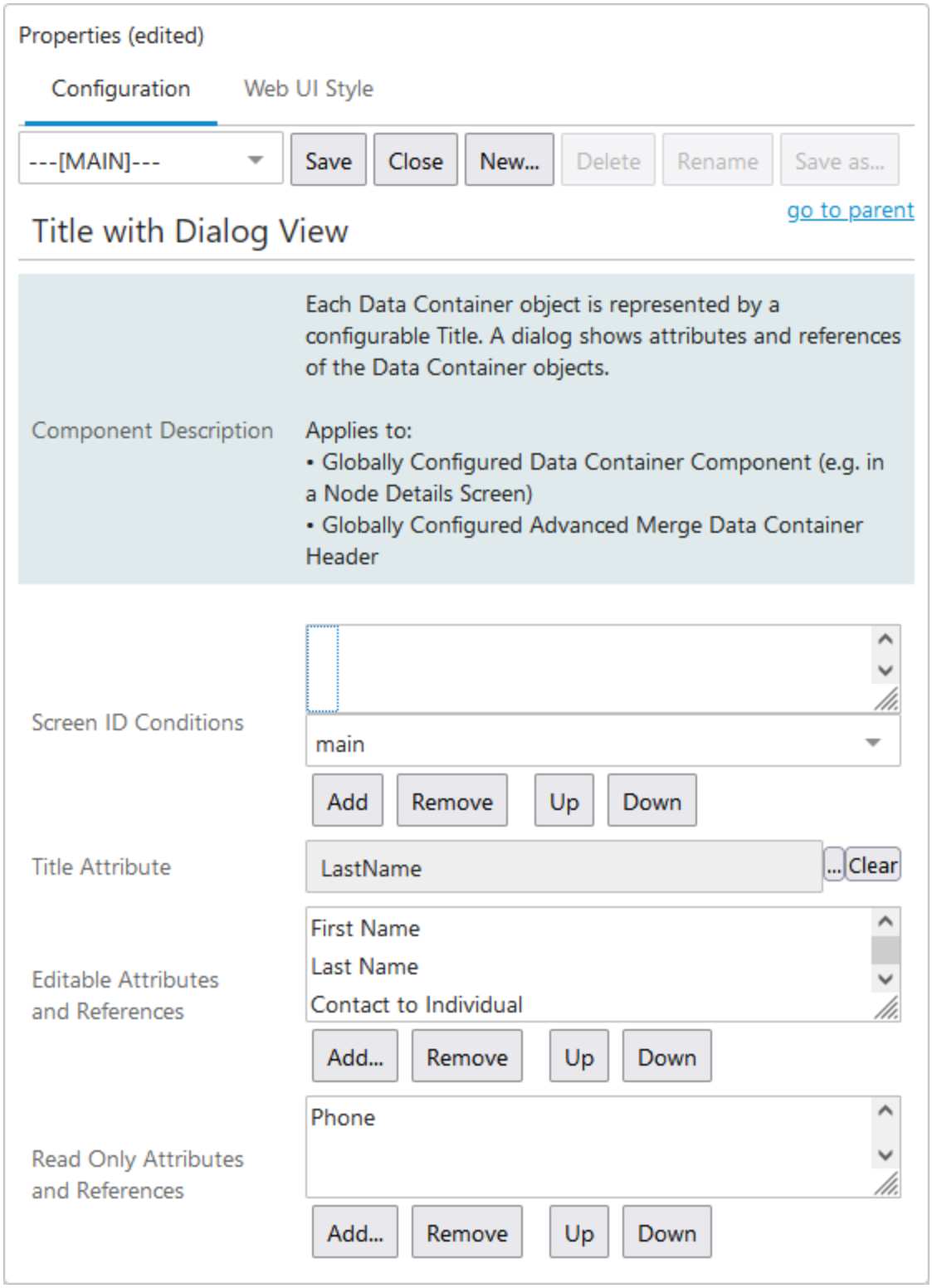
   To create a view configuration, click **Add...** under the **Views** parameter.
6. Select the appropriate view. 'Title with Unfold View' should be chosen if the view is intended to be used on an Unmerge Screen, otherwise choose 'Title with Dialog View'.

   For more information, refer to the Configuring and Using Match and Merge in Web UI section of the Matching, Linking, and Merging documentation.

The configuration options for these two view types are similar, however Title with Unfold View cannot be configured with editable attributes and references.

Configuring Title with Dialog View

1. Double-click the newly created view to access the **Title with Dialog View Properties** window.



Important: The Title with Dialog View does not support inherited data containers. They will not display in this view.

Configuration options for each view include:

- **Screen ID Conditions** - Select a screen mapping from the dropdown and click **Add...**. Mapping a screen ensures that these view settings are only valid for displaying the data of the relevant data container type on the specified Web UI screen. Not mapping a screen allows these view settings to apply to data containers on any screen in the Web UI.
- **Title Attribute** - Click the ellipsis button (...) and browse or search for the relevant attribute to display data containers listed in the corresponding data container component. This could be a calculated attribute that conveys the most important details for differentiating the individual data containers.

  For more information on calculated attributes, refer to the Calculated Attributes section of the documentation.

  When used to display address data, it is recommended to use a formatted address attribute. For more information, refer to the Address Formatting Functions topic of the Resource Materials online help.

  Note: It is not recommended to use LOVs that allow users to add values for the display attribute.

- **Editable Attributes and References** - Click **Add...** and browse or search for the attributes / references whose values should be editable within the corresponding data container components.

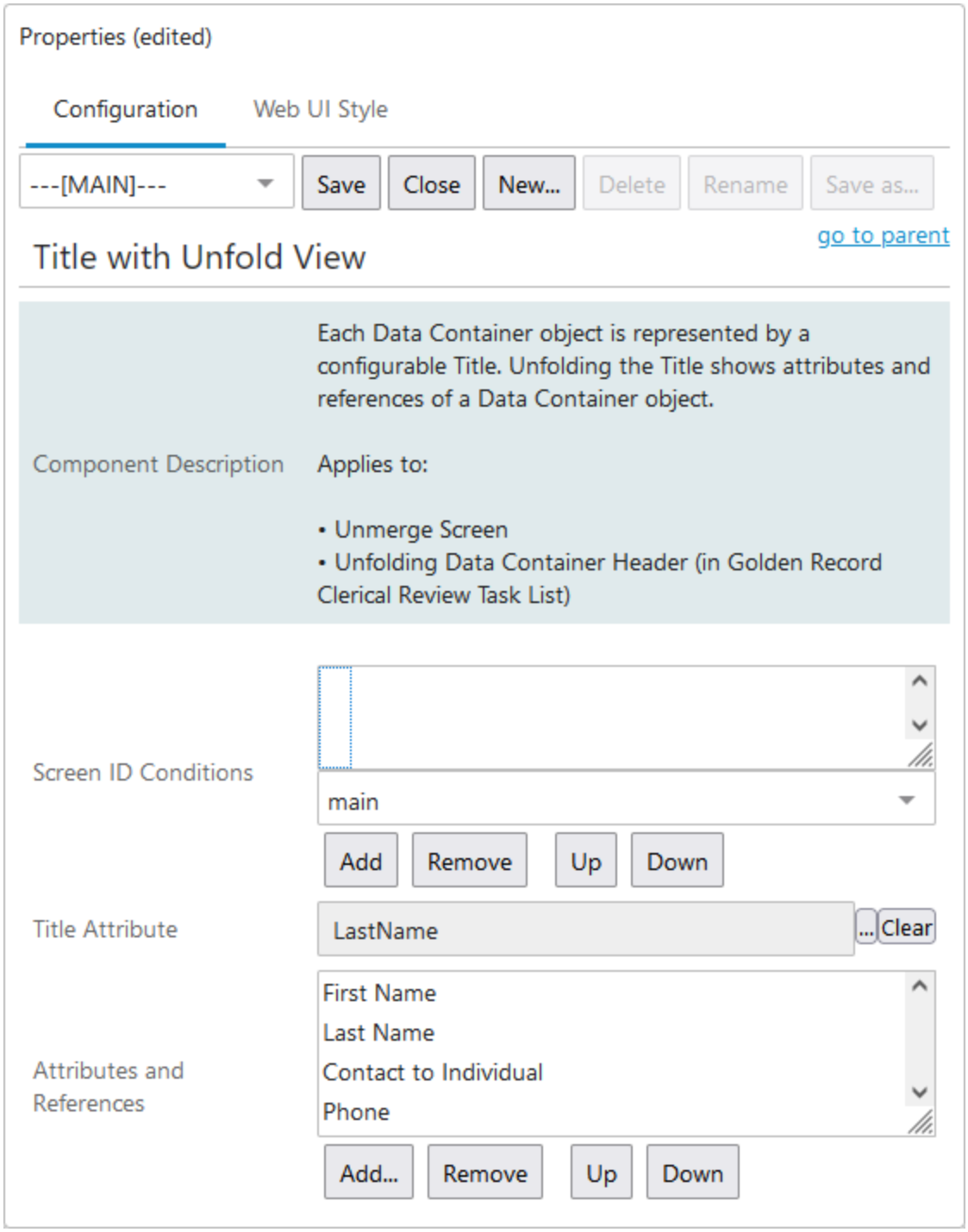
  Note: Multi-valued attributes that are configured in this parameter cannot be edited.

- **Read Only Attributes and References** - Click **Add...** and browse or search for the attributes / references that should be displayed by the corresponding data container components, but whose values should not be editable.

2. Once the view settings have been finalized, click **Save**.

Configuring Title with Unfold View

1. Double-click the newly created view to access the **Title with Unfold View Properties** window.



Configuration options for each view include:

- **Screen ID Conditions** - Select a screen mapping from the dropdown and click **Add...**. Mapping a screen ensures that these view settings are only valid for displaying the data of the relevant data container type on the specified Web UI screen. Not mapping a screen allows these view settings to apply to data containers on any screen in the Web UI.

- **Title Attribute** - Click the ellipsis button (...) and browse or search for the relevant attribute to display data containers listed in the corresponding data container component. This could be a calculated attribute that conveys the most important details for differentiating the individual data containers.

  For more information on calculated attributes, refer to the Calculated Attributes section of the System Setup documentation.

  When used to display address data, it is recommended to use a formatted address attribute. For more information, refer to the Address Formatting Functions topic of the Resource Materials documentation.

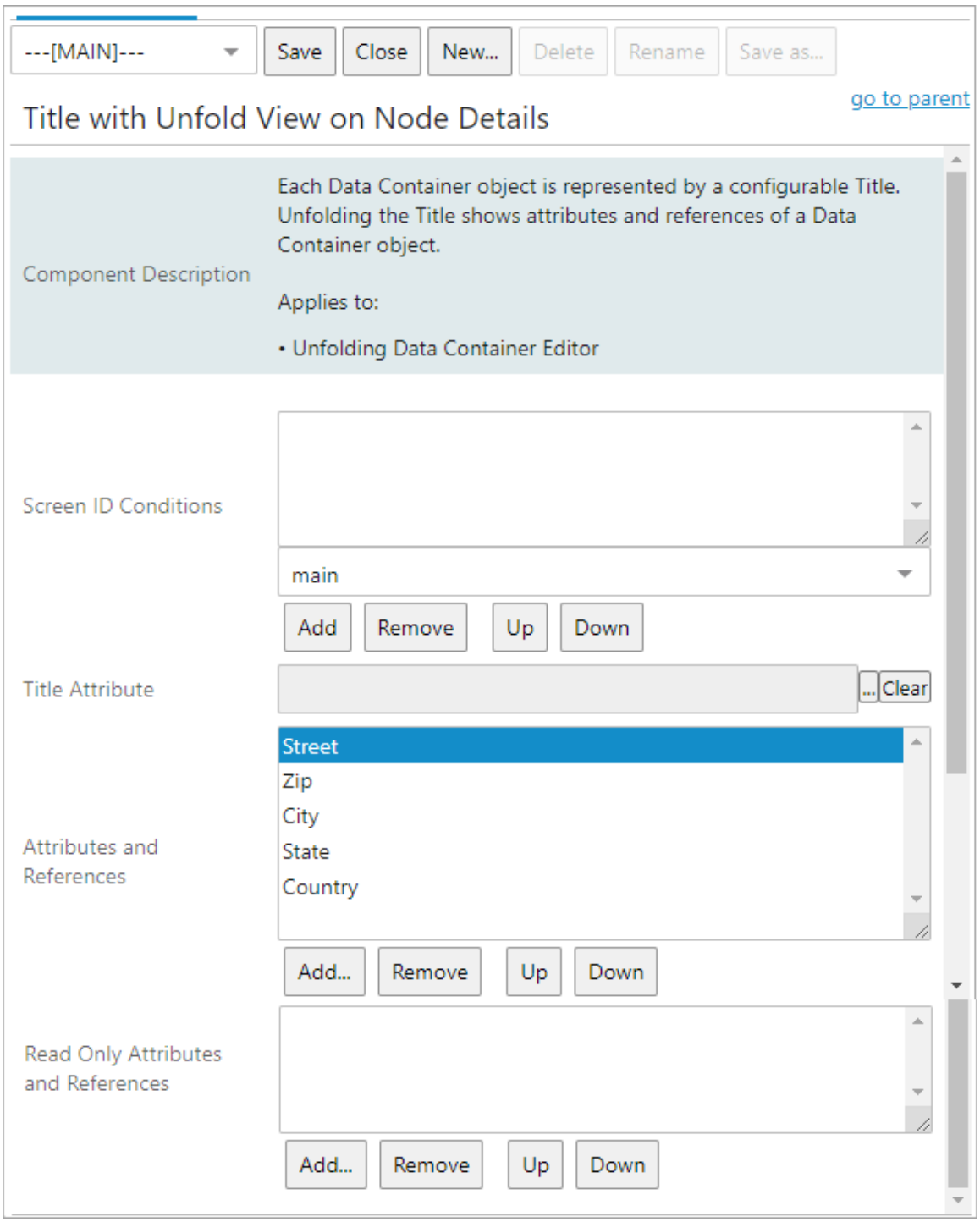
  Note: It is not recommended to use LOVs that allow users to add values for the display attribute.

- **Attributes and References** - Click **Add...** and browse or search for the attributes / references that should be displayed by the corresponding components when unfolded.

2. Once the view settings have been finalized, click **Save**.

Configuring Title with Unfold View on Node Details

1. Double-click the newly created view to access the **Title with Unfold View on Node Details** designer window.



Configuration options for each view include:

- **Screen ID Conditions** - Select a screen mapping from the dropdown and click **Add...**. Mapping a screen ensures that these view settings are only valid for displaying the data of the relevant data container type on the specified Web UI screen. Not mapping a screen allows these view settings to apply to data containers on any screen in the Web UI.

- **Title Attribute** - Click the ellipsis button (...) and browse or search for the relevant attribute to display data containers listed in the corresponding data container component. This could be a calculated attribute that conveys the most important details for differentiating the individual data containers.

  For more information on calculated attributes, refer to the Calculated Attributes section of the System Setup documentation.

  When used to display address data, it is recommended to use a formatted address attribute. For more information, refer to the Address Formatting Functions topic of the Resource Materials documentation.

  Note: It is not recommended to use LOVs that allow users to add values for the display attribute.

- **Attributes and References** - Click **Add...** and browse or search for the attributes / references that should be displayed by the corresponding components when unfolded.
- **Read Only Attributes and References** - Click **Add...** and browse or search for the attributes / references that should be displayed by the corresponding data container components when unfolded, but whose values should not be editable. Attributes and references added in this field will be displayed last. However, the display order can be changed by also adding them in the 'Attributes and References' field above. If the attributes and references are added in both fields, they will be displayed as read-only, but the display order is kept and can be sorted as required.

2. Once the view settings have been finalized, click **Save**.

Globally Configured Multi Edit Data Container

The Globally Configured Multi Edit Data Container component can be used to display data container attribute values in a table view on a Node Details screen, edit data container attributes, and add / remove data containers. For details regarding how the editor is used, refer to the **Data Containers in Web UI** topic.

Prerequisites

Anyone configuring the Globally Configured Multi Edit Data Container component must be familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Additionally, before adding the Globally Configured Multi Edit Data Container component, data containers and their associated attributes must already be set up. For details, refer to **Setting Up Data Container Types in Workbench** in the **System Setup** documentation.

Adding a Globally Configured Multi Edit Data Container

The Globally Configured Multi Edit Data Container component must be created on a Node Editor child component within a Node Details screen. The first step in configuring this component is to select an existing Node Details screen to add the component to or to create a new screen.

Note: This component can be used for product, entity and classification objects.

Steps for creating a new Node Details screen are outlined in the adding a new **Node Details Screen** section of the **Web User Interfaces** documentation.

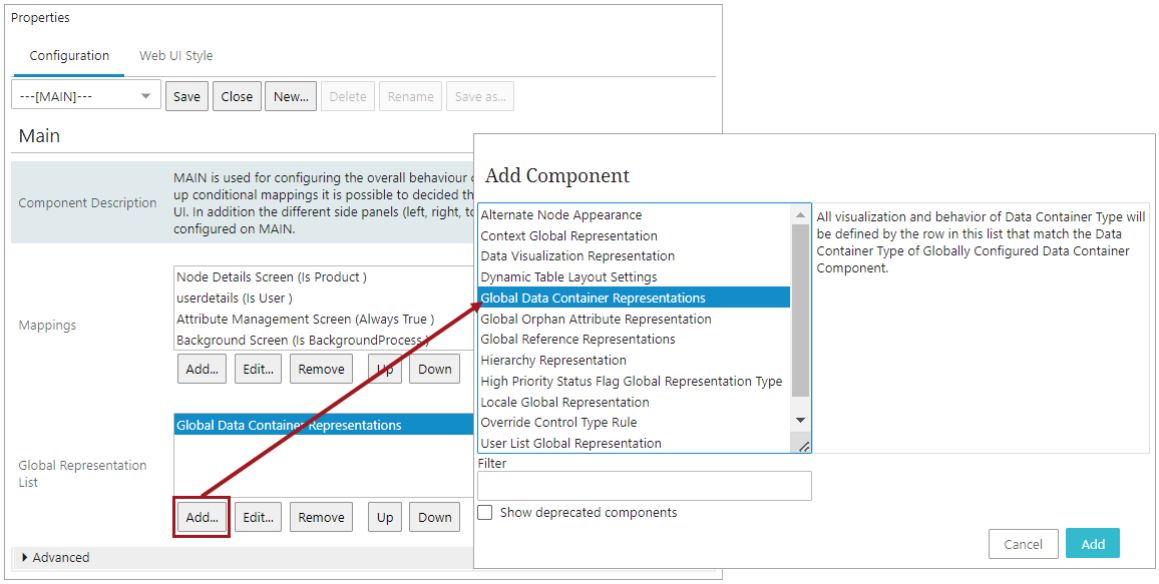
Additionally, the Save action button should be added to the Node Details screen so that users may save any changes they make to the data containers and attribute values.

Globally Configured Multi Edit Data Container can display both single-valued and multi-valued data container types in a similar manner to how attribute values are displayed.

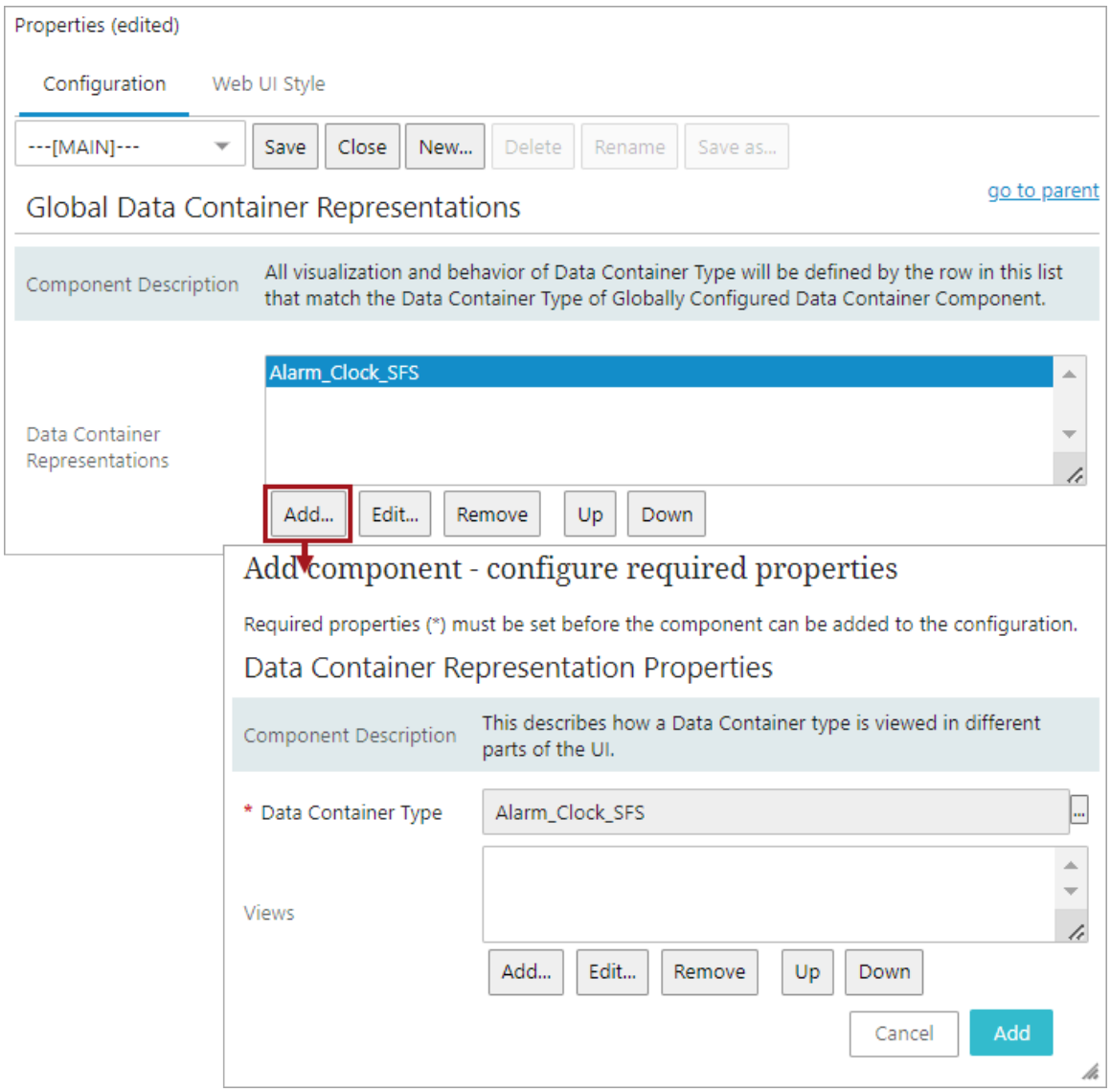
Before adding Globally Configured Multi Edit Data Container in the Node Editor, the Multi Edit Table View component should be configured within Global Data Container Representations.

Configuring the Multi Edit Table View within Global Data Container Representations

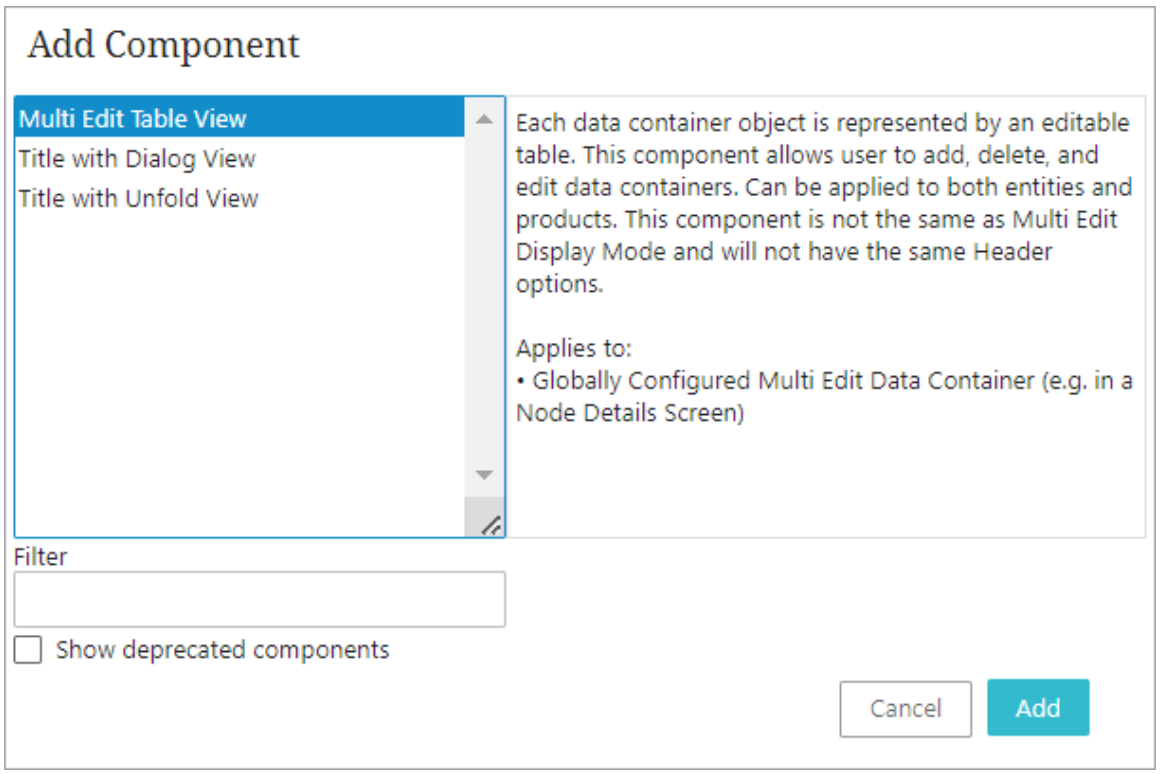
1. Select **Global Data Container Representations** from **Global Representation List**, click **Add**.



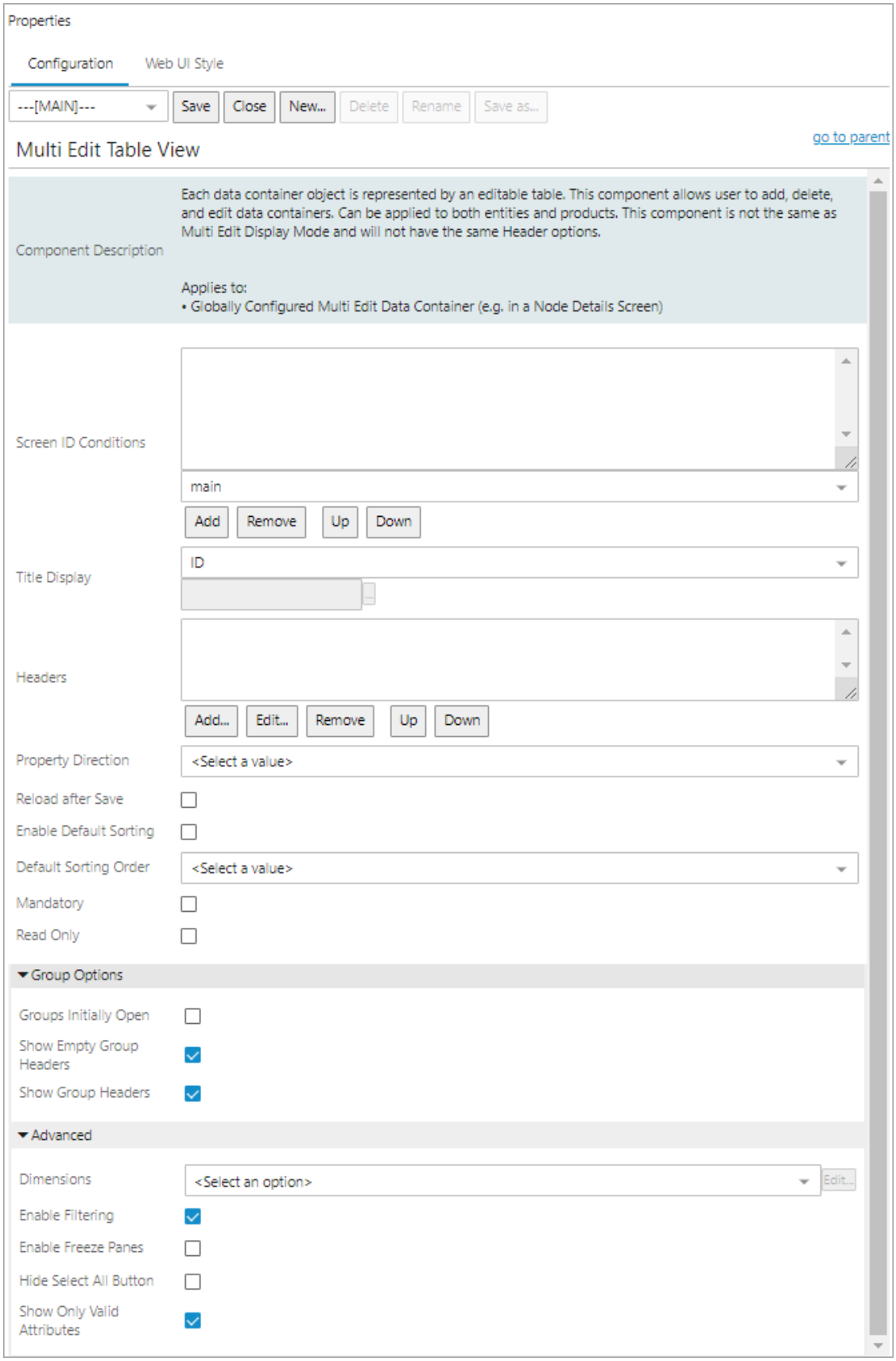
2. Select the **Data Container Type**, click **Add** to select **Views**.



3. Select **Multi Edit Table View**, click **Add**.



4. The Multi Edit Table View Properties Dialog opens for the user to enter valid information.


Properties
Configuration
Web UI Style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Multi Edit Table View
Component Description
Each data container object is represented by an editable table. This component allows user to add, delete, and edit data containers. Can be applied to both entities and products. This component is not the same as Multi Edit Display Mode and will not have the same Header options.
Applies to:
• Globally Configured Multi Edit Data Container (e.g. in a Node Details Screen)
Screen ID Conditions
main
Add
Remove
Up
Down
Title Display
ID
Headers
Add...
Edit...
Remove
Up
Down
Property Direction
<Select a value>
Reload after Save
Enable Default Sorting
Default Sorting Order
<Select a value>
Mandatory
Read Only
Group Options
Groups Initially Open
Show Empty Group Headers
Show Group Headers
Advanced
Dimensions
<Select an option>
Edit...
Enable Filtering
Enable Freeze Panes
Hide Select All Button
Show Only Valid Attributes

5. For the **Screen ID Conditions** parameter, if the configured data container view is restricted to display on specific Web UI screens, add them to this field by selecting the relevant screens from the dropdown list below. Web UI screens not in this list will not have this data container configured for display on that screen. If no screens are added, then the configured view applies to all screens.
6. The **Title Display** parameter determines what text element displays with the checkbox in the first column of the data container table. Select from the data container ID, just the checkbox (no text element), or an attribute value. If the selected option is 'Attribute', select the desired attribute from a Node Picker window by clicking the ellipsis button (...).
7. For the **Headers** parameter, you can choose which data container information is displayed by selecting the desired headers in this field. Each header will display as a column in the data container table. Determine the column ordering by using the **Up** and **Down** buttons. Select from the following header types: Attribute Value Group Header, Attribute Value Header, ID Header, and Reference Header.
8. The **Property Direction** parameter determines the orientation of information on the data container table. If '<Select a value>' or 'HORIZONTAL' is selected, the headers will display horizontally on the table as columns. If 'VERTICAL' is selected, the headers will display vertically, as rows.
9. The **Reload after Save** parameter, when enabled, immediately refreshes the information within the data container following a successful save. Consider enabling this feature if multiple users are tasked with updating the same data container.
10. The **Enable Default Sorting** parameter, if enabled, initially sorts the data container table by the contents of the first column (or row, if the Property Direction is set to VERTICAL). When disabled, the table will load with no sorting.
11. The **Default Sorting Order** parameter, if enabled, allows users to select whether tables load in ascending or descending order. If Enable Default sorting is not checked, the system will sort the rows in ascending order based on the ID value.
12. The **Mandatory** parameter indicates visually that the data container is mandatory by placing a red asterisk by the parameter name.
13. The **Read Only** parameter, if checked, prevents editing of the information within the data container table and overrides Read Only settings applied to individual columns.

Under Group Options:

1. When the **Groups Initially Open** parameter is enabled, Attribute Value Group Headers configured in the Headers field will display as open upon loading, meaning all valid attributes within the attribute group will display as columns.

   Note: If the Show Group Headers setting is not enabled, the groups will show as open regardless of how this parameter is set.

2. When the **Show Empty Group Headers** parameter is checked, Attribute Value Group Headers will display (as a blank column) even if there are no valid attributes within that attribute group. If left unchecked, those headers will not display.

3. When the **Show Group Headers** parameter is checked, Attribute Value Group Headers will display as collapsible / expandable blank columns to the left of the valid attributes (each displaying a column) contained within those groups. If unchecked, the attributes within the attribute groups will display without reference to their attribute group.

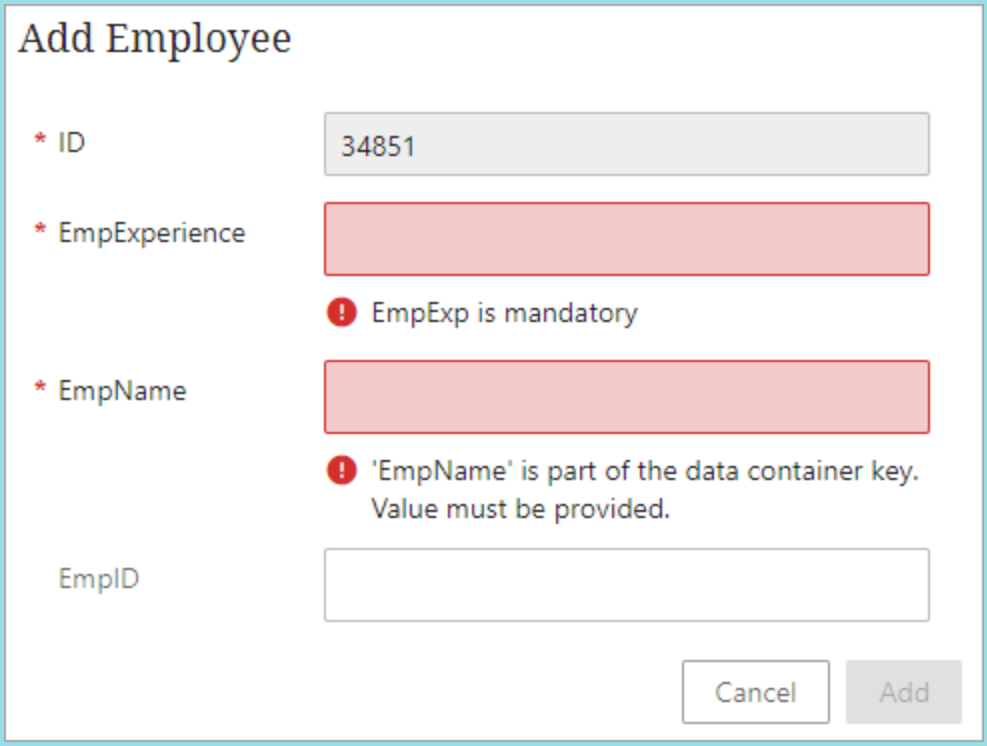
Under Advanced:

1. The **Dimensions** parameter allows users to configure the size of the table by configuring the precise measurements of the columns and rows. Select 'Compare Display Mode Dimension' from the dropdown, and assign a numerical value (in pixels) to the columns and rows that comprise the table.
2. When the **Enable Filtering** parameter is checked, it enables users to filter the data container table by clicking the header and choosing the desired options from the dialog that displays.
3. The **Enable Freeze Panes** parameter enables display of a Freeze Panes button. With a cell selected, click the button to lock a section of the table in place vertically and horizontally while the unlocked section can be scrolled. If the table is not large enough to support a scroll, no part of the table can be frozen.
4. The **Hide Select All Button**, when checked, hides the Select all button. If unchecked, the Select all button displays.
5. When **Show Only Valid Attributes** is checked, only those attribute headers with attributes that are valid for the object being viewed will display.

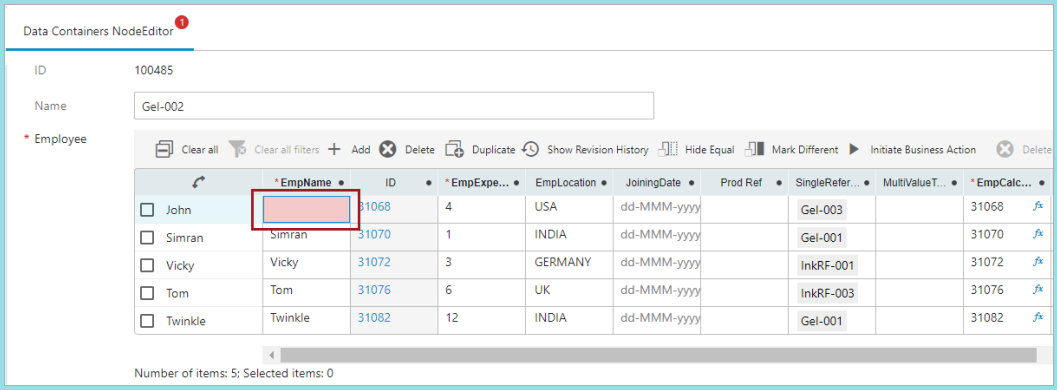
Child Components:

1. The **Add Data Container Action** is an toolbar action component which allows users to add data container objects.

> **Note:** If the parameter 'Enforce Validity' is enabled, the 'Add' button will not enable if the fields has missing mandatory values or data container key attributes, will be shaded red, and an error message will display below the field. These visual prompts compel the user to enter the missing values.



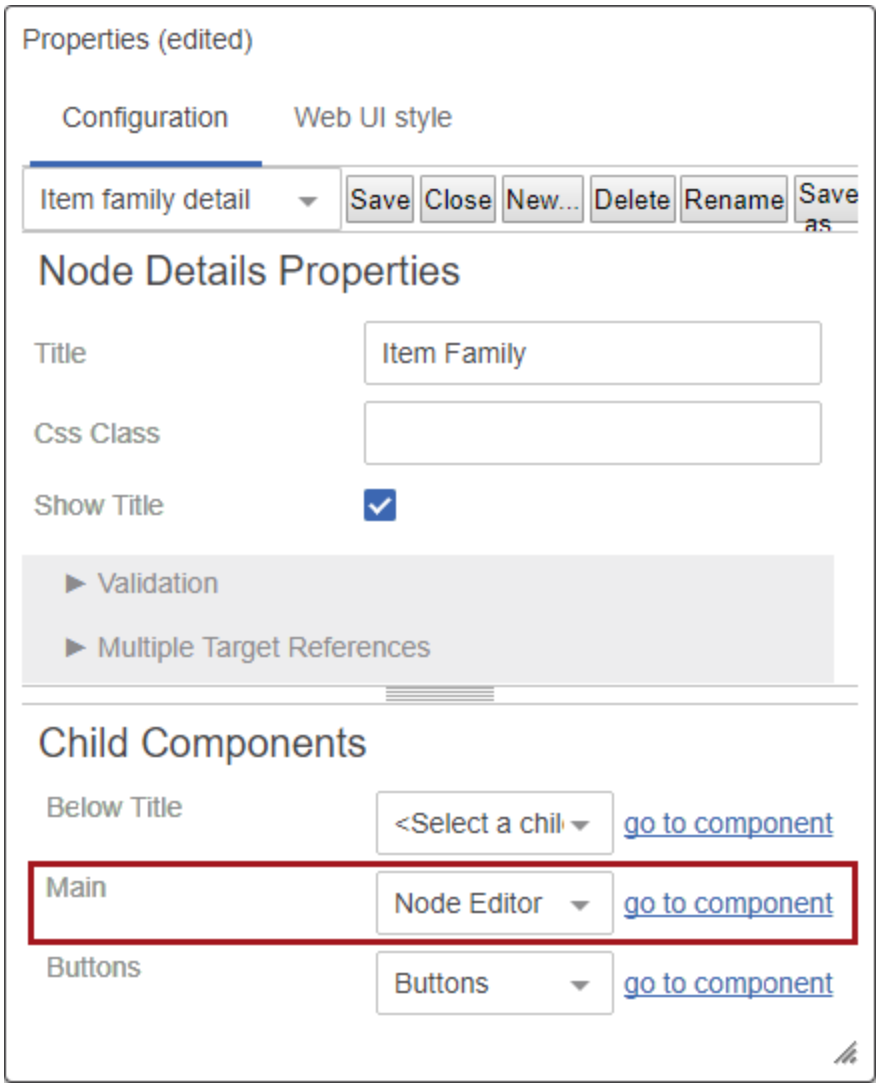
If data container key attribute values are missing inside of a data container table, then the cell is shaded red to indicate the error.



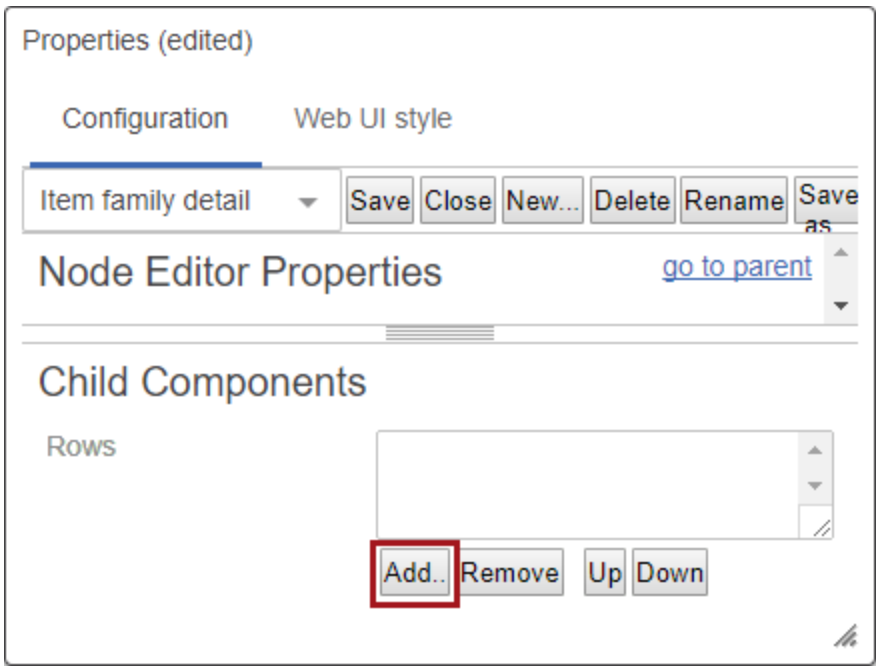
2. The **Delete From Grid Action** deletes the selected items in a grid or table.
3. The **Duplicate Data Container Action** is an toolbar action component which allows users to duplicate data container objects.
4. The **Hide Equal** is a toggle button that will hide columns if all values are equal.
5. The **Mark Different** is a toggle button that will mark columns if at least one value is different from the other values.

6. The **Menu Group** is a component that can be added to any node list as a toolbar action and serves to group other toolbar actions into dropdown menus from a single button.
7. The **Show Revision History Action** is a toolbar action component to show revision history of selected cell or attribute value.

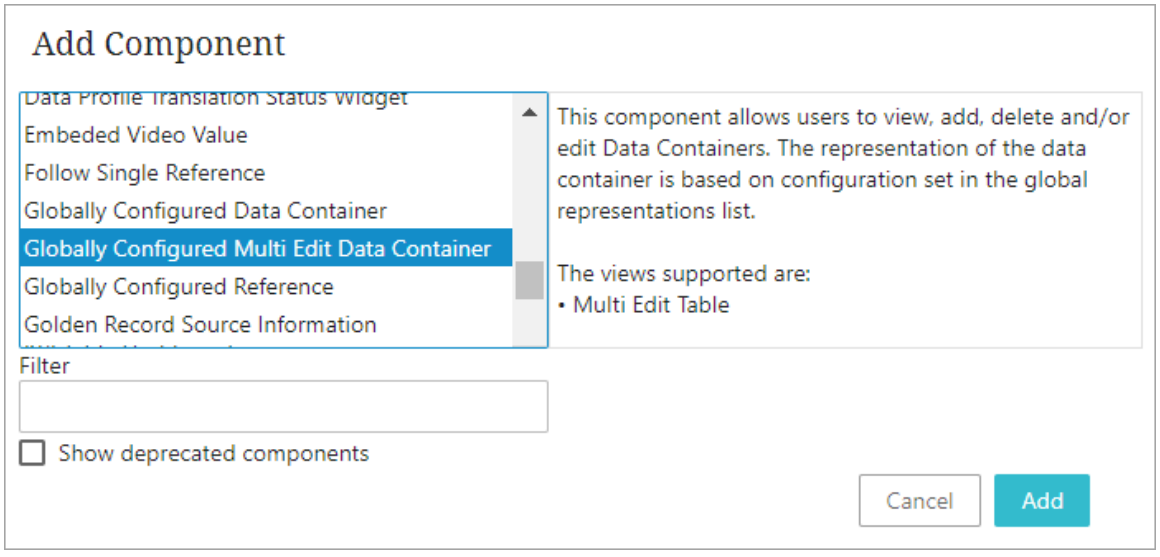
Once set up, navigate to the applicable Node Editor > **go to component**.



In Child Components > Rows, click Add.



Select **Globally Configured Multi Edit Data Container** from the Add Component dialog and click **Add**.



Globally Configured Unfolding Data Container View

The Globally Configured Unfolding Data Container component allows users to display data container attribute values within an expanded view on a Node Details screen. The component facilitates the creation of new data container instances with attributes and references, and users can efficiently edit existing data containers and remove them as needed.

The Globally Configured Unfolding Data Container increases the user's ability to author and maintain data in a fast and accurate way as it is an efficient tool for streamlining data entries that helps to ensure that the data is valid and of high quality.

Important: The Globally Configured Unfolding Data Container component does not support the use of the LOV Cross-Validation business condition.

Prerequisites

Anyone configuring the Globally Configured Unfolding Data Container component must be familiar with the Web UI designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the Web User Interfaces documentation.

Additionally, before adding the Globally Configured Unfolding Data Container component, data containers and their associated attributes must already be set up. For details, refer to **Setting Up Data Container Types in Workbench** in the System Setup documentation.

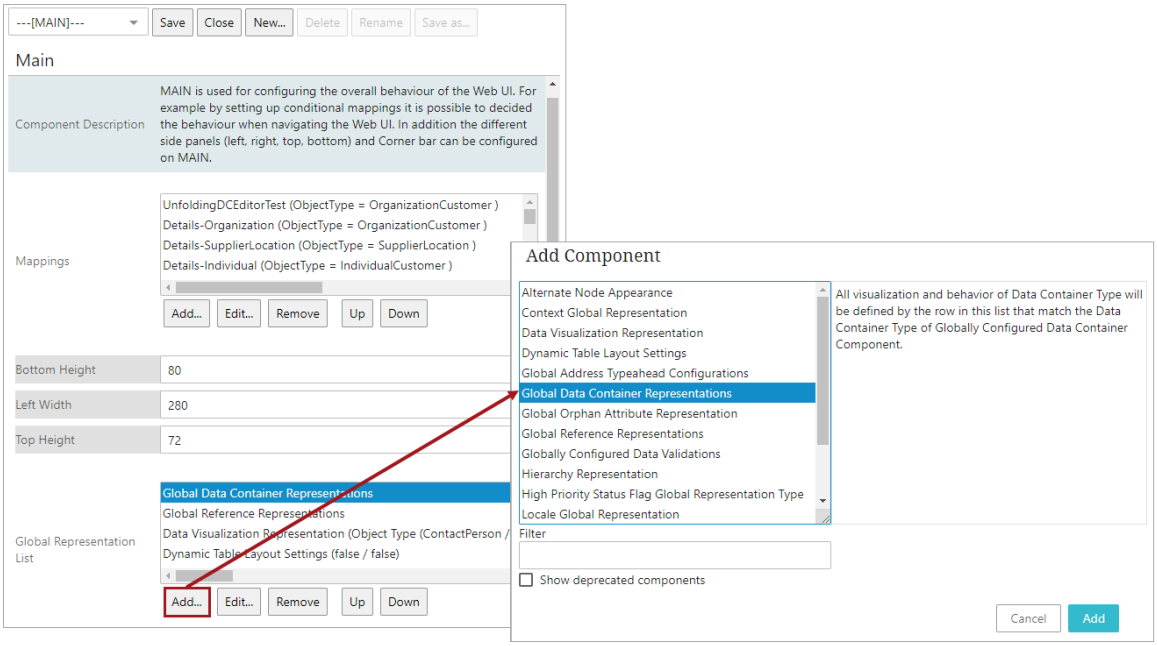
Adding a Globally Configured Unfolding Data Container

The Globally Configured Unfolding Data Container component must be created on a Node Editor child component within a Node Details screen. These steps are outlined in the **Globally Configured Unfolding Data Container Component** topic in the Data Containers in Web UI section of the Web User Interfaces documentation.

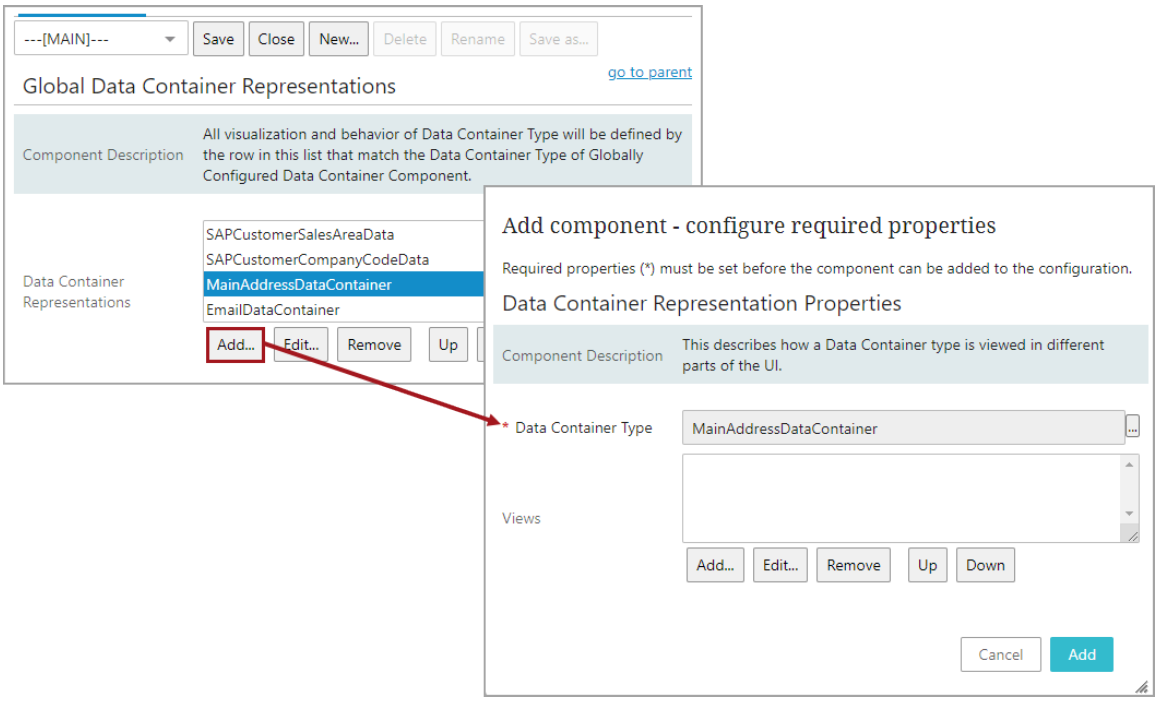
Before adding the Globally Configured Unfolding Data Container in the Node Editor, the 'Title with Unfold View on Node Details' component should be configured within the Global Data Container Representations component located in the Main properties > Global Representation List.

Configuring the 'Title with Unfold View on Node Details' within Global Data Container Representations

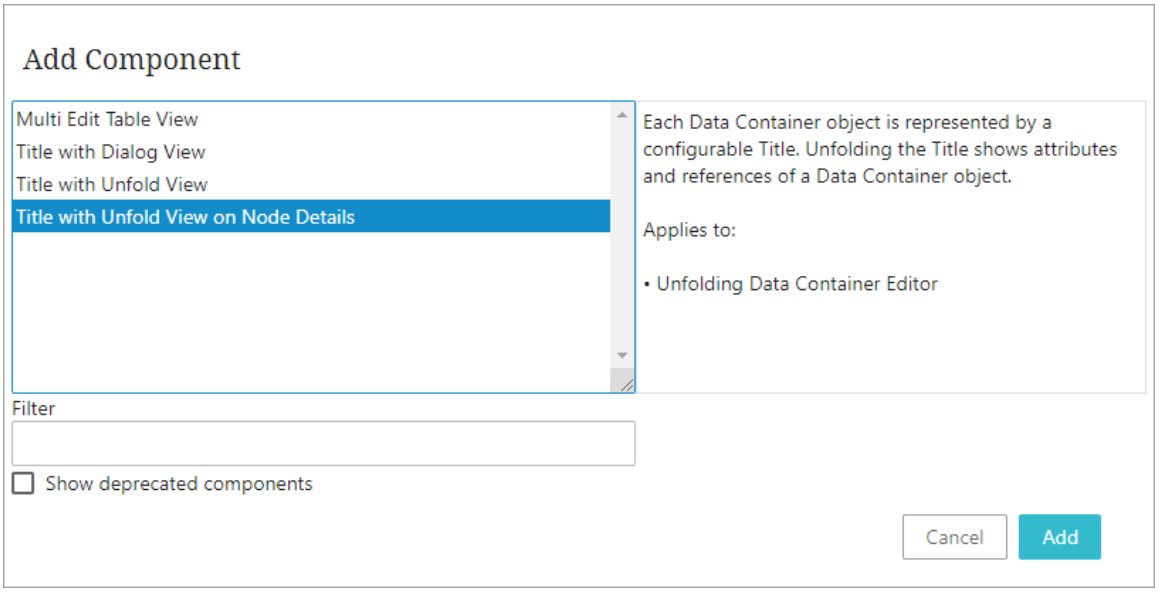
1. Select 'Global Data Container Representations' from 'Global Representation List' and click **Add**.



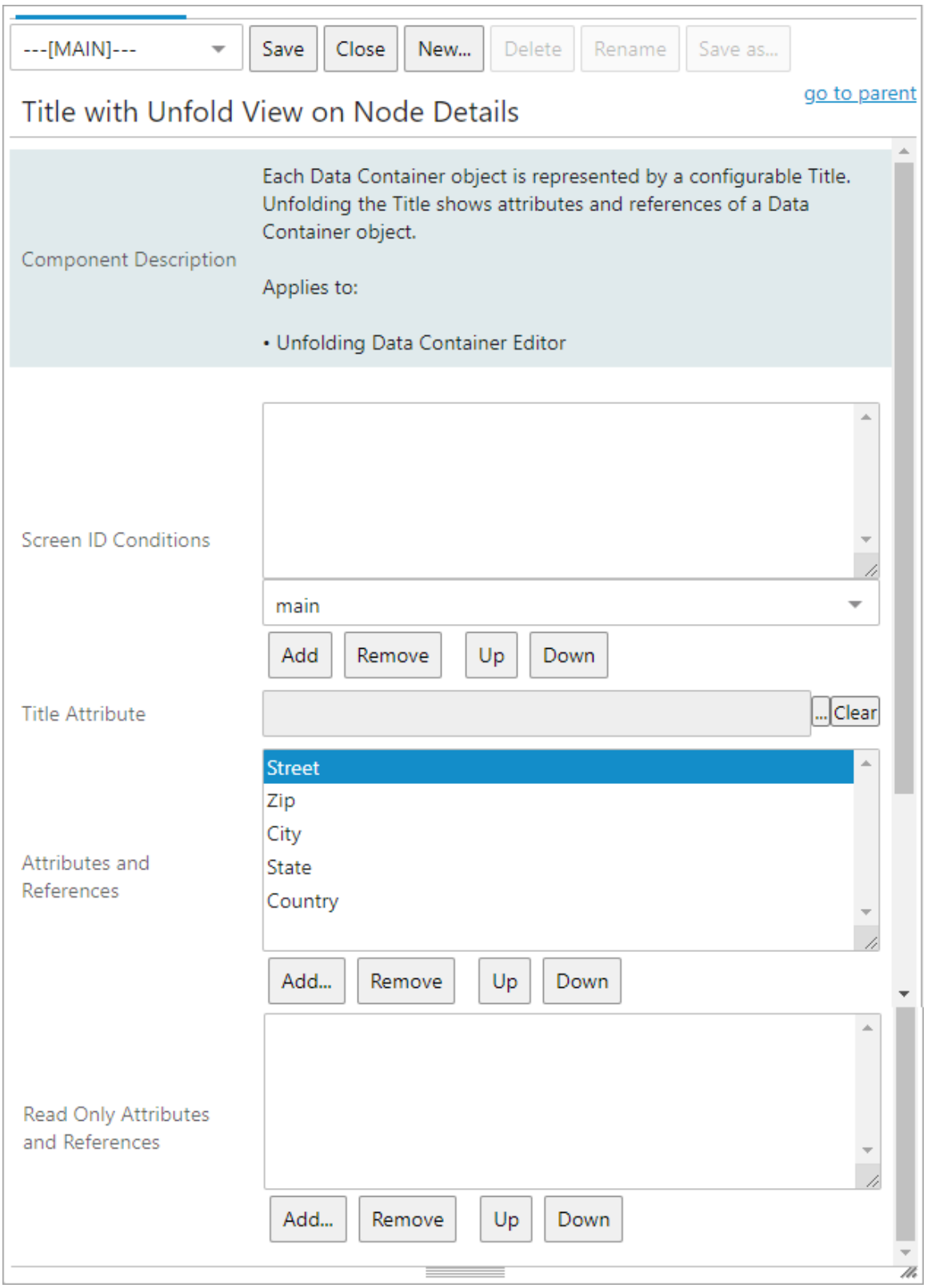
2. Select the 'Data Container Type' and click **Add** to select 'Views'.



3. Select 'Title with Unfold View on Node Details' and click **Add**.



4. The 'Title with Unfold View on Node Details' opens for the user to enter valid information.


---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Title with Unfold View on Node Details
Component Description
Each Data Container object is represented by a configurable Title. Unfolding the Title shows attributes and references of a Data Container object.
Applies to:
• Unfolding Data Container Editor
Screen ID Conditions
main
Add
Remove
Up
Down
Title Attribute
...
Clear
Attributes and References
Street
Zip
City
State
Country
Add...
Remove
Up
Down
Read Only Attributes and References
Add...
Remove
Up
Down

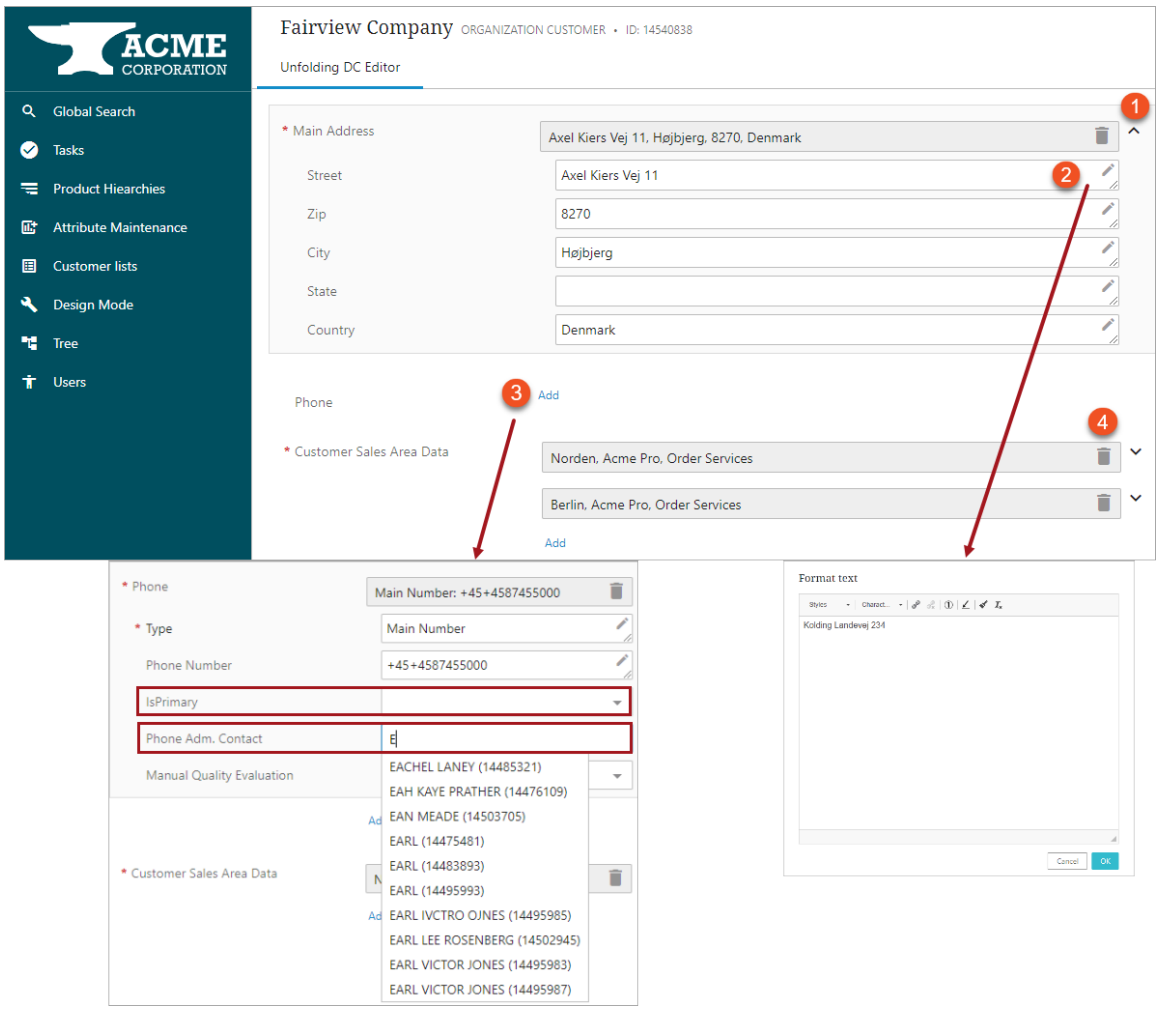
5. For the 'Screen ID Conditions' parameter, if the configured data container view is restricted to display on specific Web UI screens, add them to this field by selecting the relevant screens from the dropdown list. Web UI screens not in this list will not have this data container configured for display on that screen. If no screens are added, then the configured view applies to all screens.
6. For the 'Title Attribute' parameter, Click the ellipsis button (...) to select the attribute to display as the title of the data container. If no attribute is selected, then the ID of the data container will be used as the title.
7. In the 'Attributes and References' parameter field, add the attributes and references to display when the data container is unfolded by clicking the **Add** button under the field. In the example above, five address attributes have been added to the data container.
8. The 'Read Only Attributes and References' parameter allows users to add attributes and references that should be displayed as 'read-only' when the data container is unfolded. The read-only parameters can be viewed by users, but are restricted from editing.

   Attributes and references added in the 'Read Only Attributes and References' field will be displayed last. However, the order of display can be rearranged by also adding them in the 'Attributes and References' field above. If the attributes and references are added in both fields, they will be displayed as read-only, but the display order is retained, and they can be sorted as required.

   Note: Attribute values that contain inline references will be displayed as read-only. For more information about inline references, refer to the topic Inline References in Attribute Values in the Getting Started documentation. Values that contain tags will not be displayed as rich text but as editable text.

The Globally Configured Unfolding Data Container displays data container attribute values on the configured Node Details screen, where the user can unfold the view and edit the attribute values and references, add more data containers, or delete the instances.

In the example below, the three data container instances 'Main Address,' 'Phone,' and 'Customer Sales Area Data' have been configured within the Globally Configured Unfolding Data Container and are displayed on a Node Details Screen.



1. To unfold a data container, click the expansion icon (), and all the configured attributes / references will display as shown above.

2. To edit the information in the data container, click the edit icon (), which will open the 'Format text' dialog. Mandatory selections are marked with a red asterisk (*) and/or a dropdown icon.

3. Click the 'Add' link below the component display to add a data container. Some of the fields, such as ‘IsPrimary’ in the example shown, have an LOV dropdown from which the user can select values. Others show suggestions when the user starts typing, for instance, the ‘Phone Adm. Contact’ name.

4. To delete data containers, click the delete icon ().

Click **Save** to save the changes to the data container instances.

Global Reference Representations

The Global Reference Representations component provides a centralized space for reference display configurations. Any number of configurations can be stored for different reference types and under various display conditions.

Note: This component is only compatible with the Globally Configured Reference component. Other components that display references are configured within the components themselves. For more information, refer to the **Globally Configured Reference** section of the **Web User Interfaces** documentation.

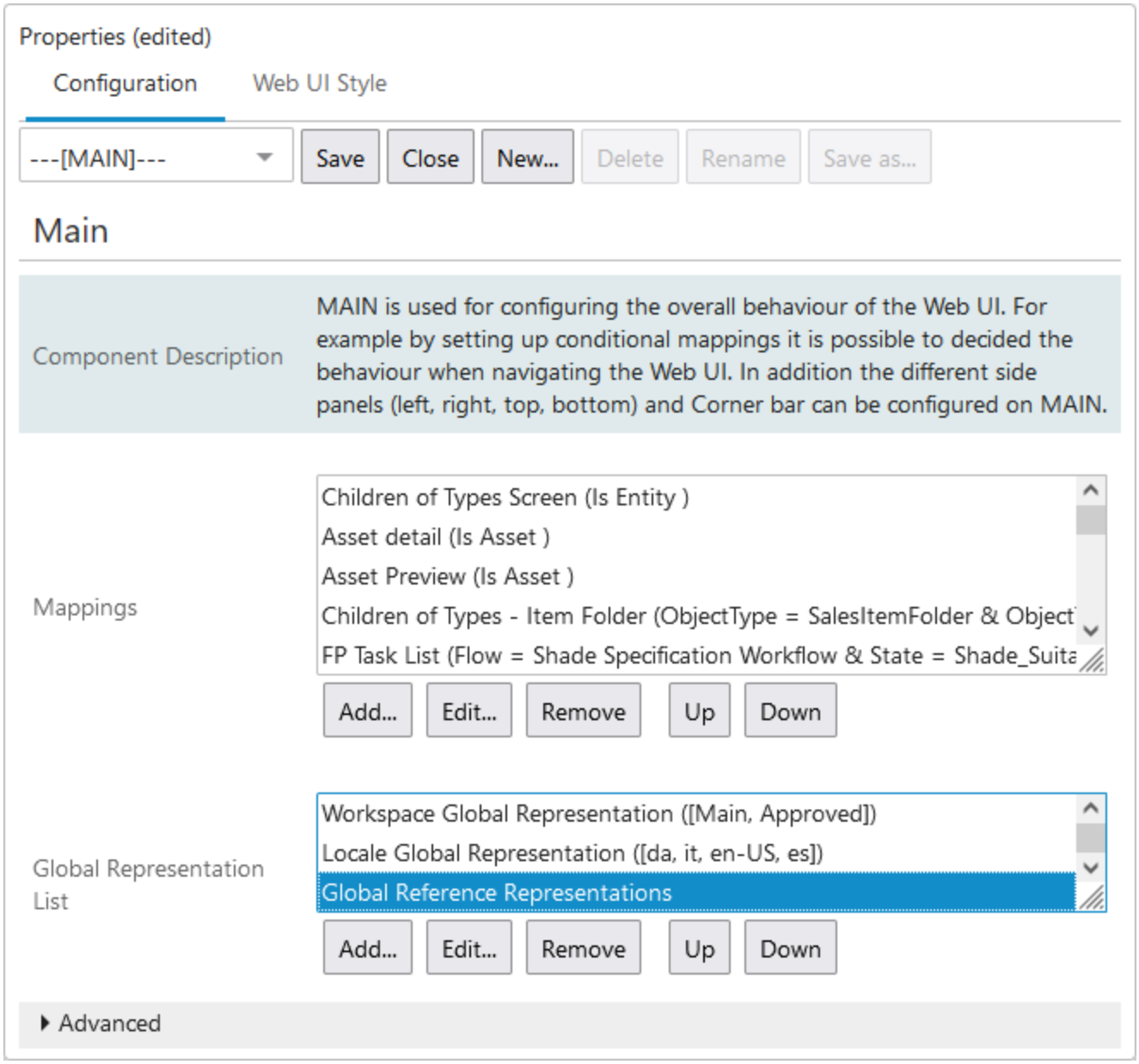
Prerequisites

It is expected that anyone configuring the Global Reference Representations component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Initial Setup

Before reference display configurations can be created, the component must be configured in **MAIN** properties.

1. Enter design mode and select **--[MAIN]--** from the screen dropdown list.
2. Go to the **Global Representation List** parameter.
3. Click the **Add...** button under the value field.
4. Select **Global Reference Representations** from the Add Component dialog.

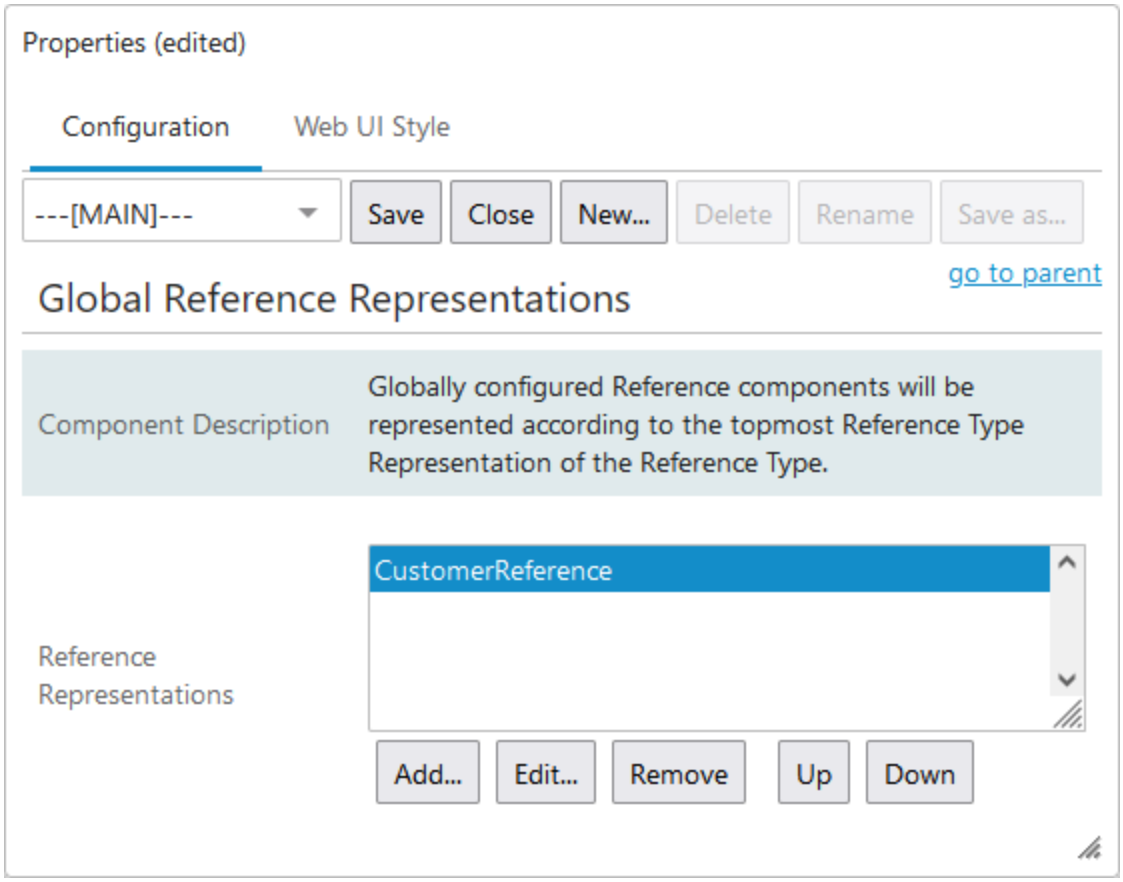


Creating a Configuration

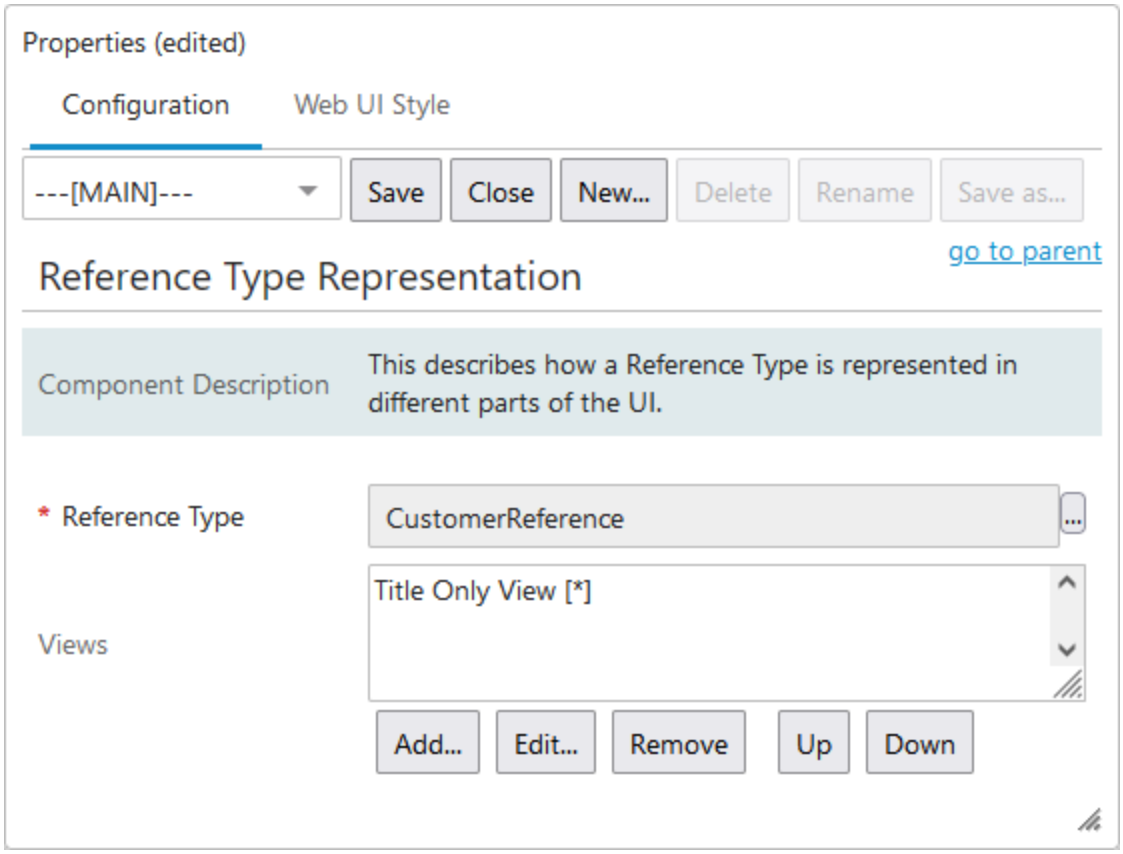
Once the component has been added to **MAIN** properties, any number of reference representations can be created within it. A representation is a series of configuration settings tied to a reference type. Within each representation, the relevant reference type must be specified, along with its display settings.

If multiple reference types require configuration, a separate representation must be created for each one. Additionally, if display settings vary due to which screen they appear on, multiple views must be created within each representation.

1. Double click on **Global Reference Representations** from within the **Global Representation List** field.
2. In the **Global Reference Representations Properties** window, click **Add...** to add a new representation.



3. When the **Reference Type Representation Properties** window appears, specify the relevant reference type, along with its display options and the conditions in which this particular representation should be applied.



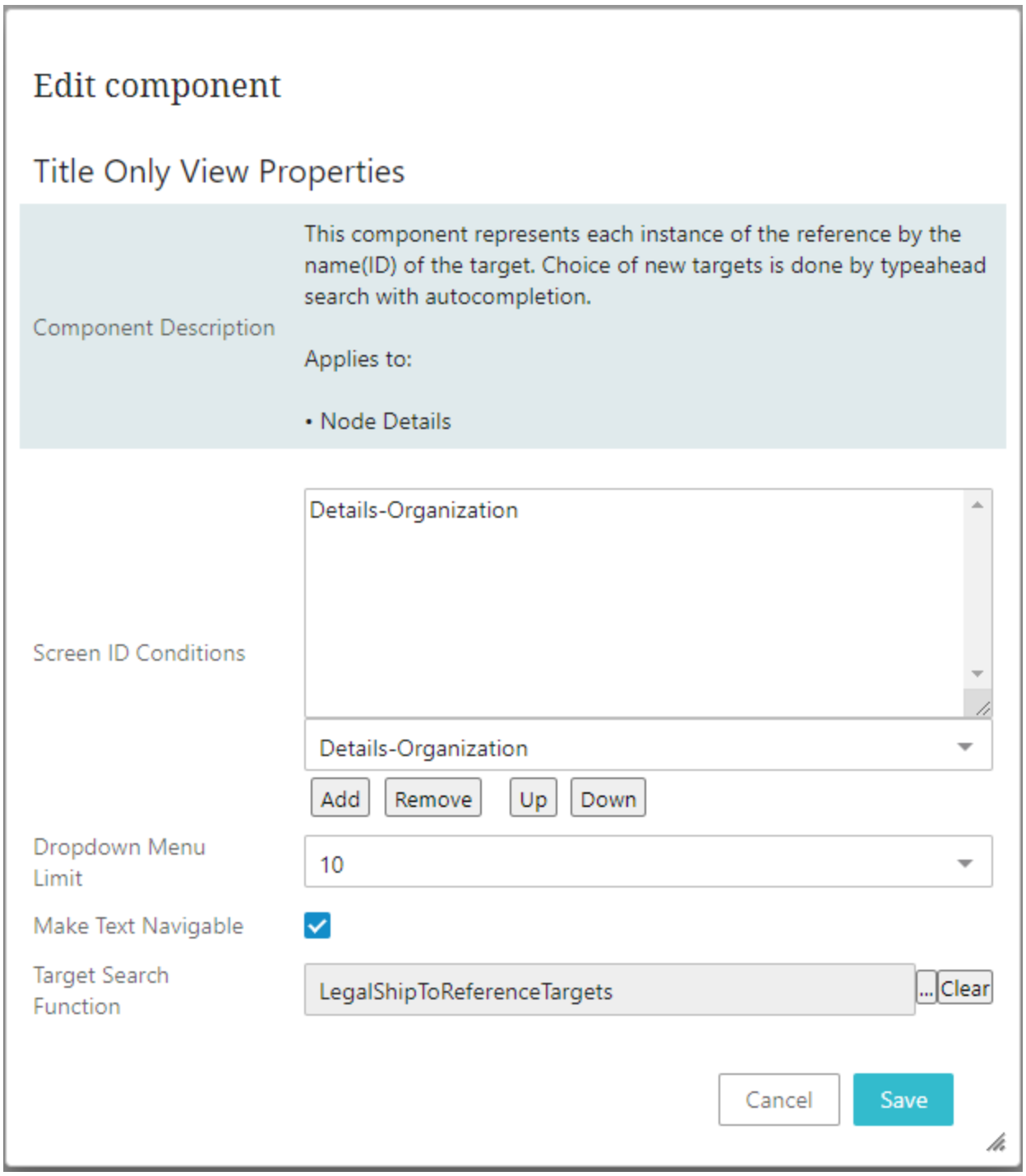
4. To specify the reference type, click the ellipsis button (...) under the **Reference Type** parameter. Browse or search for the relevant reference type, select it, and click **OK**.
5. Several different ways of displaying the specified reference type can be configured via the **Views** field. The view used to display the data is determined by conditions set on each view instance. If more than one view setting is valid for the specified reference type, the view that appears highest on this parameter's list is used.

   To create a view configuration, click **Add...** under the **Views** parameter.
6. Select 'Title Only View' or 'Title with Unfold View'. The latter should be chosen if the view is intended to be used on an Unmerge Screen, otherwise choose Title Only View.

   For more information, refer to the **Configuring Unmerge in Web UI** section of the **Matching, Linking, and Merging** documentation.

Configure Title Only View

1. Double click the newly created view to access the **Title Only View Properties** window.



Configuration options for each view include:

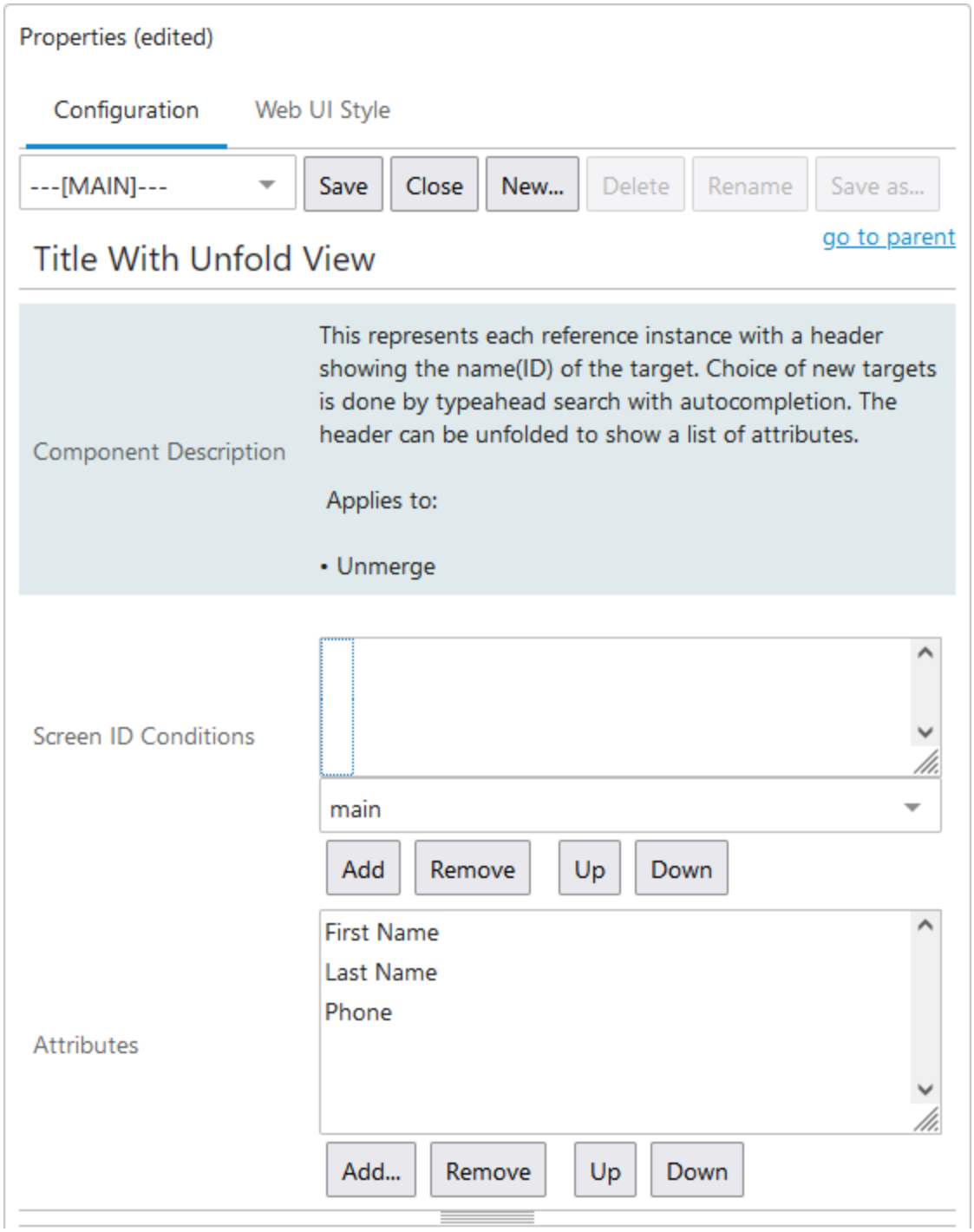
- **Screen ID Conditions** - Select a screen mapping from the dropdown and click **Add...**. Mapping a screen ensures that these view settings are only valid for displaying the data of the relevant reference type on the specified Web UI screen. Not mapping a screen allows these view settings to apply to references on any screen in the Web UI.

- **Dropdown Menu Limit** - Specify the maximum number of potential reference targets that are listed in the Globally Configured Reference component dropdown.
- **Make Text Navigable** - Enabling this option allows users to navigate to a referenced node by clicking directly on the text of the reference from within the Globally Configured Reference component.
- **Target Search Function** - Use a Business Function to search for a reference target. To read more about this functionality, refer to the **Custom Reference Target Search** topic.

2. Once the view settings have been finalized, click **Save**.

Title with Unfold View

1. Double click the newly created view to access the **Title with Unfold View Properties** window.



Configuration options for each view include:

- **Screen ID Conditions** - Select a screen mapping from the dropdown and click **Add...**. Mapping a screen ensures that these view settings are only valid for displaying the data of the relevant reference type on the specified Web UI screen. Not mapping a screen allows these view settings to apply to references on any screen in the Web UI.

- **Attributes** - Click **Add...** and browse or search for the attributes that should be displayed by the corresponding components when unfolded.

2. Once the view settings have been finalized, click **Save**.

Tree Navigator Component

A **Tree Navigator Component** is a customizable component that provides a hierarchical display of the objects in STEP and allows users to navigate between them. This component is similar to the Tree tab in the workbench and can be configured to display these objects:

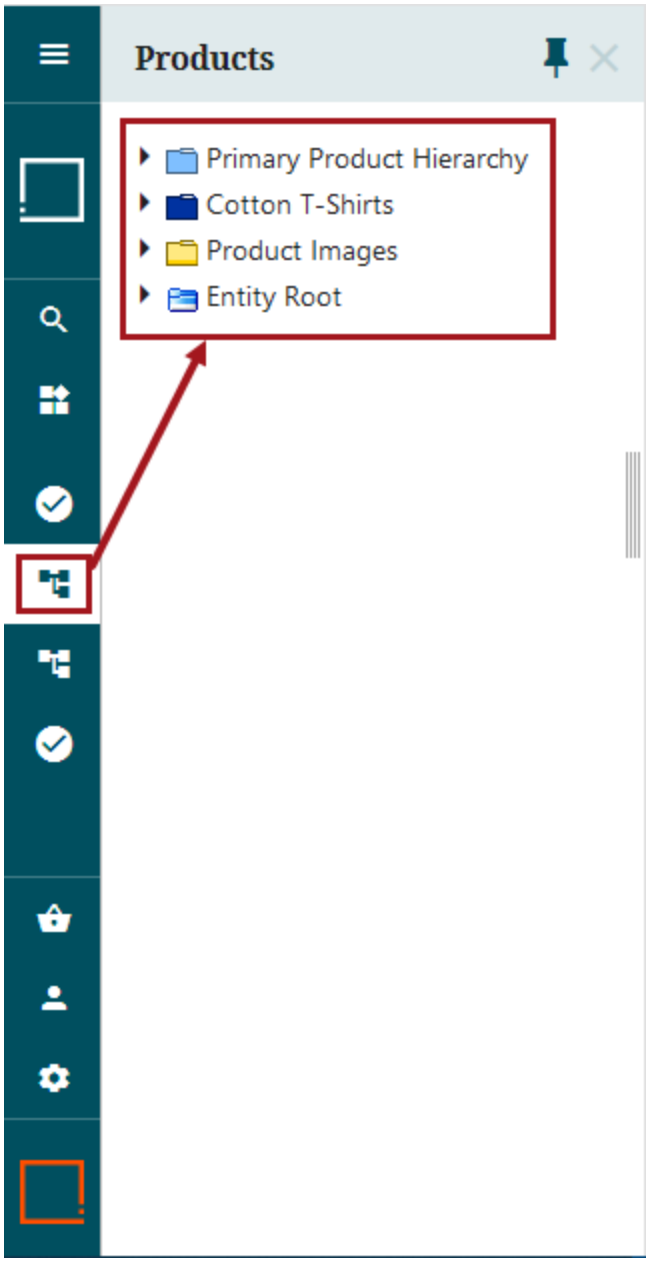
- Classifications
- Entities
- Products
- Publications
- Collections
- Attribute Groups
- List of Values (LOVs)

The Tree Navigator can be configured on the Global Navigation Panel component.

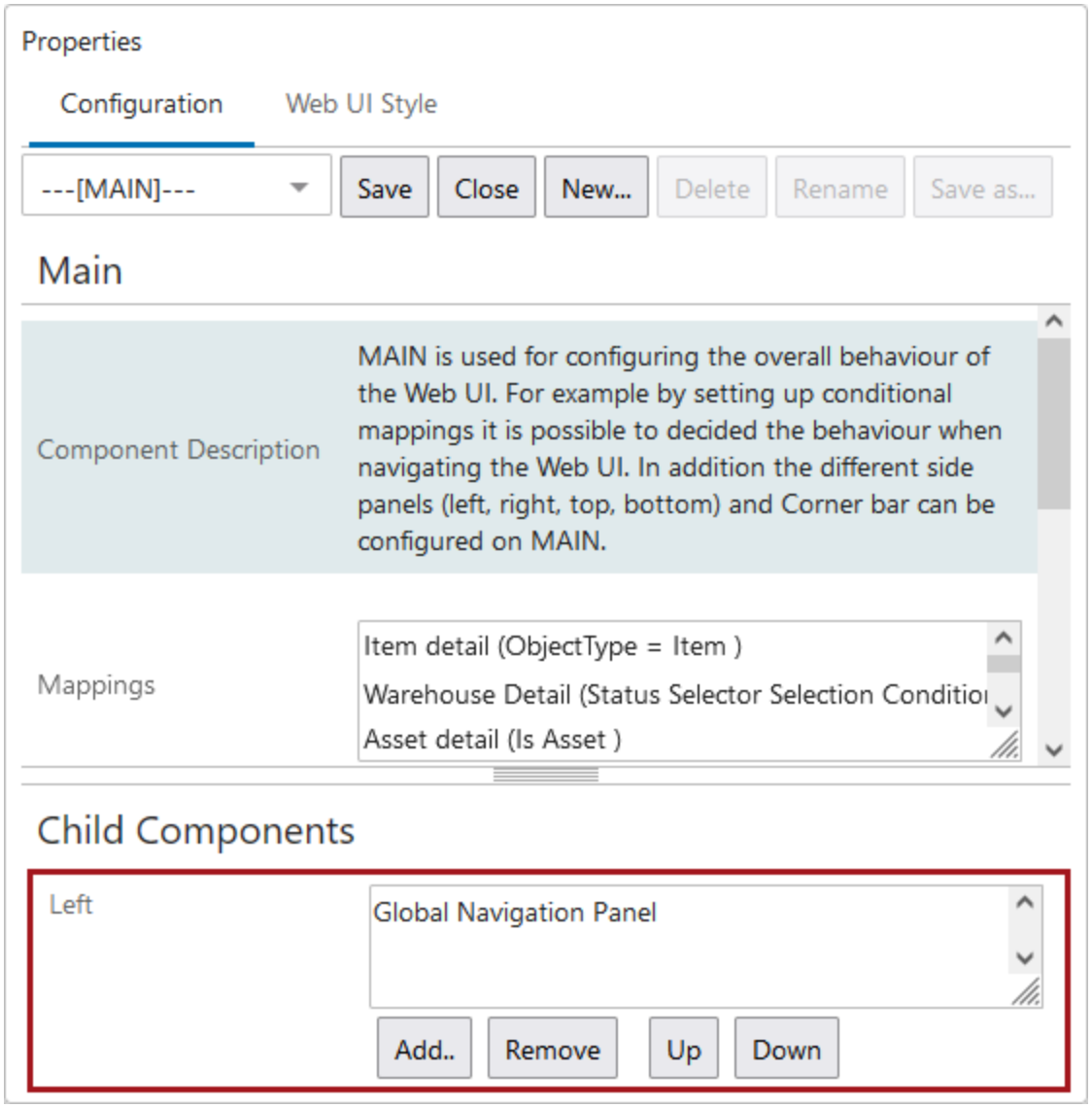
For more information on configuring a Tree Navigator component on the Global Navigation Panel, refer to the **Tree Navigator Component for Global Navigation Panel** topic in this documentation.

Tree Navigator Component for Global Navigation Panel

When a Tree Navigator component is configured on a Global Navigation Panel, it will display as a button with a hierarchy icon on it. When clicked, a secondary column slides to the right with the root nodes that have been configured for the Tree Navigator. An example is shown in the screenshot below.



A Tree Navigator Component is configured through the Main Properties > Left (under Child Components) > Global Navigation Panel.

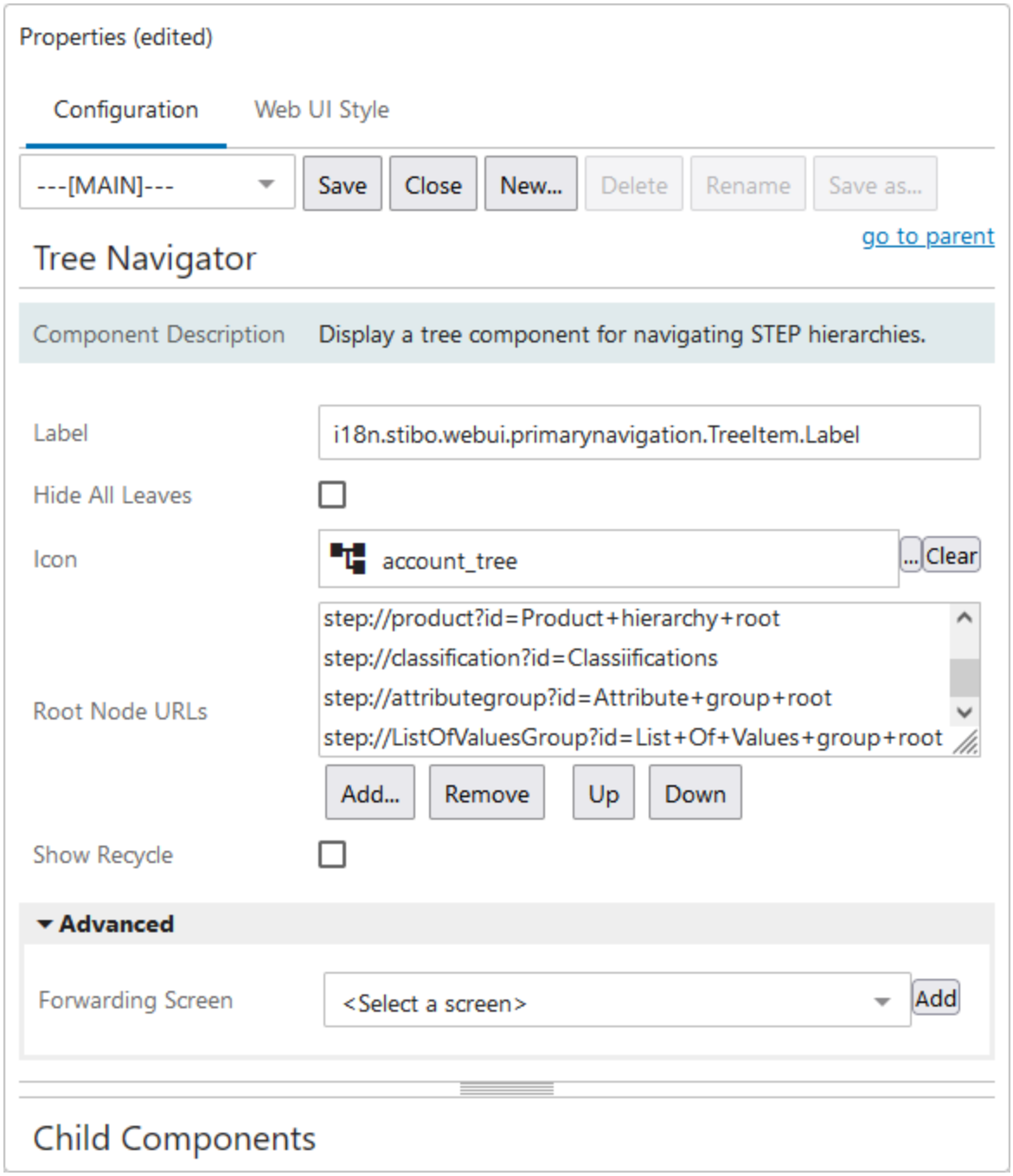


Note that all steps provided in this topic detail actions taken in the Web UI designer. A full description of how to configure and access the Main Properties screen in the designer can be found in the **Main Properties** section of the **Web User Interfaces** / **Using a Web UI** documentation.

For more information on the Global Navigation Panel specifically, refer to the **Global Navigation Panel** topic, also in the **Web User Interfaces** documentation.

Configuring the Tree Navigator

To configure the Tree Navigator component, users can populate the configuration parameters described below:



- **Label**: Provides the header for the secondary column that displays when the Tree Navigator button is clicked on the Global Navigation Panel.
- **Hide All Leaves**: Determines whether all leaf objects, defined as any object whose object type does not allow child objects, will display in the Tree Navigator component.
- **Icon**: Determines which icon displays on the Tree Navigator button on the Global Navigation Panel. Defaults to the 'account_tree' icon.

- **Root Node URLs**: Click **Add...** to select specific nodes to display. If no selection is made in this field, all nodes will be available.
- **Show Recycle**: When checked, this parameter enables display of the Recycle Bin along with other configured root nodes. Disabled by default. For information about the Recycle Bin, refer to the **Recycle Bin for the Tree Tab** topic in the **Getting Started** documentation.
- **Advanced > Forwarding Screen**: Located under the 'Advanced' section, this parameter enables admins to forward users to a designated screen when they click on anything that falls under the root nodes designated for the Root Node URLs parameter. If no screen ID selection is made, the screen selection will be handled by the conditions set up in the Main Properties > Mappings parameter.

Using the Tree Navigator

The blue root node in the Tree Navigator shows a folder structure containing products users are privileged to view; the yellow root node shows a folder structure containing the assets users are privileged to view. To expand or collapse any of the levels in a hierarchical display, click the triangle (▶) to the left of the root node icons.

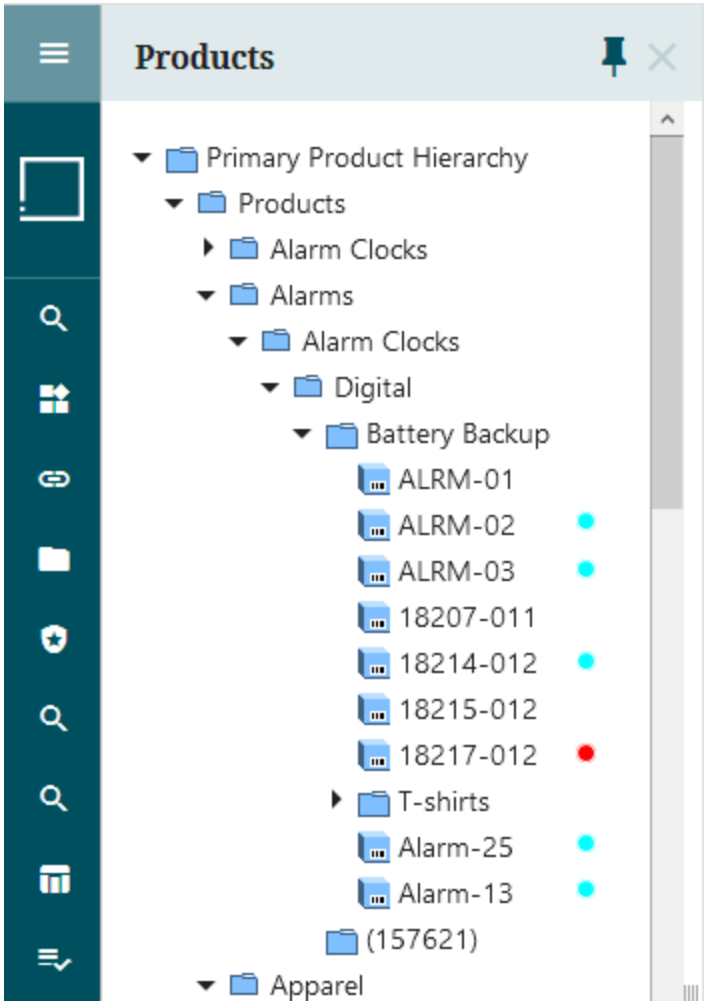
To determine whether a node is expandable within a tree display, STEP must perform an automated counting action. In taking this action, STEP checks to determine if there is at least one child object contained inside each node. If yes, the node gets a triangle icon (▶), which indicates at least one child object exists below the node clicked. If no, the node gets no symbol, indicating there are no child objects contained in the node.

The full count of child objects inside a node is only determined following an attempt to expand the applicable node. If more child objects are contained inside than is allowed by the configuration, a [-] will display beside the node when the node is clicked to expand, along with a dialog explaining why the node is unexpandable. If the number of child objects does not surpass the configured maximum (if set), the child objects will display normally when the node is expanded.

To display details for an object or a node, click the object or node in the tree display. The screen configured for the selected object type will then display on the right side of the screen (outside of the Tree Navigator area). The screen displayed depends on a Web UIs configuration set up by an admin user.

Configuration of Alternate Node Appearance

The Tree Navigator may be configured to display with colored dots that appear to the right of nodes. The screenshot below shows an example of how a Tree Navigator looks with the 'Alternate Node Appearance' component added and configured.



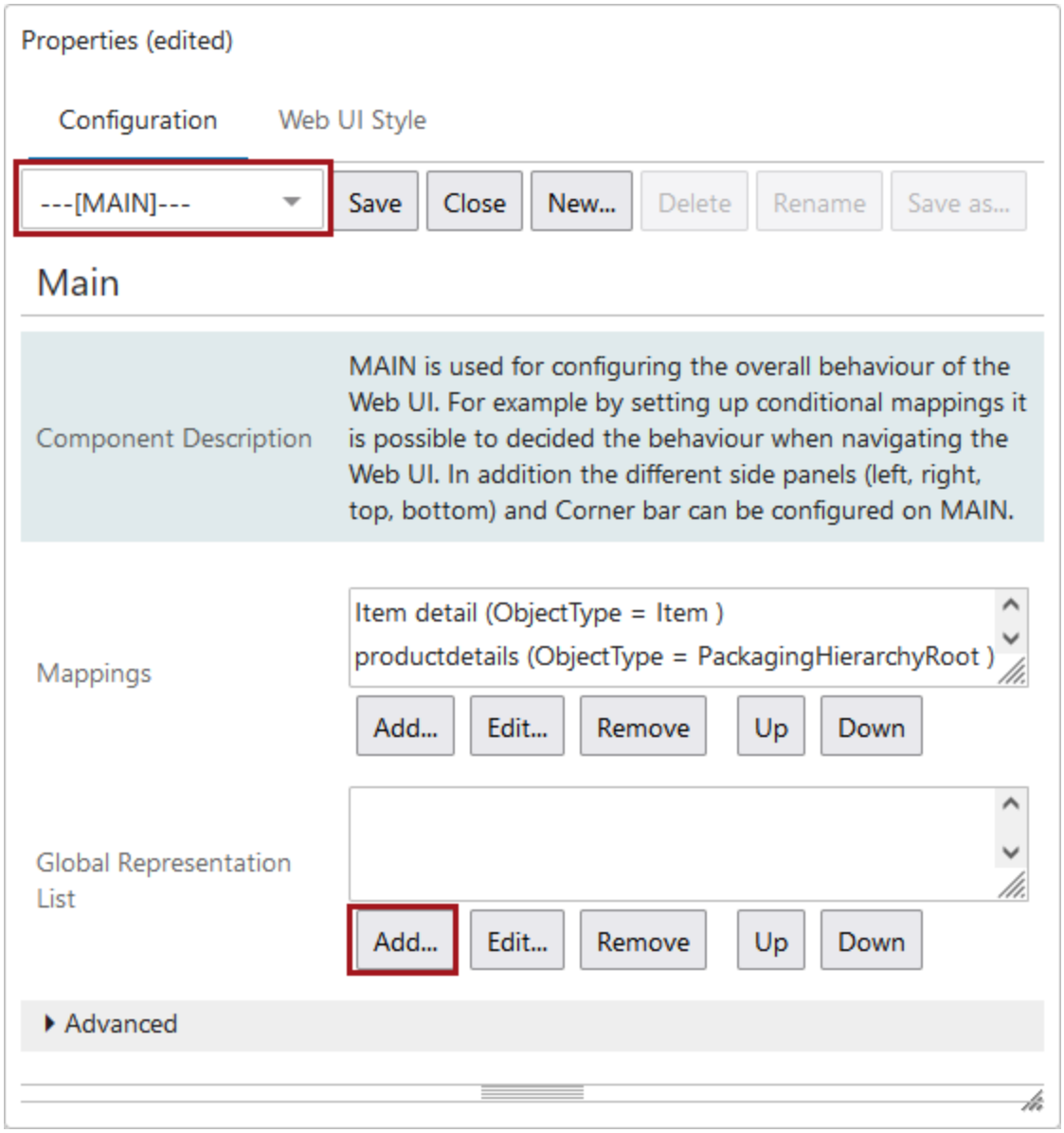
These colored dots can be configured for one attribute on a STEP system, but with multiple trigger values. For instance, if the configured attribute is 'Color,' users may configure a blue-colored dot to appear for all 'Sales Item' object types that have the value 'Blue' added to the 'Color' attribute. 'Sales Item' objects with the value 'Red' for the 'Color' attribute can have a red-colored dot display, and so on. But if the 'Color' attribute has already been configured, then no colored dots can be configured for values on, for instance, the attribute 'Height,' as only one attribute can be configured per STEP system.

In addition to the Tree Navigator, the colored dots will appear beside the relevant objects in the 'Search' and 'Browse' tabs in Node Picker components.

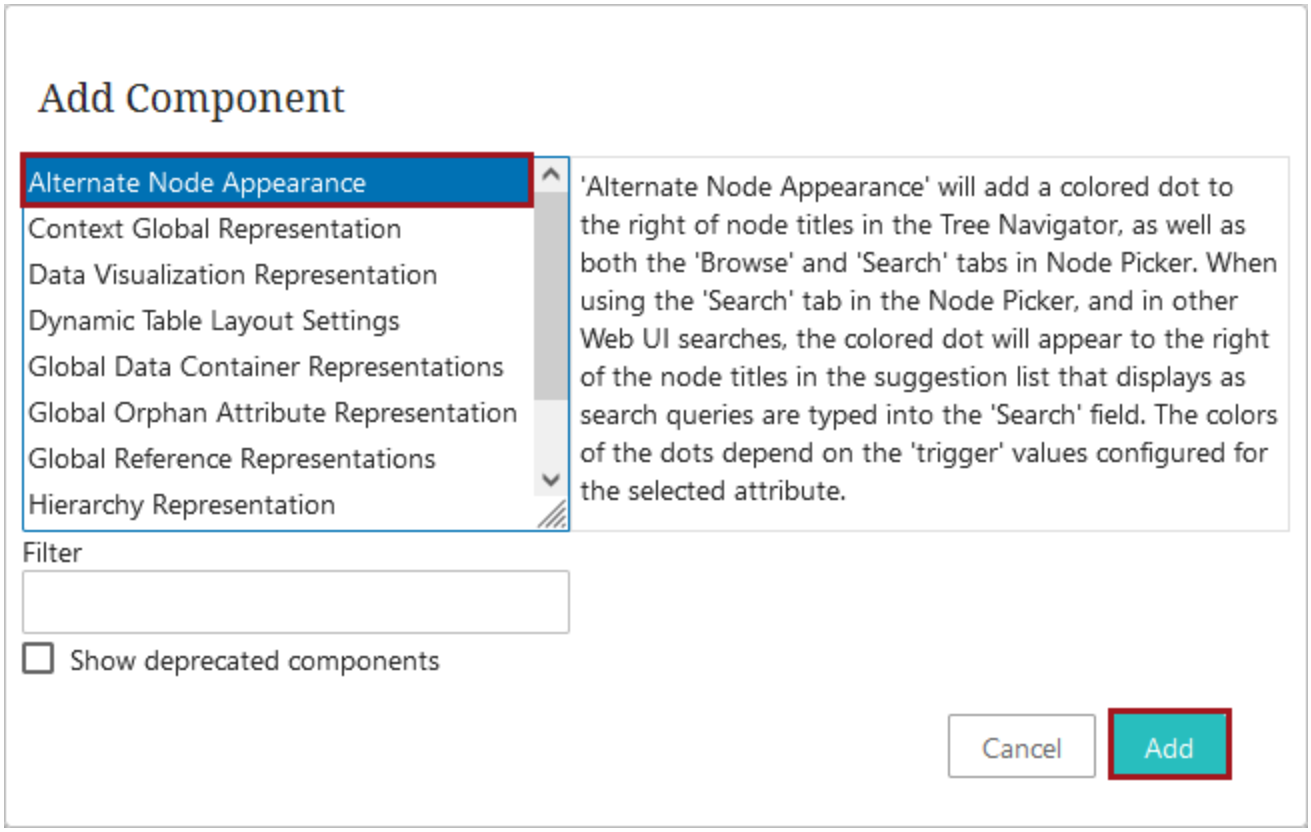
To set up colored dots to display on the Tree Navigator, take the following steps:

1. In the designer, go to [MAIN], scroll down to 'Global Representation List', and click 'Add.'

Important: Only one instance of the 'Alternate Node Appearance' component can be configured in a STEP system.



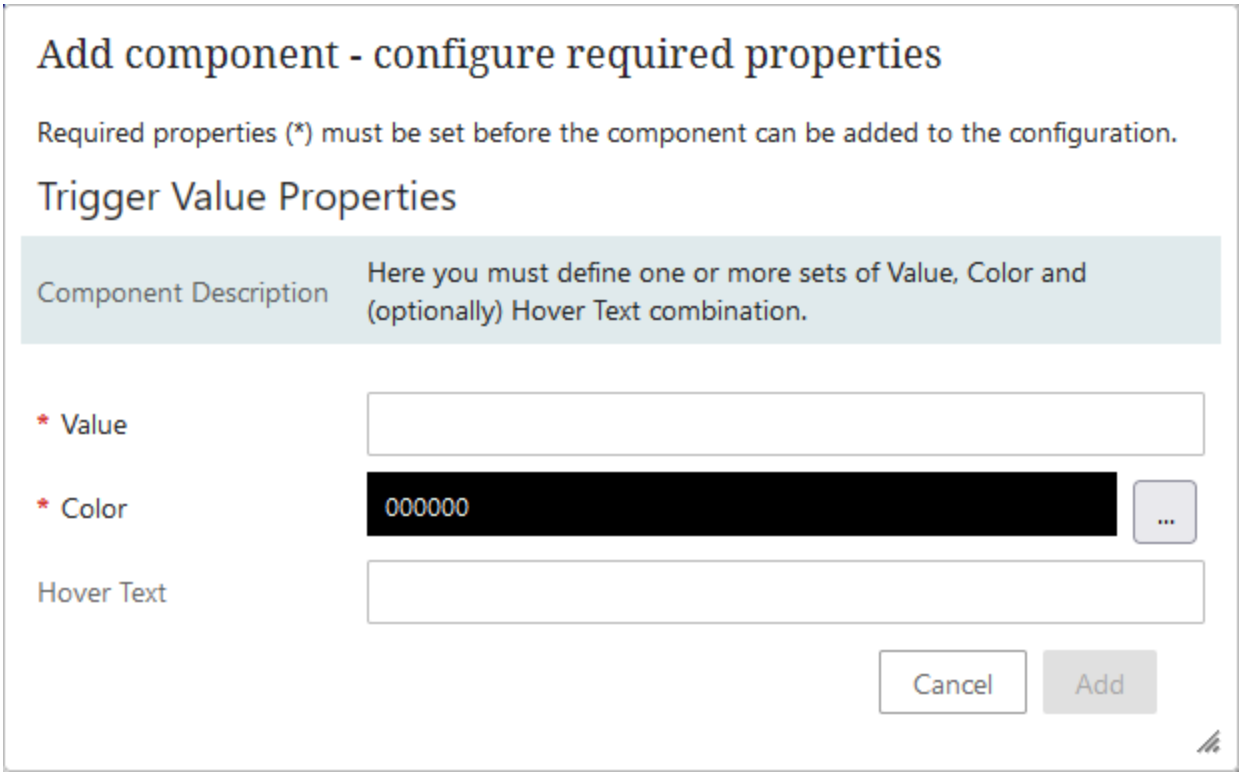
2. In the 'Add Component' dialog, select 'Alternate Node Appearance' and click 'Add.'



3. In the 'Alternate Node Appearance Properties' window there are three parameters that must be configured to enable this component: 'Object Types,' 'Attribute,' and 'Trigger Values.'

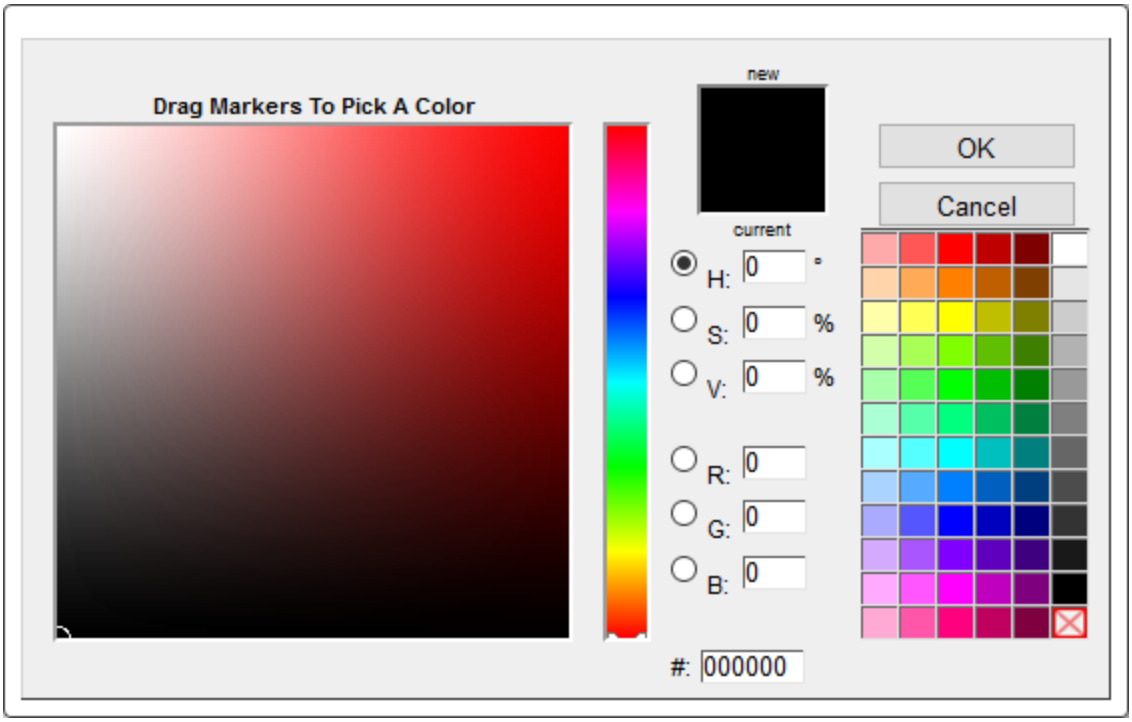
   - **Object Types:** In this parameter, users will select which object type nodes in the Tree Navigator will be affected by the configured trigger values.
   - **Attribute:** In this parameter, users will select which attribute the trigger attribute values will be configured for.
   - **Trigger Values:** In this parameter, users may configure the attribute values that will trigger display of a colored dot, along with the specific color of the dot and the hover-over text that will display when users position their cursors over the dot.

     When a user clicks 'Add' on the field for 'Trigger Values,' a dialog called 'Trigger Value Properties' displays.

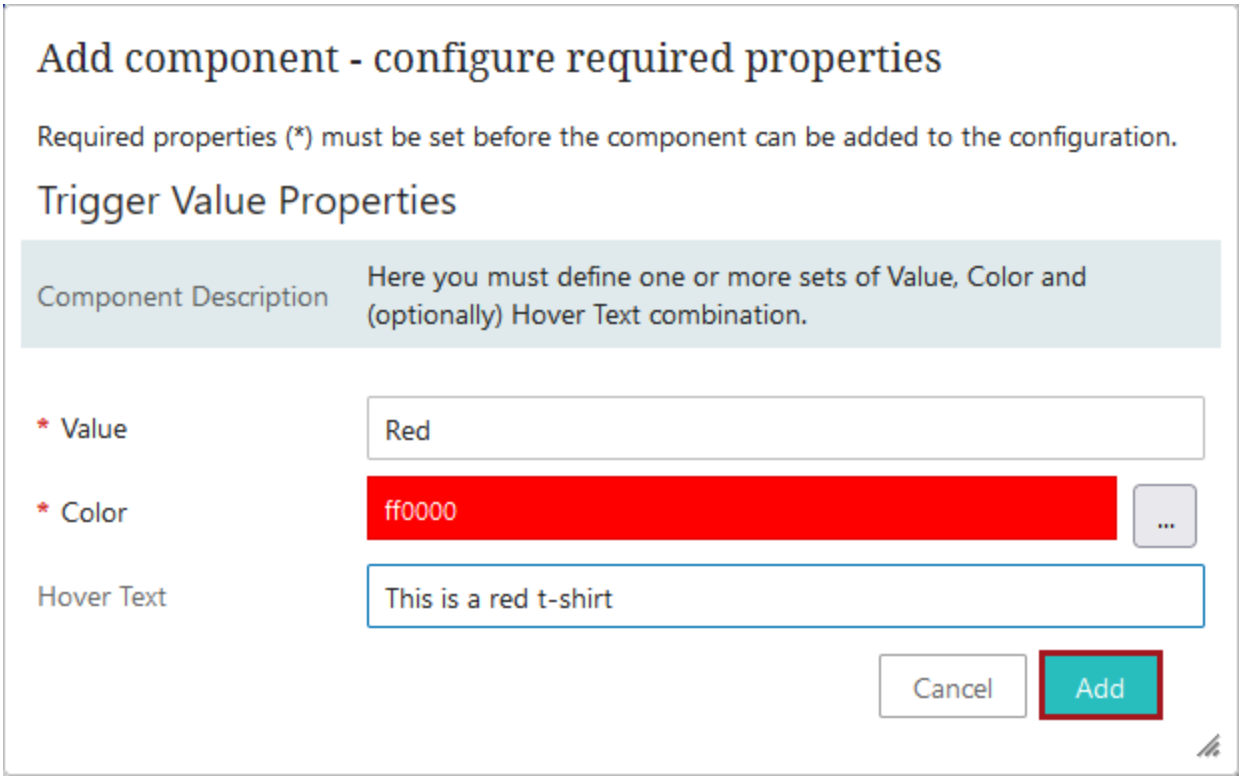


To configure a trigger value, take the following steps:

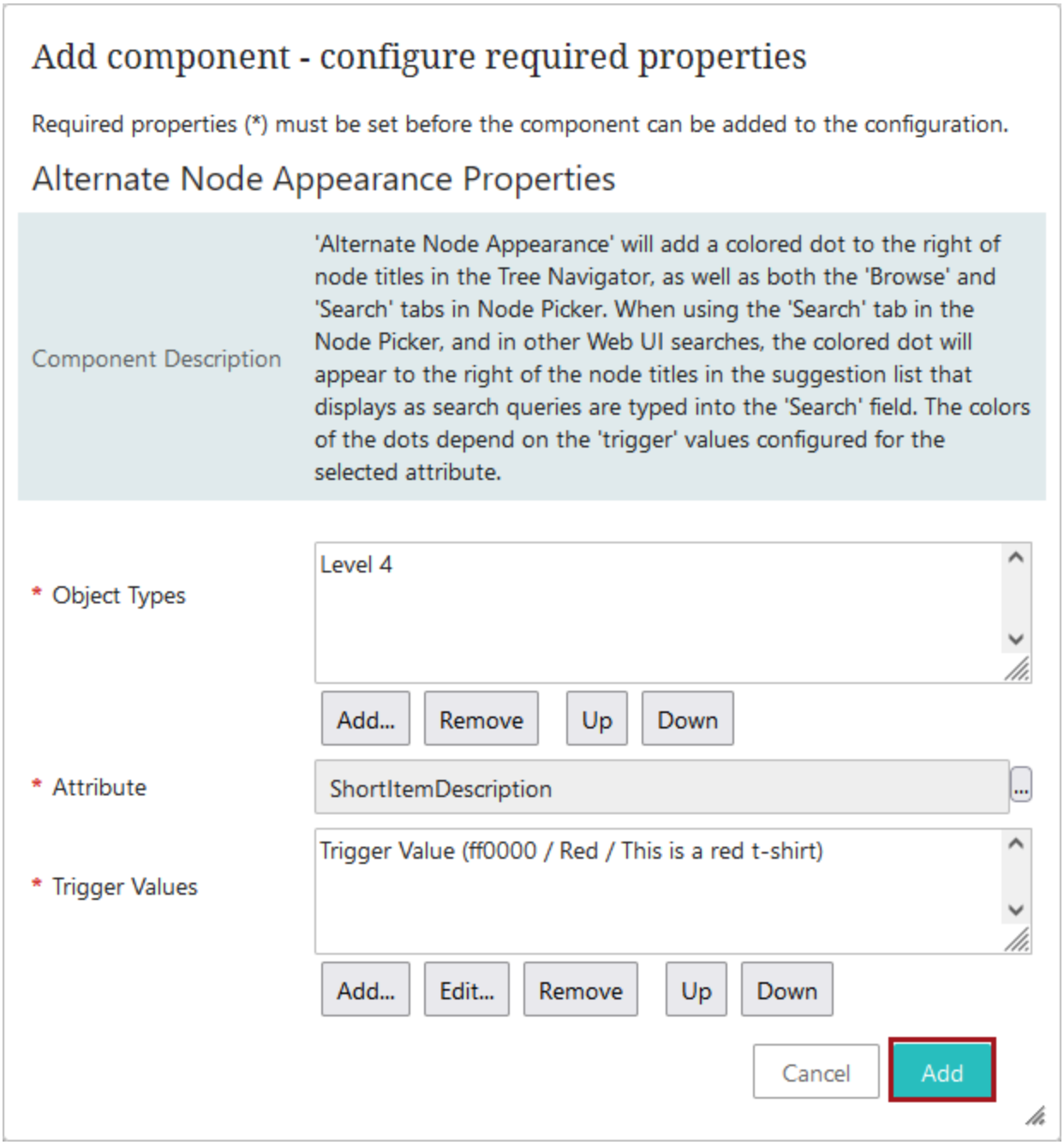
1. Add to the 'Value' field the attribute value that should initiate display of a colored dot.
2. Select the color of the colored dot that will display if the entered attribute value is present for the given attribute. Click the ellipsis button (...) to the right of the 'Color' field, and, a color-selection window displays.



3. Select a color and click 'OK.'
4. When all three parameters have been set, click 'Save.'



Clicking 'Save' brings you back to the 'Alternate Node Appearance Properties' window to complete the configuration, or to add additional trigger values or object types.



5. Save the configuration in the designer and the Alternate Node Appearance component will be enabled on the Tree Navigator.

Note: Use caution when configuring the 'Alternate Node Appearance' component with calculated attributes that process slowly. If a slow calculated attribute is selected for this component, users may experience performance issues as the system will evaluate each configured object type with that calculated attribute to determine if the colored dot should display. This can tax system resources.

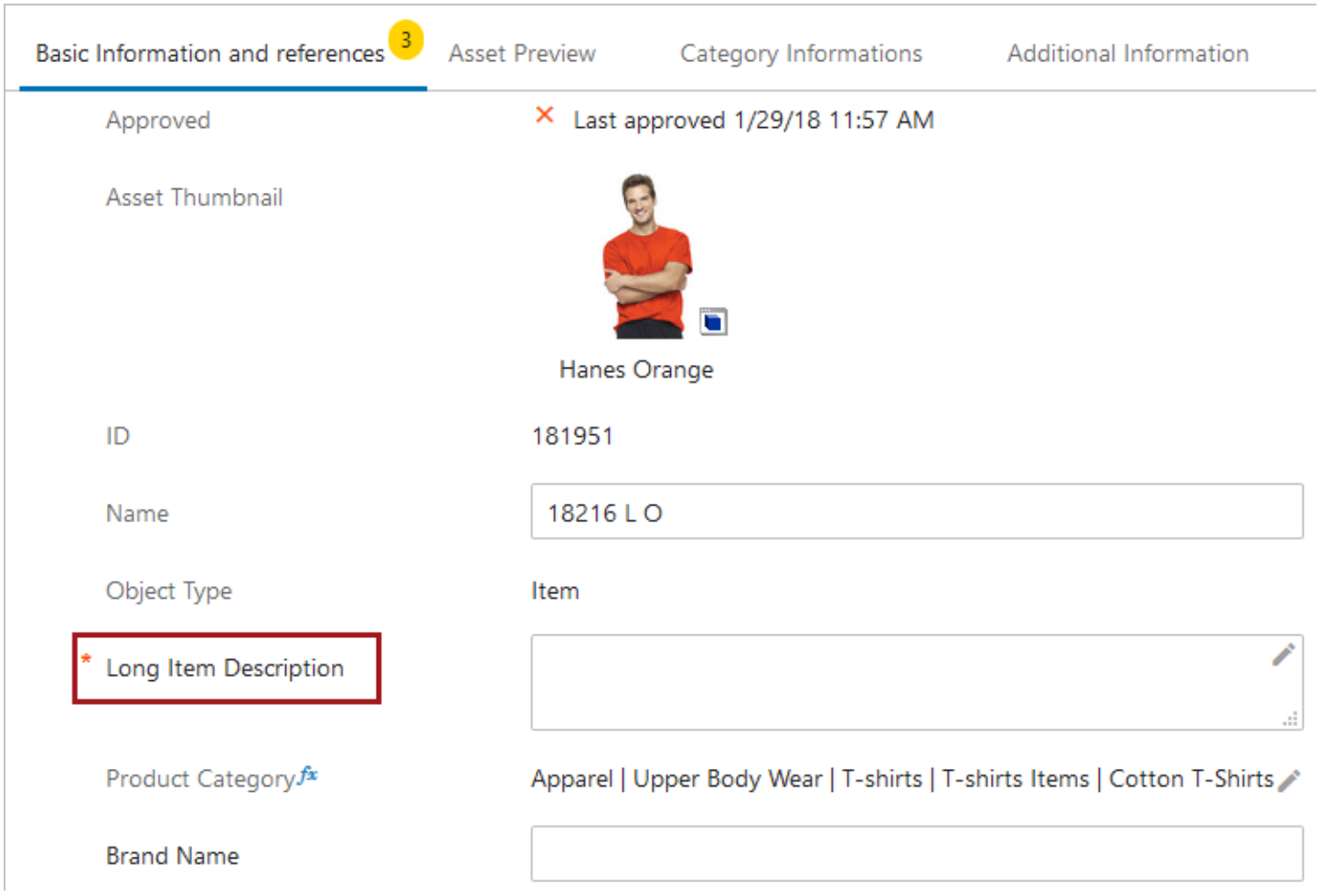
Mandatory Attributes in Web UI

Attributes can be made mandatory in the Web UI on a screen-by-screen basis, providing a visual indicator that data should be populated. Optional enforcement of the setting prevents users from saving or submitting data until mandatory attributes are populated. This provides a more granular level of enforcement than approval-mandatory attributes, and when configured for single-use screens, is considered a process-based mandatory setting. However, when screens are shared, this option has larger-scale implications that should be considered. It is also important to be aware that an attribute may be marked as mandatory on one screen, but not on another. Therefore, even when mandatory attribute population is enforced on a particular screen, that does not equate to an approval mandatory setting.

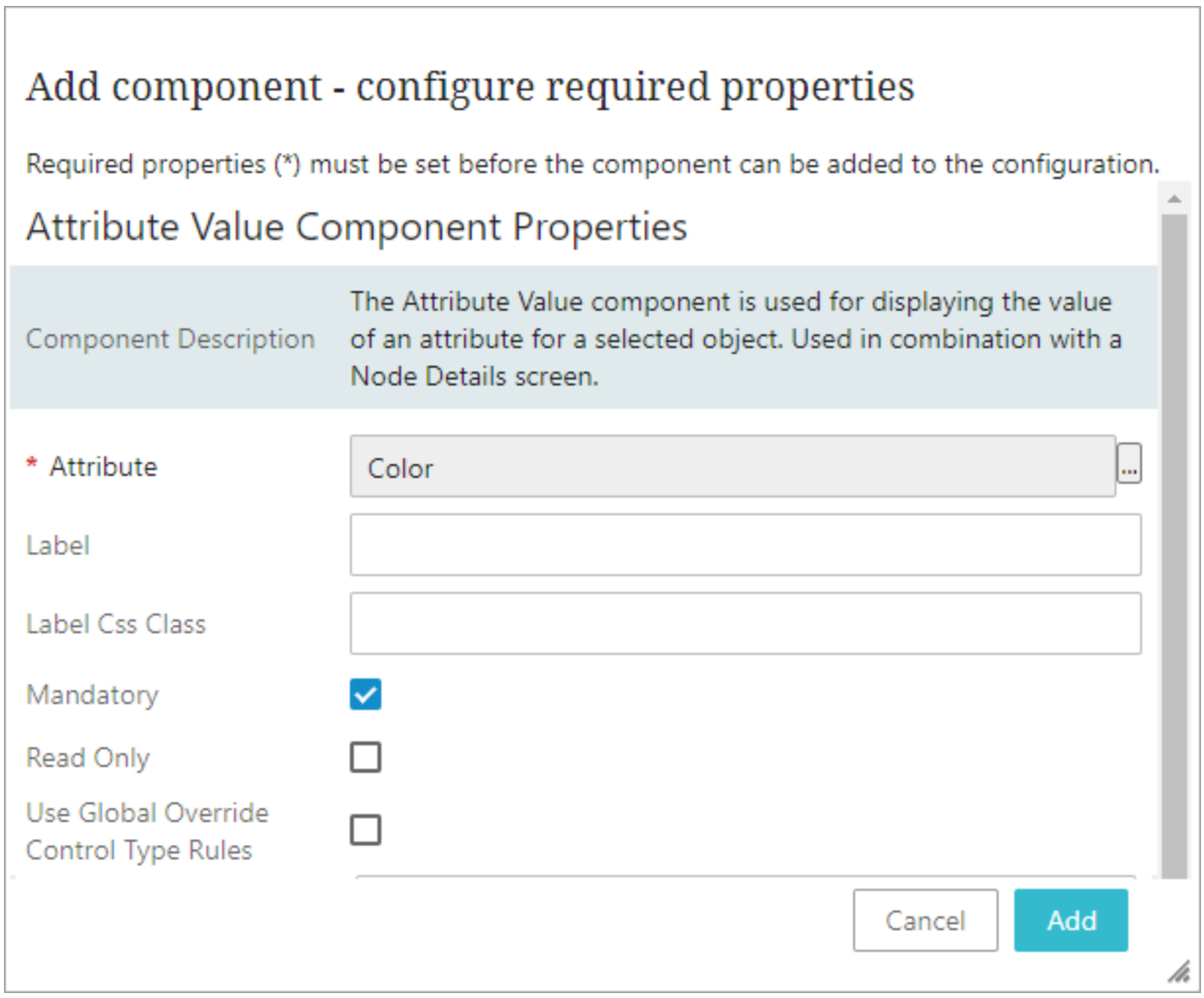
Attributes can also be set as mandatory in workbench as defined in the Mandatory Attributes topic of System Setup documentation.

Visual Indicators

Mandatory attributes shown in a Web UI Node Editor appear in black text preceded by a red asterisk.



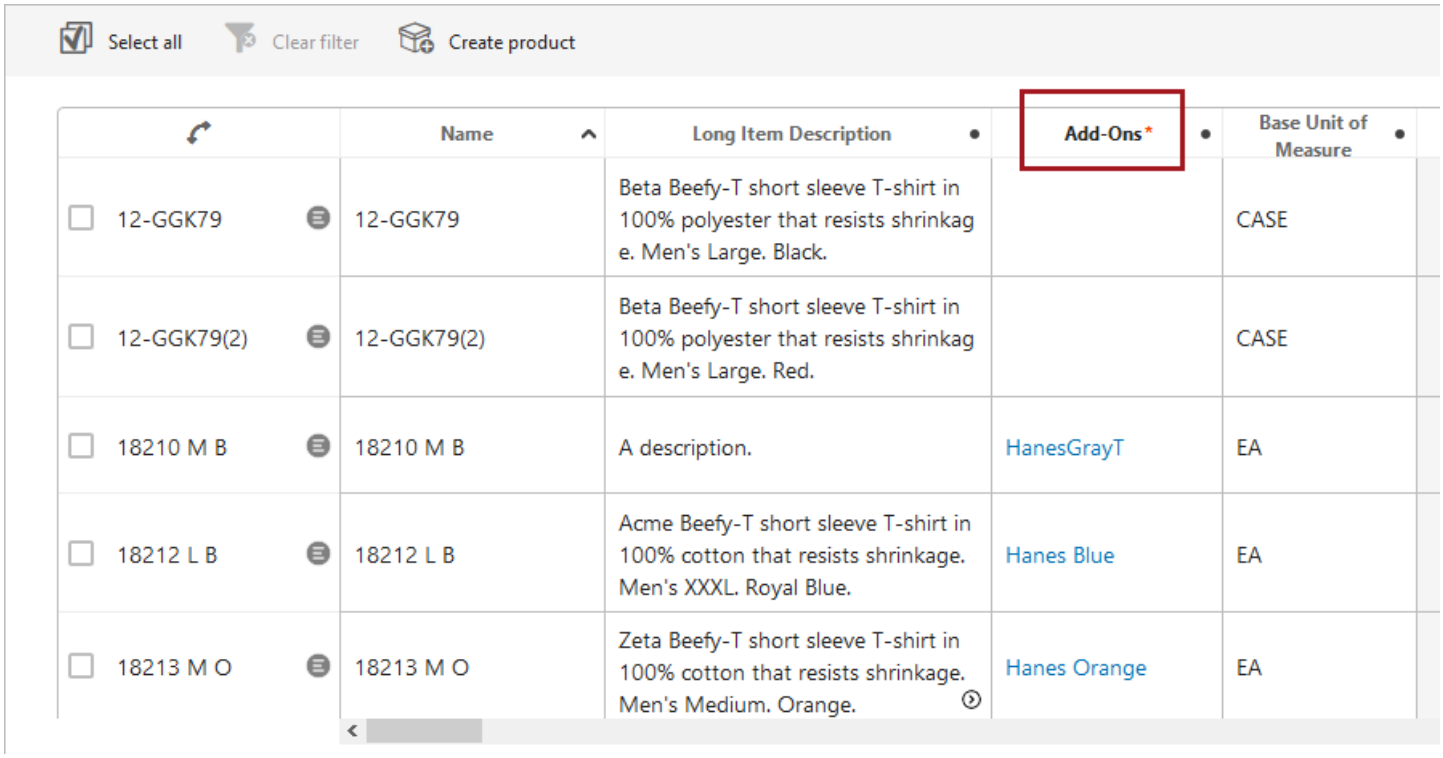
To configure attributes to be mandatory, check the **Mandatory** parameter in any Attribute Value or Attribute Value Group component.



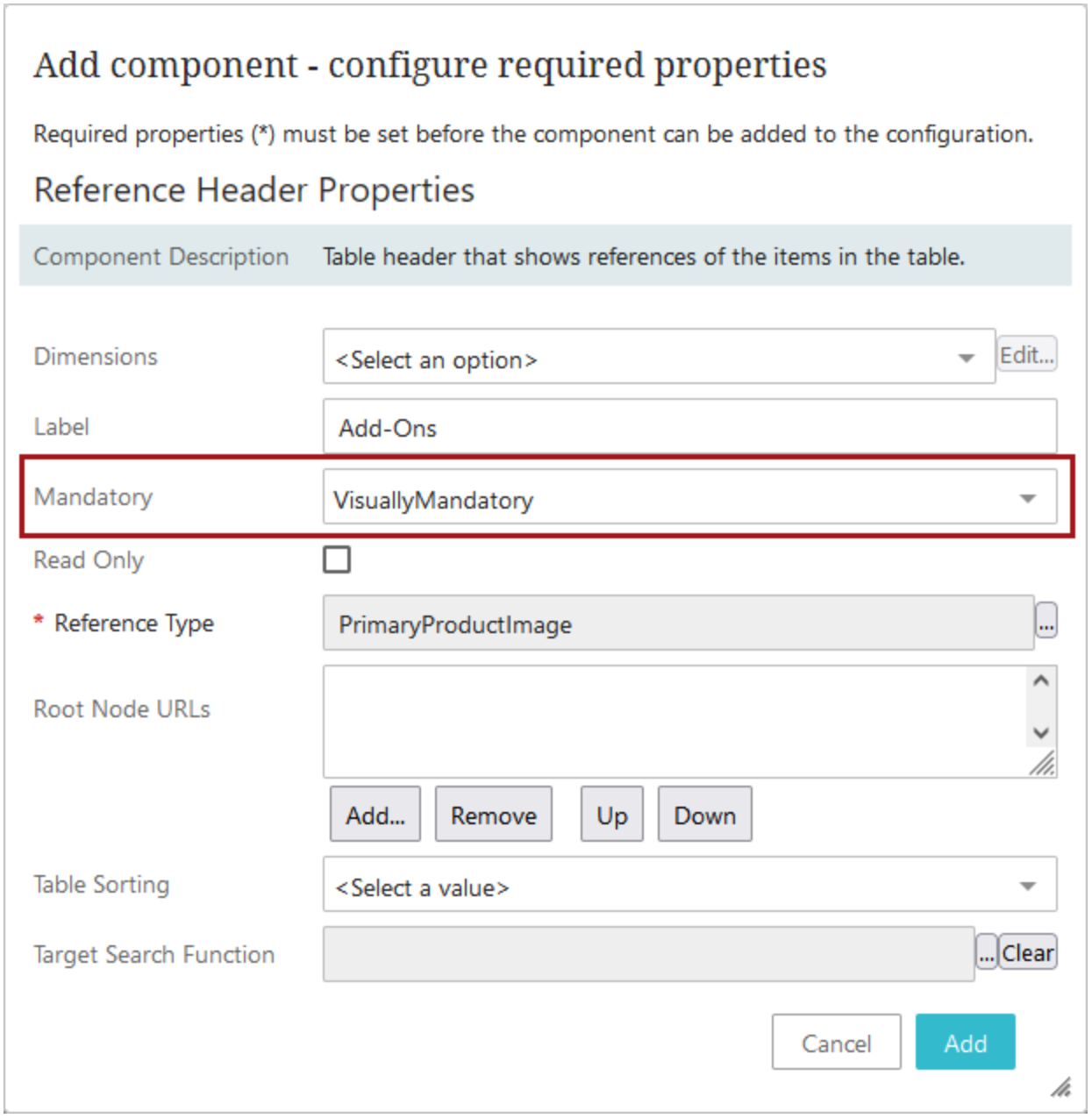
This setting alone does not enforce that the attribute must be populated; it provides a visual indicator to prompt the user to provide a value. To enforce population of the value, additional configuration is required, which is described in the 'Enforcement of Mandatory Attributes' section below.

Mandatory Attributes for Headers

Column headers in a Web UI Node List can also be made to display as mandatory through a configuration setting in the designer. Mandatory headers display in bold text followed by a red asterisk.



To configure headers in a tabular view to display as mandatory, set the **Mandatory** parameter on the header component to 'VisuallyMandatory.'



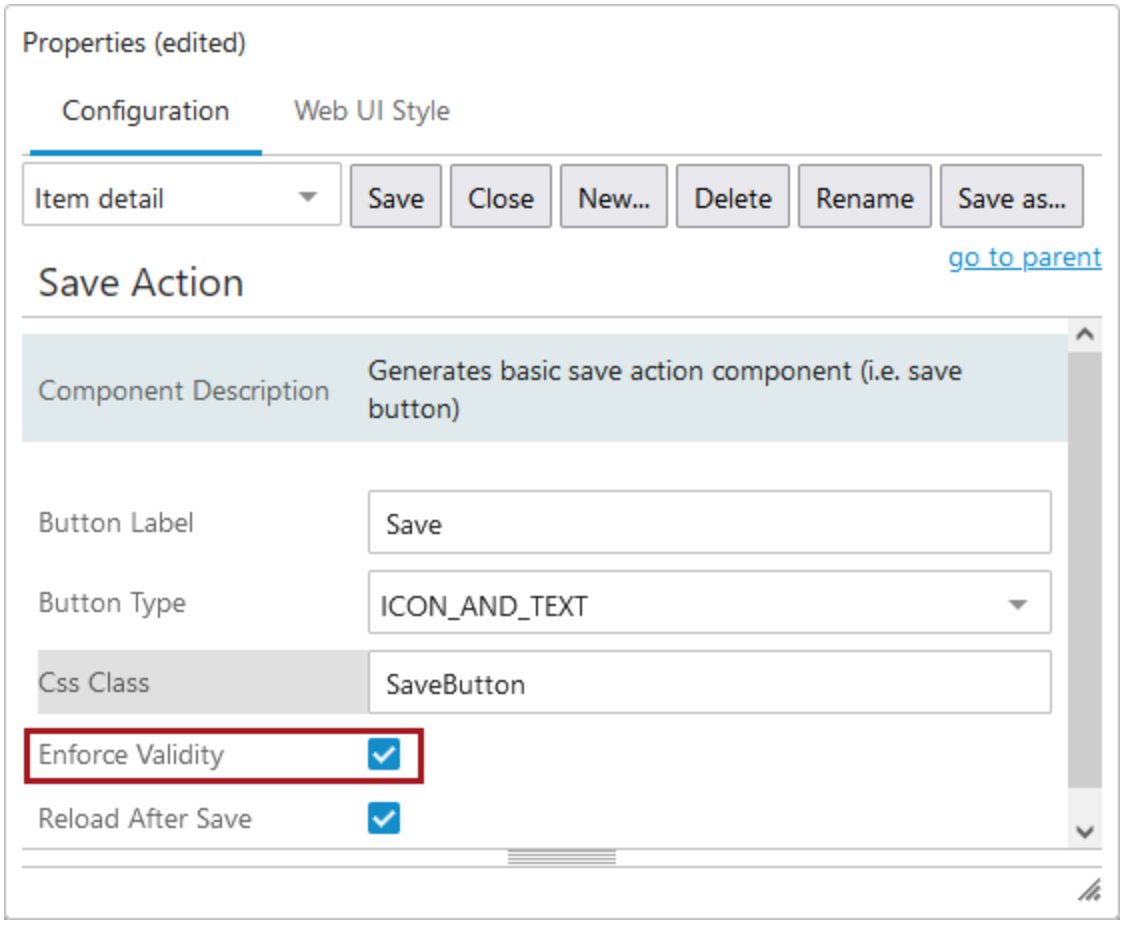
Headers that display as mandatory indicate to a user that cells under the header should contain a value, but this setting does not subject the column to validation enforcement. This means that, for example, even if the parameter 'Enforce Validity' is checked on the 'Save' button, empty cells under mandatory headers will not trigger an error upon saving.

More information on the Attribute Value Component and Attribute Value Group Component is available in this documentation.

Enforcement of Mandatory Attributes

Important: The information that follows about the enforcement of mandatory attributes in the Web UI is applicable regardless of how an attribute is set to mandatory (via workbench or during the Web UI screen-by-screen configuration).

To enforce that mandatory attributes are populated on the selected screen, the attributes must first be set as mandatory (as described above). In addition, any actions available on the screen that should enforce the population of mandatory attributes must have the **Enforce Validity** parameter selected. Typically this is applied to Save, Submit, or Approve actions.



When Enforce Validity is selected, the relevant action button will not be enabled until all mandatory attributes are populated.

Important: Consider whether or not this is truly desired before making this selection.

For example, when Enforce Validity is applied to the Save action, users cannot save *any* data until all mandatory attributes are populated. In addition, the implications for shared screens should be considered. For example, if the same screen is reused for both onboarding and maintenance of objects, different data may be required at different times. However, both the mandatory and enforcement settings are applied to the screen itself, not to particular instances where the screen is used, and therefore it cannot be differentiated to make an attribute mandatory in only one of the cases. This situation can be managed by creating separate Web UI screens for the processes, or by having the screens tied to workflows and using the workflow mandatory settings. For more information, refer to the Mandatory Attributes and References in Workflows topic in the Web User Interfaces documentation.

Match, Link, and Merge in Web UI

The following screens and setup are available in Web UI for systems running matching solutions and can be found in the **Matching, Linking, and Merging** documentation.

Match and Link

- Configuring a Deduplication Clerical Review
- Merging Confirmed Matches
- Potential Duplicates List
- Golden Record Linked Members Component

Match and Merge

- Golden Record Clerical Review Task List
- Golden Record Advanced Merge Dialog
- Golden Record Source Traceability Screen
- Configuring the Unmerge Wizard
- Using the Unmerge Wizard

Multi Context Screen

The Multi Context Screen is a screen type designed to show attribute values and outbound references of an object in multiple contexts on the same Web UI screen. Working across different contexts, comprised of a variety of dimension points (e.g., language, country), allows customers to specify data valid for each of the contexts. Using a Multi Context screen means that users do not need to switch contexts manually to evaluate attribute values one context at a time.

The Multi Context screen needs to be configured to display attributes and reference types. If configuration allows it, end users can set up their own customizable views, including deciding which attributes and references to display. Plus, there are on-screen data filtering options to hide equal values or highlight differences in the data. This can be especially useful to evaluate data between multiple contexts, quickly identifying which values differ across the displayed contexts.

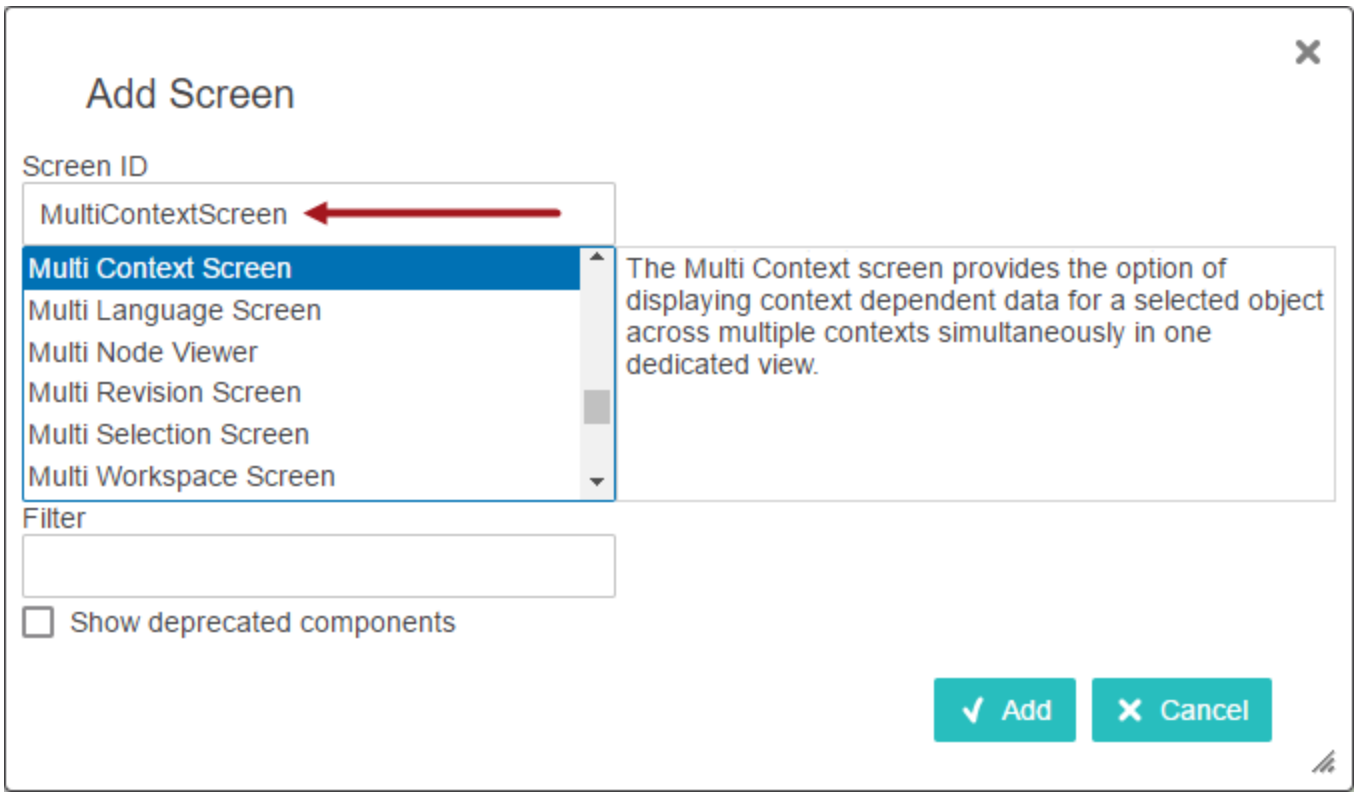
Additionally, users can suppress references and remove suppression of references, when the functionality is enabled. A reference may be suppressed for various reasons. One example is an image—what may be acceptable in one country may not be acceptable in or may not be relevant to another country or there may be licensing restrictions. Another example is product documentation that is translated into various languages but applicable to only certain countries in which a product is sold.

Prerequisites

It is expected that anyone configuring the Multi Context Screen component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Adding a New Multi Context Screen

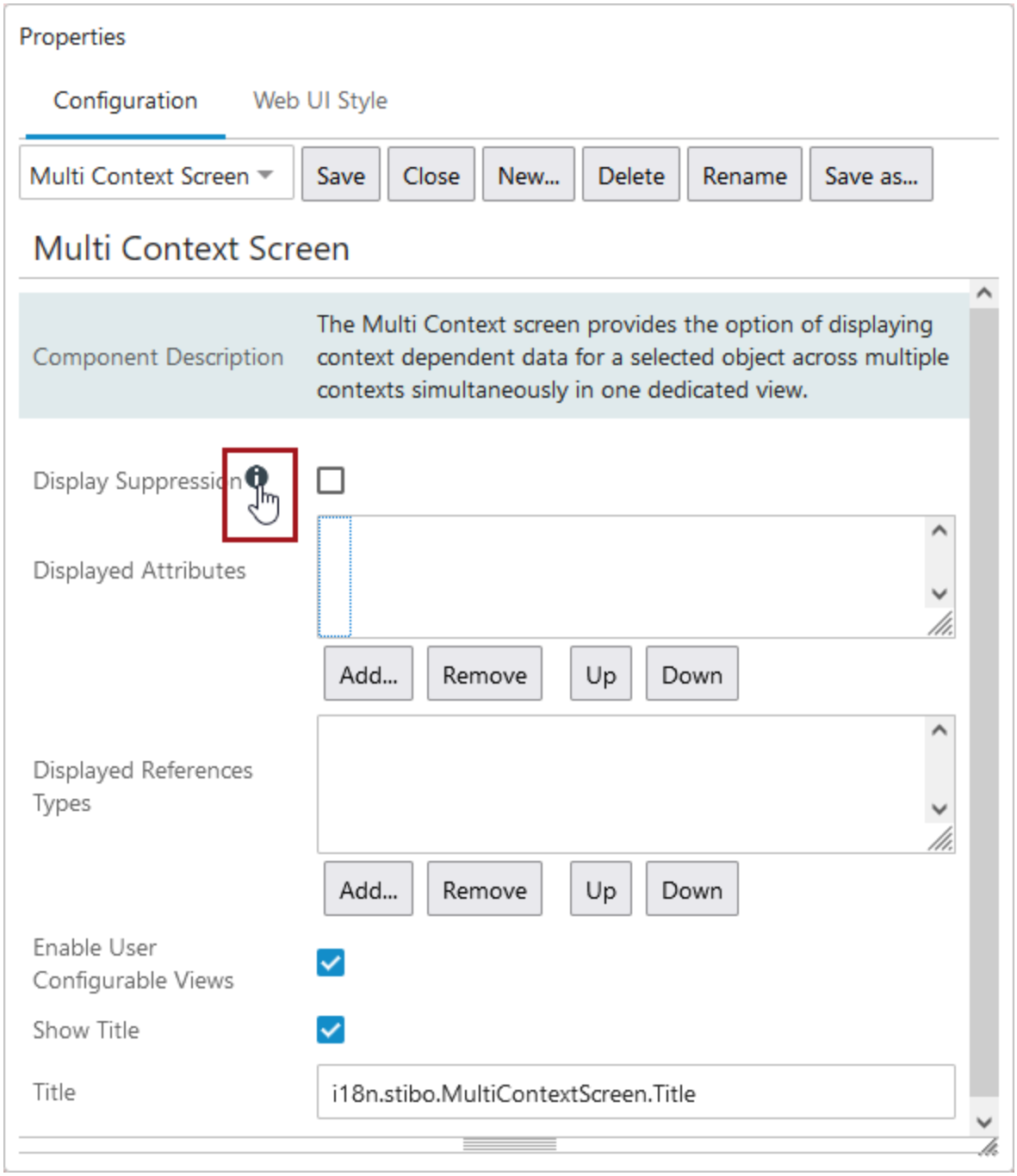
Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Select 'Multi Context Screen' as the screen type (shown in the screenshot below).



At this point, either close the designer and configure the screen at a later time, or continue on with the steps in the next section.

Configuring a Multi Context Screen

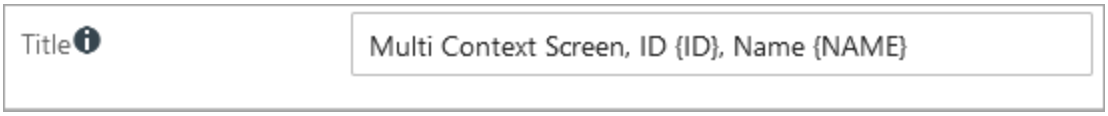
Each parameter should be configured as needed. To guide you in your setup, help text is available for each parameter and is accessible by clicking the info icon to the right of each parameter name (displays upon mouse over).



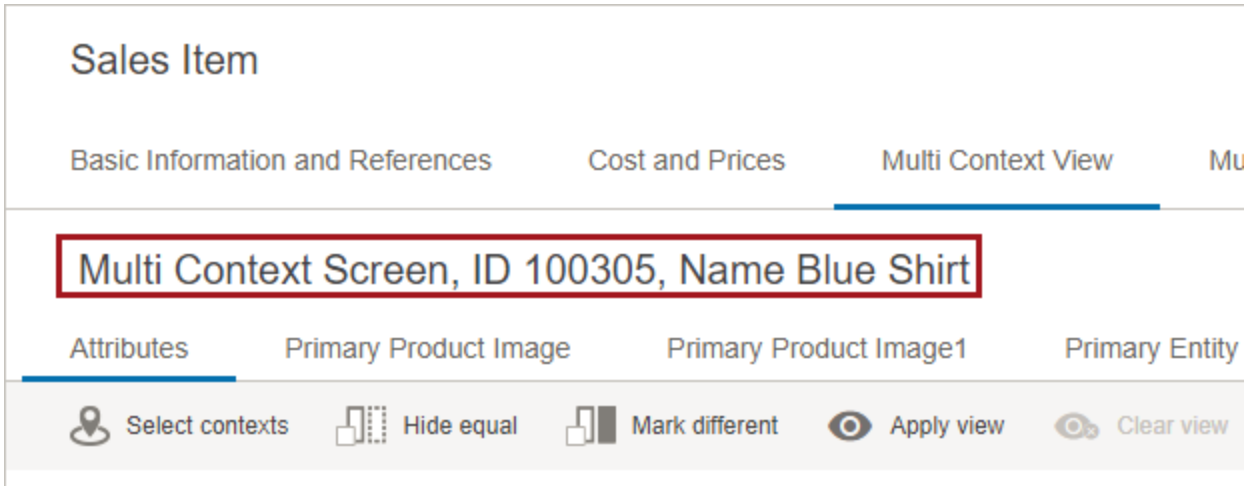
1. With the designer window open, select the screen ID for the **MultiContextScreen** using the screen dropdown list. If continuing on after creating a new Multi Context screen, Multi Context Screen Properties should already be displayed.
2. Enable **Display Suppression** if users should have the option to suppress dimension-dependent references. When enabled, a Suppression header (for displaying the suppression status) is added to the tables within the reference type tabs together with the actions for suppressing and removing a suppression of a reference.

3. Click **Add** under the **Displayed Attributes** value field. Select attributes or attribute groups from the Select Node(s) dialog. These will display in columns on the Attributes tab. Click **OK** when done. In addition to the selected attributes, ID and Name display as columns within the grid.
4. Click **Add** under the **Displayed References Types** value field. Select reference types from the Select Node(s) dialog. Each reference type displays as its own tab on the Multi Context screen. Click **OK** when done. In addition to the metadata attributes valid for each reference type displaying in the grid, Title also displays as a column and displays the referenced object name.
5. **Enable User Configurable Views** gives end users an option to create and save their own customized views by adding and removing attribute columns within the table on the Attributes tab. This parameter is enabled by default. Click the checkbox to disable and users will no longer view the Apply view / Clear view icons.
6. Determine if you want to display the title. Leave the **Show Title** parameter enabled if the Multi Revision Screen should display the title. Disable the parameter to hide the title and its associated white space.
7. If a title should display, determine if the default title should remain, or if a custom or descriptive title is necessary. The default title will display as 'Multi Context' on the screen in the top left corner. Adding a descriptive **Title** is optional. Static text can be entered and/or placeholders ({ID}, {NAME}) can be used for including the ID and Name of the selected object. If text is entered, the title will be displayed in the upper left corner of the screen.

   As an example, this is the text / placeholders entered as part of the configuration:



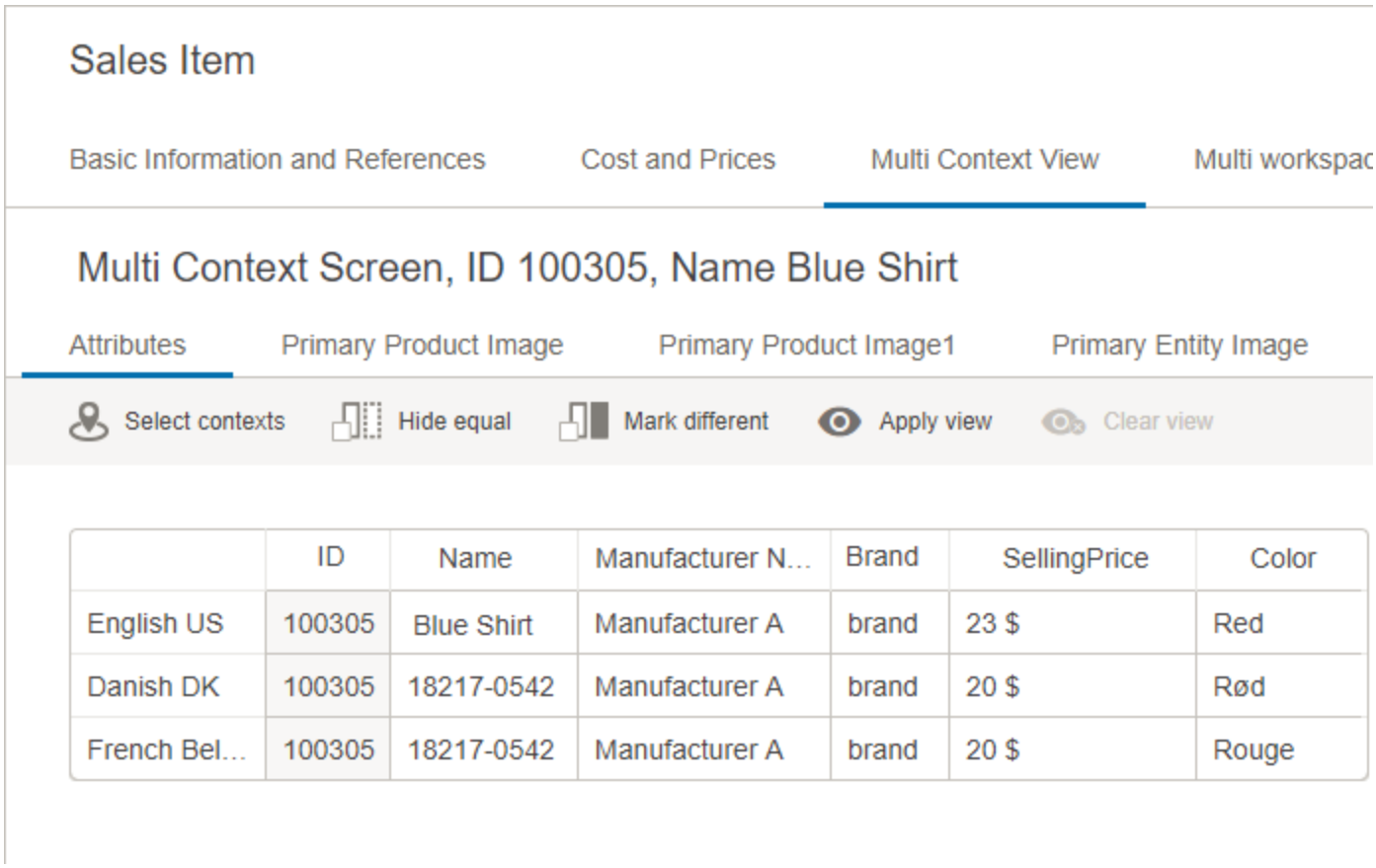
   This is the resulting title:



8. Click **Save** in the designer window. Close the window or complete the next step before existing design mode.
9. Determine how the user will access the Multi Context Screen. It can either be mapped using Main Properties or added to a sub screen tab page on a Node Details Screen. For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** documentation, and for more

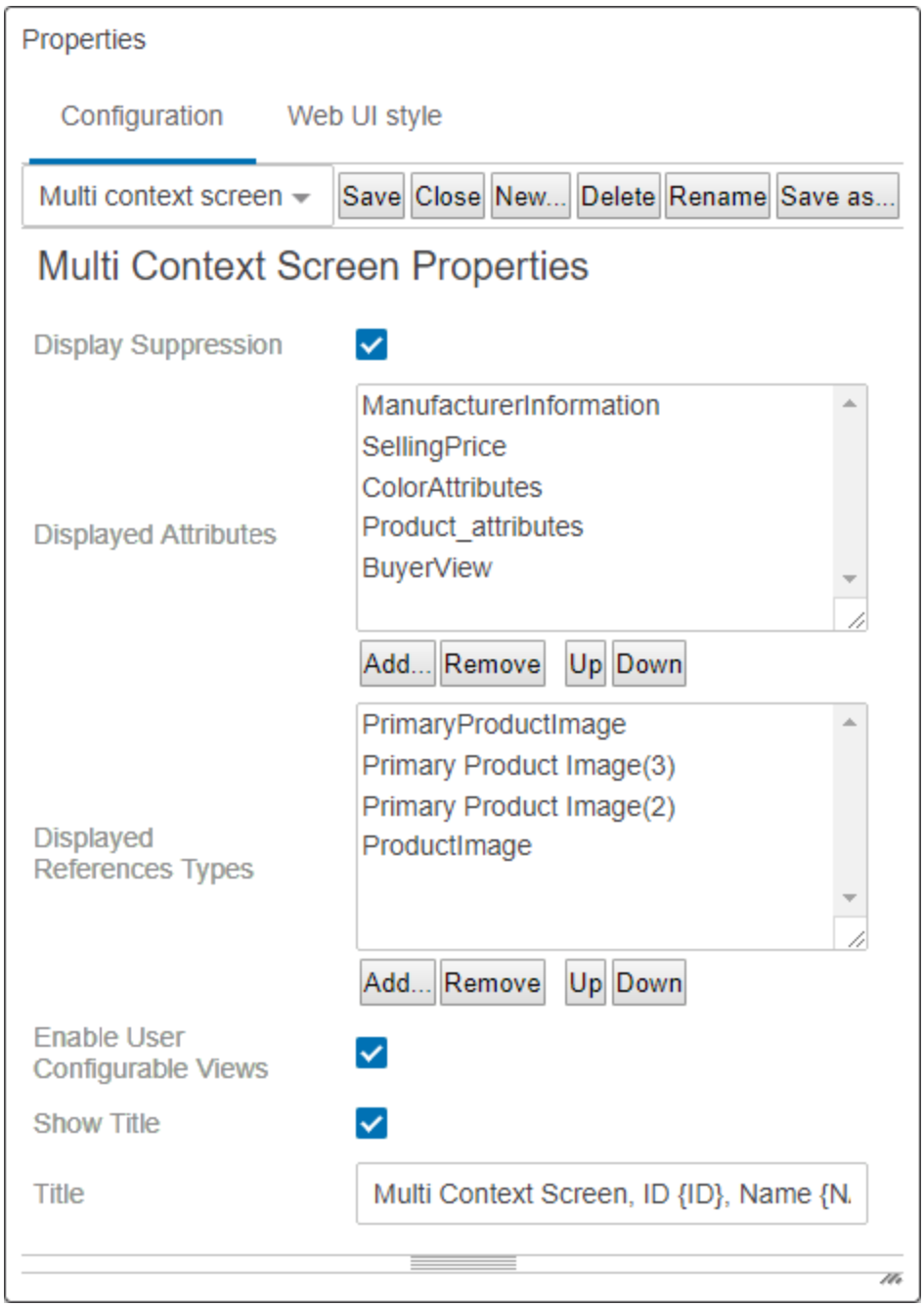
information about sub screen tab pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

This is an example of a Multi Context Screen configured to display as a sub screen tab page on a Node Details screen.



	ID	Name	Manufacturer N...	Brand	SellingPrice	Color
English US	100305	Blue Shirt	Manufacturer A	brand	23 $	Red
Danish DK	100305	18217-0542	Manufacturer A	brand	20 $	Rød
French Bel...	100305	18217-0542	Manufacturer A	brand	20 $	Rouge

The parameters are set as follows:



In this example, the attribute 'Price' is not valid for the object type and therefore does not display in the table.

As with any screen, the Multi Context screen must be mapped appropriately in Main Properties > Mappings for end users to be able to access it. As an alternative to mapping, the Multi Revision screen can be added as a Sub Screen Tab Page on a Node Details screen (as shown in the examples within this topic).

For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about sub screen tab pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

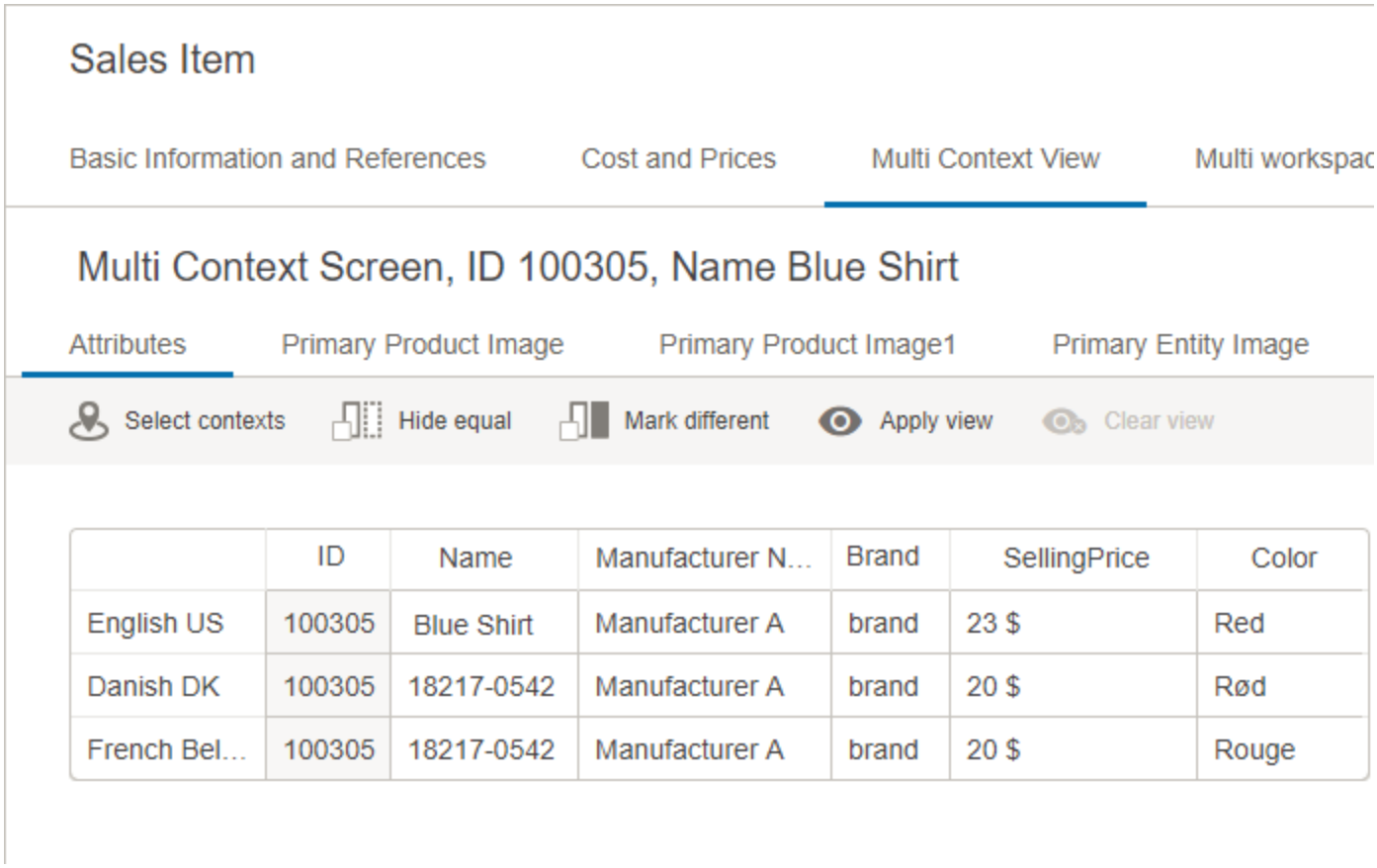
Using a Multi Context Screen

There are a number of reasons that working with data in different contexts is a fundamental part of most business models, such as doing business across international markets. Certain attributes (e.g., price) may be different depending on the context and references also may differ per country / language.

Instead of users manually switching Web UI to different contexts when editing attributes, the Multi Context screen displays attributes in multiple contexts all on the same screen. The screen is designed to also display references for an object, organized by reference type. Users can also edit reference attributes, add / remove references, and suppress / remove suppression on references (if enabled).

Attributes

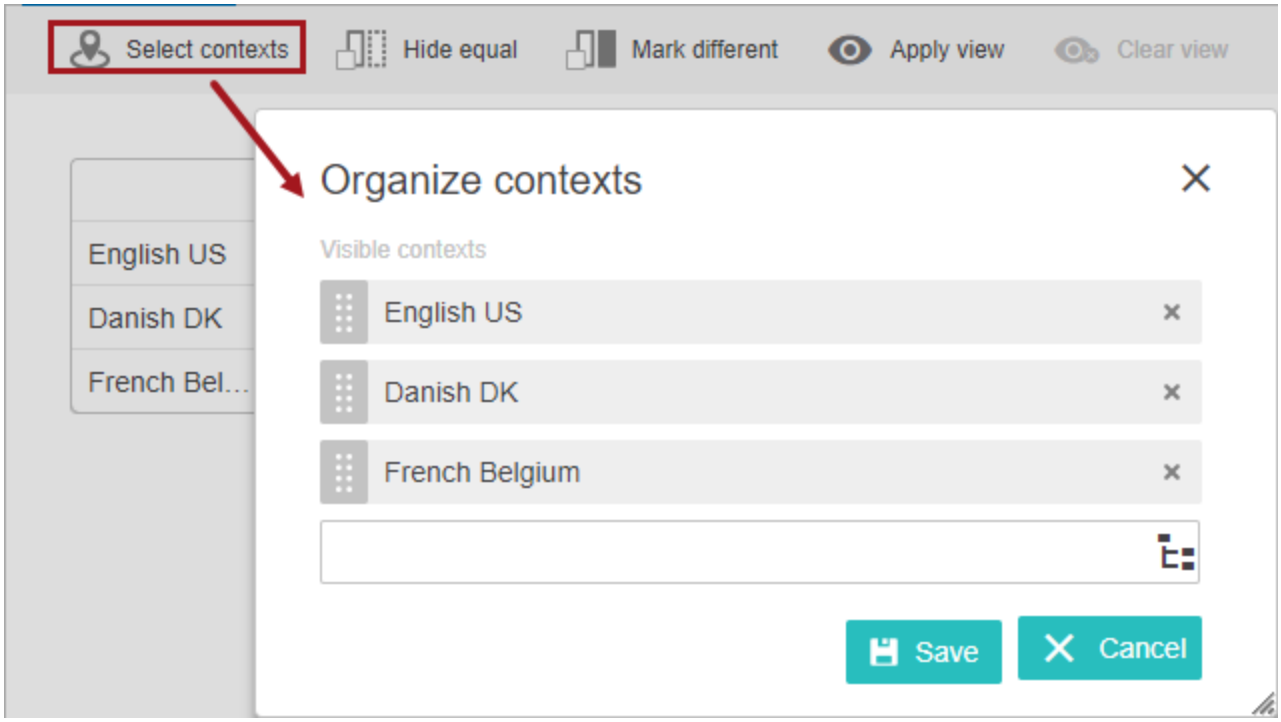
The attributes displayed and the actions available on the Attributes tab may be different than outlined below depending on how the administrator configured the Multi Context Screen Properties. If disabled by an admin user, end users will not have configurable view options (Apply view / Clear view).



Using the actions or clicking within the cells of the table, users can:

- **Select Contexts** - Select the contexts to display and determine the display order (via the drag handle for each context); selections apply to all tabs.

The first time a user enters a Multi Context screen only the current context is displayed. The user then selects the desired contexts to display for the attributes / reference types on the screen. On subsequent visits, Web UI displays the user's last applied view within Multi Context.



- **Edit attributes** - Editing is available in unshaded cells in the table on each tab. After making edits, users need to click the Save icon to the right of the table. The reset button allows users to discard any changes they have made. While users must save changes—or lose edits—before moving to another tab / screen outside of Multi Context, users can navigate between the Attributes tab and the Reference Type tabs without losing the edits. Users need to click save before navigating outside of the Multi Context screen to retain edits.

  All editable attributes values for the selected object can be edited regardless of the settings for Dimension Dependencies. Values for attributes not configured to be dimension dependent will be updated across all contexts upon save, similar to other screens such as Multi Language. Copying and pasting can be done into a single cell or in multiple cells if the number and order of cells copied from matches the number of cells pasted into.

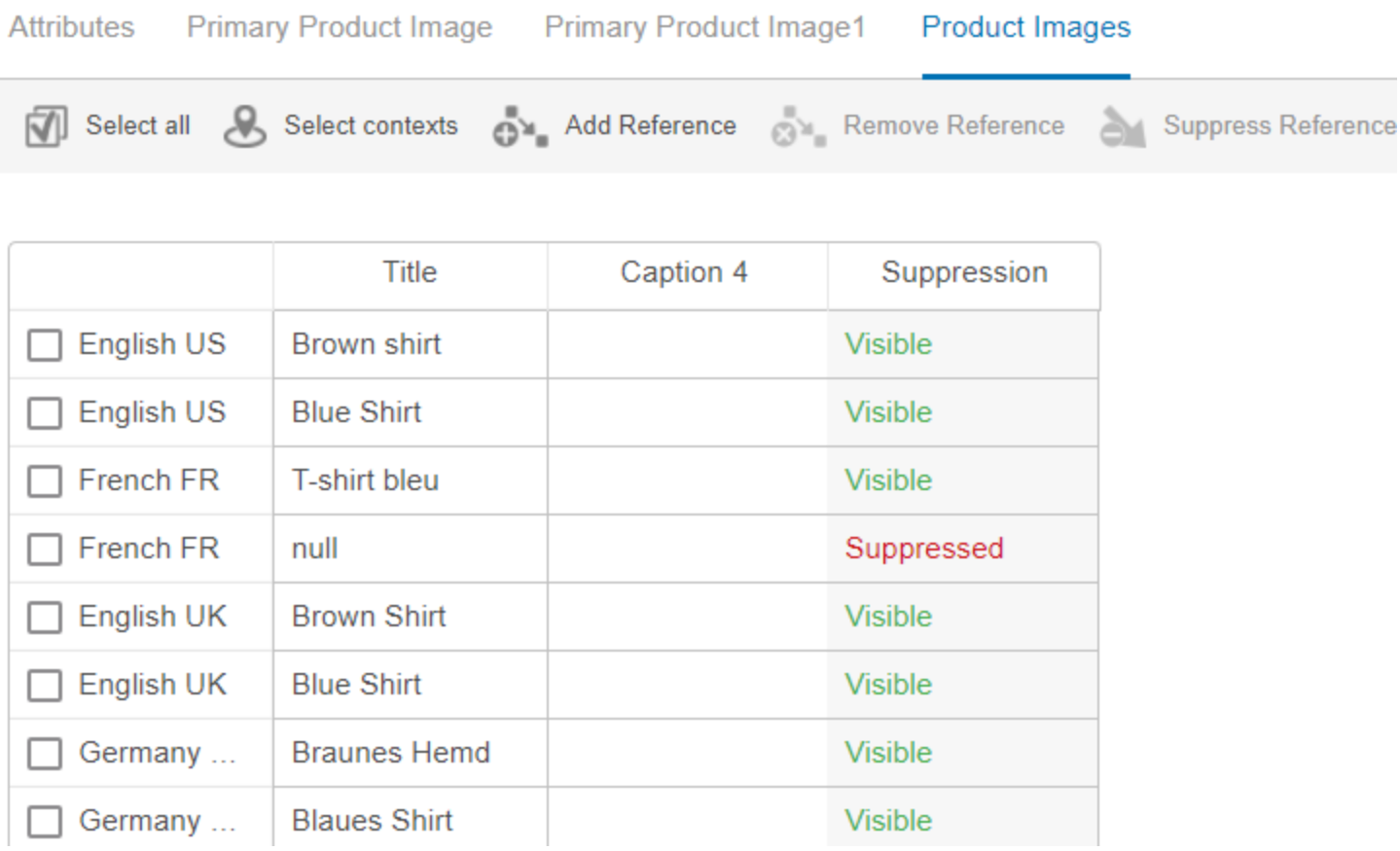
  Note that on attributes not dimension dependent, if the user pastes three new values in three different contexts (a cell per context) for an attribute that is not dimension dependent, it is the value of the last cell that was be paste in with populate all contexts upon save. For example, three cells with the values 98, 99, 100 are copied from Excel and pasted into three cells in the Multi Context grid, then the value 100 is the one that populates all three cells upon save. Similarly, if a user enters three values manually for three different contexts, the third value will be the one that populates all the contexts when saved.

- Compare contexts using the **Hide equal / Mark different** actions - Click these actions to compare the attributes. Aspects (ID, Name) are not used for the comparison.

- Apply and maintain user views - Clicking **Apply view** allows users to create and save their own views and work with only the columns that they need. Chose from a saved view or create a new one. For more details about the functionality, refer to the **User Configurable Views** topic.
- Clear an applied view - Clear the current view to return to the default configuration by clicking the **Clear view** icon.

Reference Types

Reference types that populate the individual tabs are determined by the administrator configuring the Multi Context Screen Properties. Users only have access to the reference suppression actions (Suppress Reference / Remove Suppression), if enabled by the admin user. Each reference type tab displays the same action toolbar.



Using the actions or clicking within the cells of the table, users can:

- **Select Contexts** - If the contexts were set up on the Attributes tab, those settings apply to all tabs. Editing contexts on a reference type tab applies any changes all Multi Context screen tabs.
- **Edit attributes** - The functionality on the reference type tab matches the functionality on the Attributes tab, as described in the previous section. Again, click the Save icon after making any edits.

- Suppress and unsuppress references - If suppression functionality is enabled, then users will have **Suppress Reference** and **Remove Suppression** icons in the action toolbar. Also, the table on the tab will include a **Suppression** column.

  To suppress or unsuppress references individually, select a row by clicking the checkbox shown to the left of the context name. To select multiple rows, either click on additional rows or use the **Select all** action. As soon as a row selection is made, the Select all icon switches to a Clear all icon. Use this to clear all selections or just click a checkbox again to deselect a particular row.

  When a reference is suppressed, the word 'Suppressed' displays in the Suppression column. The word 'Visible' displays when references are not suppressed. If a reference cannot be suppressed, the applicable Suppression cell is disabled with the words 'Cannot be suppressed' or 'Inherited' displayed.

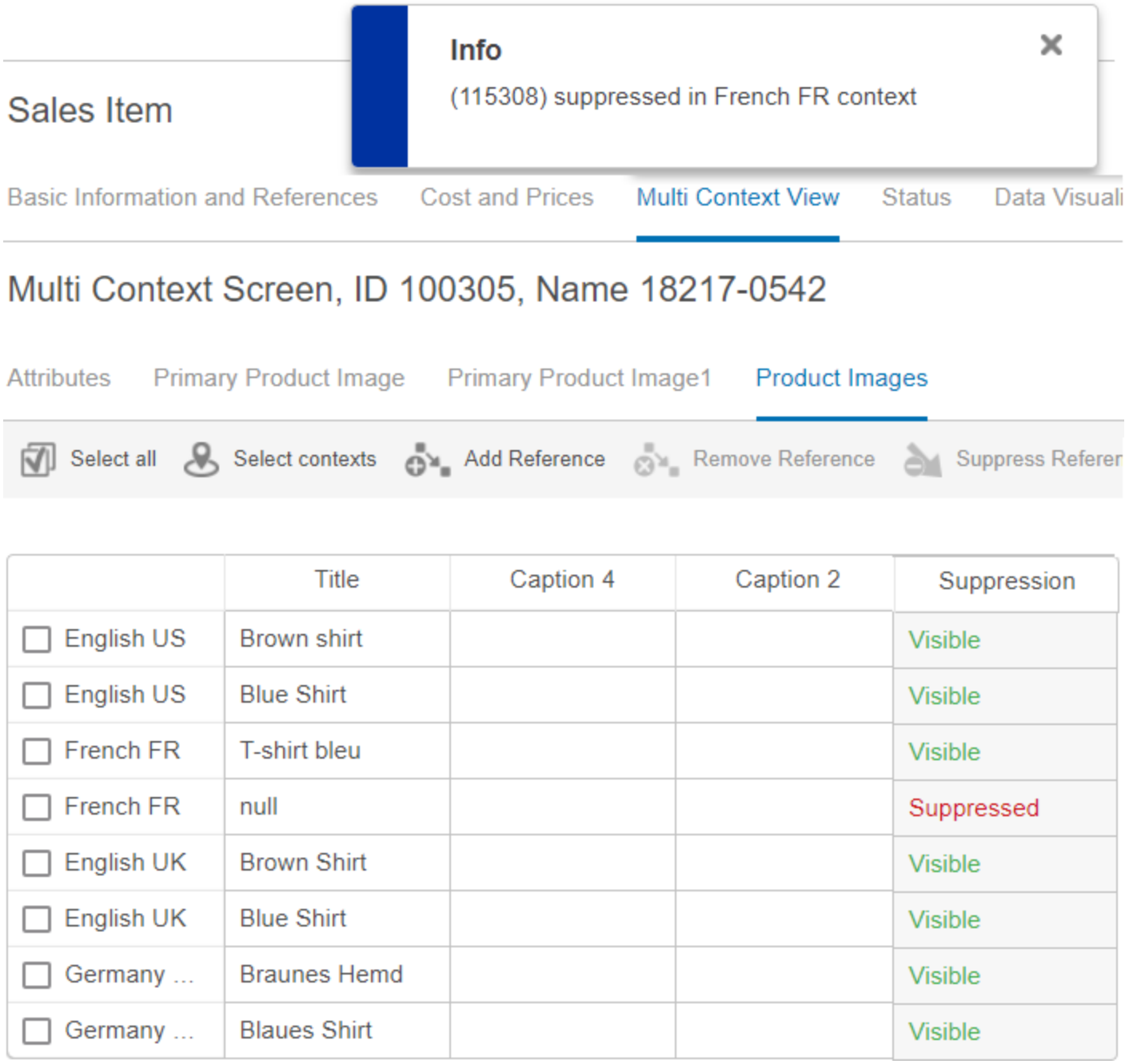
  'Cannot be suppressed' means that the reference type is not dimension dependent.

	Title	Caption 4	Suppression
☐ English US	Blue Shirt		Cannot be suppressed
☐ English US	Blue Shirt		Cannot be suppressed

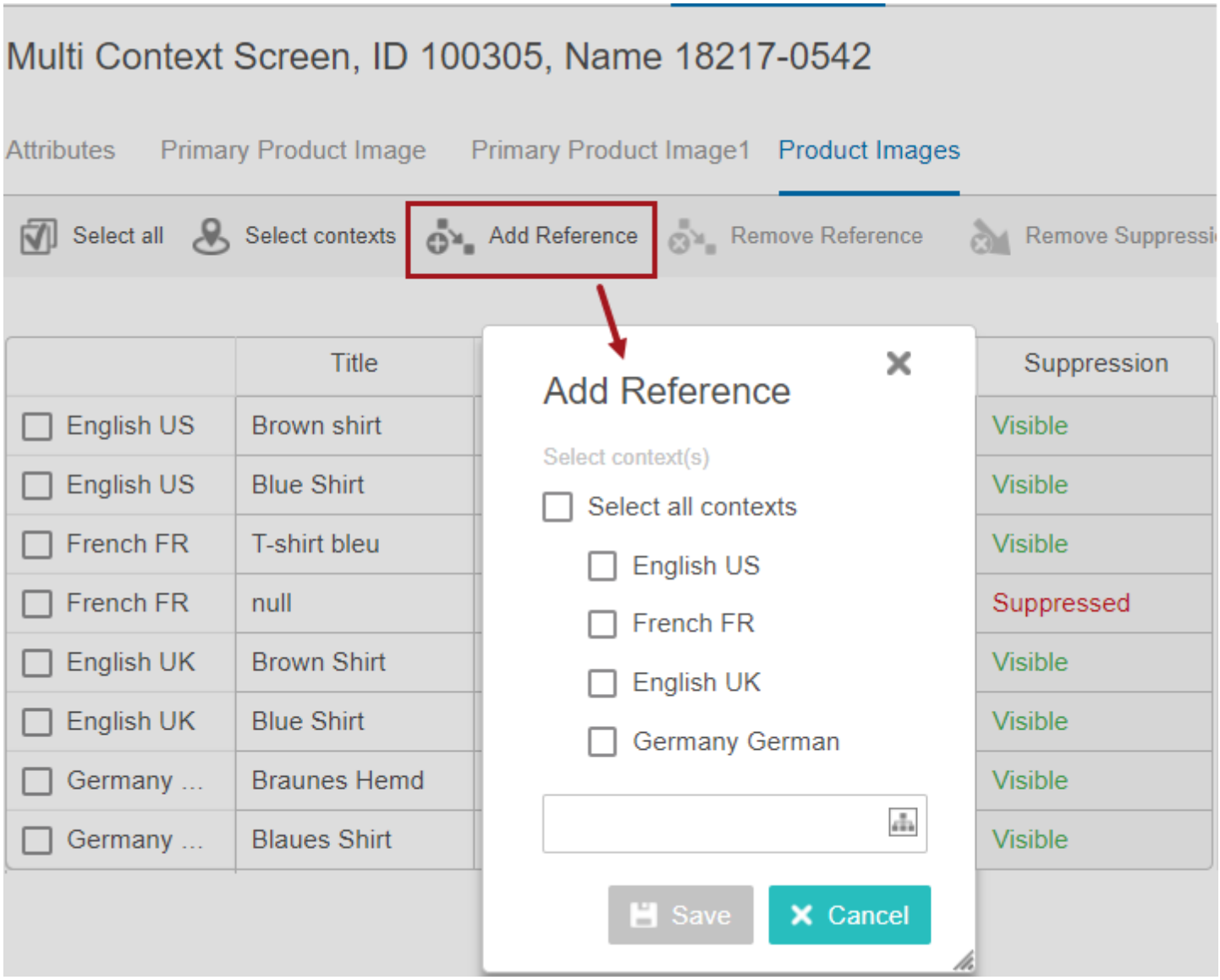
  'Inherited' means that the reference is inherited from a parent object; therefore, it is not suppressible.

	Title	Caption 2	Suppression
☐ English US	Hanes Family		Inherited
☐ Danish DK	Hanes Family		Inherited
☐ French Bel...	Hanes Family		Inherited

  A notification regarding the suppression status will display on the screen. The message displayed to users upon removing a suppression confirms that 'Suppression was removed' and displays similarly to the suppression confirmation shown below.



- Add a reference - Click the **Add Reference** action and then make a context selection within the 'Add Reference' dialog. Click the Node Picker icon to select a reference, and then click Save.



- Remove a reference - Make a row selection and then click the **Remove Reference** action icon. Confirm you want to remove the reference when the 'Remove References' dialog appears. A message displays at the top of the screen confirming the successful removal of the reference.

Multi Language Screen

The Multi Language Screen is a Web UI screen type designed to display attribute values for more than one language dimension. Users can easily edit attribute values across different language dimensions using the Multi Language Editor. Functionality is similar to workbench, where users can switch to translation mode that allows them to view multiple language dimensions at the same time.

This topic addresses:

- Using a Multi Language Screen
- Configuring a Multi Language Screen

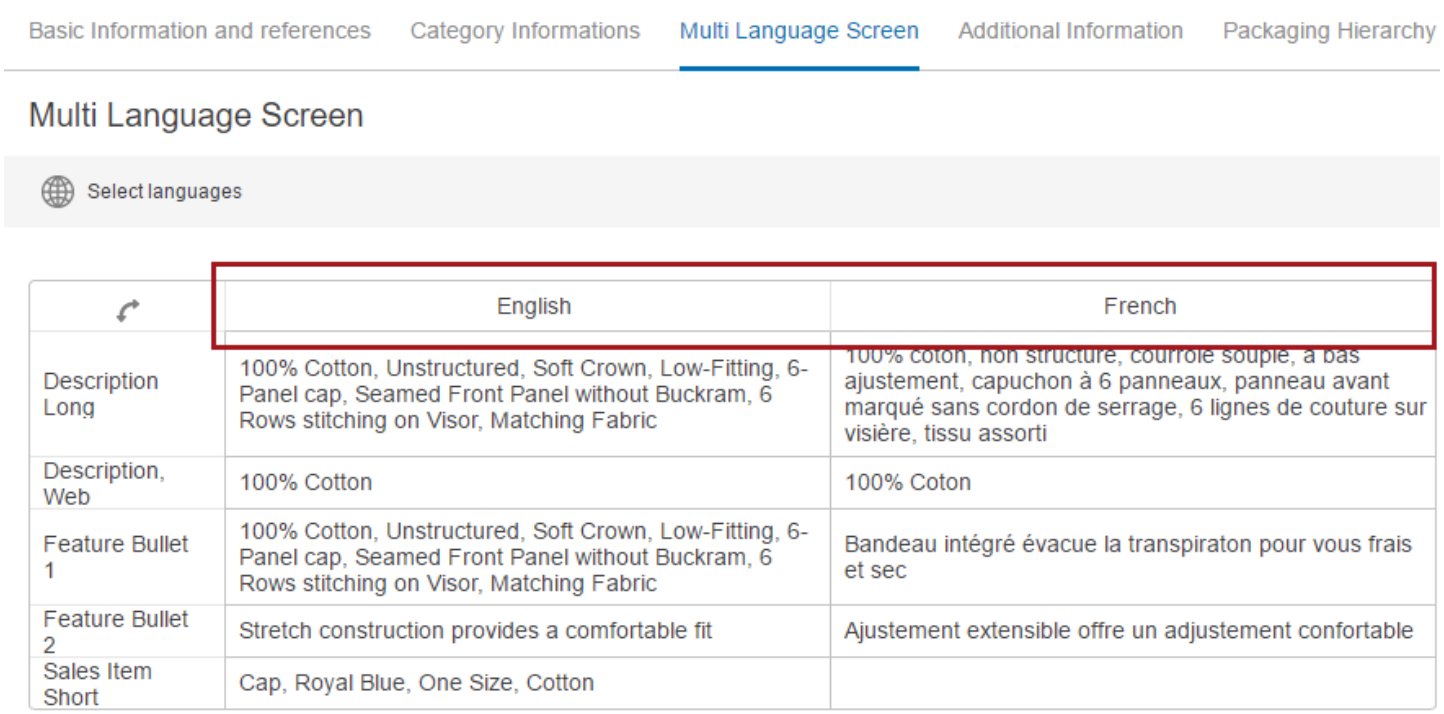
Using a Multi Language Screen

Using a Multi Language Screen allows users to more easily edit attribute values across different languages by displaying each language and the configured attribute values within one table.

There are a variety of ways to configure the Multi Language Screen, for this example the Multi Language Screen is setup to display as a sub-screen tab page on a Node Details screen when a user navigates to an object. The default languages configured (by the admin) to display are English and French, but configuration allows a user to choose other languages to display.

- Navigate to the object (a Sales Item object is used in the examples throughout this topic) and click the **Multi Language Screen** tab.

  Because the Property Direction parameter for the Multi Language Editor has been set to vertical instead of horizontal (*default*), the English and French language dimensions display as column headers, and the configured attributes display as rows. In this scenario, to view the language dimensions as rows instead of columns, click the flip table icon.

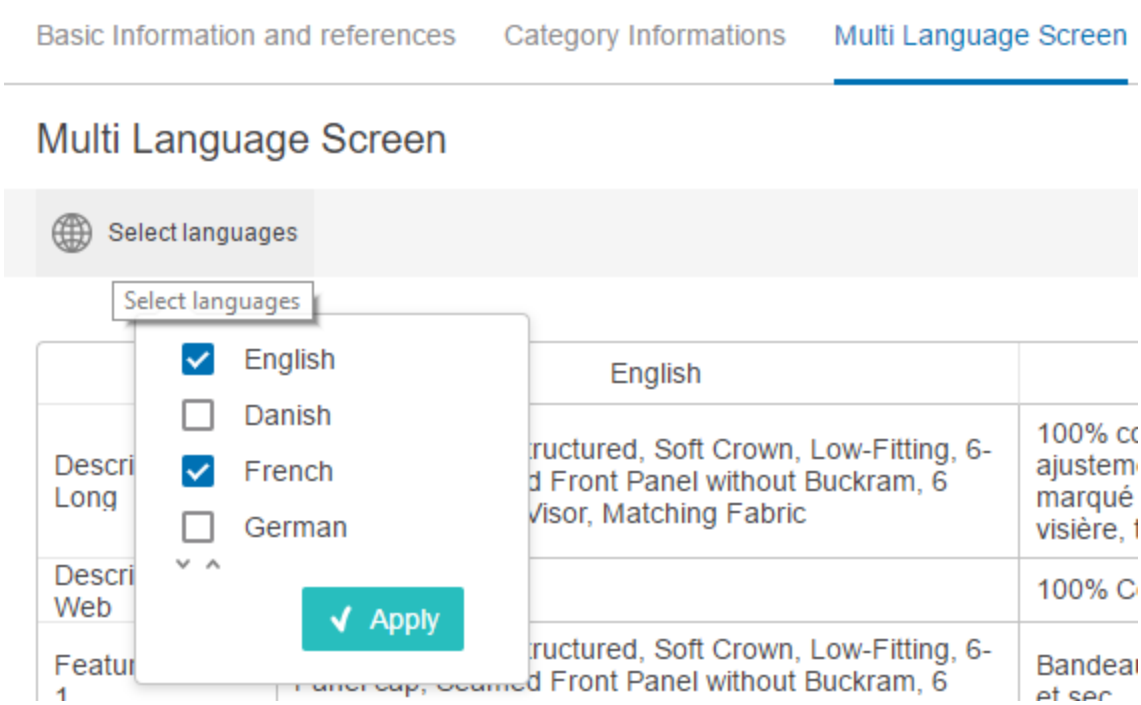


Selecting Languages

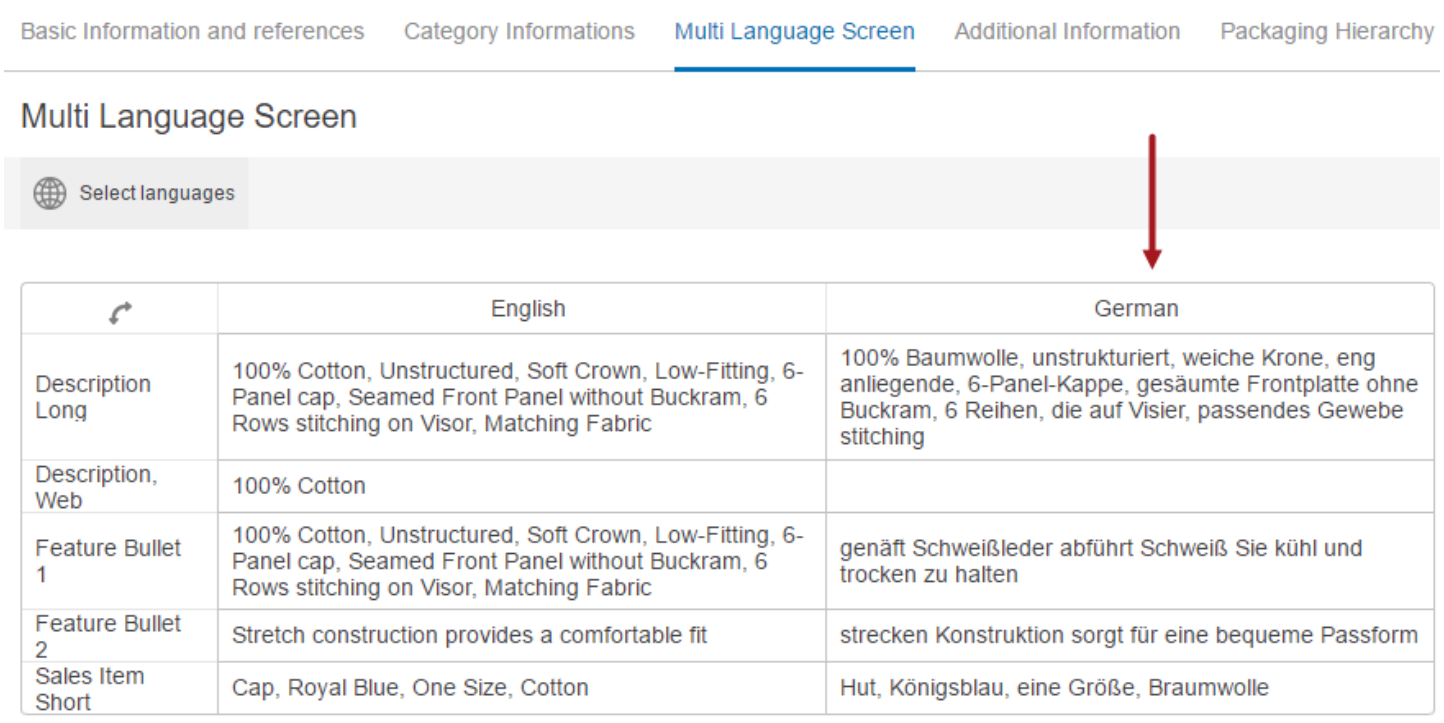
A user can select specific language dimensions to display. The language selection lists varies based upon configuration.

- Click the **Select languages** button 

and a dialog will list the language dimensions available for a user to enable or disable. In this example, when the user clicks on the **Select languages** button, the option to enable or disable English, Danish, French, and German have been configured to display.



- Disable French, enable German, and click **Apply** so the English and German language columns will display.



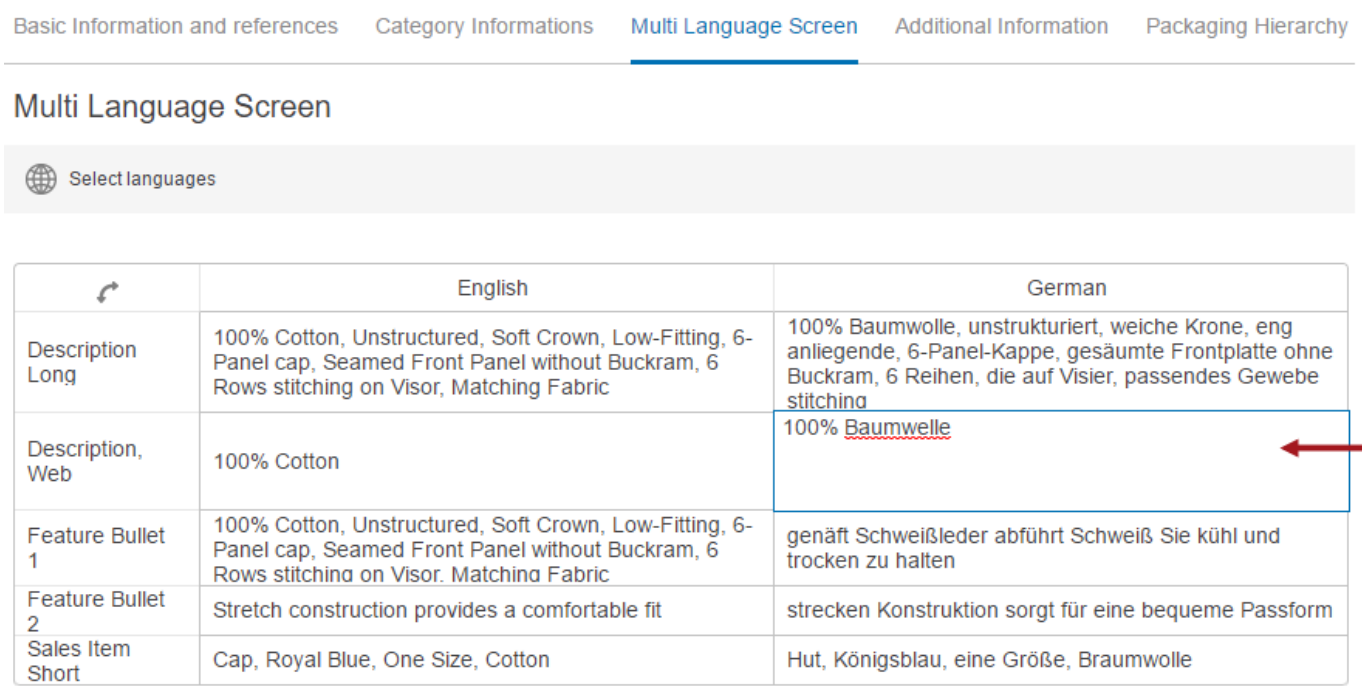
	English	German
Description Long	100% Cotton, Unstructured, Soft Crown, Low-Fitting, 6-Panel cap, Seamed Front Panel without Buckram, 6 Rows stitching on Visor, Matching Fabric	100% Baumwolle, unstrukturiert, weiche Krone, eng anliegende, 6-Panel-Kappe, gesäumte Frontplatte ohne Buckram, 6 Reihen, die auf Visier, passendes Gewebe stitching
Description, Web	100% Cotton	
Feature Bullet 1	100% Cotton, Unstructured, Soft Crown, Low-Fitting, 6-Panel cap, Seamed Front Panel without Buckram, 6 Rows stitching on Visor, Matching Fabric	genäft Schweißleder abführt Schweiß Sie kühl und trocken zu halten
Feature Bullet 2	Stretch construction provides a comfortable fit	strecken Konstruktion sorgt für eine bequeme Passform
Sales Item Short	Cap, Royal Blue, One Size, Cotton	Hut, Königsblau, eine Größe, Braumwolle

The next time a user navigates to the Multi Language Screen, the screen default language dimensions (English and French) will display. If saving local settings is enabled in the properties file, then the Multi Language Screen will display with the setting changes made by the user.

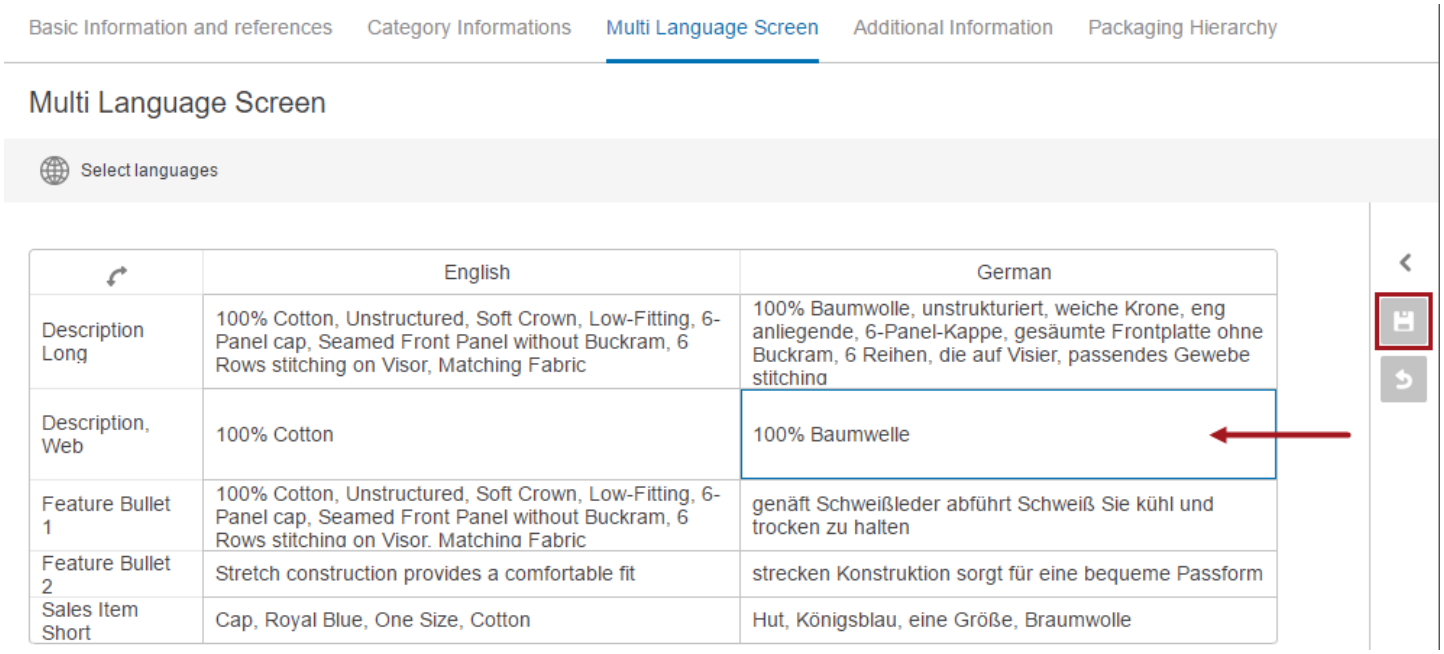
Editing Attribute Values

A user can edit configured attribute values by double clicking within any table cell to edit the text, if language dimension dependencies are enabled. The cell being edited will appear with a dotted line border.

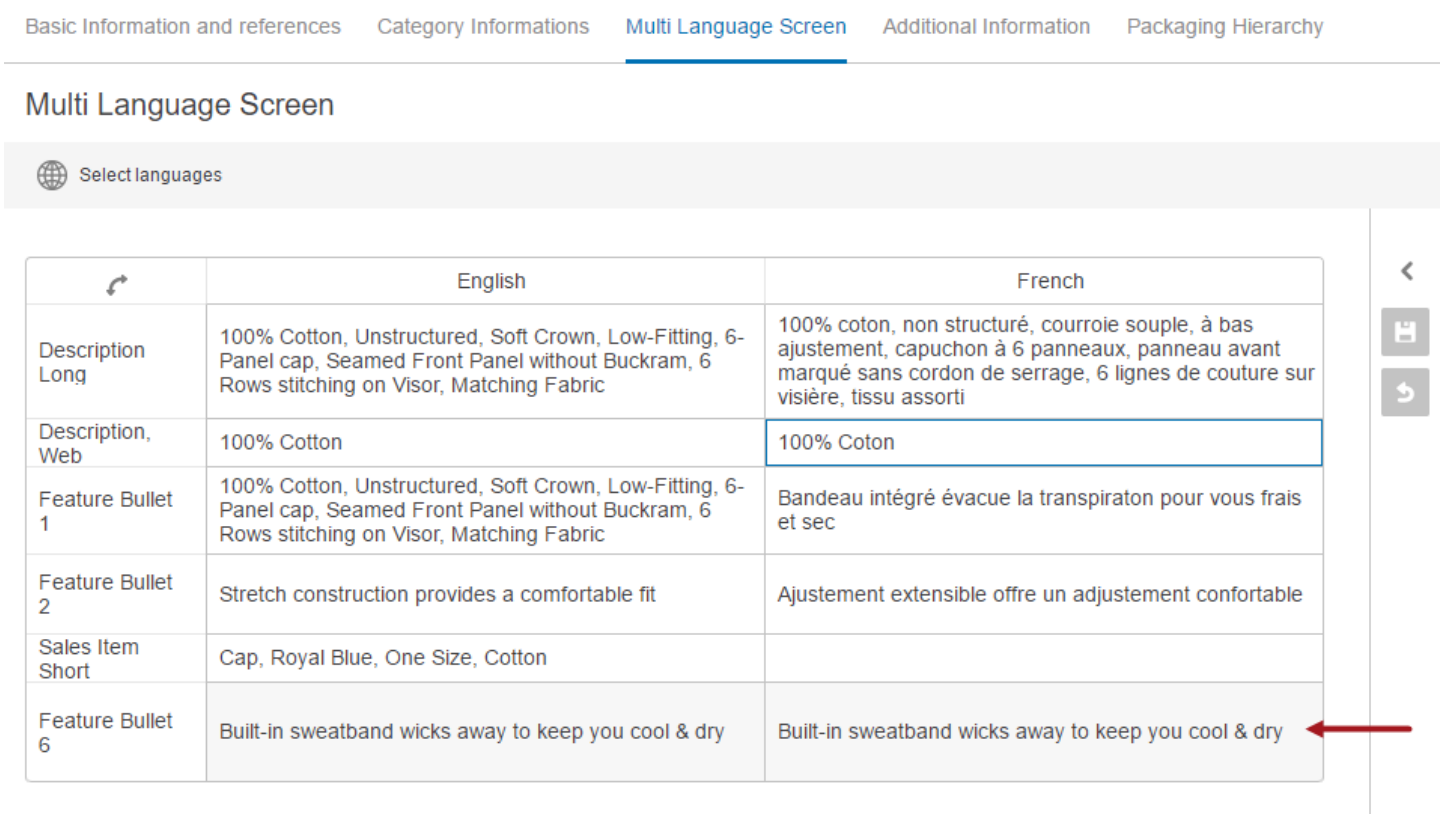
In this case, the 'Description, Web' attribute value for the German language dimension needs to display '100% Baumwolle.'



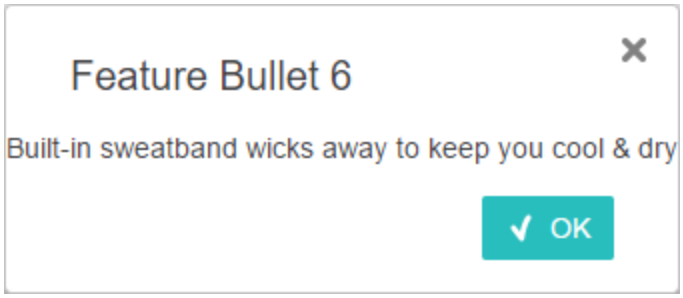
While the cursor is in the edited cell, the dotted line border remains. However, the Multi Language Screen configuration determines how the changes are saved. If the configuration uses immediate save, then the changes will be saved after the cursor leaves the edited cell. If immediate save is not enabled, then after the cursor leaves the edited cell, the edited cell will display shaded and the save icon will activate. In this case, the changes are not saved until the user selects the save icon.



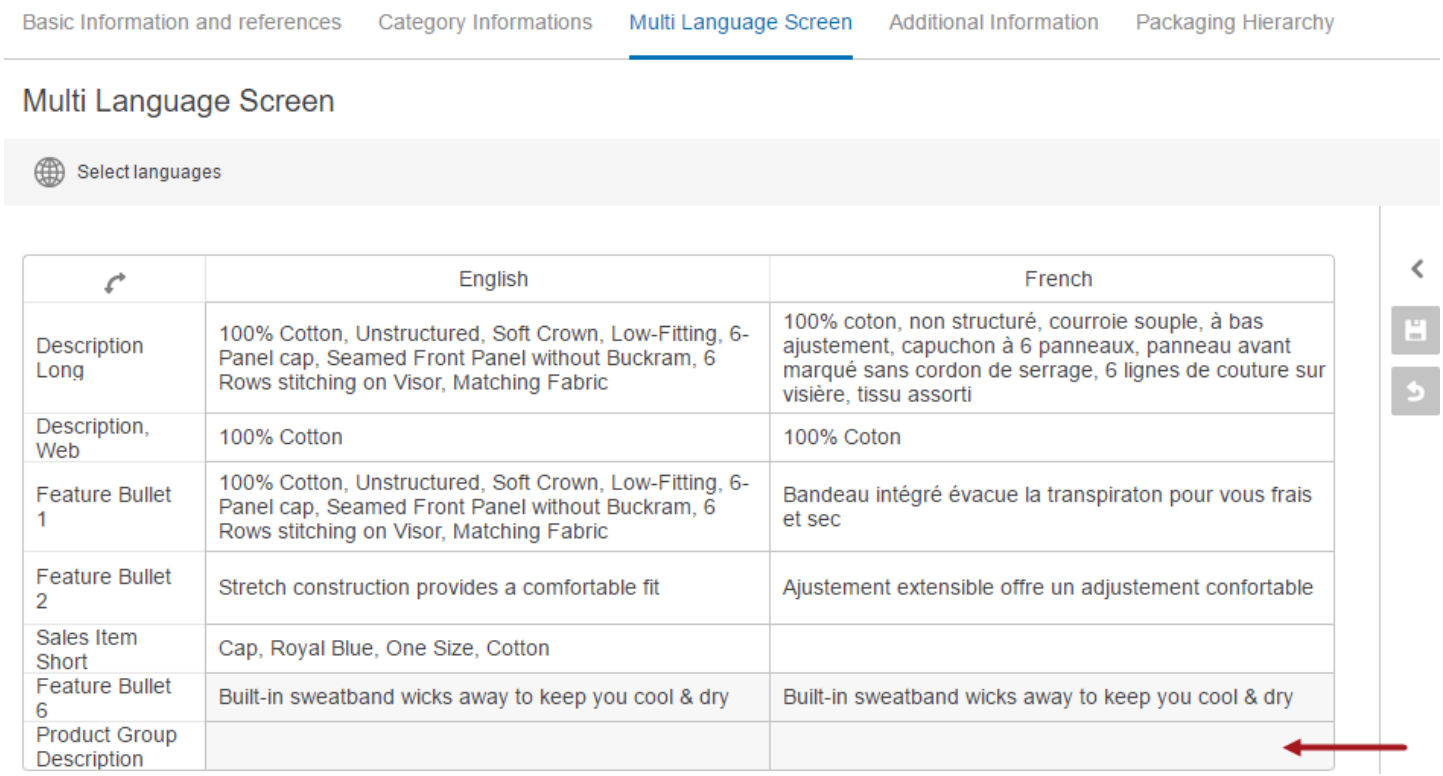
Attribute values that do not have language dimension dependencies enabled will display with a lightly shaded background and are not editable. In the example below, the 'Feature Bullet 6' attribute is not configured to allow language dimension dependencies.



If a user double clicks on one of these attribute values, then a dialog will display with the attribute and its value.



Depending upon configuration, attribute values without product-type validity will also display with a lightly shaded background and are not editable. For this example the 'Product Group Description' attribute is not valid for the product type, and the attribute values are lightly shaded. If the Multi Language Editor has been configured to show only valid attributes, then the values without product-type validity will not display.



	English	French
Description Long	100% Cotton, Unstructured, Soft Crown, Low-Fitting, 6-Panel cap, Seamed Front Panel without Buckram, 6 Rows stitching on Visor, Matching Fabric	100% coton, non structuré, courroie souple, à bas ajustement, capuchon à 6 panneaux, panneau avant marqué sans cordon de serrage, 6 lignes de couture sur visière, tissu assorti
Description, Web	100% Cotton	100% Coton
Feature Bullet 1	100% Cotton, Unstructured, Soft Crown, Low-Fitting, 6-Panel cap, Seamed Front Panel without Buckram, 6 Rows stitching on Visor, Matching Fabric	Bandeau intégré évacue la transpiraton pour vous frais et sec
Feature Bullet 2	Stretch construction provides a comfortable fit	Ajustement extensible offre un adjustement confortable
Sales Item Short	Cap, Royal Blue, One Size, Cotton	
Feature Bullet 6	Built-in sweatband wicks away to keep you cool & dry	Built-in sweatband wicks away to keep you cool & dry
Product Group Description		

Information regarding configuration can be found in the **Configuring a Multi Language Screen** topic.

Configuring a Multi Language Screen

Any number of Multi Language Screens can be added to a Web UI. Once added, as with any screen, an admin user must configure how users access a Multi Language Screen. Other configuration options include configuring a default layout, language dimensions available to users, what headers can users view and edit, and how edits are saved.

This topic addresses design Prerequisites, Creating a New Multi Language Screen, and Configuring:

- Access to a Multi Language Screen
- Multi Language Screen Properties
- Multi Language Editor Properties
- Headers for the Multi Language Editor
- Specific Language Dimensions

Prerequisites

It is expected that anyone configuring the Multi Language Screen component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, users must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Also, for configuration of the Multi Language Screen, it is expected to be familiar with the **Dimension Dependent Data** section of the **Contexts** documentation, and know how to use attribute values / attribute value groups, which is explained in the **Attribute Value Component** documentation, and the **Attribute Value Group Component** documentation.

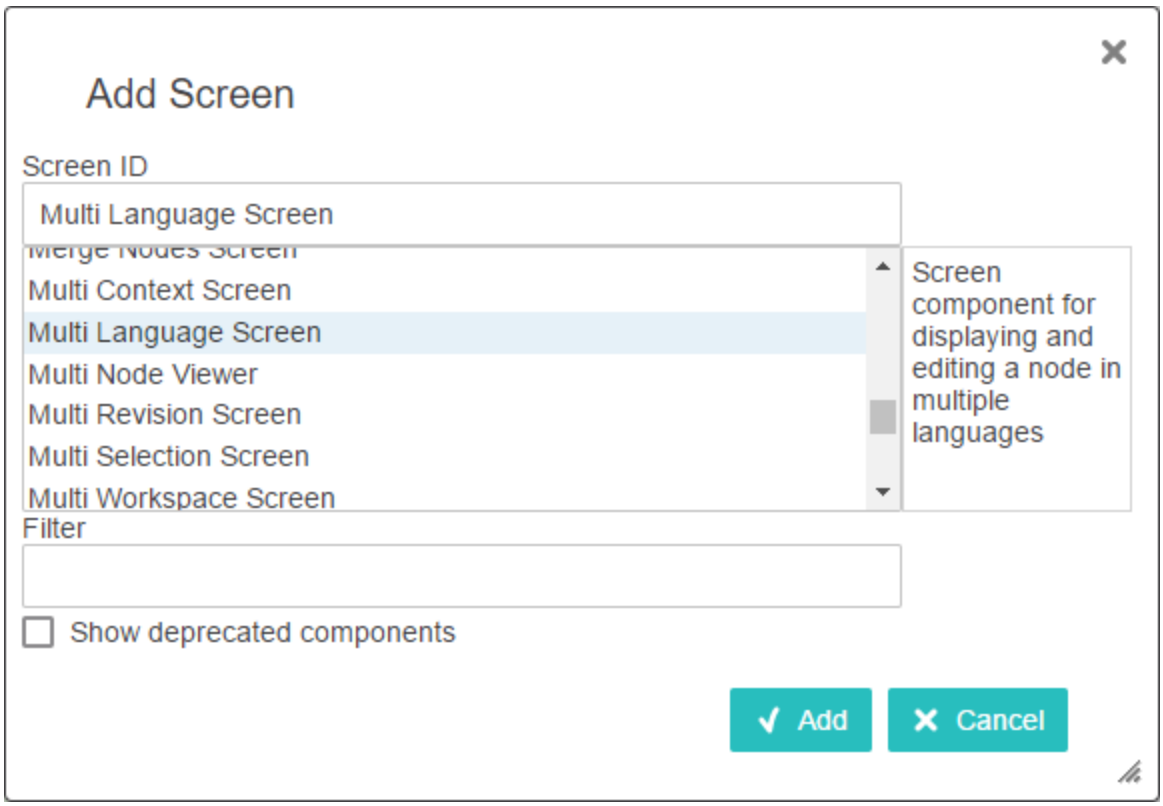
Creating a New Multi Language Screen

Steps for adding a new Multi Language Screen are below. Additional details for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic.

1. With the Designer window open, click the **New** button to create a new screen.



2. Choose **Multi Language Screen** from the screen list.
3. Type in a descriptive Screen ID.
4. Click **Add**.



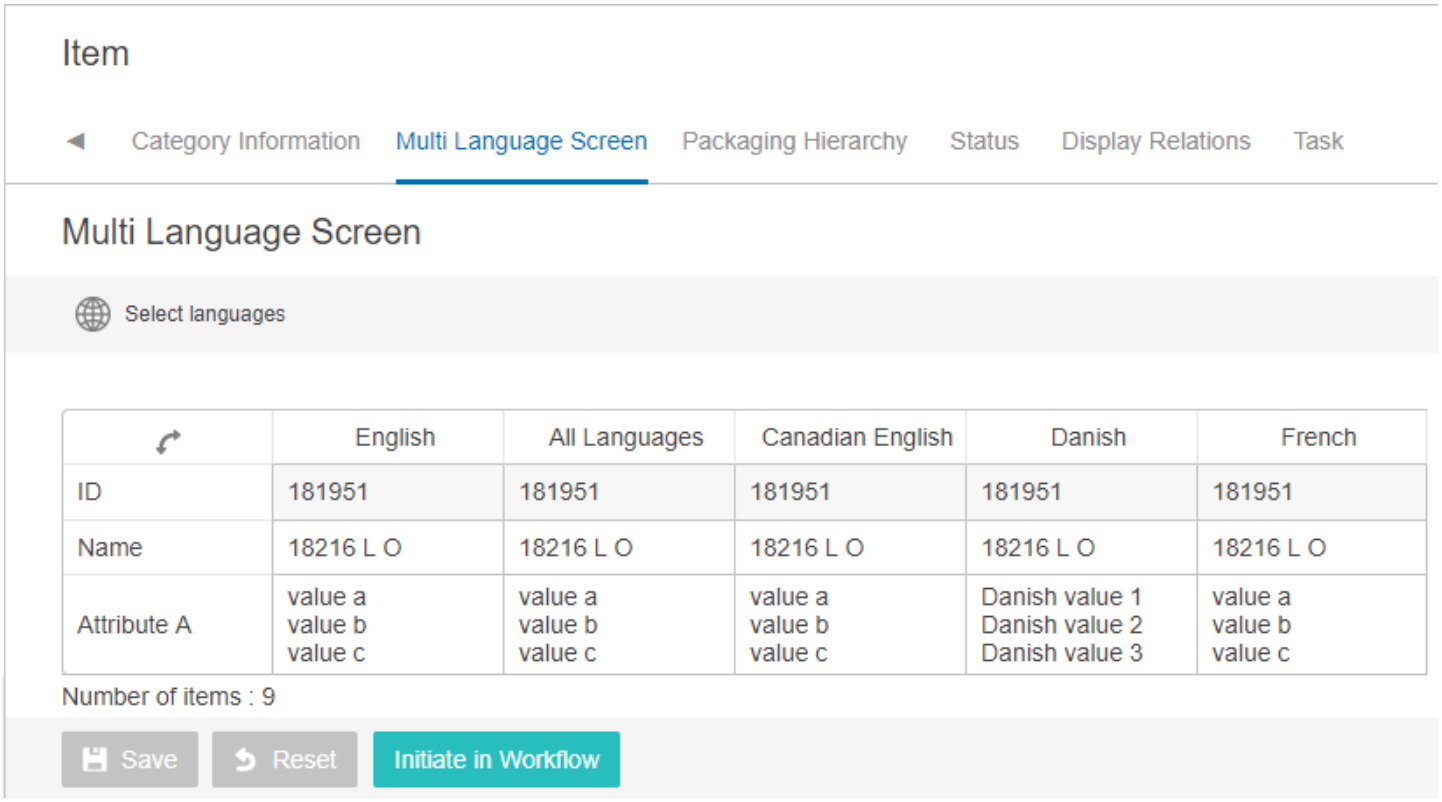
At this point, either close the designer and configure the screen at a later time, or continue on with the steps in the next section.

Configuring Access to a Multi Language Screen

An admin user must configure how a user will access a Multi Language Screen. The Multi Language Screen can be either mapped using Main Properties or added to a Sub Screen Tab Page on a Node Details Screen.

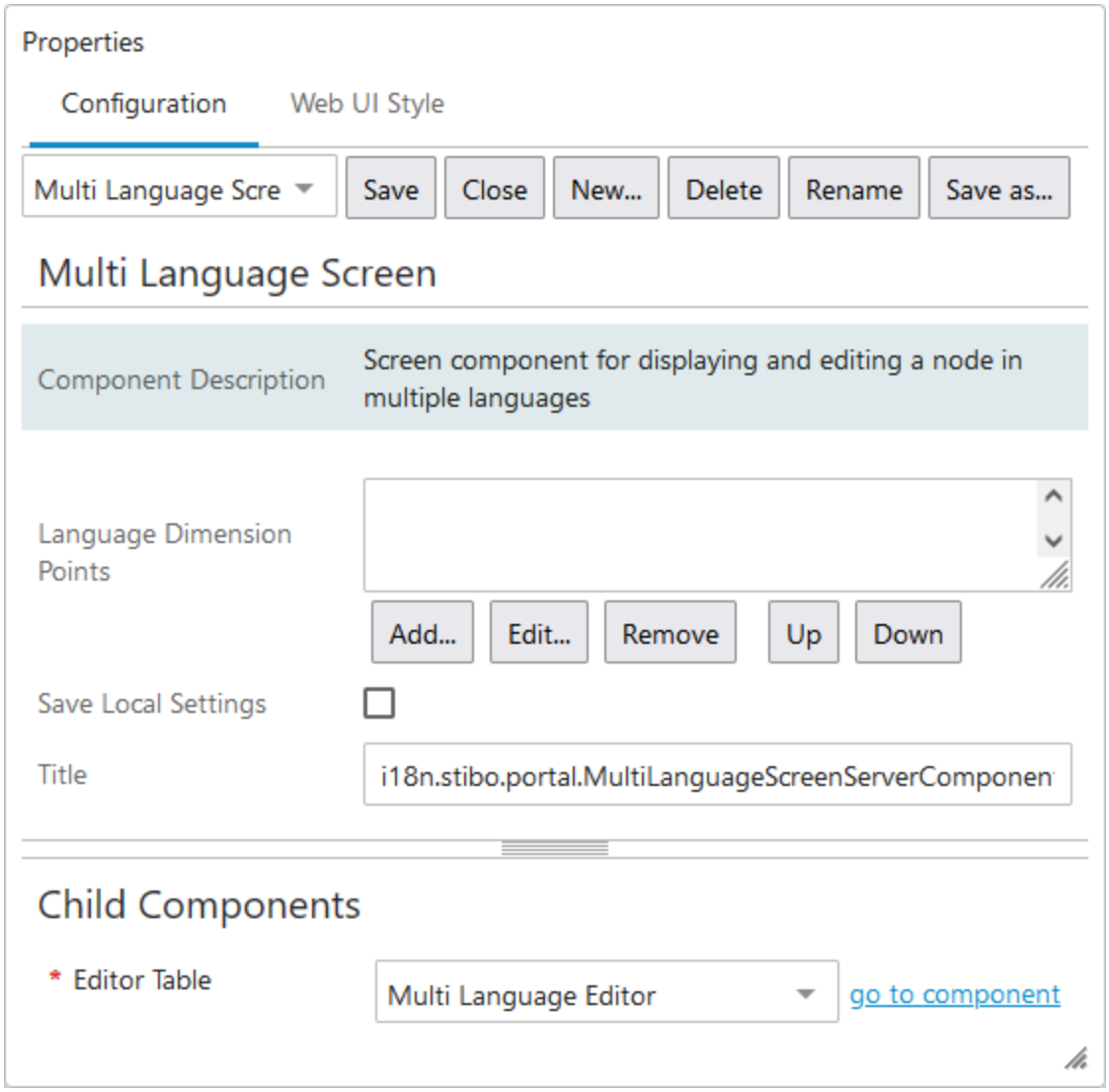
For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about Sub Screen Tab Pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

The example below shows the Multi Language Screen displayed as a sub screen tab page on a Node Details screen and is displayed when an object is selected.

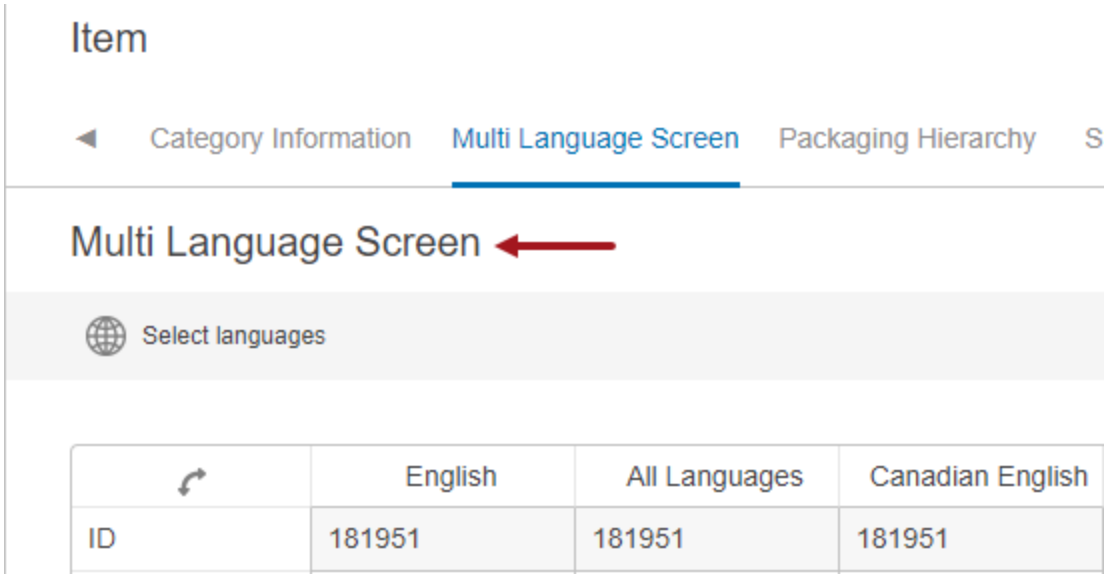


Configuring Multi Language Screen Properties

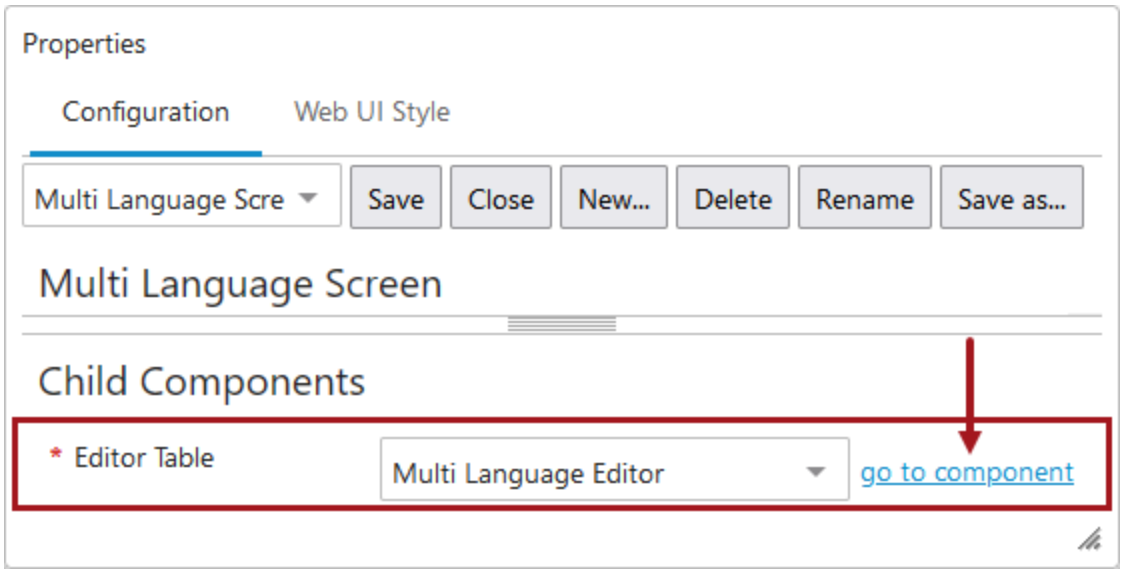
Steps for configuring the Multi Language Screen Properties are below.



1. With the designer window open, select the screen ID for the **Multi Language Screen** using the screen dropdown list. (If continuing on after creating a new Multi Language Screen, Multi Language Screen Properties should already be displayed.)
2. Optionally, add Language Dimension Points to restrict the languages available to the user. When left blank, all languages available within STEP Workbench are displayed to the Web UI user. Steps for adding Language Dimension Points are found in the **Adding Language Dimension Points** section in the **Configuring a Multi Workspace Screen** documentation.
3. Determine if you want to enable the Save Local Settings parameter. If enabled, when a user makes changes to the languages shown on the screen, those changes are saved and the screen will display with the users preferred settings instead of the default. If disabled, the default languages will display each time a user accesses the Multi Language screen.
4. Type in a title for the screen, if desired, and the title will display on the screen in the top left corner. When blank, no title appears.



5. The Child Components > Editor Table parameter is pre-populated with the Multi Language Editor value dropdown, since it is mandatory to configure the editor before the Multi Language Screen will render correctly.

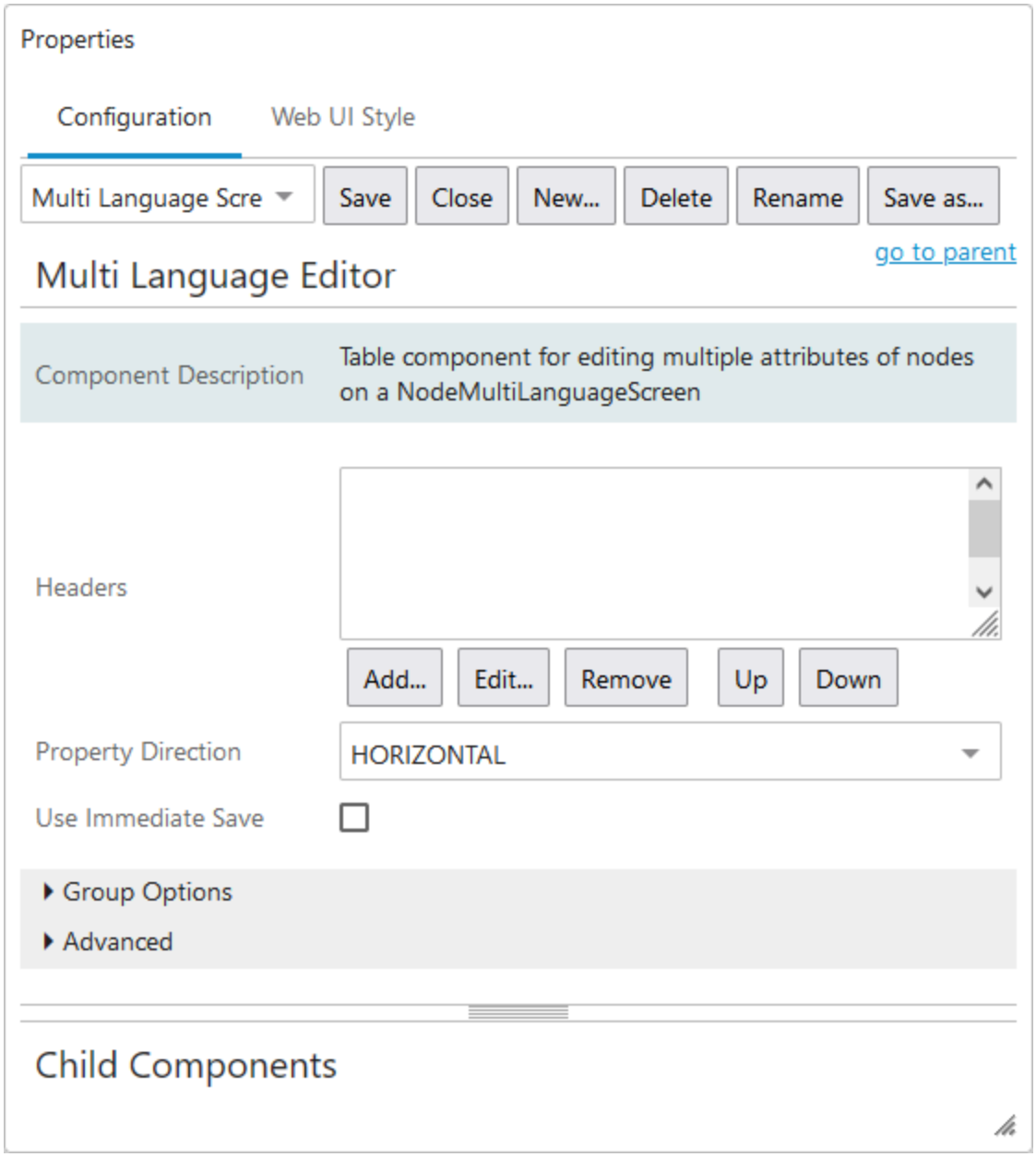


Configuring Multi Language Editor Properties

Steps for configuring the **Multi Language Editor Properties** are below.

1. Go to the Multi Language Screen Properties > Child Components > Editor Table > Multi Language Editor > Click **go to component** (as found in the above picture).

   The Multi Language Editor Properties will display.



2. Adding components to the **Headers** parameter determines the information that will display on the Multi Language Screen. If left blank then the ID and Title (Language) headers will display. Add, edit, remove, and reorganize table headers, as desired, in the **Headers** value field. Relevant headers to consider including, as needed, are: ID Header, Name Header, Attribute Value Header and Attribute Value Group Header. Steps for adding Headers can be found in the **Adding Headers** section below.
3. Determine the direction of the table using the **Property Direction** parameter. If no selection is made, then HORIZONTAL is the default selection and displays after the properties are saved the first time.
   - **VERTICAL** will display the added Headers as rows.
   - **HORIZONTAL** will display the added headers as columns.

4. Enable **Use Immediate Save** if edits made by a user should be auto-saved as soon as the cursor leaves the cell. If the user should be required to manually Click the save button after editing, then leave this parameter disabled. For details, refer to the **Auto-Save in the Web UI** topic.
5. Display additional optional parameter settings by clicking the **Group Options** heading and/or the **Advanced** heading. Make selections as desired. Each parameter features help text, accessible by clicking the info icon to the right of each parameter name.

Group Options Flipper

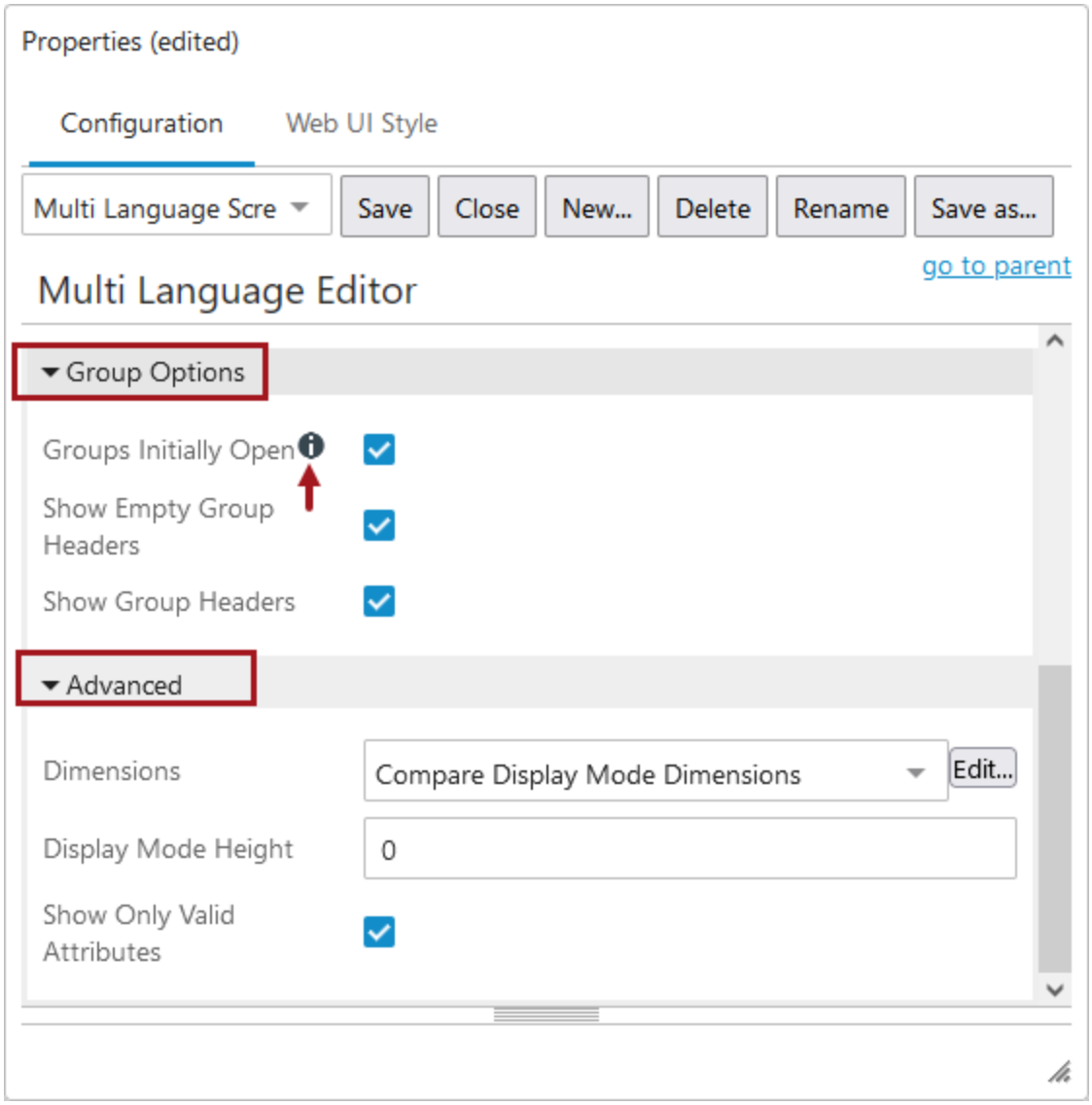
- **Groups Initially Open**: This option works in combination with the option **Show Group Headers**. If enabled, the attribute groups header will always be displayed open, showing all the attributes underneath the flipper, unless manually being closed by the user. If disabled, which is the default setting, the attribute groups header will remain closed, and a user has to open the attribute header to access those attributes manually.

Note: If Show Group Headers option is disabled, then the attributes underneath the Attribute Group flipper will always be opened without group headers displayed.

- **Show Empty Group Headers**: If enabled, which is the default setting, it displays the attribute group header even if the attribute group is empty. This occurs even if the Show Only Valid Attributes option is enabled and there are no valid attributes in the group. If disabled, the attribute group headers having no attributes in it is also displayed.
- **Show Group Headers**: If enabled, which is the default setting, it shows the header for attribute groups. If disabled, all attributes are expanded and displayed without an option to expand or collapse the attribute group header.
- **Display Mode Height**:This is the height of the top half of the screen in px where the items are displayed.

  Note: This is only applicable when ShowDetails is 'true.'

- **Show only Valid Attributes**: Located under the Advanced flipper, if enabled, it displays only the attributes which are valid to the selected product. If disabled, which is the default setting, it displays all the attributes, irrespective of the validity to the selected product, which is defined / added in the Headers option.



6. Click **Save**.

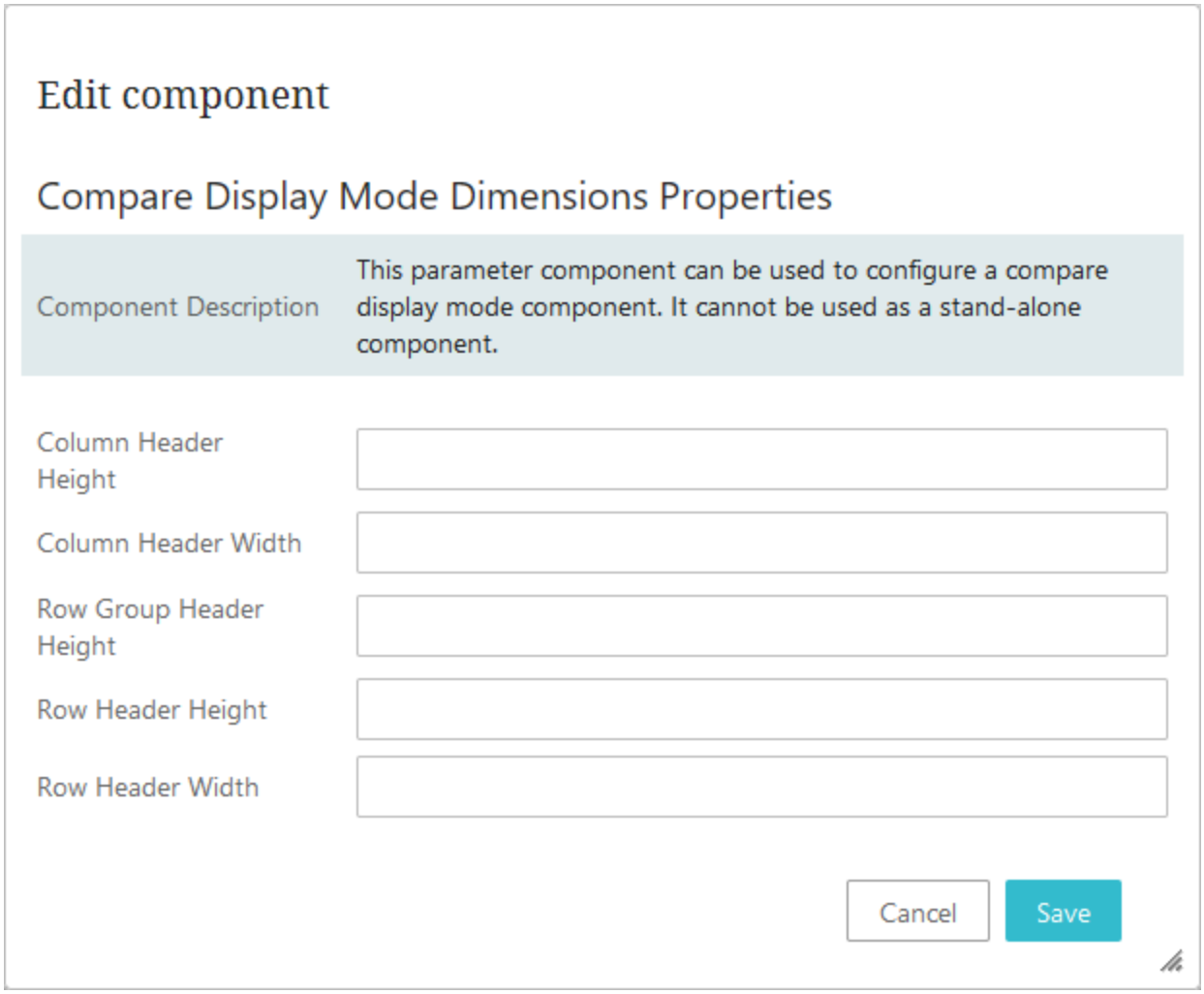
Configuring Compare Display Mode Dimensions

Below are the steps to configure the dimensional properties of 'Compare Display Mode Component' in pixels. The dimensional values of the Column header height, Column Header width, Row group Header Height, Row Header height, Row Header width can be configured. This can only be used to configure a compare display mode component and it cannot be used as a standalone component.

1. Open the Advanced flipper > Dimensions
2. Select the option Compare Display Mode Dimensions from the dropdown > Select Edit

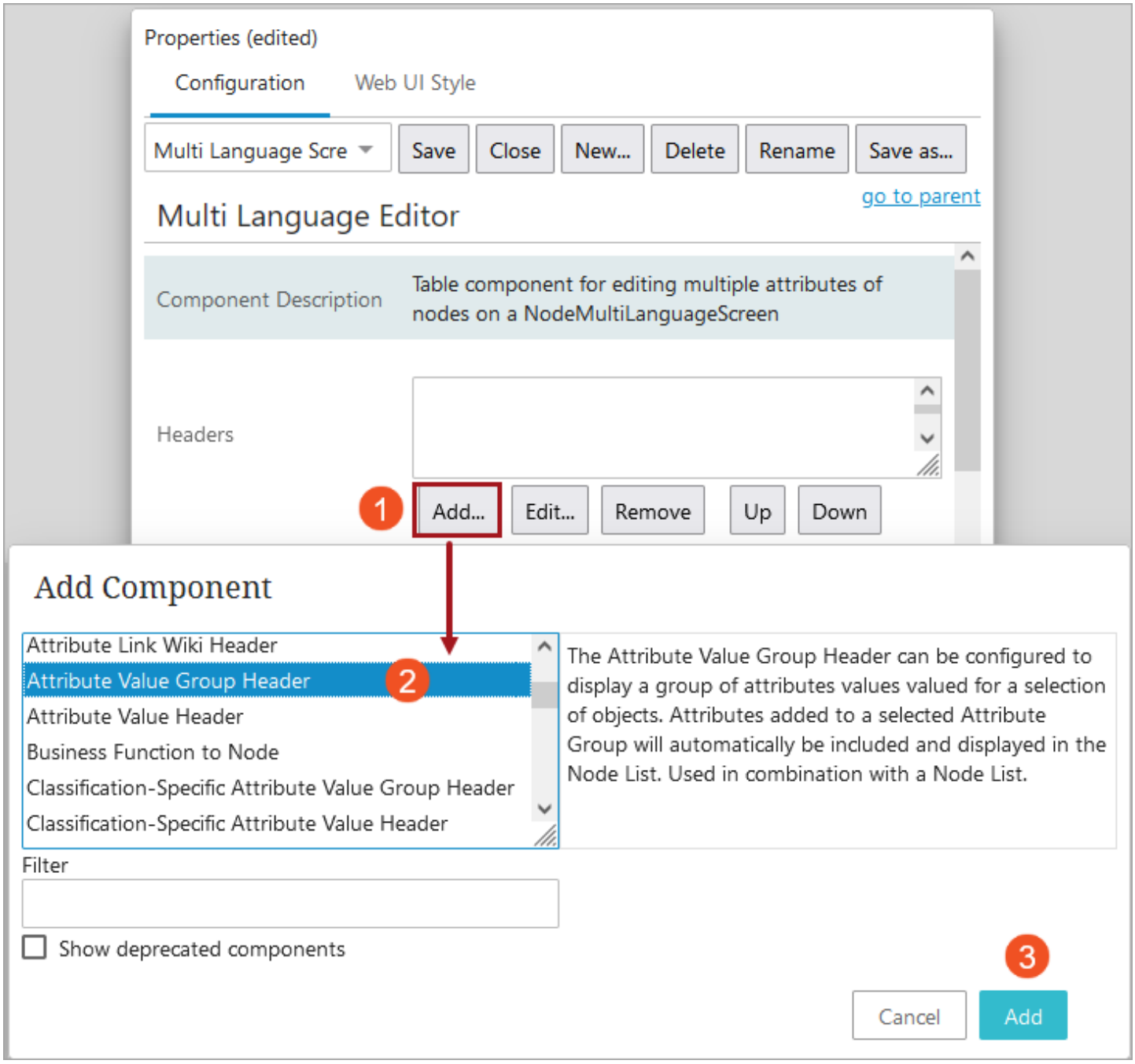
In the Compare Display Mode Dimensions Properties the following properties are to be filled out:

- **Column Header Height**: Alters the height of the column header in pixels.
- **Column Header Width**: Alters the width of the column header in pixels.
- **Row Group Header Height**: Alters the height of the grouping row headers in pixels.
- **Row Header Height**: Alters the height of the row header in pixels.
- **Row Header Width**: Alters the width of the row header in pixels



Configuring Headers for the Multi Language Editor

To display specific attribute values within the Multi language Screen, an admin user must add and configure Headers within the Multi Language Editor Properties. If left blank then ID and Title (Language) headers will display.



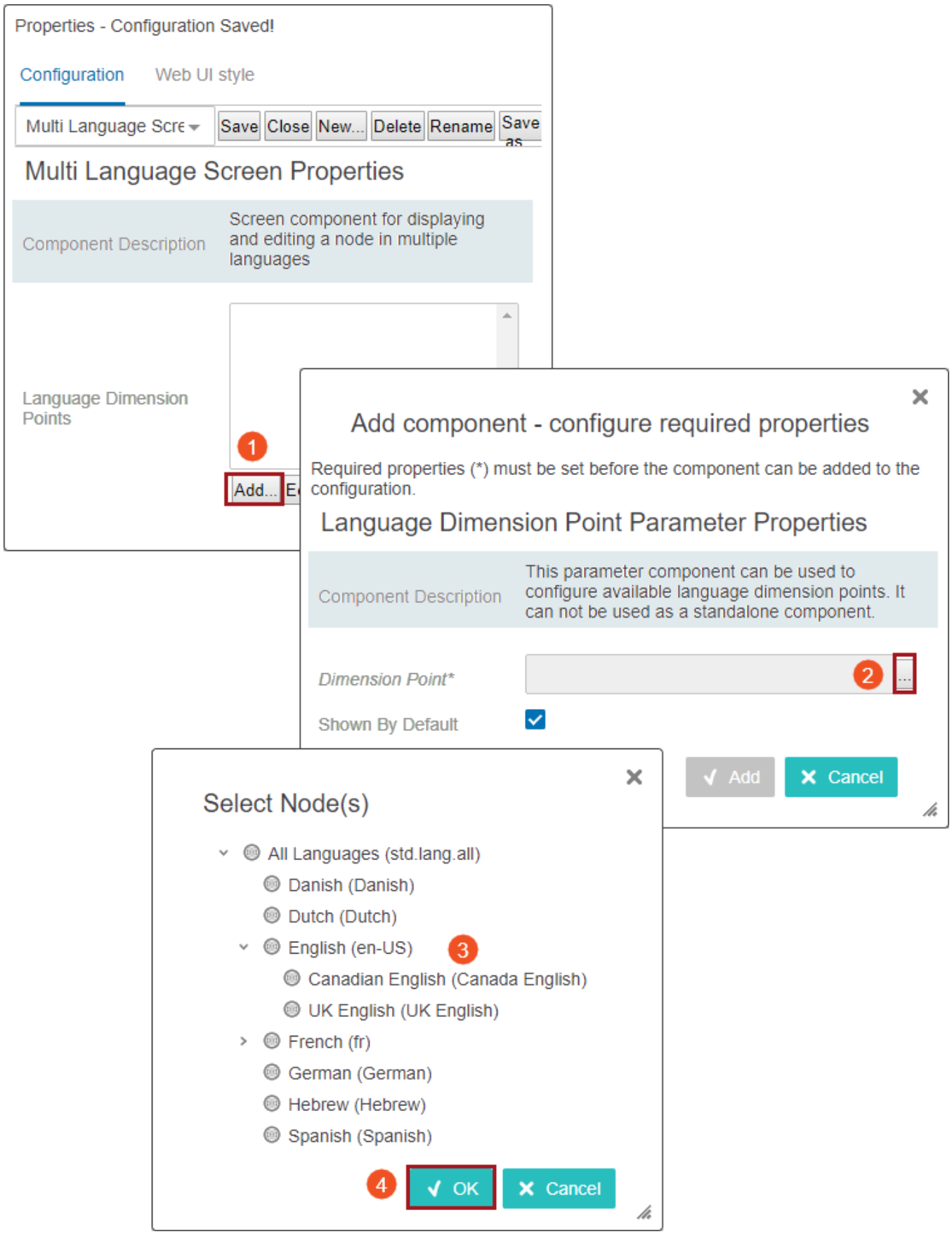
1. Go to the Multi Language Editor Properties > Headers > Click **Add**.
2. The 'Add Component' for the Multi Language Editor Properties will display. Attribute Value Header and Attribute Value Group Header can be used to display the attribute values.
3. After the selection is made, click **Add** to close the dialog. Fill out any required properties that may display after a selection is made, clicking **Add** again to return to the Multi Language Editor Properties. Add, edit and organize any additional headers.

4. Click **Save**.
5. Click **Close**.

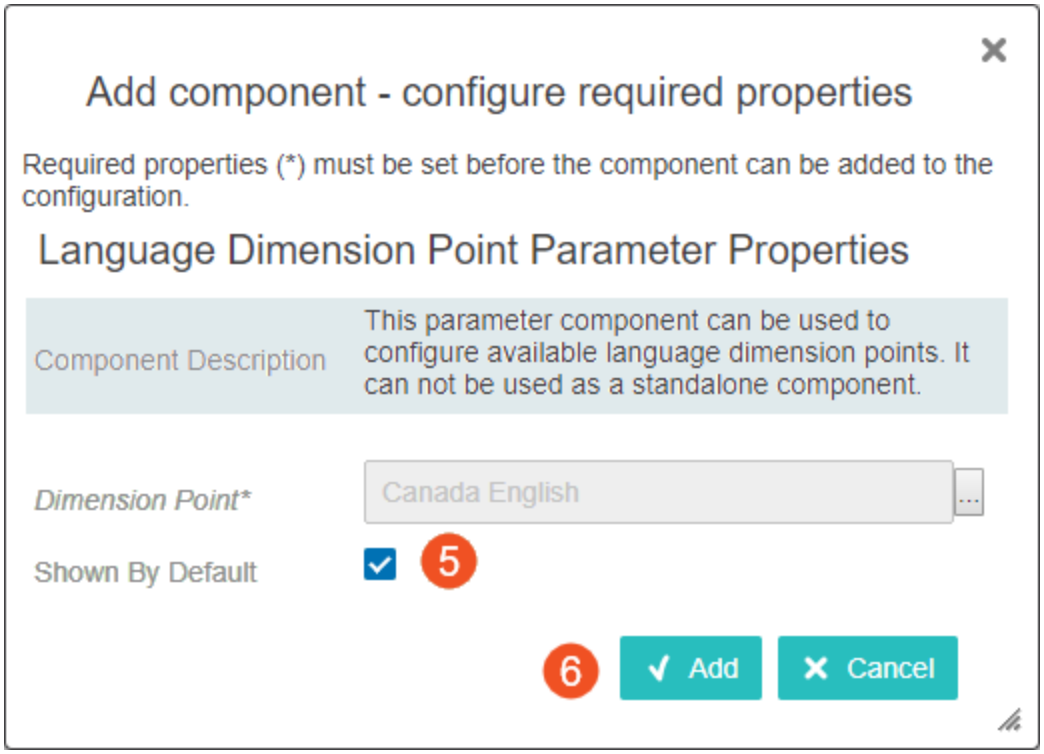
Configuring Specific Language Dimensions

If only specific languages need to display to the Web UI user, then the following steps can be used to display specific language dimension points. When left blank, users will view all languages within STEP.

1. Go to Multi Language Screen Properties > Language Dimension Points. Click **Add**.
2. The Language Dimension Point Parameter Properties dialog will display. Click the ellipsis button (...) for the Dimension Point parameter.
3. The 'Select Node(s)' dialog will display. Select one language.
4. Click **OK**.


Properties - Configuration Saved!
Configuration
Web UI style
Multi Language Scre
Save
Close
New...
Delete
Rename
Save as
Multi Language Screen Properties
Component Description
Screen component for displaying and editing a node in multiple languages
Language Dimension Points
1
Add...
Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Language Dimension Point Parameter Properties
Component Description
This parameter component can be used to configure available language dimension points. It can not be used as a standalone component.
Dimension Point*
2
Shown By Default
Add
Cancel
Select Node(s)
All Languages (std.lang.all)
Danish (Danish)
Dutch (Dutch)
English (en-US)
3
Canadian English (Canada English)
UK English (UK English)
French (fr)
German (German)
Hebrew (Hebrew)
Spanish (Spanish)
4
OK
Cancel

5. You are returned to the Language Dimension Point Parameter Properties dialog. The checkbox for Shown By Default is enabled by default. Selecting this ensures the selected language dimension will display when a user navigates to the Multi Language Screen, unless Save Local Settings is enabled.
6. Click **Add**.



7. The Multi Language Screen properties will display. Add additional language dimension points by repeating the 'Adding Language Dimension Points' steps.
8. If a user will need the ability to select other language dimension points, after the selected languages display by default, repeat the steps above and disable the Shown By Default option. This will allow a user to select the language from the 'Select languages' icon, but not show those languages by default.
9. Click **Save**.

For an example regarding how to use the screen once configured, refer to the **Multi Language Screen** topic.

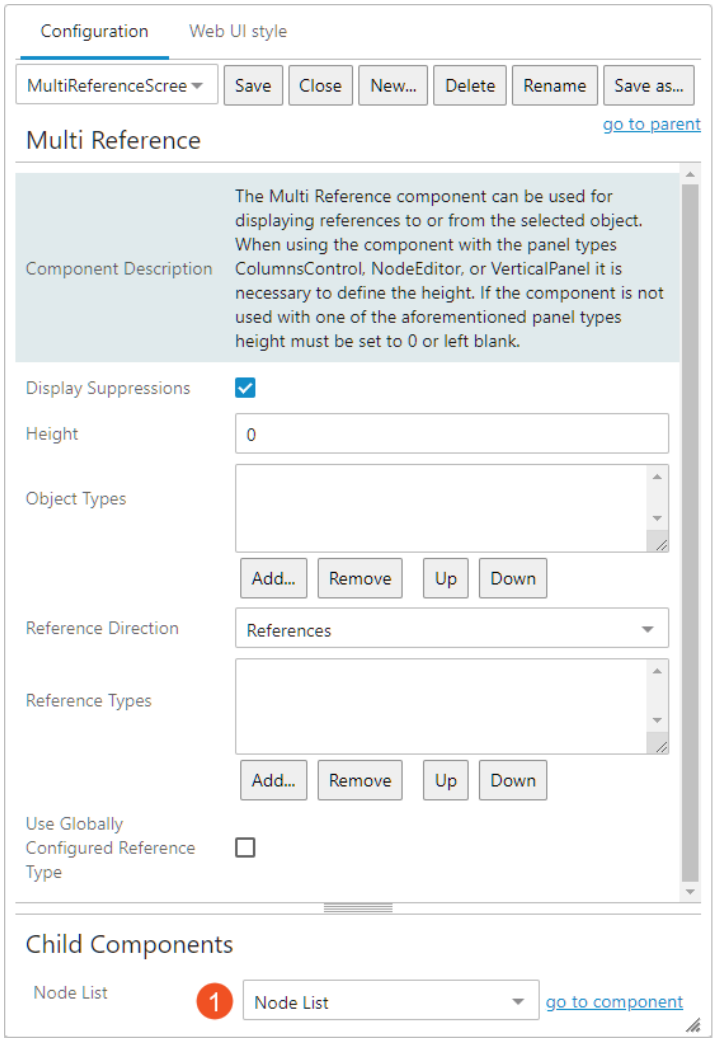
Multi-Reference Editor

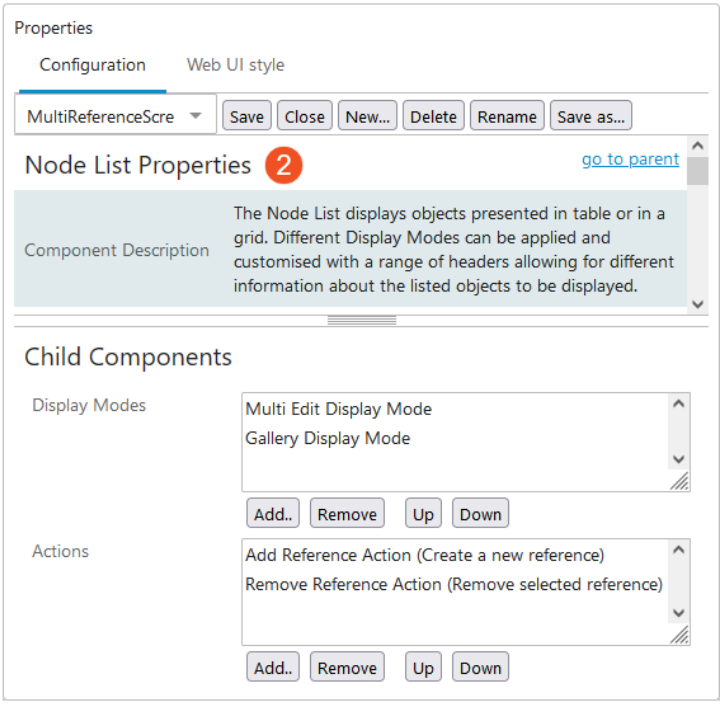
(Component name: Multi-Reference. Available on a Tab Page, Node Editor, or as a child to a display mode.)

The Multi Reference Web UI component can be used to display references with multiple reference types and classification link types in the same table. It can be configured with a list of reference types and/or classification link types to narrow the references (links) that are shown in the table.

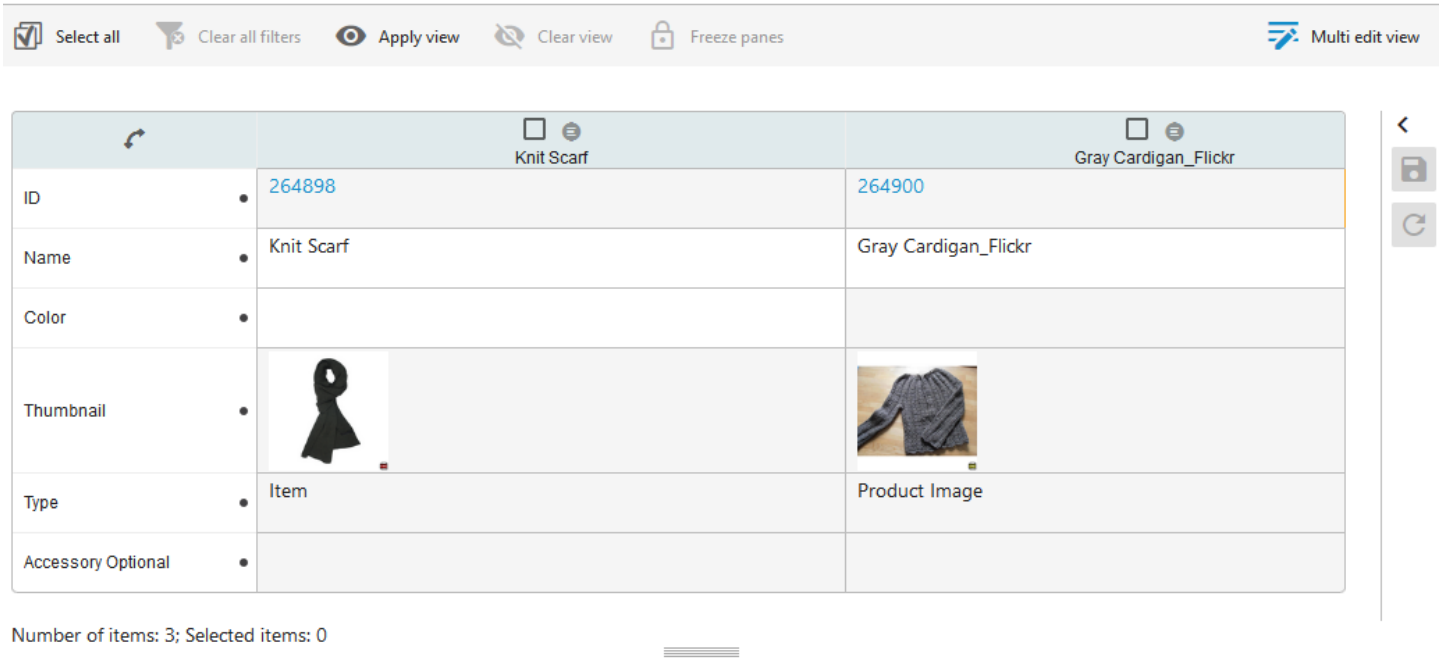
Additionally, it can be configured to display either forward references or reverse references (referenced by mode).

The Multi Reference component is pre-configured with a Node List in Multi Edit Display Mode with the 'Add' and 'Remove Reference' toolbar actions shown. It can be inserted where a container component can be inserted (e.g., as the content of a Tab Page or as content of the Split Panel or Columns components).





Since the Multi Reference component is based on the Node List component and the Multi Edit Display Mode, sorting and filtering of the header component values are supported. This allows for multiple reference types to be shown in the same table with the column filtering capabilities. Also, the number of reference items shown in the configured table is displayed under the table, allowing a user to view how many references there are without having to scroll through the data.



Multi Reference Properties

Each parameter features help text, accessible by clicking the info icon to the right of each parameter name.

Properties

Configuration | Web UI style

Details - Organisatio | Save | Close | New... | Delete | Rename | Save as...

Multi Reference Properties

go to parent

Component Description	The Multi Reference component can be used for displaying references to or from the selected object. When using the component with the panel types ColumnsControl, NodeEditor, or VerticalPanel it is necessary to define the height. If the component is not used with one of the aforementioned panel types height must be set to 0 or left blank.

Display Suppressions: ☑

Height: 500

Reference Direction: Referenced by

Object Types:

Add... | Remove | Up | Down

Reference Types:

- SAP Bill-to
- SAP Ship-to
- SAP Sold-to

Add... | Remove | Up | Down

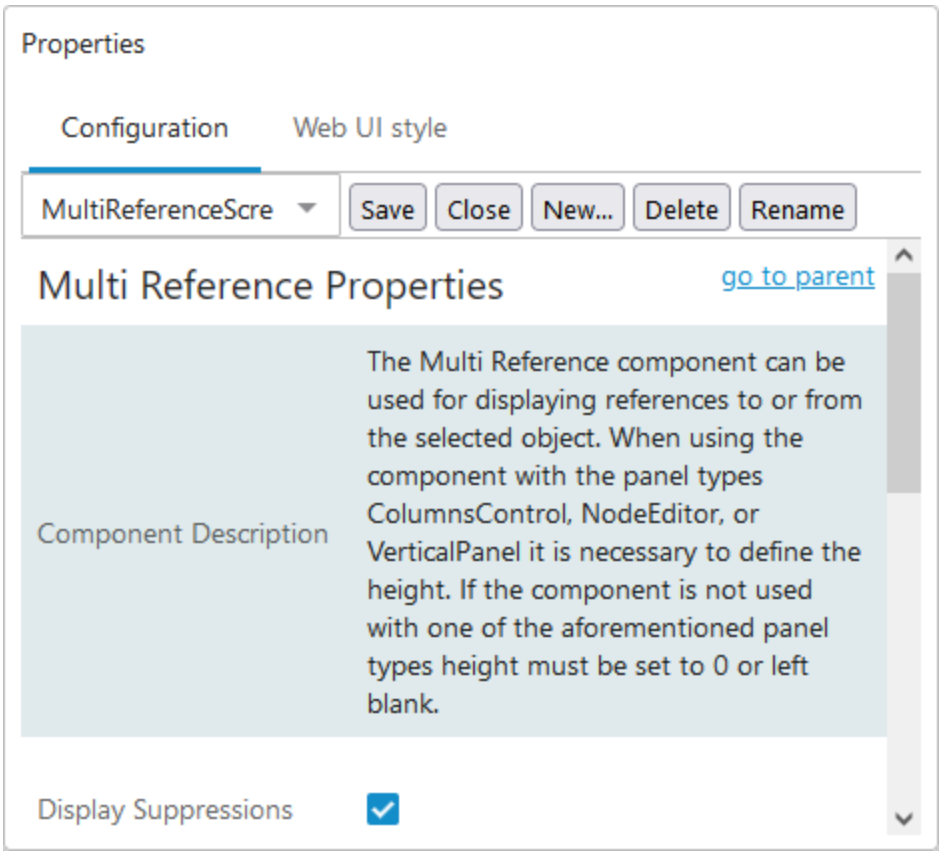
Use Globally Configured Reference Type: ☐

Child Components

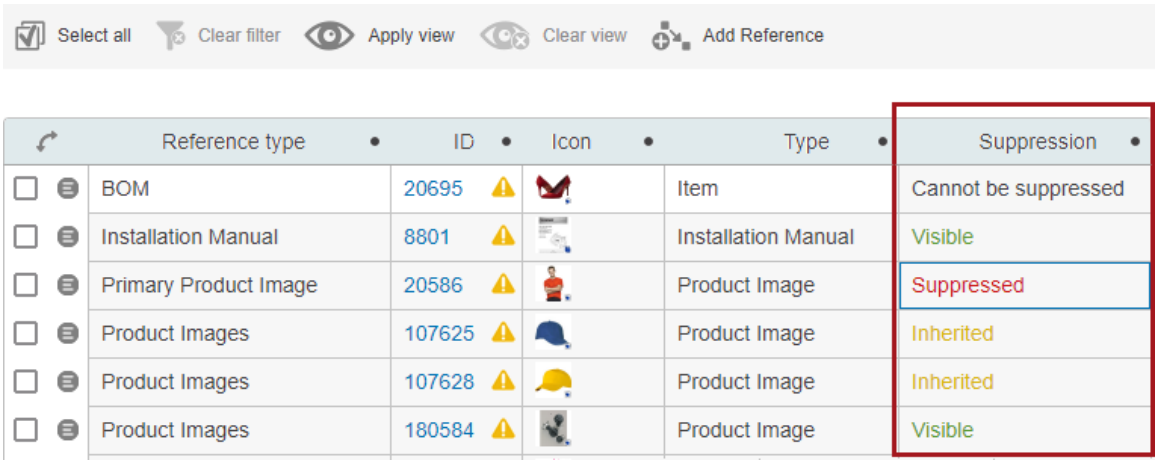
Node List: Node List — go to component

Display Suppression

- When enabled, any suppressed references in the current context will be listed in the Multi-Reference Editor.



- If disabled, any suppressed references in the current context will not be listed in the Multi-Reference Editor.



For more information on Reference Suppression, refer to the **Suppressing References in the Multi-Reference Editor** topic in the **Web User Interfaces** documentation.

Height

When using the component with the panel types Columns Control, Node Editor, or Vertical Panel, it is necessary to go into Design mode and define the **Height** parameter found on the properties screen. If the component is not used with one of these panel types, then the height must be set to 0 (zero) or left blank.

Reference Direction

With the **Reference direction** parameter it is possible to choose the direction of the displayed references:

- References where the selection is the source (References)
- Reverse references where the selection is the target (Referenced by)

Object Types

Adding object types in this field allows admin users to apply additional criteria to manage display of referenced objects based on their object type. Users can add valid object types of source side (or target side, depending on the direction of the reference / link defined in the Reference Direction parameter) that are allowed to be displayed in the Multi-Reference editor. The objects that do not belong to the object type(s) added to this field will not be displayed on the Multi-Reference editor. In addition, this parameter also ensures that no new reference to invalid objects can be established through the Add Reference Action component.

Note: Adding a reference source or target via the typeahead in Add Reference Action will display an error.

Reference Types

Select specific reference type nodes using the **Reference types** parameter **Add** button. Reference types can be re-ordered and removed, as needed.

Use Globally Configured Reference Type

Check this field and set **Reference Direction** to 'References' to pull configuration information from the **Global Reference Representations** component in [--MAIN--]. This will cause the 'Add Reference Action' to use the target search function present in the configuration. The number of type-ahead suggestions will also use the global configuration.

When this is checked, any Search Plugins on the 'Add Reference Action' in the Node List will be ignored for Reference types that have a business function search defined in the global configuration.

Node List

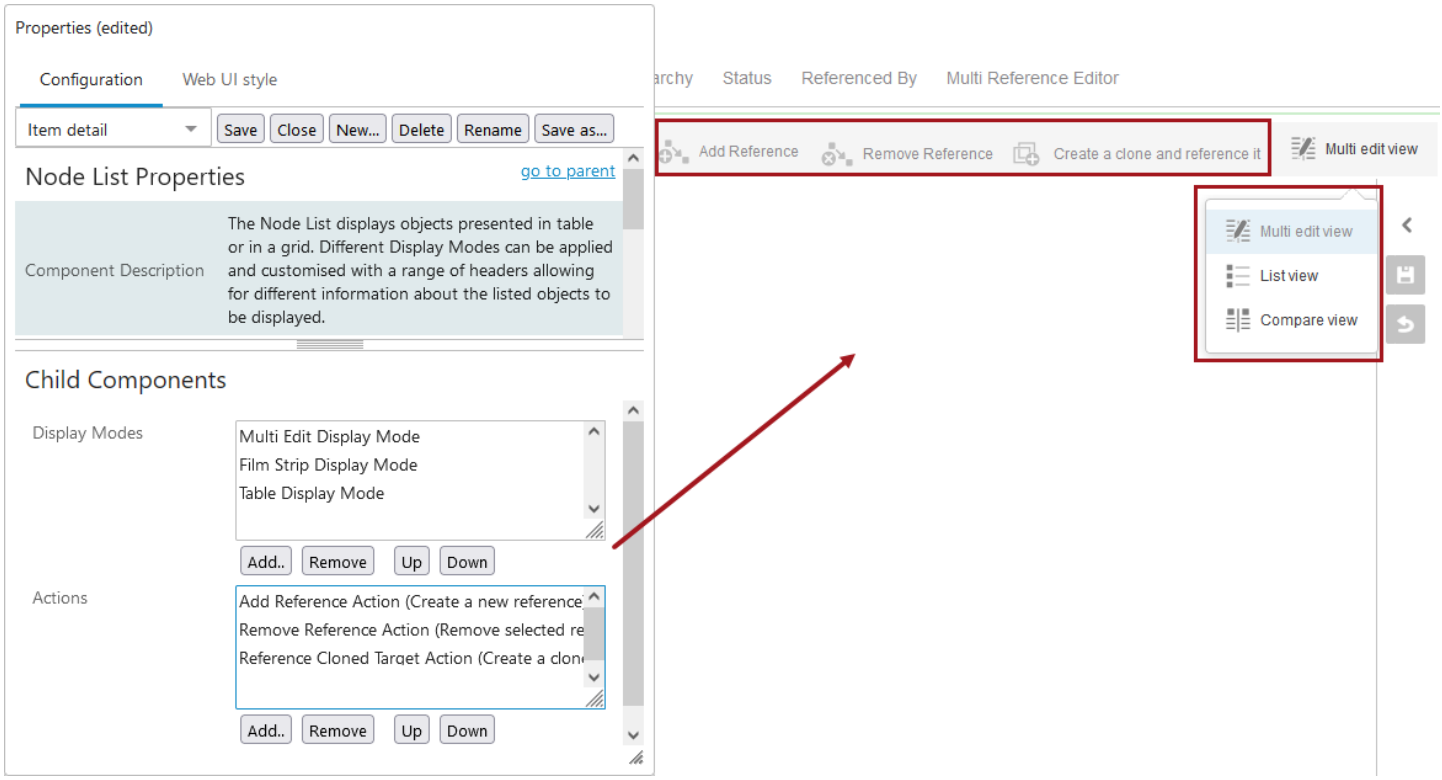
On Multi Reference Properties under Child Components, select Node List. Click on '**go to component**,' and the **Node List Properties** screen will display.

Node List Properties

Each parameter features help text, accessible by clicking the info icon to the right of each parameter name.

Additional information about the node list properties can be found in the **Node List Component** section of the **Web User Interfaces** documentation.

In the Child Components section of the properties screen:



Display Modes

Click the **Add** button to select display modes. Each display mode has a corresponding button that displays above the Node List. Re-order the list or remove unneeded display modes.

One option is **Multi Edit Display Mode**, and it comes pre-configured on this particular Node List. As the name implies, you can edit multiple objects and multiple object attributes on the same screen and save the changes automatically (using the 'Use Immediate Save' parameter) or manually. For details, refer to the **Auto-Save in the Web UI** topic.

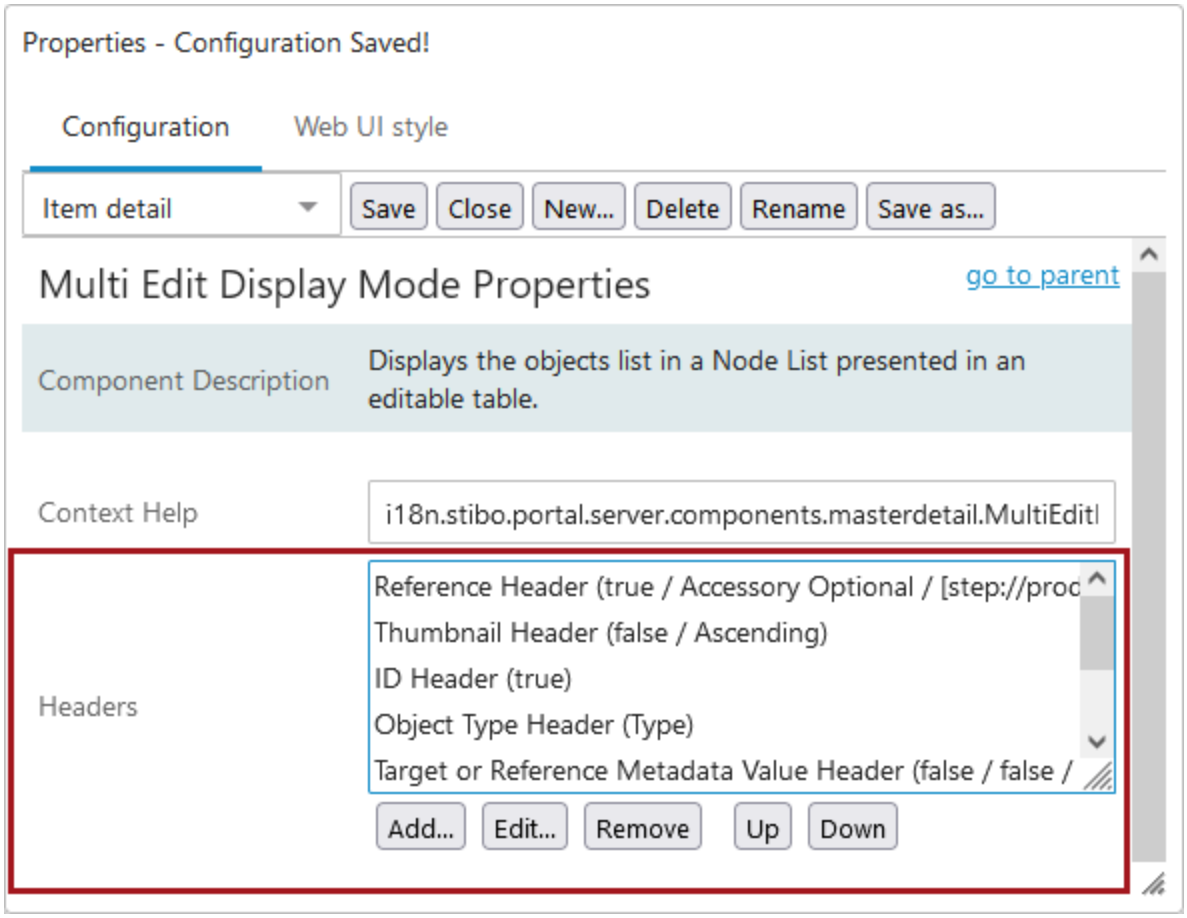


Table Headers

While configuring the headers in Display Mode properties, a user can choose to set up the table sort order based on a specific header. By editing a particular header's properties, sorting order (ascending or descending) can be designated using the dropdown next to Table Sorting. Once the properties are saved, the table will re-sort itself based on the new header settings, and the Display Mode properties will be retained until configured differently.

The Table Sorting designation can only apply to one header at a time. It has to be removed from one header before set up on another. Additionally, if 'Enable Default Sorting' is enabled / selected in the Node List properties, selecting a header to sort by overwrites this setting.

Below are some header examples. The bullet under each header explains what is displayed in that header column. Additional headers may be used (e.g., Name, ID Shared Target, Attribute Value, Attribute Value Group). When adding headers, you can read a description of each before adding them to the Headers field.

Note: It is suggested that the **ID Shared Target Header** be used in place of the ID Header to prevent unintended data changes to shared objects. When used, a visual indicator (⚠) appears in the ID cells for objects that are referenced by two or more other objects.

Reference Metadata Value Header

- The value of a metadata attribute on the reference / link

Reference Type Header

- The title of the reference type or the classification link type for the reference / link in the table

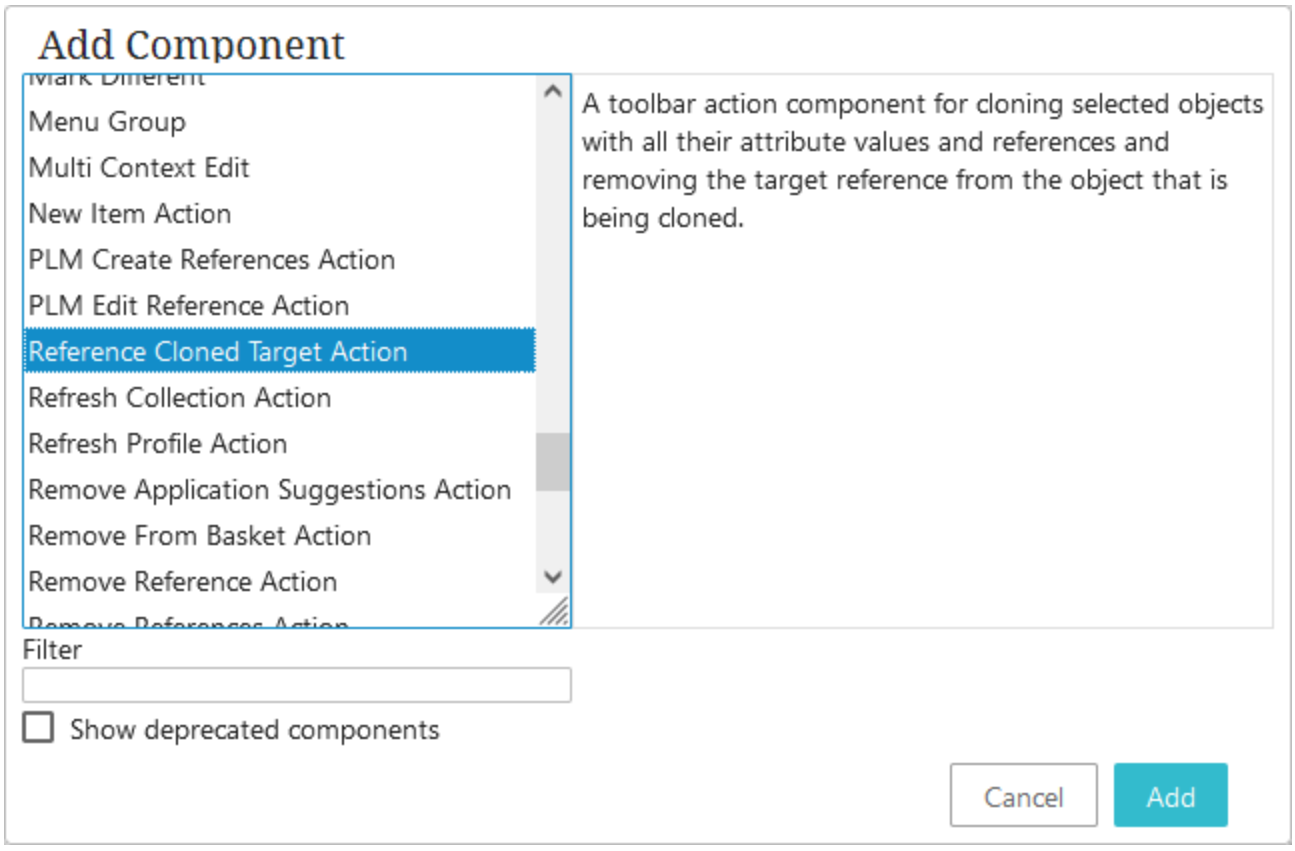
Reference Visibility Header

- The contexts in which the reference or classification link is visible

Actions

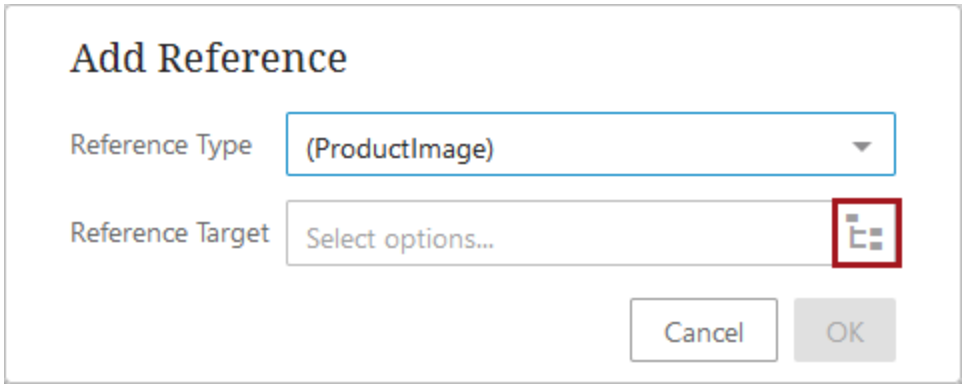
A number of action buttons can be added to a screen to be used with a Node List. These are all added and configured within the **Actions** field on the Node List Properties screen. The **Add Reference Action** and the **Remove Reference Action** come pre-configured. These actions and the Reference Cloned Target Action are described below. Other actions may be appropriate for you to use.

After you click Add, you can view action component descriptions in the 'Add component' dialog.

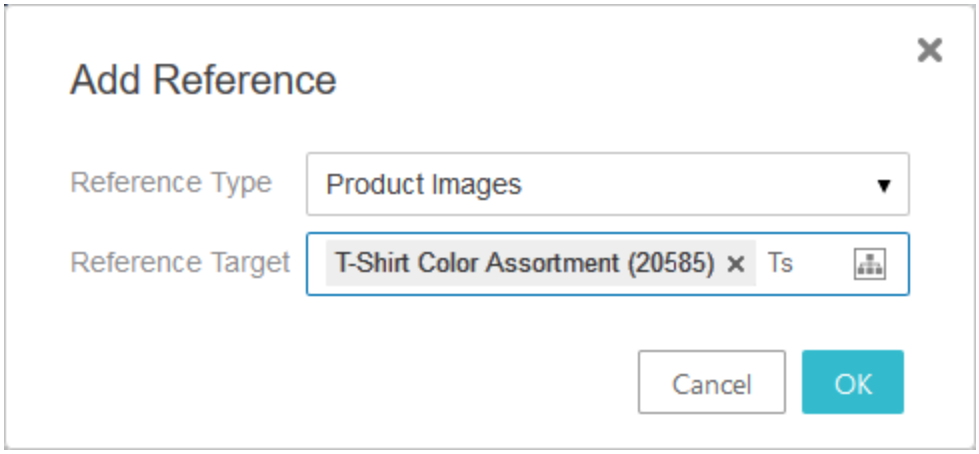


Add Reference Action

The **Add Reference Action** component ( ) opens an 'Add reference' dialog with Reference type and Reference target (or Reference source depending on the reference direction) options.



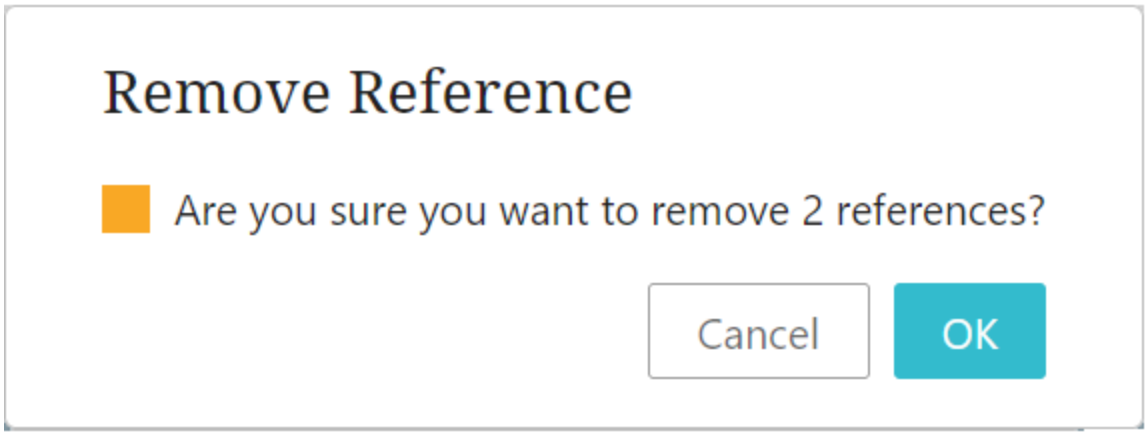
When a user clicks on a node picker icon (as shown in the screenshot above), they are presented with standard Browse and Search tabs to use when selecting or multi-selecting an existing object or objects to reference. The 'Reference target' and 'Reference source' value fields support typeahead (by name) functionality, which allows users to easily add and remove references without having to click through various hierarchies and/or folders.

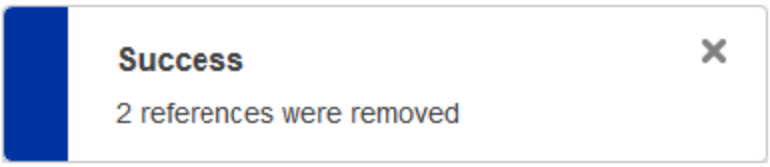


Additional functionality can be configured that allows users to create new objects using existing objects as a template, search for existing objects in an effort to avoid duplicating data, or narrow the available nodes in the node picker to aid efficient reference object selection. For more details regarding how to fully configure the properties for the Add Reference Action component, refer to the **Add Reference Action** section of the **Web User Interfaces** documentation.

Remove Reference Action

The **Remove Reference Action** ( ) is enabled when a reference is selected in table. When clicked, it will show a dialog with a warning asking if you want to remove the references and telling you how many references are about to be removed. A success message displays upon removal.



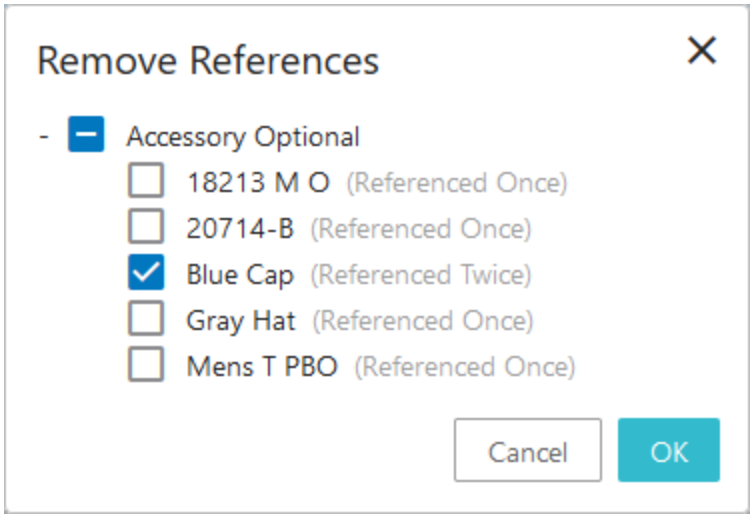


Remove References Action

The **Remove References Action** ( ) allows a user to remove multiple references to target objects from multiple objects in a Node List. For example, if a series of stereo products all reference one particular headphones product, and that headphones product is discontinued, users can use the 'Remove References Action' to remove all headphones references from the stereo products with a single action.

Once added to a Node List, initiating this action will display a menu that shows all configured reference types for which there are references, along with the objects referenced using that reference type.

In the screenshot below, the selected objects in the Node List reference objects using only one of the configured reference types, Accessory Optional. Listed beneath the reference type are the objects referenced using that reference type, along with the number of times that object is referenced.



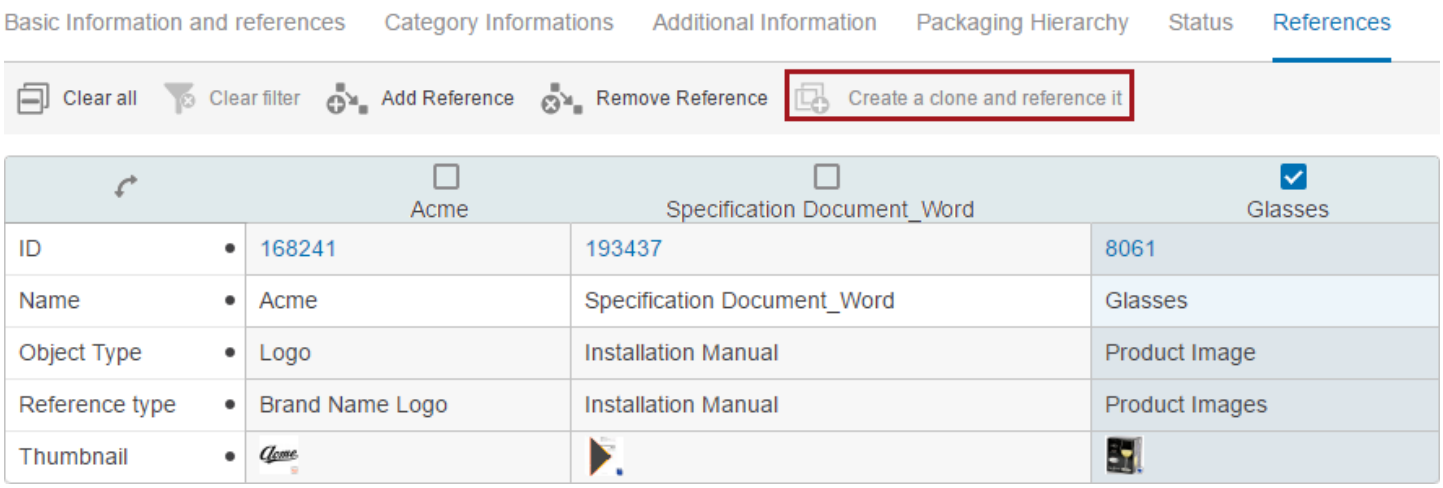
To remove all references of the listed reference type from the selected object(s), check the box beside the reference type name. Doing so automatically checks all references displaying beneath the reference type. Click 'OK' to remove all selected references. To select specific references to remove under a given reference type, check the box beside the referenced object(s) to which all references should be removed, and click 'OK'. To remove all references to a specific object referenced using multiple reference types, that object must be selected for each reference type used to reference that object.

Reference Cloned Target Action

The **Reference Cloned Target Action** ( ) allows a user to select an existing reference target and duplicate / clone it, creating a new object that includes the original attribute values and references. This is particularly useful in making sure a user does not inadvertently edit shared data that could have implications to other objects with the same reference. When a user needs to make changes to data that is shared (e.g., the object is referenced by multiple objects), they can clone the existing object and freely edit the data on the clone, without fear of impacting the other objects with references to the original object. An example is shown below.

Note that users can only clone one object at a time, and objects being cloned must use auto-generated IDs.

Important: Asset References cannot be cloned.

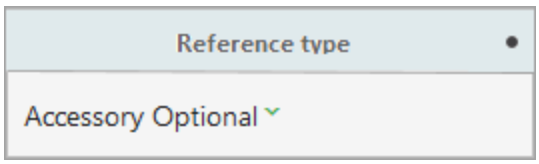


Display of inheritance in reference components

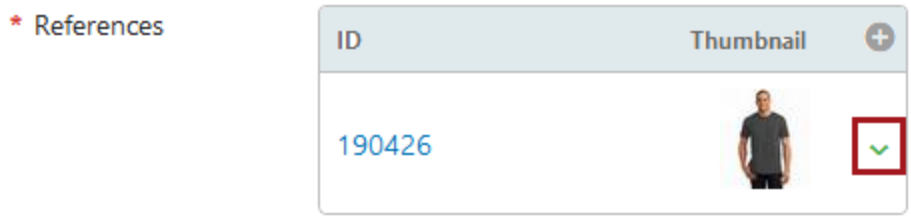
References inherited from a parent object or parent context will display with colored arrows to visually indicate their inheritance.

Inherited from parent

If a reference is inherited from a parent object, a green arrow will display next to the reference type in the 'Reference Type Header' on a Node List.

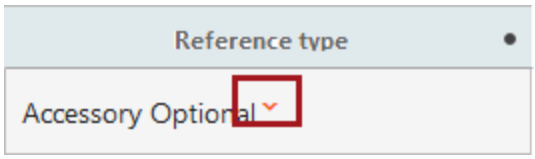


When a 'References' component has been configured on a Node Editor, references inherited from a parent object will display with a green arrow to the right of any configured columns, as in the screenshot below.

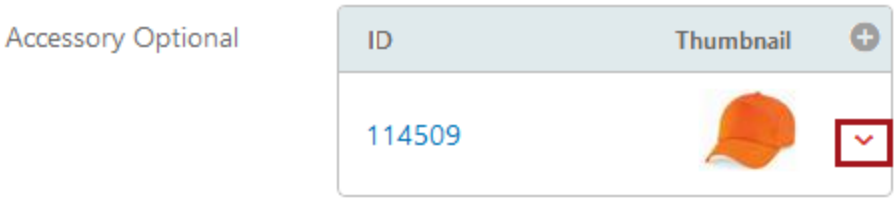


Inherited from context

If a reference is inherited from a parent context, a red arrow will display next to the reference type in the 'Reference Type Header' on a Node List.



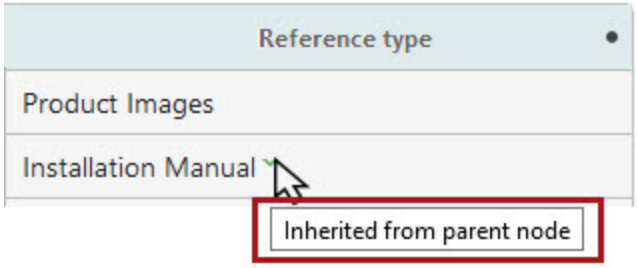
When a 'References' component has been configured on a Node Editor, references inherited from a parent context will display with a red arrow to the right of any configured columns, as in the screenshot below.



In instances where a reference is inherited from both a parent object and a parent context, the green and red arrows will display together, side by side.



In all instances, when the cursor is placed over either a red or green error, a text box displays with information about why the arrow is displaying. In the example below, the reference is inherited from a parent node.



For more information on inherited references, refer to the **Inheritance in the Product Hierarchy** topic in the System Setup documentation.

Considerations and Limitations

- The Multi-Reference Editor is not compatible with the Target Value Header.
- The Multi-Reference Editor cannot be used with the Split panel display mode.
- The Multi-Reference Editor does not indicate if a reference type is mandatory. If this is a requirement, consider using the References component, which allows you to configure only one reference and will display a red asterisk if the reference type is mandatory.
- The Multi-Reference Editor does not take the setting on a mandatory / hidden context from business rules into account.

Add Reference Action

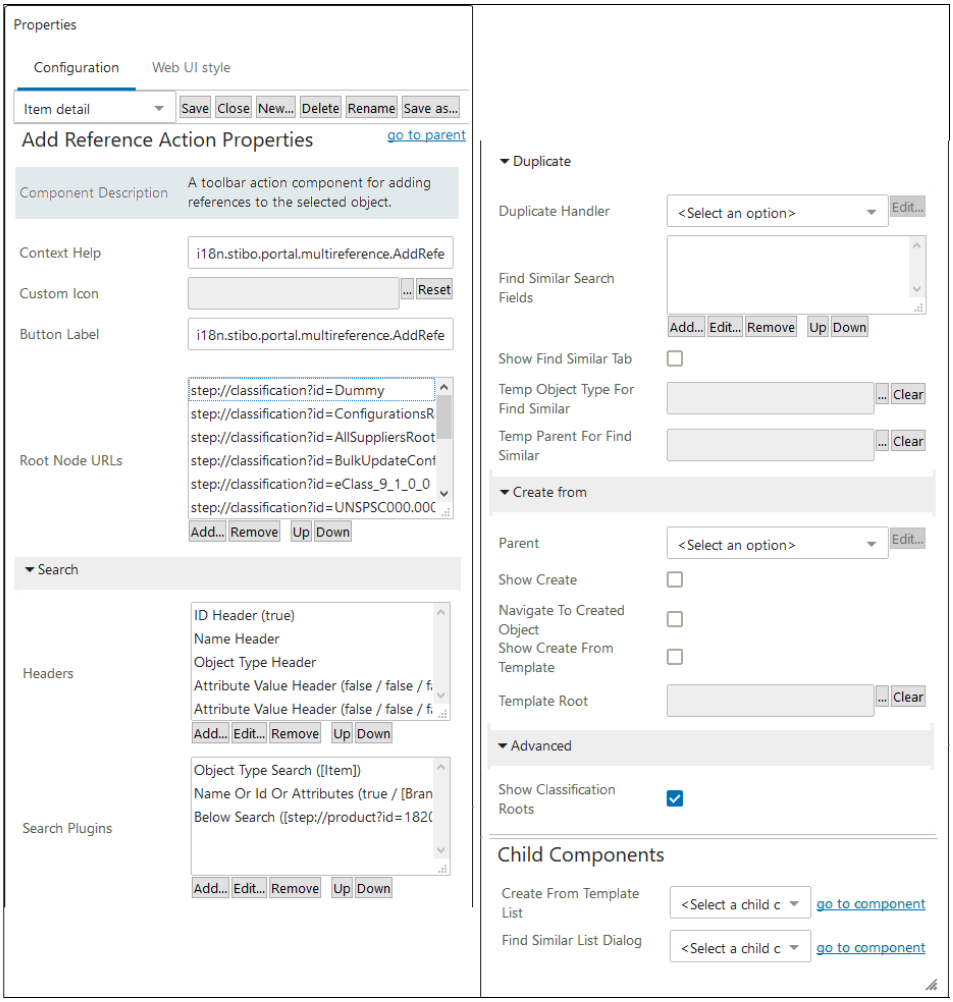
The Add Reference Action functionality can be configured beyond the basic Browse / Search functionality described in the **Multi-Reference Editor** section of the **Web User Interfaces** documentation.

If configured to do so, the Add Reference Action dialog can also include the **Create** and **Create From Template** tabs to allow users to create new objects to reference rather than having to choose from existing objects only. Additionally, **Find Similar** functionality allows users to search for and identify similar objects on a more granular level prior to adding references and creating target objects. These tabs are all omitted by default but can be enabled within the Add References Action Properties.

All the steps provided in this topic assume the Web UI designer is in design mode and on the **Add Reference Action Properties** screen prior to starting the configuration process. It is also assumed that all users (designers and end users) have the proper privilege to work with the Multi-Reference Editor and its features. For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

Add Reference Action Properties

Each parameter is explained following the image below. Also, the parameters required to set up the Create, Create From Template, and Find Similar tabs are described as a whole in the applicable section. Anyone designing the Web UI can determine what features or combination of features are preferred and set them up based on the descriptive info below.



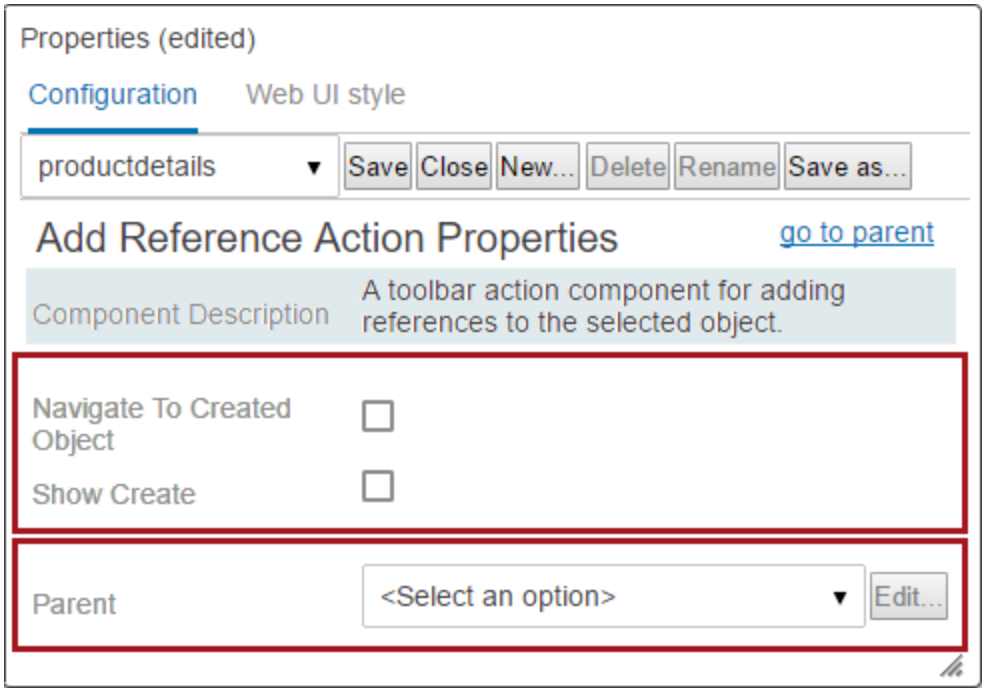
The Add Reference Action component is highly configurable. Each parameter features help text, accessible by clicking the info icon to the right of each parameter name. An expanded description of each parameter is available below.

Parameter	Description
Context Help	The name of the action when displayed.
Custom Icon	Adding a custom icon will override the default icon displayed. The recommended size in pixels is 20 high x 35 wide. The recommended colors should be jewel toned, deep colors that will fade well when the item is disabled.
Button Label	The name of the action, shown as hover text on the toolbar action.
Root Node URLs	This parameter allows users to select which nodes will be available

Parameter	Description
	in the node picker when adding a reference. Regardless of the selected reference type, only the nodes added will be available to pick a source / target object to reference. If no nodes are added, all available nodes will display.
Headers	Add configurable headers that will display information in the Search tab on the Node Picker following initiation of a search.
Search Plugins	Search types that can be applied to a Node Picker when running a search in the Search tab include Below Search, Golden Record - Source Record ID search, Name or Id Or Attributes search, and Object Type Search.
Duplicate Handler	A parameter / option required when using Find Similar; works with Find Similar functionality to return potential duplicate objects based on search values and a matching algorithm
Find Similar Search Fields	The object attribute or referenced object attribute fields that end users can search upon to determine if a similar object already exists in STEP; Find Similar functionality
Show Find Similar Tab	The selection that determines if the Find Similar tab should be shown in the node picker dialog; if enabled, then Duplicate Handler, Find Similar Search Fields, Temp Object Type for Find Similar, Temp Parent for Find Similar, and the Child Component > Find Similar List Dialog also need to be configured
Temp Object Type for Find Similar	The temporary object type for objects that are stored while the Find Similar functionality is being used
Temp Parent for Find Similar	The location that temporary objects reside when searching with the Find Similar functionality
Parent	This setting allows the designer to determine a single parent under which all new objects will be created; used with Create and Create From Template
Show Create	The Create tab will be shown in the node picker dialog
Navigate to Created Object	The parameter that decides if the 'Go to created object' option on

Parameter	Description
	the Create tab is enabled by default; when enabled, the end user will be auto-navigated to the new object upon creation (using Create)
Show Create From Template	The Create From Template tab will be shown in the node picker dialog
Template Root	The root node from which child objects can be used as templates (Create From Template)
Show Classification Roots	This parameter allows users to view classification root nodes on the Browse tab in the Node Picker, if the classification nodes are configured, and the reference type selected is a Product Reference type.
Create From Template List	The configurable results list when using the Create From Template functionality; List Dialog must be selected from the dropdown; a Dialog List Screen needs to be created, selected, and configured
Find Similar List Dialog	The configurable results list when using the Find Similar functionality; List Dialog must be selected from the dropdown; a Dialog List Screen needs to be created, selected, and configured

Create

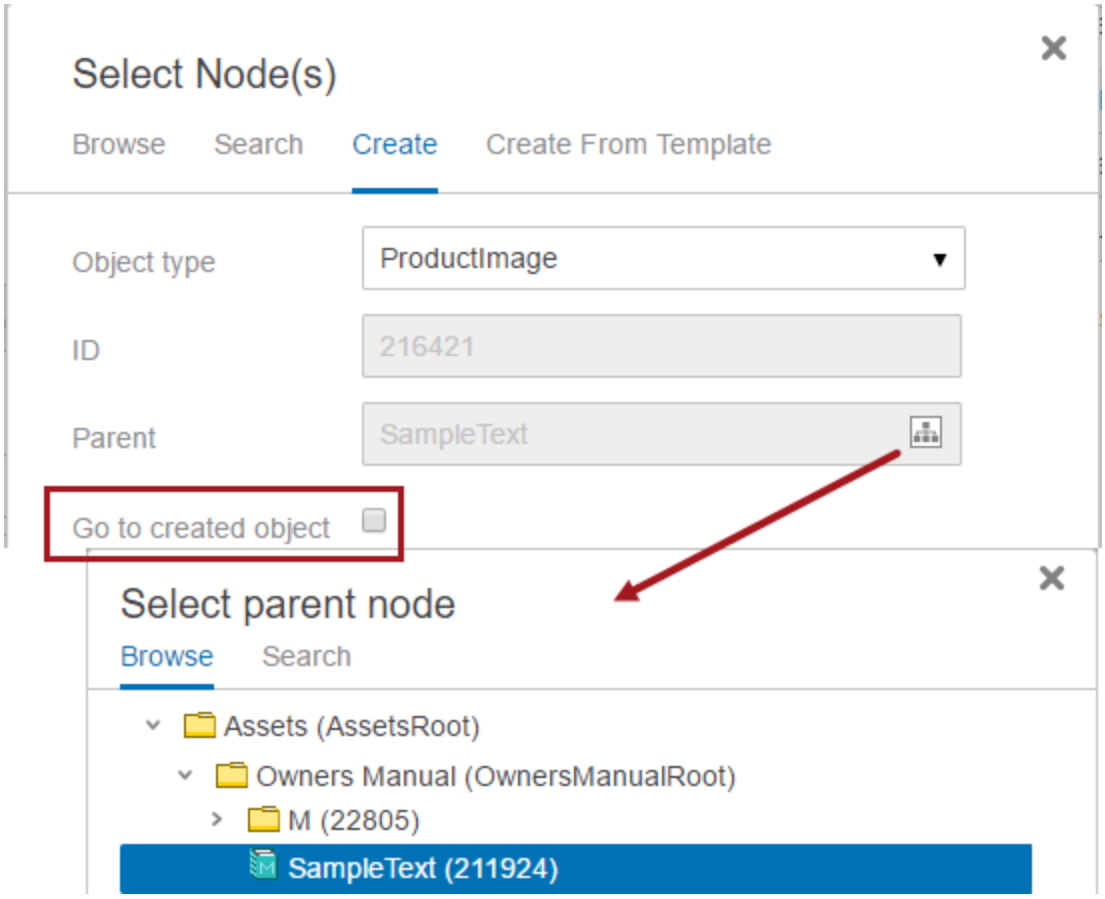


Follow these configuration steps to display the Create tab when adding references:

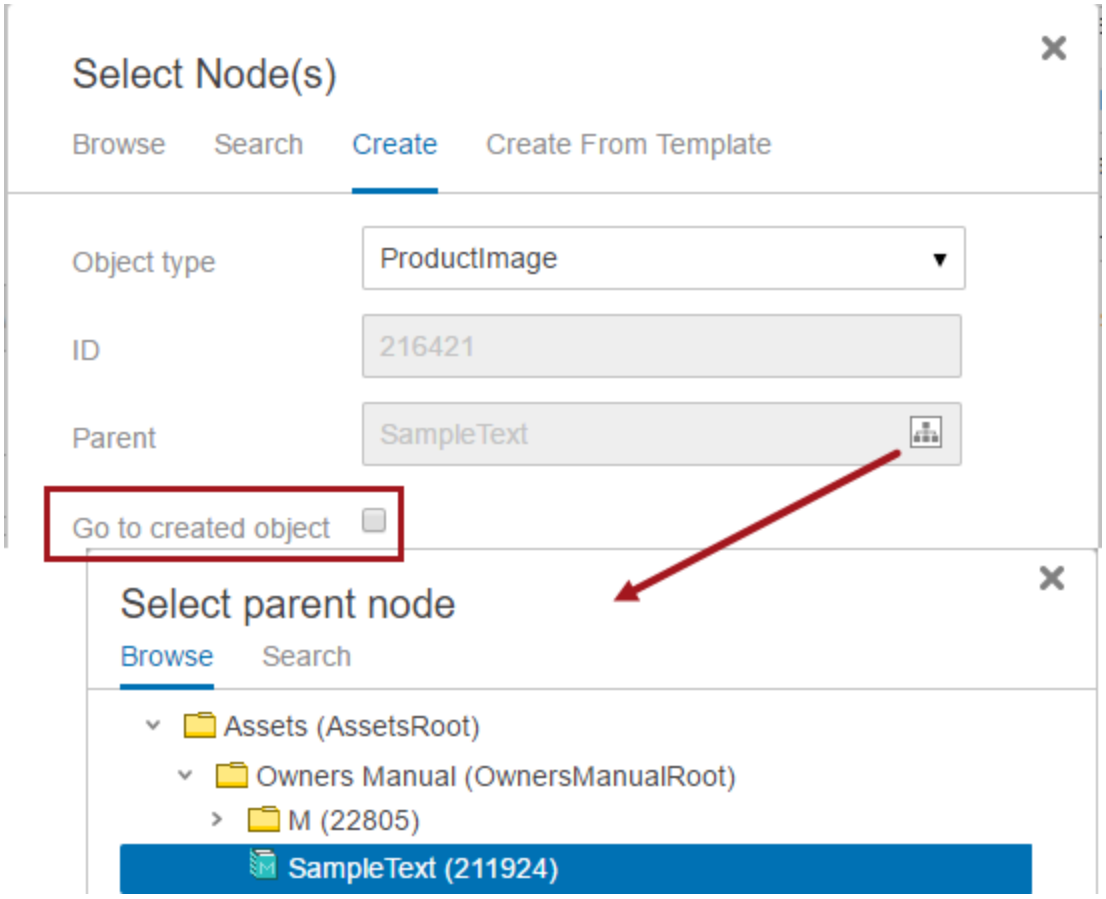
1. Enable **Navigate to Created Object** if the 'Go to created object' option on the Create tab should be enabled by default (shown as disabled in the screenshot in Step 3 below).
2. Enable the **Show Create** parameter.
3. Select a **Parent**, if desired. Choose **Configured Parent Handler** from the dropdown in the value field. In the **Configured Parent Handler Properties** that pops-up, click the ellipsis button (...) to the right of the **Parent** value field to browse or search to select a single parent under which all new objects will be created.

   When the **Show Create** parameter is selected (checked), users are able to create new objects when building references.

   Users must select a valid object type and parent combination, and the object type selection must align with the reference type selected.



If the **Parent** parameter is left not configured, end users will have the option to select any valid parent from existing objects. Choosing a **Parent** is useful if the Multi-Reference Editor will only be used to create a single object type which will reside in a flat hierarchy structure. In this case, end users are not presented with a parent selection option.

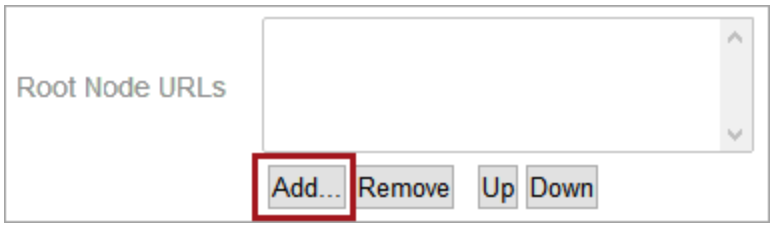


When creating new objects from the Multi-Reference Editor, the ID field is editable unless the objects being created utilize auto-generated IDs.

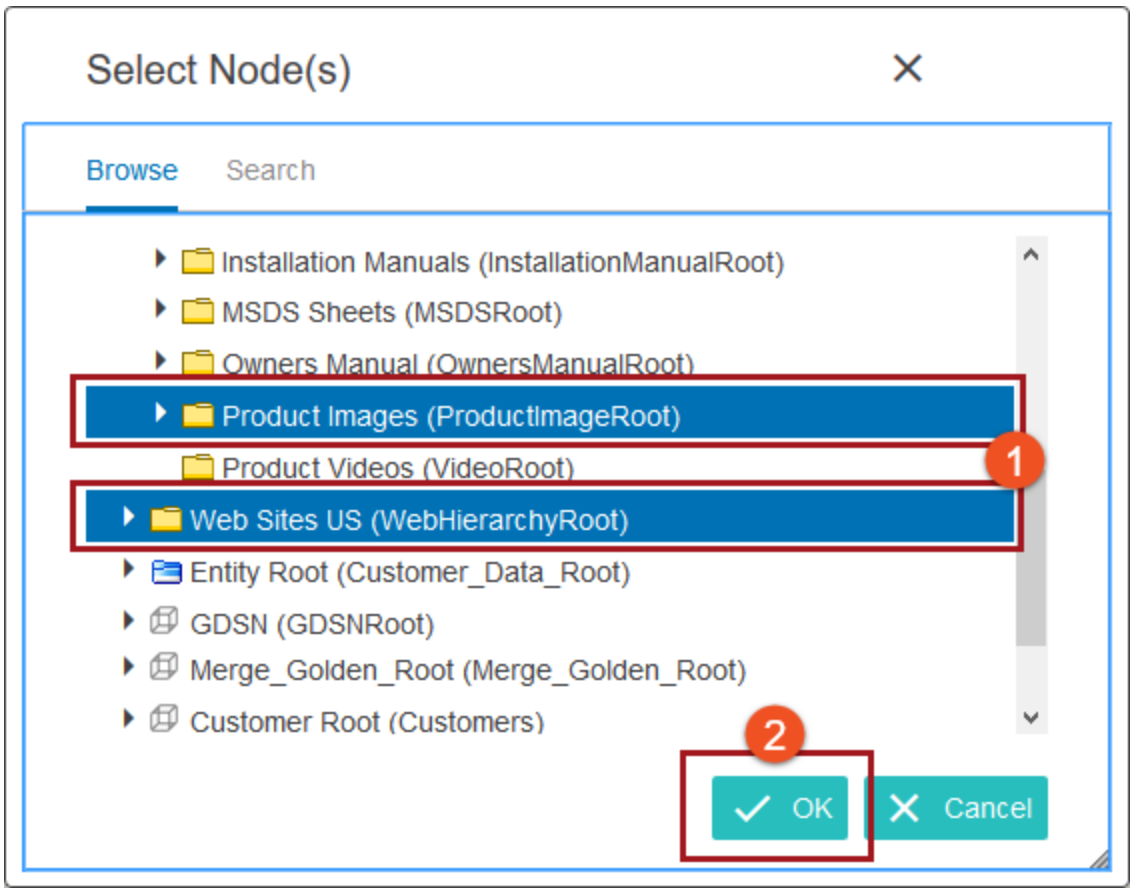
Configuring the Node Picker

Follow these steps to configure which nodes are available in the Node Picker when adding a reference.

1. On the **Root Node URLs** parameter, click **Add...**.

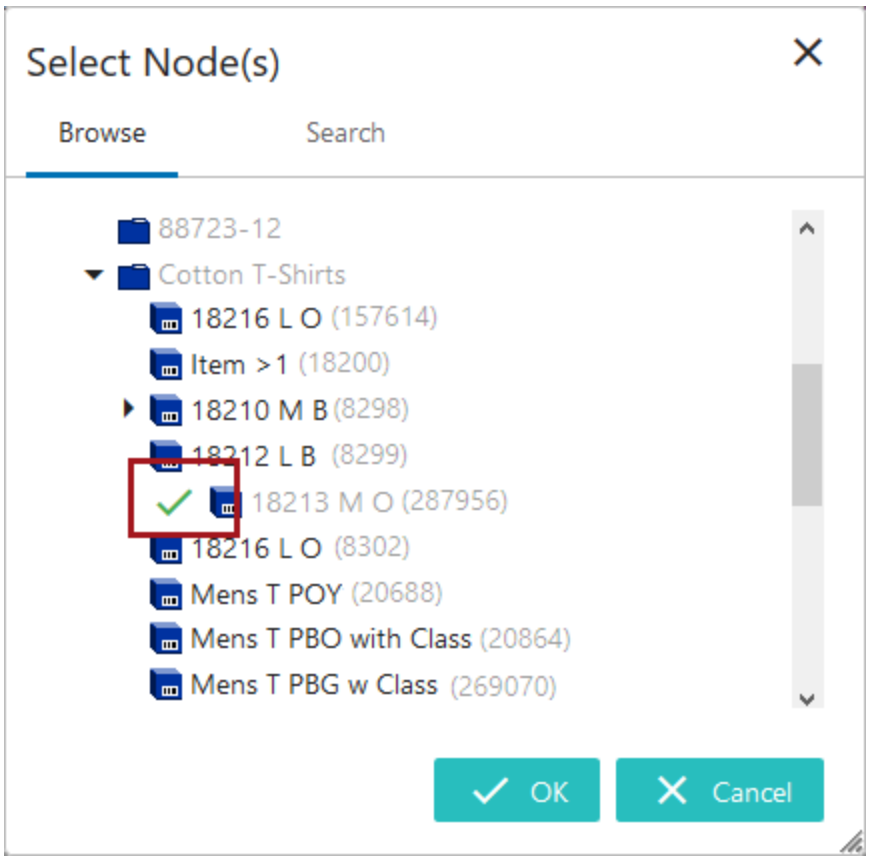


2. From the Node Picker, select the node or nodes that should appear in the Node Picker when a user has clicked the **Add Reference** button. Users may multi-select by holding CTRL (or CMD for Mac users) while making selections (multi-select is shown in the screenshot below). When the relevant nodes are selected, click **OK**.



Objects that are of an object type that is invalid for the configured reference type will display in gray text and cannot be referenced. Objects that can be referenced will display in black text.

Additionally, as shown in the screenshot below, objects that have already been referenced will display in gray text with a green checkmark, and cannot be selected.



Target objects in inherited references will show with a green checkmark to indicate that they are already referenced, but will display in black text because they can be referenced again.

The **Headers** and **Search Plugins** parameters allows users to configure the Search tab in the Node Picker. Configurable headers added to the **Headers** field define which information displays in the Search tab, and the kinds of searches run when the 'Search' button is clicked can be configured and added using the **Search Plugins** parameter. For more information on the Node Picker component and configuring the Search tab, refer to the **Node Picker Dialog** topic in this documentation.

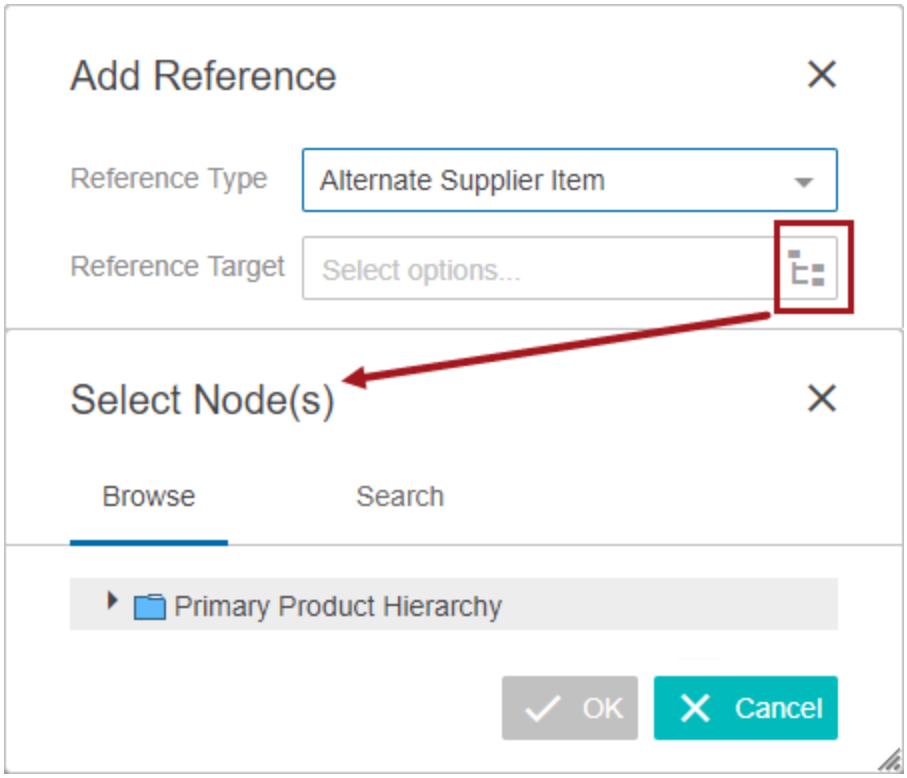
3. Click **Save** and **Close** design mode to return to normal Web UI mode.

Configuration of which nodes display in the **Add Reference Action's** node picker can be set only once per Multi-Reference Editor screen. This means that if a user configures a restricted list of nodes to appear in the node picker, this list will appear regardless of the selected reference type. For example, if a user has selected only product image nodes to appear in the node picker when adding a reference, even if that user selects a Product to Product reference type, only the configured product image nodes will be available. For some users, particularly those who maintain references of a single reference type per Multi-Reference Editor screen, this may represent a limitation.

To configure the UI to remove this limitation, users may add multiple Multi-Reference Editor screens via secondary tabs, and configure the node picker for each screen so that when the **Add Reference** toolbar action is clicked, only the objects relevant to that Multi-Reference Editor screen's designated reference type will display.

Displaying Classification Roots with Product References

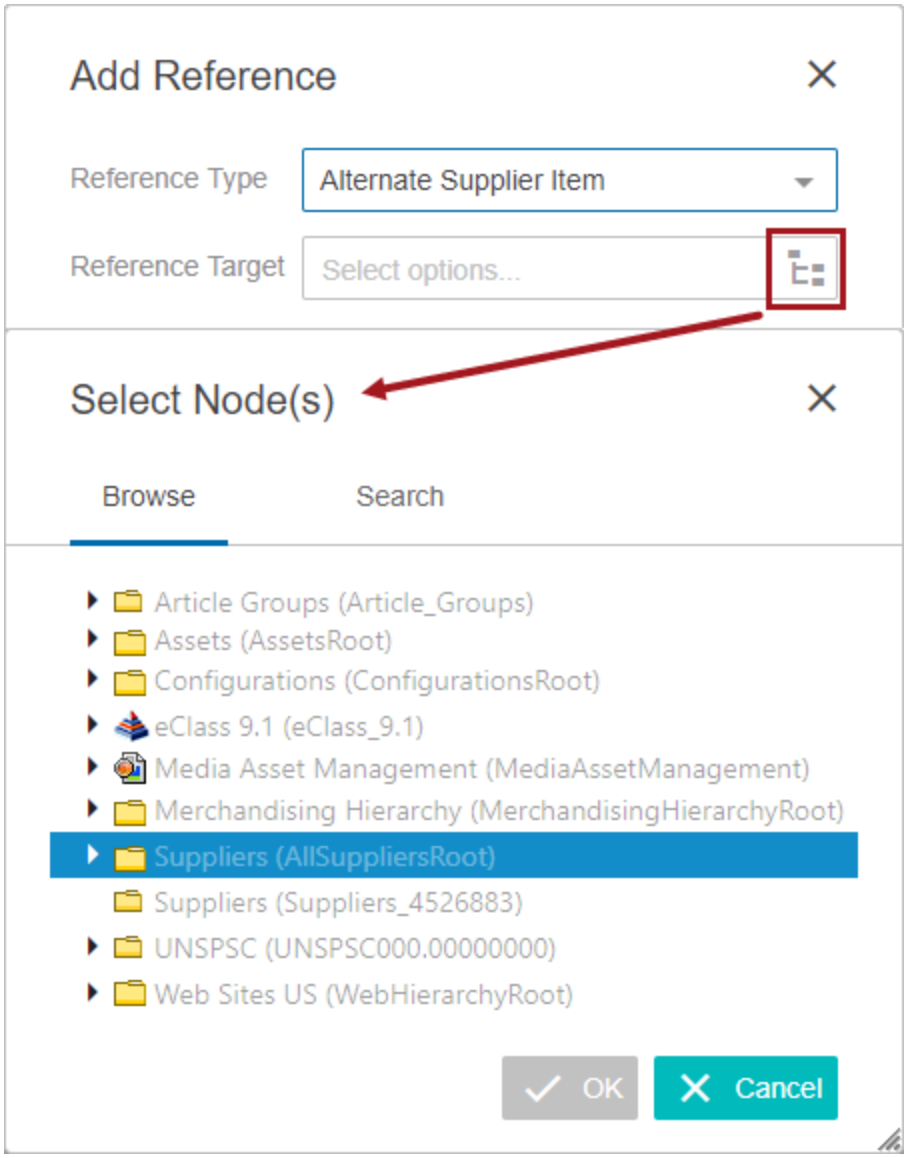
By default, if no root nodes are specified, the Primary Product Hierarchy will be the only selectable root node for Product reference types. Even if classification folders are configured for the Root Node URLs parameter, they will not display within the node picker unless the 'Show Classification Roots' option is enabled as described below.



In systems with a lot of objects where classification folders are used to organize products, the 'Show Classification Roots' option needs to be selected under the Advanced section of the 'Add Reference Action' properties screen.



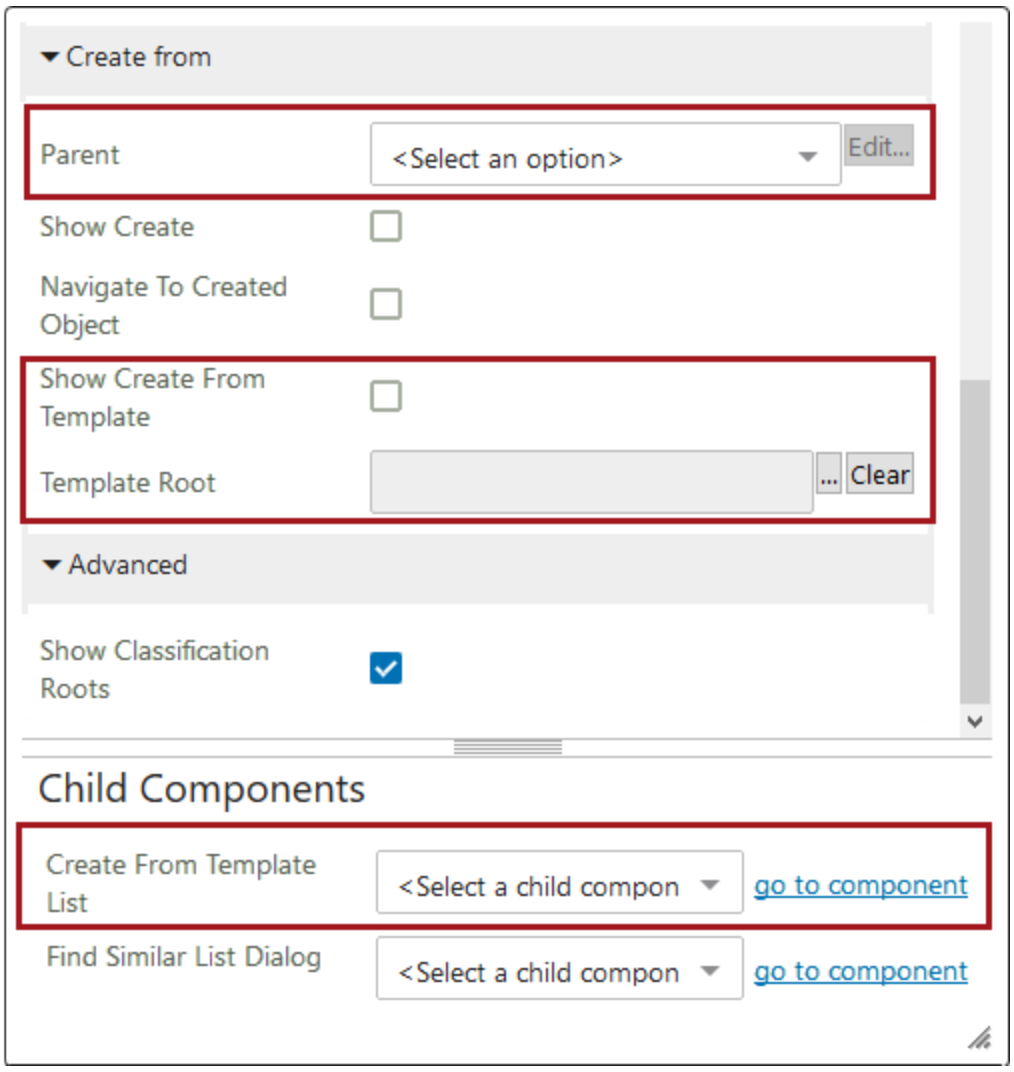
Once this option is selected and the node picker is activated, the classification roots and product nodes are available.



Create From Template

Template objects can be whatever the Web UI designer chooses for them to be. They can be 'live' objects or a set of configured objects that exist only for selection as templates. When a user selects a template object, a new object is created with the same attribute links and values as the selected template object and references it to the selected source. Users then need only to populate the subset of data that differs between the template and the new object.

When creating a new object from a template and following the dialog path of options, users are ultimately presented with a **Pick a Template** option that has three tabs: List, Browse, and Search. In addition to displaying a list of templates (similar to the Browse tab), the List tab is configurable and users can choose to include attributes within the tab view, making it easier to identify the template that best fits the new object.

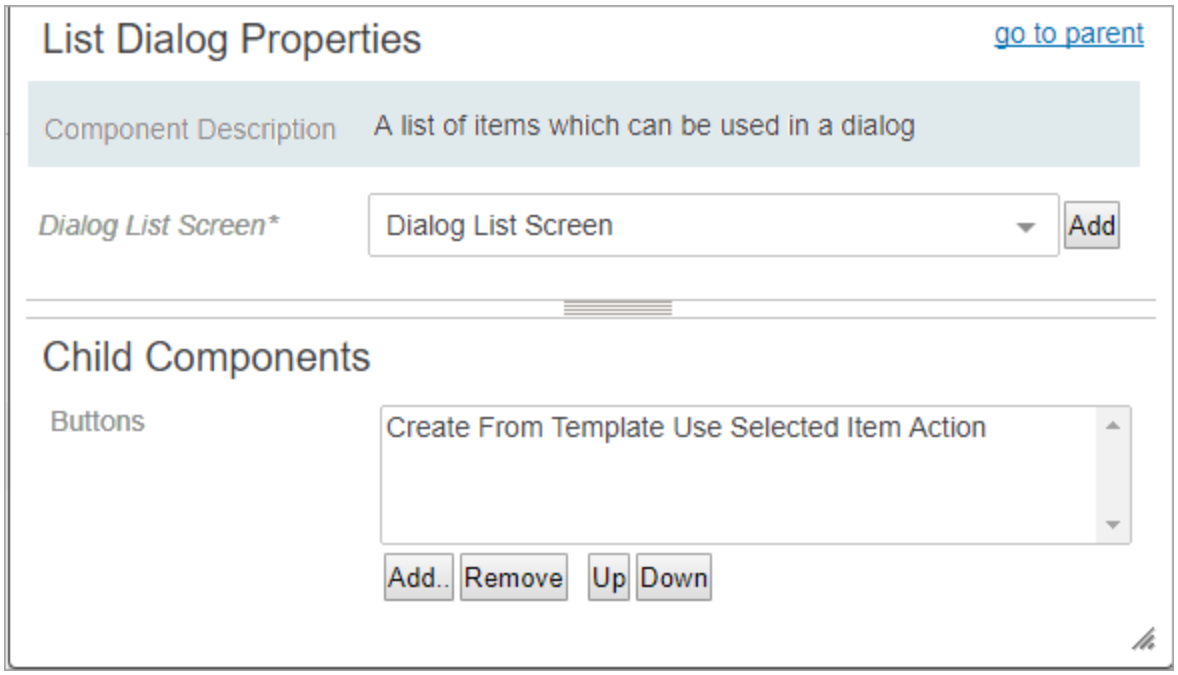


Follow these configuration steps to display the Create From Template tab when adding references:

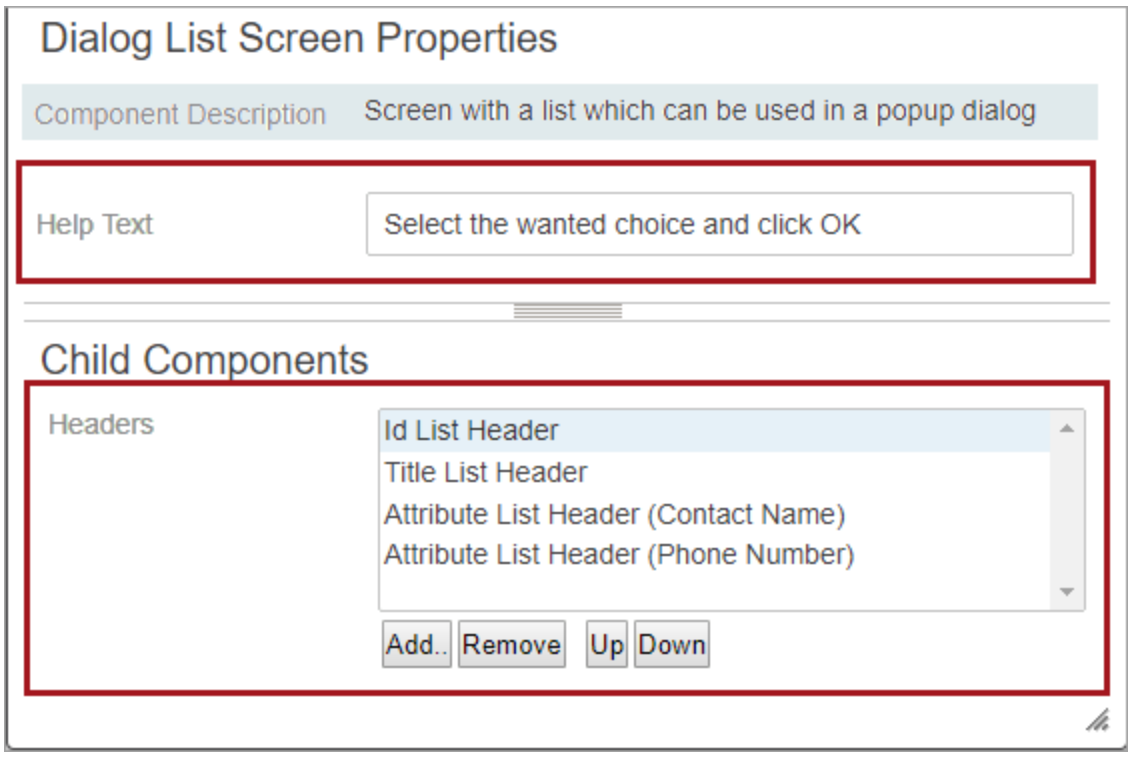
1. Enable the **Show Create From Template** parameter.
2. Click the ellipsis button (...) to the right of the value field to select a **Template Root**. Any objects under the root are available for selection as a template for new object creation. This creates a new object with the same attribute links and values as the selected template object and references it to the selected source so that users need only to populate the subset of data that differs between the template and the new object. It is a good idea to use a specific, limited set of objects, easily identifiable, as templates for an end user to choose from.

> **Note:** The selected template must be valid for the selected reference type, and only a single Template Root may be selected. It is therefore recommended that a separate area be created for this purpose and that all existing objects that are allowed to be used as templates be linked into that area.

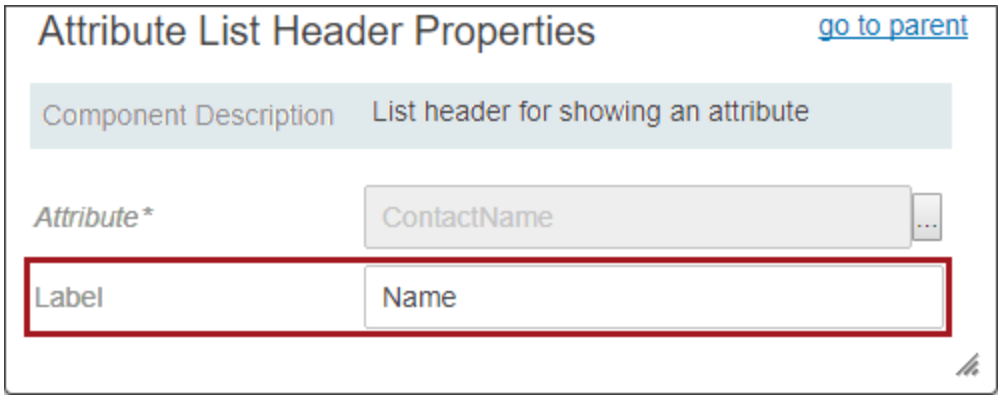
3. Select a **Parent**, if desired. Choose **Configured Parent Handler** from the dropdown in the value field. In the **Configured Parent Handler Properties** dialog that displays, click the ellipsis button (...) to the right of the **Parent** value field to browse or search to select a single parent under which all new objects will be created. If the **Parent** parameter is left unconfigured, end users will have the option to select any valid parent from existing objects.
4. Under **Child Components** > **Create From Template List**, select **List Dialog** from the dropdown menu.
5. When presented with the **List Dialog Properties**, click the **Add** button to the right of the **Dialog List Screen** field.
6. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.
7. If a **Dialog List Screen** already exists, skip the previous two steps and select the screen using the dropdown.
8. Back on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Create From Template Use Selected Item Action**. Click **Add**, and then click **Save** in the Designer window.



9. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen - Create from Template.
10. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to set up the attributes that will display in the Create From Template tab for the results list. The **Help Text** is editable and will display at the top of the template results list.



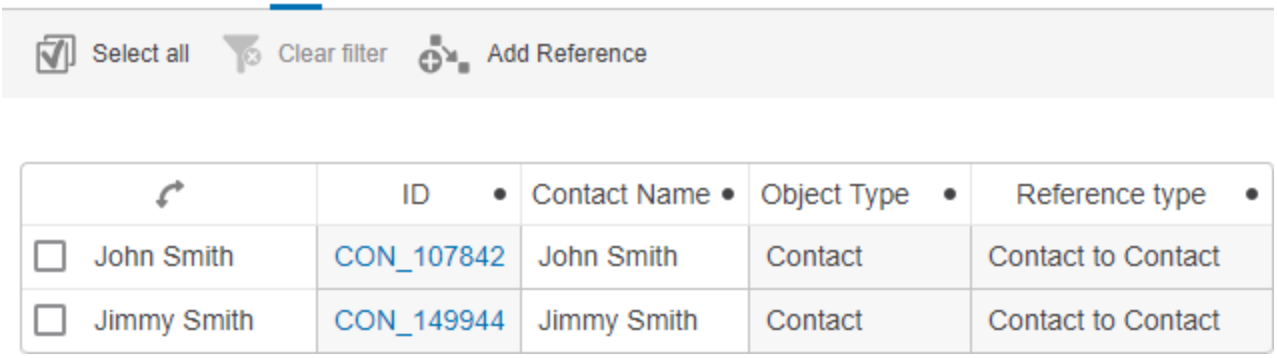
11. Select the headers for the columns to be displayed to end users. If you are using an Attribute List or Attribute Group List, make sure you fill in the **Label** for the attribute to be displayed in the results list.

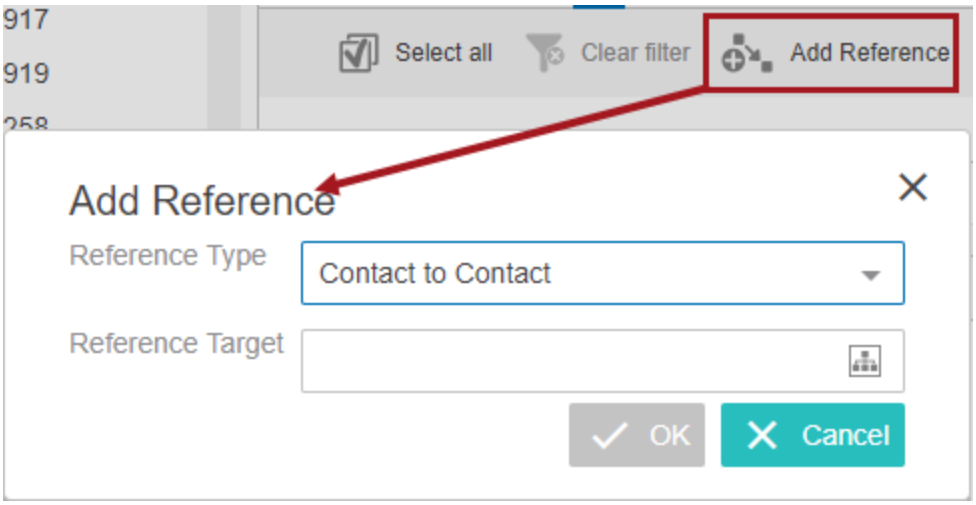


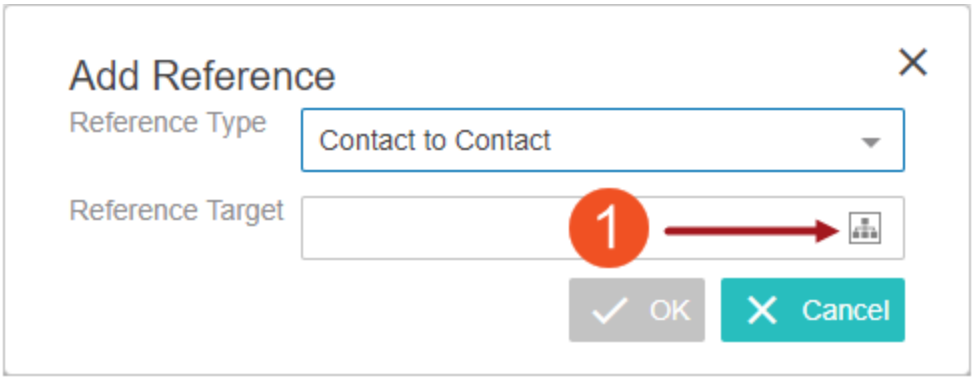
12. Click **Save** and **Close** design mode to return to normal Web UI mode.

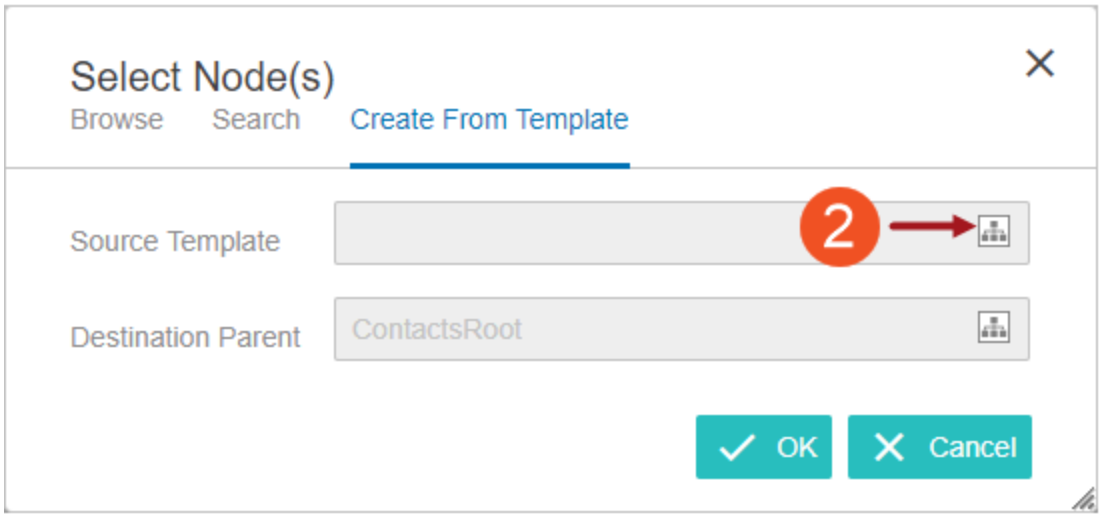
Create From Template Example

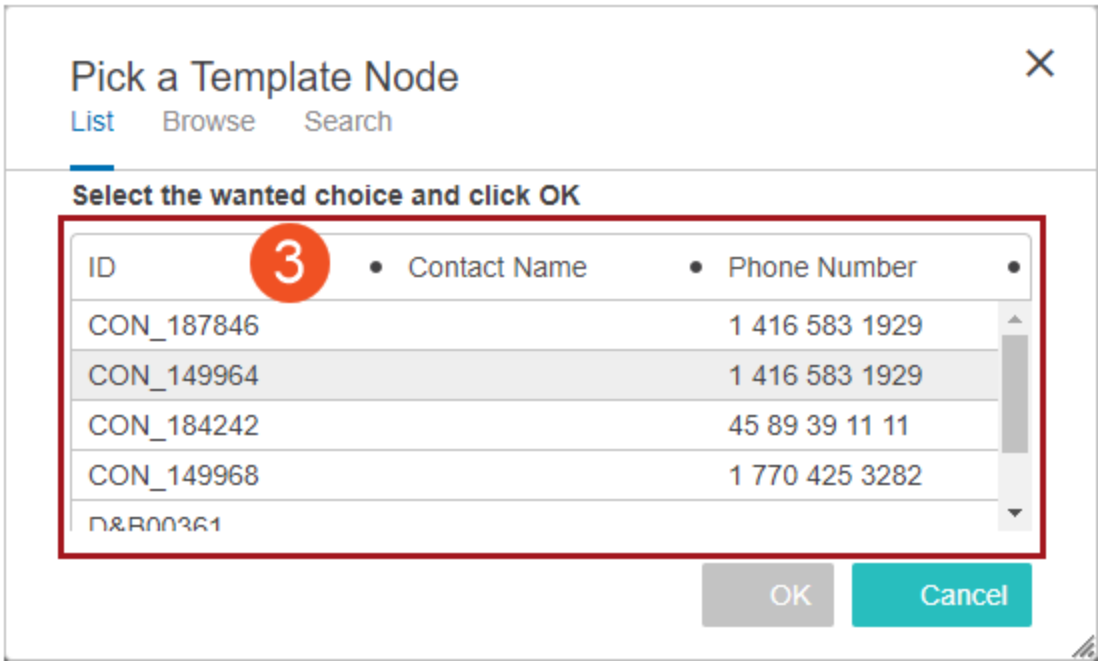
This is an example of a configured Create From Template tab. While using a Multi-Reference Editor component, the end user clicked 'Add reference' and then clicked the node picker icon on the 'Add reference' dialog that appeared. The Create From Template tab is displayed in the 'Select Node(s)' dialog. By clicking the node picker icon for the Source Template field, the end users gets a Pick a Template Node dialog that displays the List screen based on the headers / attributes configured to display.


Select all
Clear filter
Add Reference
ID
Contact Name
Object Type
Reference type
John Smith
CON_107842
John Smith
Contact
Contact to Contact
Jimmy Smith
CON_149944
Jimmy Smith
Contact
Contact to Contact

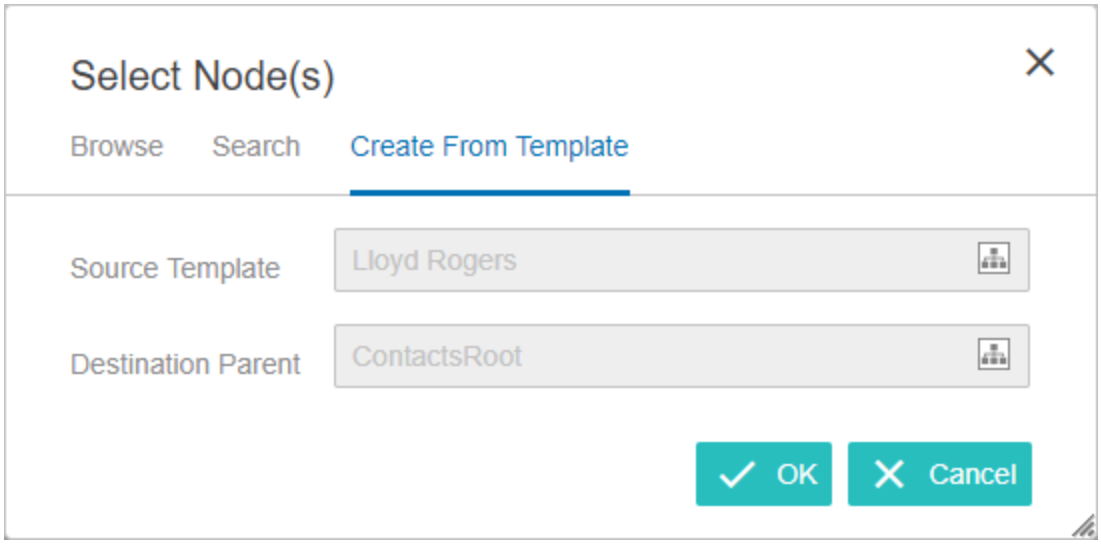

917
919
Select all
Clear filter
Add Reference
Add Reference
Reference Type
Contact to Contact
Reference Target
OK
Cancel

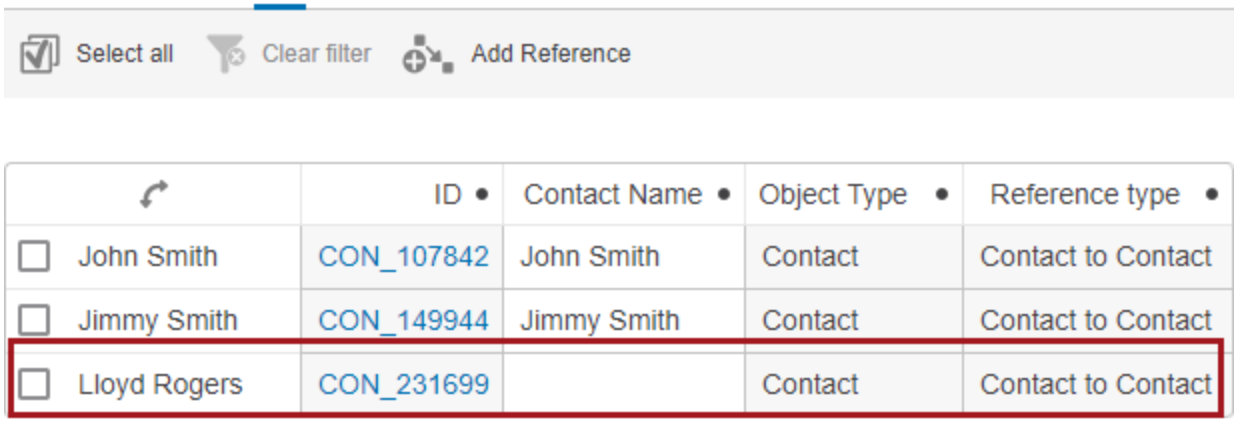

Add Reference
Reference Type
Contact to Contact
Reference Target
1
OK
Cancel


Select Node(s)
Browse
Search
Create From Template
Source Template
2
Destination Parent
ContactsRoot
OK
Cancel


Pick a Template Node
List
Browse
Search
Select the wanted choice and click OK
ID
3
Contact Name
Phone Number
CON_187846
1 416 583 1929
CON_149964
1 416 583 1929
CON_184242
45 89 39 11 11
CON_149968
1 770 425 3282
OK
Cancel

A maximum of fifty (50) template objects are shown at one time on the results list. The end user selects a single template to use. Once a selection is made, the OK button will be available. The end user clicks OK and continues through the remaining dialog screens. The end result will be a new reference that can be edited (the ID field is editable unless the object being created utilizes an auto-generated ID).





Considerations and Limitations

- Create From Template functionality is available for Product and Entity object types only.
- Care must be taken in the configuration of the Add Reference Action component (and in particular of the Create From Template option) to ensure that end users are provided with valid selection options. The selections for object type of the template (if used), object type of the object being created, parent, and reference type must all align to yield valid results based on the data model and configurations.

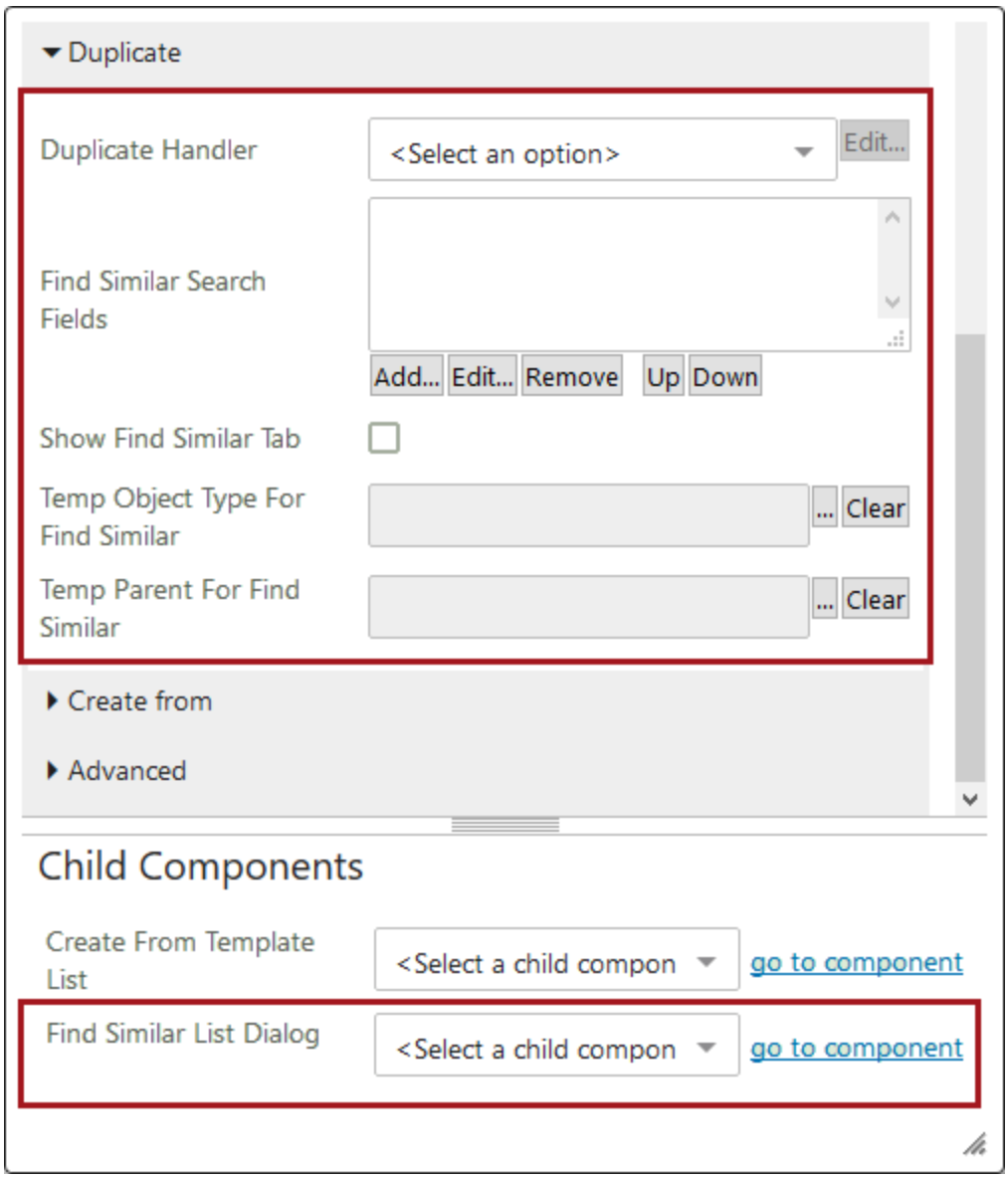
Find Similar Search

To help prevent users from creating duplicate objects in the STEP system, users can now use Find Similar functionality to search for and identify similar objects prior to adding references and creating target objects within

a Multi-Reference Editor. When using the Add References Action, the Find Similar functionality can be configured to display on a new Find Similar Search tab. Attribute values of both direct objects and target objects (based on a specific reference type) can be configured as searchable fields. If similar objects are found, a configurable results list will display attribute values for the direct objects. This allows users to compare the results to determine if they can use an existing object.

The key to Find Similar functionality is the **matching setup** that the customer creates and uses for duplicate handling. Every time a user enters data into the search fields and clicks OK, the Find Similar search checks the match code values involved, executes the relevant matching algorithm, and provides a set of results, if any are found. If a user is not getting the results set they expect, then the first place to check is the algorithm configured in the Duplicate Handler parameter in the Add Reference Action Properties. Two bind types work with the Find Similar functionality. They are: **First Match Object** and **Second Match Object**. A relevant Match Code and Matching Algorithm needs to be set up before attempting to use the Find Similar Search tab. For more information about setting up and using matching algorithms, refer to the **Configuring Matching Algorithms Overview** section of the **Matching, Linking, and Merging** documentation.

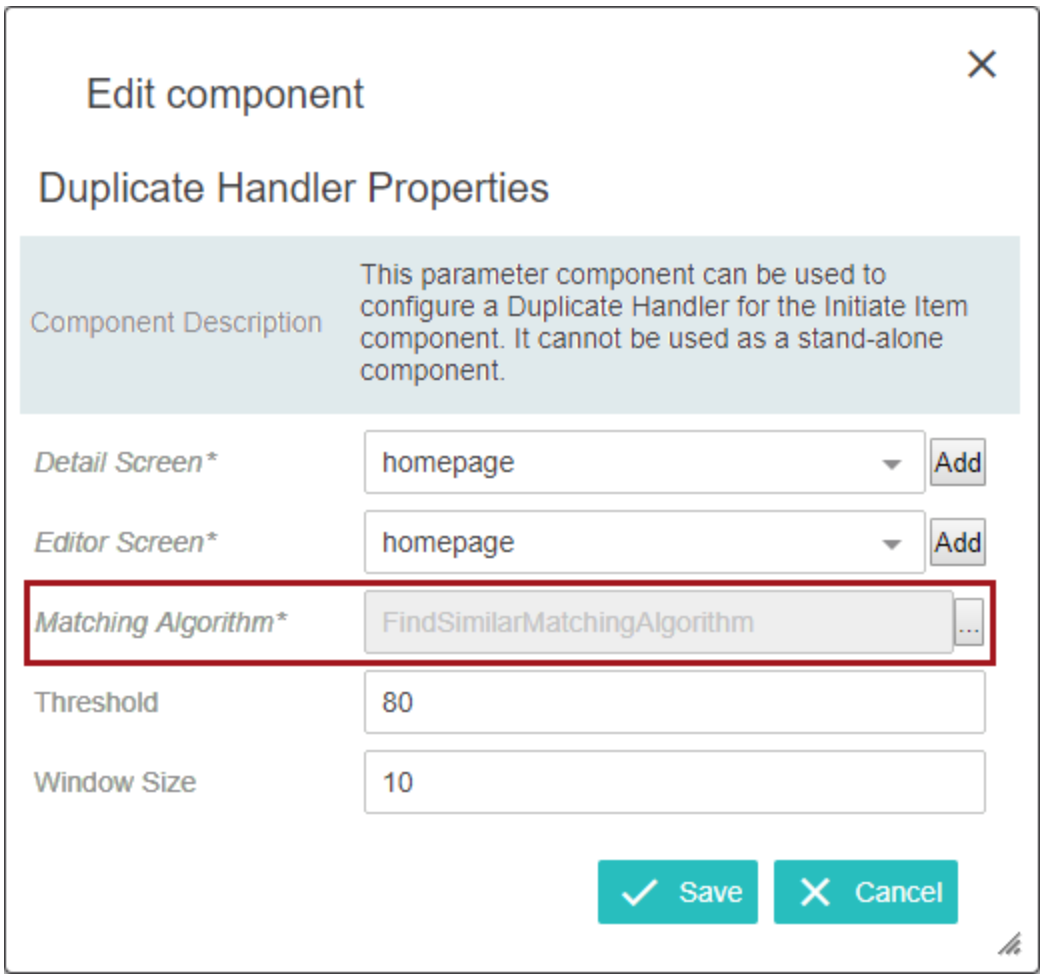
Find Similar functionality is also available using a Find Similar Action Button on an Initiate Item screen type. This functionality is explained in the **Find Similar in Web UI** topic of the **Web User Interfaces** documentation.



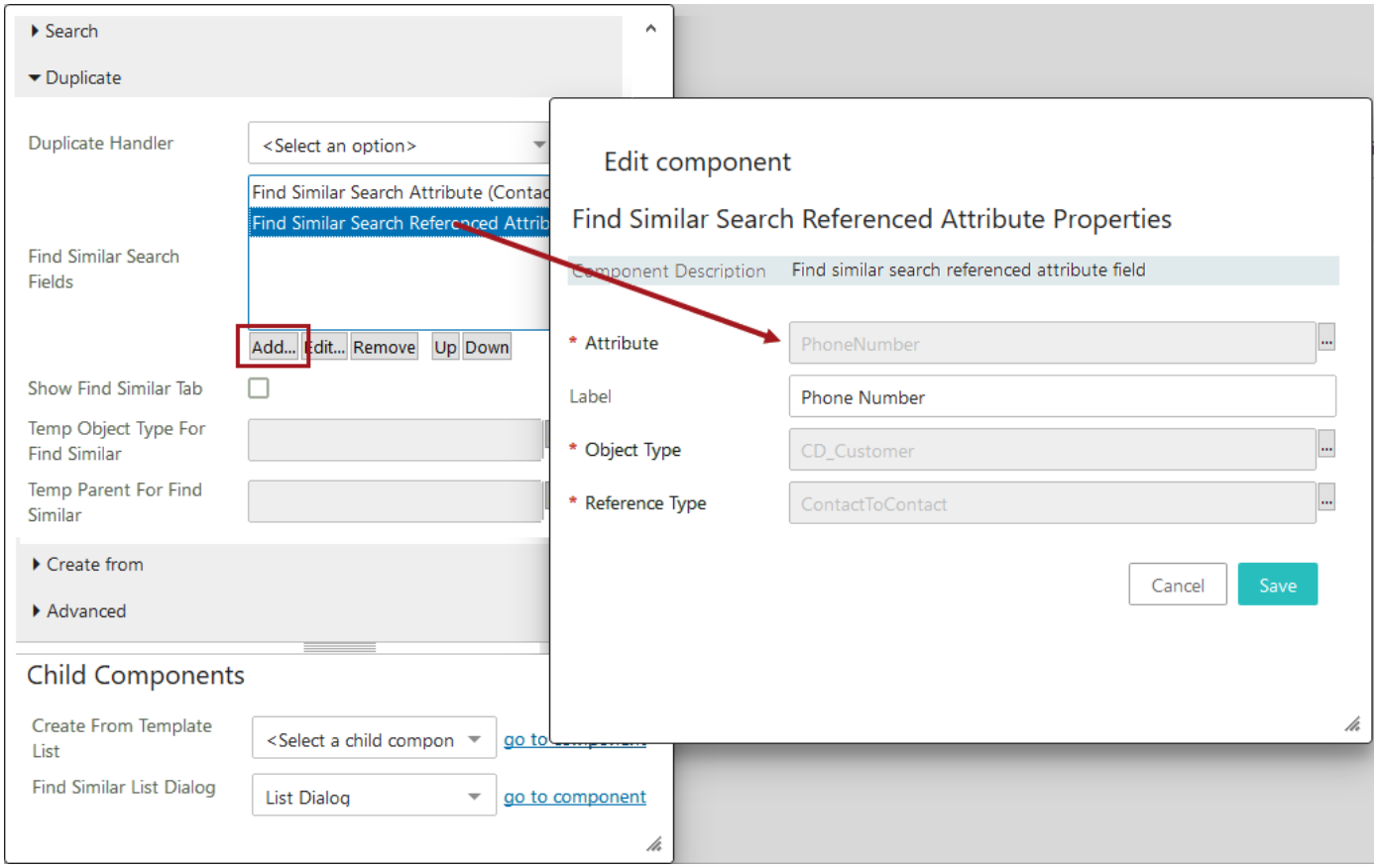
To configure the Find Similar Search tab:

1. Select **Duplicate Handler** in the dropdown for the **Duplicate Handler** parameter.
2. The **Duplicate Handler Properties** screen will display. Select the Detail and Editor screen from the dropdown. Then, select the desired **Matching Algorithm** parameter. Click the ellipsis button (...) to the right of the value field, and select a matching algorithm. Click **Save**.

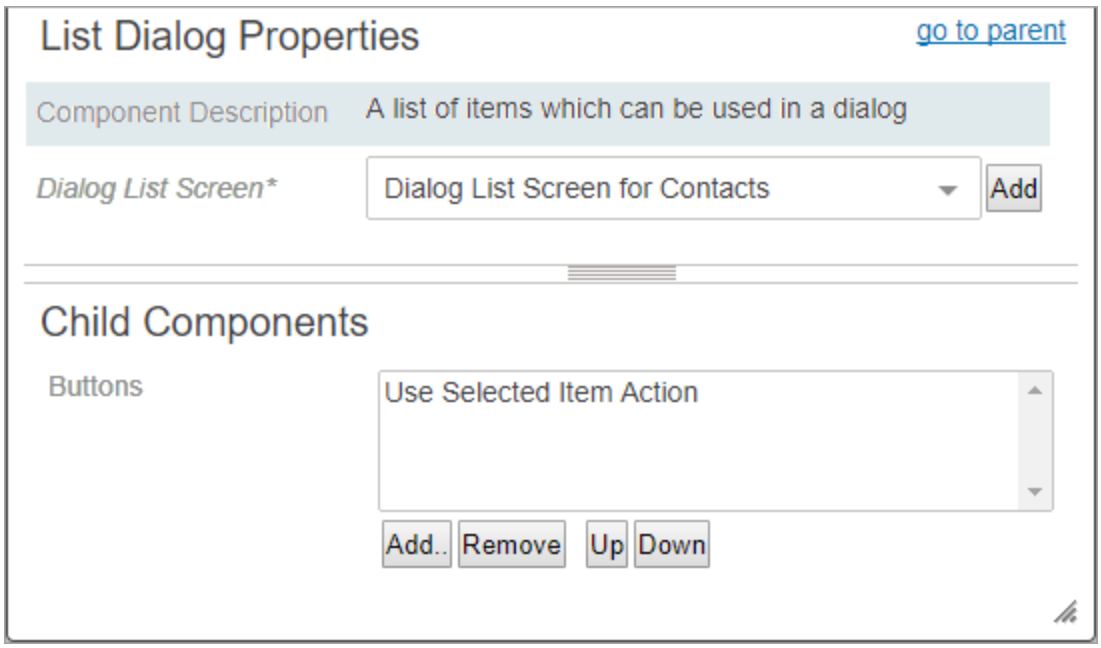
   For more information on matching algorithm, threshold, and window size, refer to the **Matching, Linking, and Merging Configuration** topic in the **Matching, Linking, and Merging** documentation.



3. Back on **Add Reference Action Properties**, click **Add** under the **Find Similar Search Fields** value box. Add, remove, and re-order **Attribute** and **Referenced Attributes** as desired. Remember that these search fields will need to be incorporated into the matching algorithm configured in the Duplicate Handler parameter.
4. It is important to fill in the **Label** fields during the **Find Similar Search Fields** configuration. These labels will appear on the Find Similar Search tab. If adding a **Find Similar Search Referenced Attribute**, fill in the **Attribute**, **Label**, **Object Type**, and **Reference Type** values. Save all changes.



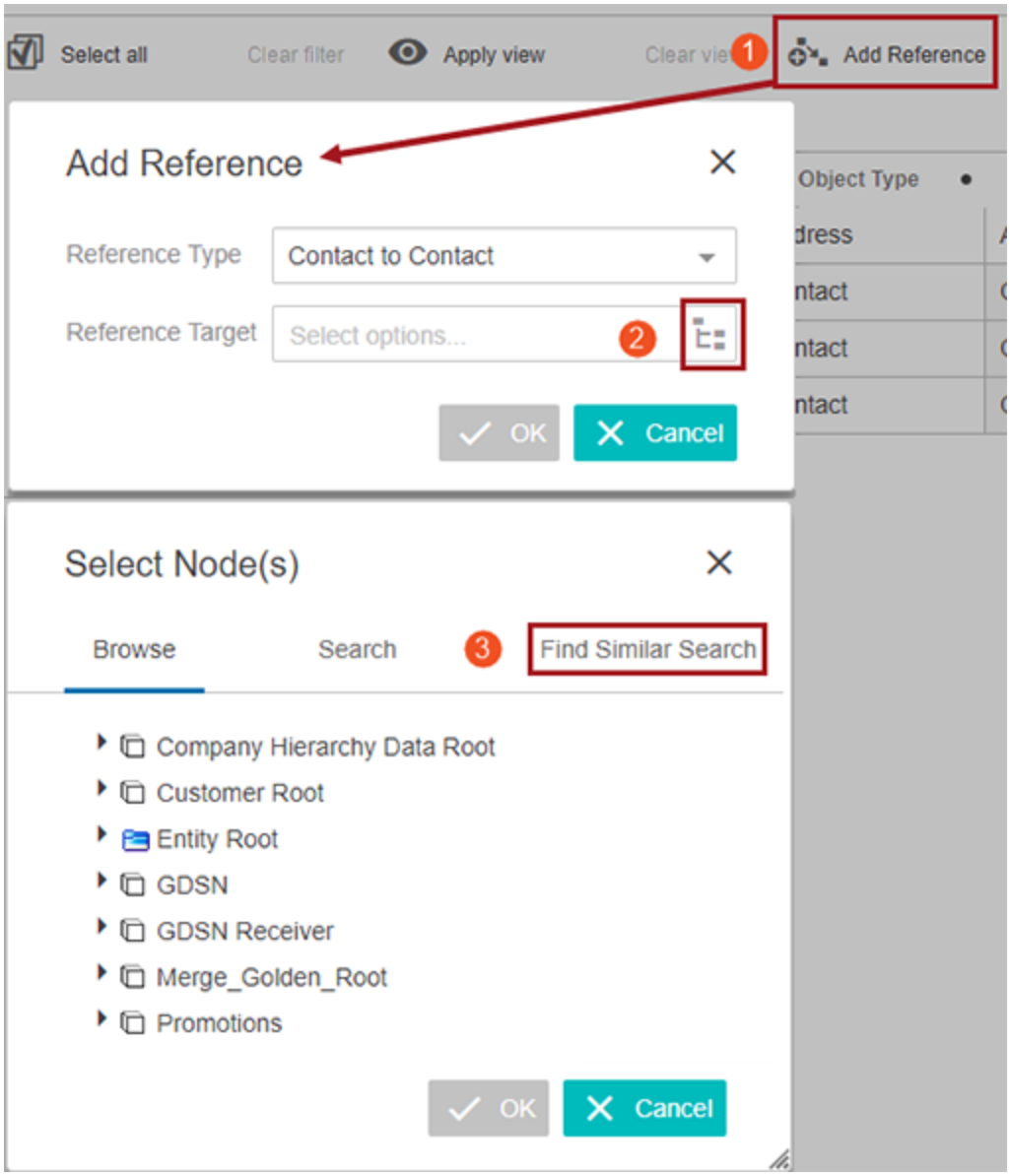
5. Enable the **Show Find Similar Tab** setting back on the **Add Reference Action Properties**.
6. Click the ellipsis button (...) to make a selection for the **Temp Object Type For Find Similar** parameter and the **Temp Parent For Find Similar** parameter. (When the matching algorithm is run, it creates temporary objects based on the input in the search fields. These objects are then used in the algorithm to compare and find similar objects. The temporary objects need a parent and object type to be created. After the user finishes the operation, the temporary objects are deleted by the system. These parameters have to be configured for the functionality to work. The object types of both the direct objects and the referenced objects need to be made valid under the location used for the Temp Parent For Find Similar parameter.)
7. Under **Child Components** > **Find Similar List Dialog**, select **List Dialog** from the dropdown menu.
8. On **List Dialog Properties**, click **Add** to the right of the Dialog List Screen value field.
9. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.
10. If a **Dialog List Screen** already exists, skip the previous two steps and on the **List Dialog Properties**, select the **Dialog List Screen** using the dropdown.
11. Also on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Use Selected Item Action**. Click **Add**, and then click **Save** in the Designer window.

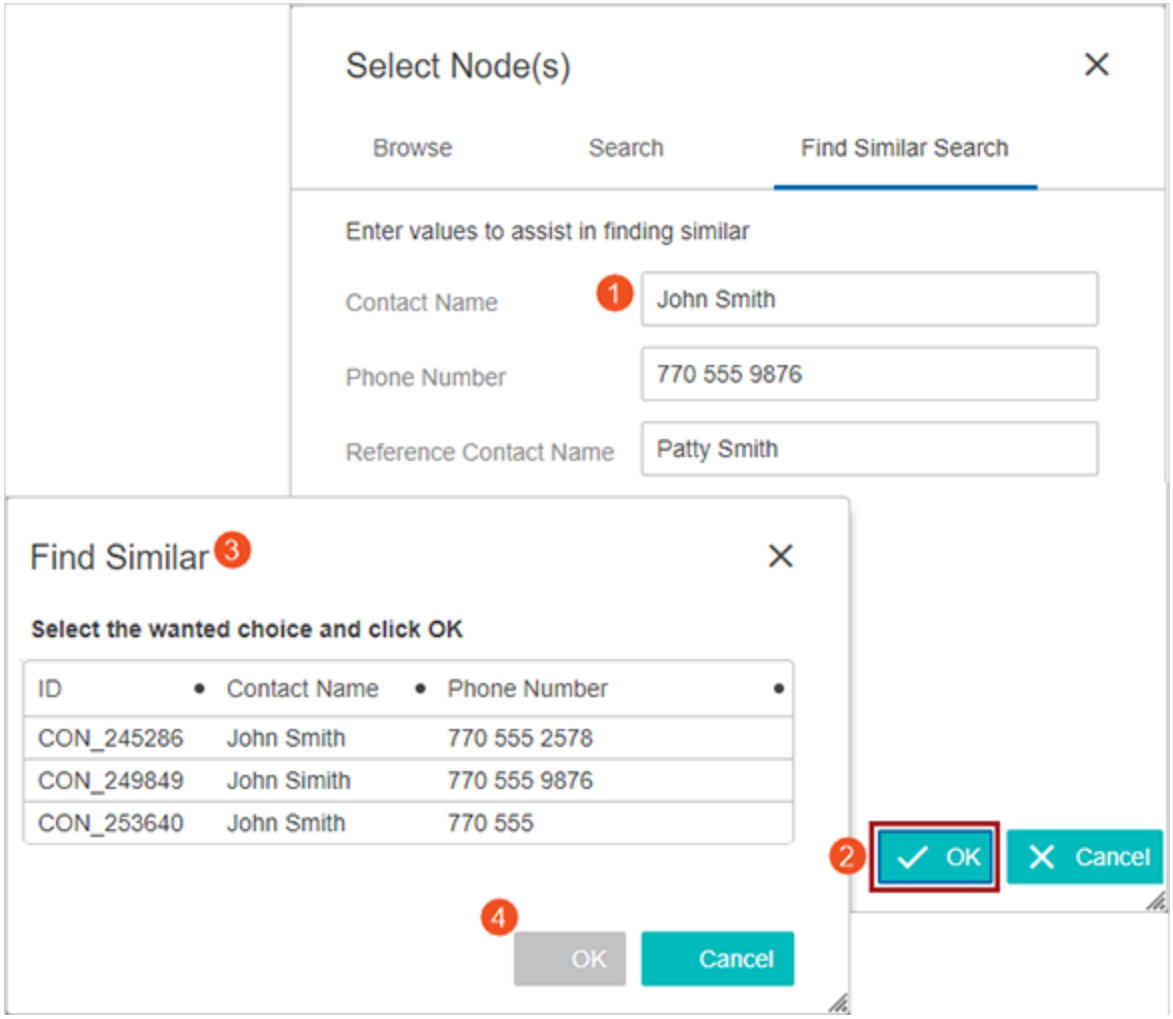


12. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is Dialog List Screen for Contacts.
13. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to set up the attributes that will display in the Find Similar Search tab for the results list. The **Help Text** is editable and will display at the top of the template results list.
14. Click **Save** and **Close** design mode to return to normal Web UI mode.

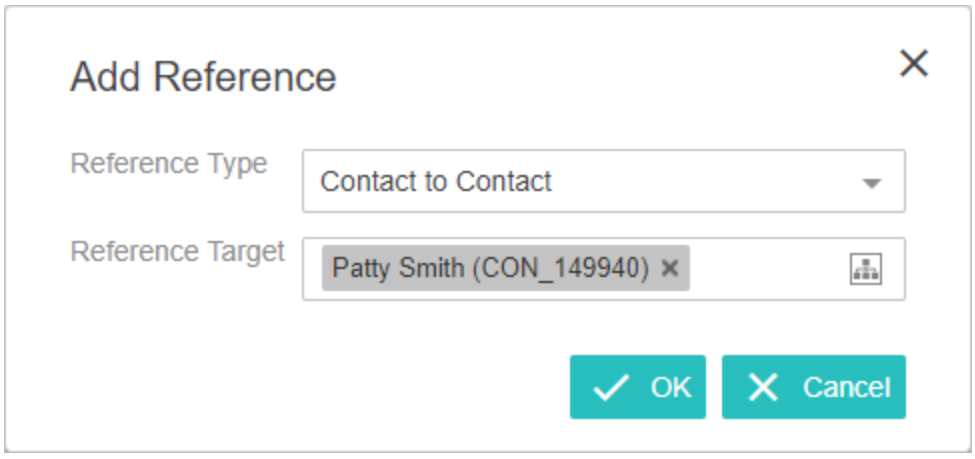
Find Similar Search Example

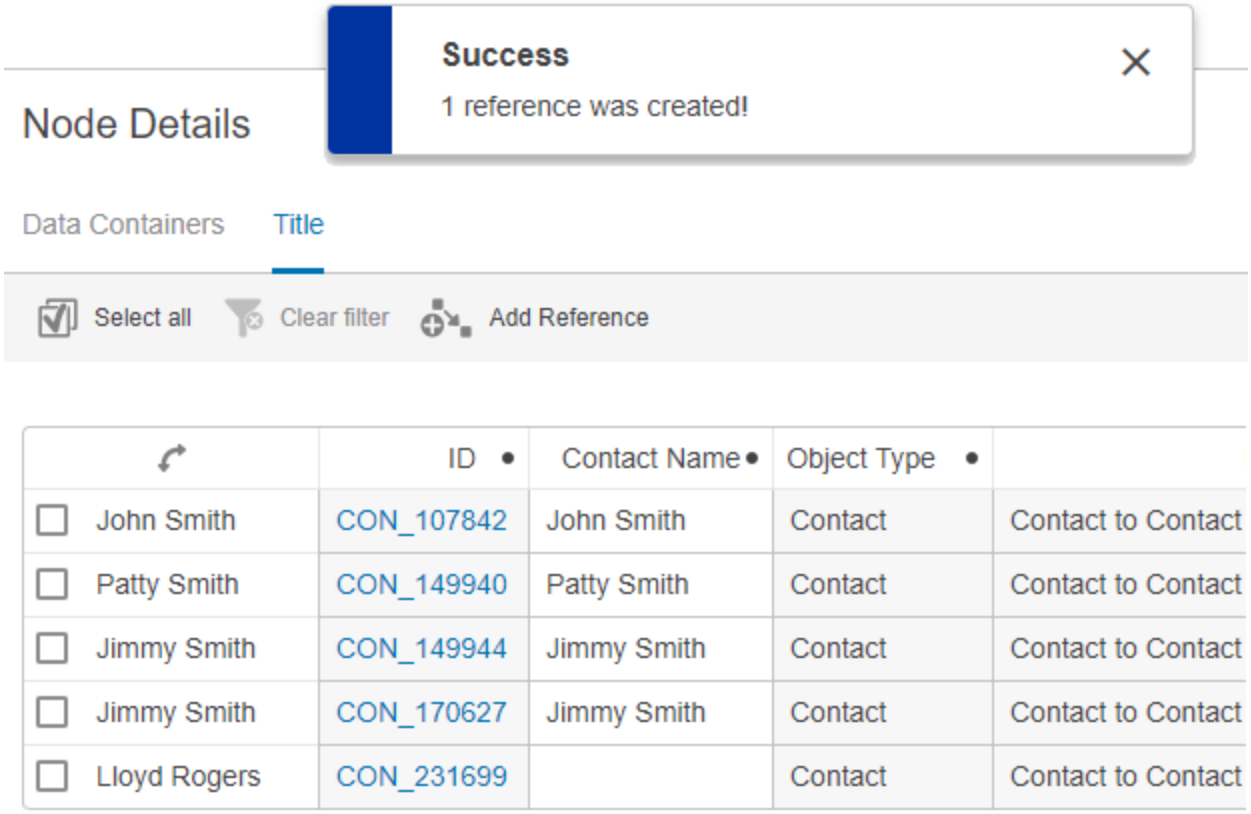
This is an example of a configured **Find Similar Search** tab. While using a **Multi-Reference Editor** component, the end user clicked 'Add reference' and then clicked the node picker icon on the 'Add reference' dialog that appeared. The **Find Similar Search** tab is displayed in the 'Select Node(s)' dialog. The end user enters data into the configured attribute fields and clicks OK. The algorithm runs in the background and the configured Dialog List Screen displays. Remember that this is not a standard search and results are based on the matching algorithm running in the background.


Select all
Clear filter
Apply view
Clear view
1
Add Reference
Add Reference
Reference Type
Contact to Contact
Reference Target
Select options...
2
OK
Cancel
Object Type
dress
ntact
ntact
ntact
Select Node(s)
Browse
Search
3
Find Similar Search
Company Hierarchy Data Root
Customer Root
Entity Root
GDSN
GDSN Receiver
Merge_Golden_Root
Promotions
OK
Cancel



A maximum of fifty (50) objects are shown at one time on the results list. If the end user finds a reference on the results list that they want to use, they click in the row they want. When that selection is made, the OK button will be available. The end user clicks OK and now that reference is saved. If the user does not find a result to use, they can click cancel and create a new reference using the Create or Create From Template functions (both described previously in this topic).





For additional information about the Multi-Reference Editor and its features, refer to the **Multi-Reference Editor** section of the **Web User Interfaces** documentation.

Suppressing References in the Multi Reference Editor

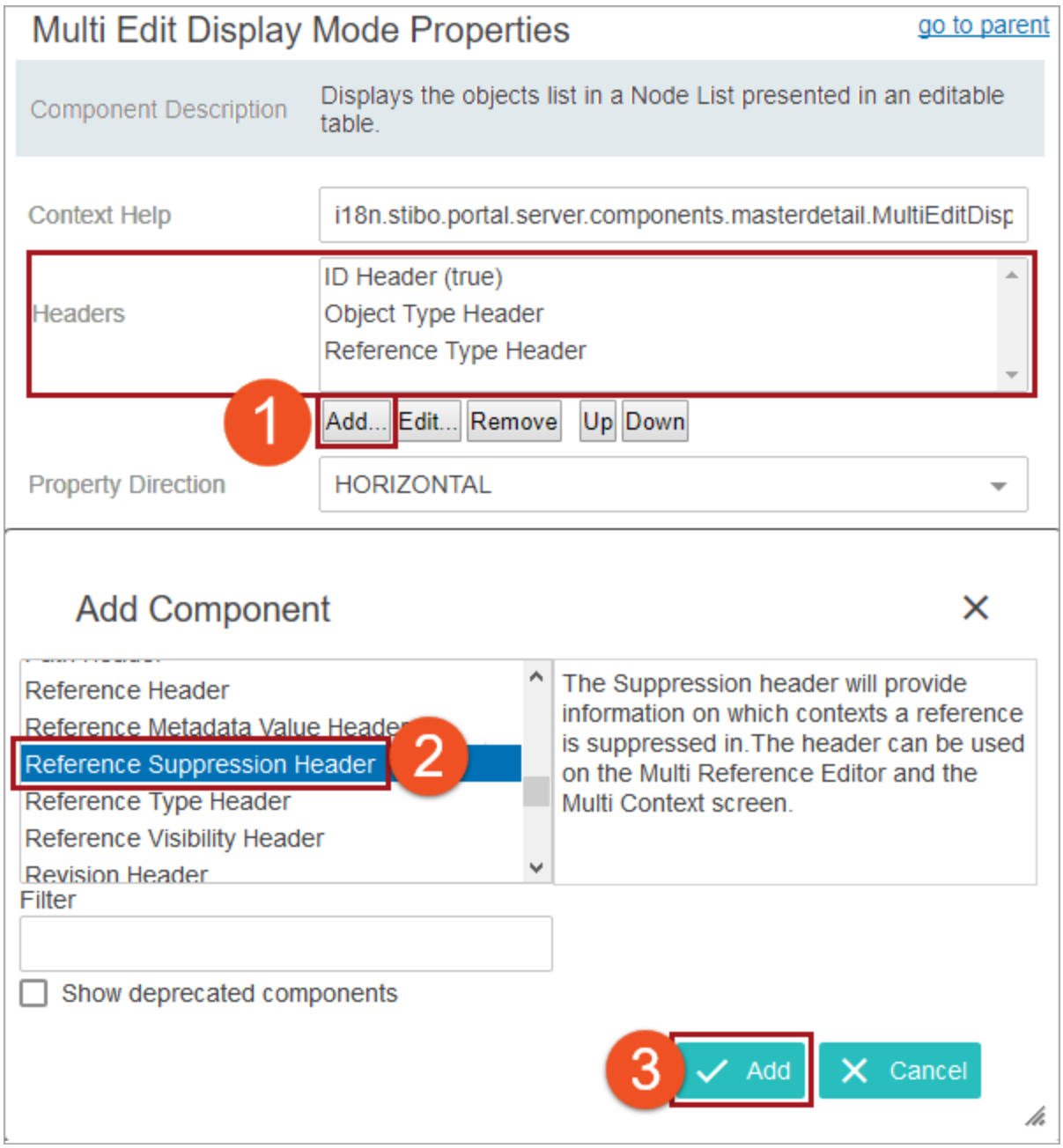
Dimension dependent references may be suppressed, by context, using the Multi Reference Editor in Web UI. For example, let us say an image of a person modeling a t-shirt is referenced by a t-shirt product. The same image is referenced by the t-shirt product in all contexts that the t-shirt product exists in. But for one of the countries where the t-shirt is sold, the image is deemed culturally insensitive. To address the issue, the user could go into the relevant country-language context, suppress the reference to the image in question, and then add a reference to a different, more appropriate image. The image reference would remain for all contexts except for one where it has been suppressed. This action may be taken in Web UI using the Multi Reference Editor.

Configuring Reference Suppression

To add the reference suppression capability to a Multi Reference Editor, an administrator must add and configure a Reference Suppression header, the Remove suppression toolbar action, and the Suppress reference toolbar action.

Reference Suppression header

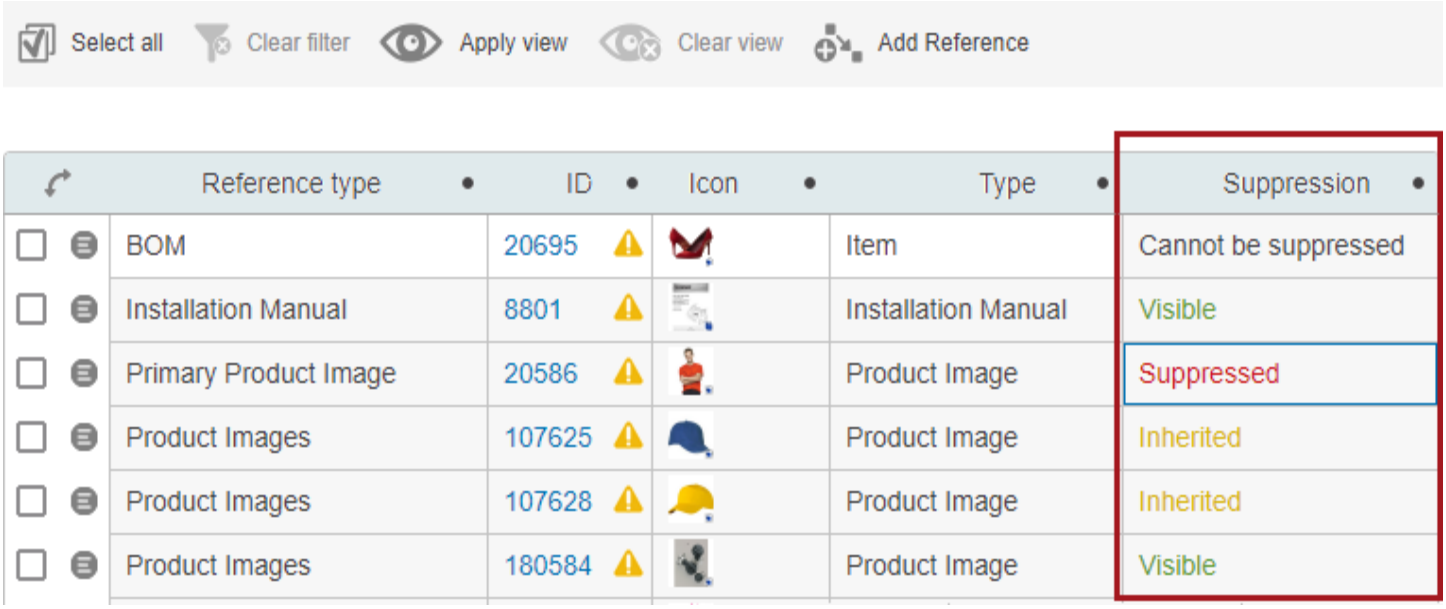
To view whether a reference is suppressed in the current context, an administrator must add the Reference Suppression Header to the Multi Reference Editor in the designer.



To add the Suppression header to the Multi Reference Editor, follow these steps (which correspond to the numbers in the above screenshot):

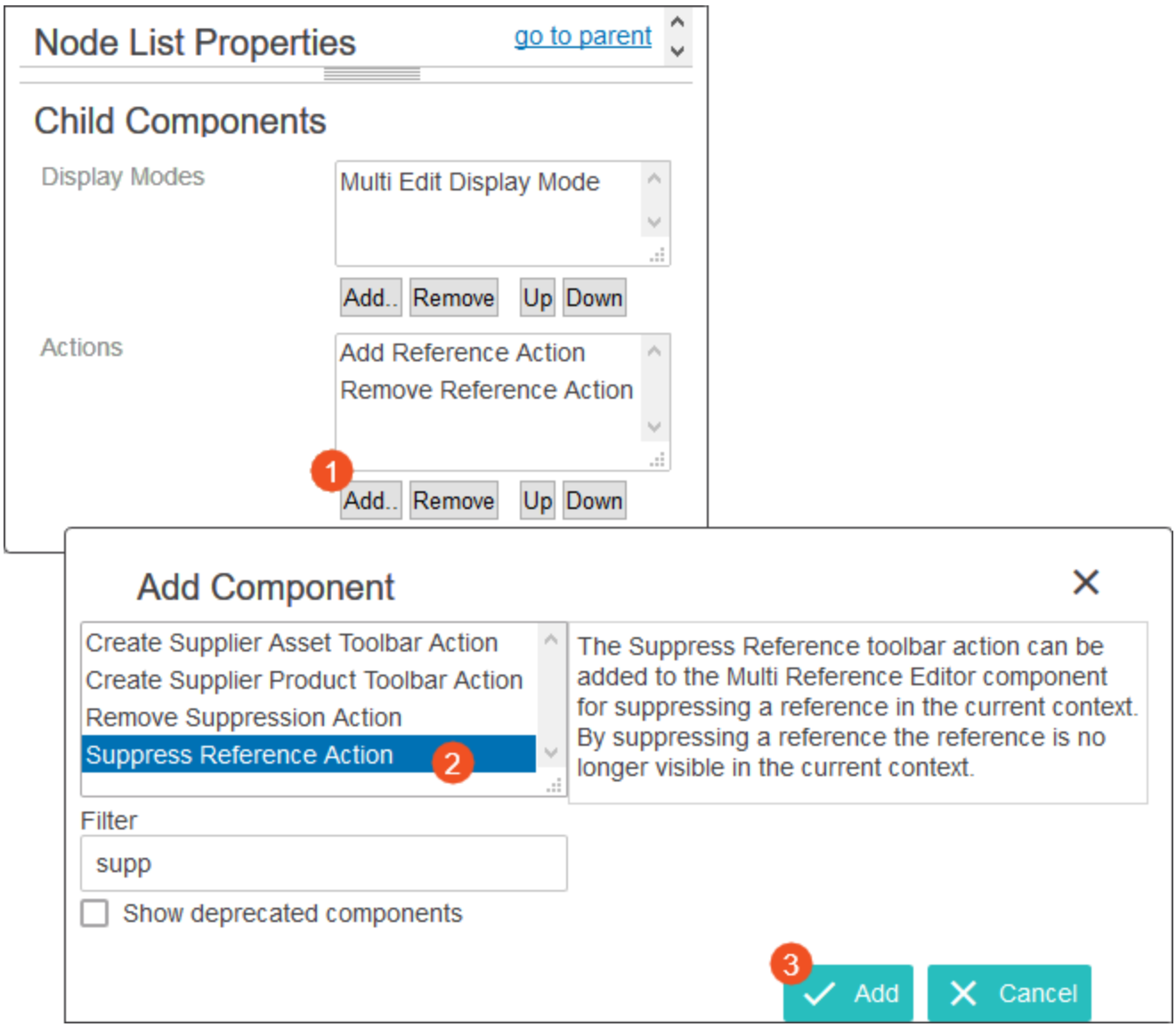
1. On Multi Edit Display Mode Properties, click the **Add...** button for Headers.
2. In the Add component window that displays, select **Reference Suppression Header**.
3. Click the **Add** button.

The Multi Reference Editor may look like this with the new header applied:



Suppression toolbar actions

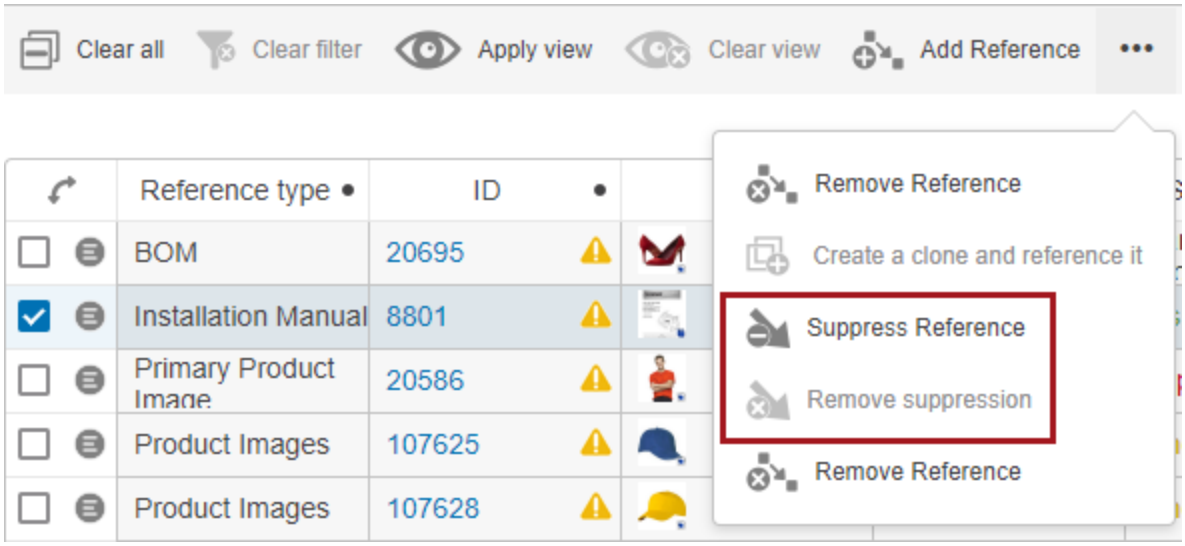
To enable users to suppress a reference or remove an existing suppression from a reference, an administrator must configure two toolbar actions: Suppress reference and Remove suppression.



To add these toolbar actions to the Multi Reference Editor, follow these steps (which correspond to the numbers appearing in the screenshot above):

1. On the Multi Reference > Node List Properties view of the designer, under Child Components, under Actions click the **Add..** button.
2. In the Add Component dialog that displays, select **Suppress Reference Action**.
3. Click **Add**.
4. Repeat these steps to add the Remove suppression action.

When you have saved this configuration and closed the designer, your Multi Reference Editor may look like this:



Note: The toolbar actions are configurable in that their icons and labels can be changed from their defaults. For more information on changing toolbar action labels and icons, refer to the **Action Button Configuration on a Node** documentation.

Suppressing References in the Multi Reference Editor

To suppress references or remove suppression from references in the Multi Reference Editor, the reference in question must first be checked. If the reference is suitable for the proposed action, the toolbar action will be enabled, otherwise it is disabled.

Note: Checkboxes only appear on the Multi Reference Editor when an administrator has added one or more toolbar actions to the screen using the designer.

Whether a reference can be suppressed or have its suppression removed is dependent on that reference's status in the Suppression column. These are the statuses that may show for a reference, along with the actions available for a reference based on the status:

Cannot be suppressed – The reference cannot have suppression applied to it in the current context. This status shows for references that are not dimension dependent.

Inherited – The reference is inherited from a parent object; therefore, it cannot be suppressed.

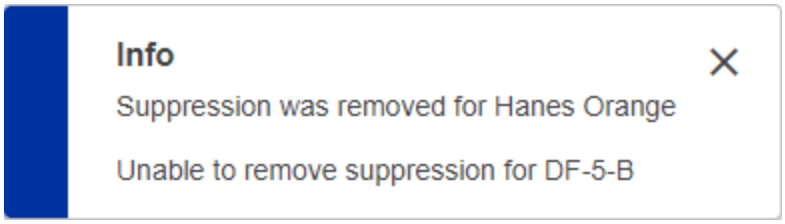
Suppressed – Suppression has already been applied to this reference in the current context. On references with this status, the Remove suppression toolbar action is active and the Suppress reference toolbar action is inactive.

Visible – The reference is currently visible in the current context and can be suppressed. On references with this status, the Suppress reference toolbar action is active and the Remove suppression toolbar action is inactive.

When selecting multiple references with a combination of Visible and Suppressed statuses, both the Remove suppression and Suppress reference toolbar actions are active. However, clicking a suppression toolbar action causes STEP to only execute the command on the applicable references. For example, if a user selects three references, two that are Visible and one that is Suppressed, and then clicks the Remove suppression toolbar action, the following things will happen:

1. The references with the Suppressed status have the suppression removed.
2. The reference with the Visible status is unaffected.
3. An info window appears listing all references and how they were affected by the selected toolbar action.

Below is an example of an info window that will display in this scenario:



Important: Using the Multi Reference Editor screen, references may only be actioned in the current context. If you are viewing references in the France_French context, as an example, you may suppress references in that context, but you cannot suppress references in the Germany_German context without first switching to that context in the Web UI.

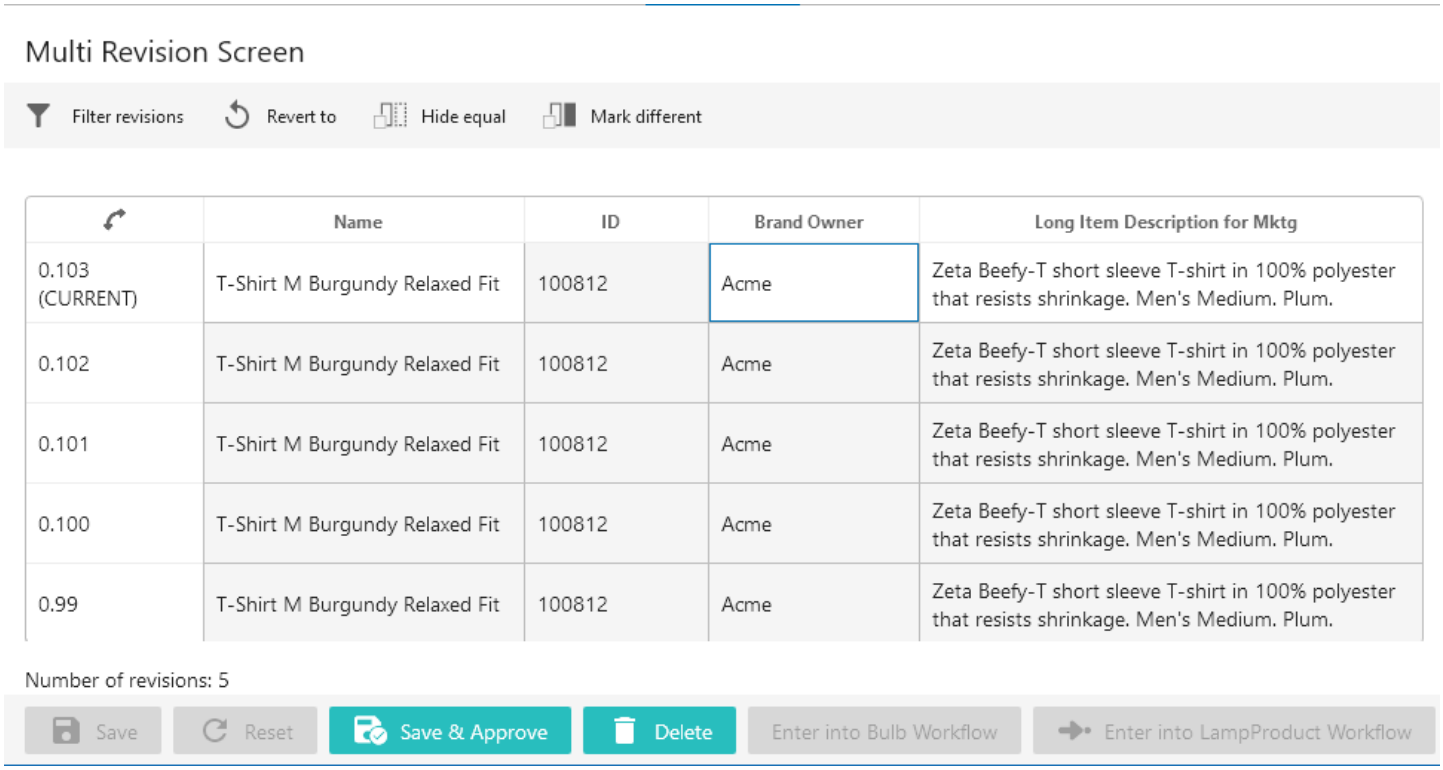
To suppress references in multiple contexts in a single screen in Web UI, consider adding a Multi Context screen to your Web UI. For more information on how to configure and use the Multi Context screen, refer to the **Multi Context Screen** documentation.

Multi Revision Screen

The Multi Revision Screen is a screen designed to show revision information on the attribute values and outbound references of an object. This screen and its child component, the Multi Revision Editor table, need to be configured to display the desired attributes and references to compare.

By default, a Multi Revision screen displays the last five (5) object revisions, including the current revision. If less than five revisions exist, fewer revisions will display.

Users can filter *all* revisions that exist for an object, not just those shown, using various options.



Note: Careful consideration should be taken when using the Multi Revision Screen. If objects contain a large number of attributes or filtering revisions returns numerous revisions, users may experience system slowness as they work in Web UI.

Configuration Prerequisites

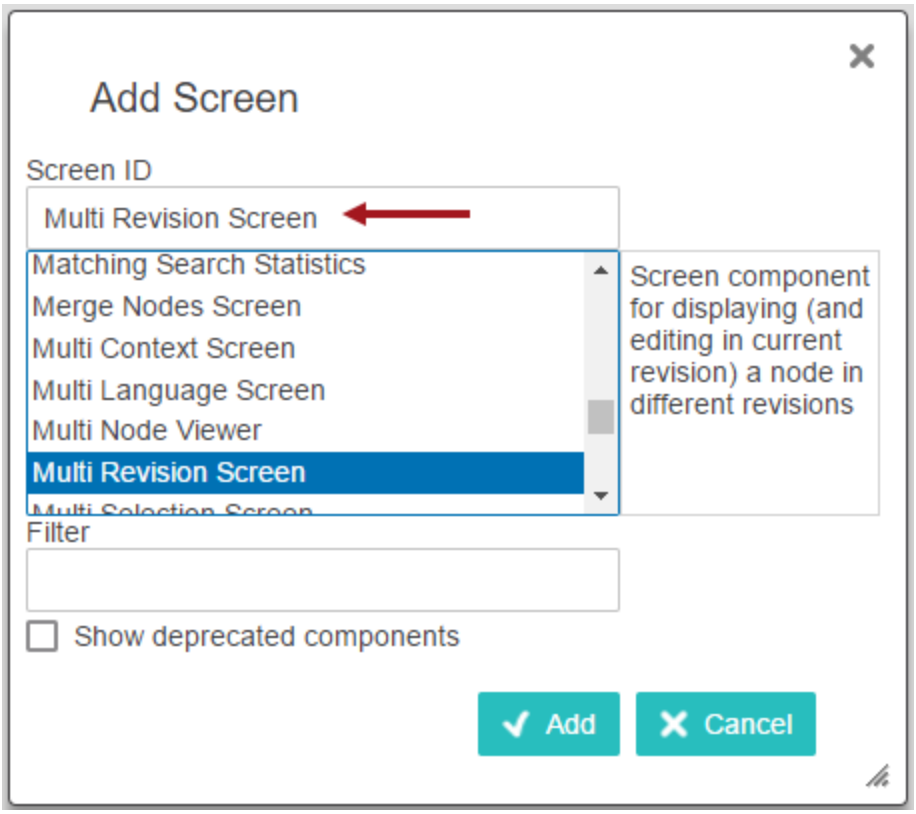
It is expected that anyone configuring the Multi Revision Screen component is familiar with the Web UI Designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

It is also advisable to review the **Revisions** topic in the **System Setup** documentation.

Adding a New Multi Revision Screen

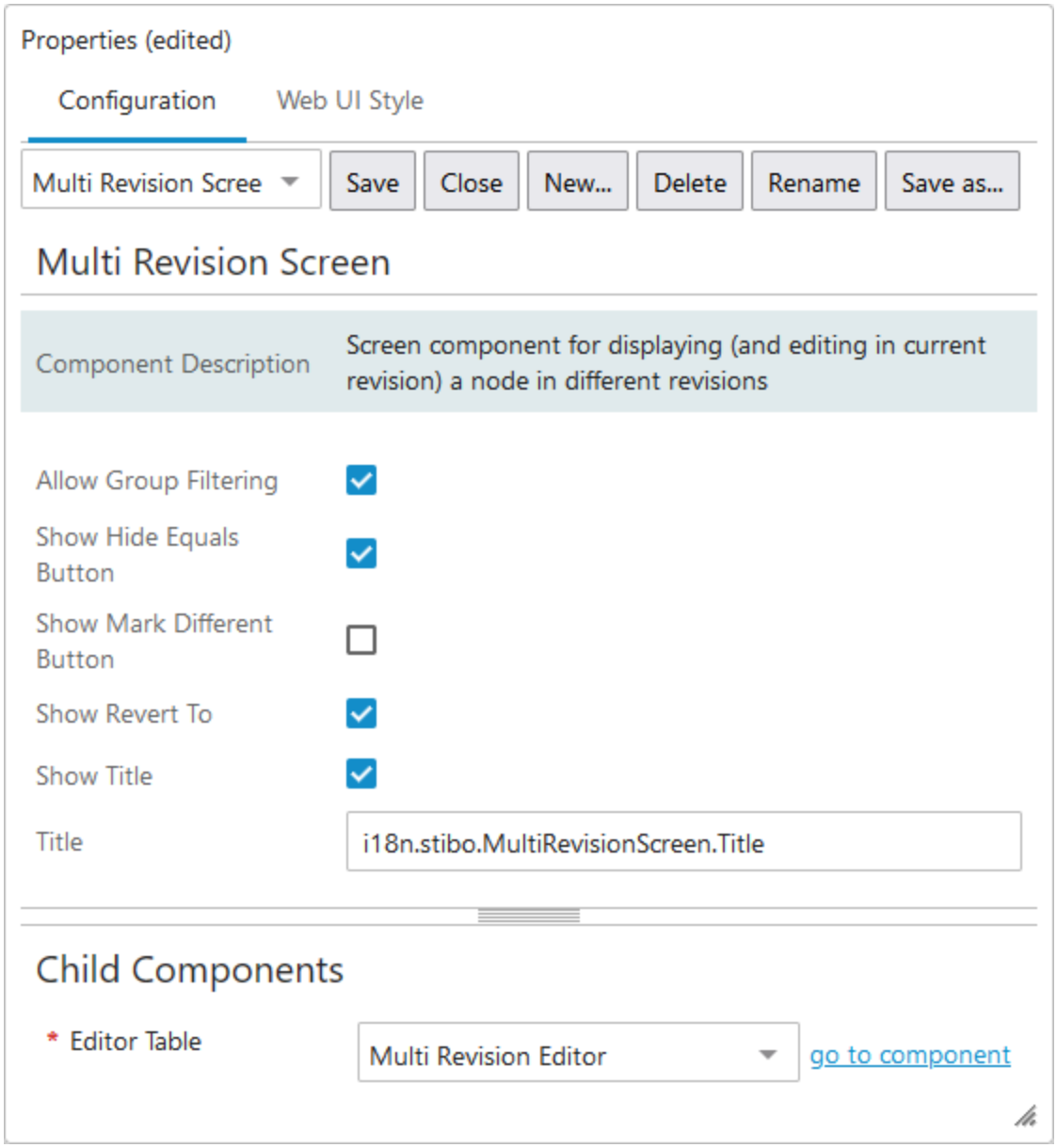
Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic.

Select 'Multi Revision Screen' as the screen type (shown in the screenshot below).



Configuring a Multi Revision Screen

Steps for configuring the Multi Revision Screen Properties are below.



1. Enable the **Allow Group Filtering** parameter if end users are allowed to filter the revisions by user group as an addition to the standard date filtering options.
2. Determine if you want to enable the **Show Hide Equals Button** and/or the **Show Mark Different Button** parameters. If enabled, the relevant toolbar action button will display in the screen's toolbar.

Details regarding what these parameters do can be found in the **Comparing Data Using Hide Equal and Mark Different** section.

3. Check the box for **Show Revert To** to enable users to revert the selected object to its state in any previous version. Enabling this parameter causes a 'Revert to' toolbar action button to display. When clicked, users can select any previous version of the object to revert to.

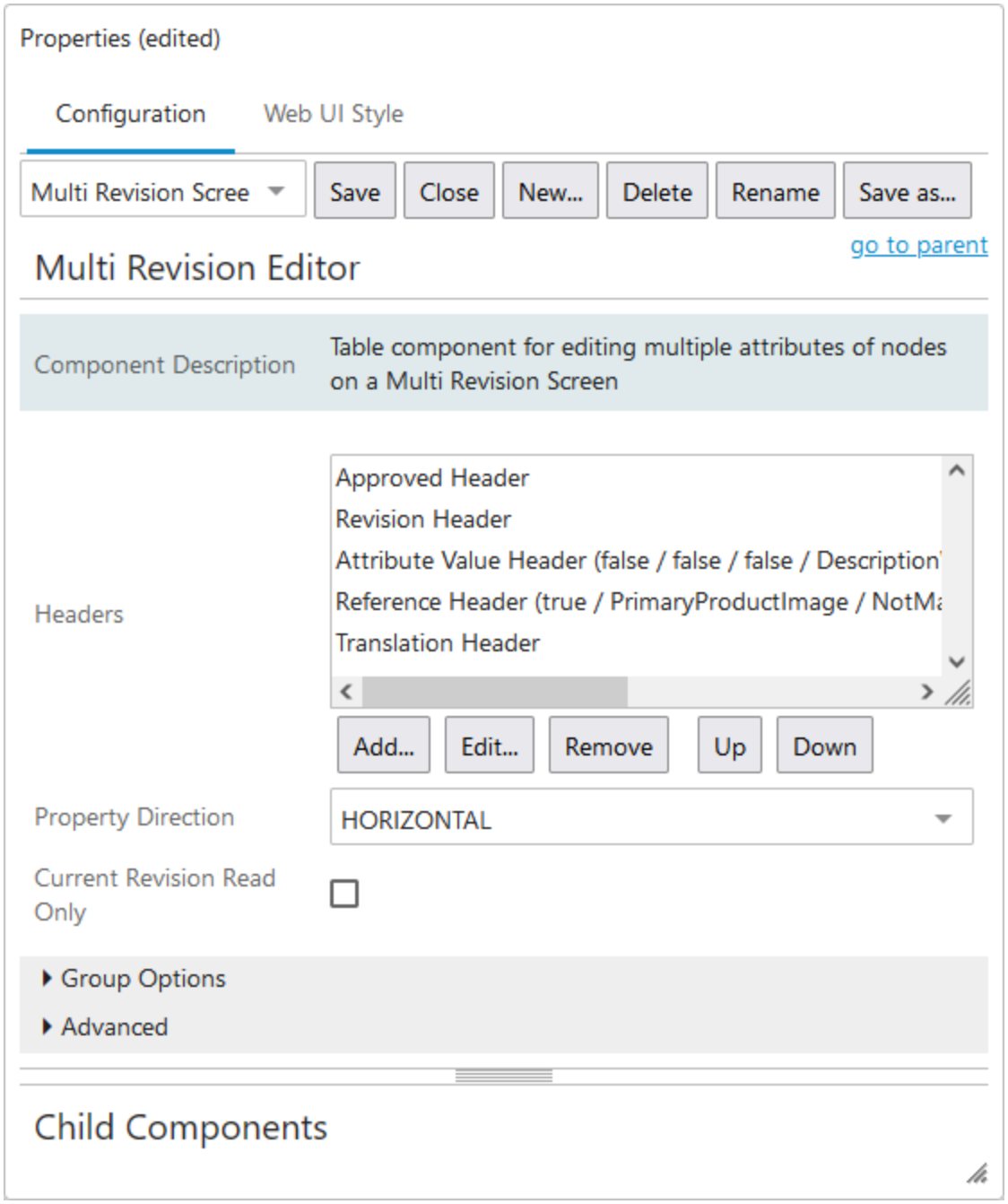
4. Admins can configure display of the title in the **Title** parameter. If the default title should remain, do not overwrite the existing text. The title will display as 'Multi Revision Screen' in the top left corner (an example is shown below). If a custom title is required, add the title text to this field. The title added will display in lieu of the default title.



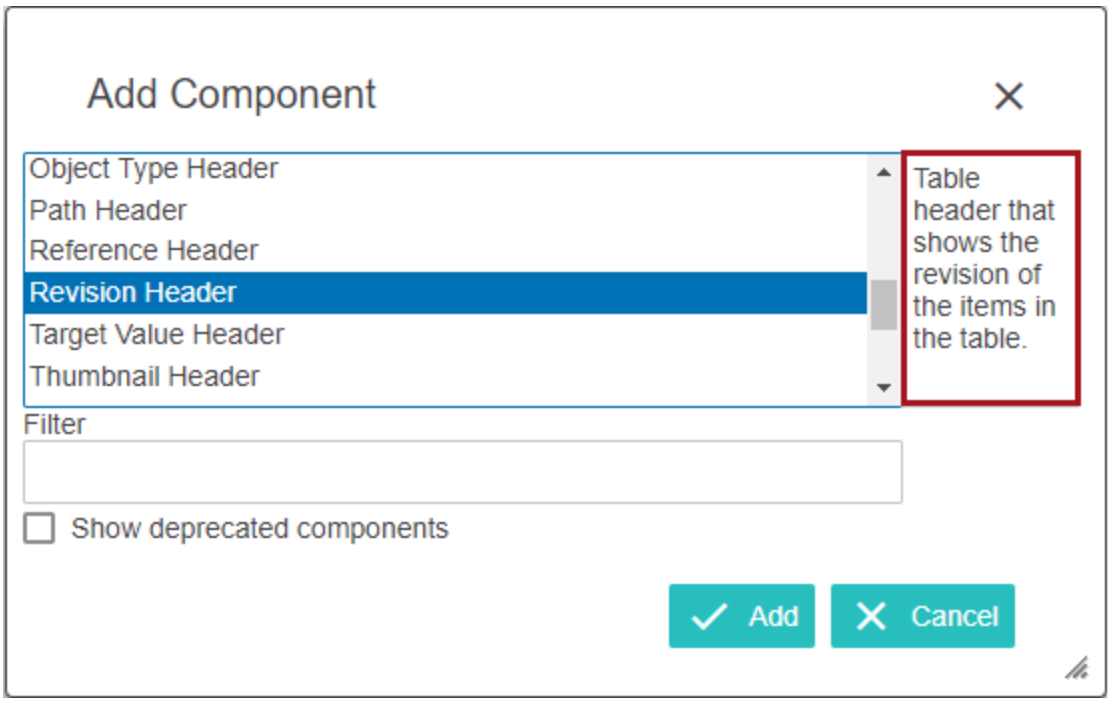
5. Go to the Child Components > Editor Table parameter and select **go to component**. The Multi Revision Editor is pre-populated in the value dropdown since it is mandatory to configure the editor before the Multi Revision Screen will render correctly.

Configuring a Multi Revision Editor

The **Multi Revision Editor Properties** now need to be configured.

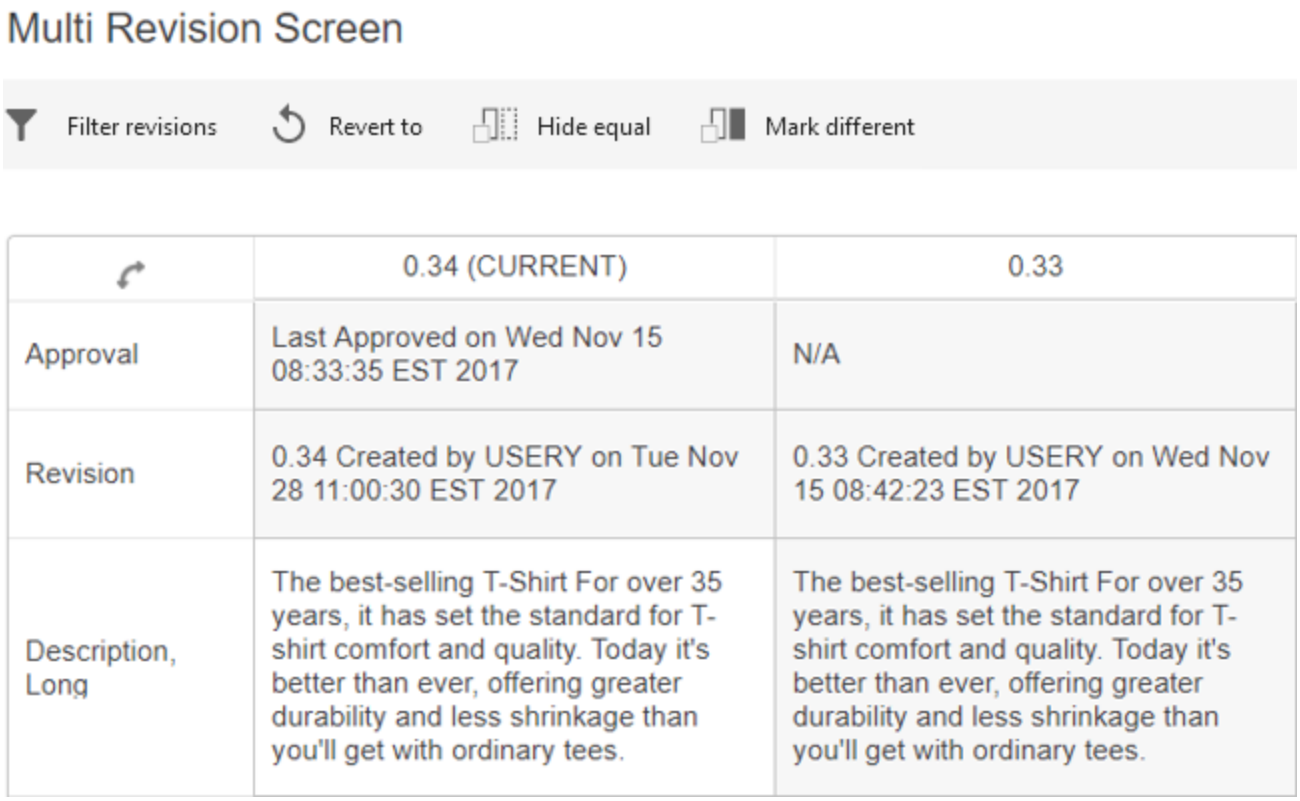


1. Add, edit, remove, and reorganize table headers, as desired, in the **Headers** value field. The image above shows headers that have already been added. Relevant headers to consider including, as needed, are: ID Header, Name Header, Attribute Value Header, Attribute Value Group Header, Approved Header, Revision Header, Path Header, Reference Header (which also shows Links), and Translation Header. Clicking on each component in the 'Add component' dialog provides a description of the component on the screen.

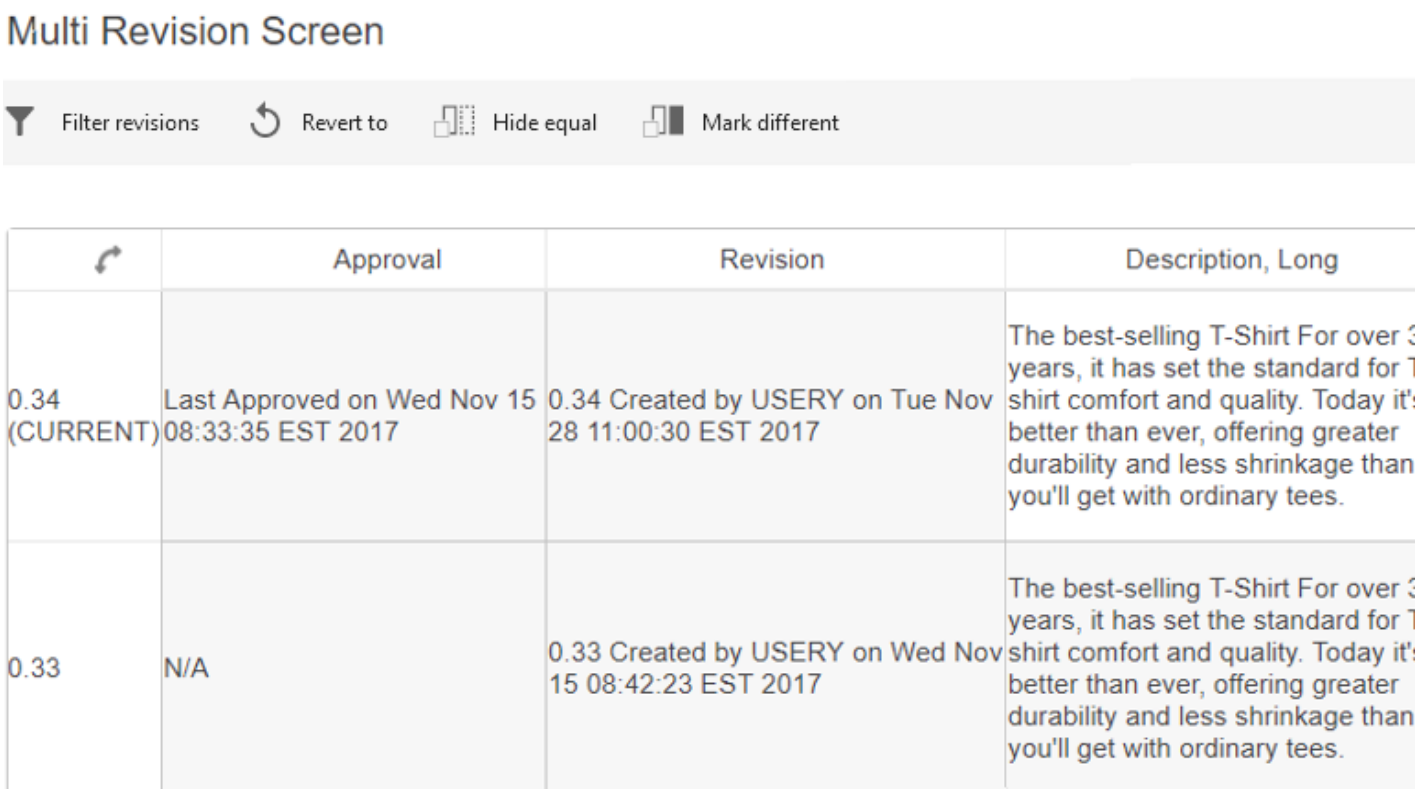


2. Determine the direction of the table using the **Property Direction** parameter.

   VERTICAL means that the data (determined by the headers selected) will appear in rows and the column headers will be the revision numbers.



HORIZONTAL means that data will appear in columns, while the revision numbers are listed as the row headers. If no direction is selected, HORIZONTAL will populate the field once the screen is saved.

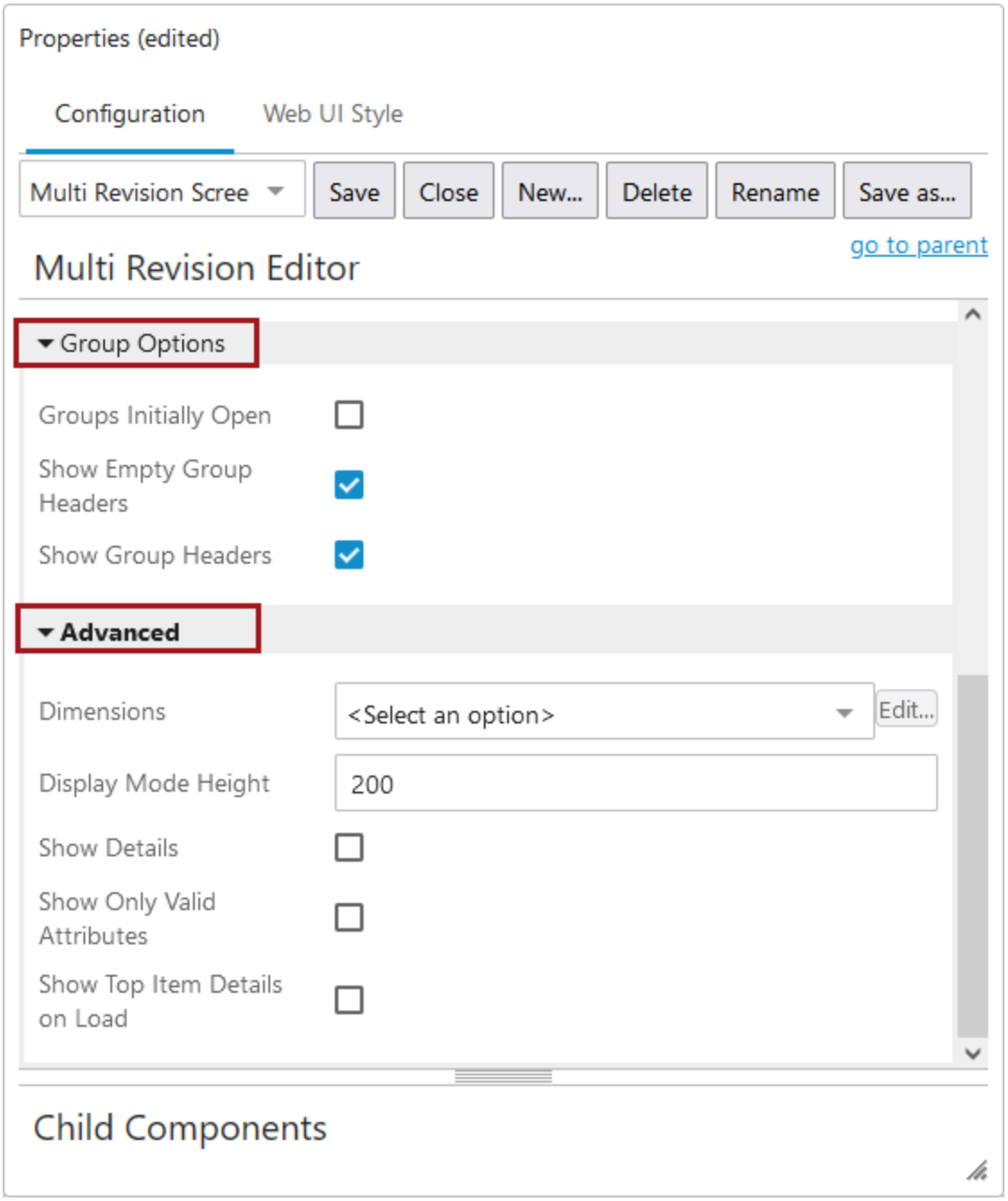


To interchange the Data and Revision numbers on the Multi revision screen as rows to column or vice versa, select the flip table, , icon.

3. **Current Revision Read Only** should be selected if you want to restrict end users from editing the current version of data displayed in the table. The cells will be disabled thus not letting the end user to edit. If disabled (unchecked), then the current revision of data can be edited, as applicable to the selected object.
4. Display additional optional parameter settings by clicking the arrowhead next to the **Group Options** heading and/or the **Advanced** heading. Make selections as desired. Each parameter features help text, accessible by clicking the info icon to the right of each parameter name.

   For more information on the options available under Group Options heading and/or the Advanced heading, refer to the **Configuring a Multi Language Screen** in the **Web User Interfaces** documentation.

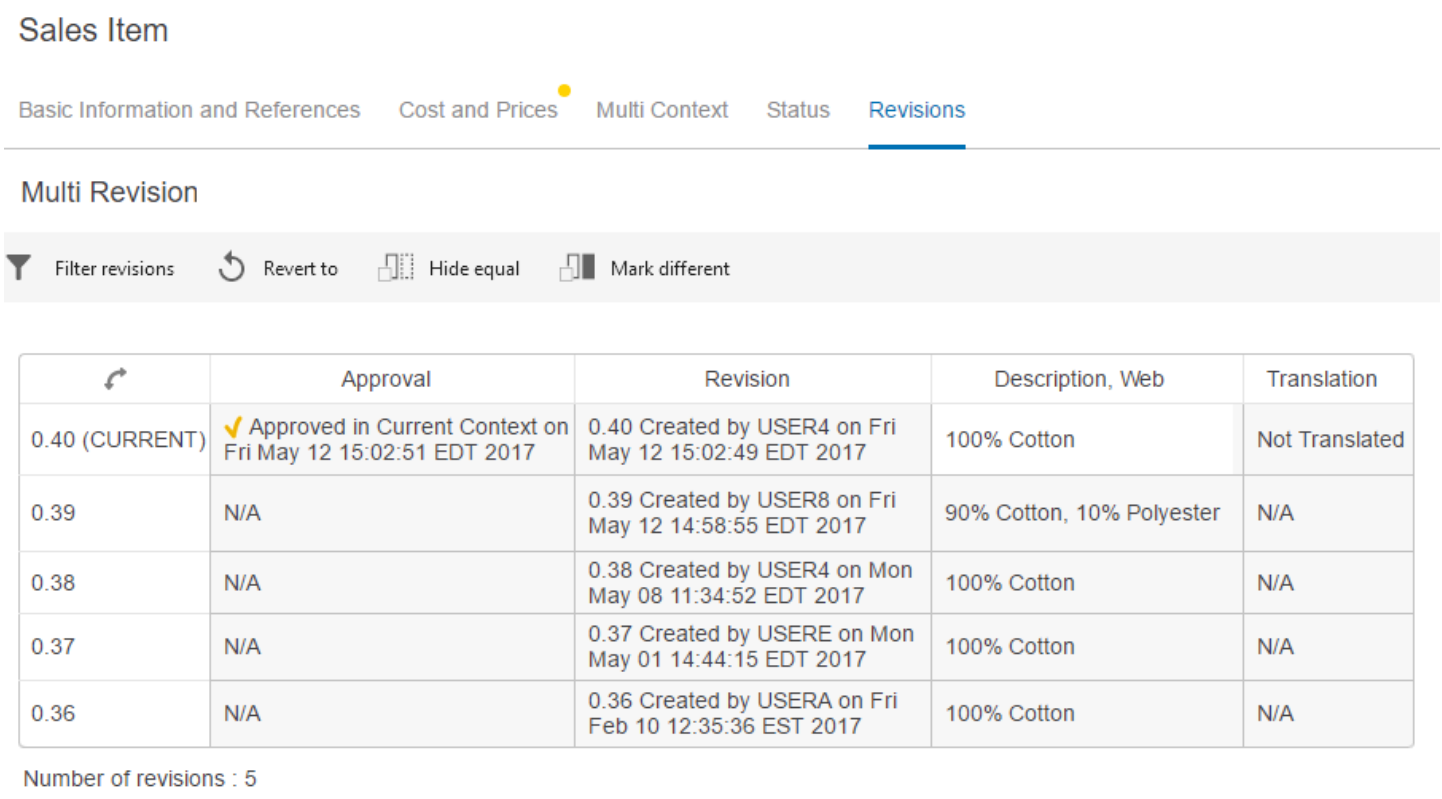
Note: The Advanced 'Show Details' parameter is not applicable to the Multi Revision Screen and enabling / disabling has no impact.



5. **Save** all selections and **Close** the designer.
6. As with any screen, the Multi Revision screen must be mapped appropriately in Main Properties > Mappings for end users to be able to access it. As an alternative to mapping, the Multi Revision screen can be added as a Sub Screen Tab Page on a Node Details screen (as shown in the examples within this topic).

   For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about sub screen tab pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

This is an example of a Multi Revision Screen configured to display as a Sub Screen Tab Page on a Node Details screen.

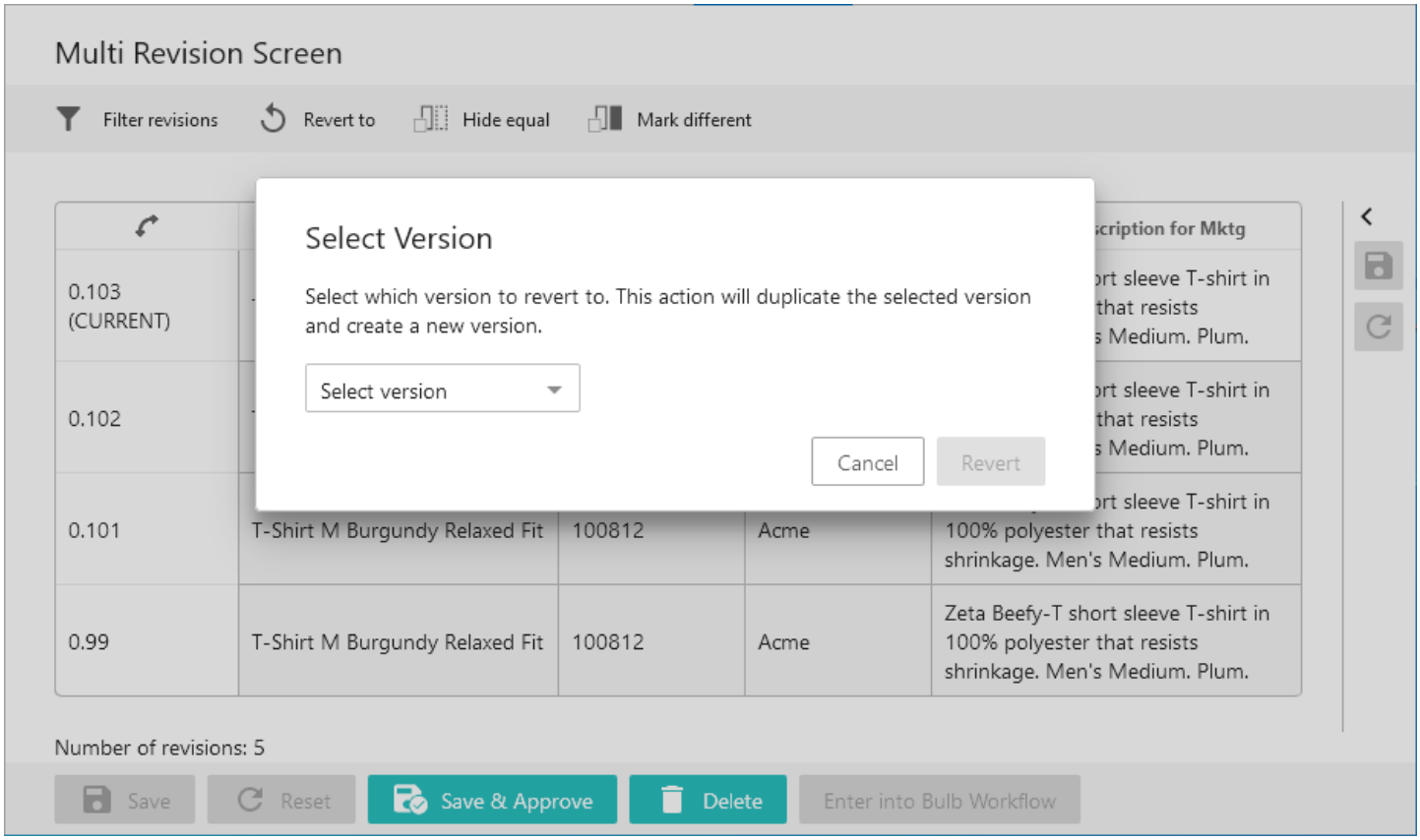


- **Allow Group Filtering** is enabled (checked)
- **Show Hide Equals Button** is enabled
- **Show Mark Different Button** is enabled
- **Show Revert To** is enabled
- **Title** value is 'Multi revision'
- **Headers**: Approval, Revision, Attribute Value (Description, Web), and Translation
- **Property Direction** is HORIZONTAL
- **Current Revision Read Only** is disabled

Note: Enabling 'Allow Group Filtering' will not change the look of the screen. The setting impacts the Filter Revisions dialog. When enabled, the Group selection is available. If disabled, 'By Date' and 'By Revision' filtering are the available selections. Examples of the filtering feature appear in the next section.

Revert To example

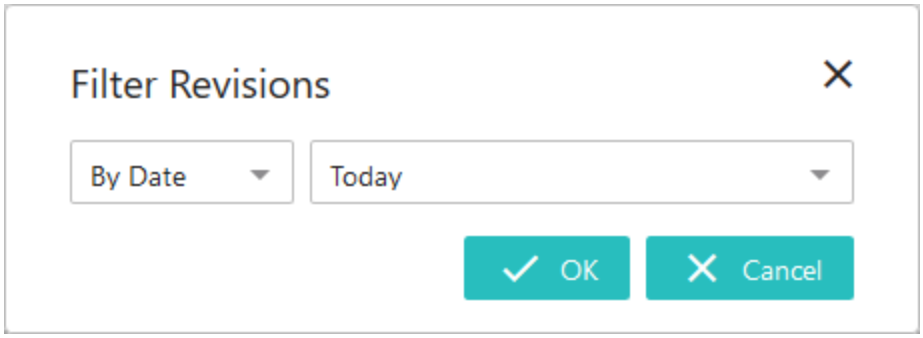
When a user working in the Multi Revision screen clicks the 'Revert to' toolbar action button, the 'Select Version to Revert to' window displays.

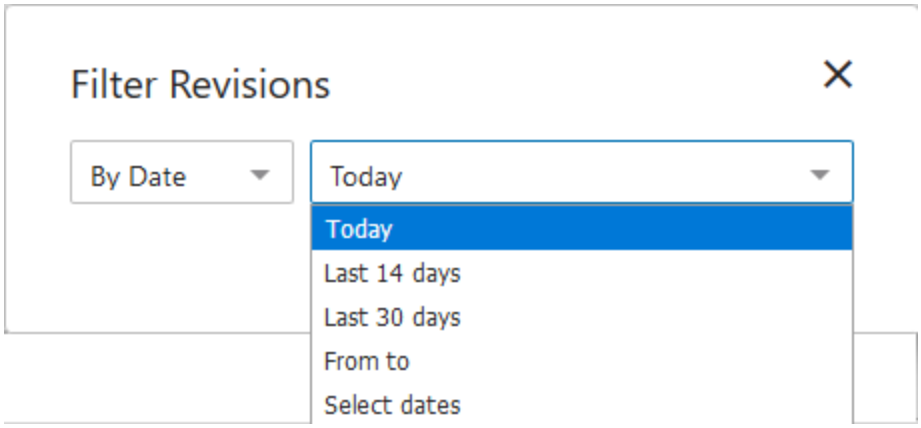


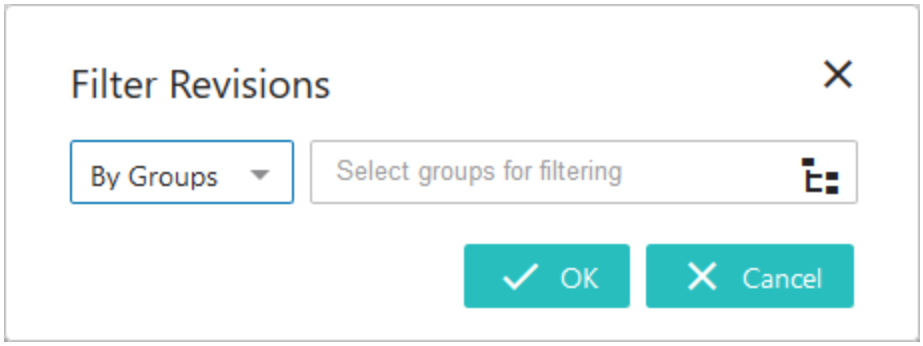
Click the 'Select version' dropdown to access a full listing of all previous versions of the object. Select the version to be reverted to, and then click the 'Revert to' button. If there are no issues, a pop up message will display at the top of the screen that reads, 'Reversion successfully completed.'

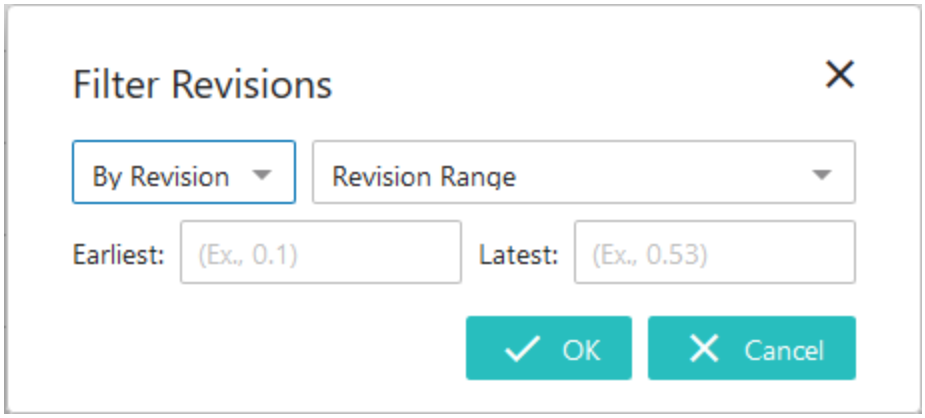
Filtering Revisions examples

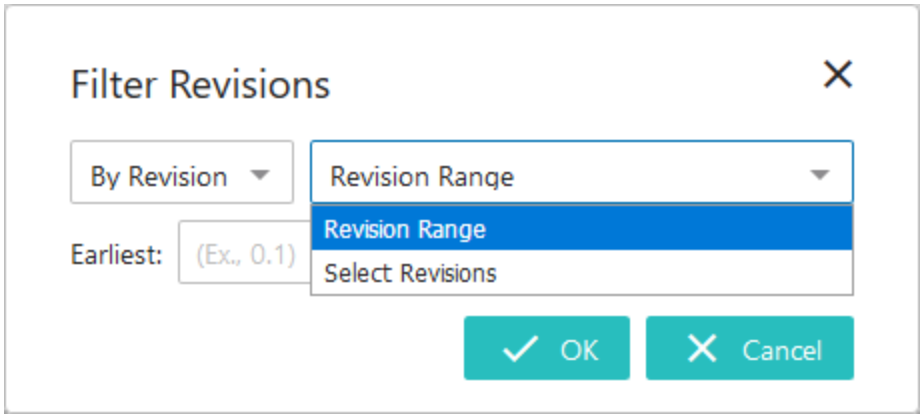
When a user is on the Multi Revision screen and clicks the 'Filter revisions' action icon, the Filter Revisions dialog displays. If 'Allow Group Filtering' is enabled, then the user will have three filtering options: By Date, By Groups, and By Revision (as shown in the examples that follow).




Filter Revisions
By Date
Today
Today
Last 14 days
Last 30 days
From to
Select dates


Filter Revisions
By Groups
Select groups for filtering
OK
Cancel

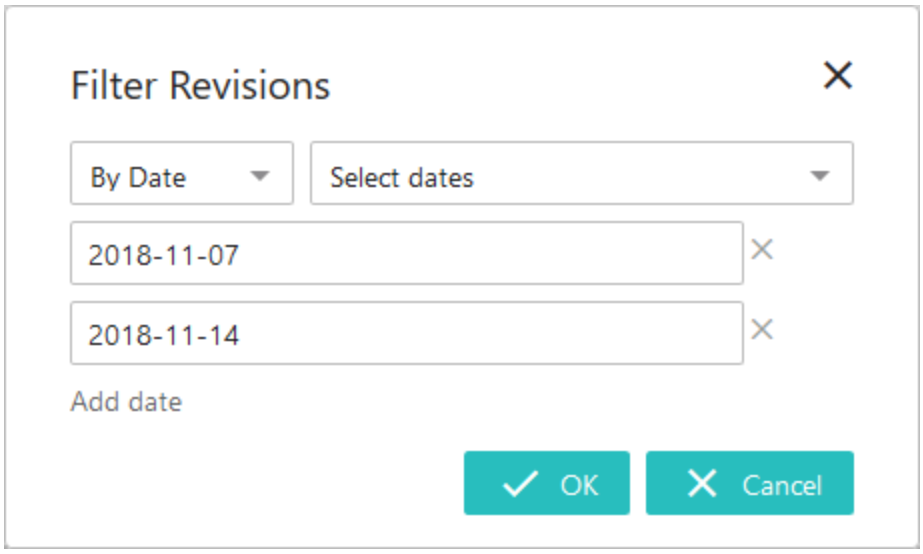

Filter Revisions
By Revision
Revision Range
Earliest:
(Ex., 0.1)
Latest:
(Ex., 0.53)
OK
Cancel


Filter Revisions
By Revision
Revision Range
Revision Range
Select Revisions
Earliest:
(Ex., 0.1)
OK
Cancel

Filtering By Date

With By Date selected (default option), revisions can be filtered based on date ranges, a single date, or multiple (single) dates can be selected for comparison searches (using the 'Select multiple dates' option and adding additional dates by 'Add date' and deleting dates by using the X button).

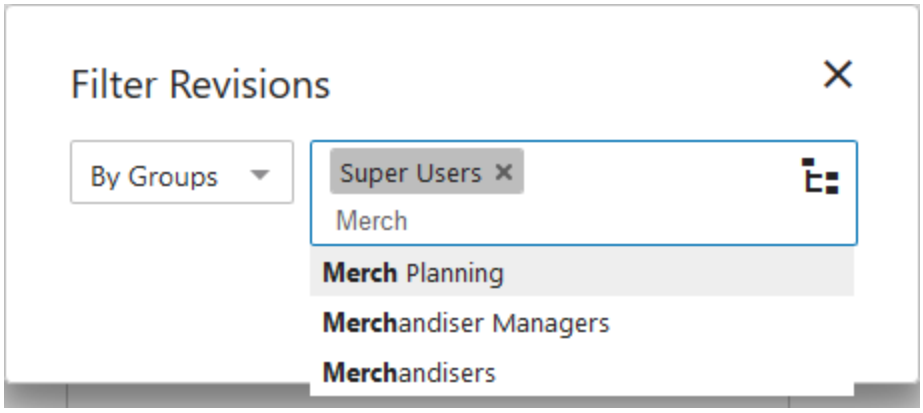
Using the filtering options shown below, any revisions created 2018-11-07 and any revisions created on 2018-11-14 will be displayed to the user after they click OK. The user can compare data using the hide equal / mark different selections to compare the data.



Filtering by Groups

Alternatively, if the Allow Group Filtering parameter is enabled in the Multi Revision Screen Properties, users can filter revisions by user group or user groups. Revision results are returned if a revision was created by a user within one of these groups.

User groups can be selected by putting the cursor in the 'Select groups for filtering' value field and choosing from the list that displays. Users can also start typing and allow typeahead functionality to suggest applicable groups, or the user can also click the Node Picker icon and make a selection from the 'Select User Groups' dialog that displays. Upon clicking OK, the revision screen will display revisions based on the group or groups entered.

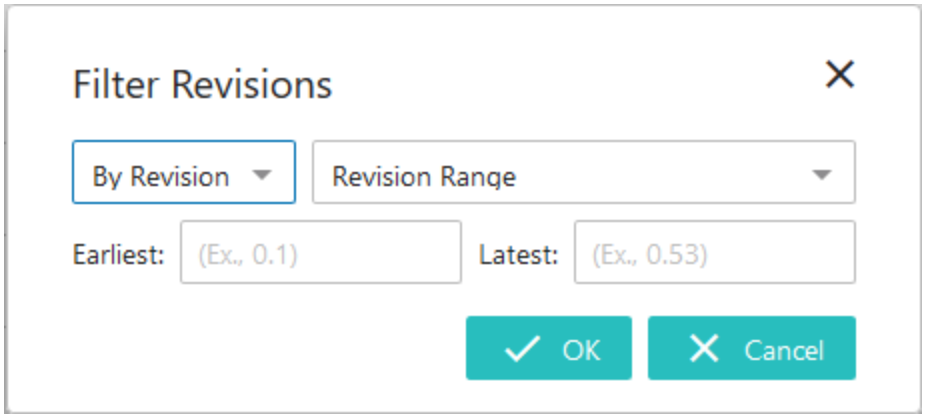


Filtering By Revision

When the By Revision filtering option is selected, users can filter revisions by either defining a range of revisions, or by selecting individual revisions.

- **Revision Range**

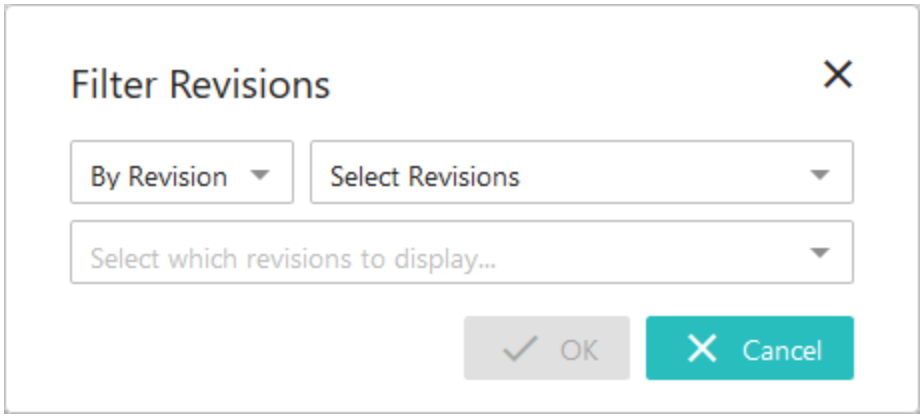
  The Revision Range filtering option allows users to set a range of revisions that will display in the Multi Revision screen.



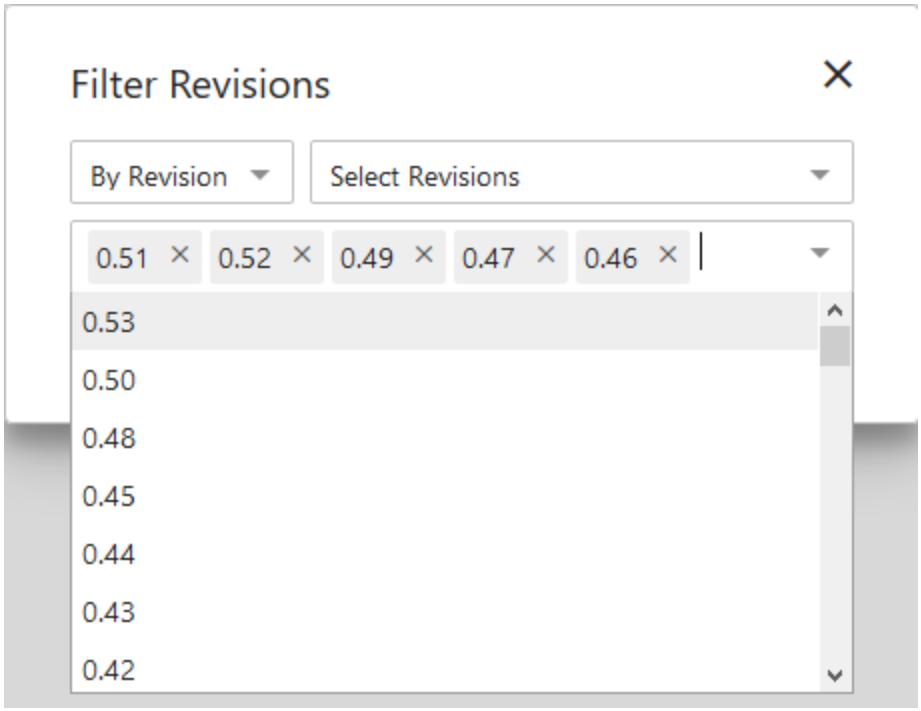
  In the 'Earliest' field, enter the number of the earliest revision that should display in the list. This establishes the beginning of the range. In the 'Latest' field, enter the most current revision that should display. This establishes the end of the range. As soon as valid numbers are entered into either the 'Earliest' or 'Latest' fields, a dropdown of viable revision numbers displays beneath the field from which the user can select. When the filter is approved by clicking 'OK', all revisions between the entered revision numbers, including the entered revisions, will display in the Multi Revision screen.

- **Select Revision**

  Select Revision enables users to select only those revisions that should be listed in the Multi Revision screen.



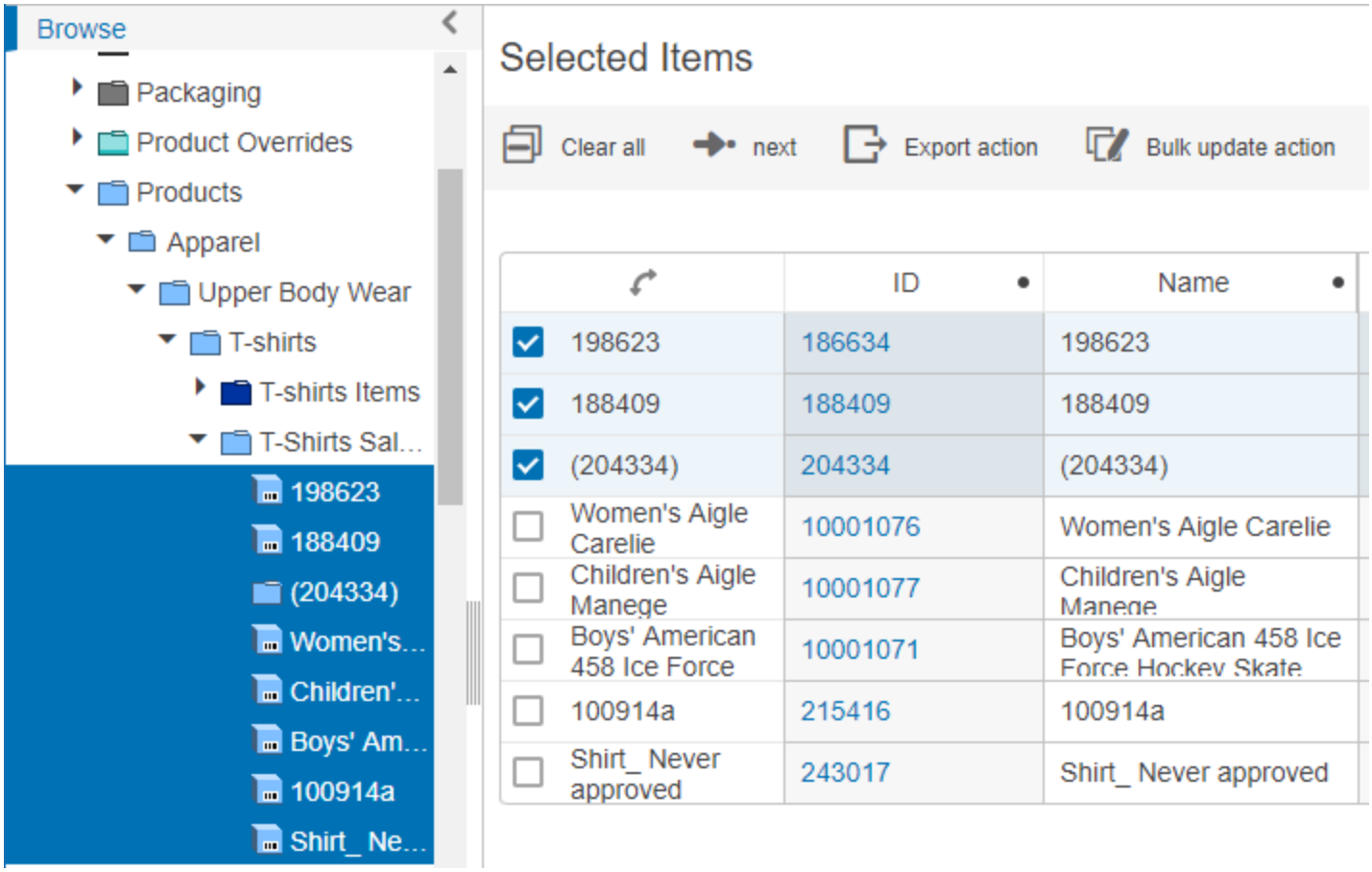
Users can either enter revision numbers, at which point a dropdown of viable revision numbers will display beneath the field from which the user can select, or they can click the arrow at the far right of the field which prompts display of a scrollable dropdown listing all revisions for the object (as shown in the screenshot below). As revision numbers are selected from this dropdown or entered manually, they disappear from the dropdown.



If, for instance, a user selected all revisions from the dropdown, the dropdown would display with no revision options. When the filter is approved by clicking 'OK', only the revisions selected will display in the Multi Revision screen.

Multi-Select from the Tree Navigator

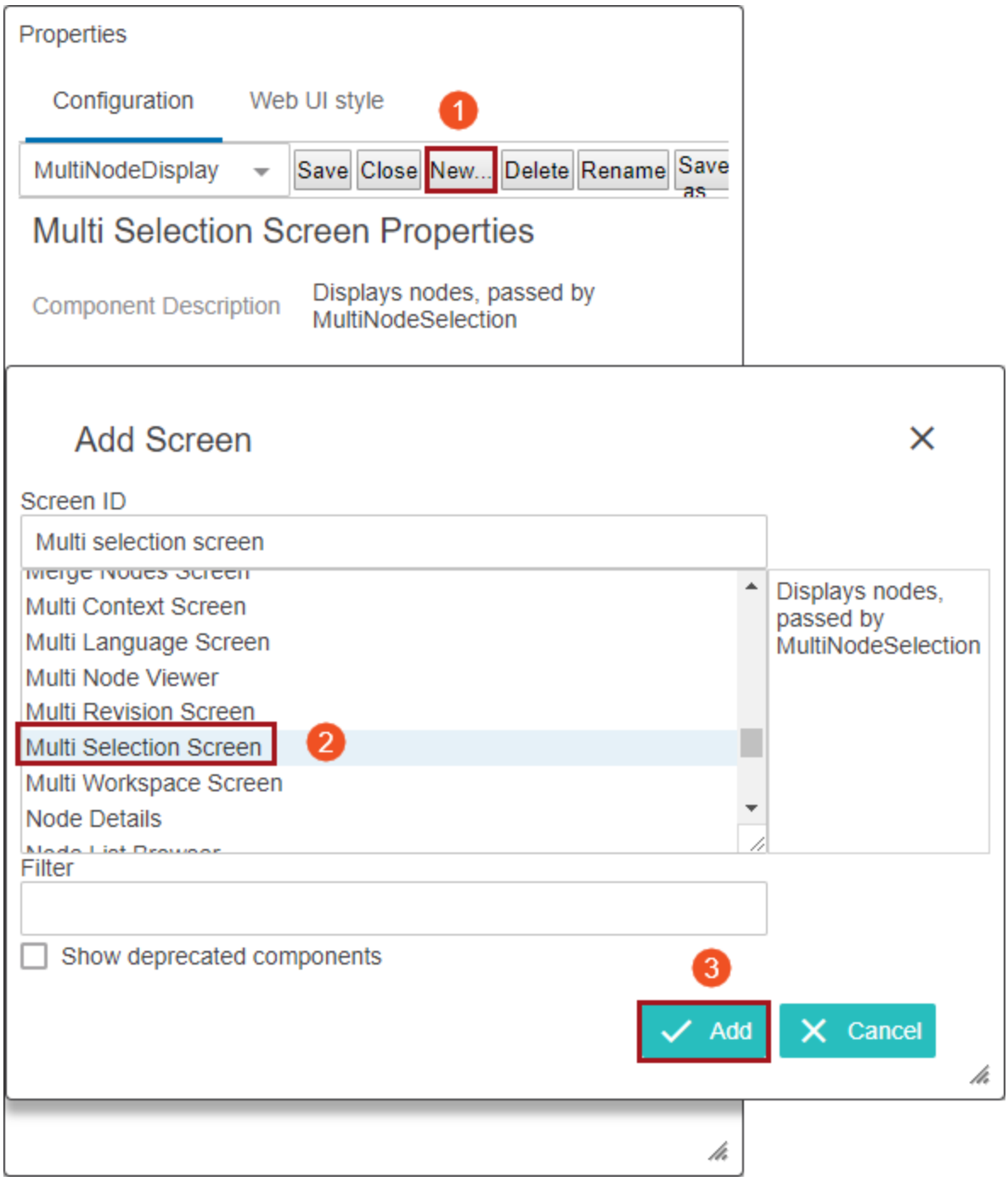
Users browsing through data using the Tree navigator sometimes want to focus in on a small subset of the data in order to perform the same action to all of the selected objects. A mapping condition called Multi Node Selection Condition allows for multi-view and/or multi-editing. When multiple objects are selected from the Tree, the appropriate list view will be shown to the user, as defined by the configuration of the Web UI screen.



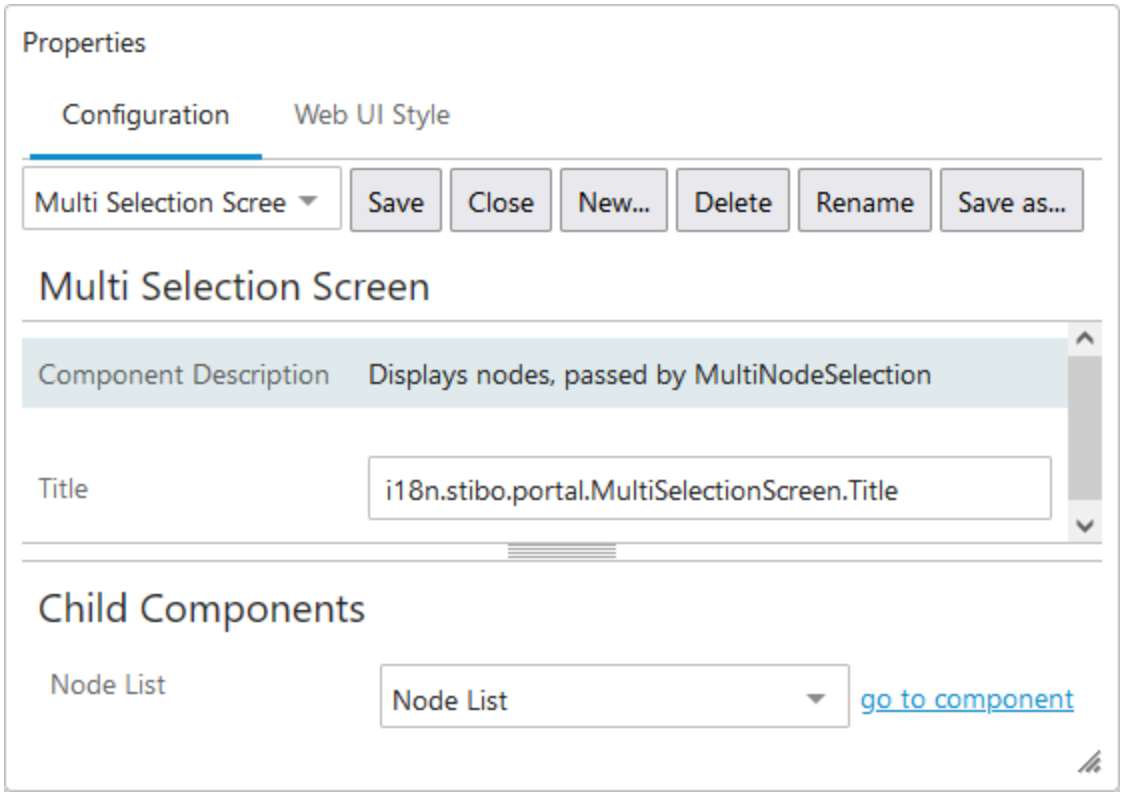
Setting up the Multi-Select from Tree Navigator

To set up the Multi-Select from Tree Navigator function a new screen of the type Multi Selection Screen must be configured.

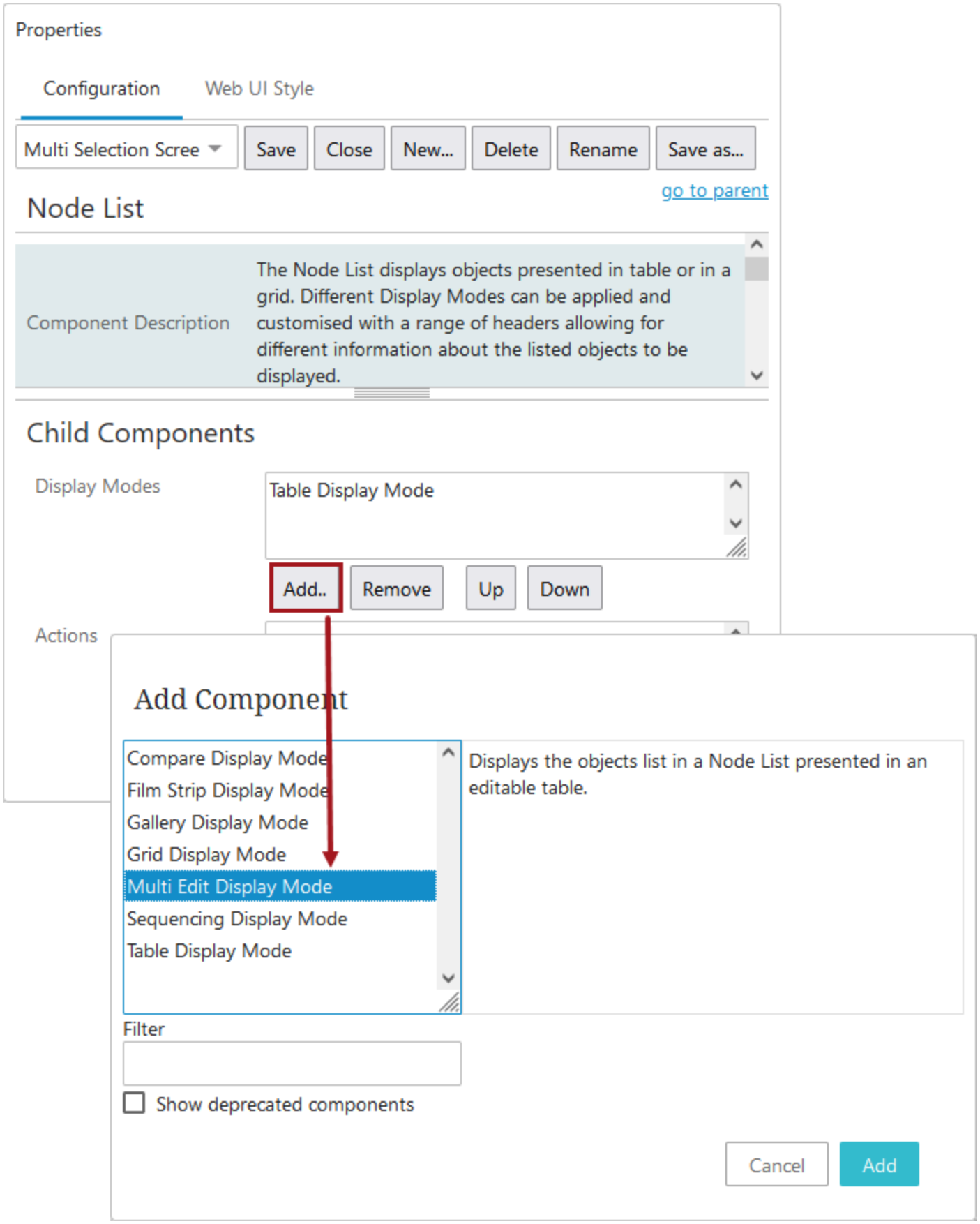
1. This screen is added by selecting "New" in the Portal Designer and then scroll down the list to find the Multi Selection Screen. For more information on configuring screens, refer to the **Design Mode Basics** topic in the **Web User Interface** Documentation.



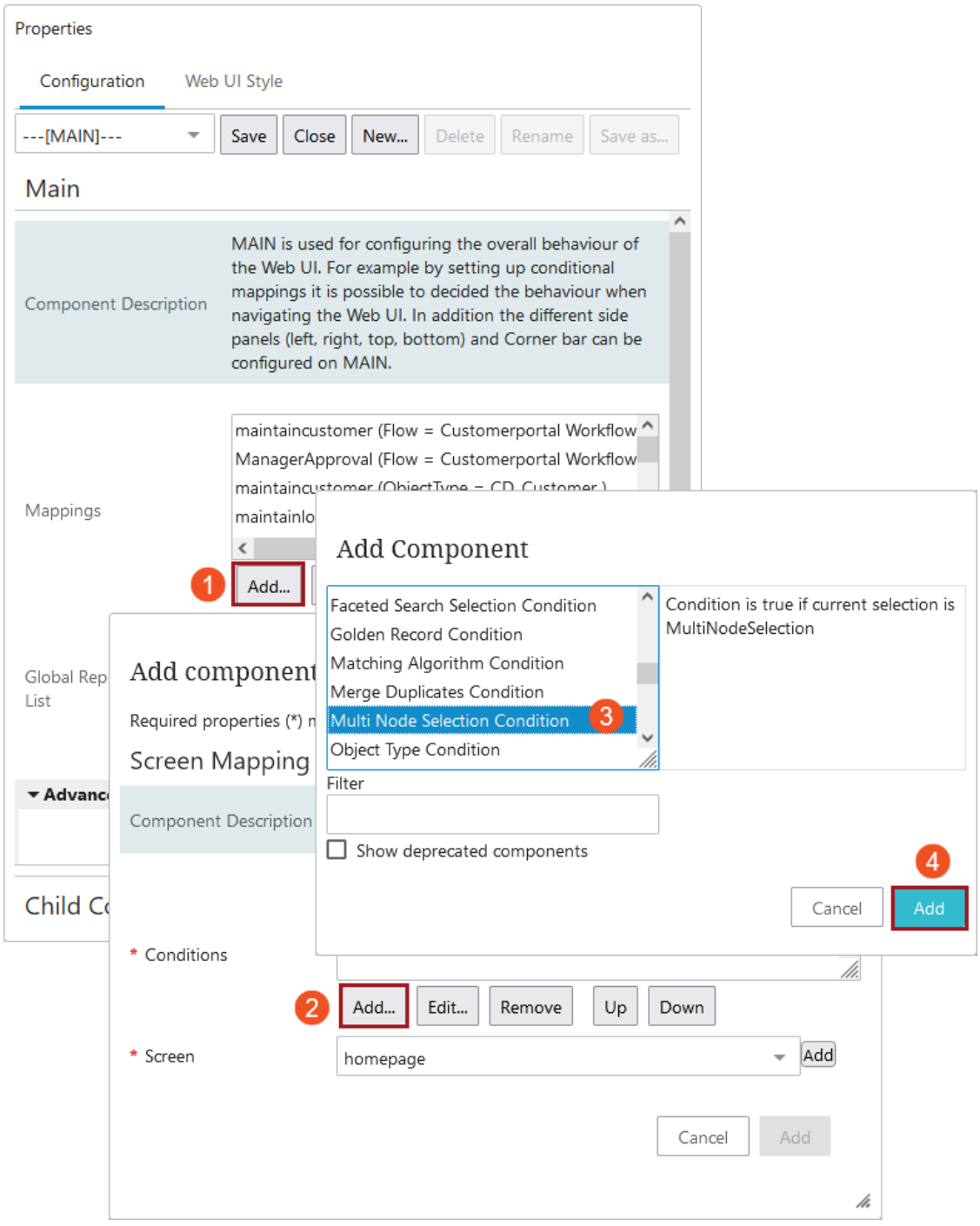
2. Next configure the screen with a Node List (child component) and set it up with the desired Display Modes.



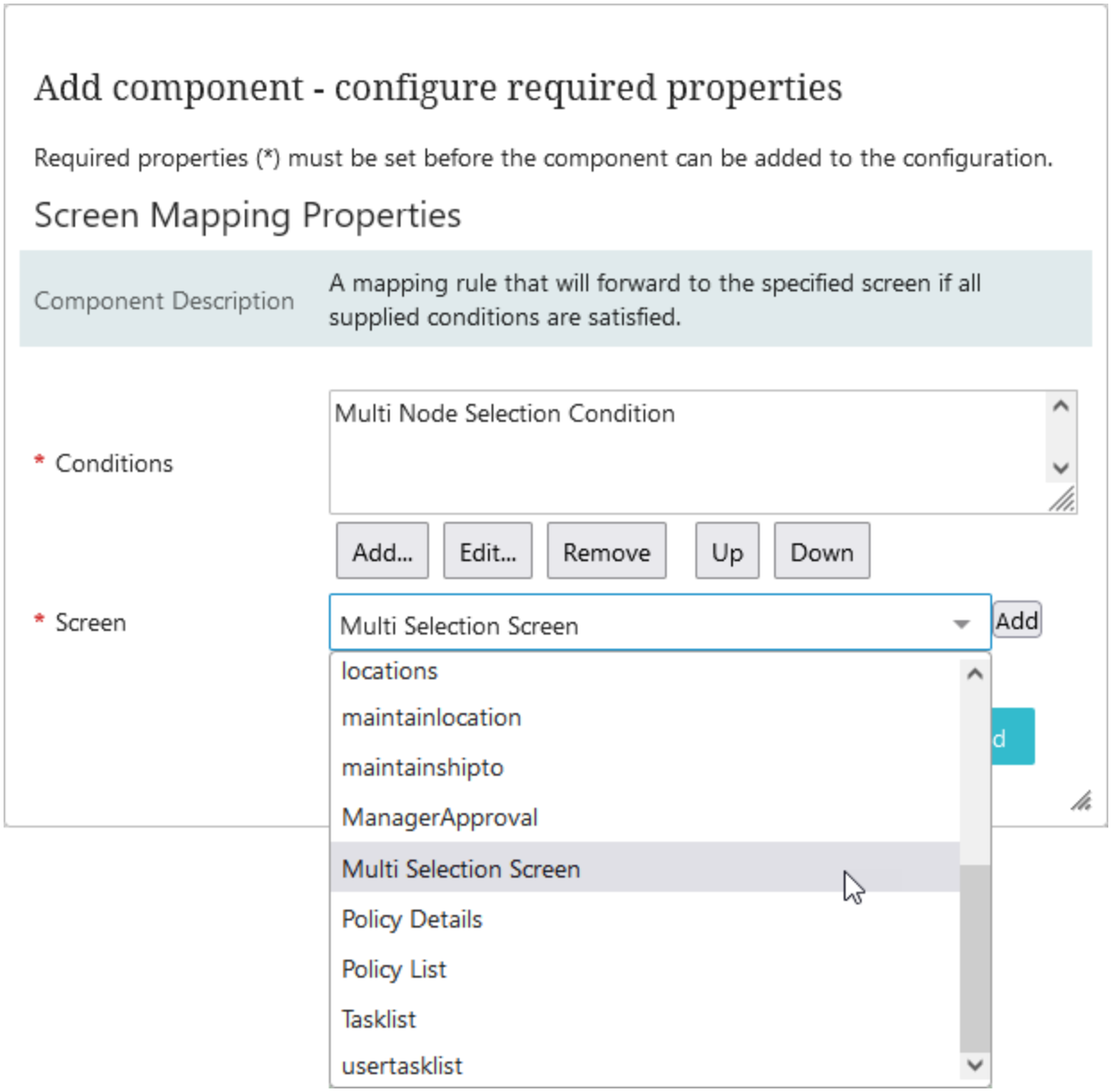
3. If the purpose is to edit the objects selected in the Tree navigator, then be sure to select the Multi-Edit display. When your components are added, press save.


Properties
Configuration
Web UI Style
Multi Selection Scree
Save
Close
New...
Delete
Rename
Save as...
go to parent
Node List
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Child Components
Display Modes
Table Display Mode
Add..
Remove
Up
Down
Actions
Add Component
Compare Display Mode
Film Strip Display Mode
Gallery Display Mode
Grid Display Mode
Multi Edit Display Mode
Sequencing Display Mode
Table Display Mode
Displays the objects list in a Node List presented in an editable table.
Filter
Show deprecated components
Cancel
Add

4. After configuring the screen, go to "MAIN" in the designer. Under Mappings click 'Add' to open the Screen Mappings dialog. Click 'Add' under Conditions and find the Multi Node Selection Condition in the list. Click 'Add' to select the mapping condition and thereby add it to the list of Conditions.



5. Now the mapping condition must be paired with a screen. Select the Multi Selection Screen that was configured for the purpose of showing multiple objects. The selected screen is the screen that the condition will forward to when then condition is triggered as the user navigates the Web UI. Press save again.



Note: A dedicated screen (Multi Selection Screen) must be configured to display the multiple objects selected from the tree navigator.

Multi Workspace Screen

The Multi Workspace Screen is a Web UI screen type designed to display both the Main and Approved workspaces, allowing a user to quickly view the differences between the current draft data and approved (uneditable) data for a given object. Users can also easily edit attribute values for the Main workspace using the Multi Workspace Editor.

Similar functionality is available in the workbench. Users can switch to workspace mode, which allows them to view the Main and Approved workspaces at the same time.

This topic addresses:

- Using a Multi Workspace Screen
- Configuring a Multi Workspace Screen

Using a Multi Workspace Screen

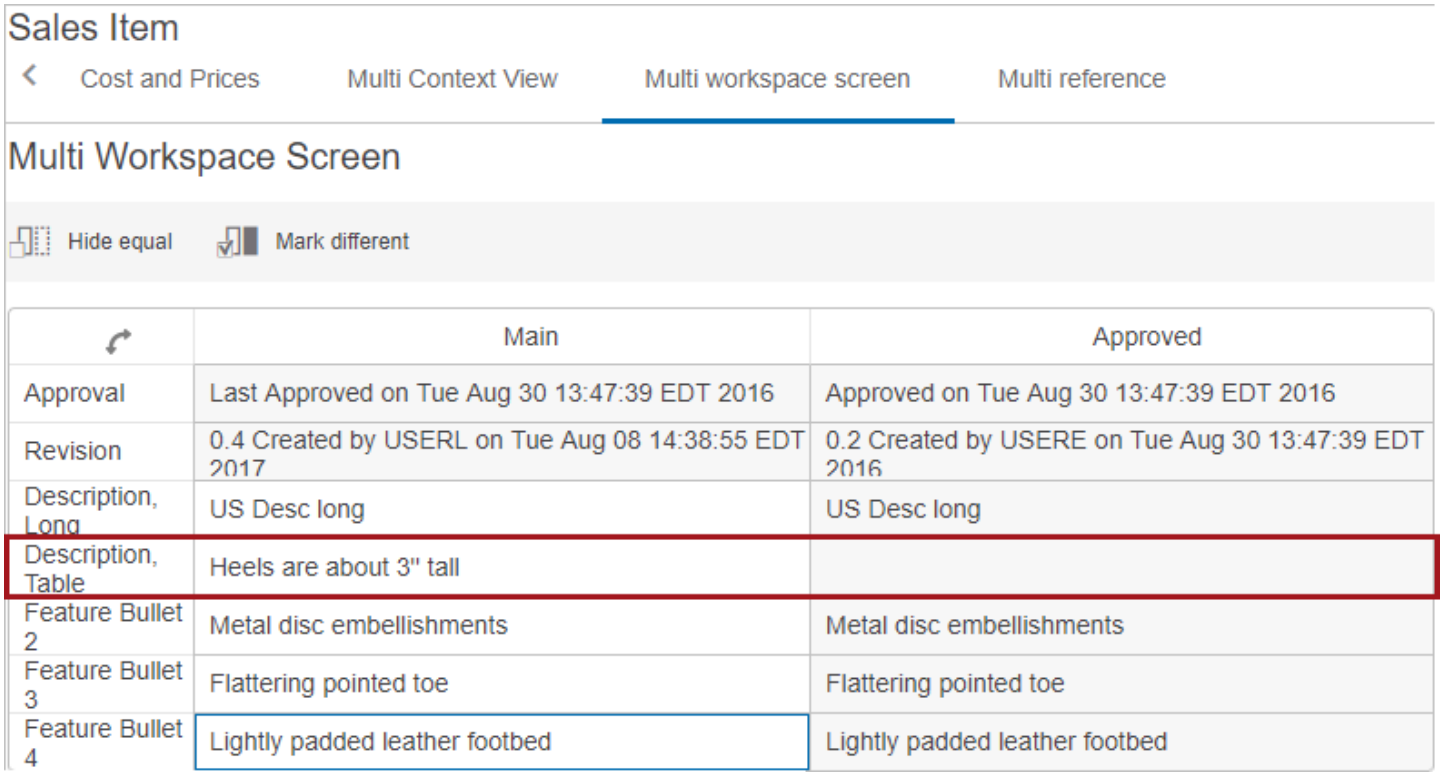
Using a Multi Workspace Screen allows users to more easily edit attribute values for an object while viewing the values that have previously been approved.

In the Main workspace, object information is editable (unless it is configured as read only). However, in the Approved workspace, the user can only *view* values that have been approved. If an object has never been approved, then only Main will display.

There are a variety of ways to configure the Multi Workspace Screen. It can be configured with the Hide Equal and/or Mark Different tools to help the user quickly identify which values do not match across the two workspaces and focus on values that differ from each. For more information on the Hide Equal and Mark Different Buttons, refer to the **Comparing Data Using Hide Equal and Mark Different** documentation. Additionally, the attributes that you want to view values for can be added via the Multi Workspace Editor.

In the example that follows, when a user navigates to a 'Sales Item' object, the Multi Workspace Screen displays as a sub screen tab page on a Node Details screen. The user has access to both the Hide equal and Mark different actions, can edit attribute values for the Main workspace, and view the attribute values for the Approved workspace.

Because the Property Direction parameter for the Multi Workspace Editor has been set to vertical instead of horizontal (*default*), the Main and Approved workspaces display as column headers, and the configured attributes display as rows. In this scenario, to view the Main and Approved Workspaces as rows instead of columns, select the flip table icon.



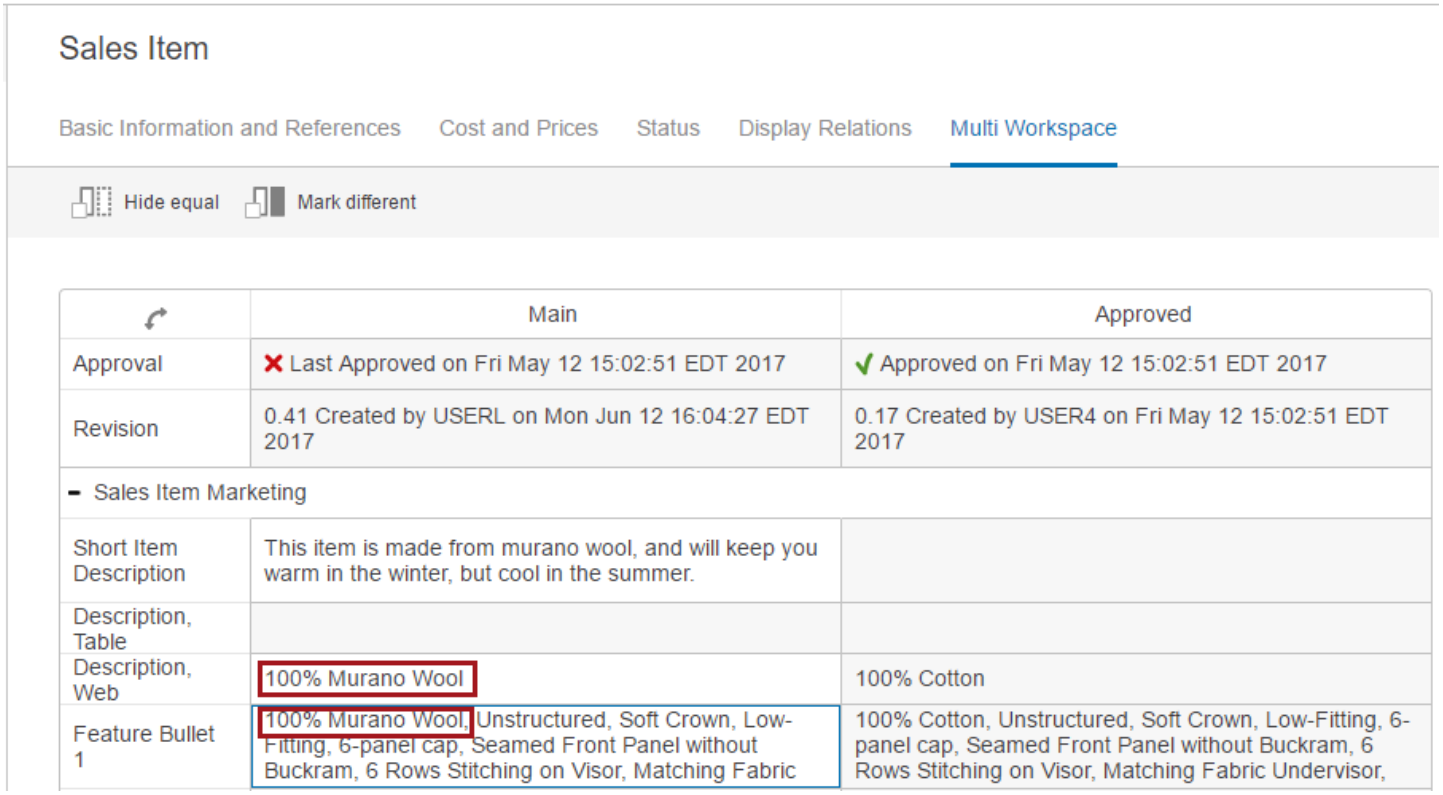
For the example above, the Multi Workspace Screen / Multi Workspace Editor Properties are configured as follows:

- **Show Hide Equals Button** is enabled in the configuration (but not activated in the Multi workspace screen)
- **Show Mark Different Button** is enabled
- **Title** value is set by default
- **Headers** Approved, Revision, Attribute Value Header (In this example it is: Description Long, Description Table, Feature Bullet 2, Feature Bullet 3, Feature Bullet 4)
- **Property Direction** is VERTICAL
- **Use Immediate Save** is enabled (For details, refer to the **Auto-Save in the Web UI** topic.)

Editing Attribute Values

A user can edit configured attribute values by double clicking within a Main workspace cell. The cell being edited will not be disabled when compared with the uneditable field in the Main or Approved workspace.

In the example below, the 'Description, Web' attribute value and the 'Feature Bullet 1' attribute value for the Main workspace needs to display '100% Murano Wool.'



While the cursor is in the edited cell, the blue line border remains. However, the Multi Workspace Screen configuration determines how the changes are saved. If the configuration uses immediate save, then the changes will be saved after the cursor leaves the edited cell. If immediate save is not enabled, then after the cursor leaves the edited cell, the edited cell will be shaded and the save icon will activate. In this case, the changes are saved once the cursor leaves the edit cell.

Information regarding configuration can be found in the **Configuring a Multi Workspace Screen** topic.

Configuring a Multi Workspace Screen

Any number of Multi Workspace Screens can be added to a Web UI. Once added, as with any screen, an admin user must configure how users access a Multi Workspace Screen. Other configuration options include configuring a default layout, determining which headers (values) users can view and/or edit, how edits are saved, and enabling the use of the Hide equal and / or Mark different actions.

This topic addresses design Prerequisites, Creating a New Multi Workspace Screen, and Configuring:

- Access to a Multi Workspace Screen
- Multi Workspace Screen Properties
- Multi Workspace Editor Properties
- Headers for the Multi Workspace Editor

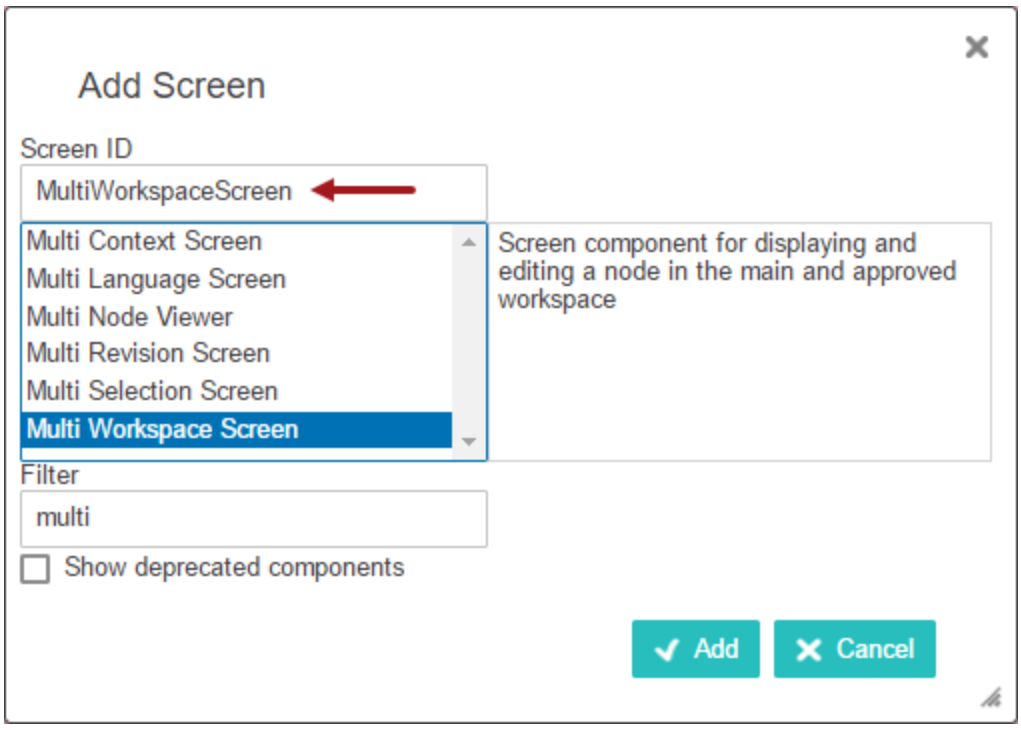
Prerequisites

It is expected that anyone configuring the Multi Workspace Screen component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Also, for configuration of the Multi Workspace Screen, it is expected to be familiar with the **Workspaces** section of the **System Setup** documentation, and know how to use attribute values / attribute value groups, which is explained in the **Attribute Value Component** documentation and the **Attribute Value Group Component** documentation.

Creating a New Multi Workspace Screen

Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Click 'Multi Workspace Screen' as the screen type (shown in the screenshot below).

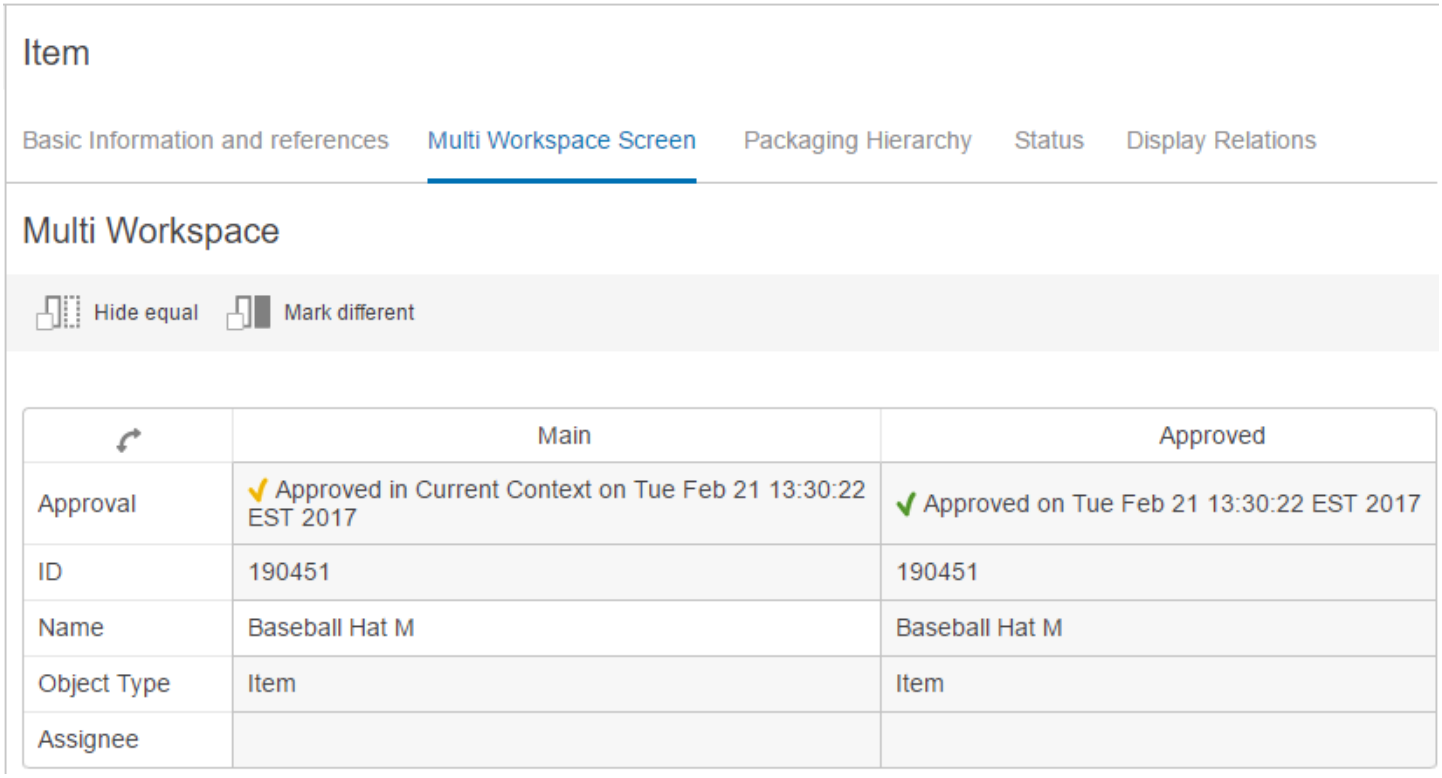


At this point, either close the designer and configure the screen at a later time, or continue on with the steps in the next section.

Configuring Access to a Multi Workspace Screen

An admin user must configure how a user will access a Multi Workspace Screen. The Multi Workspace Screen can either be mapped using Main Properties or added to a sub screen tab page on a Node Details Screen. For more information about mapping, refer to **Configuring the Parameters** in the **Main Properties** topic, and for more information about sub screen tab pages, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

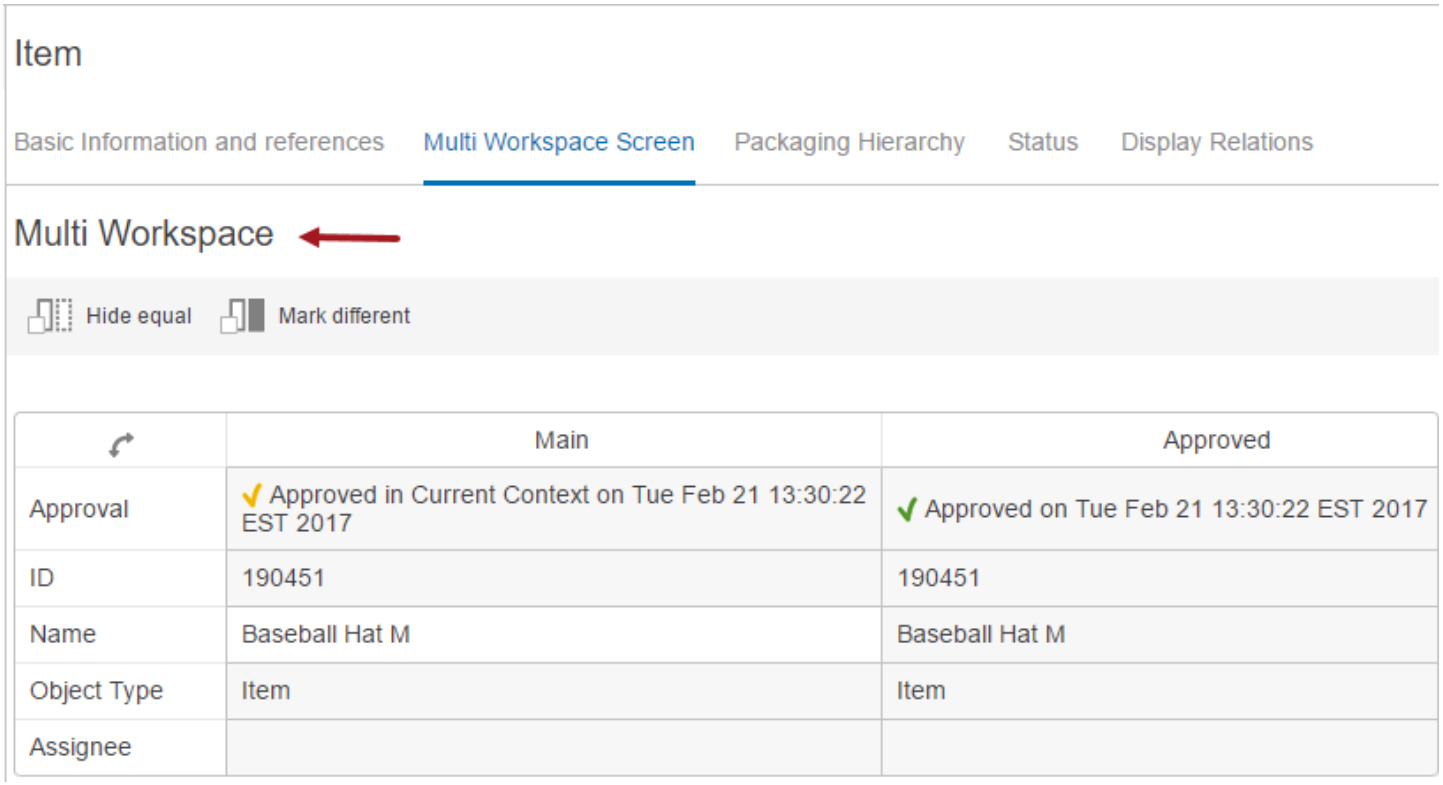
Below is an example of a Multi Workspace Screen that is configured (mapped) to display when an object is selected.



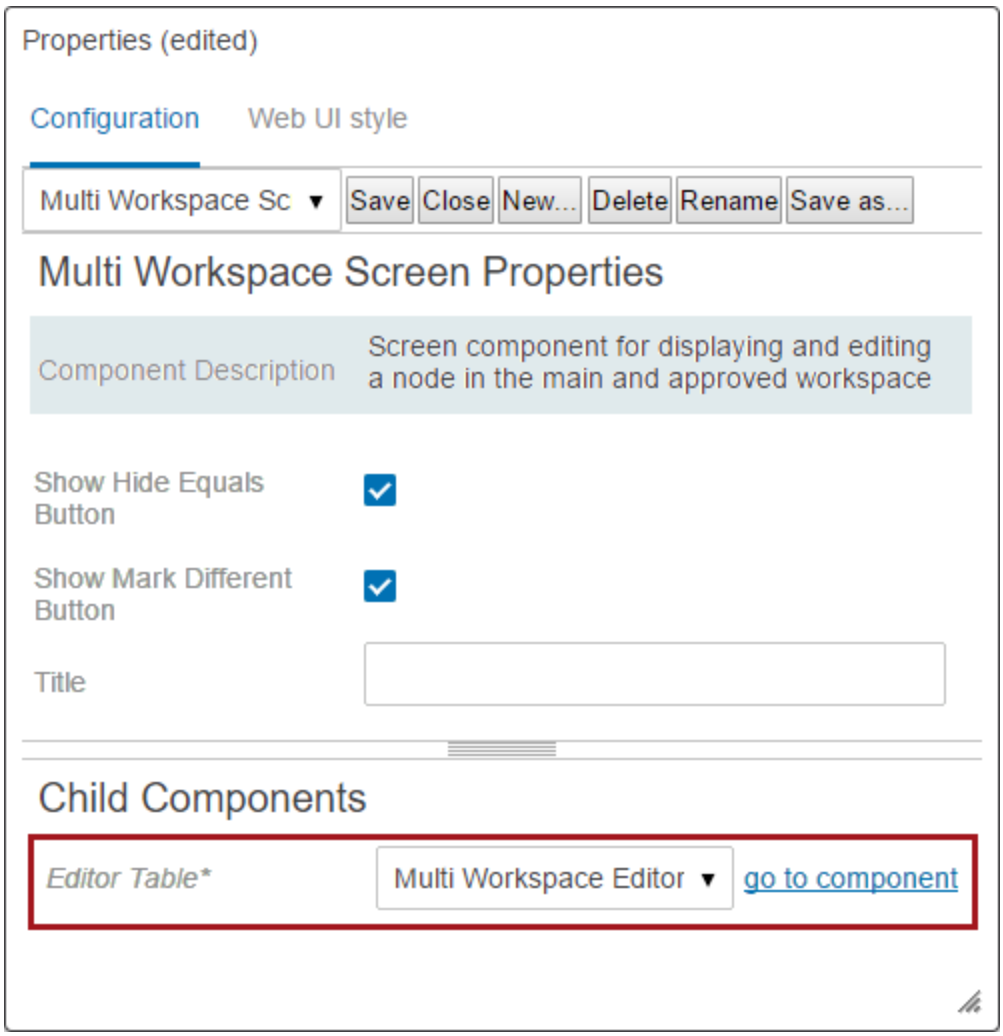
Configuring Multi Workspace Screen Properties

Steps for configuring the Multi Workspace Screen Properties are below.

1. With the designer window open, select the screen ID for the **Multi Workspace Screen** using the screen dropdown list. (If continuing on after creating a new Multi Workspace Screen, Multi Workspace Screen Properties should already be displayed.)
2. In Multi Workspace Screen Properties, determine if you want to enable the Show Hide Equals Button and/or the Show Mark Different Button parameters. Details regarding what these parameters do can be found in the **Comparing Data Using Hide Equal and Mark Different** topic in the **Using a Web UI** section of the **Web User Interfaces** documentation.
3. If desired, type in a title which will display on the screen in the top left corner. If no text is entered, a default 'Multi Workspace' label is displayed, based on the i18n translation key.



4. Go to the Child Components > Editor Table parameter and click **go to component**. The Multi Workspace Editor is pre-populated in the value dropdown since it is mandatory to configure the editor before the Multi Workspace Screen will render correctly.

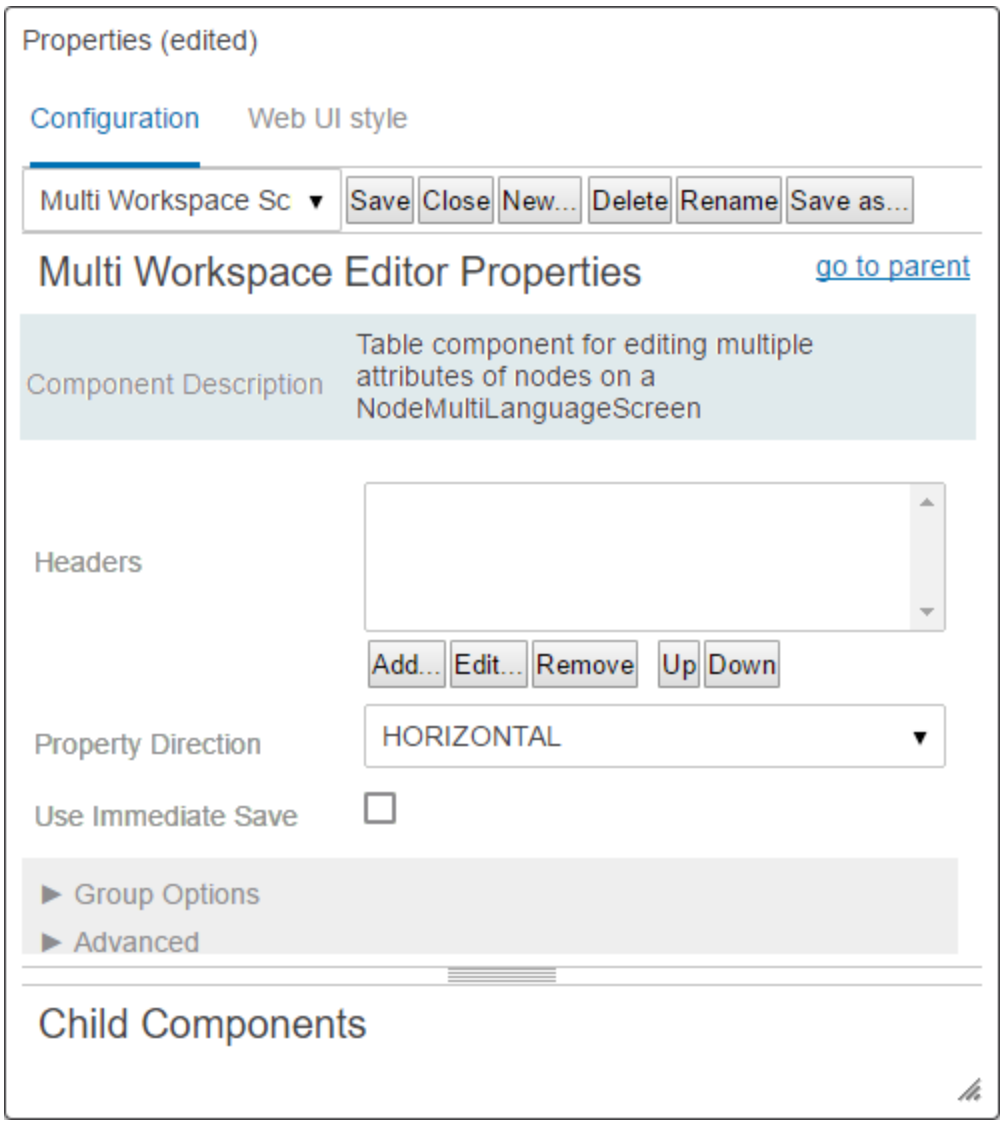


Configuring the Multi Workspace Editor Properties

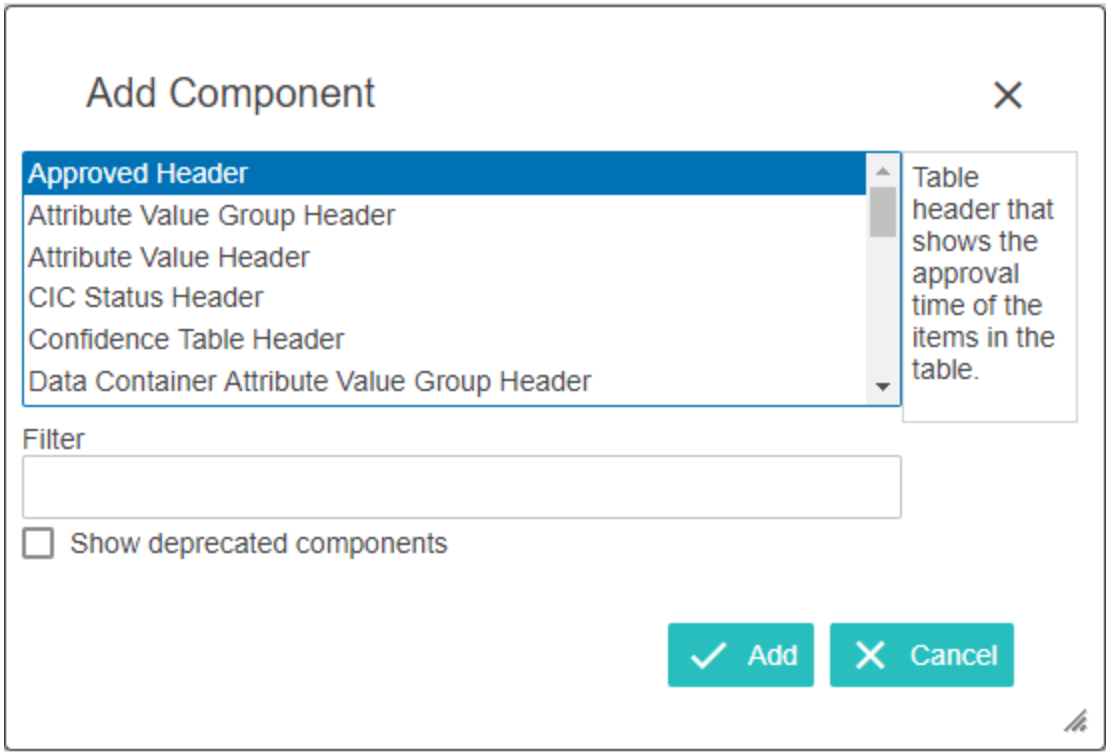
The Multi Workspace Editor Properties now need to be configured.

1. Go to Multi Workspace Screen Properties > Child Components > Editor Table > click **go to component**.

   The Multi Workspace Editor Properties will display.

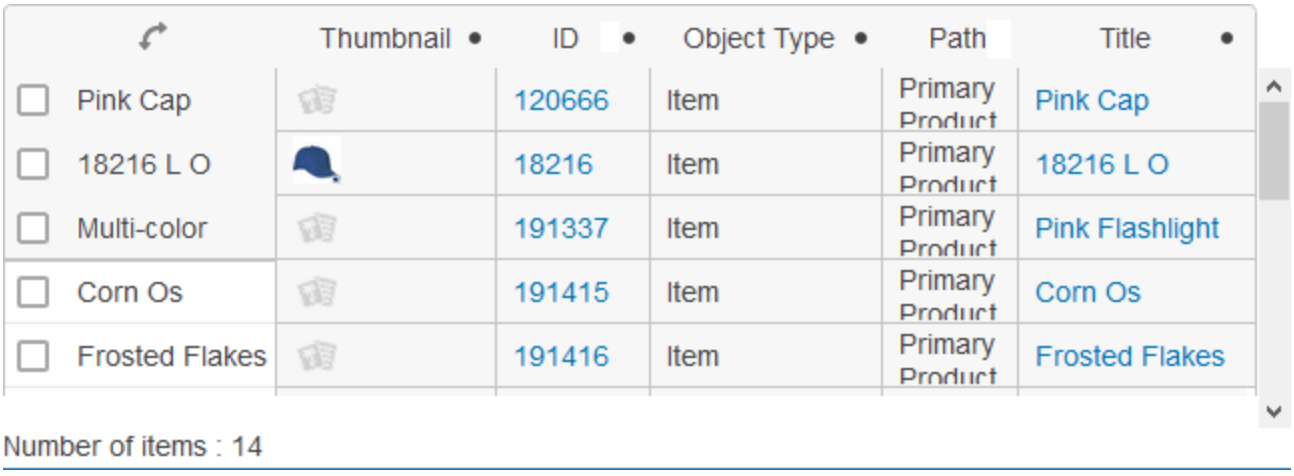


2. Add, edit, remove, and reorganize table headers, as desired, in the **Headers** value field. Relevant headers to consider including, as needed, are: ID Header, Name Header, Attribute Value Header, Attribute Value Group Header, Approved Header, and Revision Header. Clicking on each component in the 'Add component' dialog provides a description of the component on the screen.

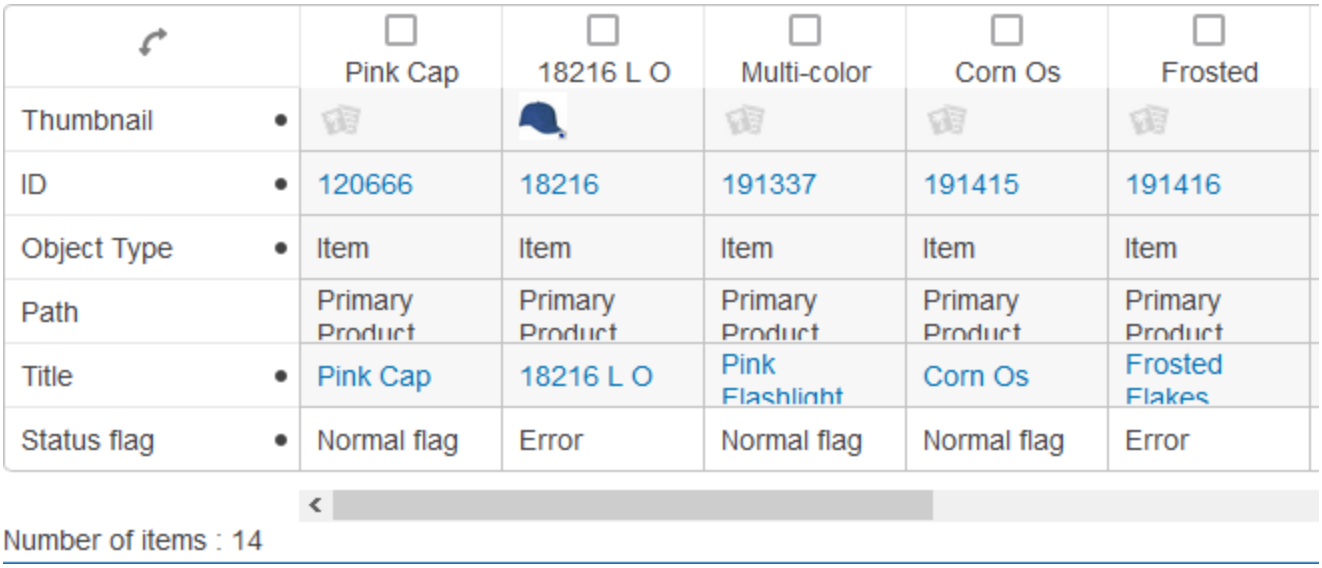


3. Click the arrow button (↷) to determine the direction of the table using the **Property Direction** parameter. The two options are:

   - **VERTICAL** will display the added Headers as rows. **HORIZONTAL** will display the added headers as columns.



   - **HORIZONTAL** will display the added headers as columns.

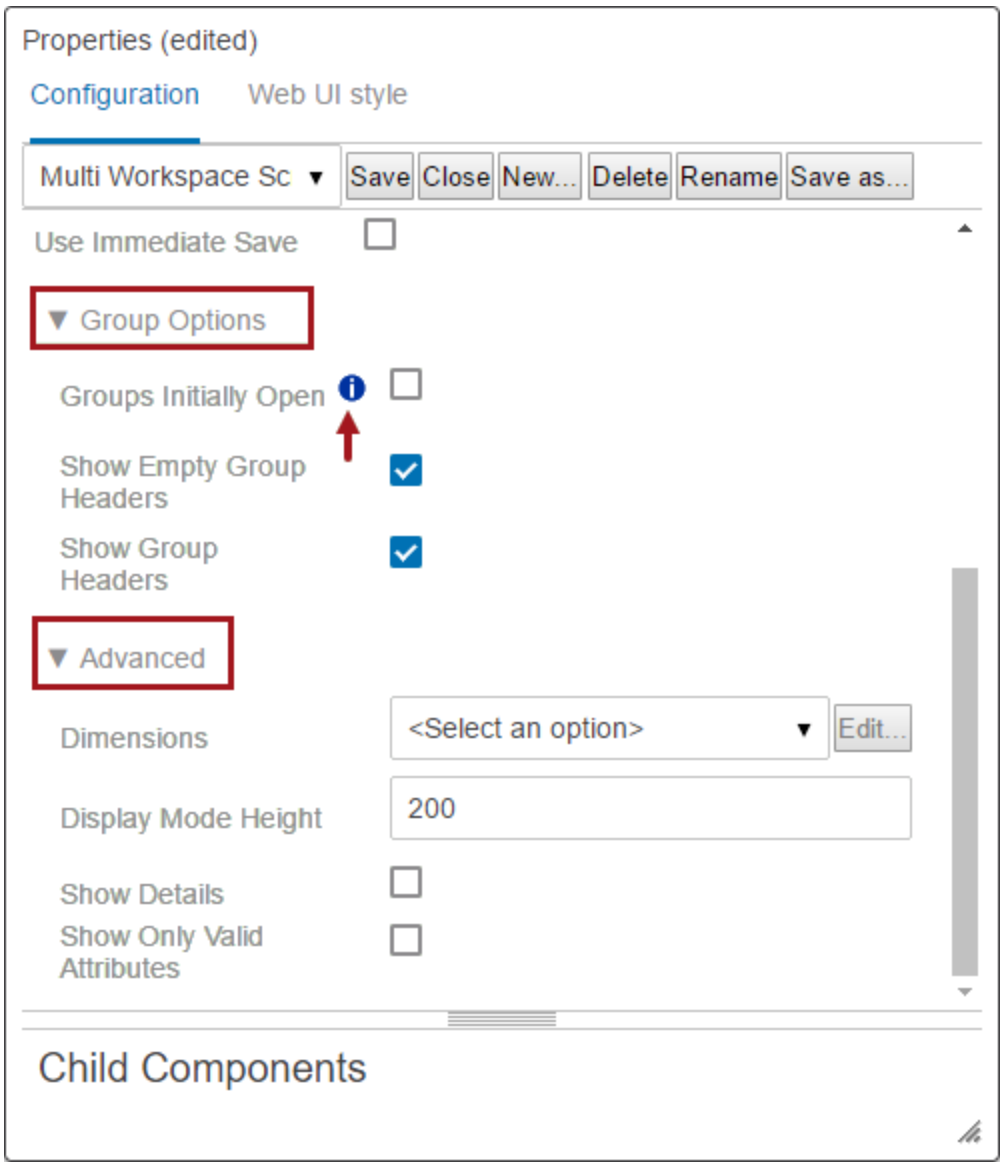


	Pink Cap	18216 L O	Multi-color	Corn Os	Frosted
Thumbnail					
ID	120666	18216	191337	191415	191416
Object Type	Item	Item	Item	Item	Item
Path	Primary Product	Primary Product	Primary Product	Primary Product	Primary Product
Title	Pink Cap	18216 L O	Pink Flashlight	Corn Os	Frosted Flakes
Status flag	Normal flag	Error	Normal flag	Normal flag	Error

Number of items : 14

4. Enable **Use Immediate Save** if the edits made by a user should be saved as soon as the cursor leaves the cell or leave disabled if the user will be required to manually click the save button after editing. For details, refer to the **Auto-Save in the Web UI** topic.
5. Display additional optional parameter settings by clicking the **Group Options** heading and/or the **Advanced** heading. Make selections as desired. Each parameter features help text, accessible by clicking the info icon to the right of each parameter name.

   For more information on the parameters under Group Options and the Advanced headings, refer to the **Configuring Multi Language Editor Properties** section of the **Configuring a Multi Language Screen** topic.



6. Click **Save**.
7. Click **Close**.

Note: The Advanced > Show Details and Show Only Valid Attributes parameters are not applicable to the Multi Workspace Screen and enabling / disabling has no impact.

Configuring Headers for the Multi Workspace Editor

To display specific information within the Multi Workspace Screen, an admin user must add and configure Headers within the Multi Workspace Editor Properties. If left blank then only the ID and Title (Main / Approved) headers will display. It is common to configure attribute value and attribute value group components within the Headers, Additional information can be found in the **Attribute Value Component** documentation, and the **Attribute Value Group Component** documentation.

1. Go to the Multi Workspace Editor Properties > Headers > click **Add**.
2. The 'Add Component' dialog displays. Click a component in the dialog to display a description of the component.
3. Make a selection, click **Add** to close the dialog and return to the Multi Workspace Editor Properties.
4. Add, edit, and organize any additional headers.
5. Click **Save**.
6. Click **Close**.

For an example on how to use the screen once configured, refer to the **Multi Workspace Screen** topic.

Node Details Screen

The Node Details screen type / component is a top-level component. It is used as a 'base' and configured to display other components (e.g., Node Editor, Multi-Reference Editor).

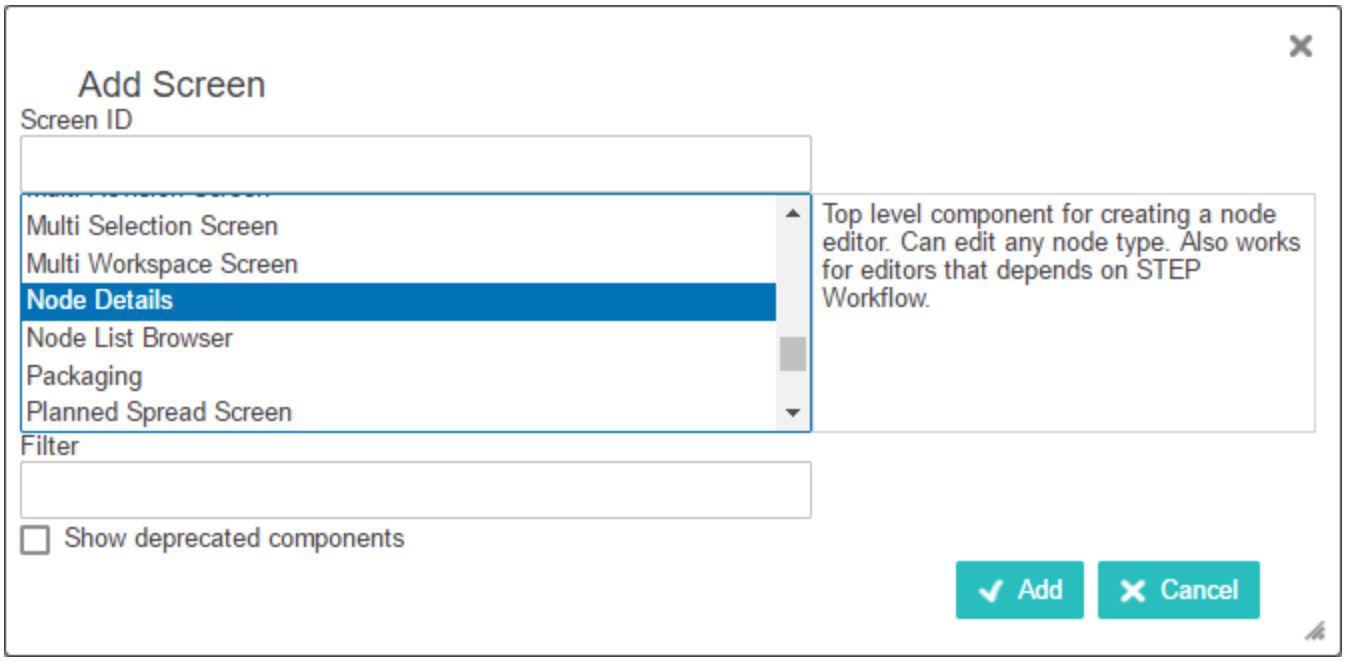
Prerequisites

It is expected that anyone configuring the Node Details component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Adding a New Node Details Screen

Steps for creating a new screen using the Node Details component are below.

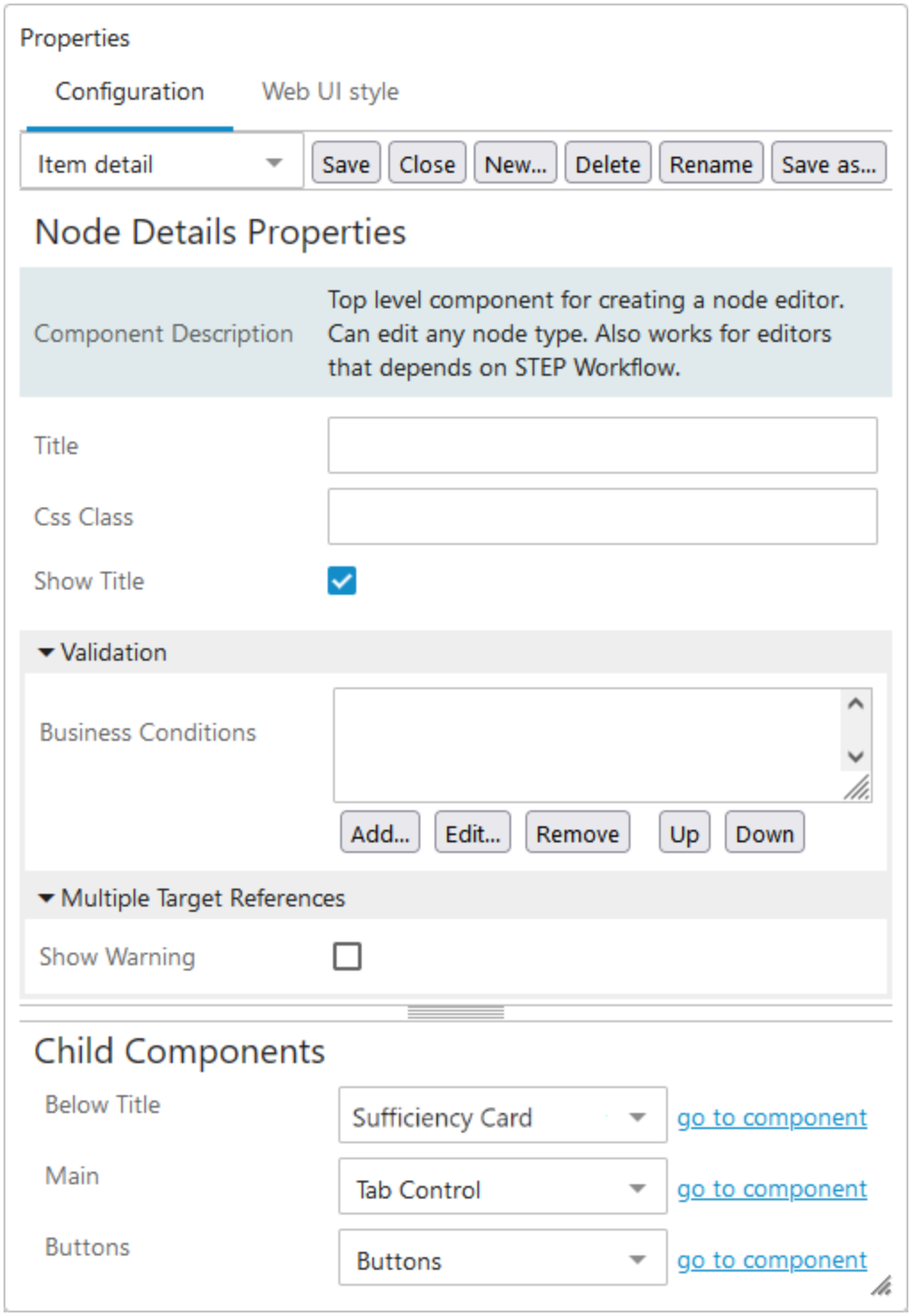
Steps for creating a new screen are outlined in the **Design Mode Basics** topic in the **Web User Interfaces** documentation. Select 'Node Details' as the screen type (shown in the screenshot below).



After it has been added either close the designer and configure the screen at a later time, or continue on with the Node Details configuration.

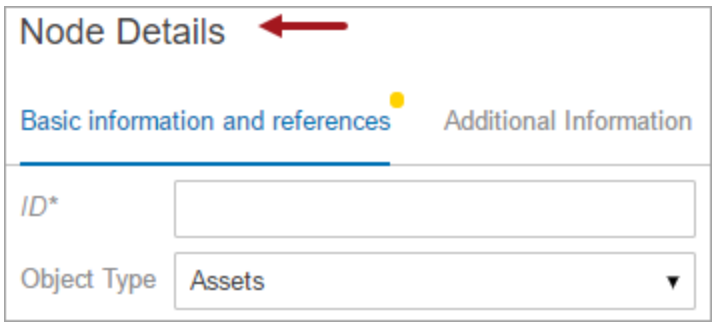
Configuring Node Details Properties

Each parameter should be configured as needed. To guide you in your set up, help text is available for each parameter and is accessible by clicking the info icon to the right of each parameter name (displays upon mouse over).



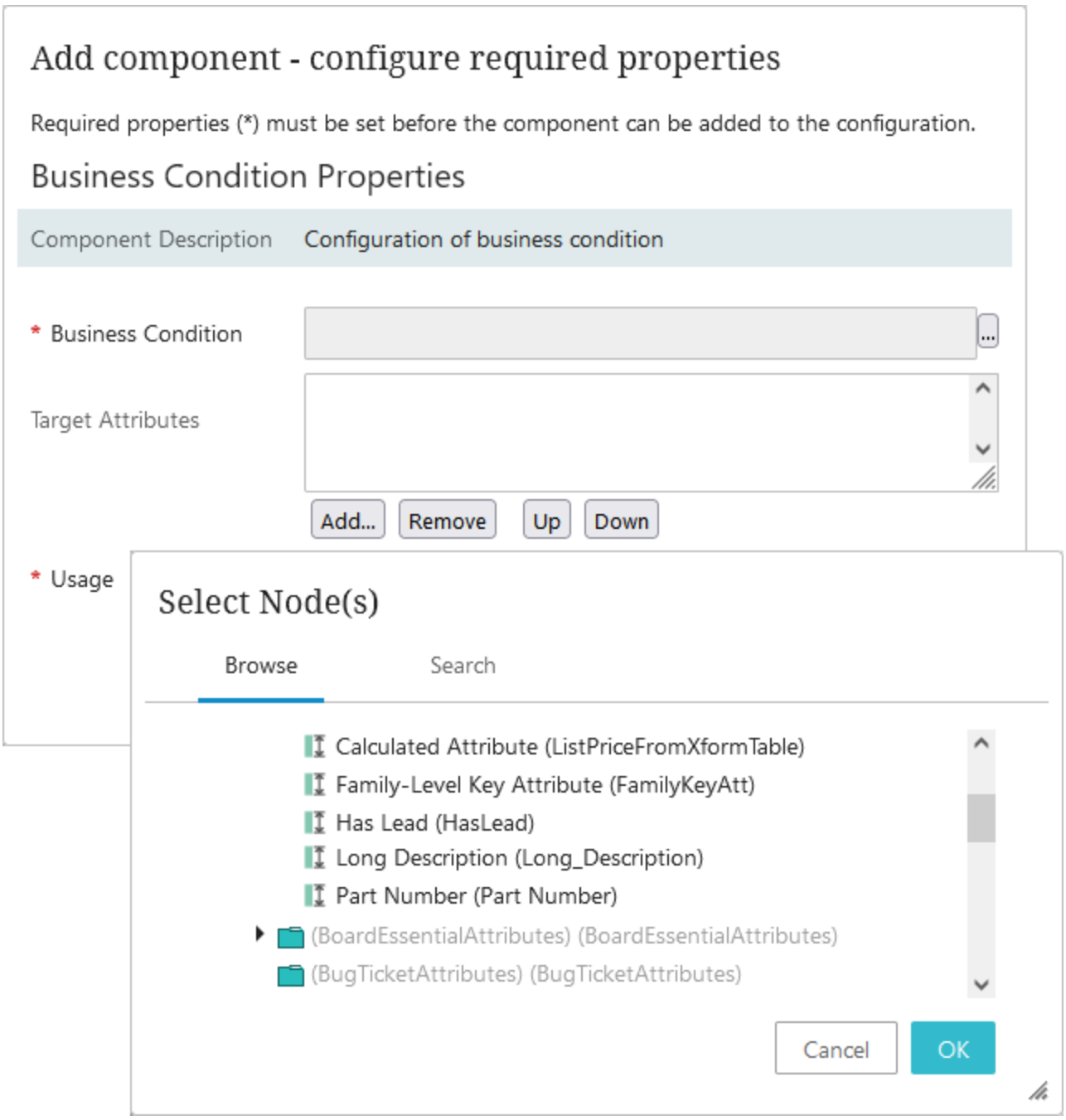
Main Components

1. If a title should display, determine if the default title should remain, or if a custom title is necessary. The default title will display as 'Node Details' on the screen in the top left corner (an example is shown below).



Important: Before entering a custom title, it is important to know the title parameter offers i18n key functionality. Presence of an i18n key indicates that the field can be included in extraction for external translation, and that a value has not been manually populated. Once a value has been manually populated within the designer, it is no longer available for extraction, unless the manual value is removed and the configuration saved, closed, and then reopened. Customers planning to pursue or utilize Web UI translations should not overwrite i18n values manually in the designer, and should instead populate texts within the Web UI locales files on the application server. For more information, refer to the **Localization** topic within the **Administration Portal** documentation.

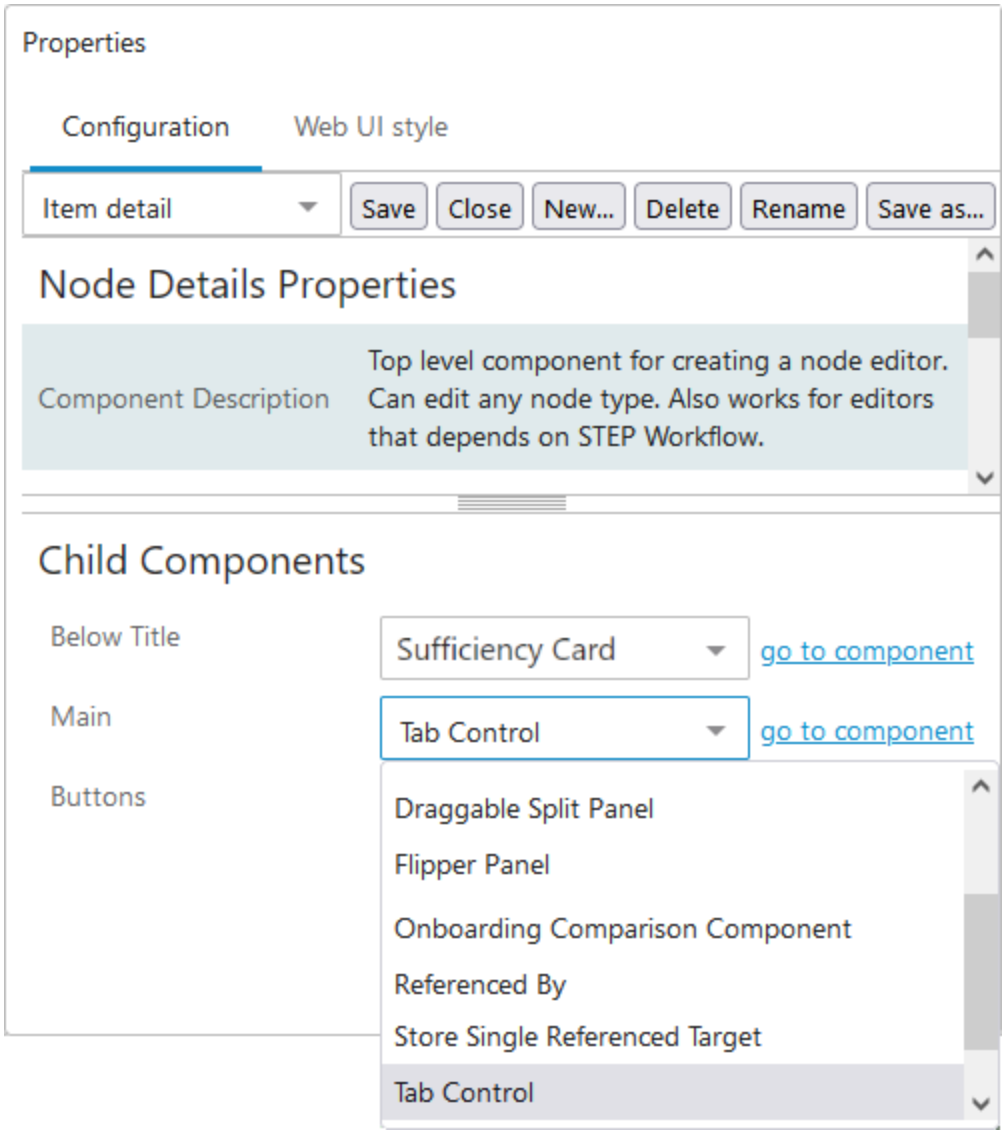
2. Determine if you want to display the title. Leave the Show Title parameter enabled if the Node Details Screen should display the title. Disable the parameter to hide the title and its associated white space
3. Click on **Validation** to expand the following optional parameter:
   - **Business Conditions**: The Business Conditions field tests against values updated in the database. To add a business condition, click **Add...** to select an existing business condition to be executed to validate attribute values being edited on the node. Multiple business conditions can be added, but all must succeed for the process to continue. For more information about business conditions, refer to the **Business Conditions** topic in the **Business Rules** documentation.



4. Click on **Multiple Target References** to display the **Show Warning** parameter (disabled by default). When Show Warning is enabled / checked, a warning will display to end users when a shared object is edited and then saved, either through an actual Save action or implied save (e.g., Submit Action or Approve Action). For more details, refer to the **Shared Data Handling** section of the **Web User Interfaces** documentation.

Child Components

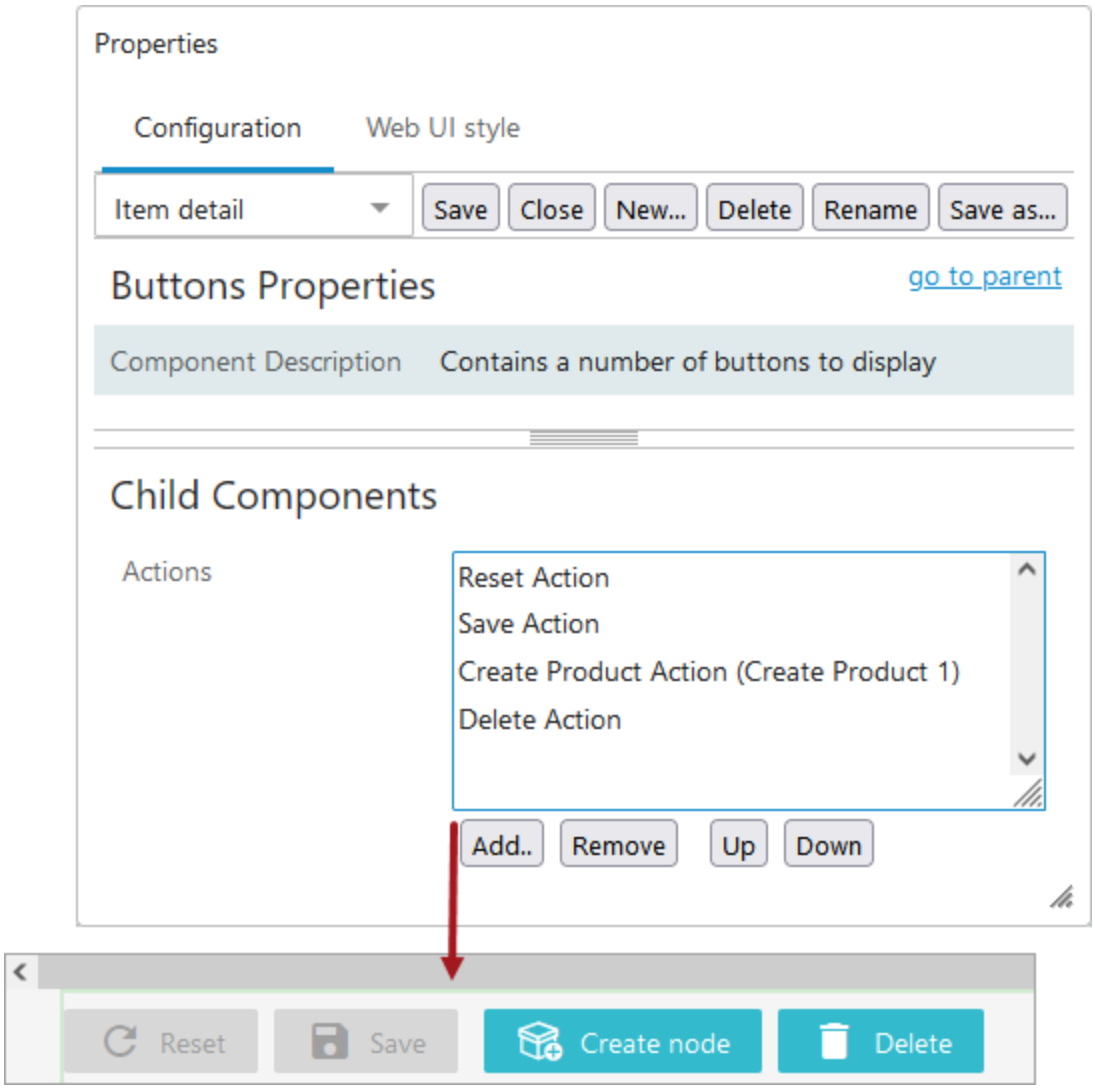
1. From the dropdown menu for the **Main** parameter, choose a component. For example, you can add a Node Editor. Or, add a Tab Control component and configure different components and/or screens to display on different tabs all on a single Node Details screen. Additional configuration will be required depending on the selected component.



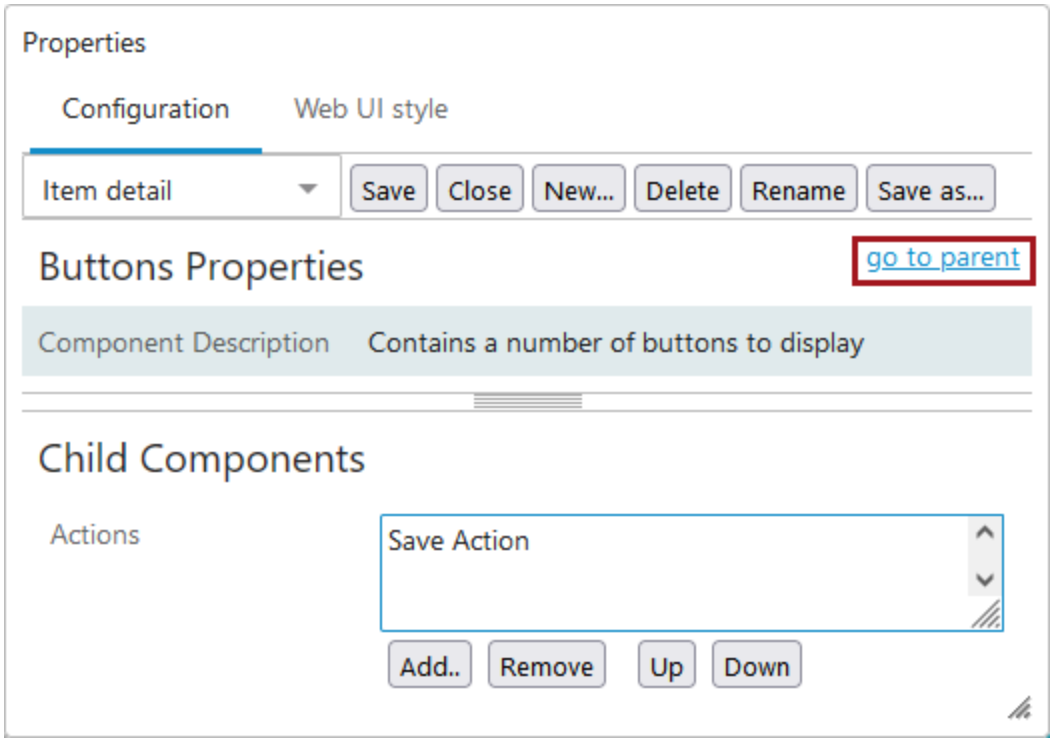
2. Select **Buttons** from the Buttons parameter dropdown, then click **go to component**.
3. On **Buttons Properties**, click the Add button below the **Actions** field, then select a component from the 'Add component' list and click **Add**. Additional configuration may be required depending on which action is selected.

Important: An example is the **Save Action** button—if you are placing a Node Editor on a Node Details screen, a Save button must be configured so that when object data is edited, it can be saved before the user navigates to another screen.

4. Repeat the previous step as needed to add additional actions. The action buttons will display in the order they are listed in the Actions value field. Re-organize by using the Up and Down buttons.



5. When all actions are added, click **go to parent** to navigate back to Node Details Properties.



6. If desired, set up the Below Title parameter by selecting **Breadcrumb**, **Collection Summary**, or **Entity Summary Card** from the dropdown. Once a selection is made, click **go to component** to configure the child component further.

   For more information on the Below Title parameter options, refer to the **Below Title Component** section of the **Web User Interfaces** documentation.

7. Click the **Save** button in the designer. Additional configuration can be performed on this Node Details screen, as desired. Additionally, multiple Node Details screens can be created and used for different objects / purposes.
8. From the designer dropdown, select ---[MAIN]--- to configure the **Mappings** parameter. It is important to remember this step so you can set up the condition / results screen combinations that allow end users to view / use the Node Details screen(s). Refer to **Main Properties** in the **Using a Web UI** documentation for step-by-step instructions.

Example Node Details Screens

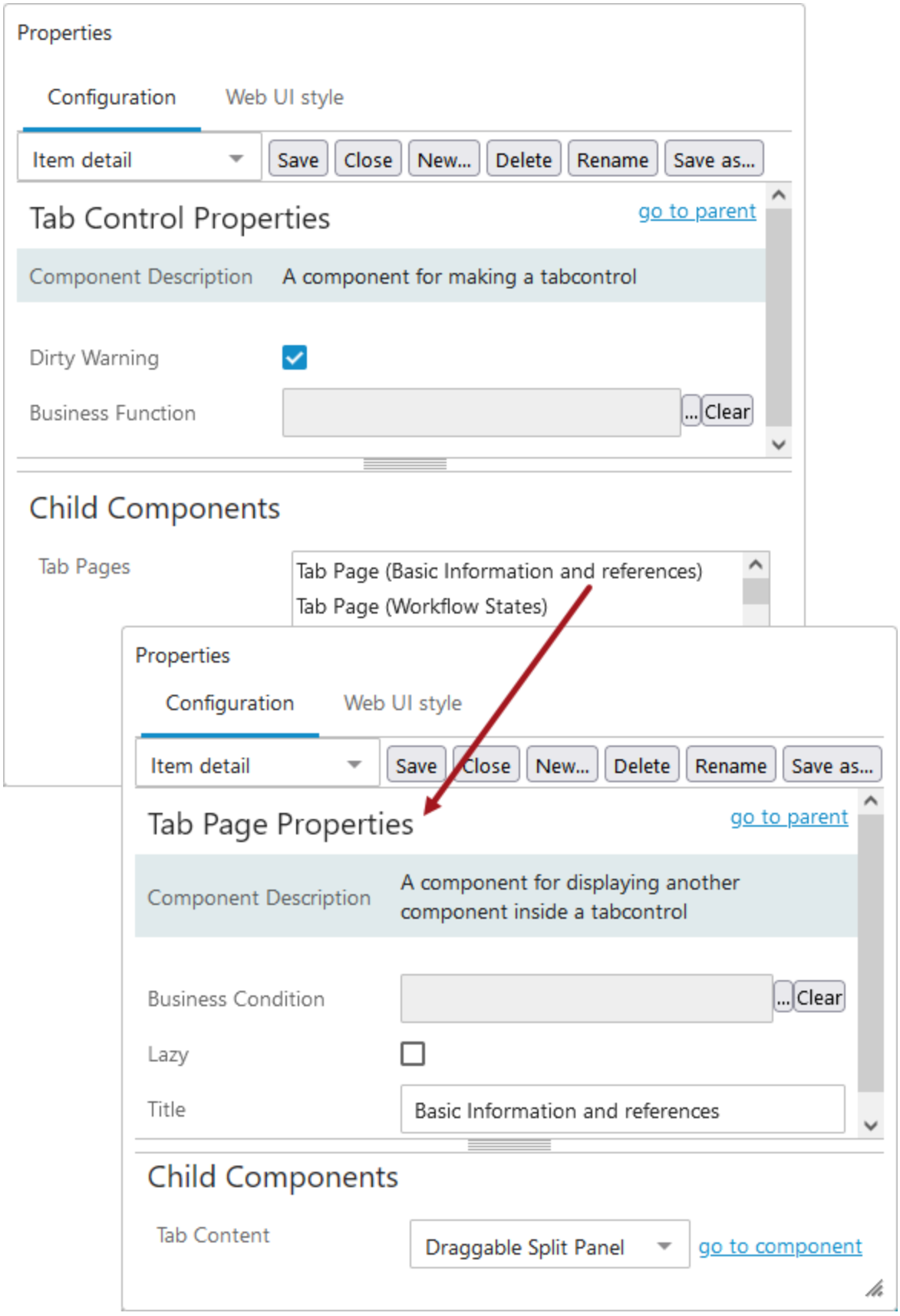
In the simple example below, a Node Details screen type has been used to create a new screen that has a 'Node Details' screen ID.

Note: The Node Details screen ID is used to simplify the example. The screen ID should have a descriptive name that better describes the purpose / usage of the screen and is easily identifiable.

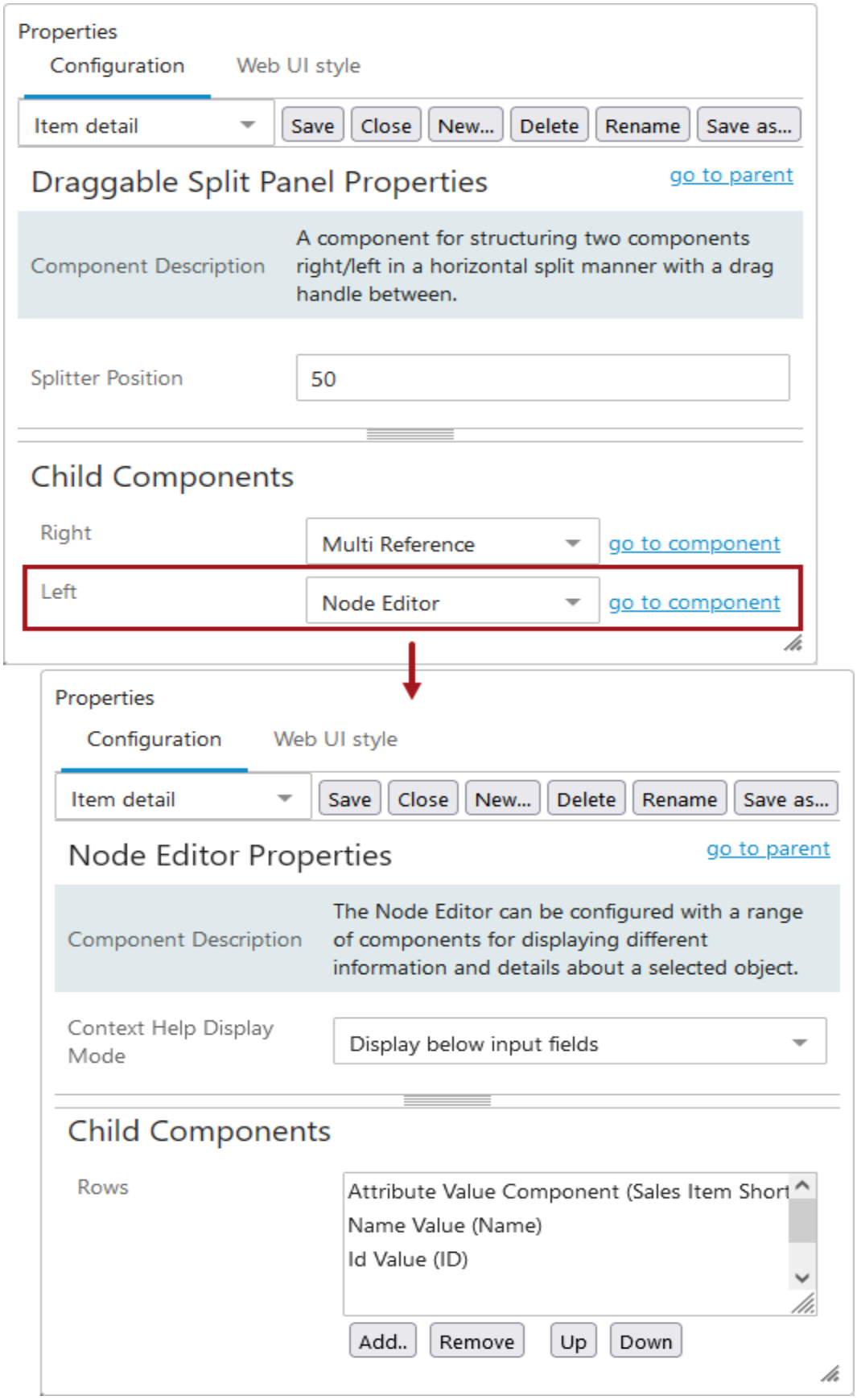
- **Node Details Properties** is configured as follows: Child Components > Main > **Tab Control** (as displayed in the screenshot under 'Child Components,' Step 1 of the 'Configuring Node Details Properties' section of

this topic). For more information, refer to the **Tab Pages** topic in the **Node Details Component** section of the **Web User Interfaces** documentation.

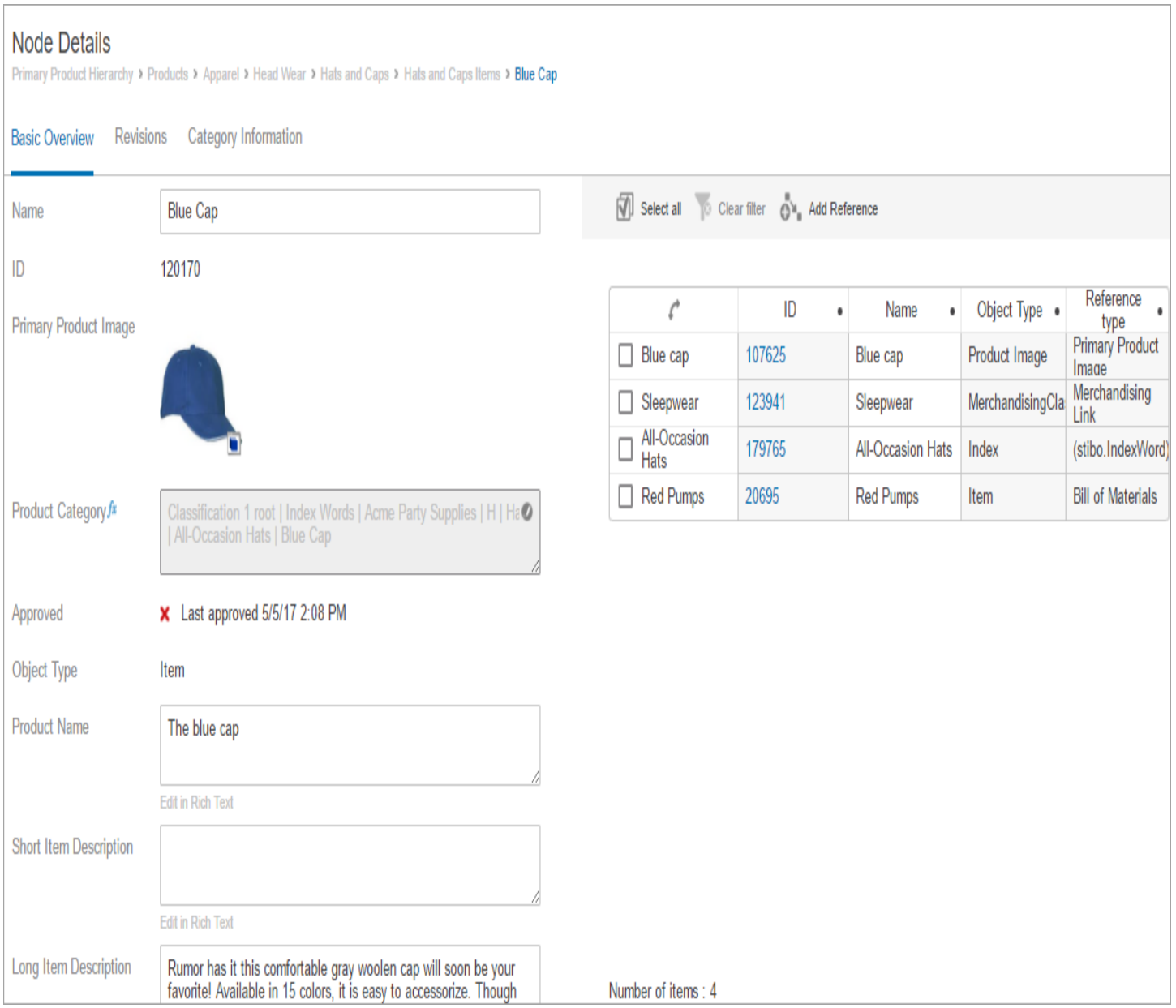
- **Tab Control Properties** has Child Components > **Tab Pages** configured with Tab Page (Basic Information and references), Sub Screen Tab Page (Revisions), and Tab Page (Category Information) components.


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Tab Control Properties
go to parent
Component Description
A component for making a tabcontrol
Dirty Warning
Business Function
...
Clear
Child Components
Tab Pages
Tab Page (Basic Information and references)
Tab Page (Workflow States)
Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Tab Page Properties
go to parent
Component Description
A component for displaying another component inside a tabcontrol
Business Condition
...
Clear
Lazy
Title
Basic Information and references
Child Components
Tab Content
Draggable Split Panel
go to component

- The Node Editor is a child component of a Draggable Split Panel component.


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Draggable Split Panel Properties
go to parent
Component Description
A component for structuring two components right/left in a horizontal split manner with a drag handle between.
Splitter Position
50
Child Components
Right
Multi Reference
go to component
Left
Node Editor
go to component
Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Node Editor Properties
go to parent
Component Description
The Node Editor can be configured with a range of components for displaying different information and details about a selected object.
Context Help Display Mode
Display below input fields
Child Components
Rows
Attribute Value Component (Sales Item Short
Name Value (Name)
Id Value (ID)
Add..
Remove
Up
Down

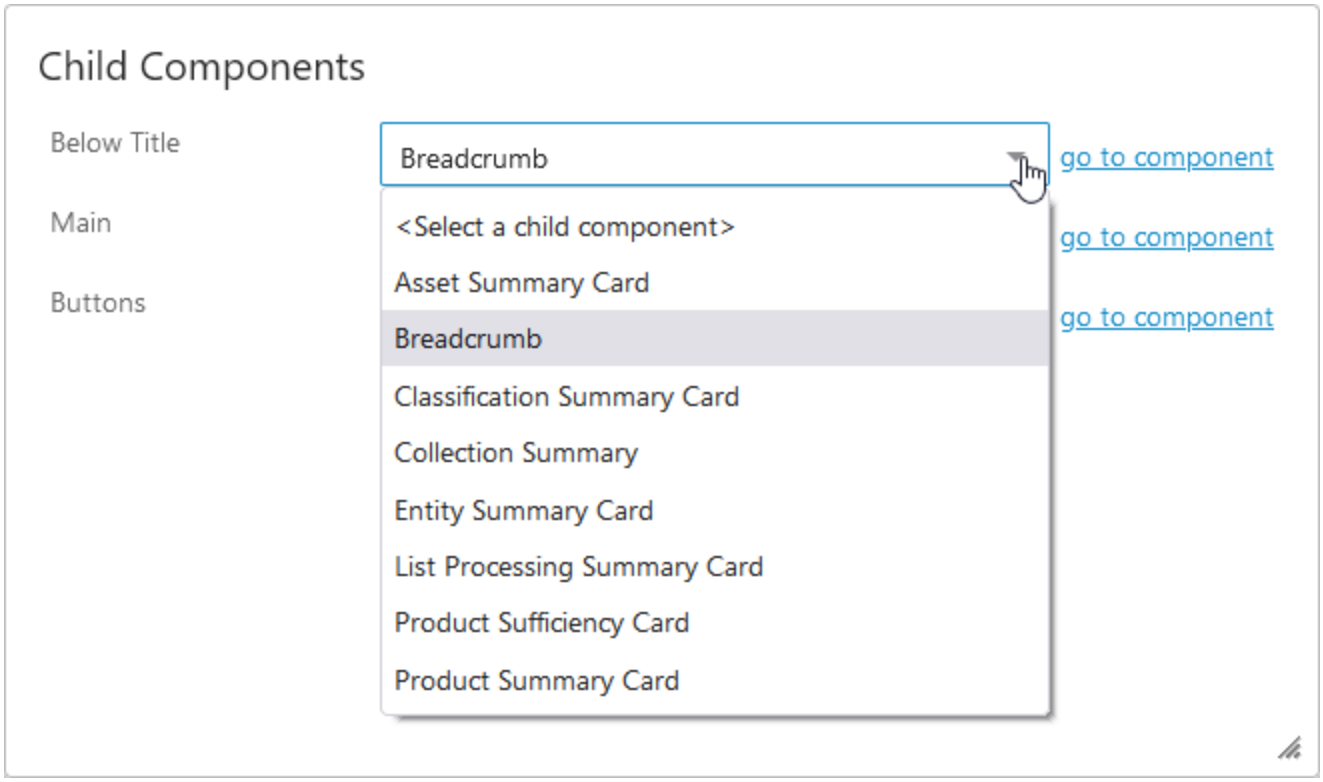
- The attributes (i.e., Name, ID, Primary Product Image) shown below are configured to display within the **Node Editor** component. Attribute Value and Attribute Value Group components are added within the Child Components section of the Node Editor Properties. They can be added and removed using the buttons below the **Rows** field, and the attribute values will display on screen based on how they are ordered within the field. They can be re-ordered using the Up and Down buttons. For more information, refer to the **Node Editor Component** topic in the **Web User Interfaces** documentation.



Below Title Component

The Below Title child component (accessible on Node Details screens) displays pertinent information about an object below the title of the node in question. This component can be used to display a breadcrumb describing where in the hierarchy the object resides, or it can be configured to provide a visually accessible grouping of pertinent information below the title for objects of either the product, asset, classification, or entity super type.

All options available for the Below Title component are described below, along with configuration instructions.



Prerequisites

It is expected that anyone configuring these components is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

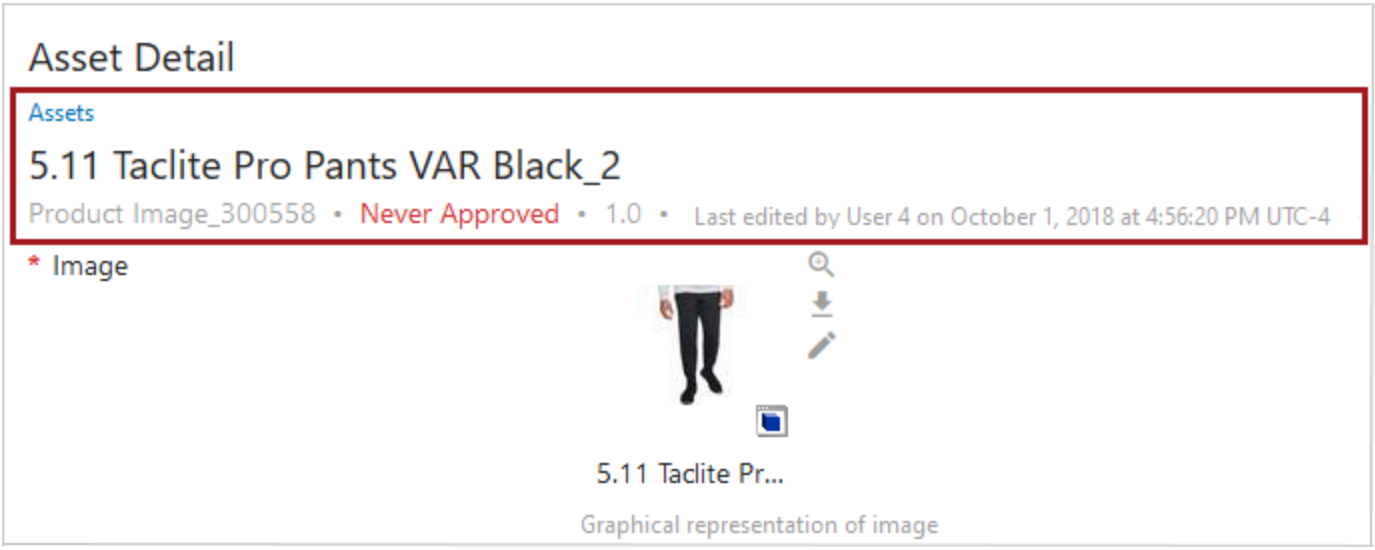
For details on the functionality and configuration of the options, refer to the following topics:

- Asset Summary Card
- Breadcrumb
- Classification Summary Card
- Collection Summary
- Entity Summary Card

- List Processing Summary Card - used in List Processing
- Product Summary Card
- Product Sufficiency Card - used in the Product Editor Screen

Below Title Asset Summary Card

The Asset Summary Card child component on the Below Title component provides users with a collection of asset information that displays just below the screen title on a Node Details screen.



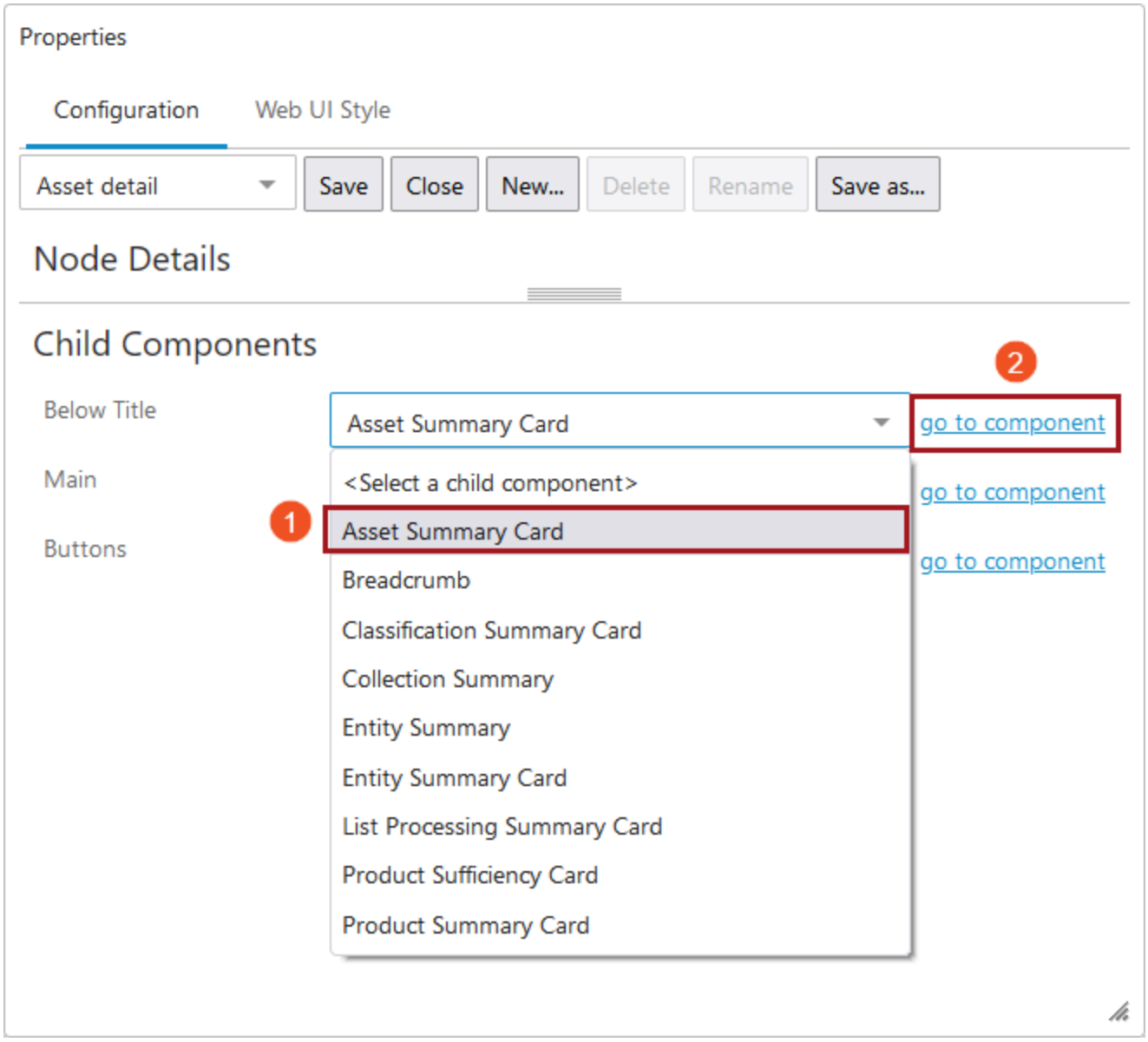
The Asset Summary Card can be configured to show either a pre-selected grouping of asset information, or a series of data points configured by the user. When the user selects the 'Description Card' option (an example of which is displayed in the screenshot above), the Asset Summary Card will display the following information: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the asset, including the name of the user who last edited the asset (or the user ID if no name is configured). When the 'Attribute Card' option is selected, users may tailor the card to display different values.

For details on the Below Title component, refer to the **Below Title Component** topic.

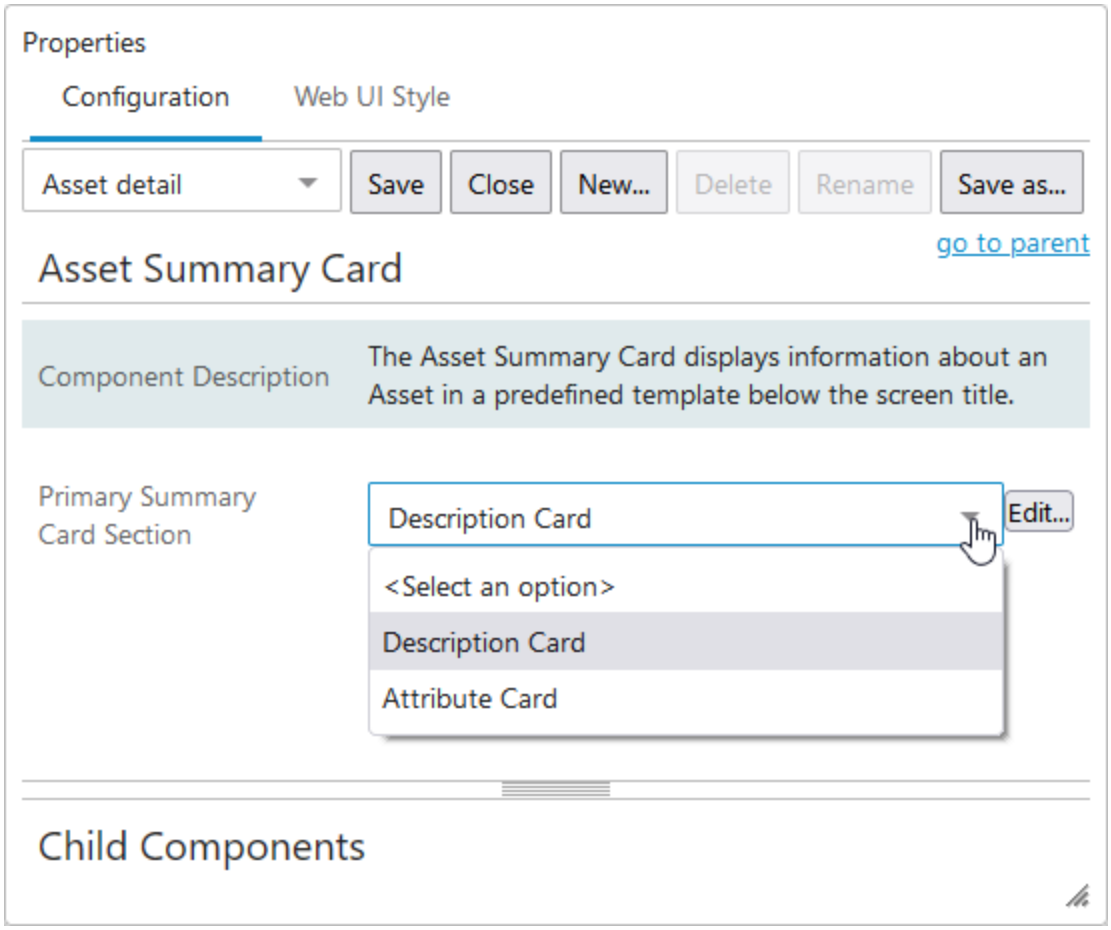
Configuring the Asset Summary Card

To configure display of the Asset Summary Card, follow the instructions described below.

1. Access the designer on the Node Details screen mapped to the relevant Asset object type. Under 'Child Components', select the 'Asset Summary Card' from the 'Below Title' dropdown. Then click 'go to component'.

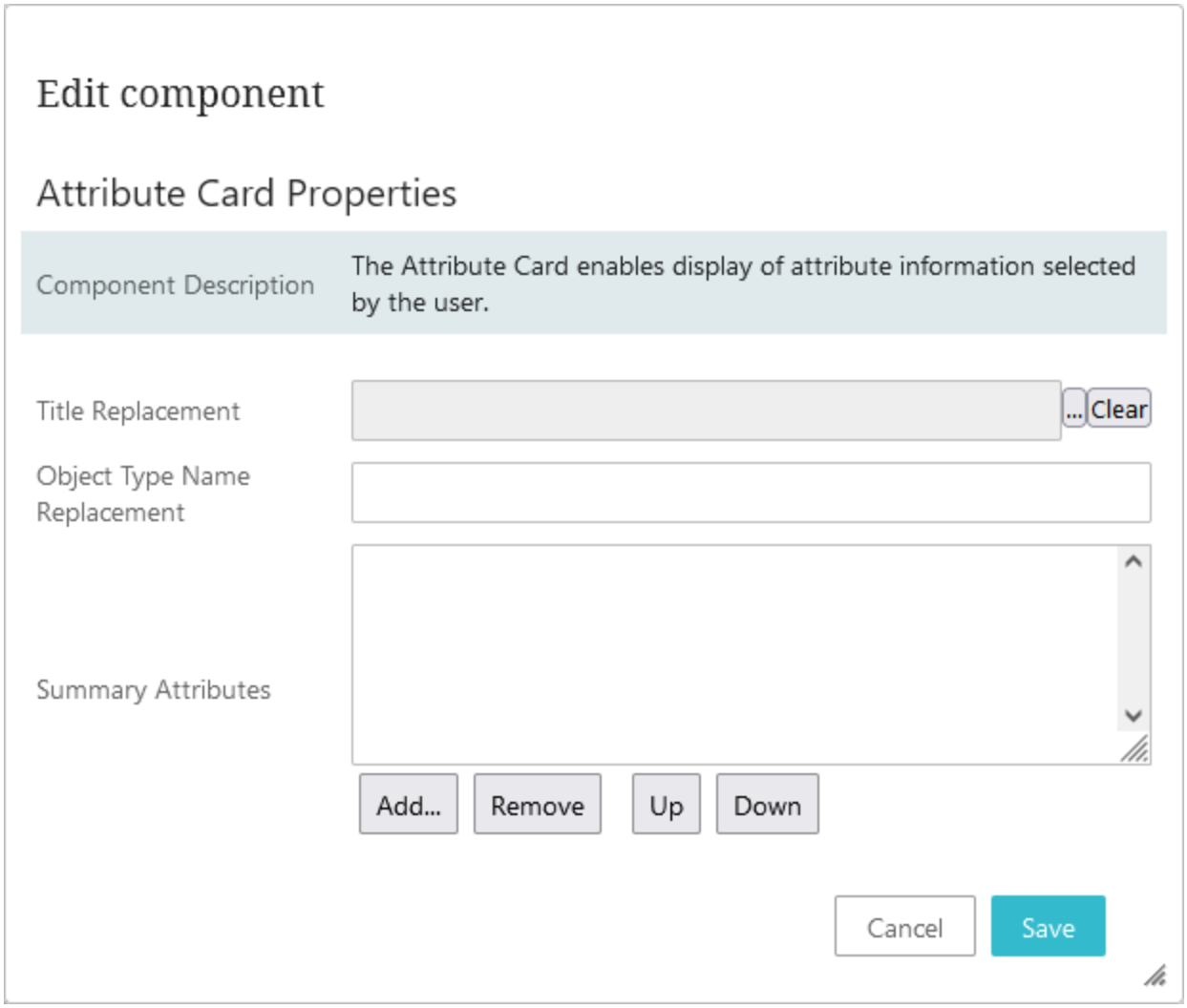


2. In the 'Asset Summary Card Properties' screen in the designer, select one of two options from the 'Primary Summary Card Section': 'Description Card' or 'Attribute Card'.



- **Description Card** - When selected, this option will display the following information in the Summary Card section of the screen: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the asset. No further configuration is required with this option. Once selected, save the configuration and close the designer to activate the Summary Card on the screen.
- **Attribute Card** - When selected, users may configure which data points to display in the card. To do this configuration, first select the 'Attribute Card' option, and then click the 'Edit...' button to the right of the dropdown.

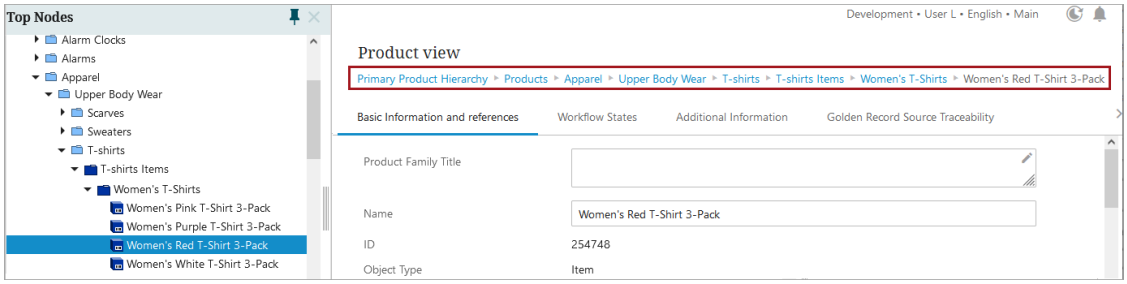
3. To configure the 'Attribute Card' option, users may add values to the fields that display in the 'Attribute Card Properties' pop-up.



- **Title Replacement** - When the ... button (located to the right of the field) is clicked, a Node Picker displays that enables users to select an attribute whose value can display in place of the asset's name. If no attribute is selected, the asset name will display. If no value has been set for the asset's name, the ID will display. It should be noted that if a multi-valued attribute with multiple values is selected to display in place of the object's name value, then all attribute values for that multi-valued attribute will display separated by the text, '<multipsep/>'.
- **Object Type Name Replacement** - Text added to this field will display in place of the asset's object type name. In both cases, the value displays in capital letters.
- **Summary Attributes** - The attribute values for the attributes selected in this field will display in the Summary Card section of the configured Node Details screen. When users click the 'Add...' button, a Node Picker pop-up will display showing the available attributes. Users may select an unlimited number of attributes, though only one per 'Add...' action. It is important to note that the selected attributes must be both valid for and linked to the asset object type in order for the values to display.

Below Title Breadcrumb

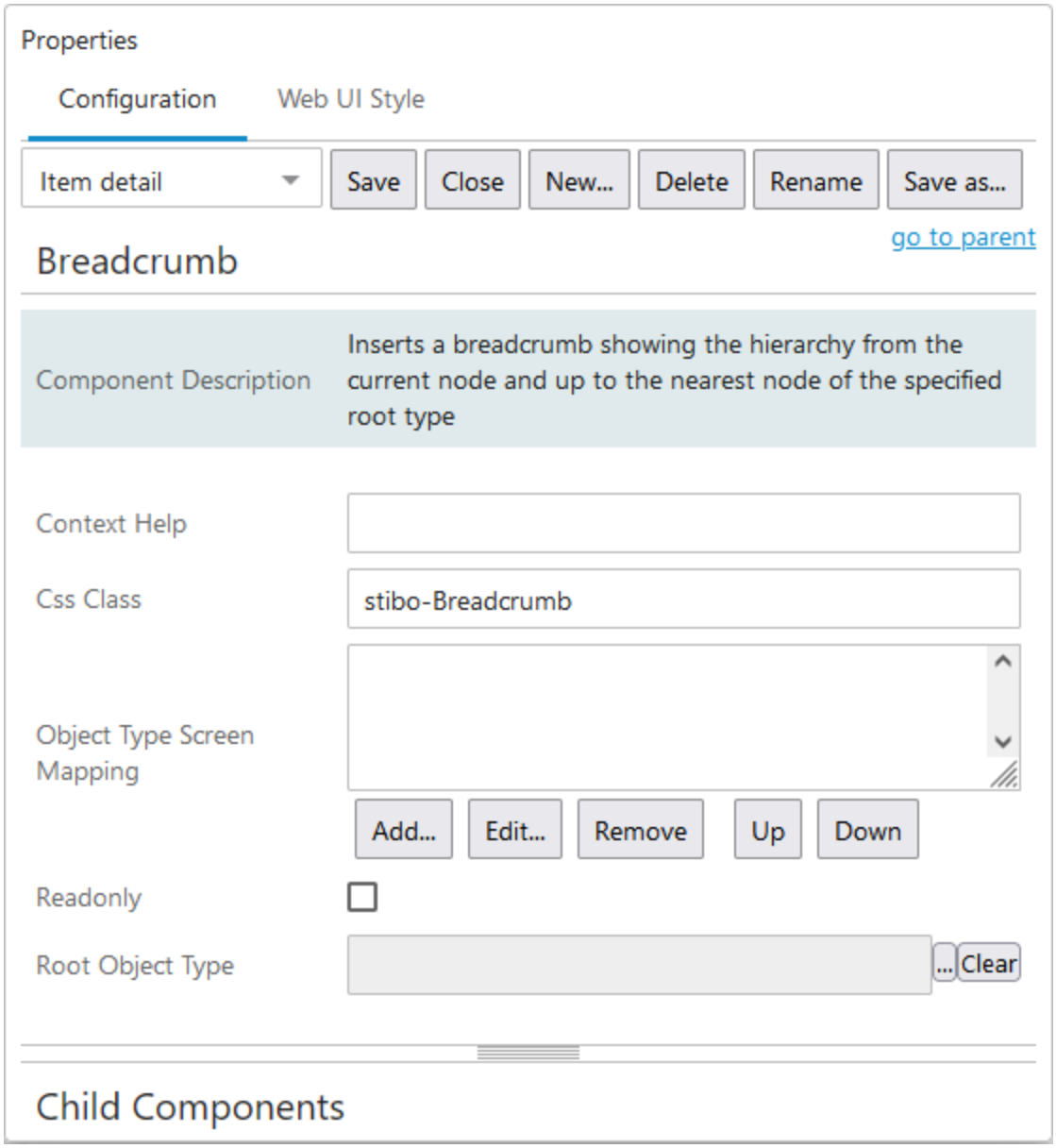
The Breadcrumb child component on the Below Title component describes where in the hierarchy the object resides. A breadcrumb is also available in the 'Description Card' option on the Summary Card components, but in the event only a breadcrumb should display under the title, the Breadcrumb option is optimal. Once configured, a breadcrumb describing the hierarchy path from the current node up to the nearest node of the specified root type will display. Each breadcrumb node is clickable unless the **Readonly** parameter is selected.



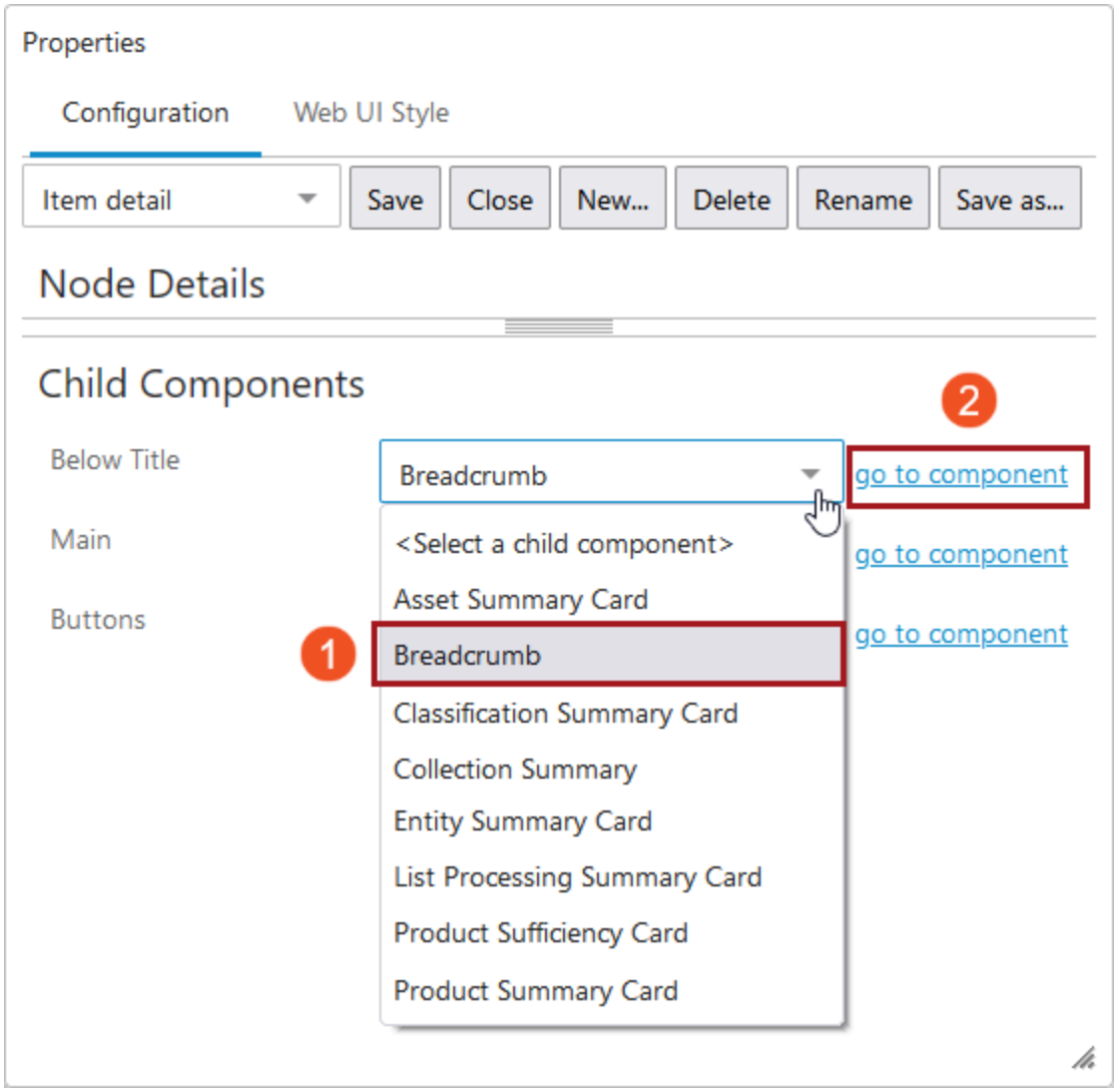
For details on the Below Title component, refer to the **Below Title Component** topic.

Configuring Breadcrumb Properties

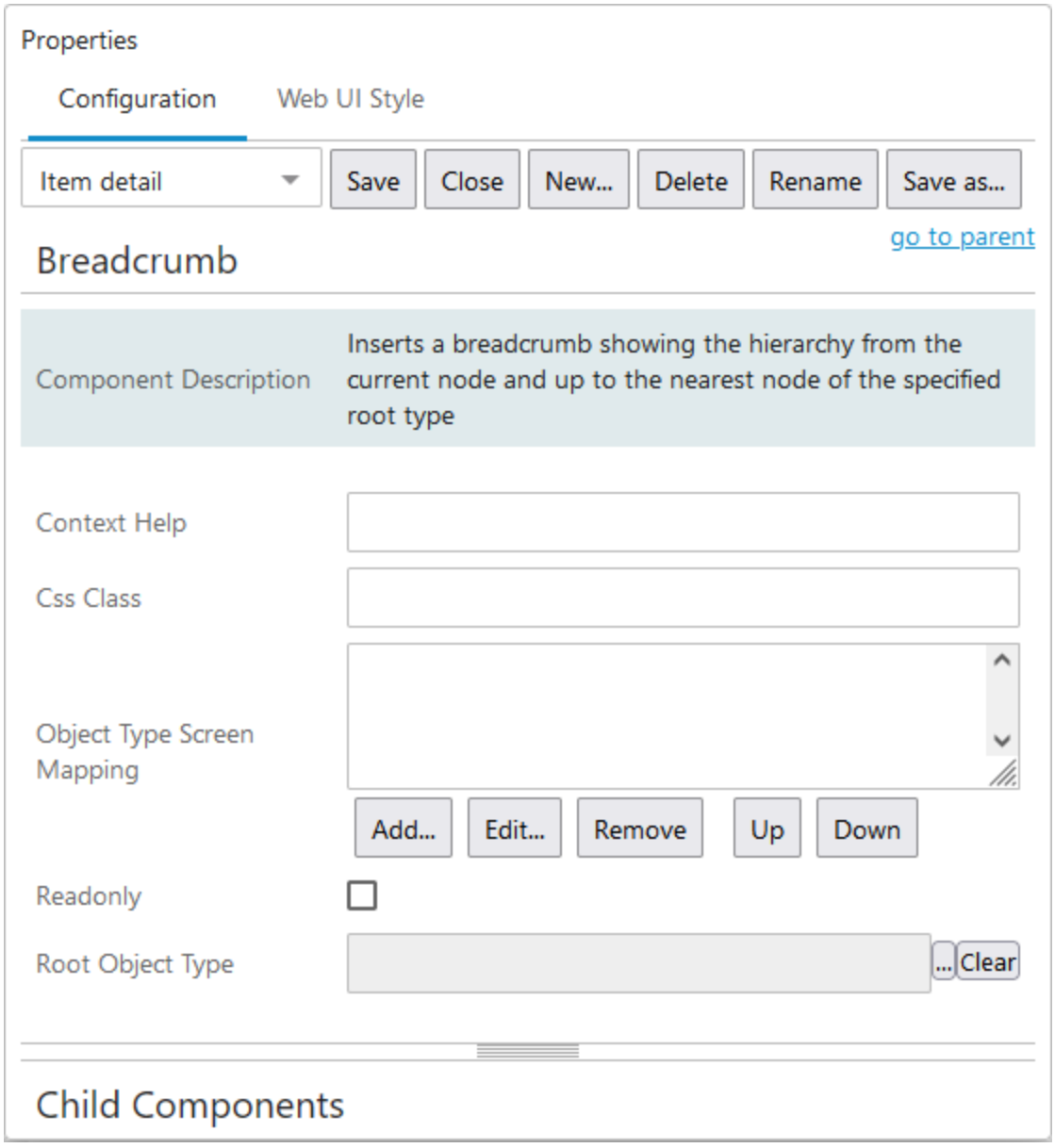
To configure display of the Breadcrumb component, follow the instructions described below.



1. Access the designer on the Node Details screen mapped to the relevant Asset object type. Under 'Child Components', select the 'Breadcrumb' option from the 'Below Title' dropdown. Then click 'go to component'.



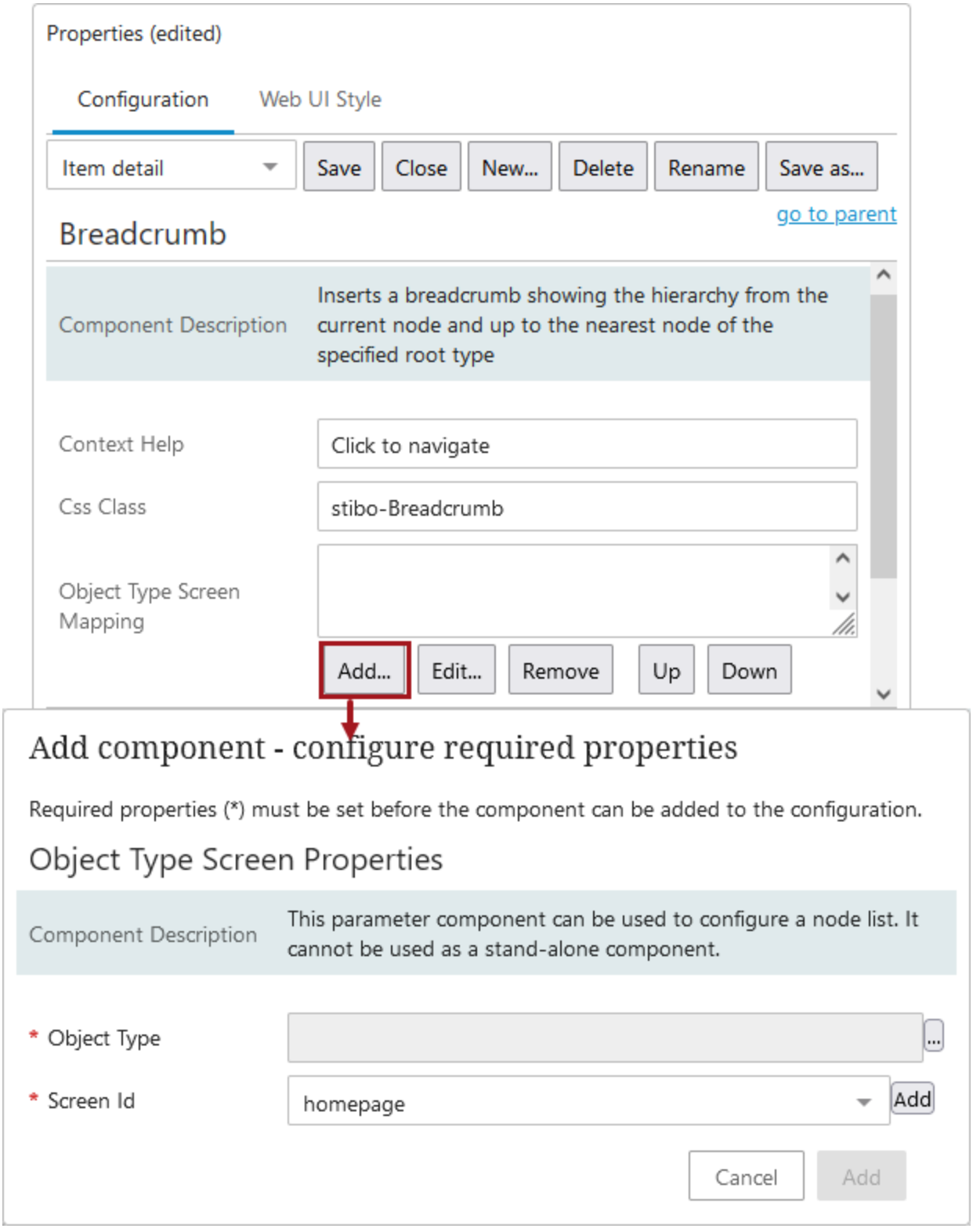
2. Populate the configuration parameters for the component. Each component is listed and described below.



- **Context Help**- Text added in this field displays when the cursor is placed over any element in the breadcrumb navigation path. In the screenshot below, the **Context Help** field has been populated with the text 'Click to navigate'.



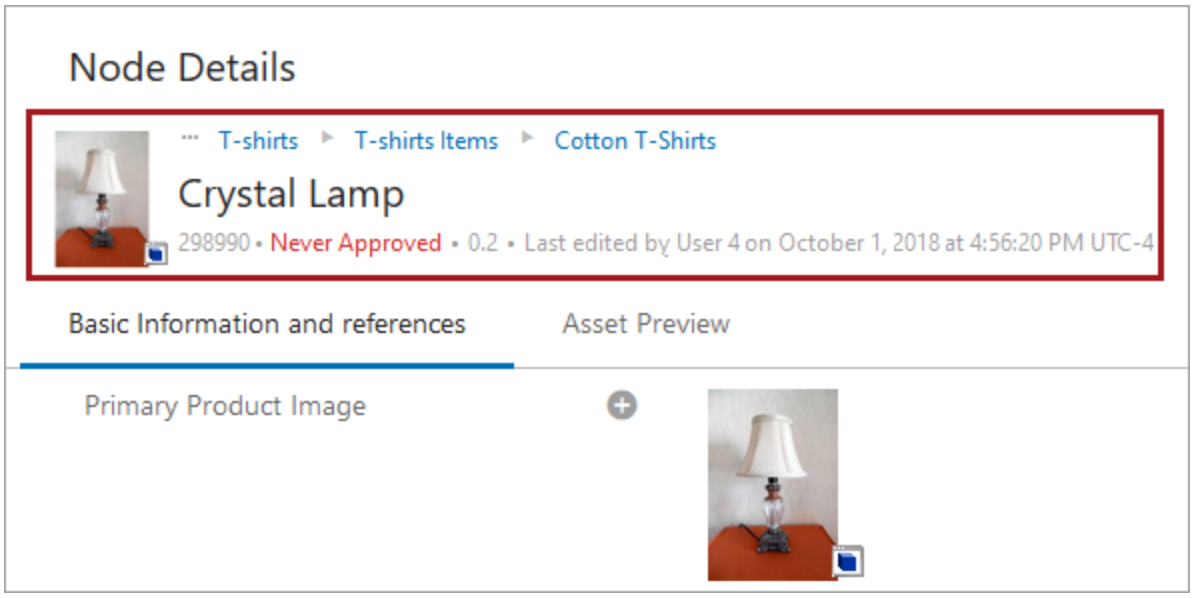
- **Css Class**- Enter the name of a CSS style to be set as the primary style for the component.
- **Object Type Screen Mapping**- This field is an optional screen to map. When the Add button is clicked, an Object Type Screen Properties popup displays. In this window, the Object Type and Screen ID must be selected.



- **Read Only**- When checked, the elements that make up the breadcrumb navigation path will not be hyperlinked.
- **Root Object Type**- By defining the Root Object Type, the breadcrumb will display the navigation path from the current node back to the nearest node of the root object type specified in this field.

Below Title Classification Summary Card

The Classification Summary Card child component on the Below Title component provides users with a collection of asset information that displays just below the screen title on a Node Details screen.



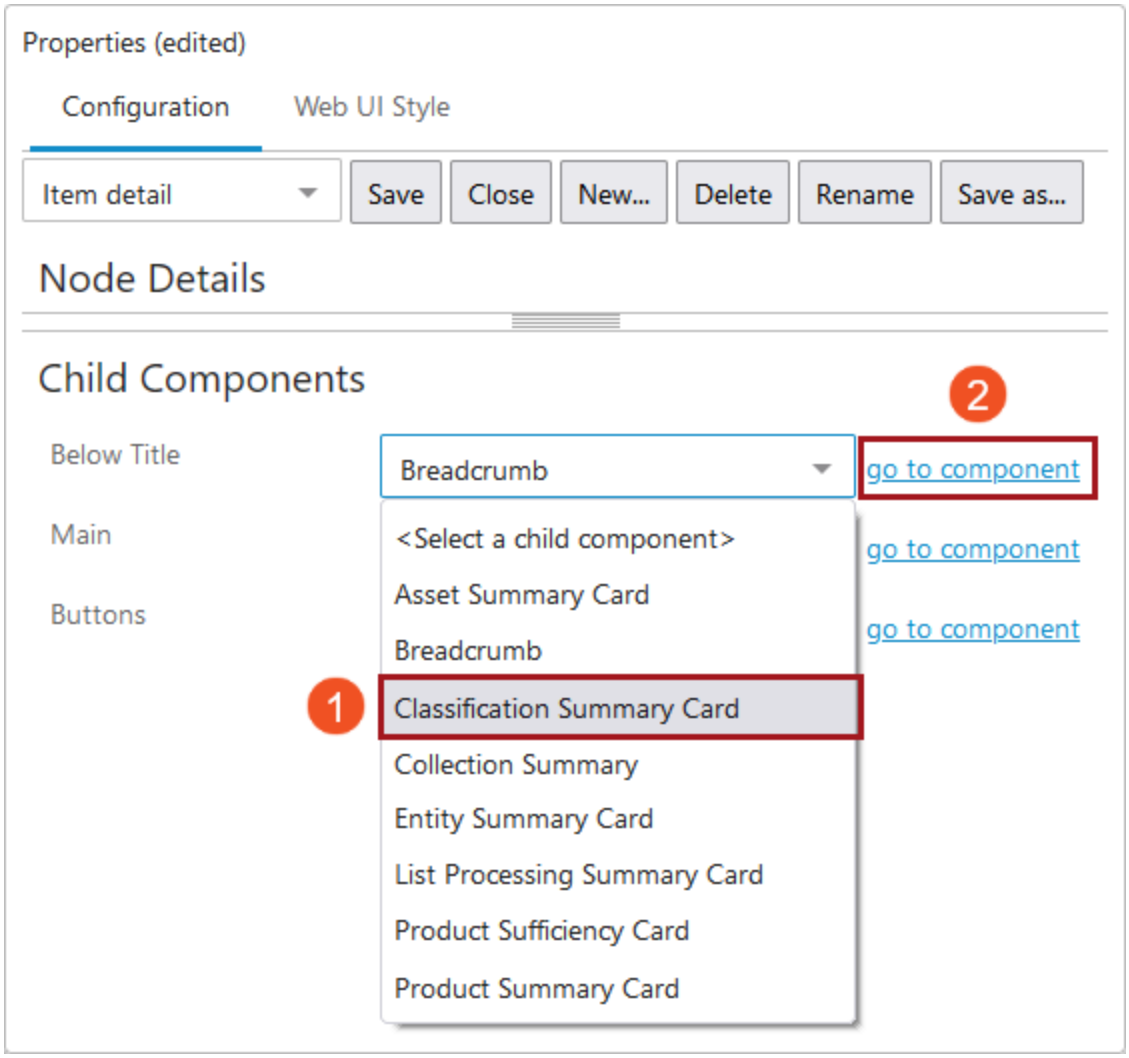
The Classification Summary Card can be configured to show on a Classification-type object type either a pre-selected grouping of information, or a series of data points configured by the user. When the user selects the 'Description Card' option (an example of which is displayed in the screenshot above), the Classification Summary Card will display the following information: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the Classification-type object, including the name of the user who last edited the object (or the user ID if no name is configured). When the 'Attribute Card' option is selected, users may tailor the card to display different values.

For details on the Below Title component, refer to the **Below Title Component** topic.

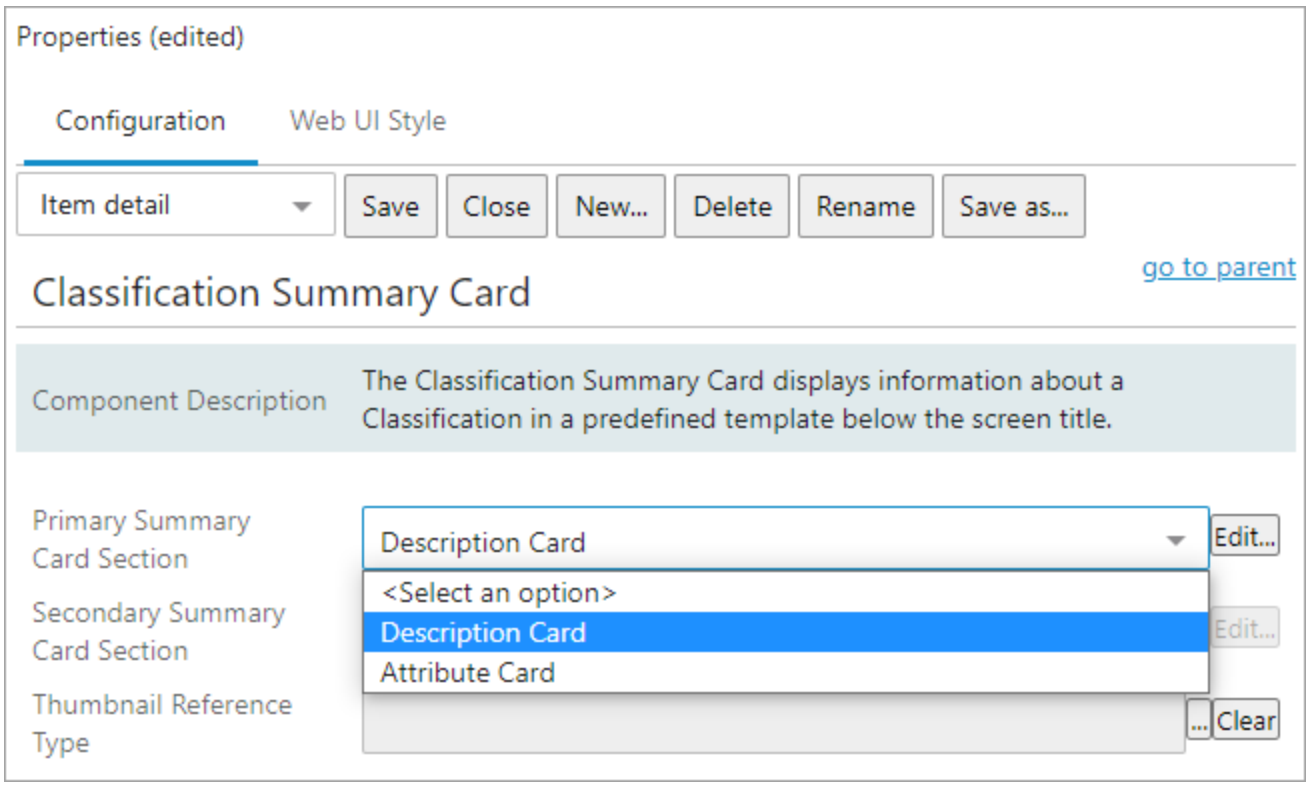
Configuring the Classification Summary Card

To configure display of the Classification Summary Card, follow the instructions described below.

1. Access the designer on the Node Details screen mapped to the relevant Classification object type. Under 'Child Components', select the 'Classification Summary Card' from the 'Below Title' dropdown. Then click 'go to component'.

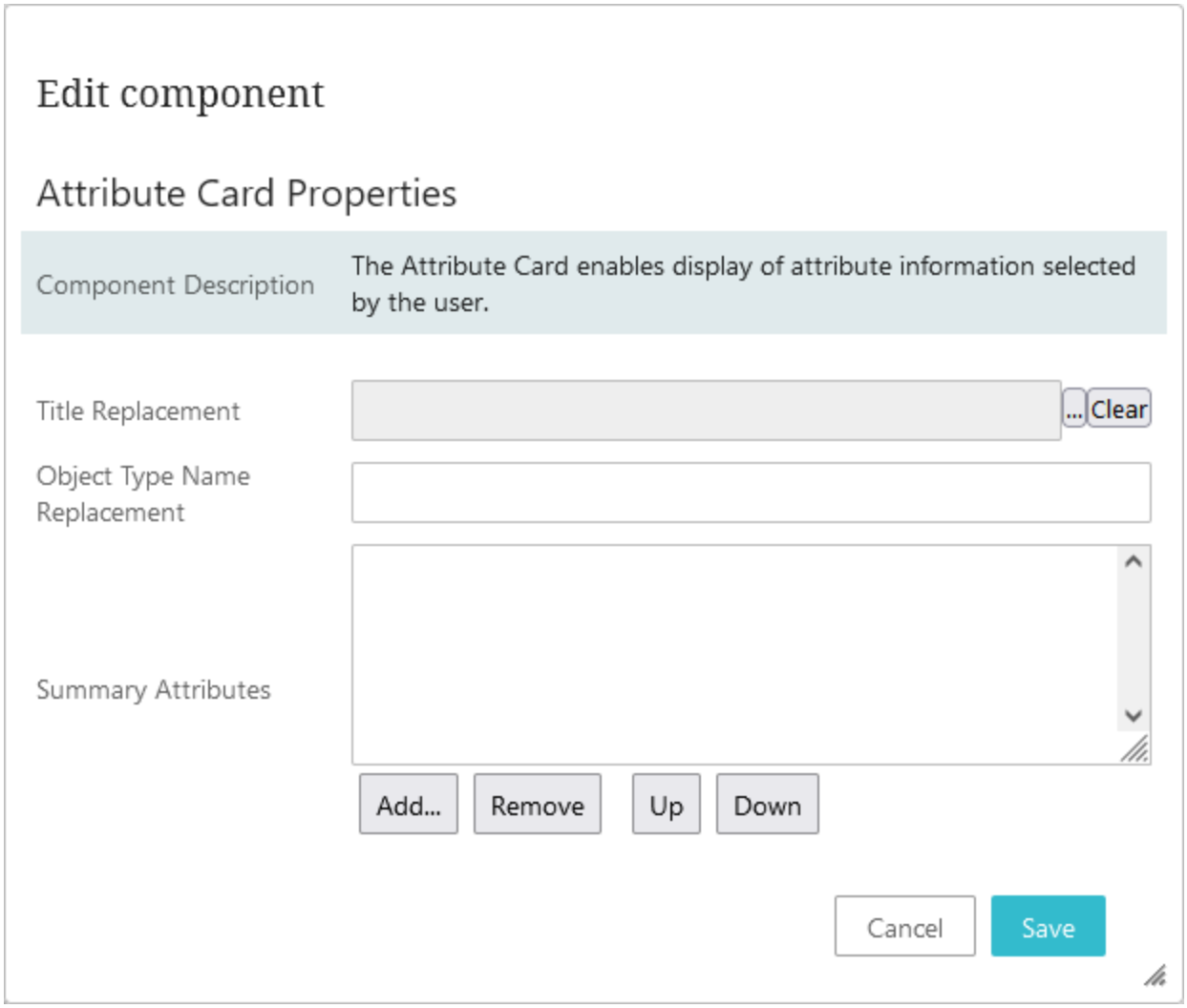


2. In the 'Classification Summary Card Properties' screen in the designer, select one of two options from the 'Primary Summary Card Section': 'Description Card' or 'Attribute Card'.



- **Description Card** - When selected, this option will display the following information in the Summary Card section of the screen: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the asset. No further configuration is required with this option. Once selected, save the configuration and close the designer to activate the Summary Card on the screen.
- **Attribute Card** - When selected, users may configure which data points to display in the card. To do this configuration, first select the 'Attribute Card' option, and then click the 'Edit...' button to the right of the dropdown.

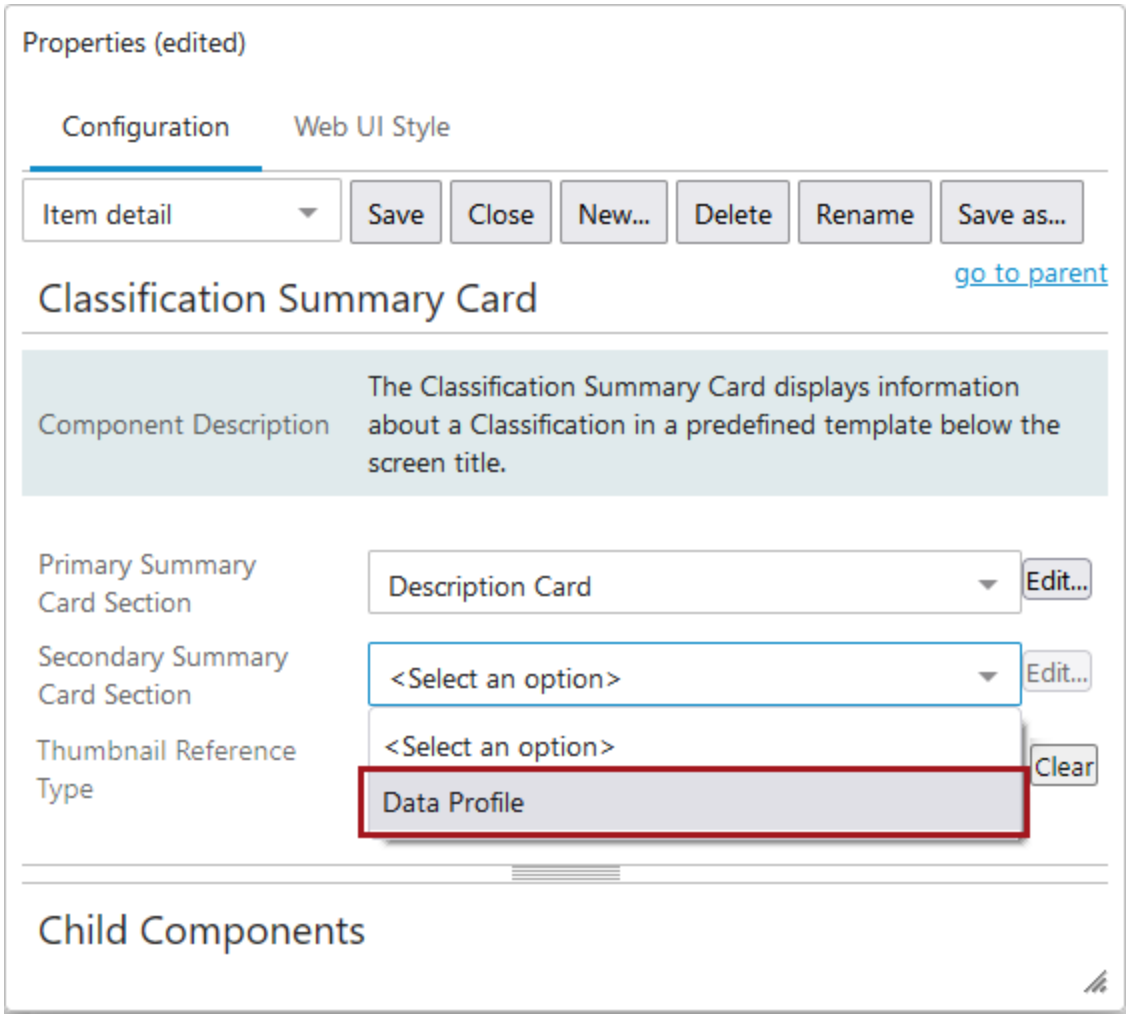
3. To configure the 'Attribute Card' option, users may add values to the fields that display in the 'Attribute Card Properties' pop-up.



- **Title Replacement** - When the ... button (located to the right of the field) is clicked, a Node Picker displays that enables users to select an attribute whose value can display in place of the classification object's name. If no attribute is selected, the classification object name will display. If no value has been set for the classification object's name, the ID will display. It should be noted that if a multi-valued attribute with multiple values is selected to display in place of the object's name value, then all attribute values for that multi-valued attribute will display in order, separated by the text, '<multipsep/>'.
- **Object Type Name Replacement** - Text added to this field will display in place of the classification object's object type name. In both cases, the value displays in capital letters.
- **Summary Attributes** - The attribute values for the attributes selected in this field will display in the Summary Card section of the configured Node Details screen. When users click the 'Add...' button, a Node Picker pop-up will display showing the available attributes. Users may select an unlimited number of attributes, though only one per 'Add...' action. It is important to note that the selected attributes must be both valid for and linked to the classification object type in order for the values to display.

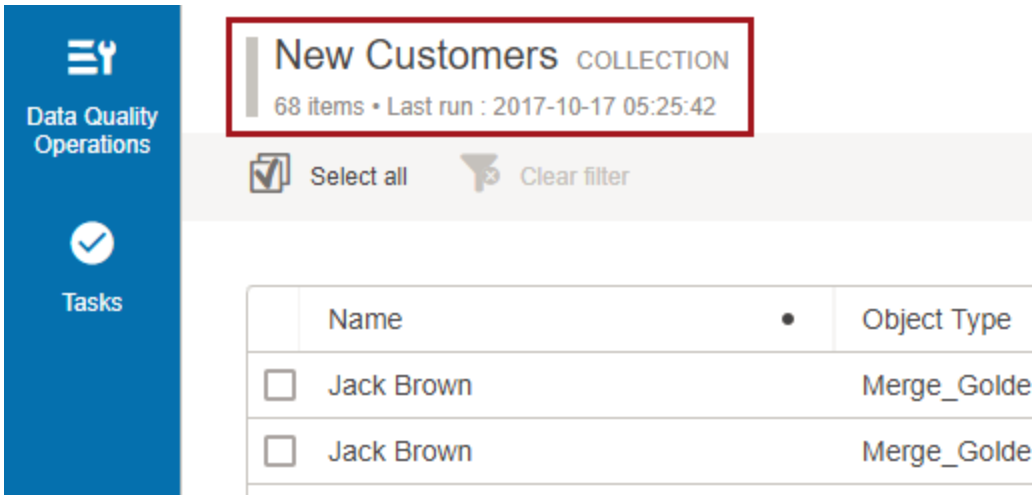
4. If data profiling has been enabled on the classification object, users may opt to add a 'Profile Findings' counter to the Summary Card that displays a number relevant to the data profiling configuration. To add the counter,

select 'Data Profile' from the 'Secondary Summary Card Section' dropdown.



Below Title Collection Summary

The Collection Summary child component on the Below Title component displays the most important information about a collection in a brief summary at the top of a Node Details or Collection Content screen.



For details on the Below Title component, refer to the **Below Title Component** topic.

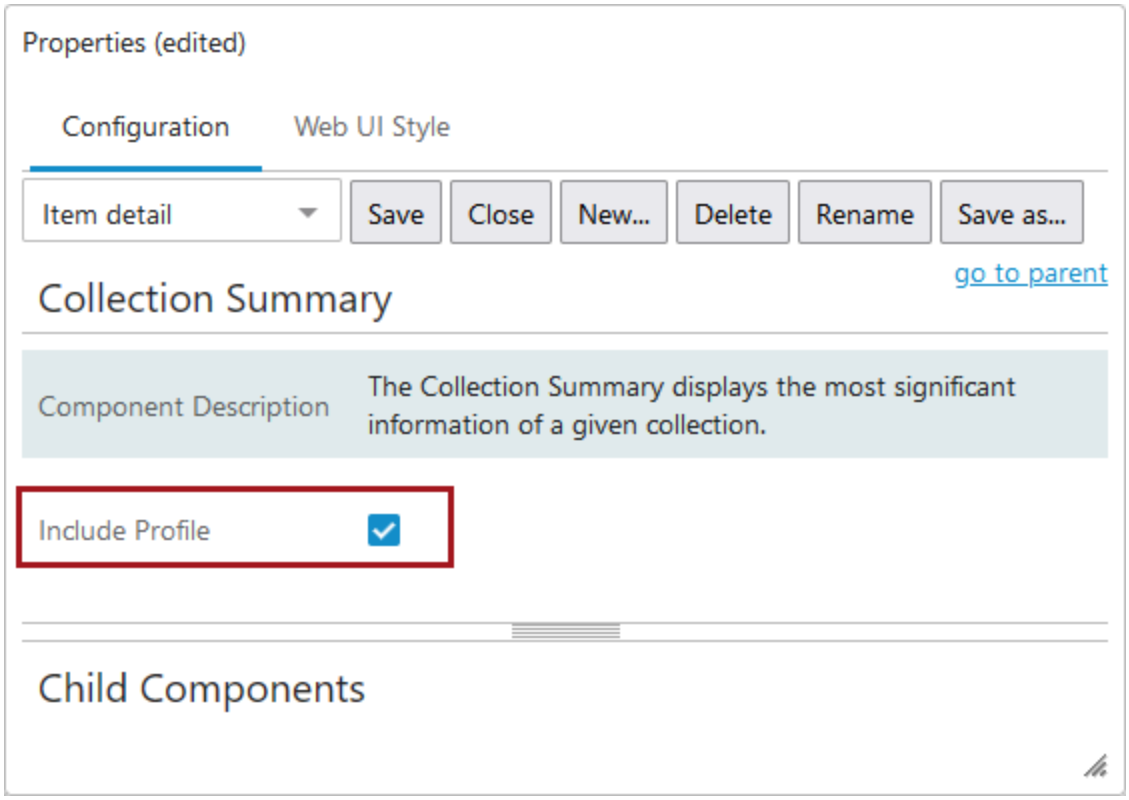
Configuring the Collection Summary

To add a Collection Summary to a screen, navigate to the relevant screen properties in **[Main]** and select 'Collection Summary' from the **Below Title** dropdown menu.

The Collection Summary component automatically displays:

- The name of the collection node
- The number of items in the collection
- The last time the collection was updated

Additionally, this component can be configured with a link to the collection's data profile. To activate this feature, enter design mode and check the box for the **Include Profile** parameter.



When **Include Profile** is enabled, and a data profile has been generated on the currently selected collection, a link to the collection's profile will appear in the summary component that displays the number of **Profile Findings**.

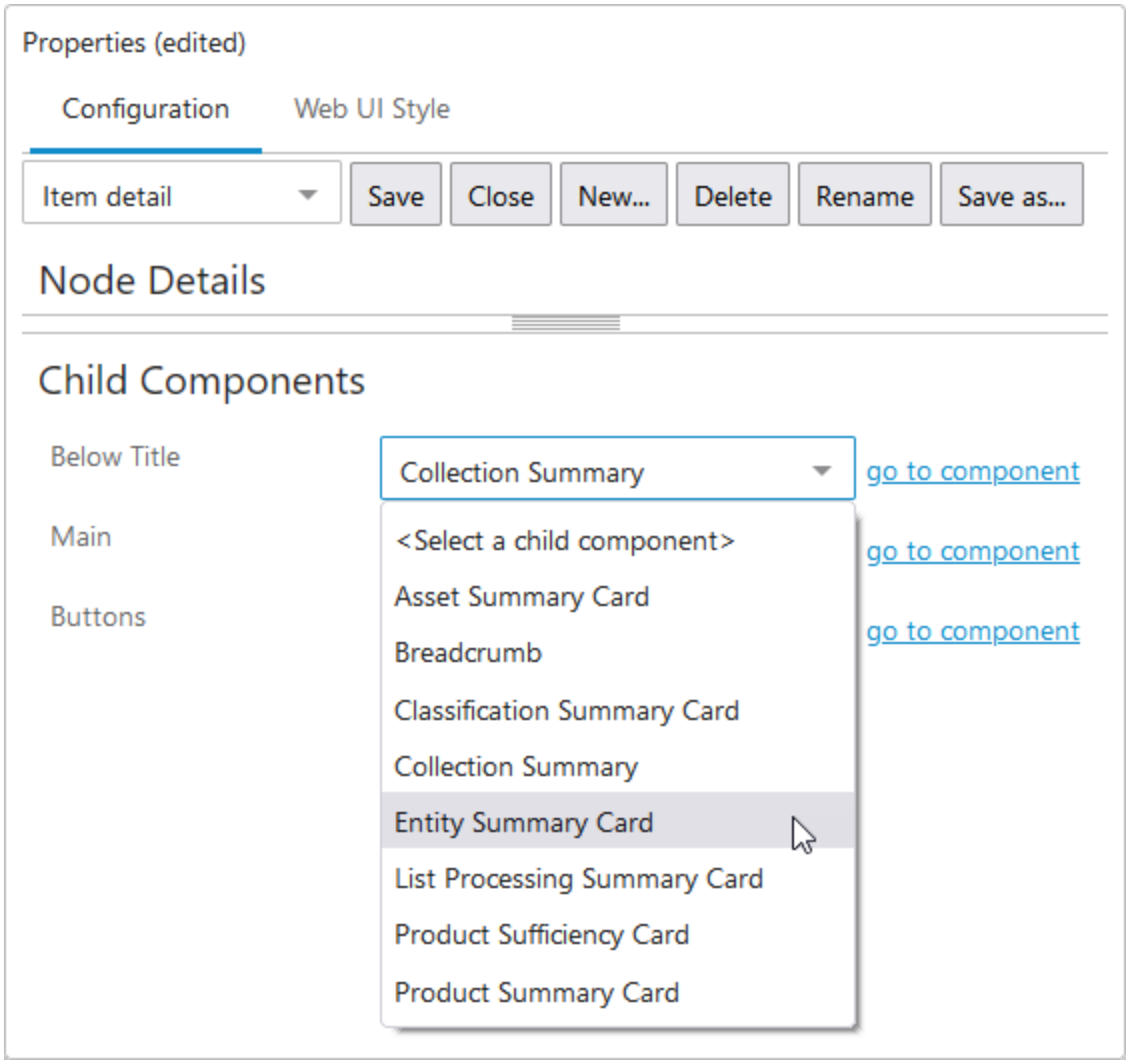


For more information on profiling in Web UI, refer to the **Data Profiling in Web UI** section of the **Data Profiling** documentation.

Note: It is recommended to use this summary in lieu of a traditional screen title. To do this, uncheck the **Show Title** parameter for the applicable Node Details / Collection Content screen.

Below Title Entity Summary Card

The Entity Summary Card child component on the Below Title component provides users with a collection of entity information that displays just below the screen title on a Node Details screen.



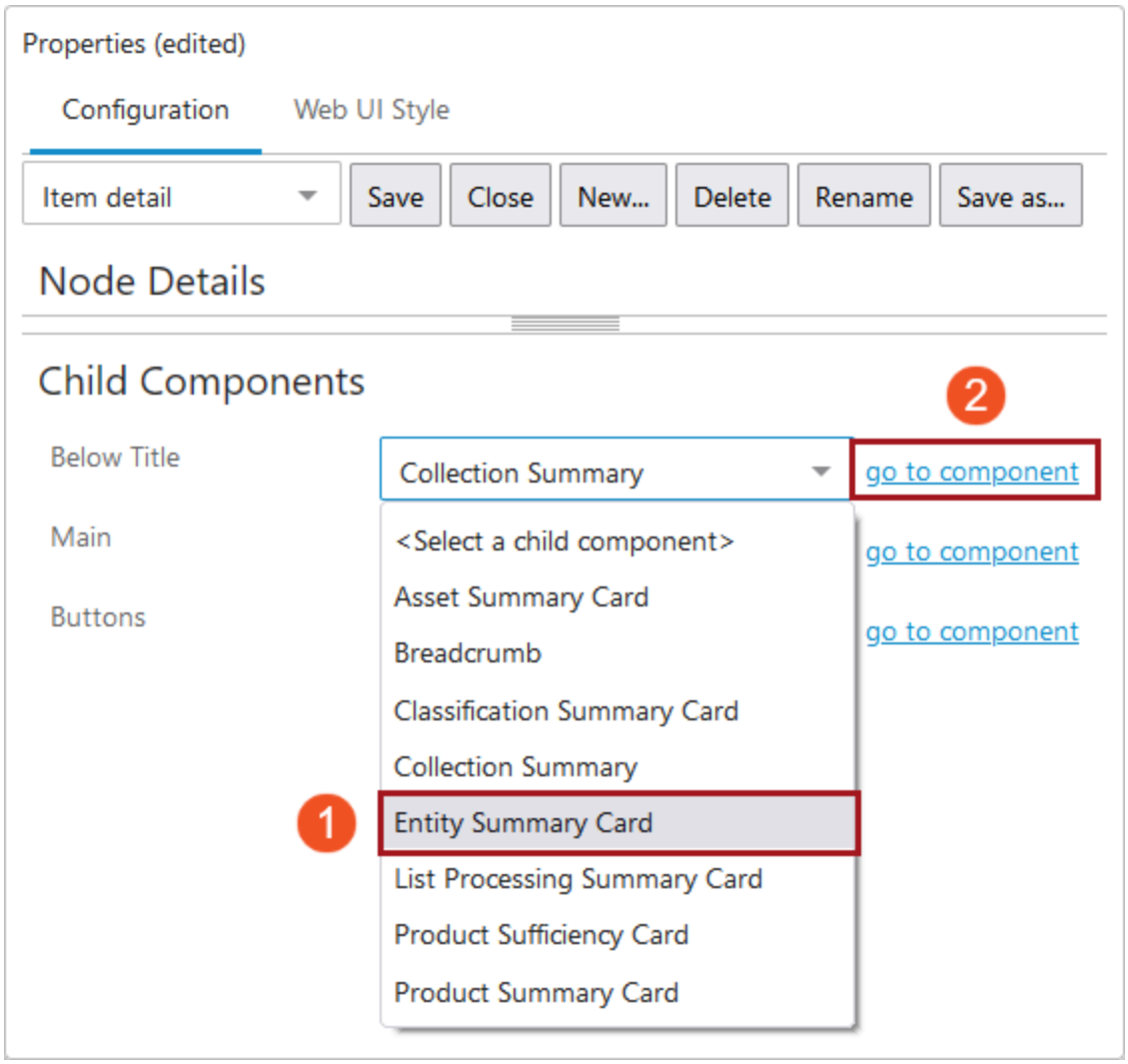
The Entity Summary Card can be configured to show either a pre-selected grouping of entity information, or a series of data points configured by the user. When the user selects the 'Description Card' option (an example of which is displayed in the screenshot above), the Entity Summary Card will display the following information: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status if applicable (shown in red text above), revision number, and information related to the most recent update to the entity, including the name of the user who last edited the entity (or the user ID if no name is configured). When the 'Attribute Card' option is selected, users may tailor the card to display different values.

For details on the Below Title component, refer to the **Below Title Component** topic.

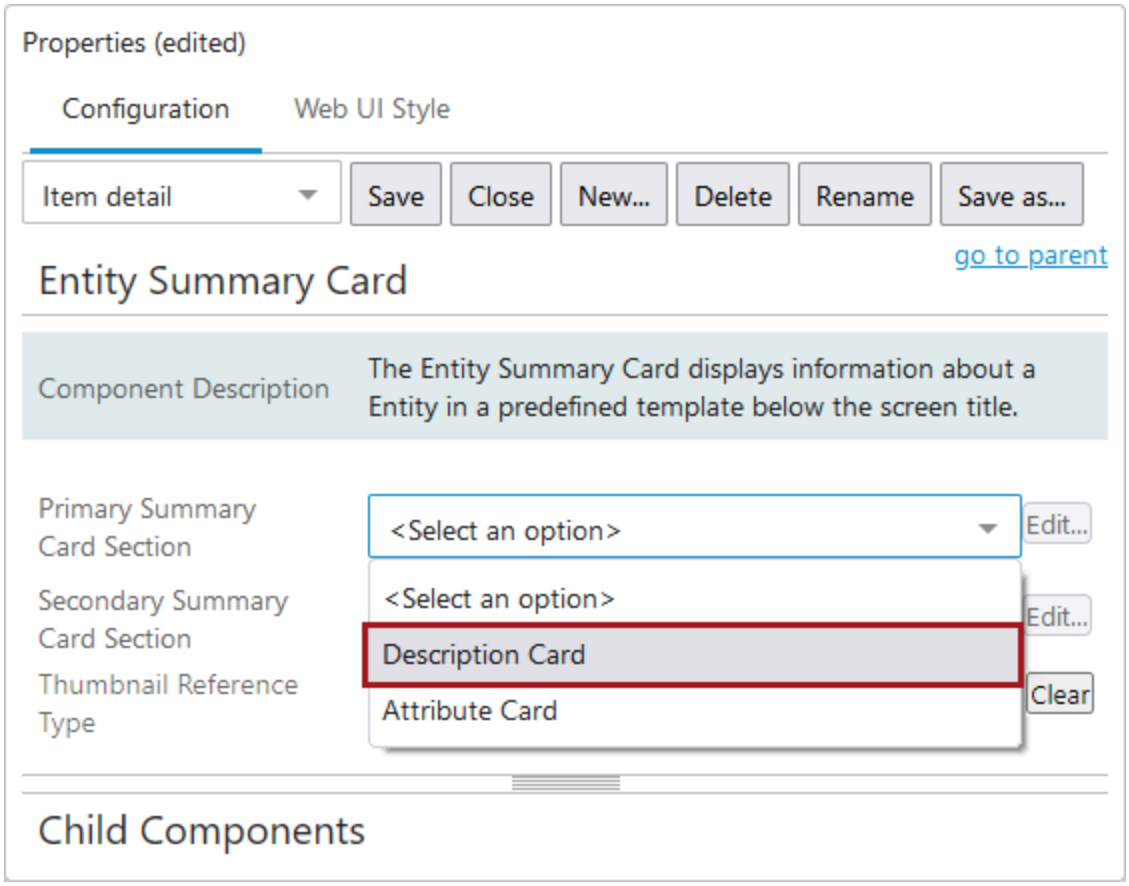
Configuring the Entity Summary Card

To configure display of the Entity Summary Card, follow the instructions described below.

1. Access the designer on the Node Details screen mapped to the relevant entity object type. Under 'Child Components', select the 'Entity Summary Card' from the 'Below Title' dropdown. Then click 'go to component'.

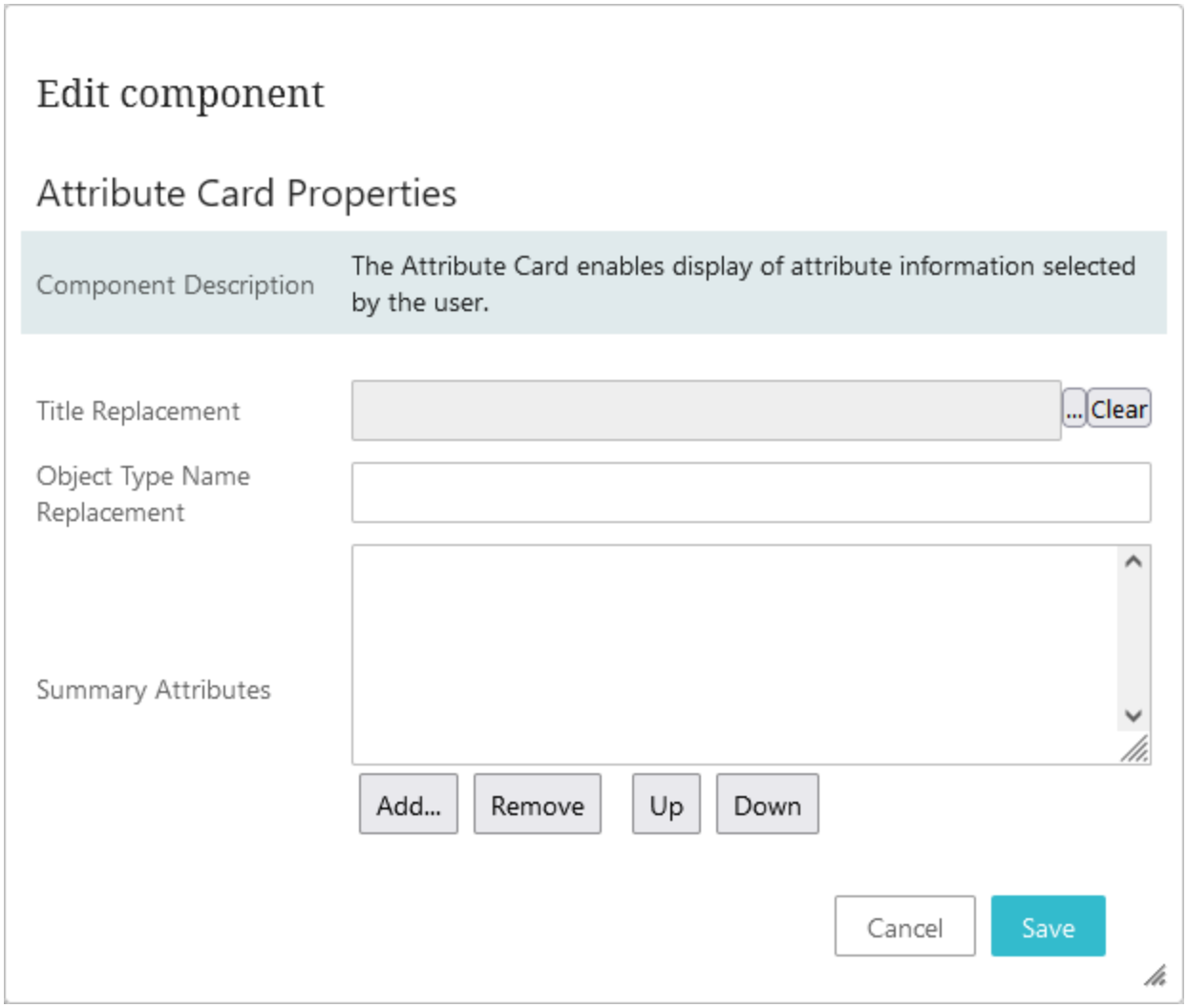


2. In the 'Entity Summary Card Properties' screen in the designer, select one of two options from the 'Primary Summary Card Section': 'Description Card' or 'Attribute Card'.



- **Description Card** - When selected, this option will display the following information in the Summary Card section of the screen: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status, if applicable (shown in red text above), revision number, and information related to the most recent update to the entity. No further configuration is required with this option. Once selected, save the configuration and close the designer to activate the Summary Card on the screen.
- **Attribute Card** - When selected, users may configure which data points to display in the card. To do this configuration, first select the 'Attribute Card' option, and then click the 'Edit...' button to the right of the dropdown.

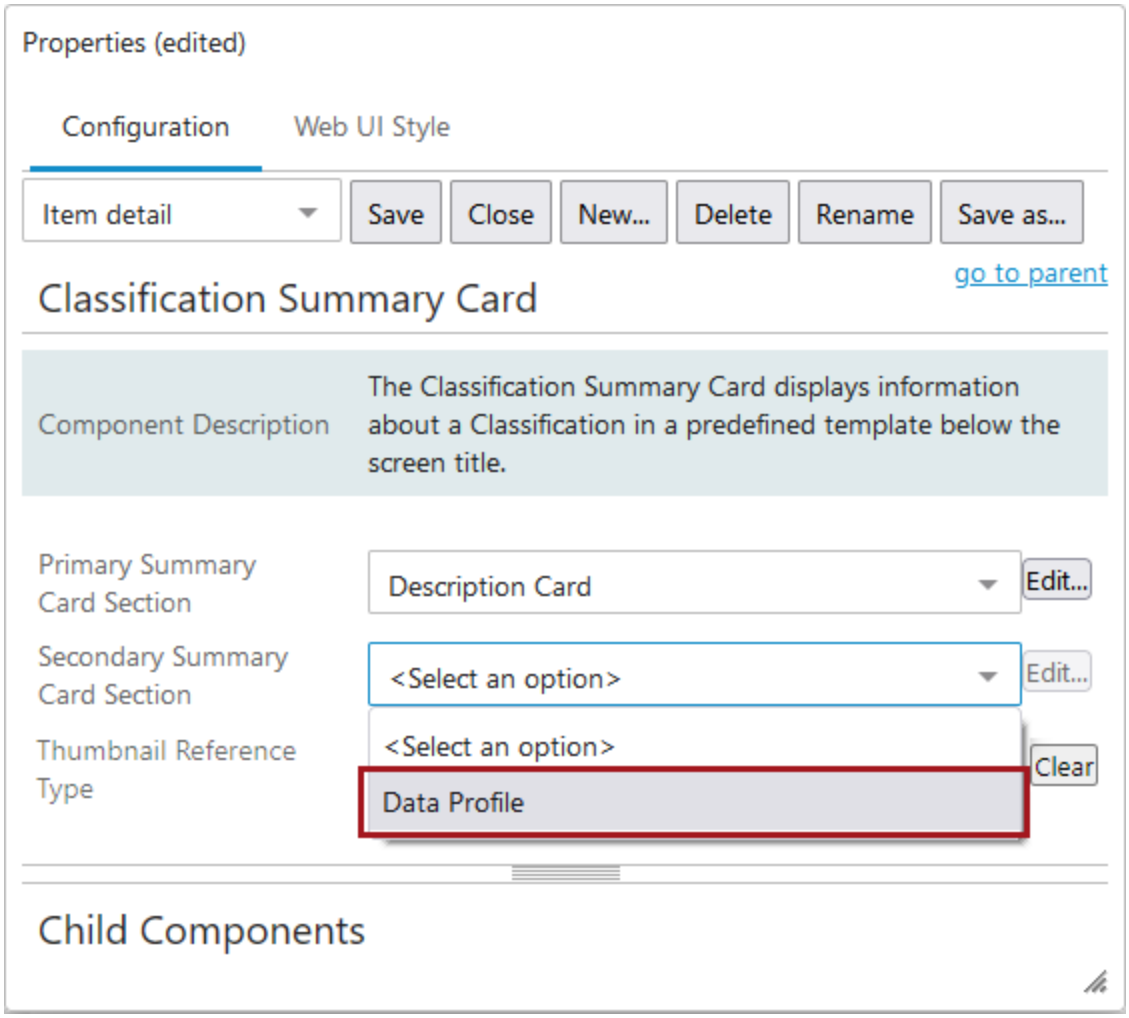
3. To configure the 'Attribute Card' option, users may add values to the fields that display in the 'Attribute Card Properties' pop-up.



- **Title Replacement** - When the ... button (located to the right of the field) is clicked, a Node Picker displays that enables users to select an attribute whose value can display in place of the entity's name. If no attribute is selected, the entity name will display. If no value has been set for the entity's name, the ID will display. It should be noted that if a multi-valued attribute with multiple values is selected to display in place of the object's name value, then all attribute values for that multi-valued attribute will display separated by the text, '<multipsep/>'.
- **Object Type Name Replacement** - Text added to this field will display in place of the entity's object type name. In both cases, the value displays in capital letters.
- **Summary Attributes** - The attribute values for the attributes selected in this field will display in the Summary Card section of the configured Node Details screen. When users click the 'Add...' button, a Node Picker pop-up will display showing the available attributes. Users may select an unlimited number of attributes, though only one per 'Add...' action. It is important to note that the selected attributes must be both valid for and linked to the entity object type in order for the values to display.

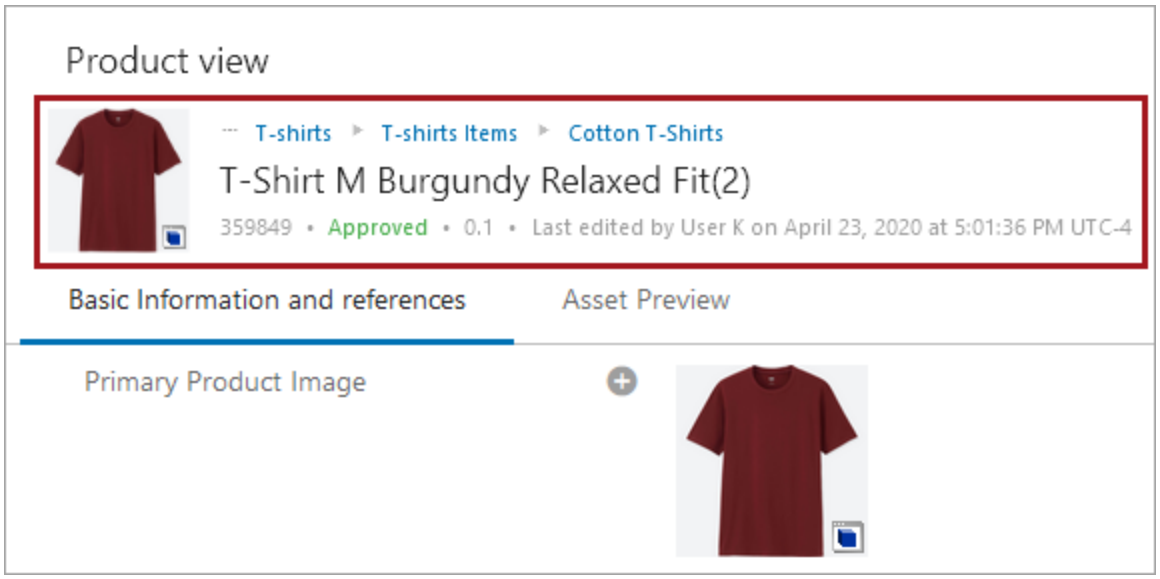
4. If data profiling has been enabled on the entity object, users may opt to add a 'Profile Findings' counter to the Summary Card that displays a number relevant to the data profiling configuration. To add the counter, select

'Data Profile' from the 'Secondary Summary Card Section' dropdown.



Below Title Product Summary Card

The Product Summary Card child component on the Below Title component provides users with a collection of product information that displays just below the screen title on a Node Details screen.



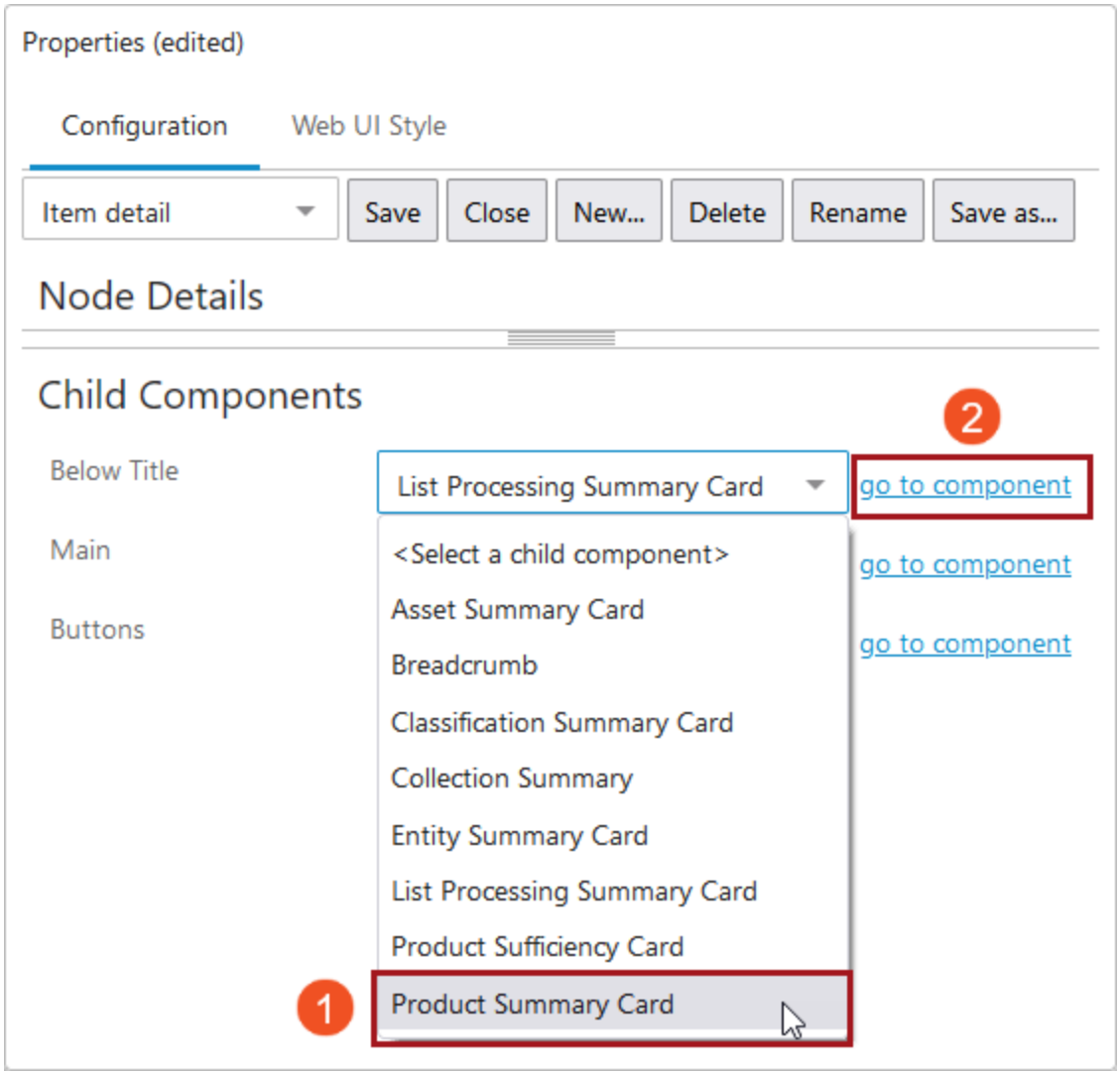
The Product Summary Card can be configured to show either a pre-selected grouping of product information, or a series of data points configured by the user. When the user selects the 'Description Card' option (an example of which is displayed in the screenshot above), the Product Summary Card will display the following information: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the product, including the name of the user who last edited the product (or the user ID if no name is configured). When the 'Attribute Card' option is selected, users may tailor the card to display different values.

For details on the Below Title component, refer to the **Below Title Component** topic.

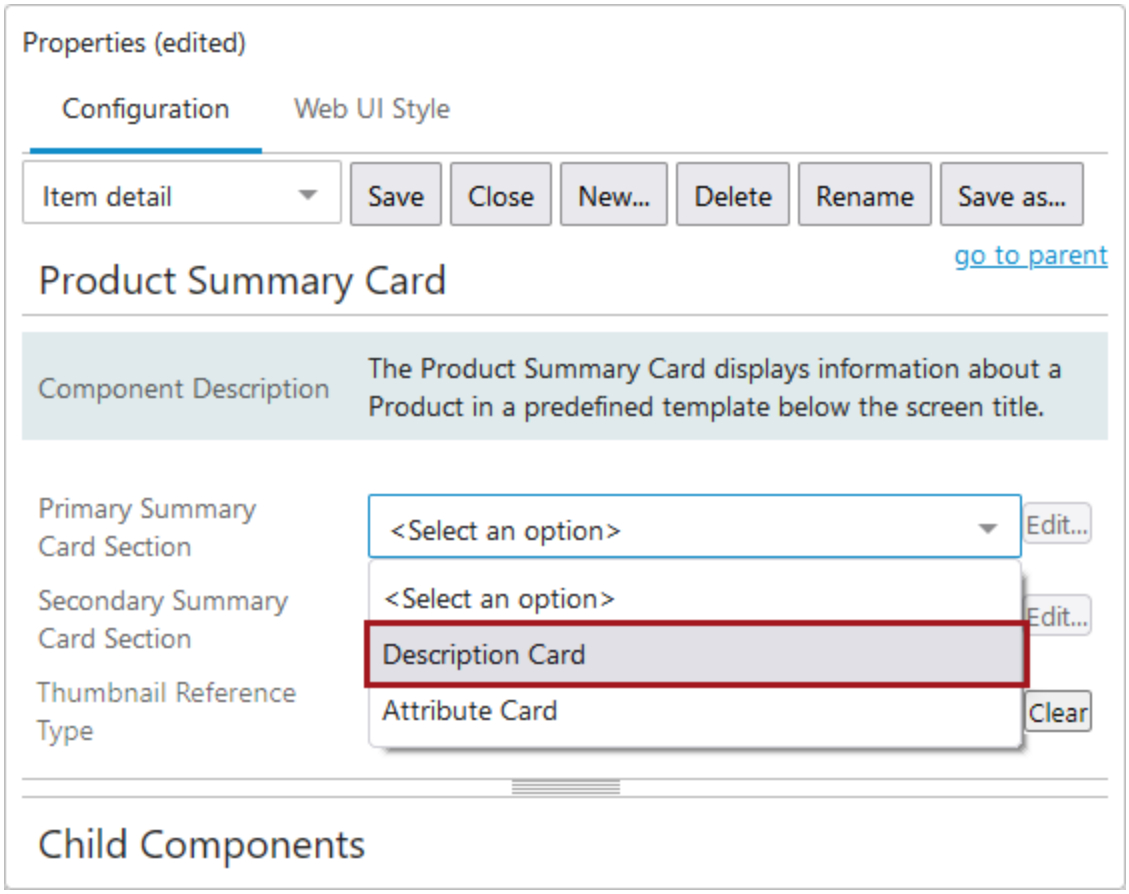
Configuring the Product Summary Card

To configure display of the Product Summary Card, follow the instructions described below.

1. Access the designer on the Node Details screen mapped to the relevant product object type. Under 'Child Components', select the 'Product Summary Card' from the 'Below Title' dropdown. Then click 'go to component'.

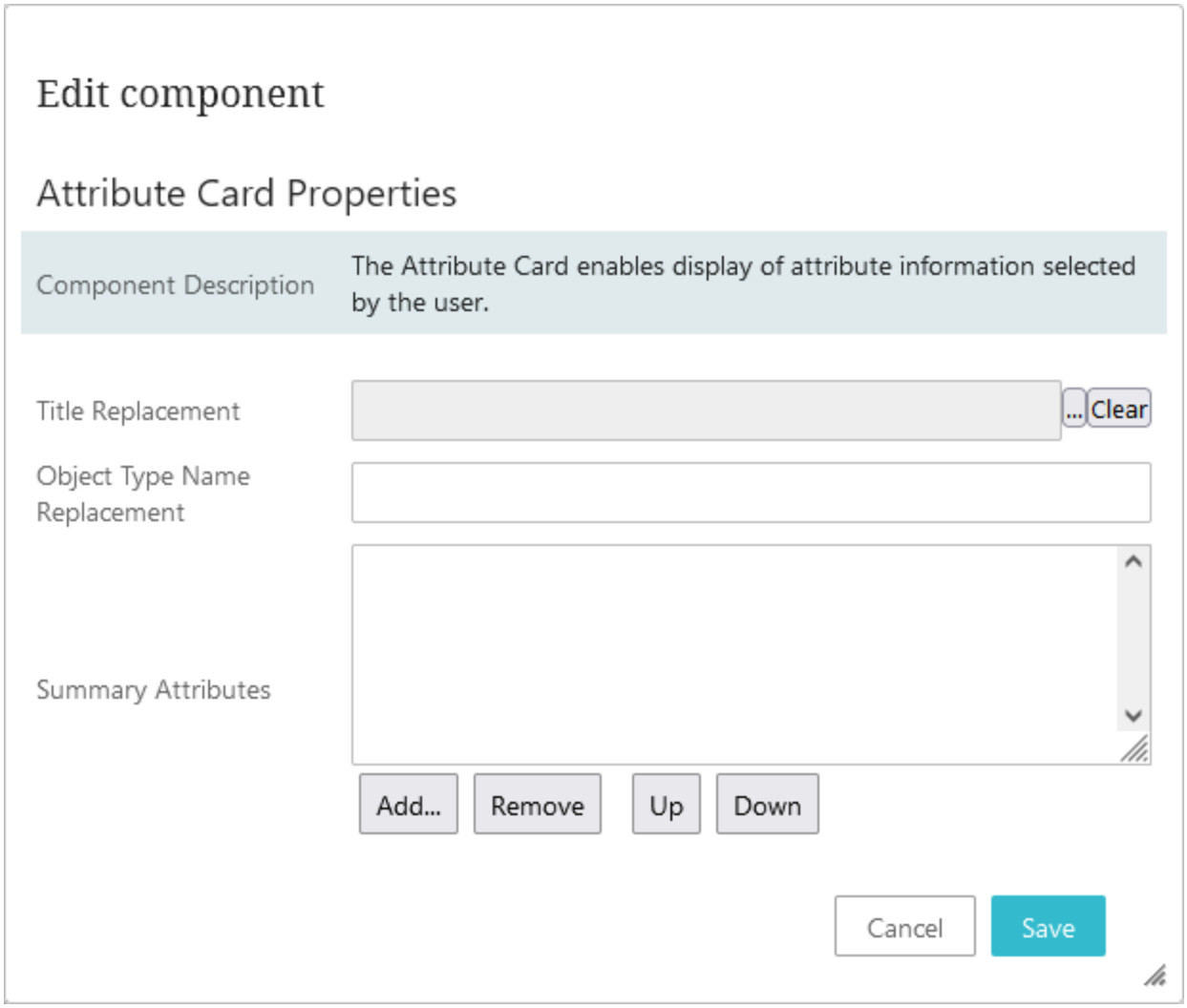


2. In the 'Product Summary Card Properties' screen in the designer, select one of two options from the 'Primary Summary Card Section': 'Description Card' or 'Attribute Card'.



- **Description Card** - When selected, this option will display the following information in the Summary Card section of the screen: a breadcrumb (shown in blue text in the screenshot above), name, ID, approval status (shown in red text above), revision number, and information related to the most recent update to the product. No further configuration is required with this option. Once selected, save the configuration and close the designer to activate the Summary Card on the screen.
- **Attribute Card** - When selected, users may configure which data points to display in the card. To do this configuration, first select the 'Attribute Card' option, and then click the 'Edit...' button to the right of the dropdown. It should be noted that when this option is selected, the breadcrumb information will not display.

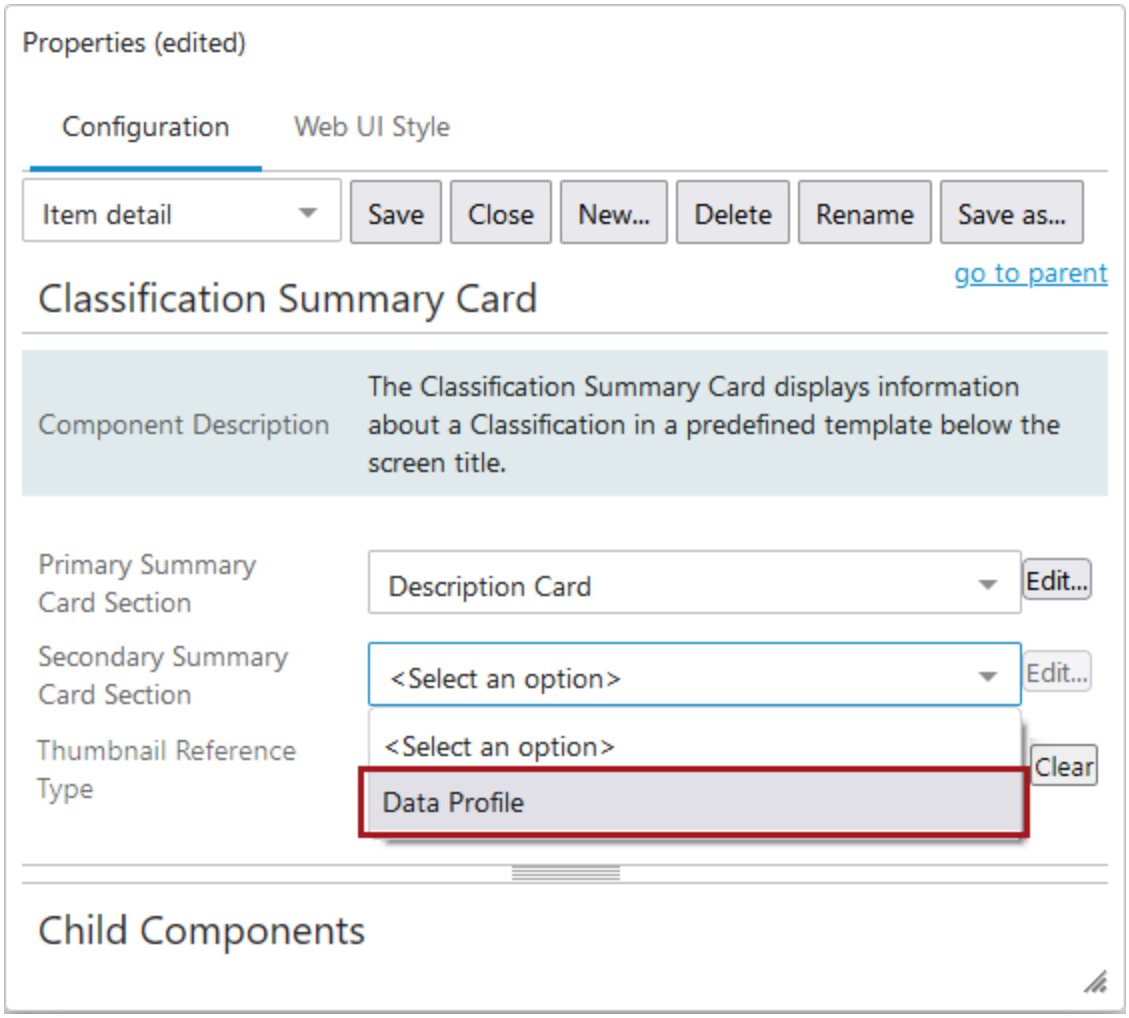
3. To configure the 'Attribute Card' option, users may add values to the fields that display in the 'Attribute Card Properties' pop-up.



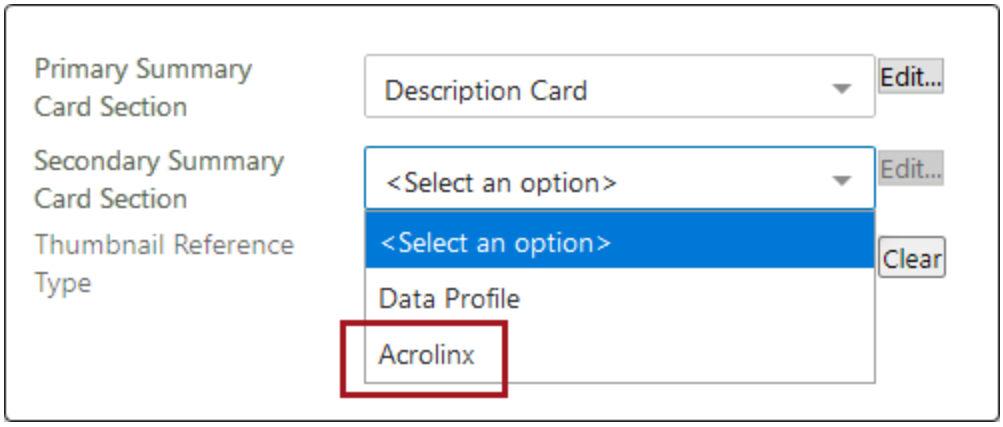
- **Title Replacement** - When the ... button (located to the right of the field) is clicked, a Node Picker displays that enables users to select an attribute whose value can display in place of the product's name. If no attribute is selected, the product name will display. If no value has been set for the product's name, the ID will display. It should be noted that if a multi-valued attribute with multiple values is selected to display in place of the object's name value, then all attribute values for that multi-valued attribute will display separated by the text, '<multipsep/>'.
- **Object Type Name Replacement** - Text added to this field will display in place of the product's object type name. In both cases, the value displays in capital letters.
- **Summary Attributes** - The attribute values for the attributes selected in this field will display in the Summary Card section of the configured Node Details screen. When users click the 'Add...' button, a Node Picker pop-up will display showing the available attributes. Users may select an unlimited number of attributes, though only one per 'Add...' action. It is important to note that the selected attributes must be both valid for and linked to the product object type in order for the values to display.

4. If data profiling has been enabled on the product object, users may opt to add a 'Profile Findings' counter to the Summary Card that displays a number relevant to the data profiling configuration. To add the counter,

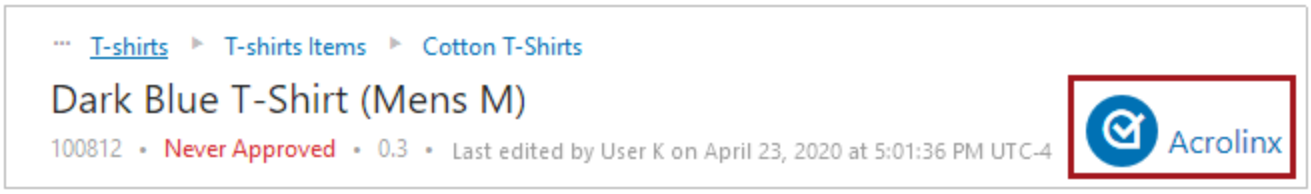
select 'Data Profile' from the 'Secondary Summary Card Section' dropdown.



5. If the Acrolinx Sidebar has been enabled on your system, users may opt to add an Acrolinx button that will display to the right of the primary card information.



6. If 'Acrolinx' is selected, the Acrolinx button will display in the Product Summary Card as pictured below.


T-shirts
T-shirts Items
Cotton T-Shirts
Dark Blue T-Shirt (Mens M)
100812 • Never Approved • 0.3 • Last edited by User K on April 23, 2020 at 5:01:36 PM UTC-4
Acrolinx

Acrolinx Sidebar

Acrolinx is a third-party content standardization tool that, when integrated with STEP, is used to check and improve the quality of text-based content authored in the Web UI. The Acrolinx platform uses an advanced linguistic analysis engine that 'reads' content and guides writers to make it better. Through artificial intelligence technology, Acrolinx enables users to create accurate, consistent, and impactful copy.

The integration between Acrolinx and STEP is achieved through the **Acrolinx Sidebar**, a product of Acrolinx that works with text fields in the Web UI and, with the click of a button, gives users guidance and feedback on their content. Acrolinx checks content for issues such as spelling, grammar, style, valid terminology, and tone of voice, then returns an Acrolinx Score that grades the overall quality of the content. Content with a higher Acrolinx Score is considered to be of greater quality, taking much of the guesswork out of content improvement.

Prerequisites

- To use the Acrolinx functionality, the applicable license must be in place and the installation recipe applied. Additionally, users must have established an account with Acrolinx. Contact your Stibo Systems account manager or partner manager for details.
- It should be determined which users need access to the Acrolinx Sidebar prior to its configuration in the Web UI. Privileges to view the Acrolinx sidebar are controlled by configurations within the Web UI designer and not through User Actions applied in the workbench. However, users must be granted the required privileges (from within the workbench) to view and edit attribute values.

Configuration

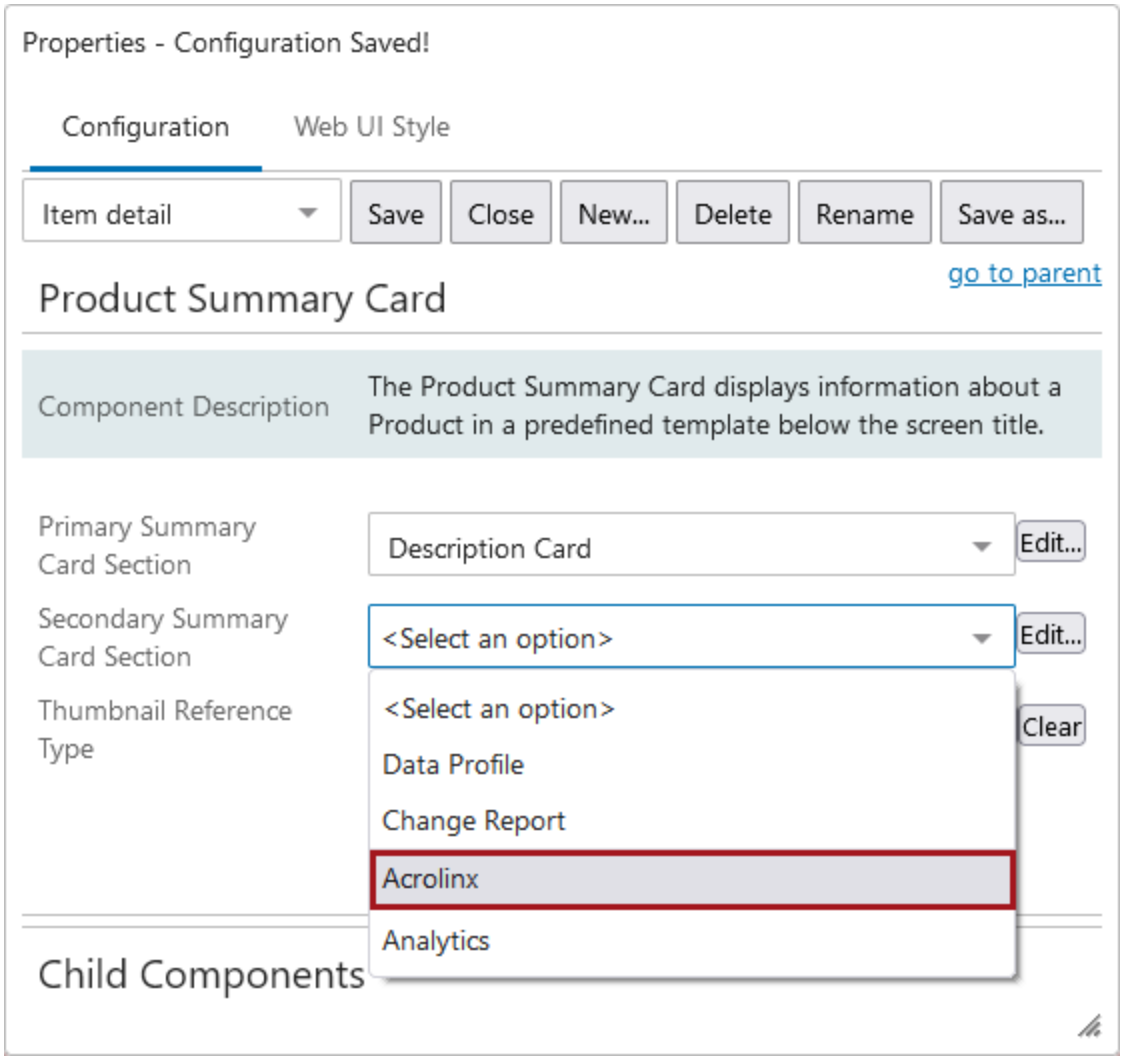
When a Global Navigation Panel component is configured, the Acrolinx Sidebar can be installed as a button on a Product Summary Card, as shown below:



Configuring the Acrolinx Sidebar for Product Summary Cards

To configure the Acrolinx Sidebar on a Product Summary Card, first follow steps one through three in the **Below Title Product Summary Card** topic in the **Web User Interfaces** documentation. This will allow you to determine which information should display in the primary Product Summary Card.

1. On the Product Summary Card Properties page in the designer, a dropdown field is accessible for the 'Secondary Summary Card Section' parameter. Provided the required components and licenses have been properly applied, clicking the dropdown will show 'Acrolinx' as a selectable option.



2. When selected, an 'Edit component' window displays that allows you to configure the Acrolinx Sidebar. There are three parameters to enable configuration:
   - **Acrolinx Server URL:** This property is required. Enter the URL to the sidebar on the Acrolinx Server (for example, <SERVER_ADDRESS>[:<PORT>]/). The server address is determined by the user's agreement with Acrolinx.
   - **Acrolinx User Groups:** The list of user groups for which the Acrolinx Sidebar is valid. If user groups are added, only members of these groups will be able to view the Acrolinx Sidebar. If left empty, the sidebar will be visible to all users.

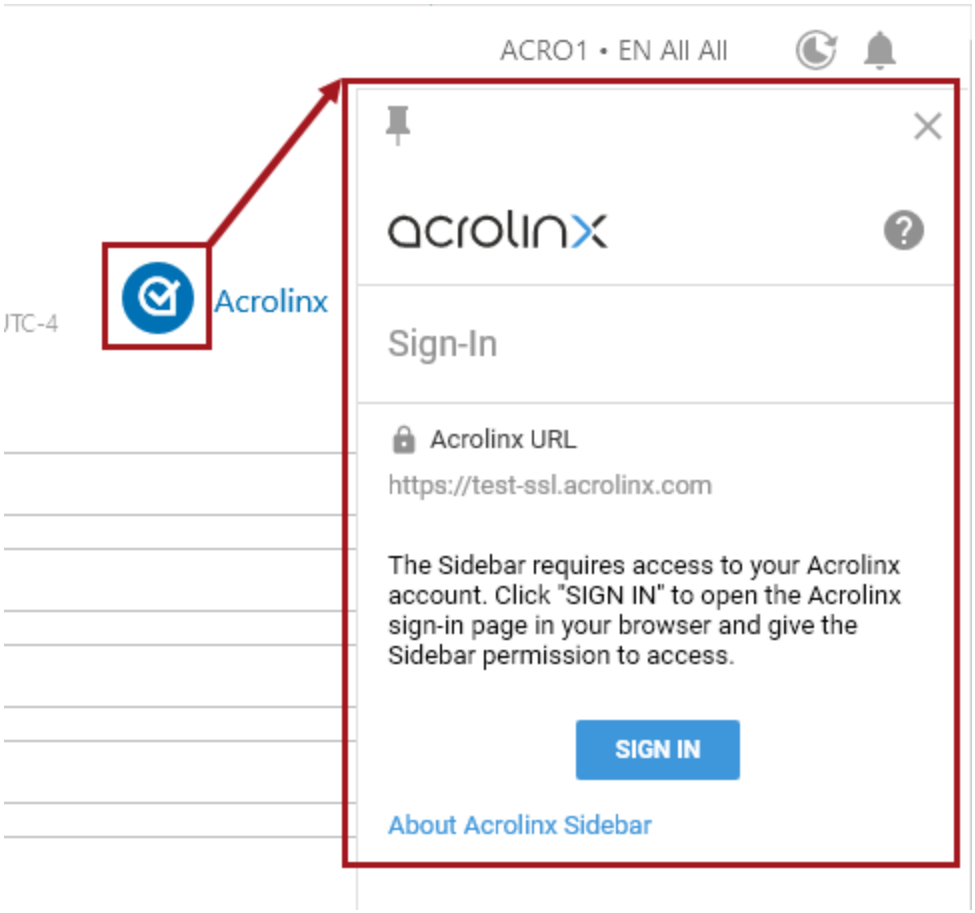
     Click 'Add...' to browse to or search for the relevant user group(s). Click 'Remove' to remove a selected user group. Click 'Up' or 'Down' to reorder a selected user group.
   - **Allow checking of inherited values:** Check this box to allow the sidebar to check inherited values as well as local values. This applies to both normal tree inheritance and dimension inheritance.
4. Click **Save**, then **Close** on the designer to save the configurations and exit the designer.

For information on how to access and use the Acrolinx functionality via the Acrolinx Sidebar component, refer to the Accessing the Acrolinx Sidebar and Using the Acrolinx Sidebar sections later in this topic.

Accessing the Acrolinx Sidebar

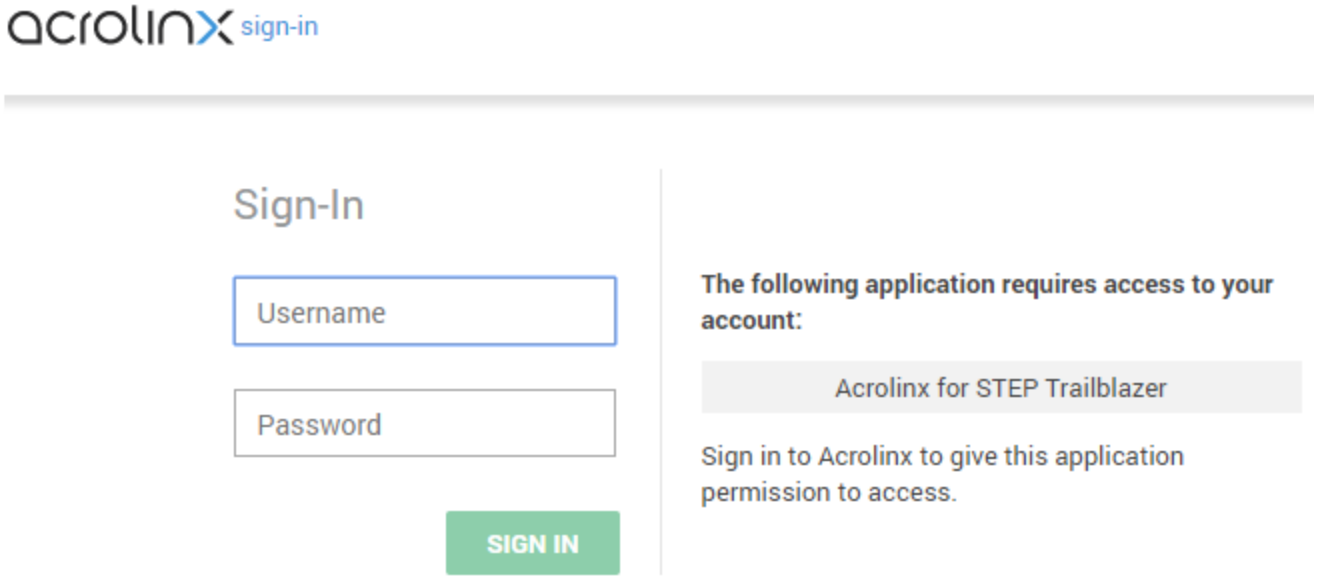
To access the Acrolinx Sidebar configured on a Below Title Product Summary Card, follow the steps below.

1. As shown in the screenshot below, click the Acrolinx toggle button on the far right of the Product Summary Card to open the Acrolinx Sidebar. On first launch, the sidebar will display a sign-in prompt. The 'Server address' field will be prepopulated with the sidebar URL (either server or cloud) that was provided when configuring the component in the Web UI designer.

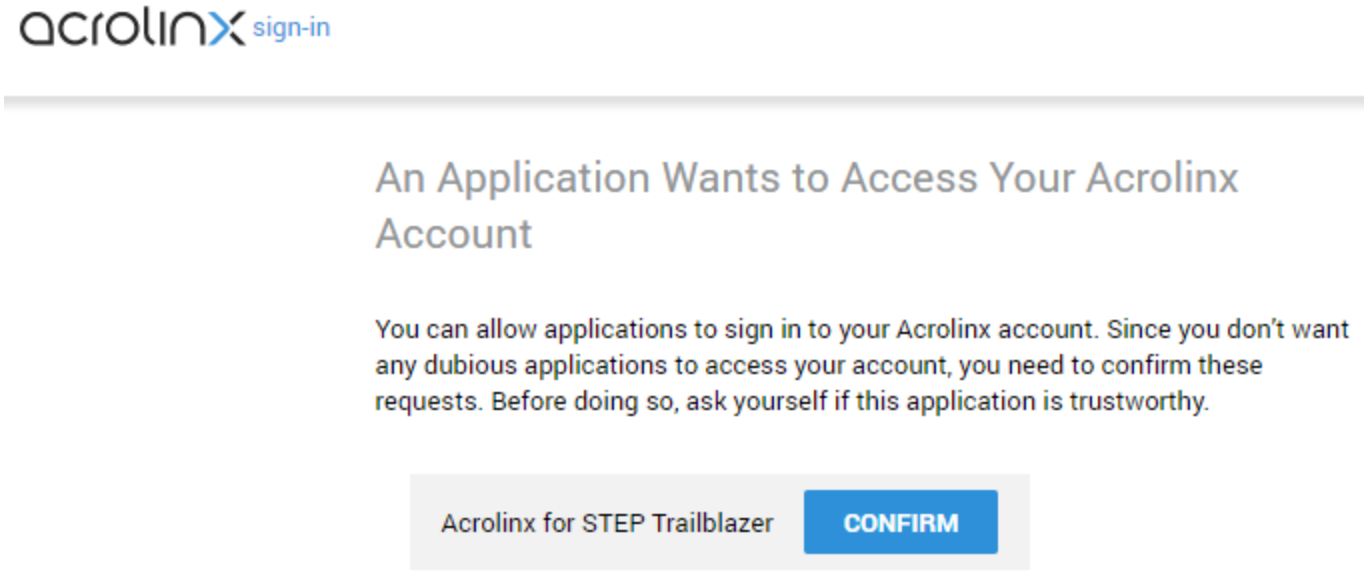


2. At the top of the panel is a pin button, and an 'X' button. Clicking this pin changes its color from gray (disengaged) to blue (engaged). When engaged, regardless of where a user navigates in the Web UI, display of the Acrolinx Sidebar will persist. To disengage the pin, click the pin again. When disengaged, the panel will retract when the user navigates elsewhere in the Web UI. Clicking the 'X' causes the panel to retract immediately.
3. Click **SIGN IN** to open the Acrolinx sign-in page. The page will open in your browser.
4. On the sign-in page, enter your Acrolinx username and password, then click **SIGN IN**.

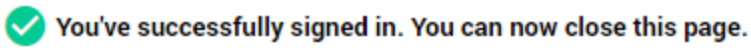
> **Note:** This login information is not the same as your STEP login.



5. After logging in, the Acrolinx website displays a prompt to provide access to 'Acrolinx for STEP.' Click **CONFIRM**.



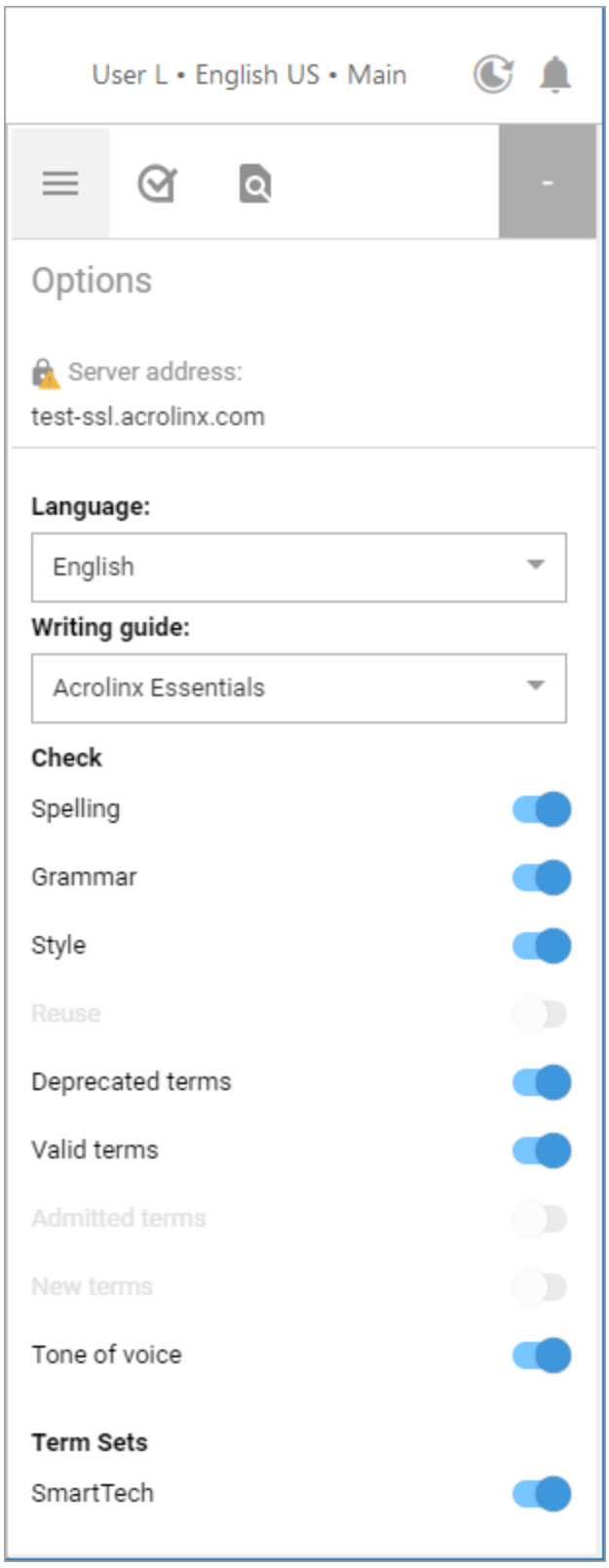
6. Close the page after receiving the 'You've successfully signed in' message.



7. The enabled Acrolinx Sidebar now displays on the right side of the screen. When first opened, the sidebar may display a list of options such as Spelling, Grammar, Style, Valid terms, and Tone of voice, as shown in

the below screenshot.

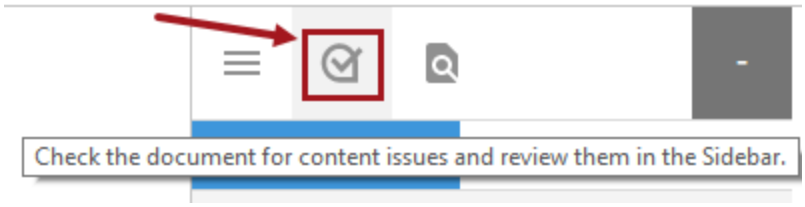
Note: The actual options displayed are driven by users' business needs and configured on the Acrolinx Server side. These options are not determined by Stibo Systems or controlled through configurations in the Web UI.


User L • English US • Main
Options
Server address:
test-ssl.acrolinx.com
Language:
English
Writing guide:
Acrolinx Essentials
Check
Spelling
Grammar
Style
Reuse
Deprecated terms
Valid terms
Admitted terms
New terms
Tone of voice
Term Sets
SmartTech

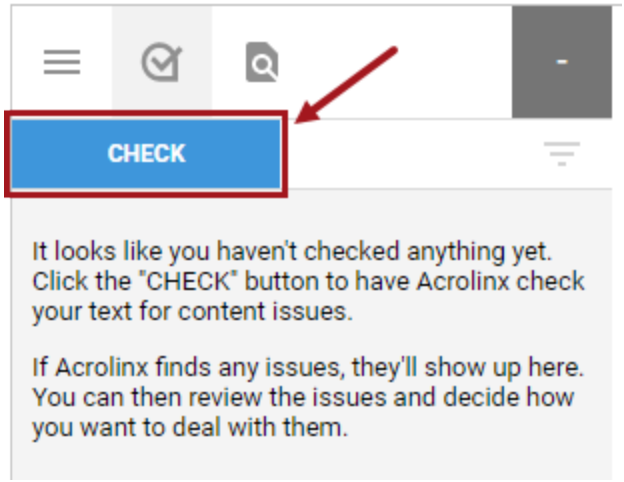
Using the Acrolinx Sidebar

Note: The functionality of the Acrolinx Sidebar itself is controlled by Acrolinx, and the specific criteria checked by the sidebar is determined by users, not by Stibo Systems. For more information on configuring Acrolinx functionality within the Acrolinx Sidebar, refer to the Acrolinx documentation (https://docs.acrolinx.com/doc/en).

1. Navigate to the object containing the content that you want to check. This typically will be a product object, and content will typically be on a Node Details screen.
2. To begin a check, click on the Acrolinx icon at the top of the sidebar.



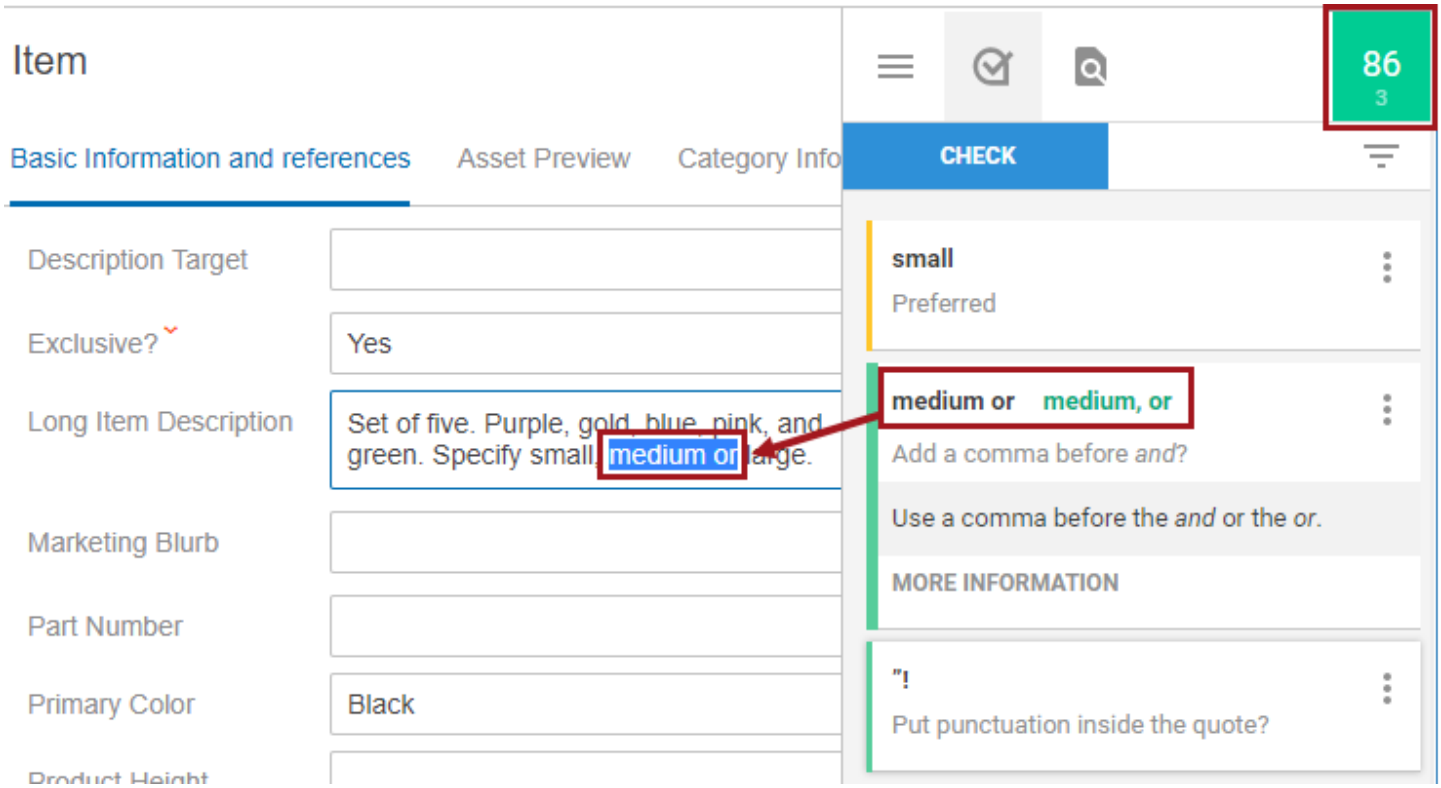
3. Next, click on the **CHECK** button. Clicking CHECK sends data to Acrolinx for inspection.



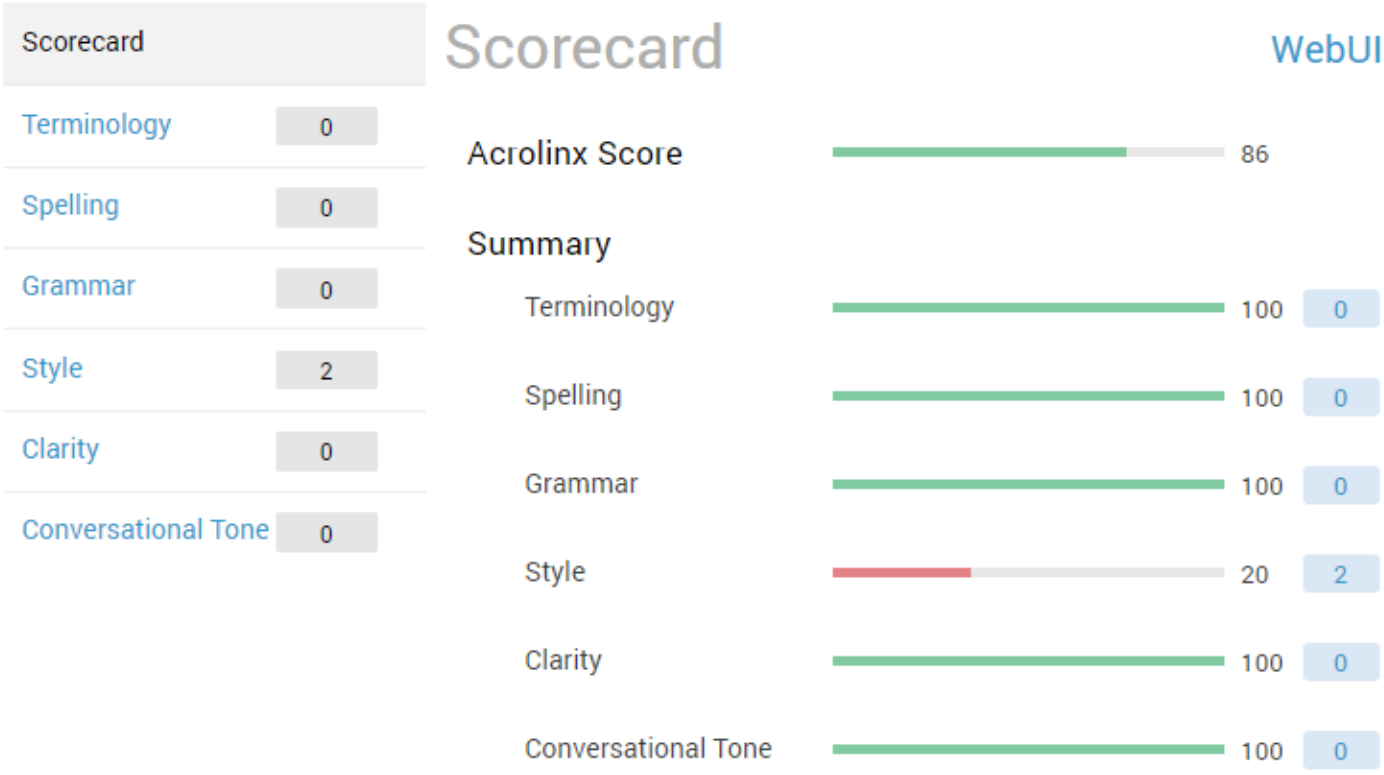
4. Once the check completes, Acrolinx returns a list of issues (contained in 'cards') along with an overall Acrolinx Score in the upper right-hand corner of the Sidebar. The Acrolinx Score indicates the overall quality of the content. The identified issues display as black text in their respective cards.
5. Click on the **black** text (or any blank area) in the card to highlight the problematic content in the text field on the Node Details screen. To automatically correct the issue, click on the **green** text in the card. Click on MORE INFORMATION to go to an Acrolinx page in your browser that provides more information on the error.

   The below screenshot shows an example of an Acrolinx check run on product attribute values on a Node Details Page. The highlighted error is a prompt to add a comma. An Acrolinx Score of 86 is displayed in the upper right corner of the sidebar, with the number of located errors (3) beneath it.

Note: If the problematic text is within a rich text field and you open the rich text editor, the text will not be highlighted within the rich text editor.



6. Click on the Acrolinx Score to view to the Acrolinx Scorecard, which opens in a new browser tab (or window, depending on your browser settings).



Filtering Attributes and Inline References From Acrolinx Checks

It is possible to filter out which STEP attributes are checked by the Acrolinx Sidebar and also prevent the content of inline references from being included in the checks. This is done by setting up the relevant rules (for example, *exclusion_elements* and *inclusion_elements*) in a context segmentation definition (CSD) file on the Acrolinx Server. The below subsections give a brief overview of how to set this up, but does not go into extensive detail. For more information about configuring the server-side extraction, refer to the Acrolinx documentation (https://docs.acrolinx.com/doc/en).

Note: Each customer will most likely need a CSD file that is specific to them to define which attributes to include in the check and which to exclude (not all editable content will need to be checked).

Filtering Attributes From Checks

One method to filter out attributes from Acrolinx Sidebar checks is to configure the Web UI to have a specific 'Acrolinx page' (which could be a tab page on a screen) that only contains specific attributes that should be checked. This is fully configured in the Web UI and not on the Acrolinx server.

Another method is to set up rules on the Acrolinx Server that govern which fields to check and which to ignore by using a CSD file.

The following is an example of the text that is sent to the Acrolinx Server. The ID of the attribute is stored in the *data-step-component-id* attribute.

```
<div class="FormFieldWidget" lang="fr-FR" data-element-id="Description" data-step-component-id="Description" id="acrolinx_integration0">This is some content</div>
```

It is possible to exclude the attribute reference by setting the following in the relevant CSD file on the Acrolinx Server:

```
exclusion_elements=<div data-step-component-id="Description">,<div data-step-component-id="AnotherAttributeID">
```

Filtering Resolved Inline References From Checks

Resolved inline reference values will be checked if they are not set up as *exclusion_elements* in the CSD file on the Acrolinx Server. If not configured for exclusion, the resolved values will be checked and errors will appear in the sidebar. But even if the errors are corrected, the changes will be discarded upon save and the original values will return. As such, it is useful to have the sidebar avoid checking the values of inline references in the first place.

This is an example of the text that is sent to the Acrolinx Server when the content contains an inline reference:

```
<div class="FormFieldWidget" lang="fr-FR" data-element-id="Description" data-step-component-id="Description" id="acrolinx_integration0"><p>This <span class="step-rt-fmt-bolditalic">has</span> a spellling mistake.</p><p>And a second paragraph.</p><p>And a reference to another object <span attrid="" class="step-rt-fmt-non_editable step-rt-fmt-ref" contenteditable="false" equalsign="=" includeattrname="false" objecturl="step://product?id=22359" resolveto="objname" separator=";" stibotag="ref">Edgar Allan Poe - The Pit and The Pendulum</span></p><p>is 6 <span class="step-rt-fmt-non_editable step-rt-fmt-lt" contenteditable="false" stibotag="lt">&lt;</span> 5?</p></div>
```

Specifically, the inline reference is defined as:

```
<span attrid="" class="step-rt-fmt-non_editable step-rt-fmt-ref" contenteditable="false" equalsign="=" includeattrname="false" objecturl="step://product?id=22359" resolveto="objname" separator=";" stibotag="ref">Edgar Allan Poe - The Pit and The Pendulum</span>
```

It is possible to exclude the inline reference by setting the following in the relevant CSD file on the Acrolinx Server:

```
exclusion_elements=<span contenteditable="false">
```

Considerations and Limitations

Acrolinx Sidebar Functionality

- The Acrolinx Sidebar analyzes content on a per-product basis and does not handle batch or multi-node processing of products. However, since direct user interaction is key to content improvement, this hands-on approach ensures that data is of the highest possible quality.

- All editable fields that are visible on the Web UI screen being checked by the Acrolinx Sidebar are passed to Acrolinx. Only attribute value fields are checked; name fields are not checked. Read-only fields are not checked, nor are they recognized as text by the sidebar.

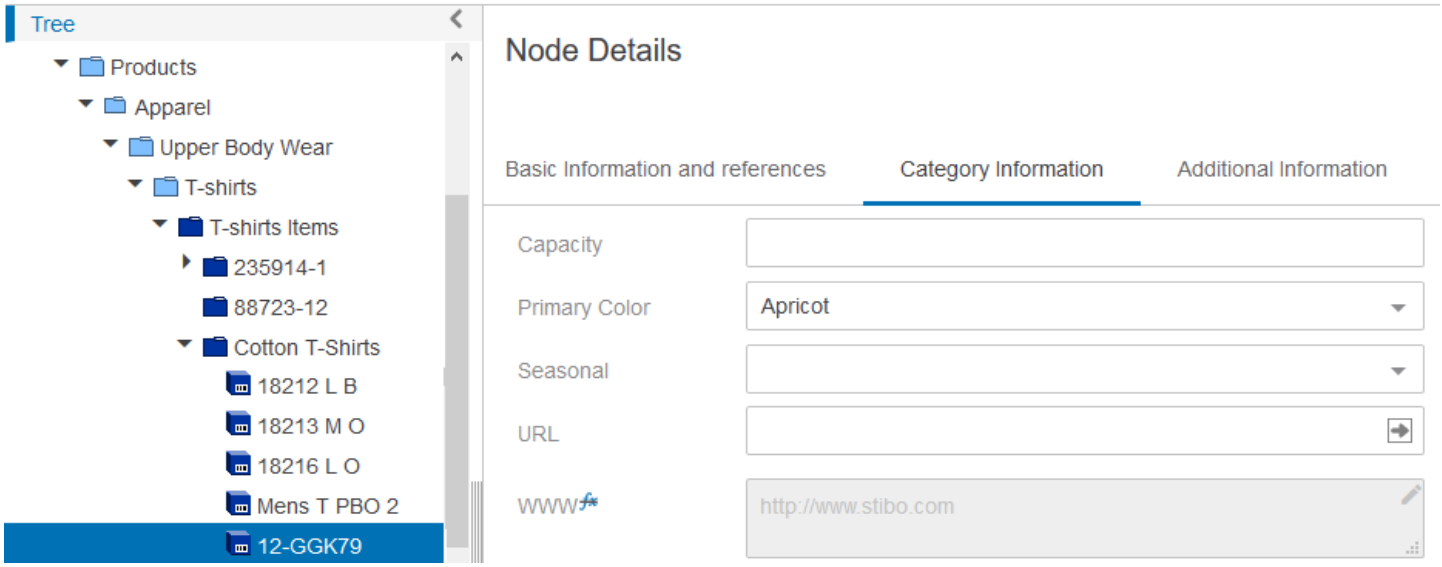
  Note: If the Web UI screen contains multiple tabs, the Acrolinx Sidebar only operates on the tab that is currently selected. Also, some attributes may not be visible due to vertical scrolling, but they will still be checked.

Acrolinx Updates

- For customers running the Acrolinx Sidebar, refer to the Acrolinx support / help center website for information on major updates to the Acrolinx core platform: https://support.acrolinx.com/hc/en-us/.
- Before updating to a new version of Acrolinx, contact your Stibo Systems account manager or partner manager for advice on compatibility between STEP and Acrolinx.

Tab Pages

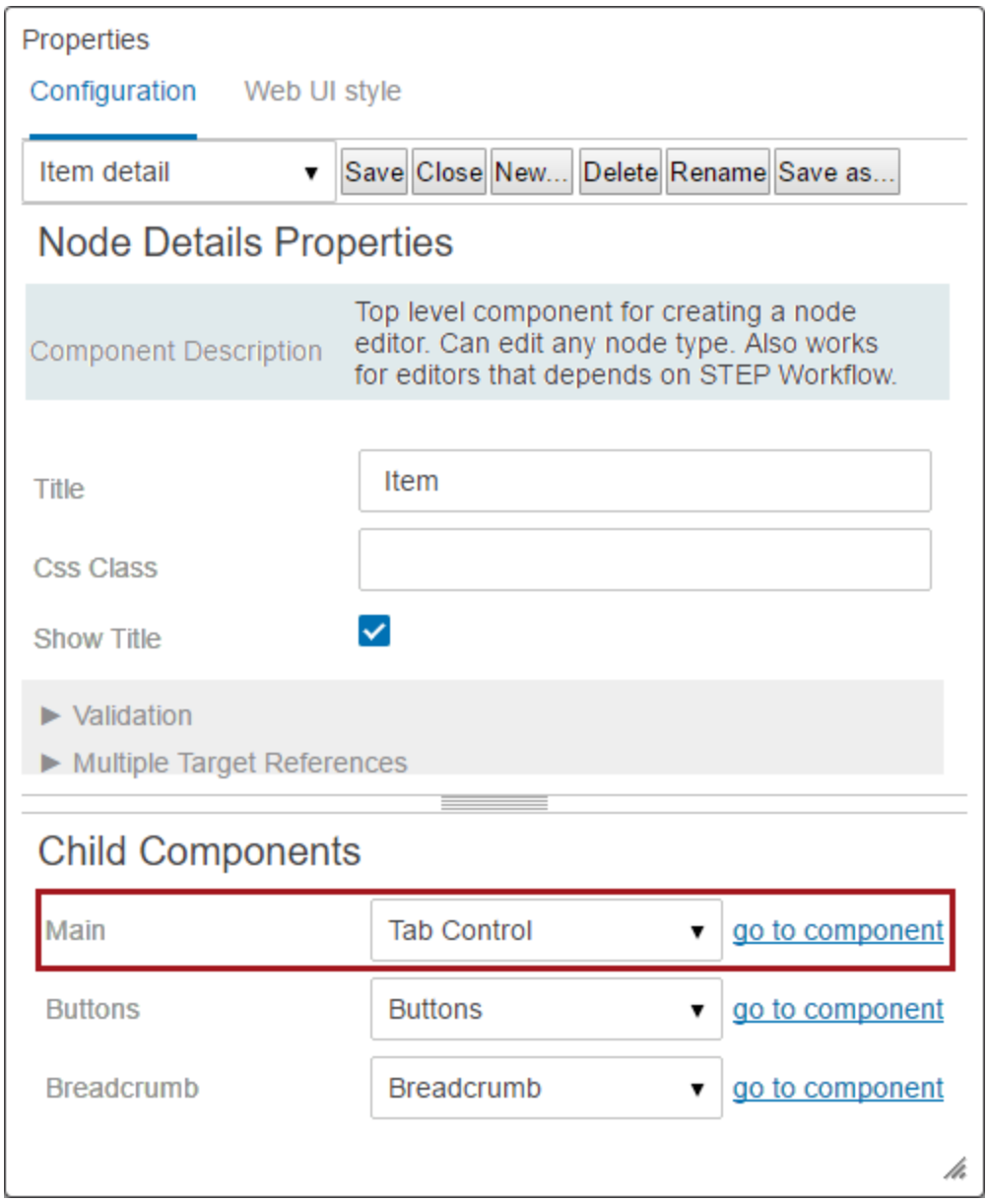
When viewing objects in Web UI, it is often helpful to have tab pages configured so that users can access all relevant information in a single screen, while also sectioning it into meaningful groupings that provide a user-friendly and more efficient work stream.



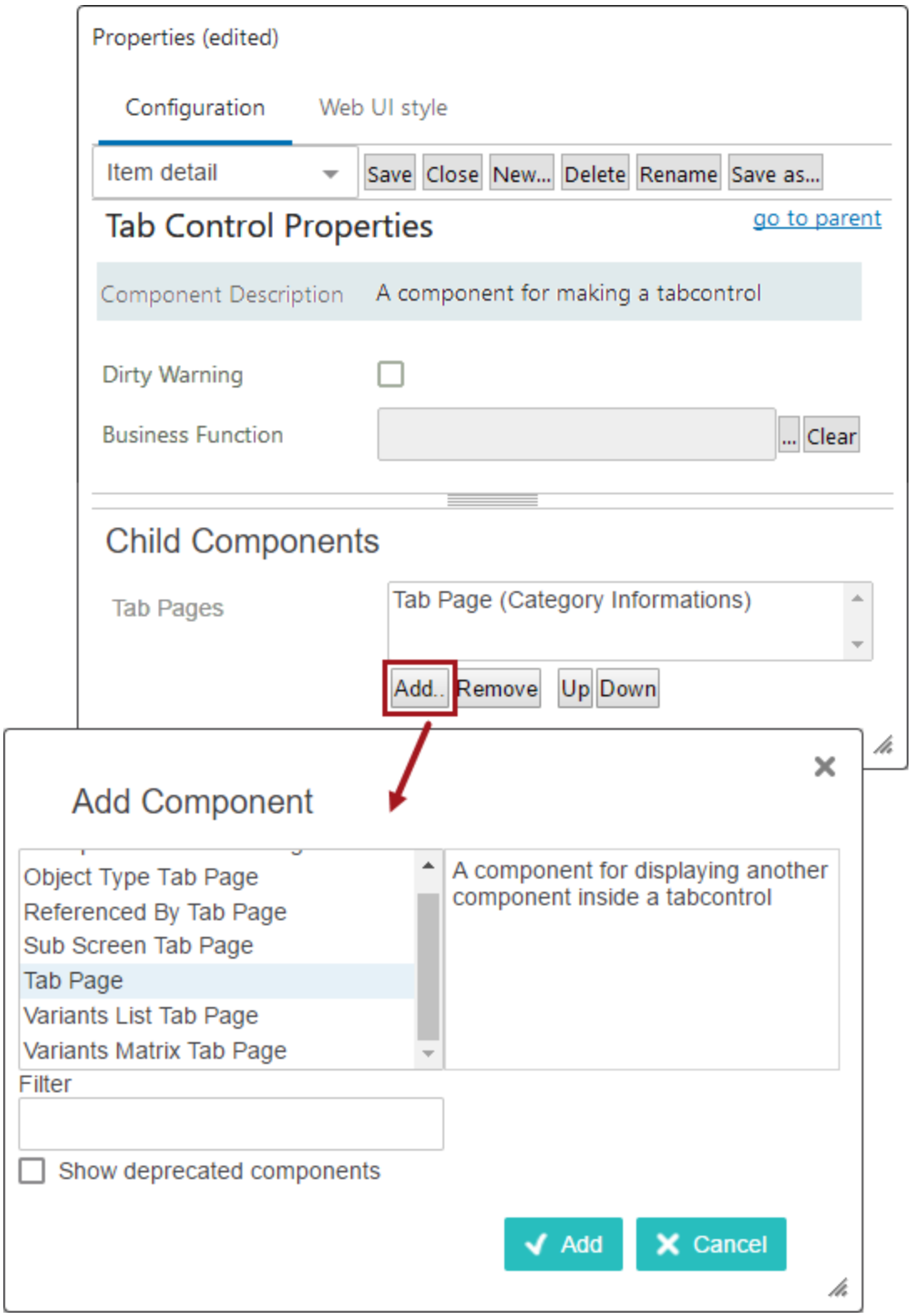
Adding Tab Pages

To add tab pages, a **Node Details** screen must be configured.

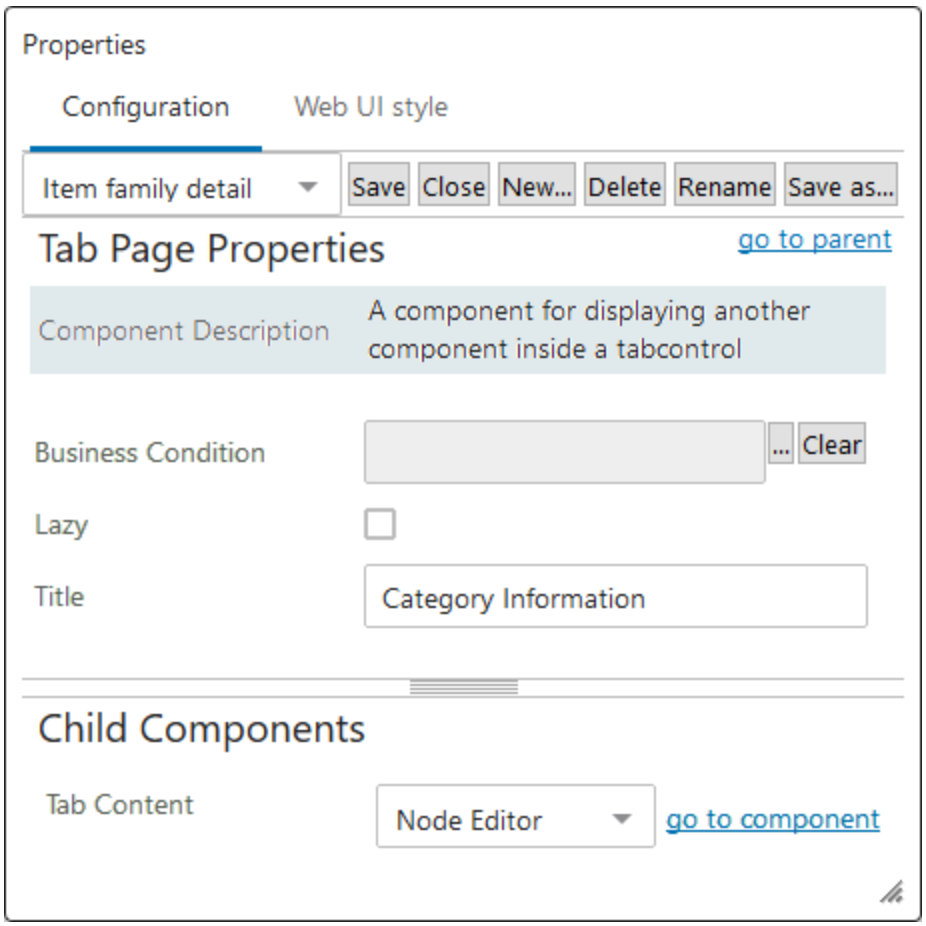
1. Open an existing **Node Details** screen type, or create a new one. Select **Tab Control** for the **Main** parameter under Child Components. Click the **go to component** link.



2. On **Tab Control Properties**, add a **Tab Page** to the **Tab Pages** parameter in Child Components. Double click on **Tab Page** once it is added.



3. On the **Tab Page Properties** screen in the designer, there are three parameters:



- **Business Condition** - Select a preconfigured business condition that determines whether the tab will display. If the condition returns true, the tab displays. If it returns false, the tab does not display. The business condition is evaluated when a screen is saved or refreshed.

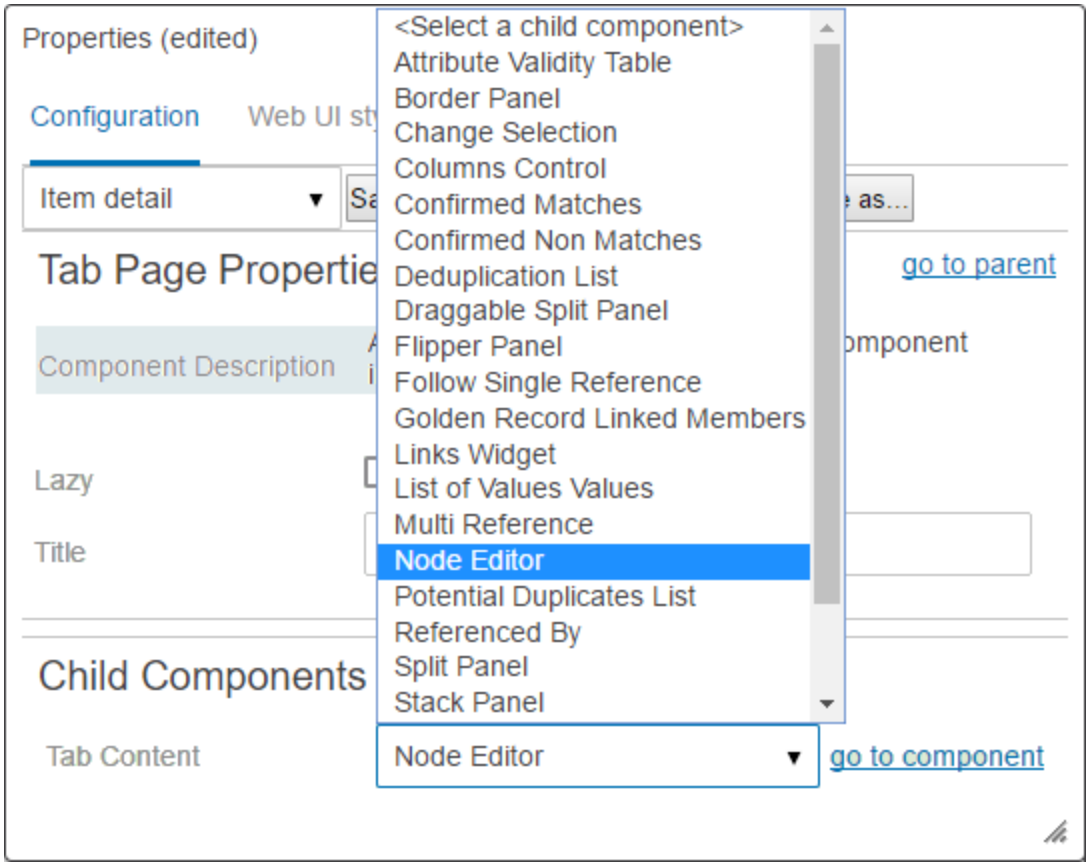
  The most common application for this feature is to use the 'Attribute Value Comparison' type business condition. This business condition can be used to determine display of a tab page based on whether an attribute value on a given attribute meets the configured business condition. For example, if a business condition is written to state that the condition is only met if the value for the attribute 'HAZMAT' is equal to 'Yes', and this business condition is selected for a configured tab page with HAZMAT-related attributes, then that tab will only display if the value for the attribute 'HAZMAT' is 'Yes'.

  Important: Admin users should take care not to hide tabs configured as default tabs because errors are likely to result. If using both the 'Business Function' feature to determine default tabs in tandem with the 'Business Condition' parameter to determine display of tabs, admin users should thoroughly test the combinations to ensure the configuration does not result in end users being unable to access data. To avoid these issues, admin users can use the 'Reference other Business Condition'-type business condition. This allows users to configure their tabs so the default tab condition references the show / hide condition and then, based on that evaluation, determines which default tab to display.

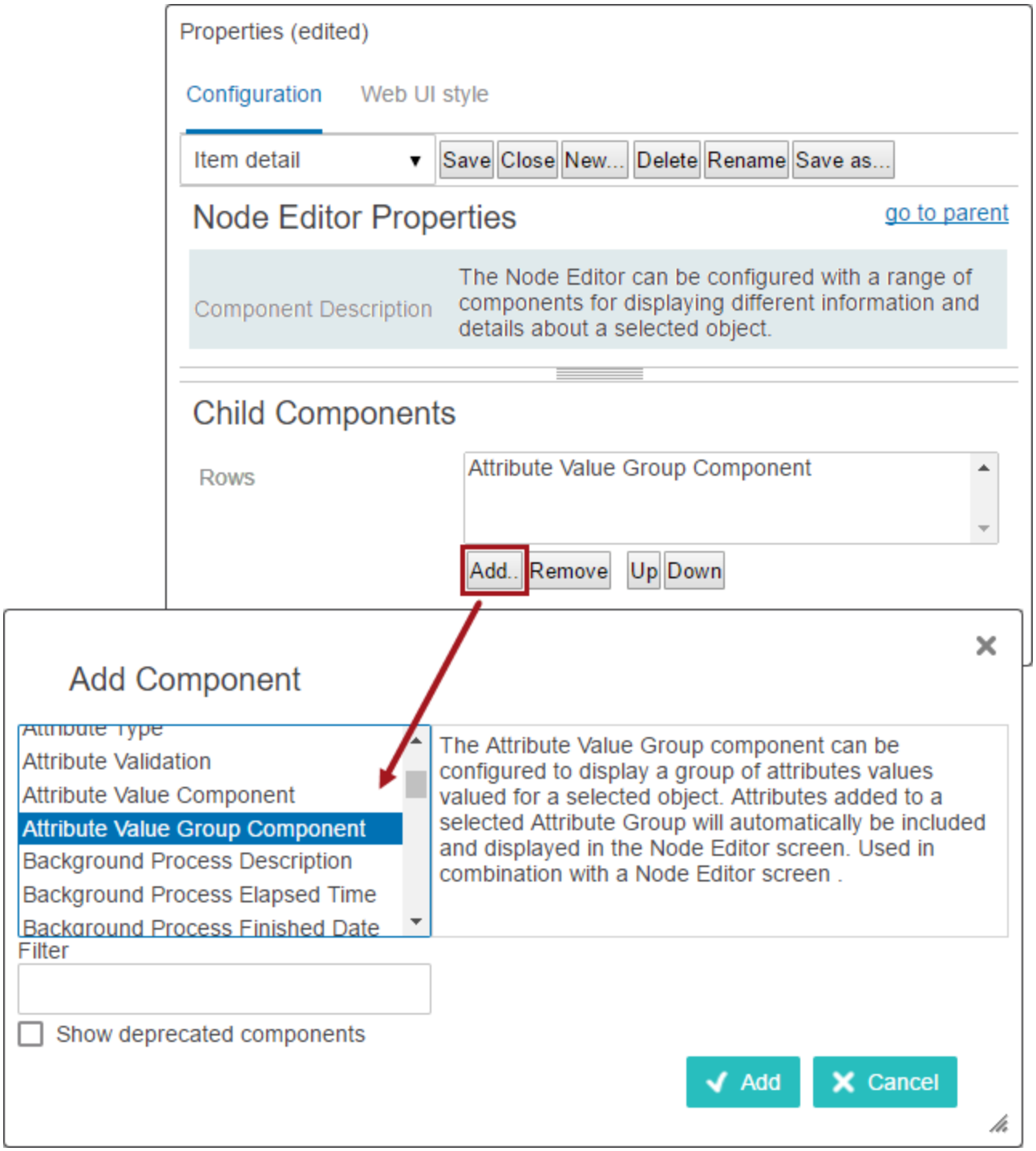
For more information on configuring Attribute Value Comparison-type business conditions, refer to the **Business Condition Attribute Value Comparison** topic in the Business Rules documentation.

- **Lazy** - Check this box to take advantage of lazy loading functionality, if / when applicable. Components will be 'lazy' loaded from STEP and rendered only when needed (i.e., when a tab is selected). This can reduce screen load time (e.g., a Node Details screen configured to display multiple Tab Pages) since only the needed components are loaded and visible to the user. It is important to note that any components that are not loaded yet due to lazy loading will not be able to be evaluated as part of a set of mandatory / invalid components in combination with the Save and the Submit buttons.
- **Title**- Enter a title that will display as the tab page name.

4. Under Child Components, add the desired component(s) to the **Tab Content** parameter. In many cases, this will be a Node Editor, and that example will be followed in the next steps. However, any component can be used and the proper selection is determined only by the layout the designer wishes to provide for the end user. If more than one component should be accessible on a single tab, oftentimes a Draggable Split Panel component will be added in this step, with individual components subsequently being added as children to the Split Panel. Regardless of the component selected, click the **go to component** link after it has been added to configure the child component.



5. As mentioned above, any component could have been selected in the previous step, but this example will continue using a Node Editor. On the **Node Editor**, add the desired child components to the **Rows** parameter, such as an Attribute Value Group Component or Value Section. Depending on the component selected in the previous step, different child components may be available, and any number of them can be selected to build the appropriate interface for the end user. It is likely that each selected child component will require additional configuration, which users are prompted to complete as the components are added.



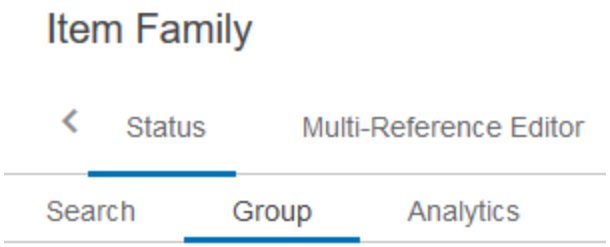
6. The above steps can be repeated as needed to add additional tabs. To do this, click on the **go to parent** link in each properties window until the **Tab Control Properties** are shown again. From there, steps 2-5 can be repeated as many times as needed to complete the configuration.

Configuring secondary tabs

Users may add additional sets of tabs to organize their Web UI screens.

To create a secondary set of tabs, users must first add a new tab to the primary set of tabs on a Node Details screen. When selecting the child component for that tab, select **Tab Control** and then **go to component**. Then follow steps 2-6, described above, to configure the new row of tabs. Multiple tab rows may be added, but use caution when configuring more than two rows, as usability can be negatively impacted by an expansive display of tabs.

When complete, your Web UI tabs may resemble this configuration:

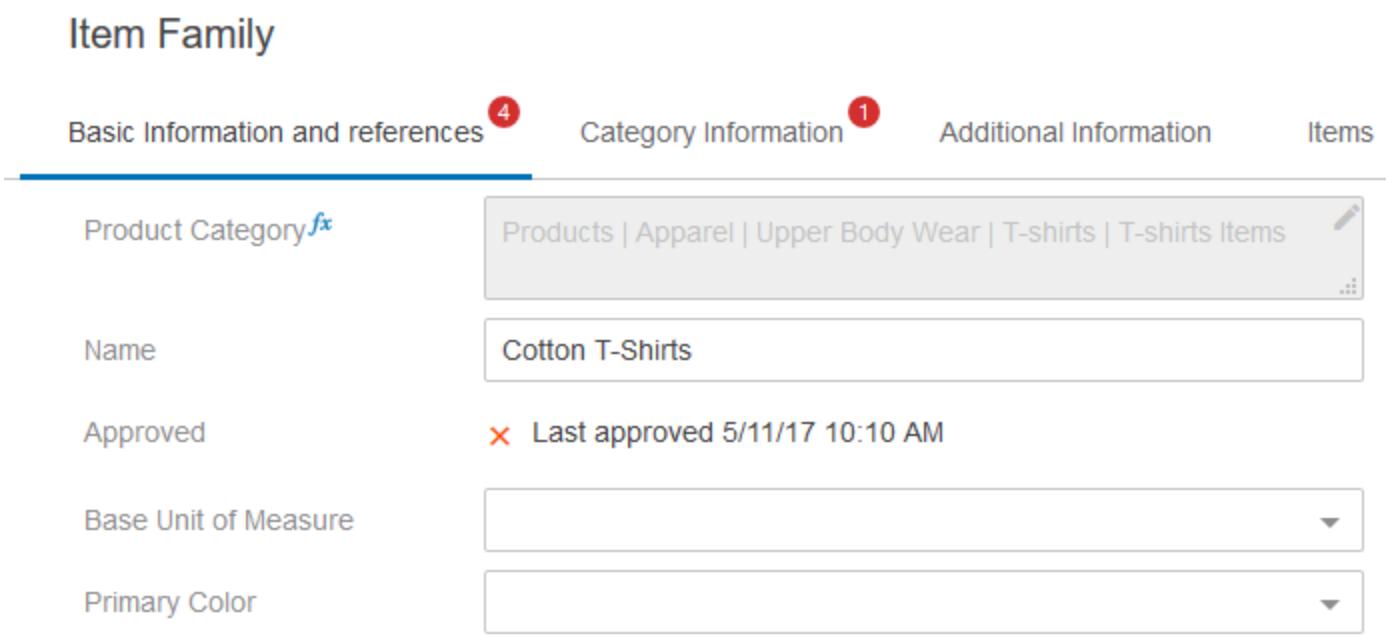


Note: To configure certain tab pages or secondary tabs to open as default when objects are clicked on during different circumstances, refer to the **Designating a Default Tab** topic in this documentation.

Tab Page Data Error Indicator

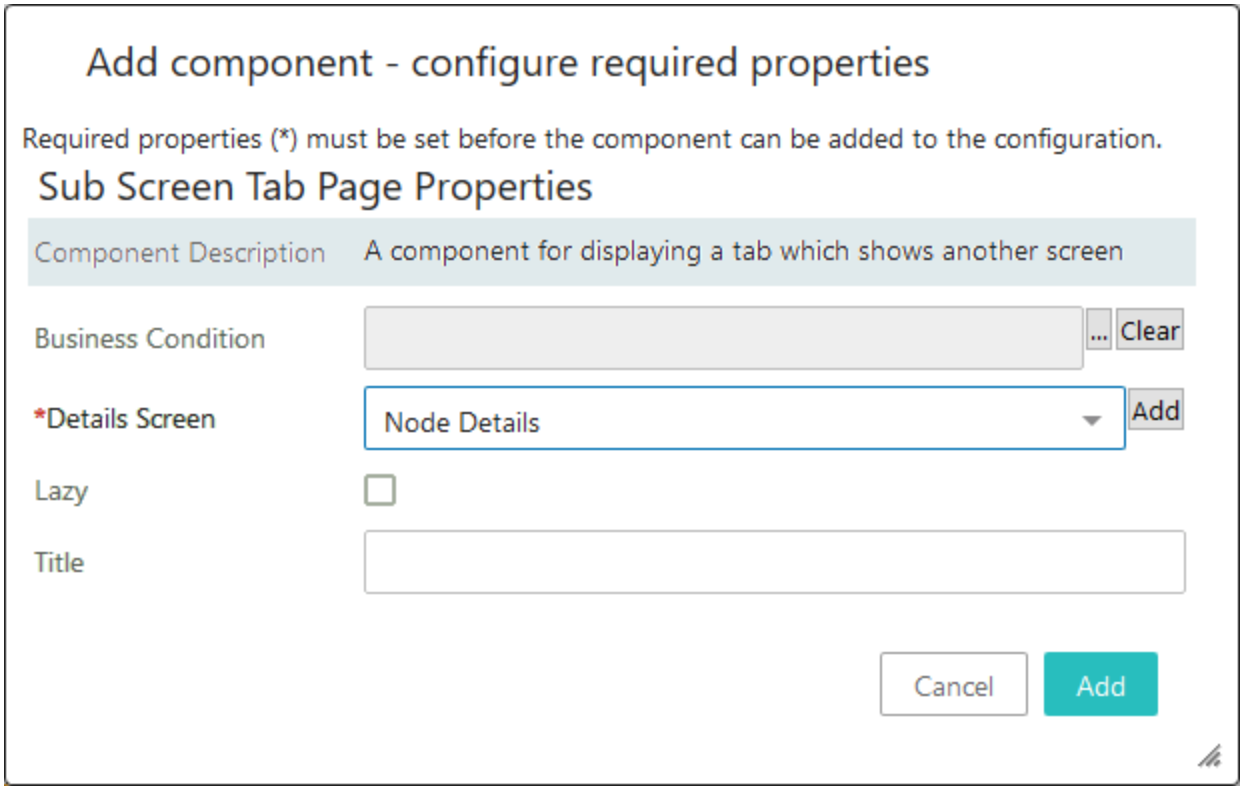
When using tab pages, if there is any type of error that impacts the data displayed on a tab (e.g., a validation error or missing mandatory value), a red circle containing a white-colored number value displays to the right of the tab name. The red circle serves as a simple visual notification that attention is required on one or multiple tab pages, and the number inside the circle refers to the number of detected errors on the tab. No configuration is needed to turn on this feature.

In the screenshot below, the 'Basic Information and references' tab and 'Category Information' tabs display with a red circle because errors have been detected in those tabs: four in 'Basic Information and references' and one in 'Category Information'.



Adding Sub Screen Tab Pages

Sub Screen Tab Pages can also be added as child components under Tab Control Properties. Instead of configuring components to display on the tab, you select a screen to display. No additional mapping is required since the end user will view the screen as a tab option when clicking on the Node Details screen.



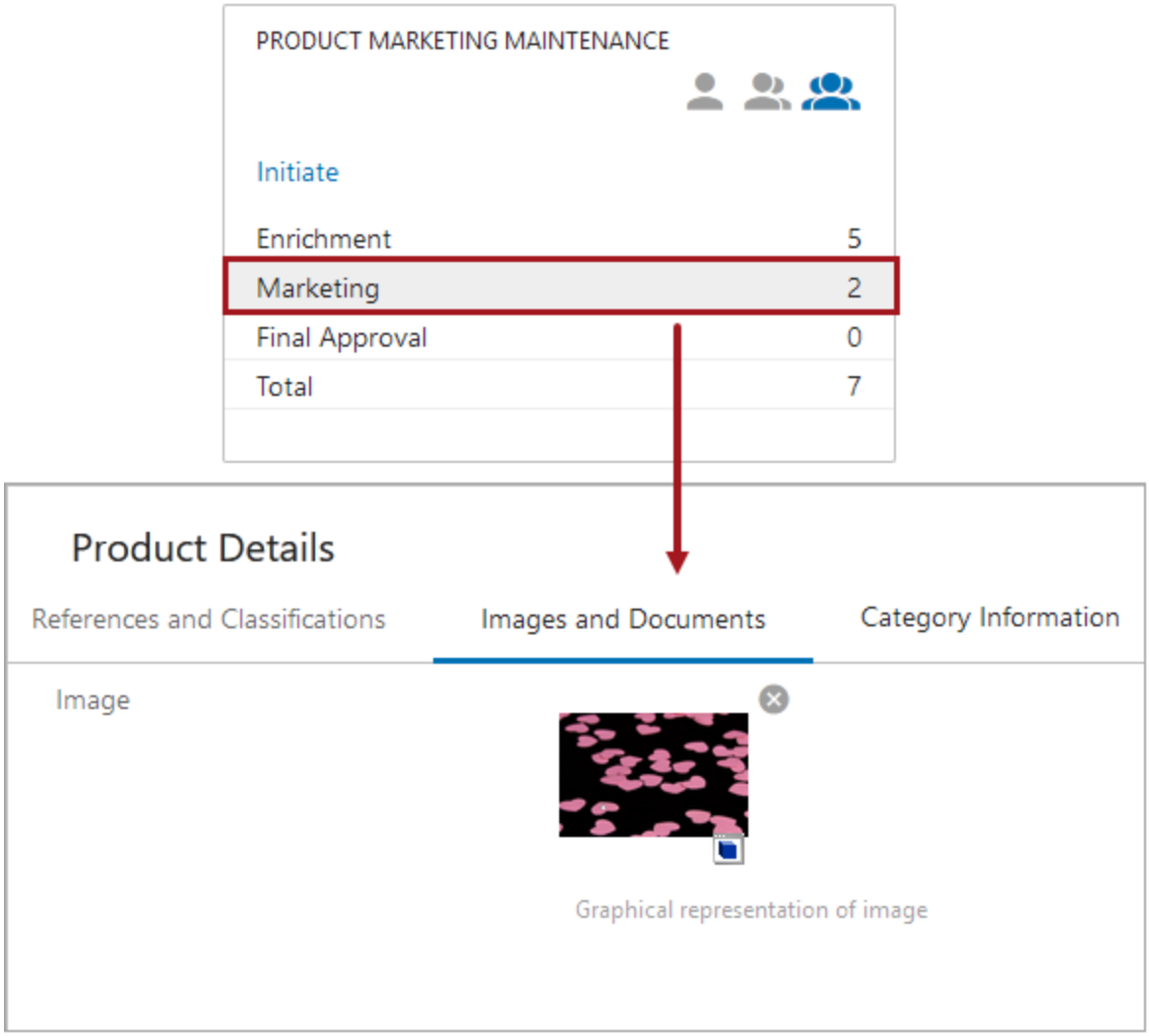
The functionality of the parameters for Sub Screen Tab Pages is identical to those described in step three of this topic in the **Adding Tab Pages** section.

Note: To configure certain sub tab pages to open as default when objects are clicked on during different circumstances, refer to the **Designation a Default Tab** topic in this documentation.

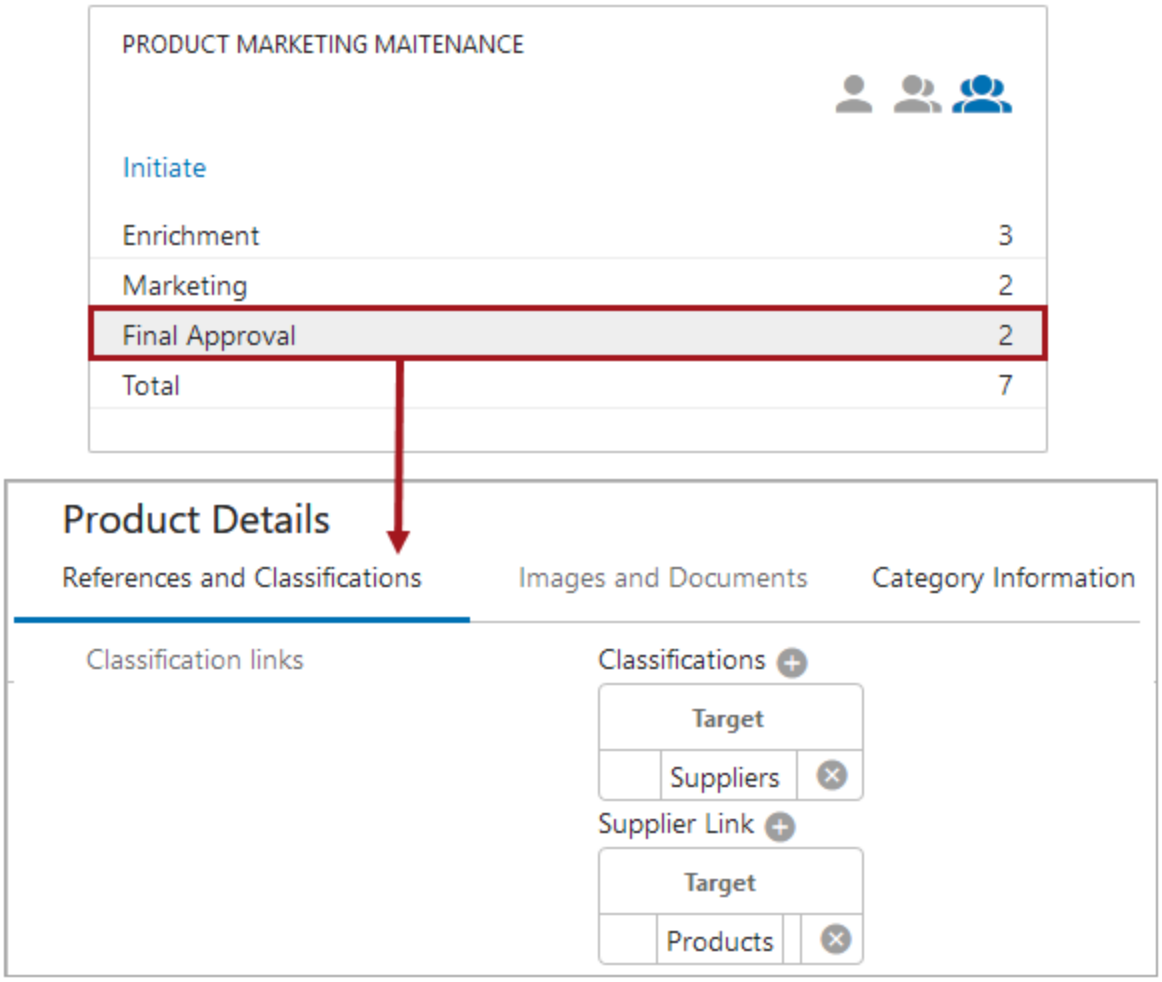
Designating a Default Tab

It is common for an object in Web UI to have many different types of tab pages, each holding relevant grouped information, but not all of these may be relevant for a particular task. It is possible to configure different default tab pages to display for an object using business functions. These business functions can use workflow and state IDs to determine which tabs to display, and/or they can use attribute values to determine what tabs to display. This enables users to immediately view the tab with the most relevant information to their task and cuts out additional navigation steps.

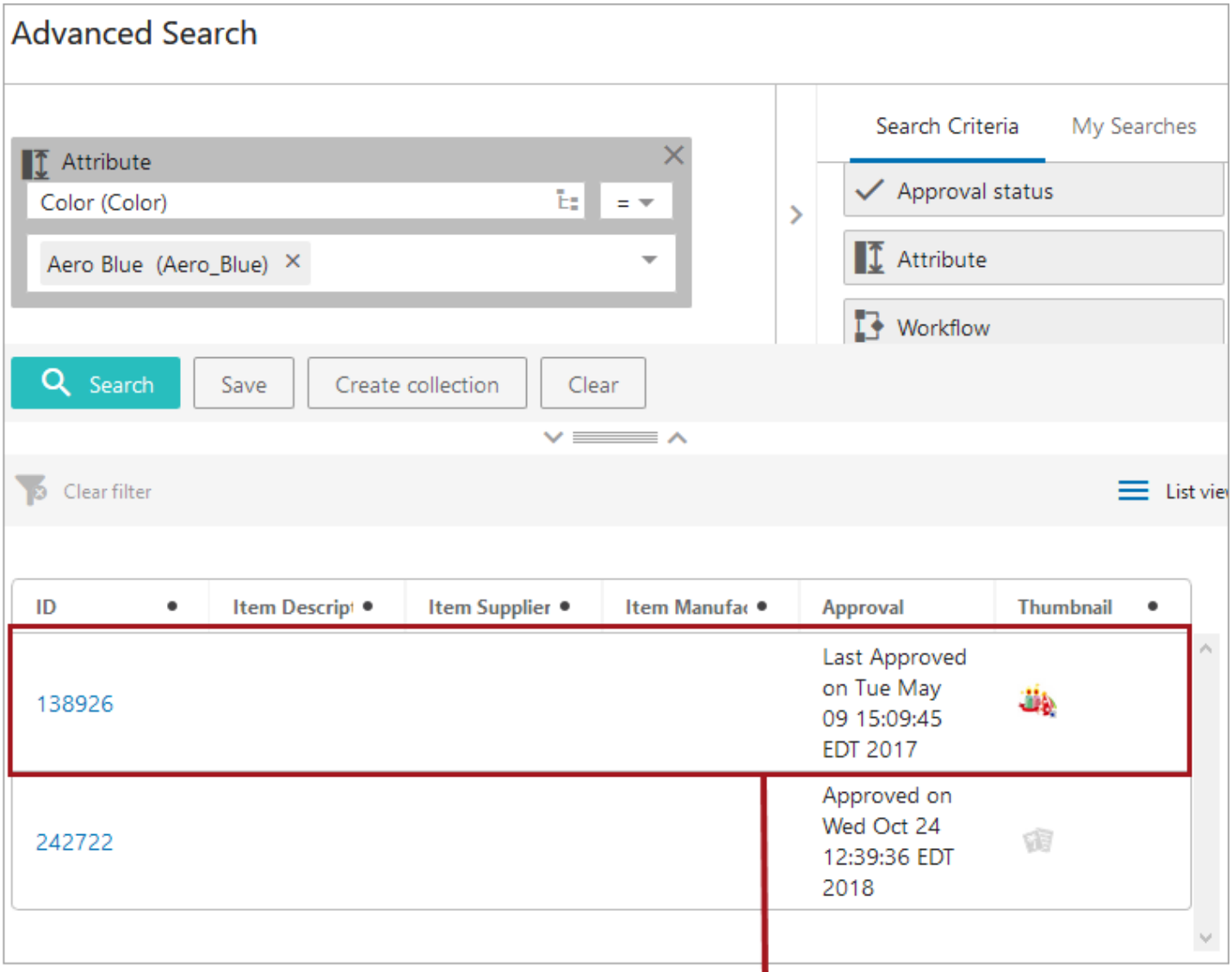
For example, a user working in a particular workflow selects an object in the second state of the workflow. The second tab is most relevant for this state's needed task, which is ensuring that the image associated with the object is suitable for marketing purposes, so this tab is configured to be the default tab to open.

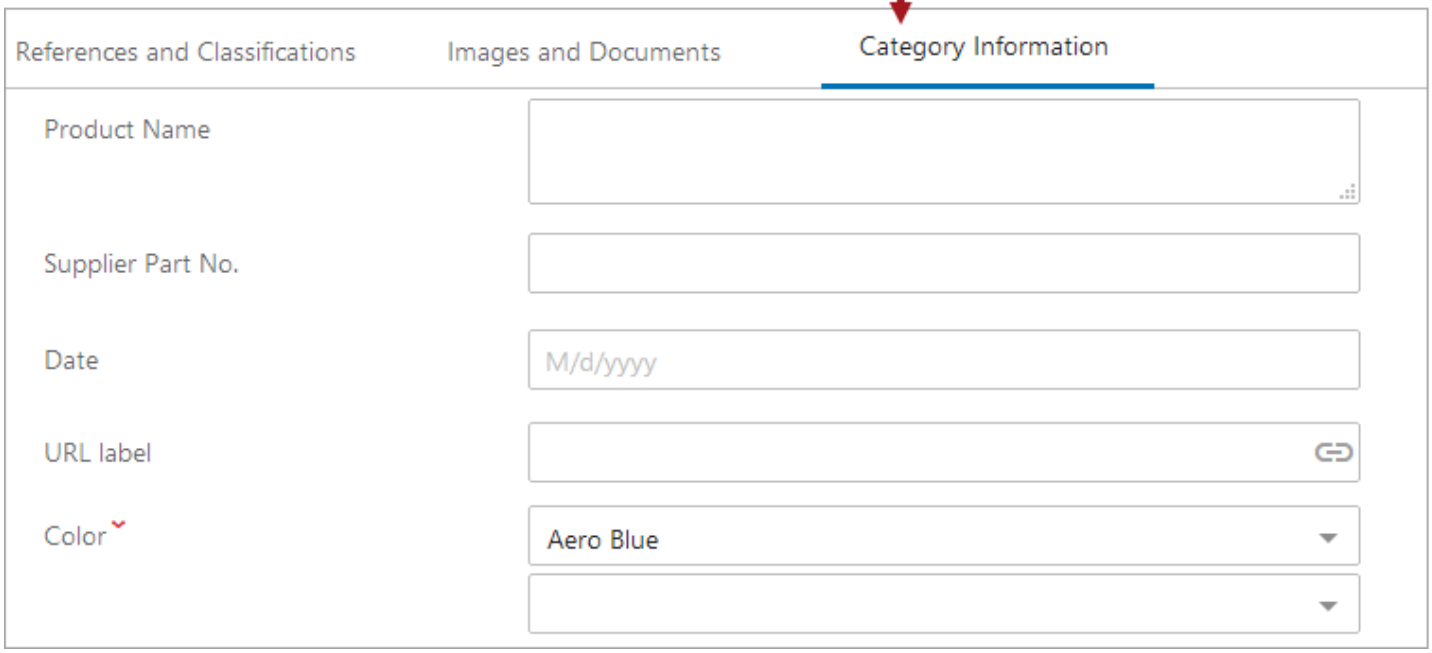


The next user, working in the same workflow, selects an object in the final state. Objects selected in this state have been configured to display the first tab page allowing this user to complete their assigned task, which differs from the first user.



Alternatively, a third user not working in any workflow, needs to update an object that happens to have an attribute value of 'Aero Blue' for the color. The business function has been configured to return the third tab for any object that has an attribute value of 'Aero Blue.' In this case, the user uses an Advanced Search to find the object, and upon clicking the object, is brought to the third tab.


Advanced Search
Attribute
Color (Color)
=
Aero Blue (Aero_Blue)
Search Criteria
My Searches
Approval status
Attribute
Workflow
Search
Save
Create collection
Clear
Clear filter
List vie
ID
Item Descrip
Item Supplier
Item Manufa
Approval
Thumbnail
138926
Last Approved on Tue May 09 15:09:45 EDT 2017
242722
Approved on Wed Oct 24 12:39:36 EDT 2018


References and Classifications
Images and Documents
Category Information
Product Name
Supplier Part No.
Date
M/d/yyyy
URL label
Color
Aero Blue

To configure default tab pages based on workflow and state IDs and/or an attribute value, setup needs to happen in workbench and in Web UI.

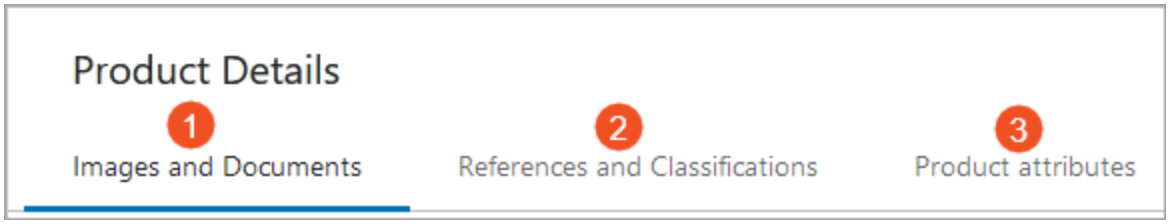
Prerequisites

It is assumed that the user is familiar with basic designer Web UI functionality. Additionally, it is assumed that the user knows about business functions and how to create them, as well as how to configure a Node Details Screen and tab pages. Refer to the **Business Functions** topic in the **Business Rules** documentation, for more on business functions, the **Node Details Screen** topic in this documentation for more on a Node Details Screen, and the **Tab Pages** topic in this documentation for more on how to create tab pages.

Default Tab Page Setup

Creating default tab pages requires both a business function and set up in the Web UI designer.

1. Create a business function in workbench that defines what tab pages will open for objects with different attribute values, and/or in different states in the desired workflows. Each tab page is represented by a number (counting from the left most tab to the right most tab). For example, if there are three tab pages called: Images and Documents, References and Classifications, and Product attributes, then Images and Documents would be represented by '1,' References and Classifications by '2,' and Product attributes by '3.'

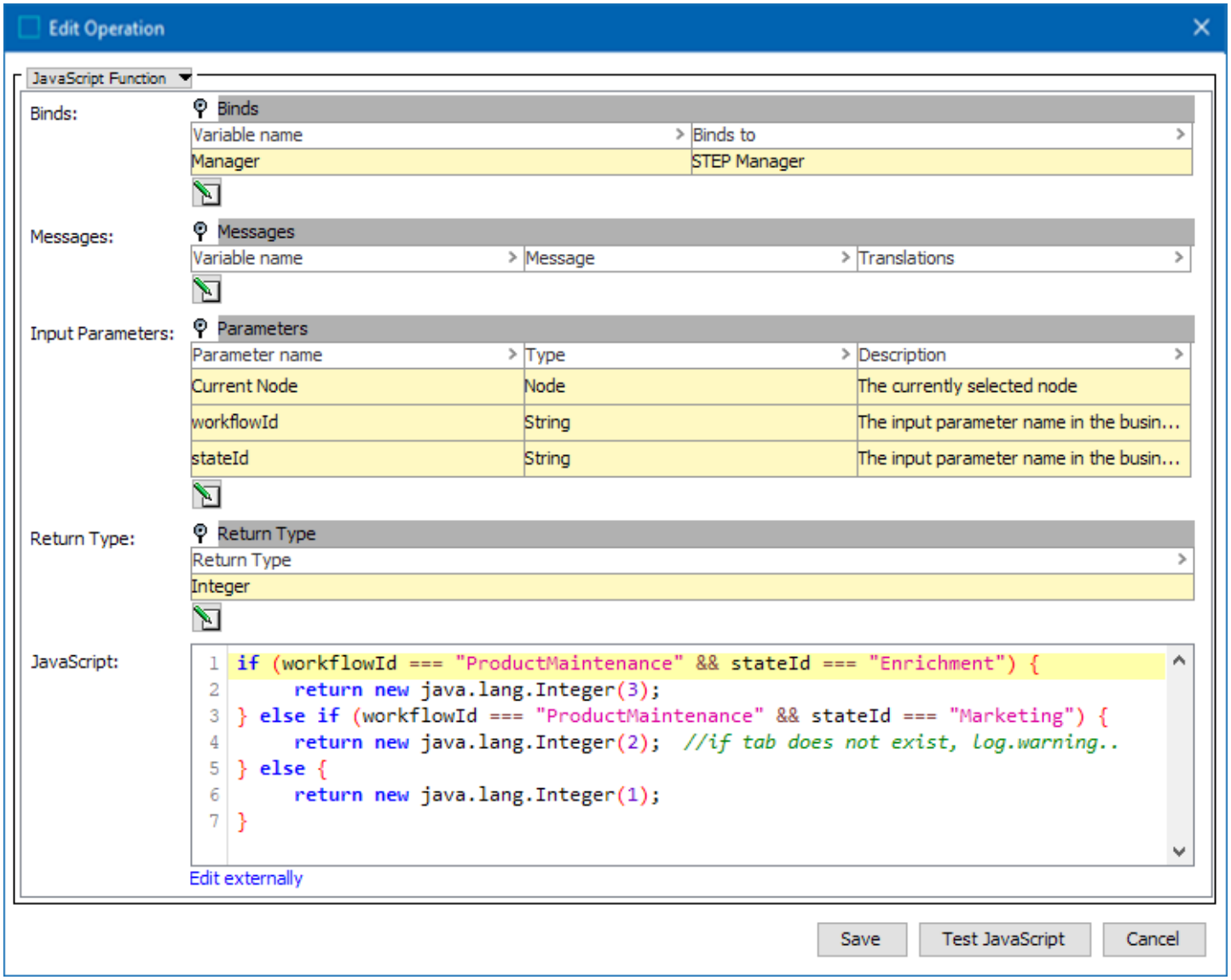


Important: When using default tabs, rearrange tabs with caution. If the tabs themselves are rearranged in the Web UI, the business functions will still work, but the user might not receive the expected tab. Ex: A business function calls for objects with attribute value PINK to always open the first tab, and it is assumed that the 'Images and Documents' tab is in position '1.' However, a changed occurred, and the 'Images and Documents' tab is now moved to position '2.' The business function is still configured to open to the first tab, which is no longer the expected tab for the user. If tab positions move, business functions may need to be adjusted.

Note: If a scenario is not defined, or a number that represents a tab page is entered into the business function that does not exist, ex: 400, then the last tab a user was on will automatically display. Additionally, a warning message displays in the admin logs when a tab number returned by a business function does not exist.

For more on business functions and how to create them, refer to the **Business Functions** topic in the **Business Rules** documentation.

An example business function is shown below:

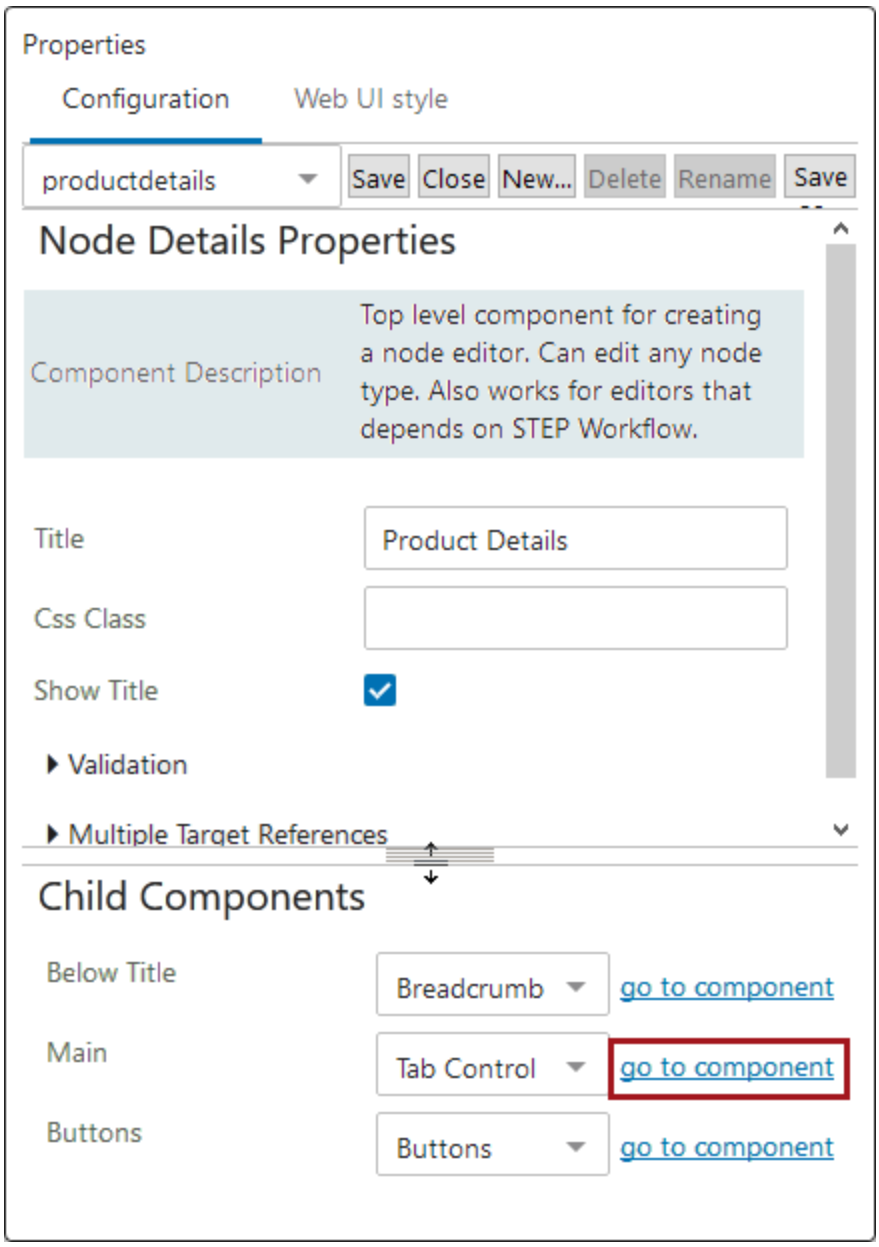


While the actual business function may differ, it is important that the following settings remain, as pictured above:

- **Input Parameters**: while the names for 'Current Node,' 'stateId,' and 'workflowId' may differ, the Type MUST be entered exactly as pictured above.
- **Return Type**: This MUST be set as an Integer.

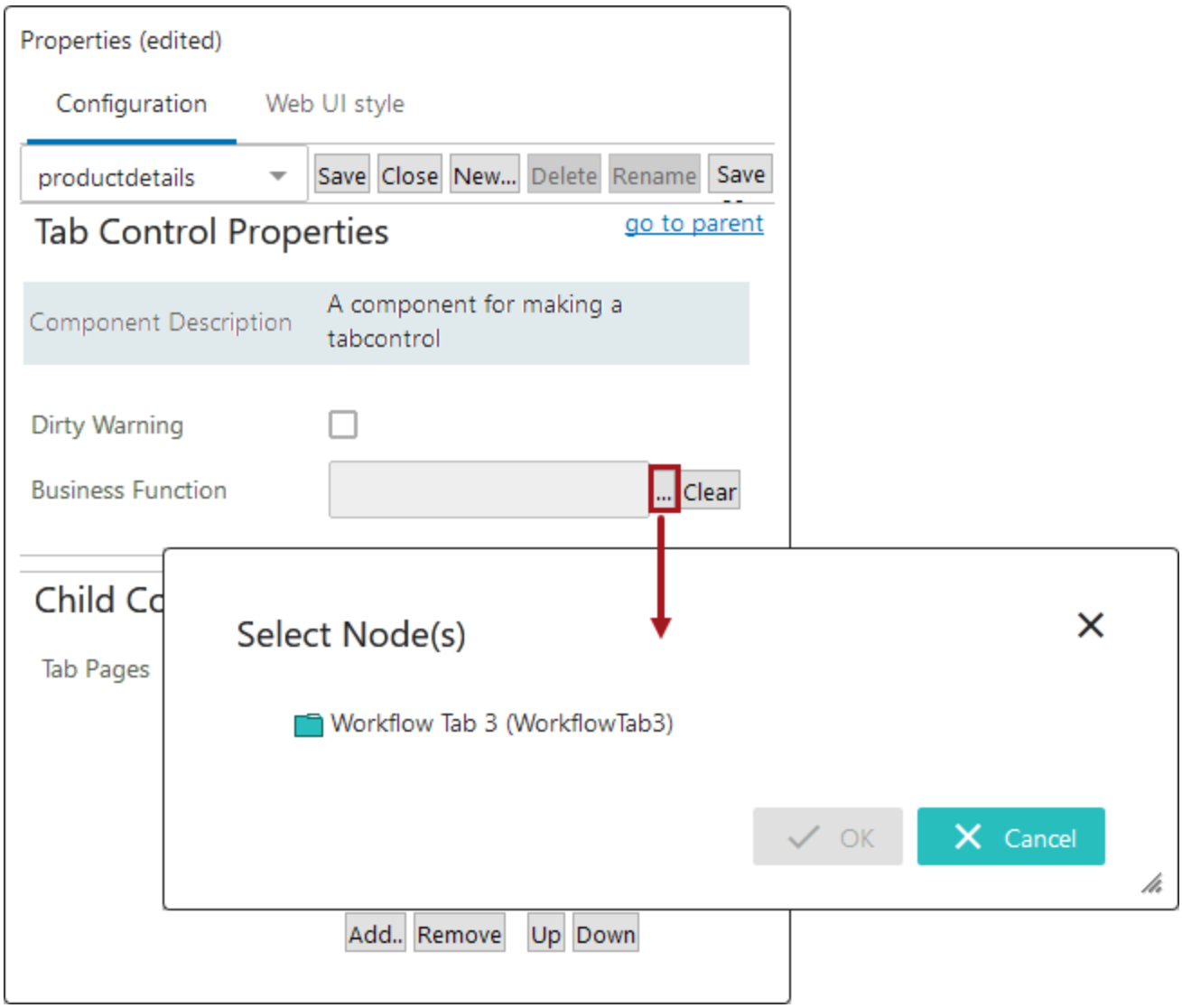
Note: Even if no workflows are being used, the Input Parameters still must be entered in the business function as pictured above.

2. Once the business function has been created, navigate to the desired Web UI and enter into design mode.
3. In design mode, navigate to the Node Details Screen that opens when an object is selected. Go to Child Components > Main > Tab Control > click on **go to component**.

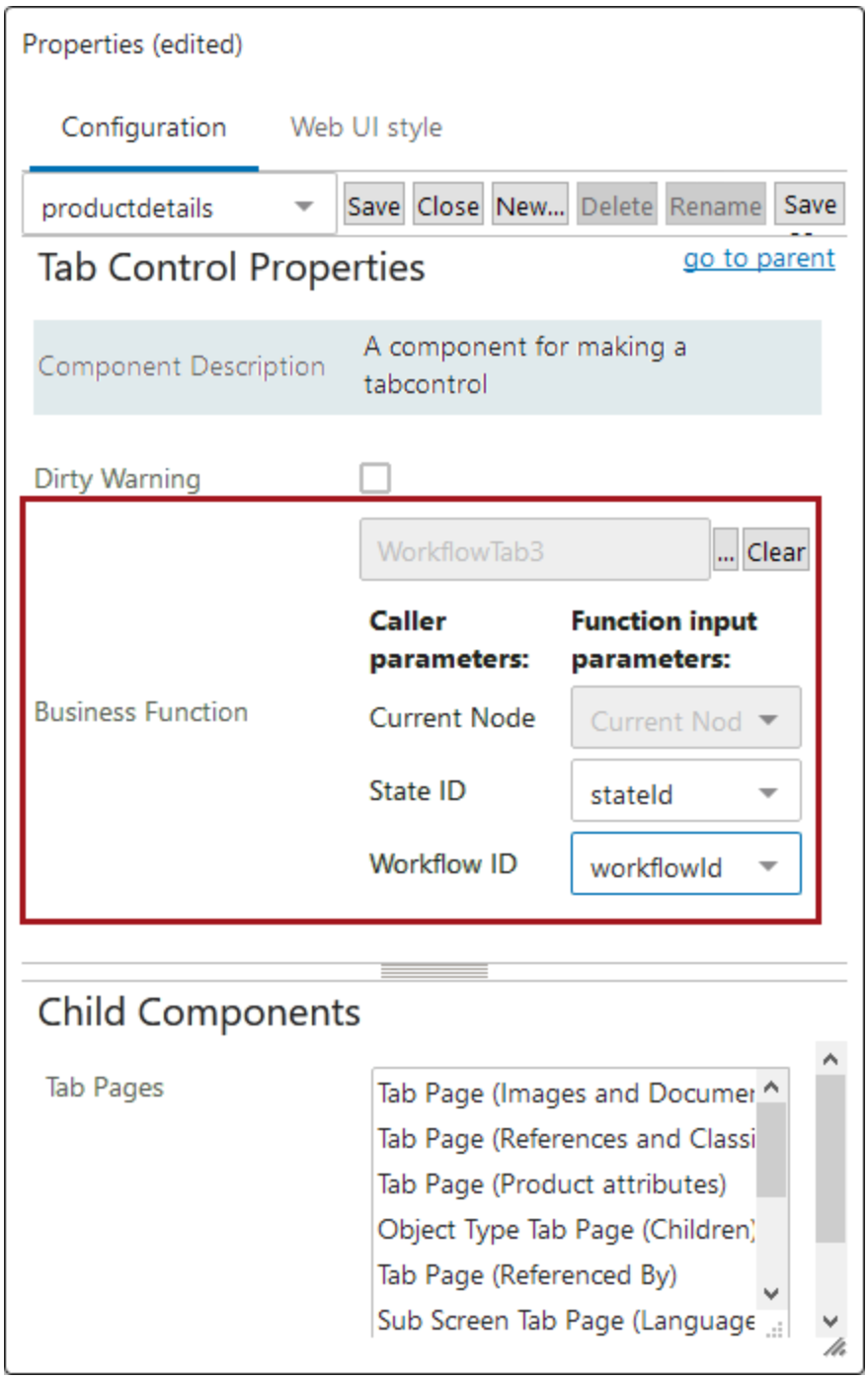


For more information on Node Details Screens, refer to the **Node Details Screen** topic in this documentation.

4. In Tab Control Properties, next to the Business Function parameter, click the ellipsis button (...) to select a business function.



5. The **Current Node** will automatically be set and is unable to be edited. Make sure that the correct **State ID** and **Workflow ID** are selected from the dropdown menu.



Note: If the business function is ever changed or updated in workbench, the function needs to be cleared out of the designer in Web UI and then re-selected and set again. The business function will not work as expected if this is not done.

6. Click **Save** and close the designer. Any tab pages defined in the business function are now set in Web UI as default tabs.

Note: Additional options with respect to navigation through workflows in the Web UI are available using the Run Business Action component. This component, configurable as either a toolbar action (on Node Lists) or a standard action (on Node Details screens), enables screen forwarding in workflows, for example, regardless of where the object is accessed or in which workflow state it resides. For more information on the Run Business Action component, refer to the **Run Business Action** component topic in the **Web User Interfaces** documentation.

Important: If using the 'Business Function' feature to determine default tabs in tandem with the 'Business Condition' parameter to determine display of tabs, admin users should thoroughly test the combinations to ensure the configuration does not result in end users being unable to access data. To avoid these issues, admin users can use the 'Reference other Business Condition'-type business condition when determining the display of tabs. This allows users to configure their tabs so the default tab condition references the show / hide condition and then, based on that evaluation, determines which default tab to display. For more information on configuring Attribute Value Comparison-type business conditions, refer to the **Business Condition Attribute Value Comparison** topic in the Business Rules documentation.

Node Editor Component

A Node Editor component is used to display different information and details about a selected object. A Node Editor can be added as a child component of other components such as Node Details, Split Panel, Tab Page, and Draggable Split Panel.

As the Node Editor name suggests, most of the information / values displayed is editable data. However, if the end user should be restricted in regards to changing data, components (where applicable) can be made read only during configuration.

Prerequisites

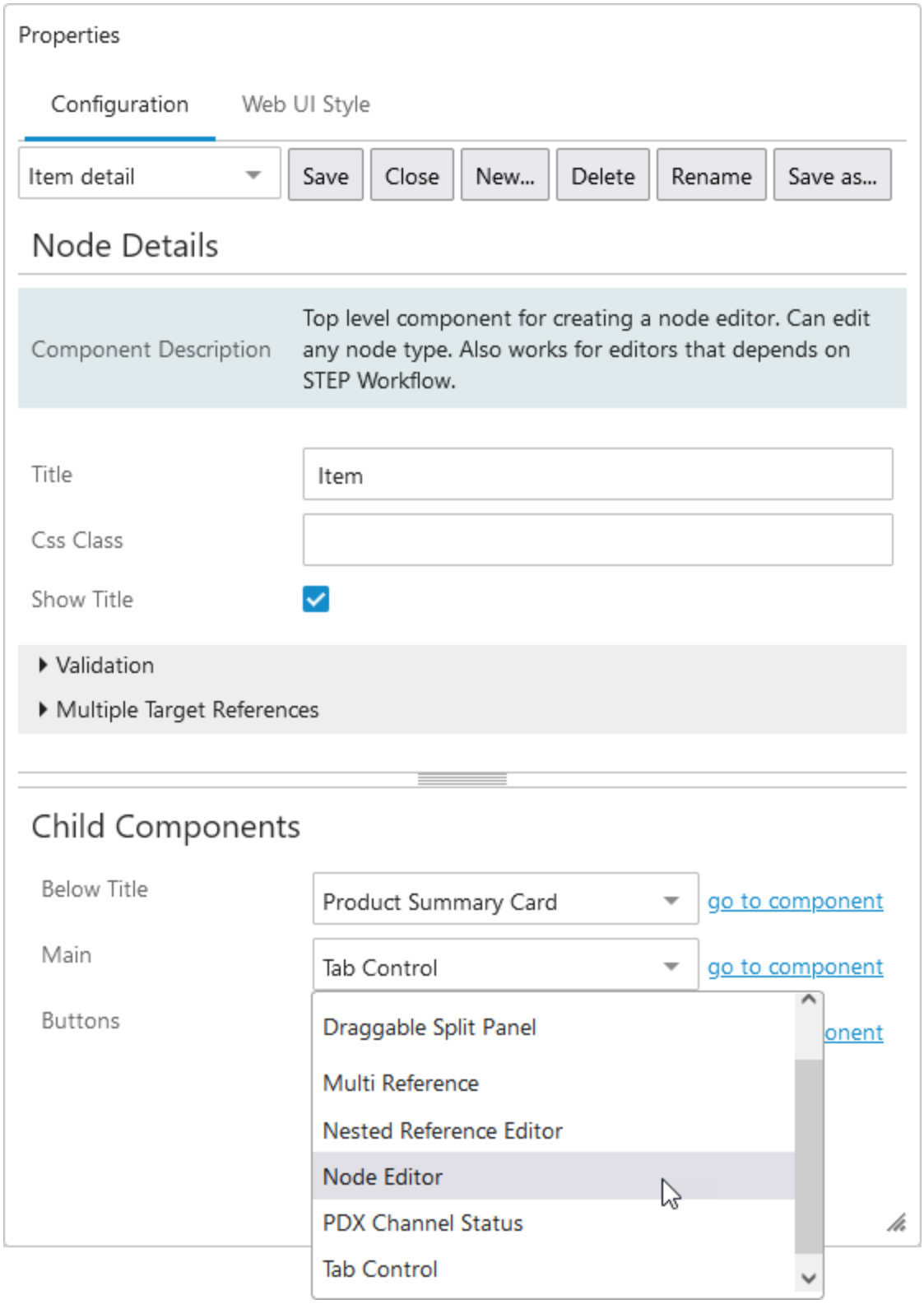
It is expected that anyone configuring the Node Editor component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Configuring Node Editor Properties

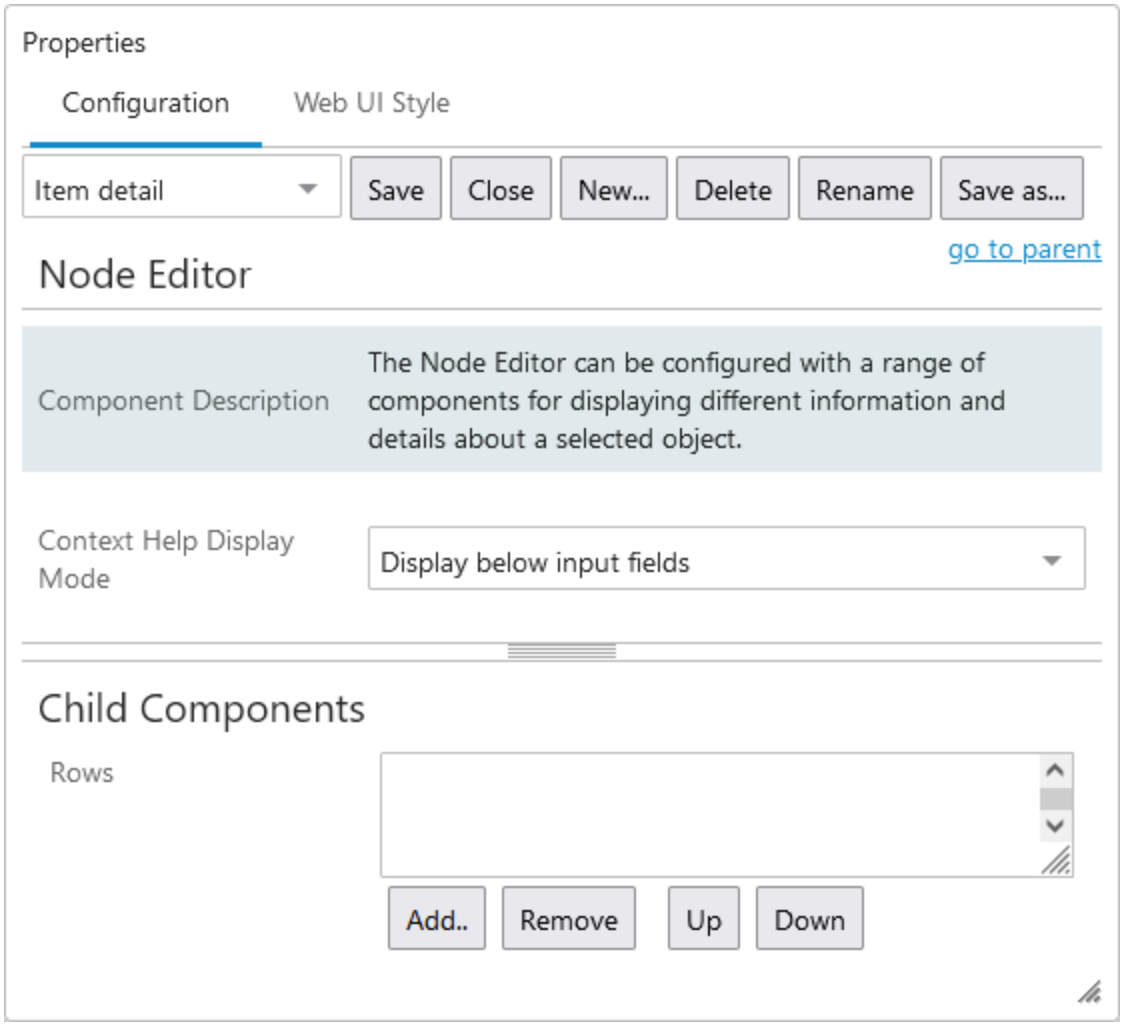
The Node Editor Properties consists of a **Rows** child component, which allows for the selection of various components to be used to display needed information.

The example below shows a configuration of a Node Editor Screen on a Node Details:

1. Select a Node Details screen if it already exist, if not then create it new. Navigate to the child components section of the Node Details screen and under the Main field, select Node Editor from the dropdown.

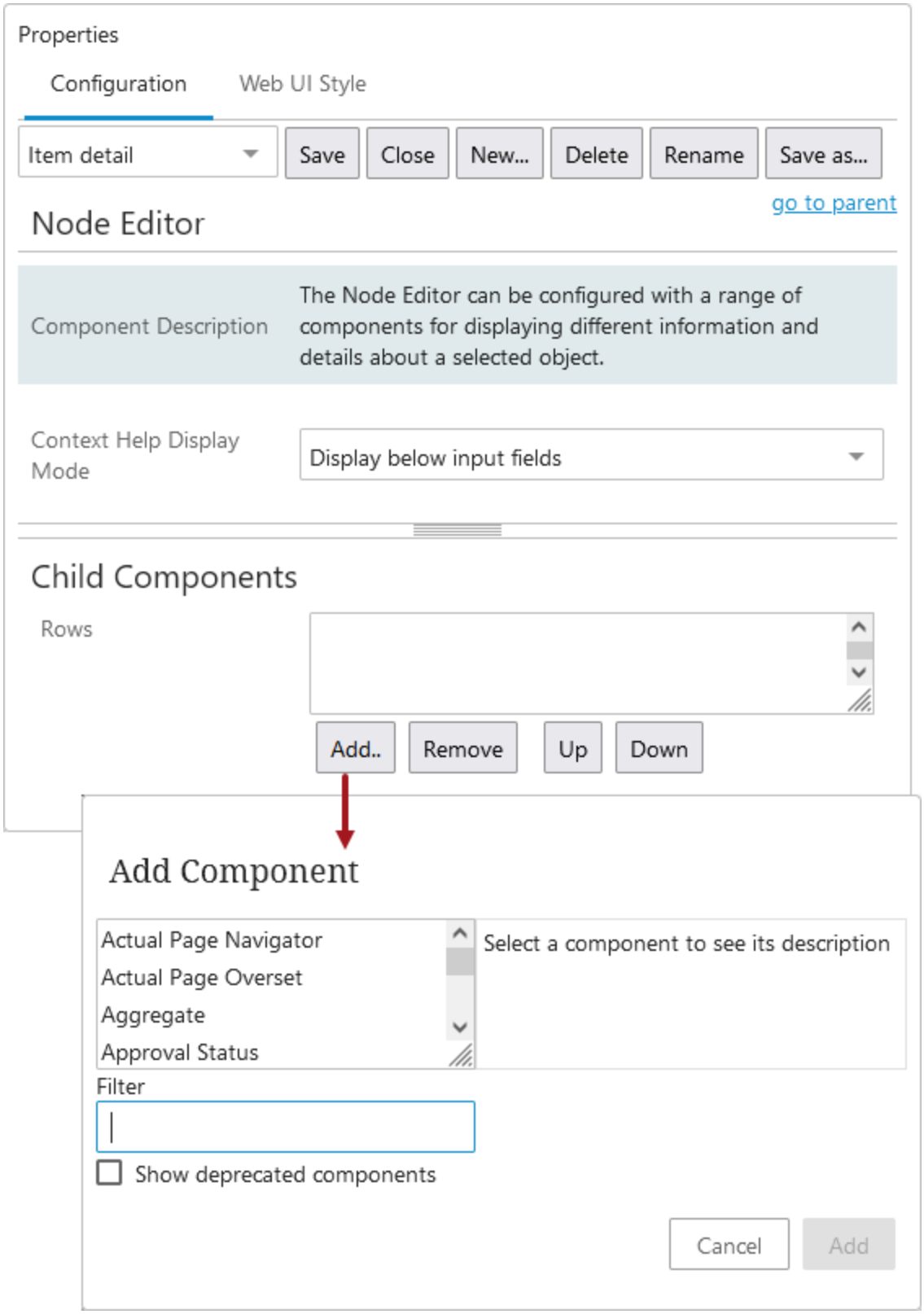

Properties
Configuration
Web UI Style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Node Details
Component Description
Top level component for creating a node editor. Can edit any node type. Also works for editors that depends on STEP Workflow.
Title
Item
Css Class
Show Title
Validation
Multiple Target References
Child Components
Below Title
Product Summary Card
go to component
Main
Tab Control
go to component
Buttons
onent
Draggable Split Panel
Multi Reference
Nested Reference Editor
Node Editor
PDX Channel Status
Tab Control

2. Click on 'go to component' next to Node Editor to display the Node Editor Properties.
3. On Node Editor Properties, define how user-configured help text should display in the Node Editor by making a selection from the 'Context Help Display Mode' dropdown. By selecting 'Display below input fields', all configured help text will display beneath the input field for that attribute at all times. By selecting 'Click icon to display', configured help text will display for an attribute when a user clicks on the information icon to the right of the input field ( ).
4. Under 'Child Components', click the **Add** button under the 'Rows' field, and make a selection from within the 'Add component' dialog. Clicking on the component name displays a description of the component.



Note: Two main components used for displaying and editing attribute values are Attribute Value and Attribute Value Group. When displaying different types of objects of the same object type that have different valid attributes, a useful feature of these two components is that invalid attributes will be automatically hidden and not displayed on screen.

5. Once a selection is made, click **Add**.
6. Configure the added component, if applicable. As an example, adding an Attribute Value Component automatically brings up an additional properties screen with a required Attribute parameter. If you are adding Name Value or Id Value components, no additional configuration is needed.


Properties
Configuration
Web UI Style
Item detail
Save
Close
New...
Delete
Rename
Save as...
go to parent
Node Editor
Component Description
The Node Editor can be configured with a range of components for displaying different information and details about a selected object.
Context Help Display Mode
Display below input fields
Child Components
Rows
Add..
Remove
Up
Down
Add Component
Actual Page Navigator
Actual Page Overset
Aggregate
Approval Status
Select a component to see its description
Filter
Show deprecated components
Cancel
Add

7. Components can be added and removed using the buttons below the Rows field, and the components will display on-screen based on how they are ordered within the field. They can be re-ordered using the Up and Down buttons and can be edited by double clicking the component name.
8. Once the configuration is complete, click **Save** in the designer and **Close** to return to normal Web UI operation.

Note: Node Editor Component can be configured under Node Details screen if user likes to display the information without tab control.

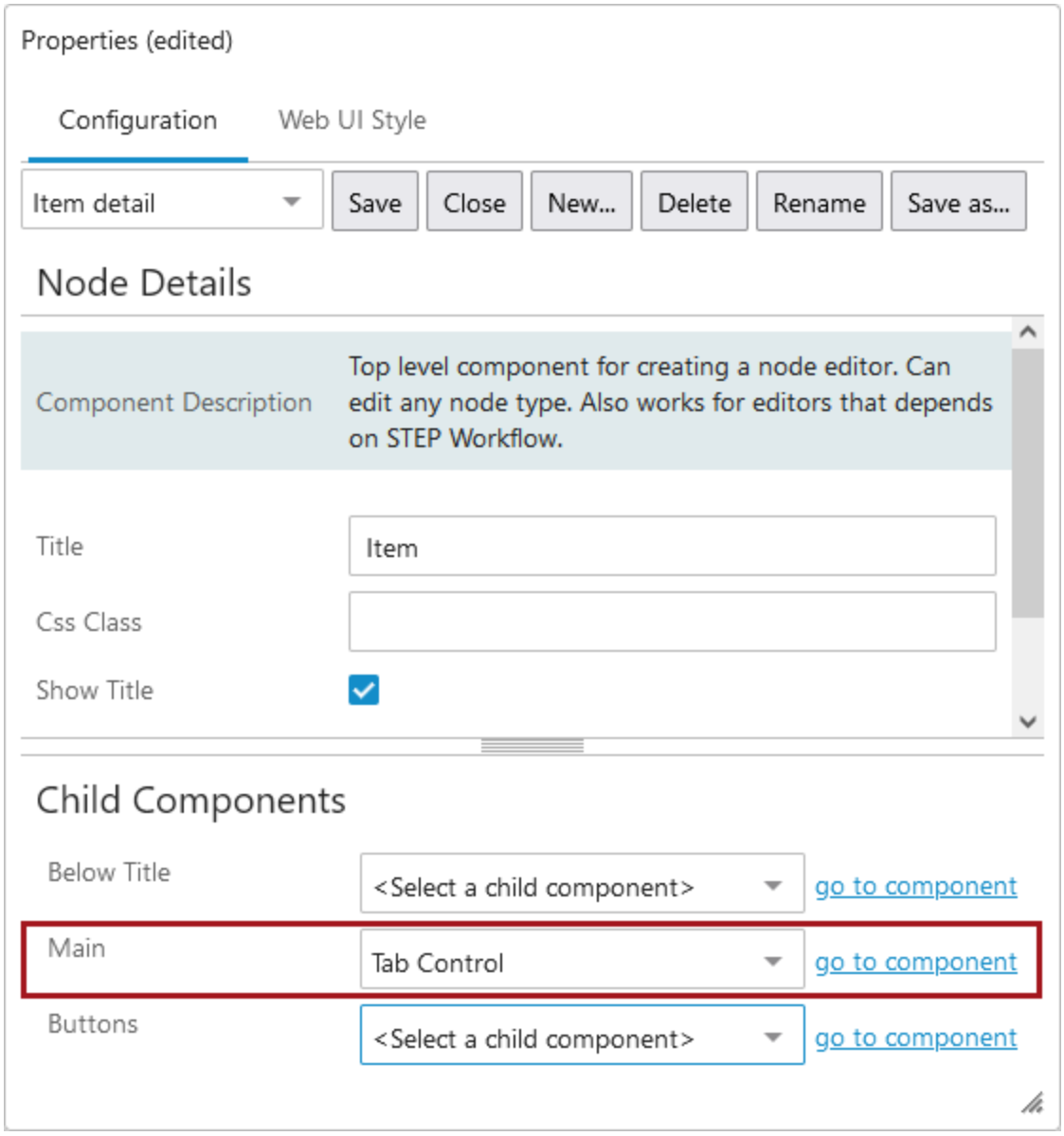
For additional information on using a Node Editor, refer to the following topics in **Using a Web UI** section of the **Web User Interfaces** documentation:

- **Node Details Screen**
- **Attribute Value Component**
- **Attribute Value Group Component**

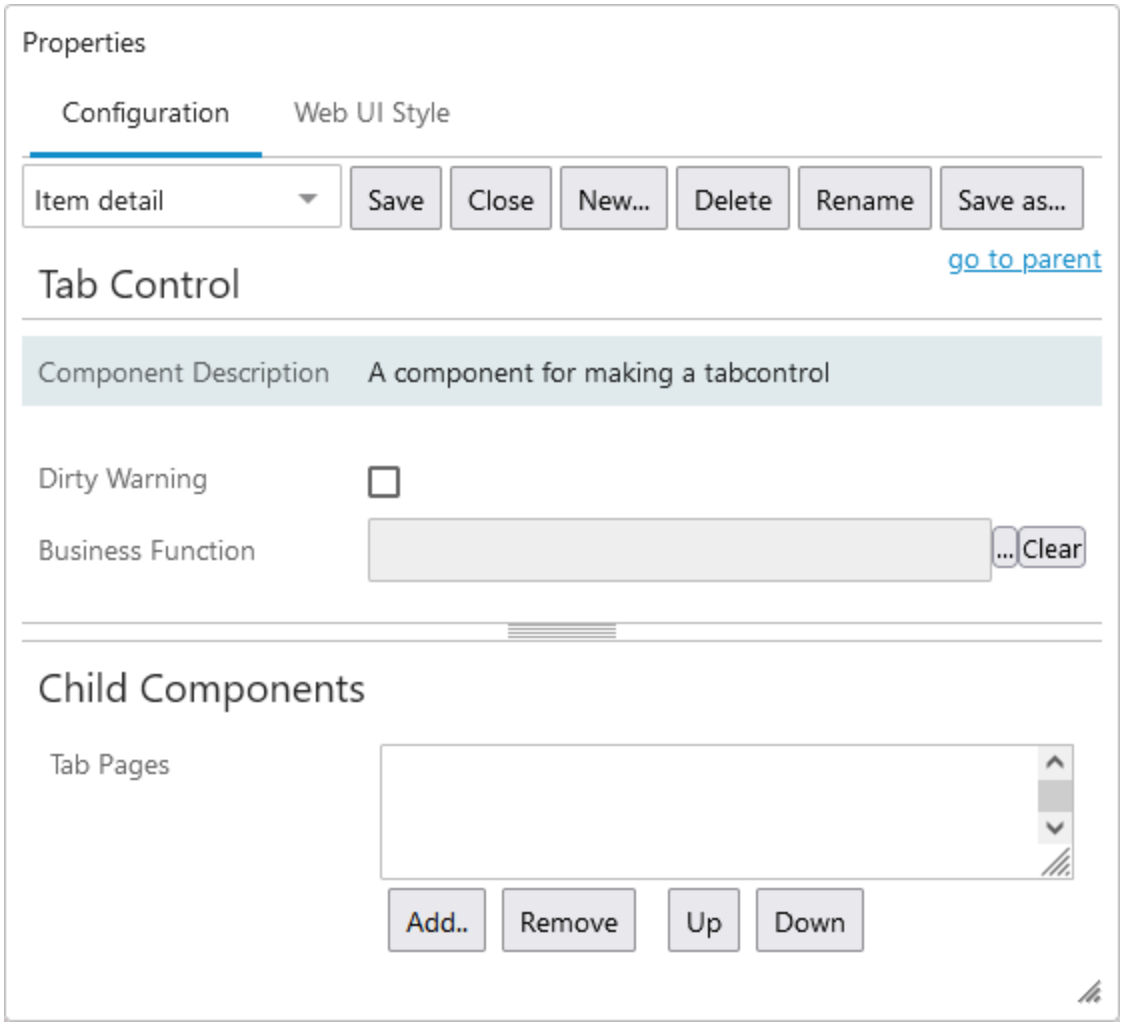
Configuring the Node Editor in a Tab Page

Sometimes it is useful to display a split screen in a tab page, with one side being the Node Editor component. To do so, follow the steps below:

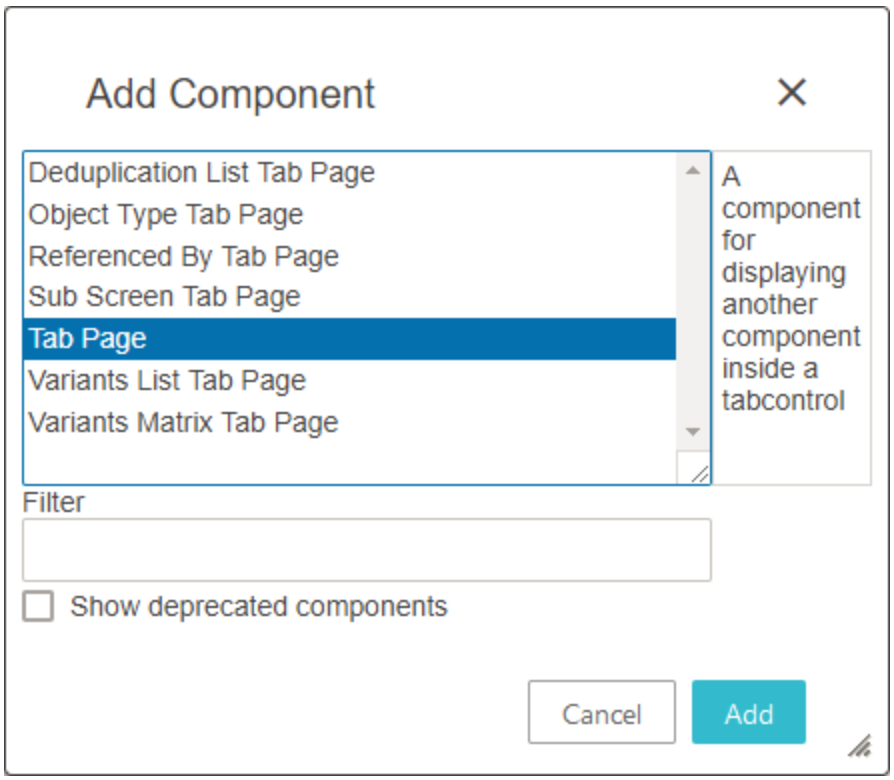
1. Select a Node Details screen if it already exists, if not then create a new one.
2. On the Node Details Properties go to Child Components > Main > select Tab Control > go to components.



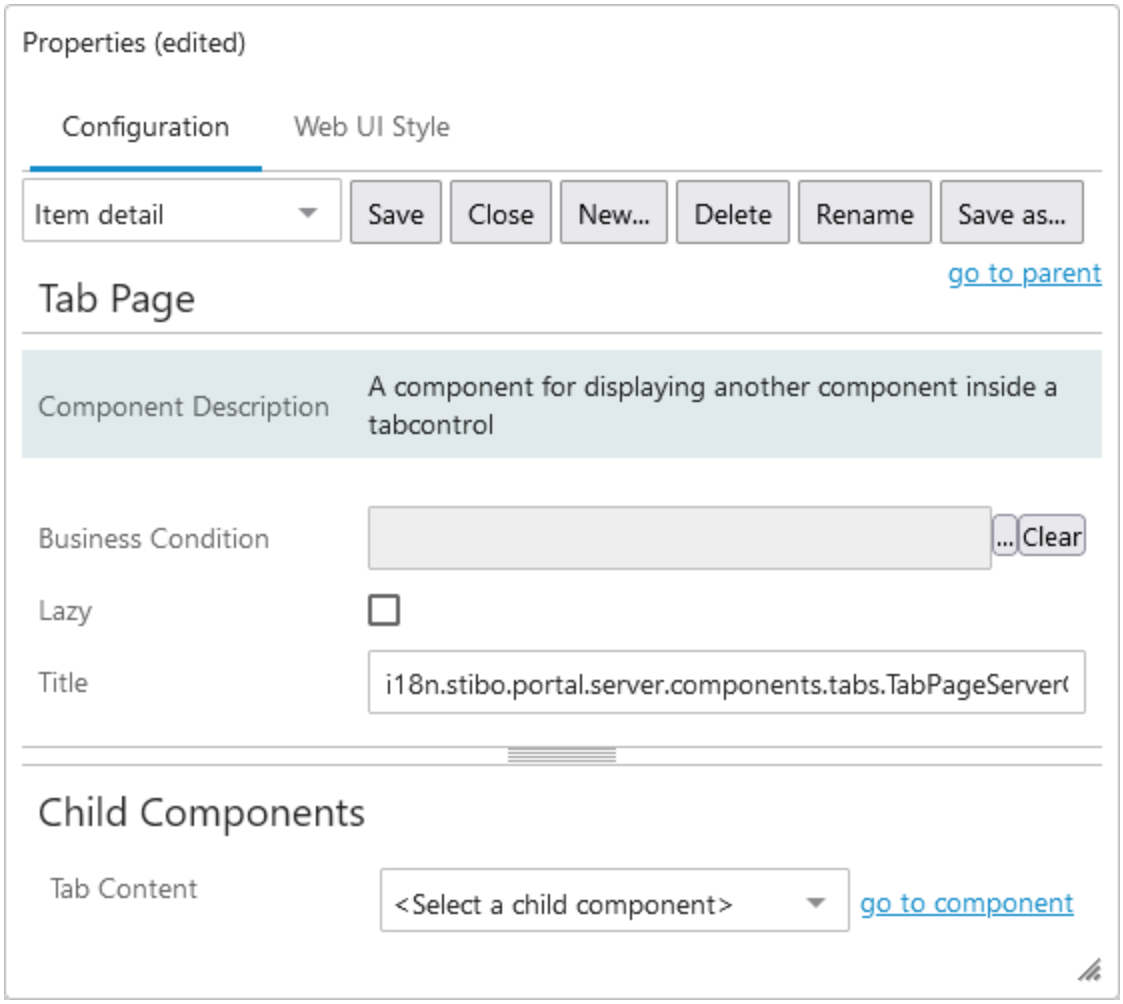
3. On the Tab Control Properties screen under Child Components in the Tab Pages field, click the Add button.



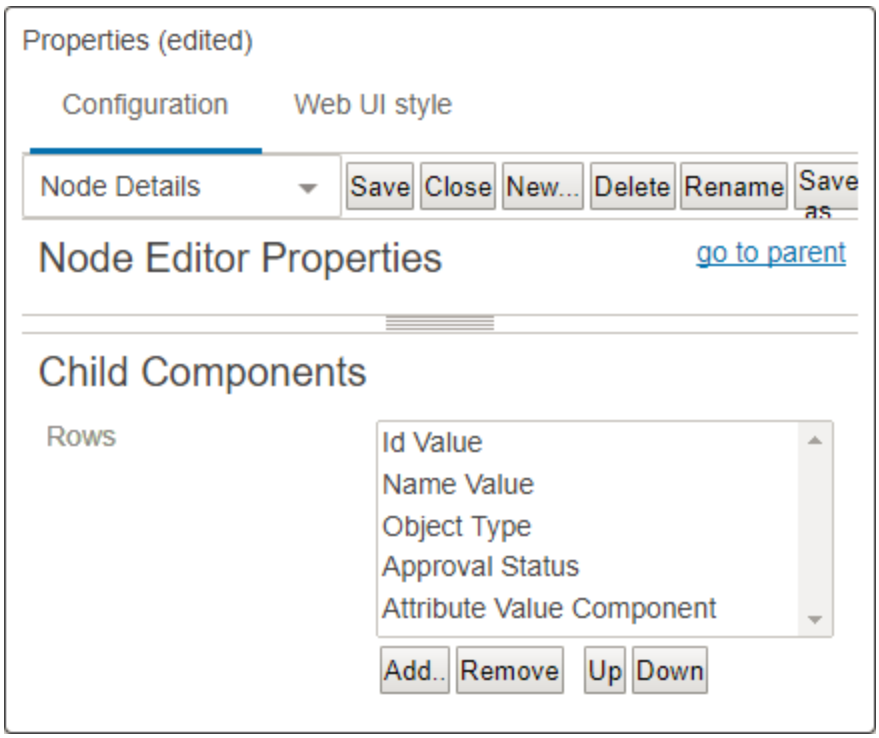
4. Select Tab Page and click on Add.



5. Double click the newly added 'Tab Page', and on the Tab Page Properties go to Child Components > Tab content > select Node Editor from the dropdown menu > go to component.



6. Add any required components to display product information.

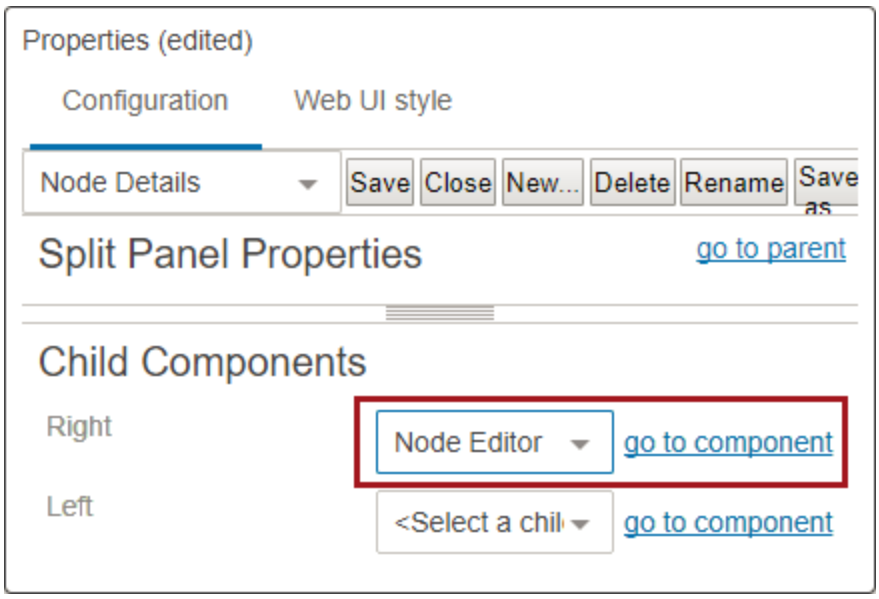


7. Once the configuration is complete, click Save and close the designer.

Note: Tab Page component is available under Tab Control. For more information, refer to the **Tab Page** topic in the **Web User Interfaces** documentation.

Configuration of Node Editor Screen in a Split Panel

1. Select Node Details screen if already exist, if not create a new Node Details.
2. Select Split Panel option from Main dropdown under Child Component area.
3. On Split Panel Properties, select either the Right or Left field and choose Node Editor from the dropdown. Then click on go to component.



4. Add any needed components needed to display product information.
5. Once the configuration is complete, click Save and close the designer.

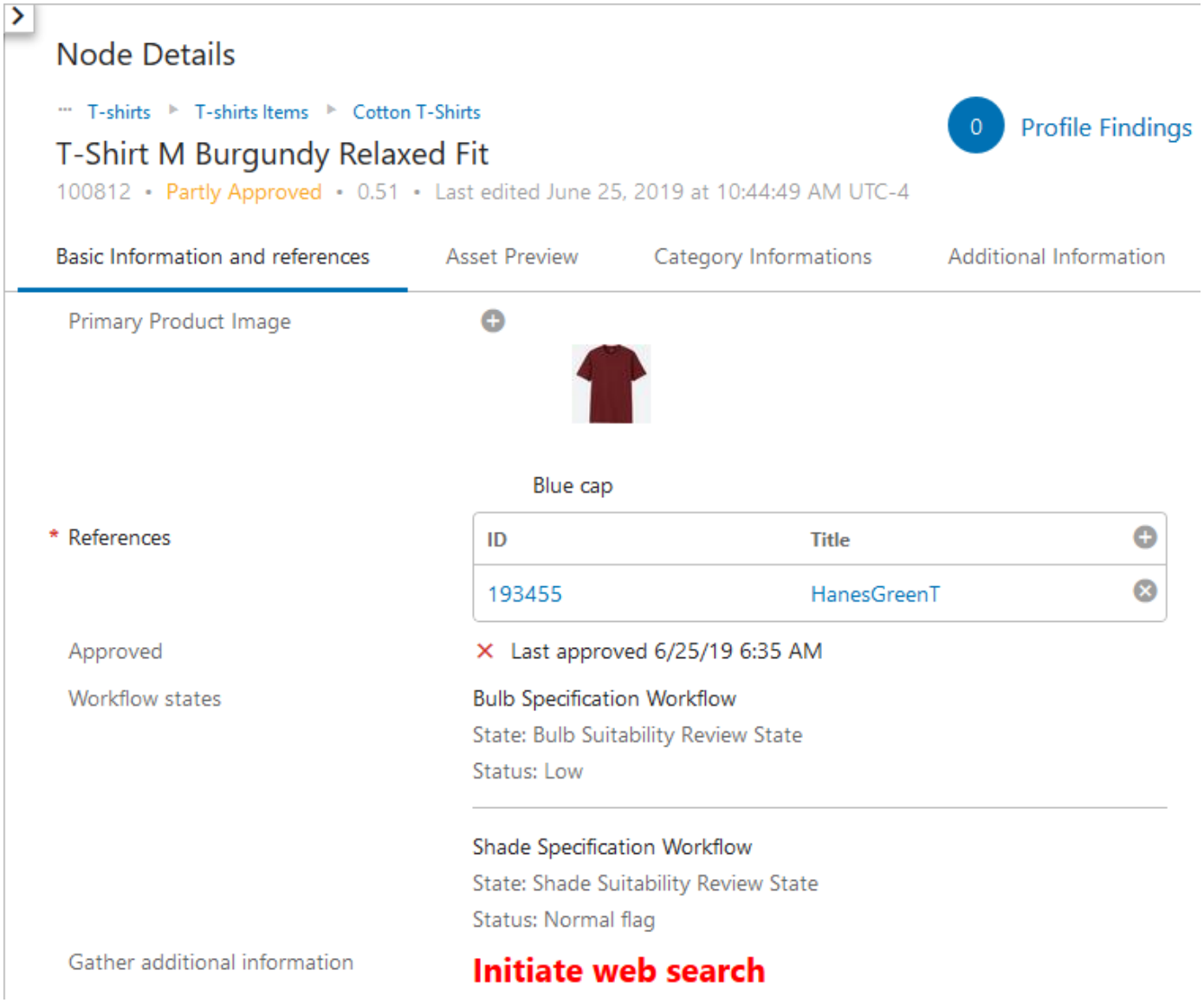
Note that the above steps can be used to configure the Node Editor component for a Draggable Split Panel as well, which is available in the Main dropdown under child components area of Node Details Properties.

Note: If Node Editor Screen is used in the Right side of the page, users can select Node editor option from Right dropdown. Left side user can select other options, for example References or a Multi reference.

Examples of Configured Node Editor Components

Below are examples of Node Editors that are configured to fit different purposes and screenshots of how they would display to end users.

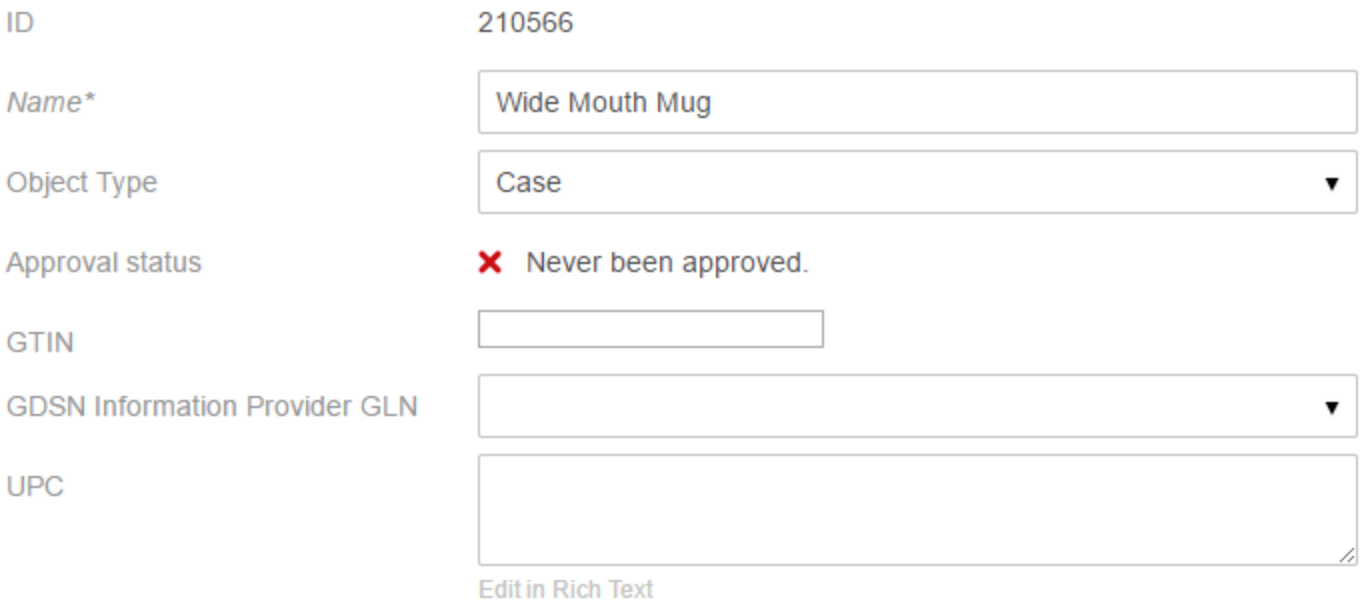
Example 1: A Node Editor configured to display sellable product information. A Summary Card component of the 'Description Card' type has been added at the top of the screen. This displays a breadcrumb (in blue text), and then the name, ID, approval status, version, and information related to when the product was last updated. Data profiling is enabled, resulting in display of the 'Profile Findings' component showing to the left of the Summary Card. Components added to the Rows field (and shown below, in order from top to bottom) are Referenced Asset Representation (which displays the thumbnail image), References, Approval Status, Workflow States, and HTML Function, which uses a business function to render HTML in the Web UI. In this example, HTML Function enables a web search to gather additional information about the product.



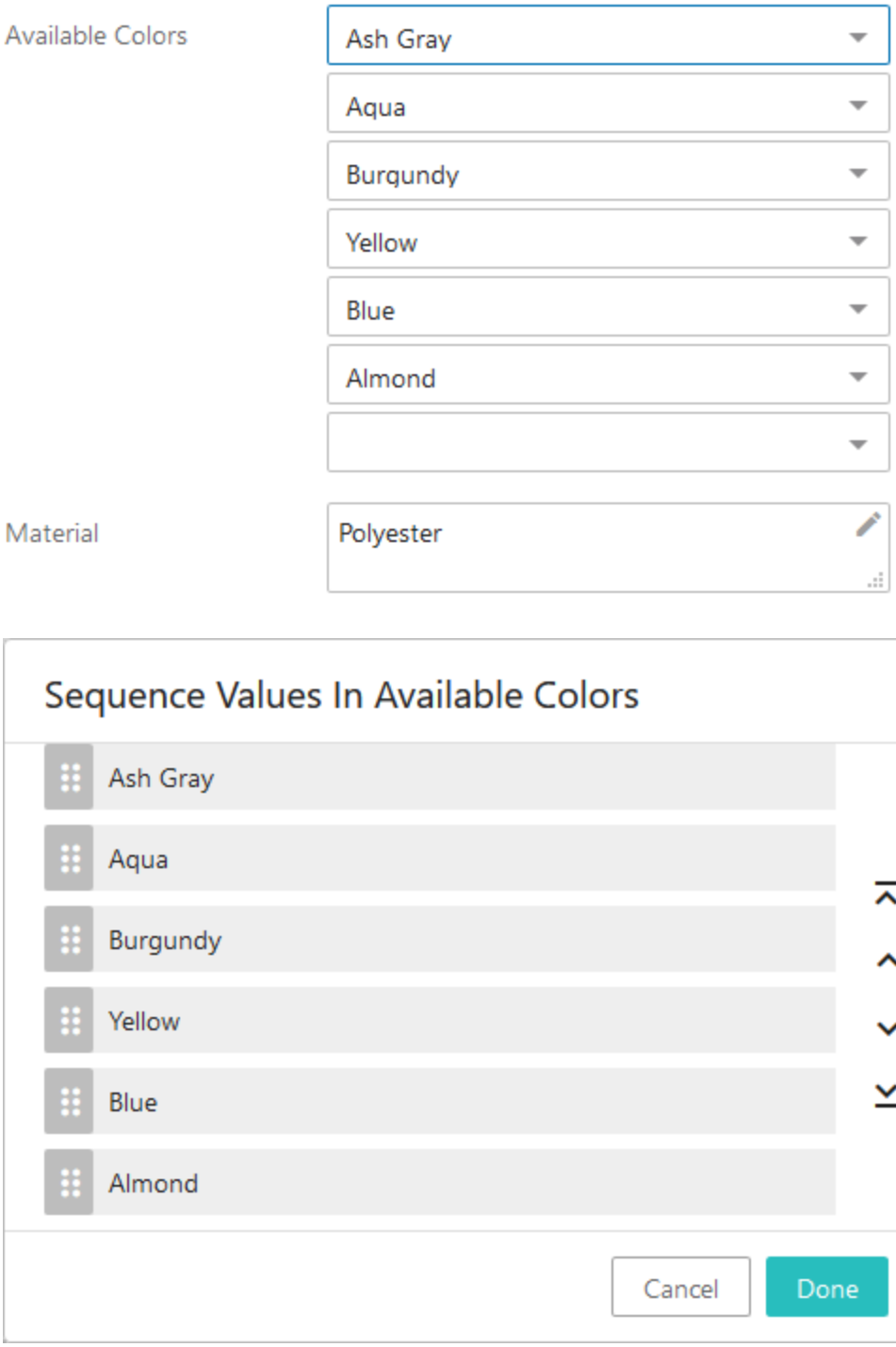
Example 2: A Node Editor configured to display customer address information. The address attributes are configured to display via the Attribute Value Group Component as the only component in the Node Editor Properties > Child Components > Rows field.



Example 3: A Node Editor configured to display GDSN details. Components added to the Rows field (and shown below) are ID, Name, Object Type, Approval Status, and three Attribute Value components.



Example 4: An Attribute Value Component configured with a multi-valued attribute. Multi-valued attributes configured on Node Editor screens will, if multiple values are present, display with a double-arrow icon (⇅). By clicking this icon, a 'Sequence Values' pop-up displays that allows users to change the ordering of the values. In the screenshot below, the multi-valued attribute is labeled as 'Available Colors'. The second screenshot depicts the 'Sequence Values' pop-up. The values can be re-ordered using either the drag-handles to the left of each value, or the arrow icons to the right, which can move a selected value to the top of the list (⤒), up one position (⌃), down one position (⌄), or to the bottom of the list (⤓).



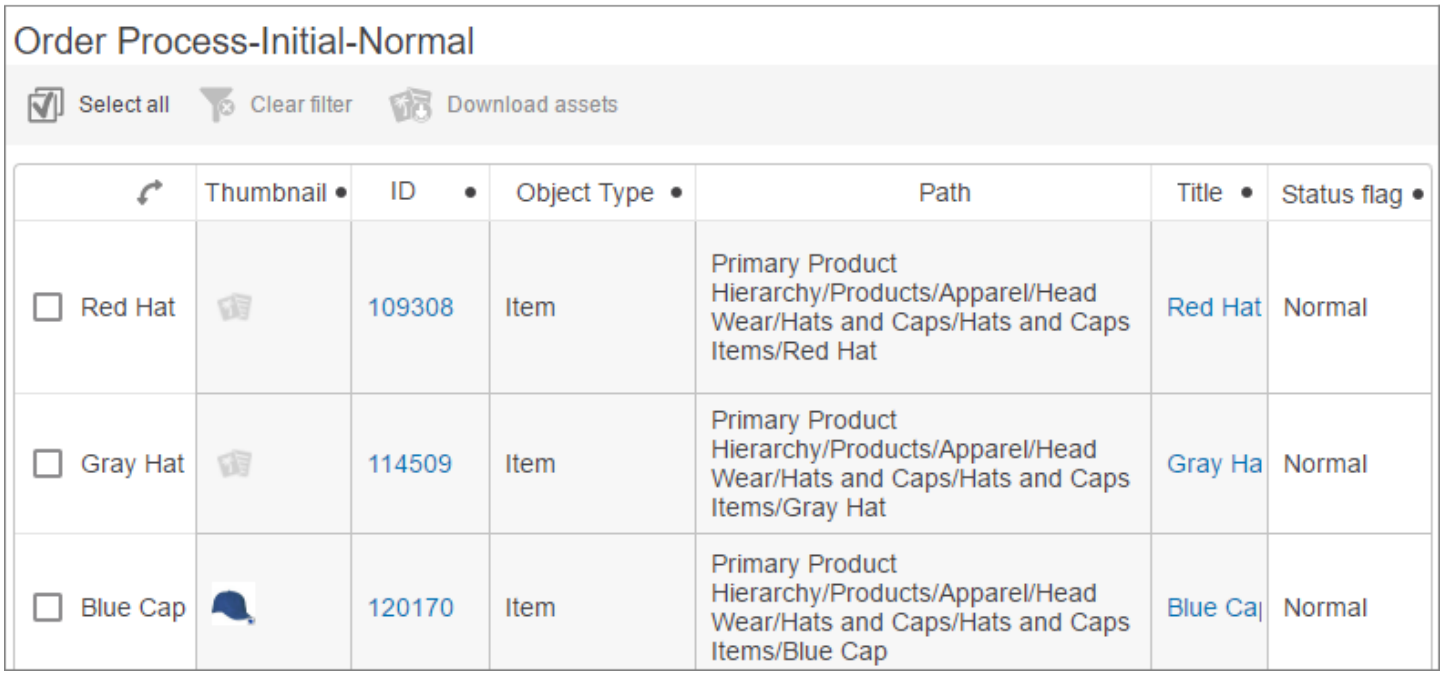
Note: The functionality to re-order values on multi-valued attributes is also available in Node Lists.

Node List Component

A Node List component displays objects in a table / grid format. The view can be further customized by configuring the data to display via different display modes and adding different action buttons that users can click while working with the object data. The display modes can then be customized with a range of headers, allowing for different information about the listed objects to be displayed. The behavior of many of the various actions can be further configured, also.

A Node List can be added as a child component of various other components including, but not limited to, Multi Reference, Packaging, Task List, Display Children Screen, Collection Content, and Advanced Search.

Below is one example of a Node List (configured as a child component within Task List Properties).



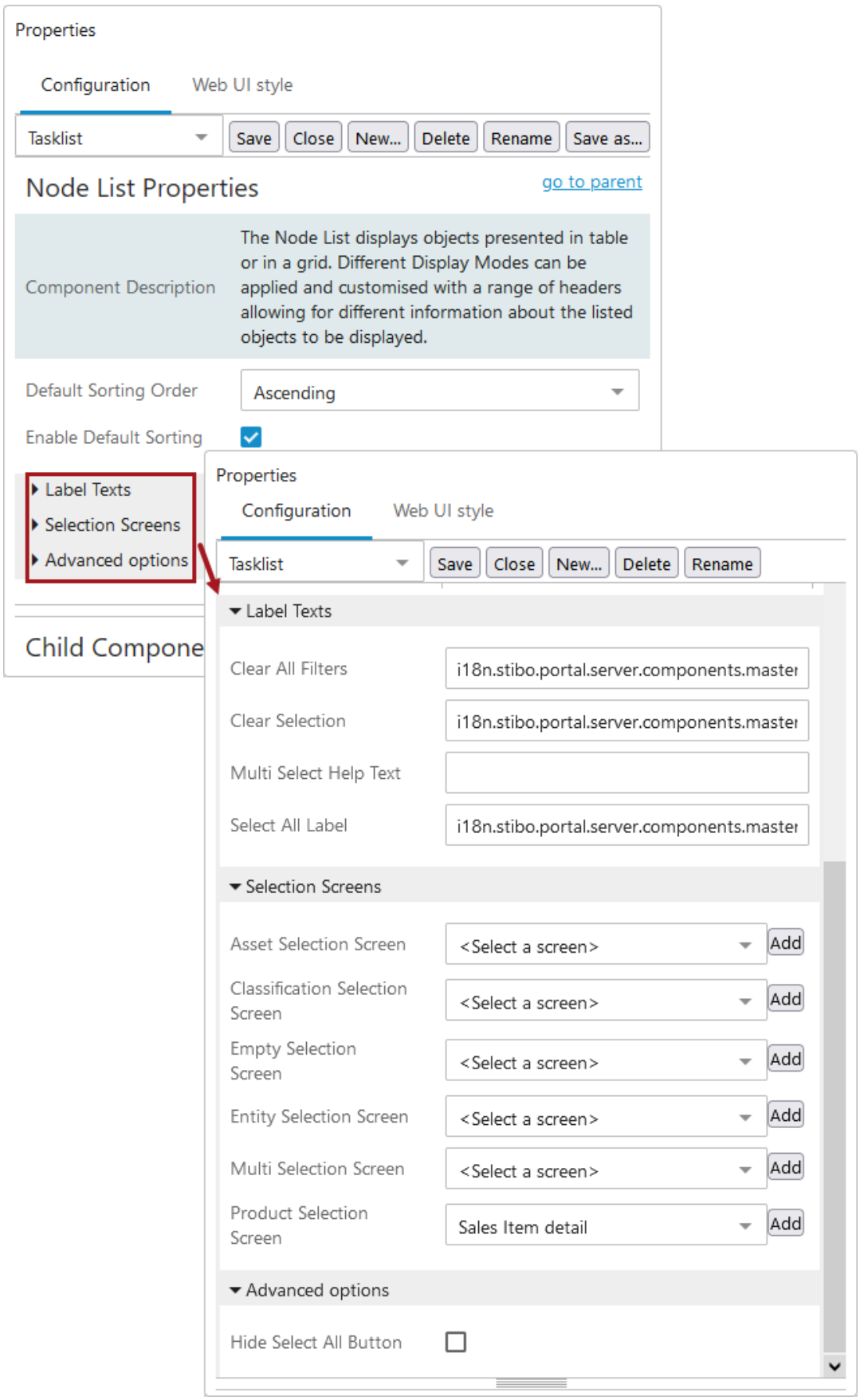
Specific details on setting up this particular Node List can be found in the **Multi-Reference Editor** topic in **Using a Web UI**. General Node List configuration instructions can be found below.

Prerequisites

It is expected that anyone configuring the Node List component is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

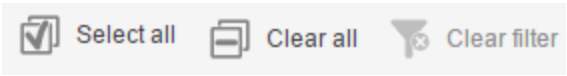
Configuring Node List Master Component Properties

A Node List is highly configurable. Each parameter in Node List Properties features help text, accessible by hovering over and clicking the info icon to the right of each parameter name. The default parameter settings may differ depending on where a Node List is used. The following screenshot shows another example of a Multi Reference Properties Node List.


Properties
Configuration
Web UI style
Tasklist
Save
Close
New...
Delete
Rename
Save as...
Node List Properties
go to parent
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Default Sorting Order
Ascending
Enable Default Sorting
Label Texts
Selection Screens
Advanced options
Child Compone
Properties
Configuration
Web UI style
Tasklist
Save
Close
New...
Delete
Rename
Label Texts
Clear All Filters
i18n.stibo.portal.server.components.master
Clear Selection
i18n.stibo.portal.server.components.master
Multi Select Help Text
Select All Label
i18n.stibo.portal.server.components.master
Selection Screens
Asset Selection Screen
<Select a screen>
Add
Classification Selection Screen
<Select a screen>
Add
Empty Selection Screen
<Select a screen>
Add
Entity Selection Screen
<Select a screen>
Add
Multi Selection Screen
<Select a screen>
Add
Product Selection Screen
Sales Item detail
Add
Advanced options
Hide Select All Button

Follow these steps to configure the component:

1. Enable or disable **Hide Standard Buttons**, as desired. When enabled, the 'Select all,' 'Clear selection,' and 'Clear all filters' buttons display above the table.



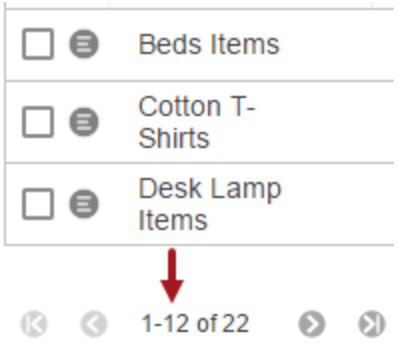
2. The only mandatory parameter is **ID**. A descriptive, unique ID can be given or the standard pre-filled text can be kept. The STEP system uses this ID to recognize which Node List to display.

> **Note:** By enabling the 'Include Labels' parameter, all toolbar actions on the screen will be displayed with a label beneath the icon.

3. Either enable or disable **Lookup Screen Type For Navigation** based on the desired behavior, outlined below:

   - If unchecked, then the object screen selection that is defined under Selection Screens will be used as a target screen (e.g., Asset Selection Screen, Classification Selection Screen, Product Selection Screen, and Entity Selection Screen).
   - If checked, then the screen mappings that are defined in the Main Properties are used when selecting the object from the Node List.

4. When using Table Display Mode (List view), Film Strip Display Mode (Filmstrip view), and Gallery Display Mode (Gallery view), the objects in the table are displayed by page. You can determine the maximum number of objects to show per page. Change the number in the **Page Size** field or use the default (50 objects per page).

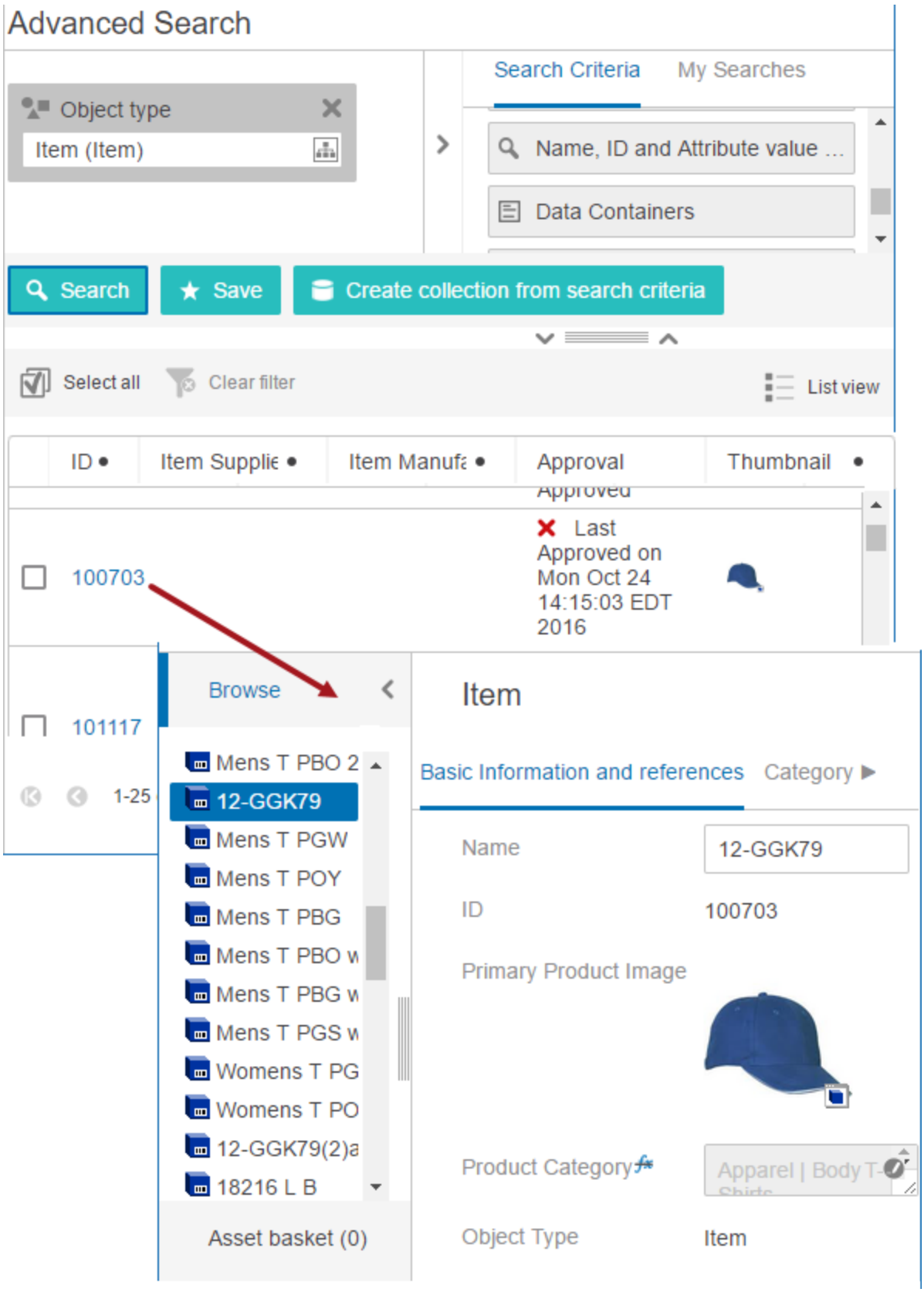


> **Note:** Setting Page Size to a number higher than 100 may result in system performance issues.

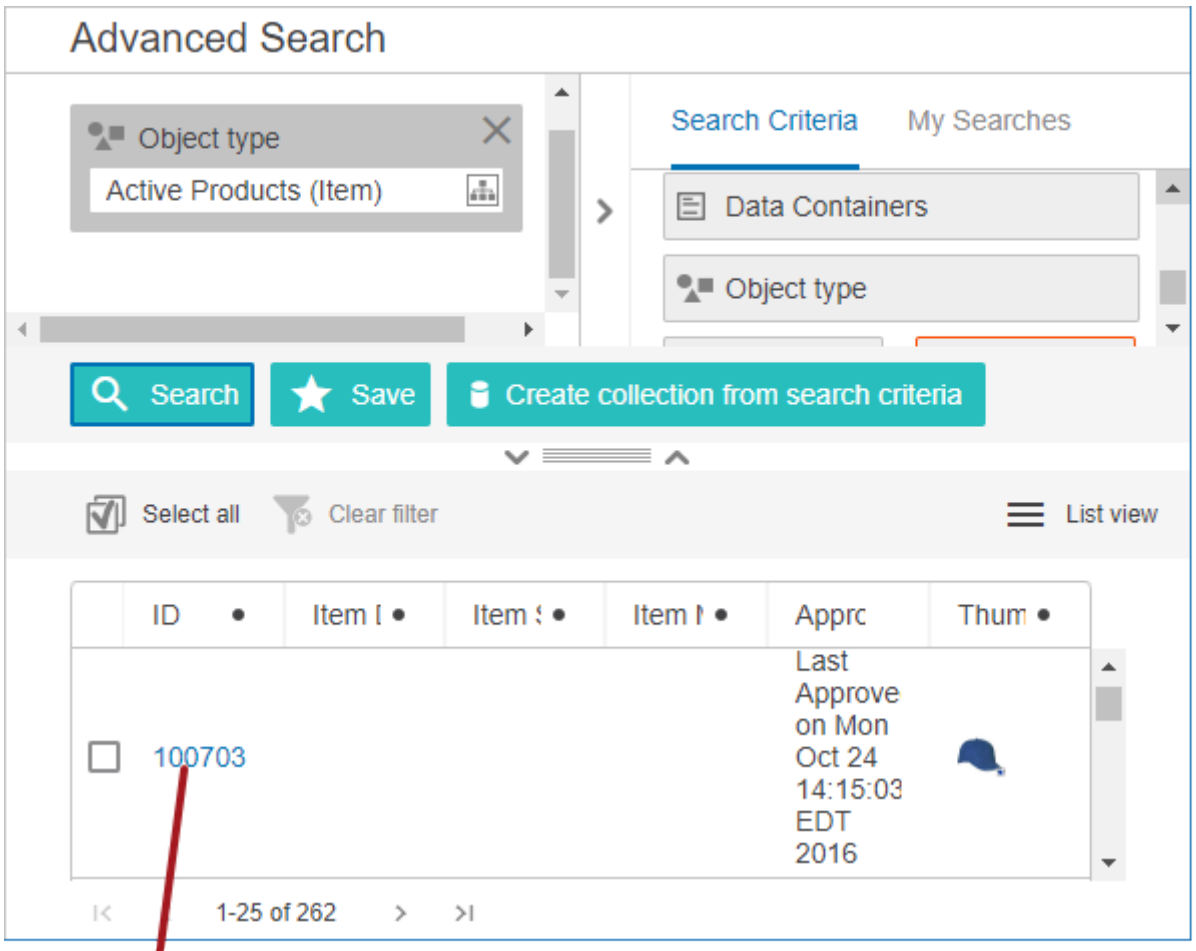
5. Determine how the object data should be displayed when you click on an object ID link in a Node List. You can either view the object details directly on the same screen by enabling the **Use Details Overlay** parameter—or view the object details on a different screen. Both methods use the same screen mappings (dependent on how you have set up the parameters) and display the same information. To better explain, below are two examples, both using the Advanced Search screen type:

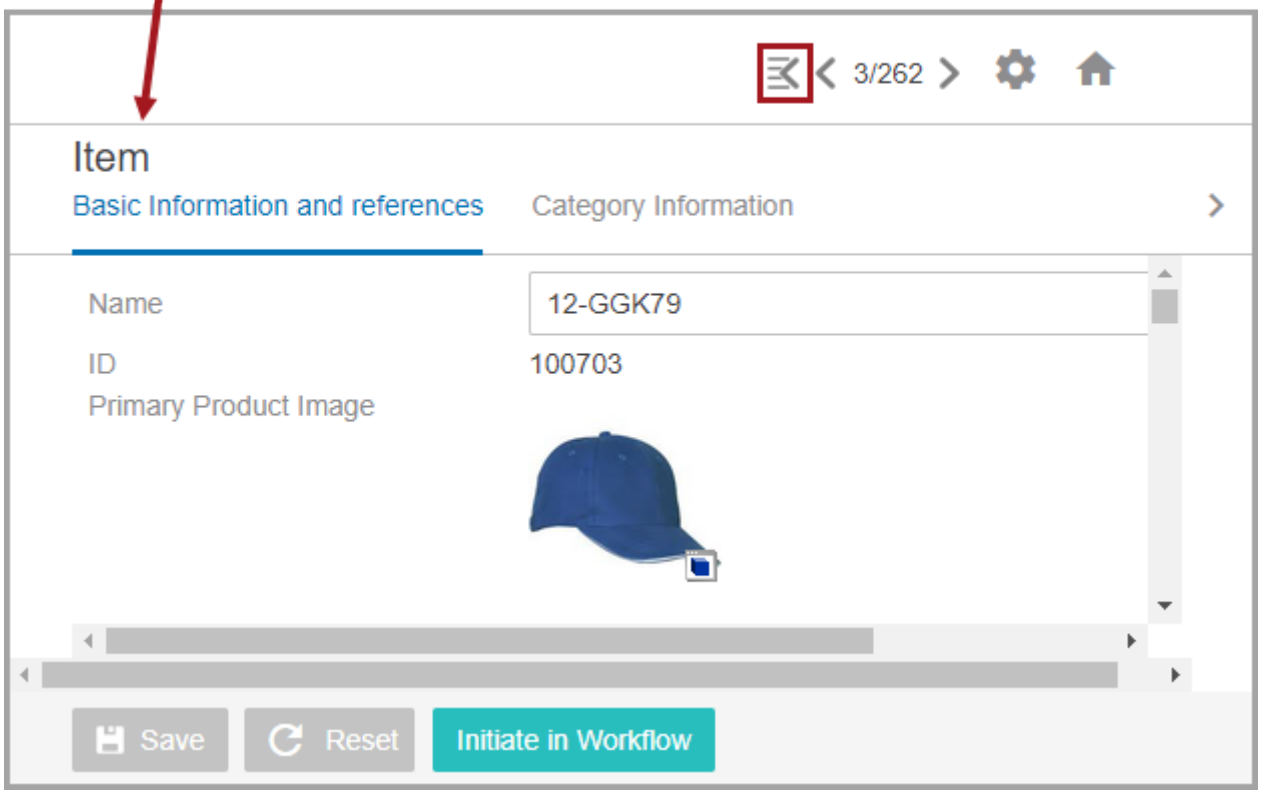
A user runs a search and then clicks on ID 101117 that is shown in the results list, which is a Node List in List view.

- Example 1: **Use Details Overlay** is disabled (unchecked), so the screen navigation takes the user to the Item Details screen.


Advanced Search
Object type
Item (Item)
Search Criteria
My Searches
Name, ID and Attribute value ...
Data Containers
Search
Save
Create collection from search criteria
Select all
Clear filter
List view
ID
Item Supplie
Item Manufa
Approval
Thumbnail
100703
Last Approved on Mon Oct 24 14:15:03 EDT 2016
101117
1-25
Browse
Mens T PBO 2
12-GGK79
Mens T PGW
Mens T POY
Mens T PBG
Mens T PBO w
Mens T PBG w
Mens T PGS w
Womens T PG
Womens T PO
12-GGK79(2)a
18216 L B
Asset basket (0)
Item
Basic Information and references
Category
Name
12-GGK79
ID
100703
Primary Product Image
Product Category
Apparel | Body T-
Object Type
Item

- Example 2: **Use Details Overlay** is enabled (checked), so the Item Details screen displays as an overlay on the Advanced Search screen. Users can easily return to the results list / Node List by clicking the  icon in the upper right corner and can use the arrows to navigate through each Node List item.


Advanced Search
Object type
Active Products (Item)
Search Criteria
My Searches
Data Containers
Object type
Search
Save
Create collection from search criteria
Select all
Clear filter
List view
ID
Item I
Item S
Item N
Apprc
Thum
100703
Last Approve on Mon Oct 24 14:15:03 EDT 2016
1-25 of 262

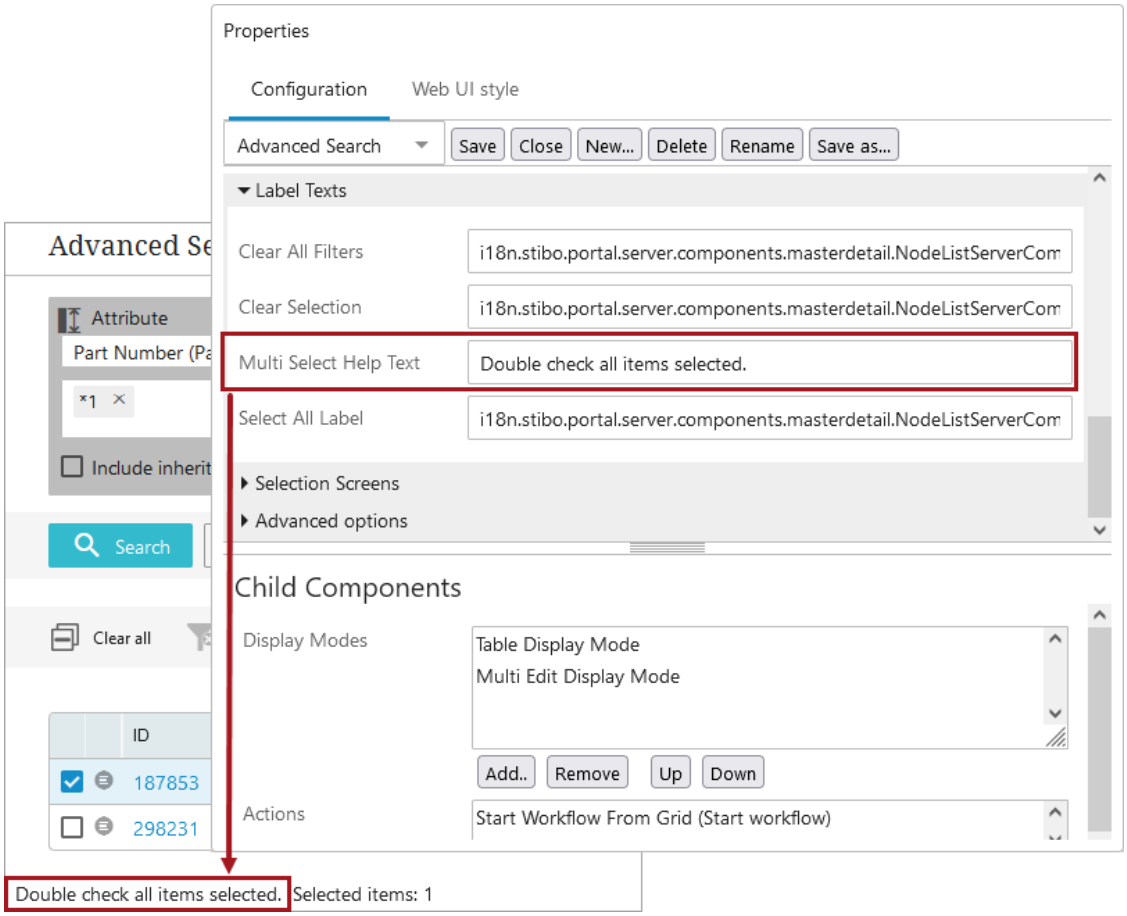

3/262
Item
Basic Information and references
Category Information
Name
12-GGK79
ID
100703
Primary Product Image
Save
Reset
Initiate in Workflow

6. Select a **Default Sorting Order** option (Ascending or Descending), if desired.
7. If a Default Sorting Order is selected, enable **Enable Default Sorting** by checking the box. When enabled, initial table sorting will be performed on the contents of the first column or row (depending on property direction) when applicable, otherwise on ID. If disabled, no initial sorting will be performed.

> **Note:** If Table Sorting is enabled for one of the headers configured within a display mode, then that setting overrides the Node List Enable Default Sorting selection.

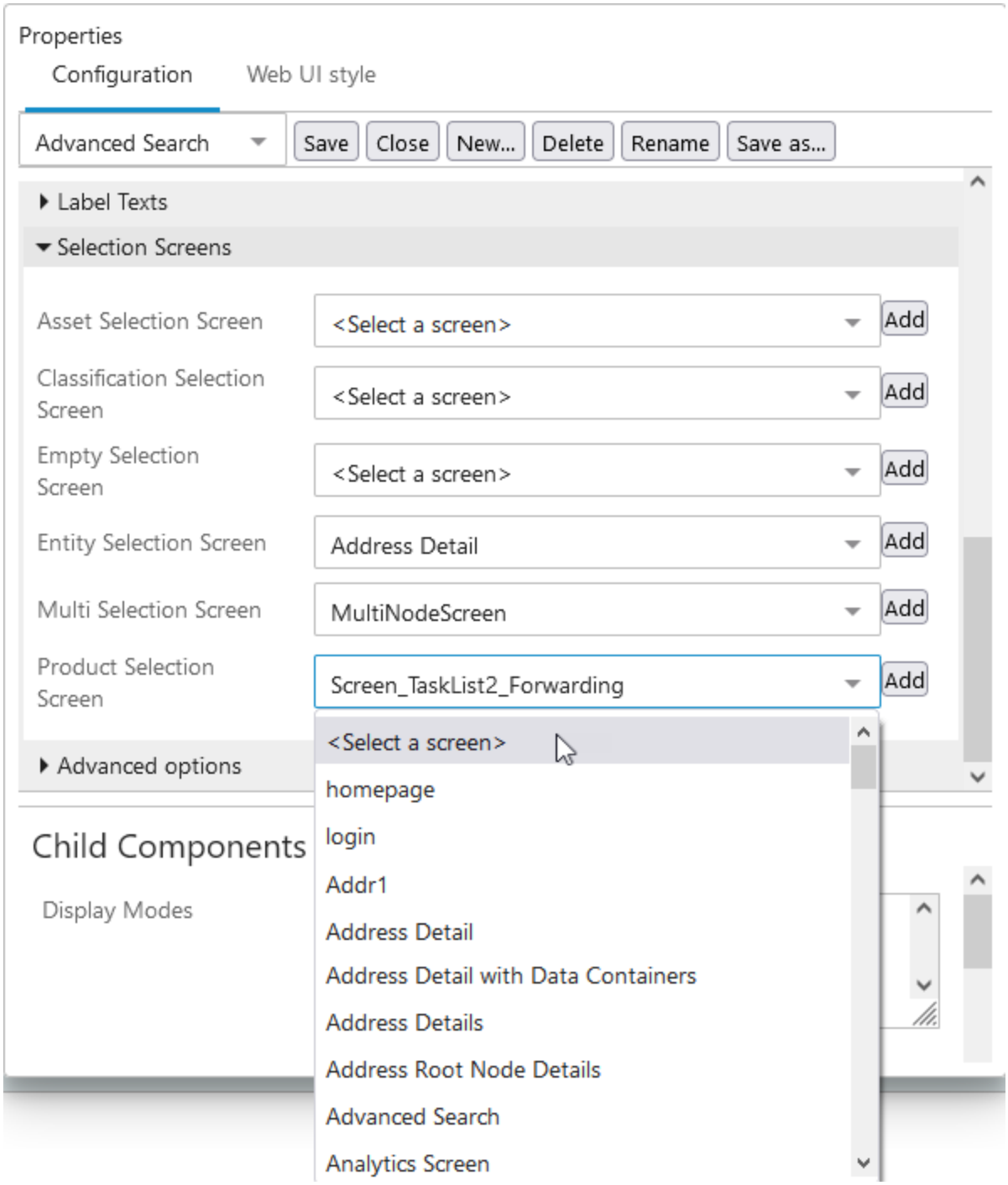
Access additional parameters by clicking on **Label Texts**.

8. Under Label Texts, if desired, change the hover text displayed for one or all of the three standard buttons (described in Step 1) by typing the desired text into the **Clear All Filters**, **Clear Selection**, and/or **Select All Label** parameter fields.
9. To display text / information to a user looking at data in Table Display Mode (List view), Film Strip Display Mode (Filmstrip view), or Gallery Display Mode (Gallery view), add it to the **Multi Select Help Text** parameter. It is blank by default. An example follows.



Access additional parameters by clicking on **Selection Screens**.

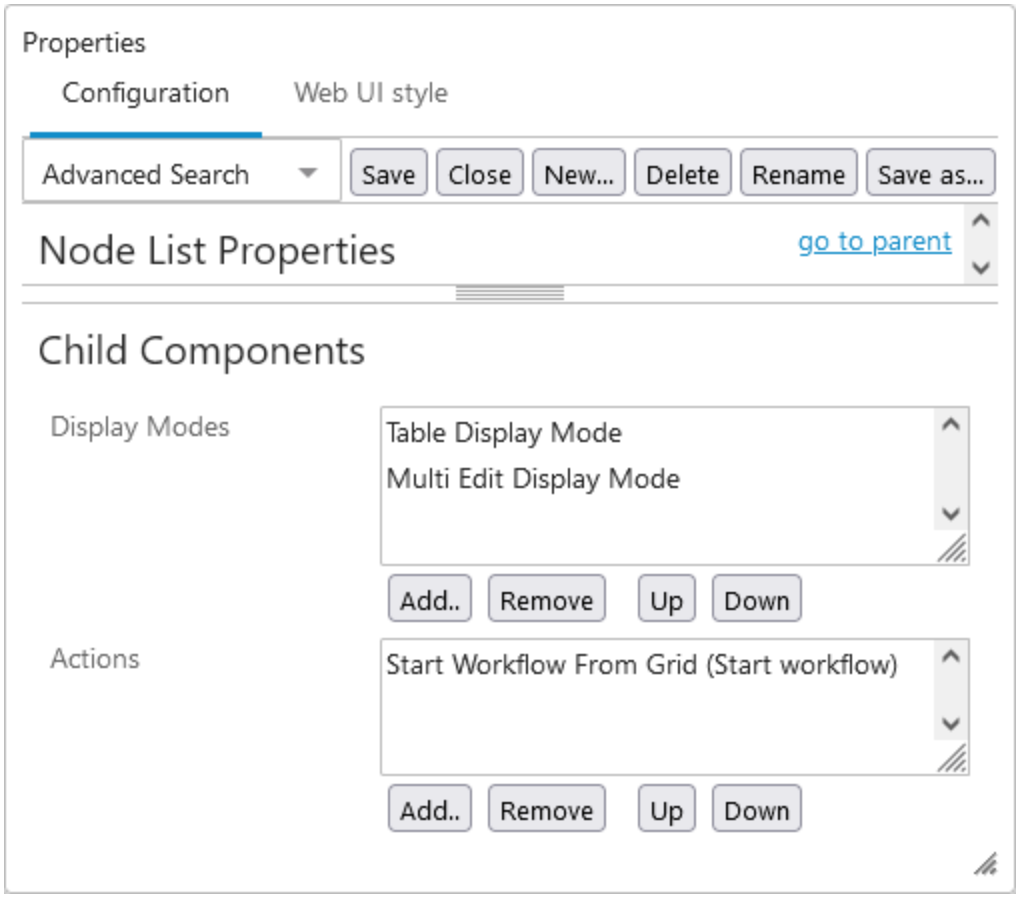
10. Under Selection Screens, if you wish to override the configured Web UI mappings, make selections regarding which screen(s) a user will view after clicking on object links in the table. Using the dropdown for each parameter, select the ID of the screen to display when:
    - **Asset Selection Screen**: A single asset is selected.
    - **Classification Selection Screen**: A single classification is selected.
    - **Empty Selection Screen**: The selection is empty.
    - **Entity Selection Screen**: A single entity is selected.
    - **Multi Selection Screen**: The selection has multiple entries.
    - **Product Selection Screen**: A single product is selected.



Important: If using these screens instead of the Main Properties mappings, you also need to disable the Lookup Screen Type For Navigation parameter, as described earlier in this topic.

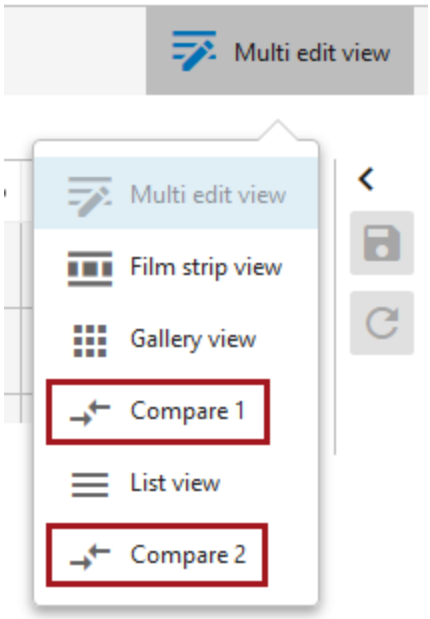
Configuring Node List Child Component Properties

Display Modes and **Actions** are configured in the Child Components section. Each selection corresponds to a button / icon that will display above the data table. Display Modes determine how the entire Node List displays, and actions can be performed on the selected nodes and/or objects. The buttons / icons are enabled when they are applicable for use.



These are basic instructions for configuring each with more detail following the steps.

1. Click the **Add** button under the parameter field.
2. Make a selection in the 'Add component' dialog.
3. Click **Add** again. New selections are added to the bottom of the list and can be re-ordered using the Up and Down buttons. The icons / buttons will display left to right on the screen in the top-to-bottom order shown for the parameter.
4. Repeat steps one through three as needed.
5. Double-click on the display mode title in the field to configure each display mode's properties. Each display mode provides a different view of the configured content, and allows for different configuration options. For example, each display mode can be given a unique name in the 'Title' field, so that multiple view modes of the same type can be differentiated in the view mode selection dropdown located in the Node List toolbar.



The various view modes are defined in the table below.

Icon	Display Mode	Button Hover Text	Description	Image Display
	Compare	Compare view	Table with customizable headers; can change table direction and select a title to use for identifying the objects displayed; Freeze Panes can be enabled on this view; Hide Equal / Mark Different is available for this view type Configuration instructions are in Display Mode - Compare.	By adding and configuring a Thumbnail header, images for products, entities, and classifications can be displayed in a Node List.
	Film Strip	Filmstrip view	A single row of icons / images representing the objects Configuration instructions are in Display Mode - Film Strip.	If no reference type is defined for the 'Reference Type' parameter when configuring this view mode, the primary image for products, entities, and classifications will display automatically.

Icon	Display Mode	Button Hover Text	Description	Image Display
	Gallery	Gallery view	Grid with icons / images representing the objects; typically used for lists of image assets Configuration instructions are in Display Mode - Gallery.	If no reference type is defined for the 'Reference Type' parameter when configuring this view mode, the primary image for products, entities, and classifications will display automatically.
	Grid	Grid view	Configurable grid; designate what attribute value is displayed Configuration instructions are in Display Mode - Grid.	By adding and configuring a Thumbnail header, images for products, entities, and classifications can be displayed in a Node List.
	Multi Edit	Multi edit view	Configurable table; allows for editing of the objects; Freeze Panes can be enabled on this view; Hide Equal / Mark Different is available for this view type Configuration instructions are in Display Mode - Multi Edit topic.	By adding and configuring a Thumbnail header, images for products, entities, and classifications can be displayed in a Node List.
	Sequencing	Sequence view	Table used for sequencing children of the current object (via the Display Children Screen and Children of Types). This can be used to sequence products, classifications, products in classification folders, and attributes. Configuration instructions are in Display Mode - Sequencing.	By adding and configuring a Thumbnail header, images for products, entities, and classifications can be displayed in a Node List.
	Table	List view	Configurable list (vertical columns); Hide Equal / Mark Different is available for this view type Configuration instructions are in Display Mode - Table / List.	By adding and configuring a Thumbnail header, images for products, entities, and classifications can be displayed in a Node List.

For more information on the Thumbnail Header component, refer to the **Thumbnail Header** topic in the **Web User Interfaces** documentation.

Important: For the view modes described in the table above that enable configuration of a 'Thumbnail header' component, the 'Primary Image Reference Type' must be set on the 'Users and groups' node for the 'Thumbnail header' to successfully display an image. 'Users and groups' is located on the 'System Setup' tab in workbench.

Clicking through the actions in the 'Add component' list will provide more details on what each action does. Also, many actions are explained in detail in applicable topics within the **Using a Web UI** documentation, as they pertain to specific functionality. Actions examples include (but are not limited to) Add Reference Action, Remove a Reference Target, Start Workflow from Grid, and Custom Export Action

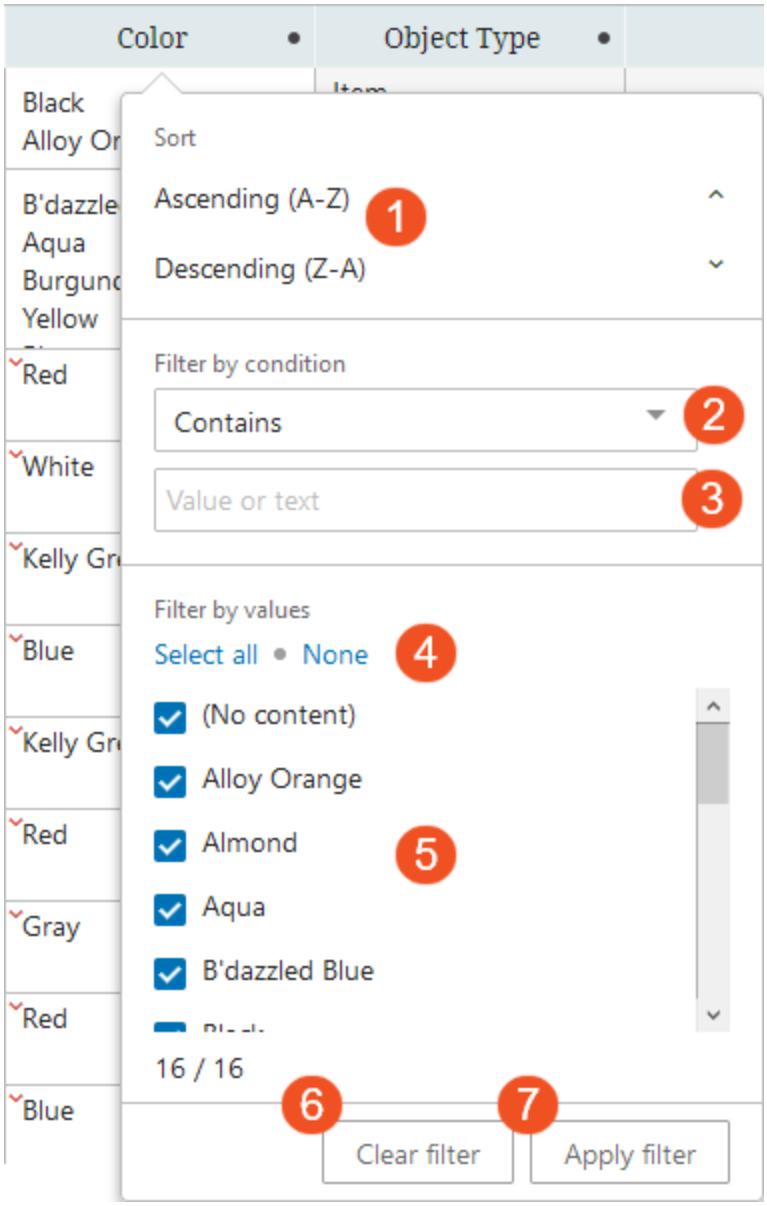
For the 'Compare,' 'Multi Edit,' 'Sequencing,'and 'Table' display modes, attributes values may be filtered by enabling the 'Enable Filtering' option on the component.

Enable Filtering

When the Enable Filtering option is selected on this component, the ability to filter based on attribute values is enabled.



To apply a filter, click anywhere in a column's header. This brings up the sorting and filtering window highlighted in the screenshot below:



Referencing the numbered elements in the above screenshot to the corresponding numbers in the list below, functionality in the filtering window enables users to:

1. Sort the attributes in either ascending (^) or descending (˅) alphabetic order.
2. Filter the linked attributes by a condition to show only attributes that:
   - 'Begins with' - The filter value begins with one or a sequence of character.
   - 'Contains' - The filter value contains one or a specific sequence of characters. This value may appear anywhere within a value string.
   - 'Does not contain' - The filter value does not contain one or a specific sequence of characters, whether in a single-valued or multi-valued cell. This value may appear anywhere within a value string.
   - 'Equals' - The filter value matches a precise set of characters.

- 'Include Only' - This filter option allows users to set a list of values separated by a delimiter, like commas, semicolons, pipes, tabs, or newlines, and if one or more of the items in the list matches, then those rows will be populated. If no items from the list are present in the column, then no results will display.
- 'Wildcard' - This filter value option will display attribute values containing a repeated set of characters that includes known variable characters that can be substituted with an asterisk '*' symbol. Wildcard may be used singularly or multiple times in a filter setting. For more information, refer to the **Wildcard in Searches** section of the **Searching Functionality** topic of the **Getting Started** documentation.

3. With any of the above filtering criteria in place, users may enter their search terms into the **Search** field. As characters are typed into this field, the blue-checked values that display in the filtering menu change to reflect a filtered list of attribute values culled from the column's full list of values. From these, users may select only those attributes they want to display by adding a check beside each.

   The default filter setting is 'Contains.' For the settings 'Begins with,' 'Equals,' and 'Wildcard,' if a user just deselects any value in the search list, then the filter will revert to a 'Contains' filter once it is applied. For the settings 'Begins with,' 'Contains,' 'Equals,' and 'Wildcard,' any values entered that do not meet the filter criteria are removed from the filtered selection. For the setting 'Does not contain,' any rows containing values that do meet the filter criteria are removed from the filtered selection.

   Note: If you are dealing with multi-valued attributes where more than one value is populated, then All Values for that attribute are considered when creating a filter. Excluding one value by a filter does not mean the attribute will necessarily be removed from the view.

4. Click the 'Select all' button to ensure all listed attribute values are checked. Click the 'None' button to deselect all attribute values. When users click 'None', the 'Apply filter' button is grayed out and cannot be selected until at least one of the attribute values is selected.
5. Users may also forgo the filtering and manually select from the full attribute list only those attributes they want to display by adding a check beside each. All values are checked by default.
6. Quickly clear any work you have done in the filtering window by clicking the 'Clear filter' button. The configuration you have applied remains in this filtering window, even if you clear the filter on the actual attribute link table. To clear all filtering, first clear the filter from the table, and then in the filtering window, click the 'Clear filter' button.
7. Apply the configured filter to the attribute link table by clicking the 'Apply filter' button.

   Note: The sorting and filtering option applied in the attribute link editor screen of a product will be applicable only on the current selection. Once the user navigates to a different selection, sorting and filtering applied on the previous selection will be removed.

Note: When a Node List contains more than the configured number of objects (the default maximum being 5,000), sorting and filtering is disabled. This is because when Node Lists contain more than the configured maximum for display, all objects above that maximum will not display. Because sorting and filtering actions applied to the displayed objects will not also apply to non-displayed objects, sorting and filtering is disabled. For example, if an advanced search result contains 10,000 results, and the user clicks a header to sort and filter the Node List based on the values in the column, it will not be obvious that all objects after 5,000 are not included in the filtering, and so the resulting list will not be accurate. When users initiate sorting and filtering

on a Node List with more than the configured maximum number of objects, an informational dialog displays that reads, 'Sorting and filtering on this subset of data would display inaccurate results, so they have been disabled.' This restriction is applied to all display modes that support sorting and filtering, i.e., Multi Edit, Table, and Compare views.

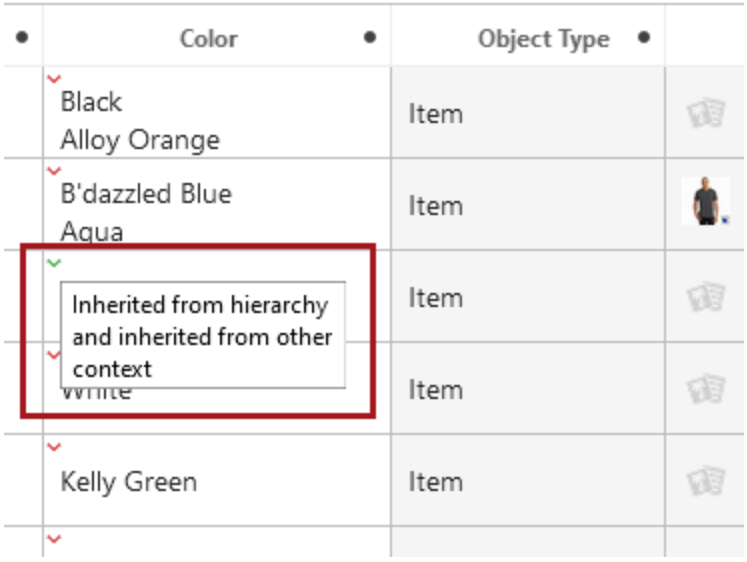
Display of inheritance in reference and attributes in tabular views

Users working on Node Lists (viewed in Multi Edit View Mode), Multi Revision screens, and Multi Reference screens will view one of two inheritance indicators display in relevant cells on these screens:

Inherited from context	Red arrow
Inherited from hierarchy	Green arrow
Inherited from context and hierarchy	Green arrow

As demonstrated in this table, two inheritance scenarios are indicated with the same green arrow.

To view which of the two scenarios is applicable, users can hover the cursor over the green arrow. Doing so will display a small information window that describes which inheritance applies to the attribute or reference in question. In the example below, the attribute is inherited from another context and from the hierarchy. Similar descriptive pop-ups will display when hovering over any of the inheritance-indicating arrows.



If a multi-attribute or multi-reference cell includes a mix of inheritance types, only one inheritance indicator arrow will display. This means that only one arrow will display even if both types are represented in the cell. The rules governing this are as follows: context inheritance (red arrow) will display over hierarchical inheritance (green

arrow), and a reference that is inherited both from context and hierarchy (green arrow) will display over all other types of inheritance.

For additional information on using a Node List, refer to the following topics in **Web User Interfaces** / **Using a Web UI**:

- Node Details Screen
- Main Properties
- Multi-Reference Editor
- Advanced Search
- Multi Revision Screen

Node List Headers

A Node List component allows users to configure the headers of these node lists to customize the information that is displayed per node list component.

Advanced Merge Globally Configured Data Container Header

Data Container Header that uses global configuration to display and maintain data container values and references. Used in combination with a Advanced Merge.

Approved Header

Table header that shows the approval time of the items in the table.

Asynchronous Job Nodes ID Header

Table header that shows the ID of the Asynchronous Job in the table.

Asynchronous Job Nodes Number Header

Table header that shows the status of the asynchronous jobs in the table.

Asynchronous Job Started Date Header

Table header that shows the started date of the asynchronous jobs in the table.

Asynchronous Job Status Header

Table header that shows the status of the asynchronous jobs in the table.

Asynchronous Job Translation Configuration Header

Table header that shows the configuration of the asynchronous jobs in the table.

Attribute Link Wiki Header

Table header capable of including the 'Go to Wiki' link to a metadata page.

Attribute Value Group Header

The Attribute Value Group Header can be configured to display a group of attributes values valued for a selection of objects. Attributes added to a selected Attribute Group will automatically be included and displayed in the Node List. Used in combination with a Node List.

Attribute Value Header

The Attribute Value Header can be configured to display attributes values for a selected object. Used in combination with a Node List.

In the designer screen for this header, the **Escape Tags Before Save** parameter allows users to determine the functionality for the special characters, such as the greater-than, less-than, and slash symbols. Special characters are used in both paired (<bold>xxxx</bold>) and unpaired (<in/> and single characters like > and <) tags.

- When the parameter is **enabled**, tags are escaped before the current value is saved, which means individual special characters are not interpreted as part of a tag. Use this setting for attributes that include individual special characters (not tags) to output those characters in the same way as other characters are output.
- When the parameter is **disabled**, tags are not escaped before the current value is saved, which means the special characters used in paired and unpaired tags are processed as tags by the selected media output. Use this setting when tags are included in attribute values to output special characters as tags.

Since special characters are handled differently if they are included in a tag or not, only one type of value (tags or individual special characters) are allowed within an attribute. For more information on tags, refer to the **Tags** topic in the **System Setup** documentation.

Business Function to Node

The business function table header enables users to retrieve the title of a single related node, such as a parent or child, where there is only a single relation of that type. If this related node is mapped, a user can click on the related item, view or make edits to the related item, and then return back to the table.

CIC Status Header

Table header that shows the value of the CIC status in the table.

Classification-Specific Attribute Value Group Header

The Classification-Specific Attribute Value Group Header can be configured to display a group of attributes values for a selection of objects. Attributes added to a selected Attribute Group will automatically be included and displayed in the Node List. This component is to be used in combination with a Node List. By using the component, you will be able to view only the attributes linked to the classifications referenced by classification product link. The component can display classification dependent units defined in metadata attributes on the attribute-classification link.

Classification-Specific Attribute Value Header

The Classification-Specific Attribute Value Header can be configured to display attributes values for a selected object. Used in combination with a Node List. The component can display classification dependent units defined in metadata attributes on the attribute-classification link.

In the designer screen for this header, the **Escape Tags Before Save** parameter allows users to determine the functionality for the special characters, such as the greater-than, less-than, and slash symbols. Special characters are used in both paired (<bold>xxxx</bold>) and unpaired (<in/> and single characters like > and <) tags.

- When the parameter is **enabled**, tags are escaped before the current value is saved, which means individual special characters are not interpreted as part of a tag. Use this setting for attributes that include individual special characters (not tags) to output those characters in the same way as other characters are output.
- When the parameter is **disabled**, tags are not escaped before the current value is saved, which means the special characters used in paired and unpaired tags are processed as tags by the selected media output. Use this setting when tags are included in attribute values to output special characters as tags.

Since special characters are handled differently if they are included in a tag or not, only one type of value (tags or individual special characters) are allowed within an attribute. For more information on tags, refer to the **Tags** topic in the **System Setup** documentation.

Confidence Table Header

Header used for displaying D&B confidence score.

Context Header

Table header that shows the context name for items in the table.

Data Container Attribute Value Group Header

The Data Container Attribute Value Group Header can be configured to display data container group of attributes values valued for a selection of objects. Attributes added to a selected Attribute Group will automatically be included and displayed in the Node List. Used in combination with a Node List.

Data Container Attribute Value Header

The Data Container Attribute Value Header can be configured to display data container attributes values for a selected object. Used in combination with a Node List.

Deduplication Header

Table header that links for deduplication in Clerical Review Workflow.

GDSN Receiver Data Container Attribute Value Header

The GDSN Receiver Data Container Attribute Value Header can be configured to display data container attributes values for a selected object. Used in combination with a Node List.

ID Header

Table header that shows the ID of the items in the table.

ID Shared Target Header

Table header that shows the ID of the items in the table. The header shows an icon if a referenced target is shared with other objects.

Name Header

Table header that shows the name of the items in the table.

Object Type Header

Table header that shows the Object Type for items in the table.

Path Header

Table header that shows the Path for the nodes in the table.

Reference Header

Table header that shows references of the items in the table.

Reference Metadata Value Header

Table header that shows the value of an metadata attribute on the reference or classification product link.

In the designer screen for this header, the **Escape Tags Before Save** parameter allows users to determine the functionality for the special characters, such as the greater-than, less-than, and slash symbols. Special characters are used in both paired (<bold>xxxx</bold>) and unpaired (<in/> and single characters like > and <) tags.

- When the parameter is **enabled**, tags are escaped before the current value is saved, which means individual special characters are not interpreted as part of a tag. Use this setting for attributes that include individual special characters (not tags) to output those characters in the same way as other characters are output.
- When the parameter is **disabled**, tags are not escaped before the current value is saved, which means the special characters used in paired and unpaired tags are processed as tags by the selected media output. Use this setting when tags are included in attribute values to output special characters as tags.

Since special characters are handled differently if they are included in a tag or not, only one type of value (tags or individual special characters) are allowed within an attribute. For more information on tags, refer to the **Tags** topic in the **System Setup** documentation.

Reference Suppression Header

The Suppression header will provide information on which contexts a reference is suppressed in. The header can be used on the Multi Reference Editor and the Multi Context screen.

Reference Type Header

The Suppression header will provide information on which contexts a reference is suppressed in. The header can be used on the Multi Reference Editor and the Multi Context screen.

Reference Visibility Header

Table header that shows the contexts in which the reference or classification product link is visible.

Revision Header

Table header that shows the revision of the items in the table.

Status Flag Header

Table header that shows the revision of the items in the table.

Target or Reference Metadata Value Header

Table header that shows the value of an attribute on the referenced target object, or the value of a metadata attribute on the reference linking the viewed object to the target object.

In the designer screen for this header, the **Escape Tags Before Save** parameter allows users to determine the functionality for the special characters, such as the greater-than, less-than, and slash symbols. Special characters are used in both paired (<bold>xxxx</bold>) and unpaired (<in/> and single characters like > and <) tags.

- When the parameter is **enabled**, tags are escaped before the current value is saved, which means individual special characters are not interpreted as part of a tag. Use this setting for attributes that include individual special characters (not tags) to output those characters in the same way as other characters are output.
- When the parameter is **disabled**, tags are not escaped before the current value is saved, which means the special characters used in paired and unpaired tags are processed as tags by the selected media output. Use this setting when tags are included in attribute values to output special characters as tags.

Since special characters are handled differently if they are included in a tag or not, only one type of value (tags or individual special characters) are allowed within an attribute. For more information on tags, refer to the **Tags** topic in the **System Setup** documentation.

Thumbnail Header

The Thumbnail Header can be added to a Node List screen to display a referenced image in the table. For more information, refer to the **Thumbnail Header** topic in this documentation.

Title Header

Table header that shows the title of the items in the table.

Translation Header

Table header that shows the translation status of the items in the table.

Unique Keys Header

Table header that shows the keys of the items in the table.

Value Link Header

Table header that shows any attribute as a link or just as plain text.

Variants Header

Table header that shows the values of attributes ProductVariantFamily.

Workflow Navigation Header

Table header that allows workflow dependent navigation, for example, make it possible to navigate to a screen that is workflow / state specific. Note that this component in task-centric and hence ignores all workflow that does not support assignment and only shows navigation for tasks assigned to current user or any group they are a member of.

Node List Toolbar Actions

In a Node List screen, toolbar action buttons aid users in performing various tasks. Below is a list of all available toolbar actions:

Toolbar Action	Description
Add To Basket Action Button	Add the selected items to the basket.
Adopt Children Action	Select a number of products to become immediate children of the current product.
Approve Action	Approve an item in a workflow.
Create Asset Action	Create a new asset.
Create Attribute And Attribute Group Action	Popup menu for creating new attributes and attribute groups.
Create Classification Action	Create a new classification.
Create Entity Action	Create a new entity.
Create LOV And LOV Group Action	Create new LOVs and LOV groups.
Create Product Action	Create a new product.
Create Publication From Existing Action	Create a publication from an existing publication.
Create Supplier Product Action	Create a new supplier product.
Delete Action	Delete the currently selected node.
Duplicate Action	Duplicate the selected item.
Edit Unique Key Action	Edit unique keys.
GDSN Add Links Action	Add links to a product with GDSN.
GDSN Create RFCIN Action	Create a GDSN RFCIN message.
GDSN Create Subscription Action	Create a GDSN subscription for a datapool.
GDSN Delete Subscription Action	Delete a GDSN subscription for a datapool.
GDSN Hierarchy Withdrawal Action	Send a GDSN hierarchy withdrawal command.

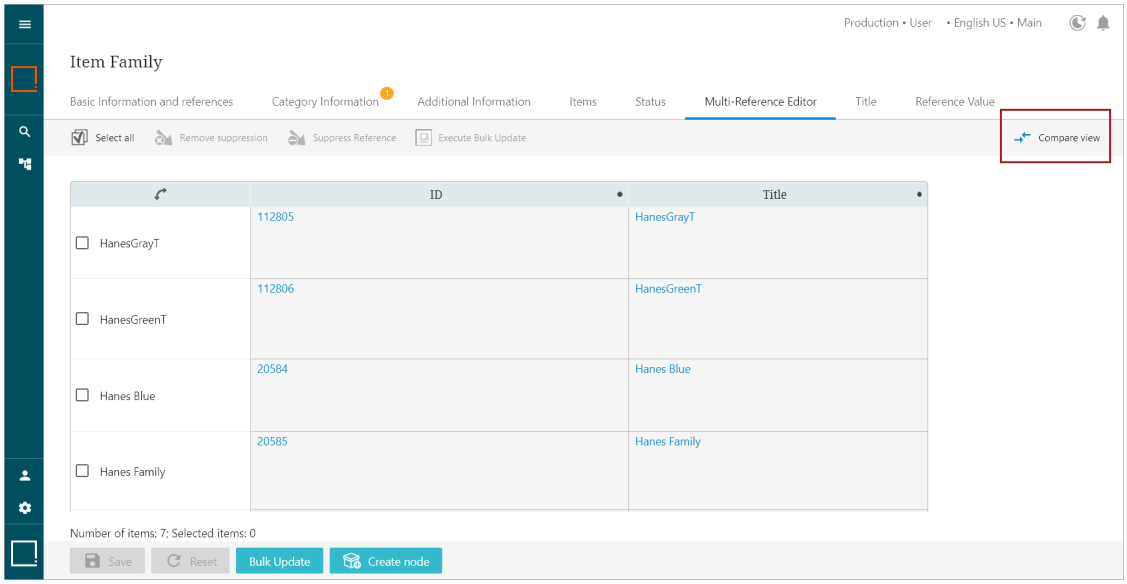
Toolbar Action	Description
GDSN Import RFCIN Action	Import an Excel file with RFCINs for a datapool.
GDSN Import Subscriptions Action	Import an Excel file with a GDSN subscription for a datapool.
GDSN Publish Action	Publish a GDSN product.
GDSN Register Action	Register a product with GDSN.
Import Commercial Terms	Import commercial terms for the selected publication.
Import Publication XLS Action	Import a publication hierarchy from an Excel file.
Link Sub Products Action	Override for linking sub products to the current product.
Mapper Action	Run a mapper configuration on the current node.
Partial Approval Action	Partial approval button for the currently selected node.
Proof View Action	Open a proof-view (XML-formatted values of a STEP object).
Reset Action	Reset values to the most recent save state.
Run Bulk Update Template Action	Run a bulk update.
Run Business Action	Initiate a business action.
Run Business Condition	Initiate a business condition.
Save Action	Save current edits to a Node List.
Stacked Mapper Action	Run a mapper configuration with the current node.
Start Workflow Action	Start a STEP workflow for the current node.
Submit Action	Submit objects if they are valid for the given product state and STEP workflow. One button can be inserted for each event.
Submit Parent Action	Submit objects if they are valid for the given product state and STEP workflow. Mandatory setup required for the parent object type to look for in the workflow and the parent state to continue from.
Task Assignment Action	Assign selected task to the current user or release the task from the current user.

Toolbar Action	Description
Unmerge Action	Unmerge a product or entity.
Update Profile Action	Refreshes the profile.

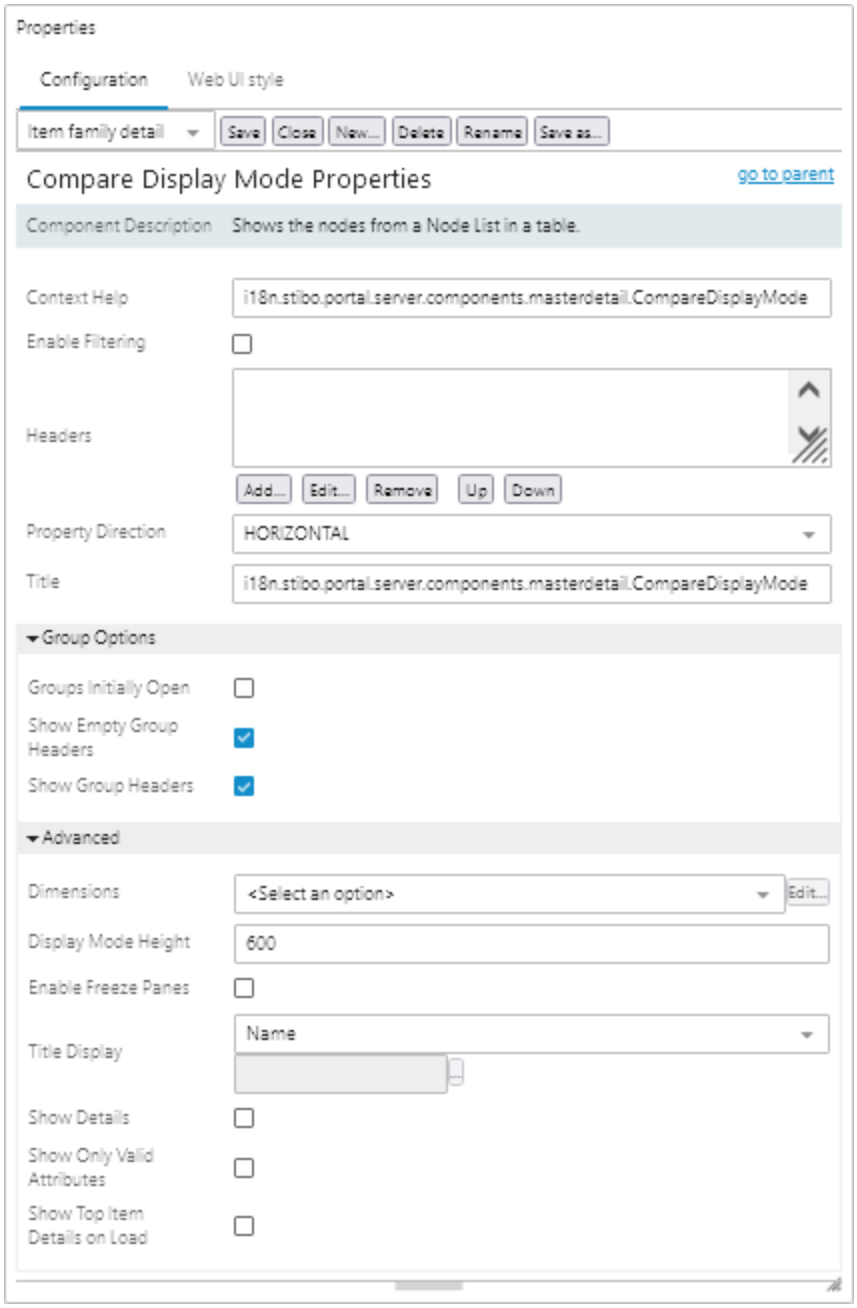
Display Mode - Compare

Shows the objects from a Node List in a table. You can change table direction and select a title to use for identifying the objects displayed. Freeze Panes can be enabled on this view. Hide Equal / Mark Different is available for this view type.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Compare Display Mode Properties



To configure the parameters in the Properties, refer to the help text that follows:

- **Context Help**: The context help shown when hovering over the compare view icon.
- **Enable Filtering**: Enables the data to be filtered.
- **Headers**: The headers that show in the Compare Display Mode table.
- **Property Direction:** Determines if the column headers should be displayed vertically or horizontally (default).

- **Title:** The text that displays in the view mode selection dropdown menu for the configured Compare Display Mode.

Group Options

- **Groups Initially Open:** If any 'Attribute Value Group Header' is configured as a column header, check if all attributes contained in the selected attribute group should also be displayed by default. This is always true if headers are not shown.
- **Show Empty Group Headers:** Check if any 'Attribute Value Group Header' configured as a column header should be visible even if the group contains no valid attributes to display. This can happen if the 'Show Only Valid Attributes' parameter is enabled, and there are no valid attributes contained in the group. This is enabled by default.
- **Show Group Headers:** Check if the title of the attribute group should display for any configured 'Attribute Value Group Header.' This is enabled by default.

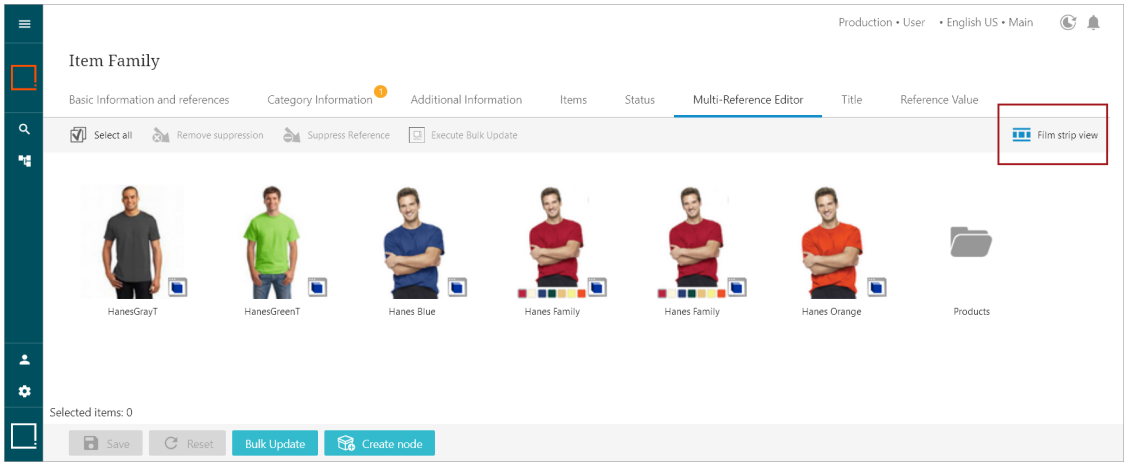
Advanced

- **Dimensions:** Optional changes to the standard table dimensions.
- **Display Mode Height:** The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when Show Details is enabled. Set to 600 px by default.
- **Enable Freeze Panes:** Allows the user to freeze panes.
- **Title Display:** Controls what is being displayed as a title.
- **Show Details:** Check if the detail panel should be visible below the table.
- **Show Only Valid Attributes:** Check if you want only valid attributes to display.
- **Show Top Item Details on Load:** If checked, the details for the first items will be opened on load.

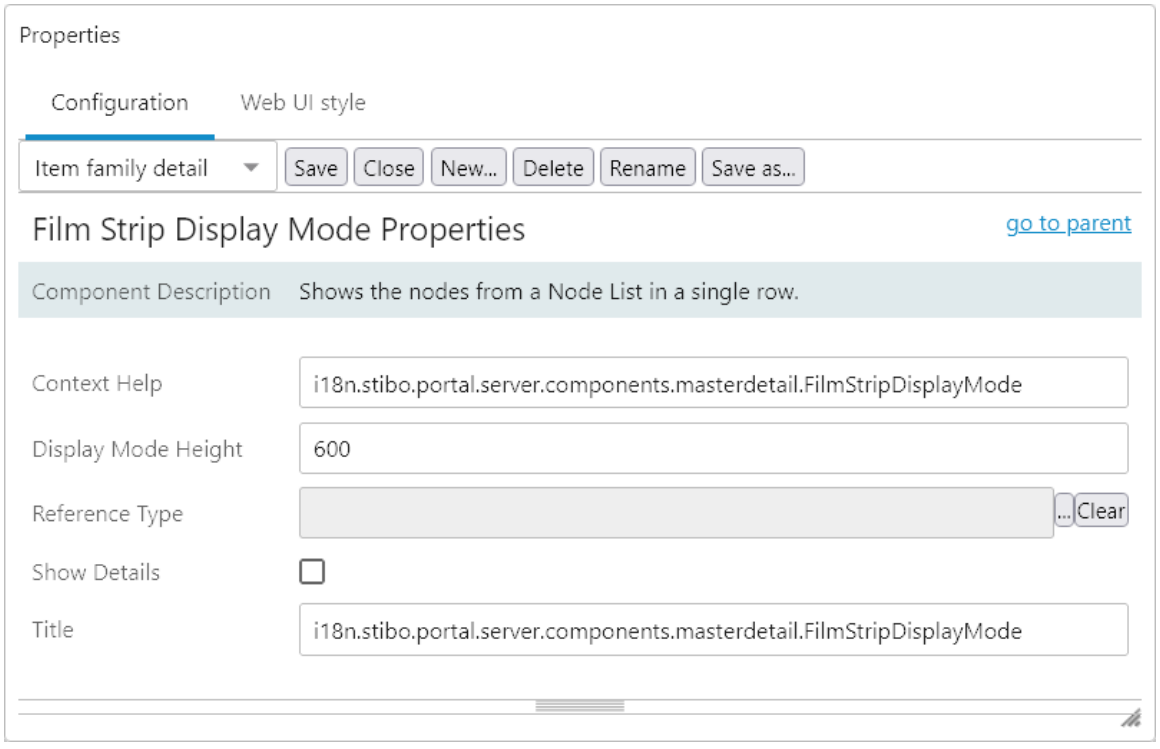
Display Mode - Film Strip

Shows objects from a Node List as a single row of icons / images representing the objects.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Film Strip Display Mode Properties



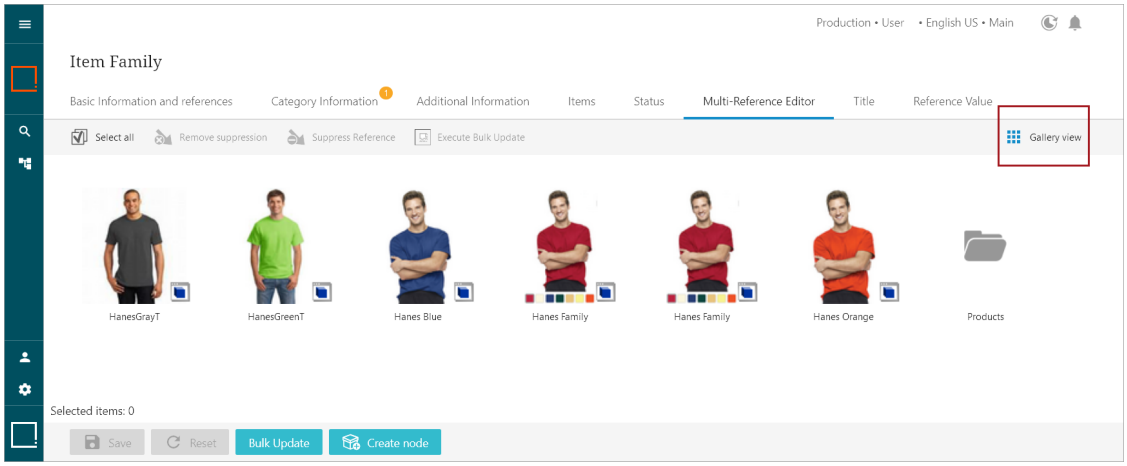
To configure the parameters in the Properties, refer to the help text that follows:

- **Context Help**: The context help shown when hovering over the film strip icon.
- **Display Mode Height**: The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when Show Details is enabled. Set to 600 px by default.
- **Reference Type**: The asset reference type to use for the image display.
- **Show Details**: Check if the detail panel should be visible below the table.
- **Title**: The text displayed on the button that selects this view mode.

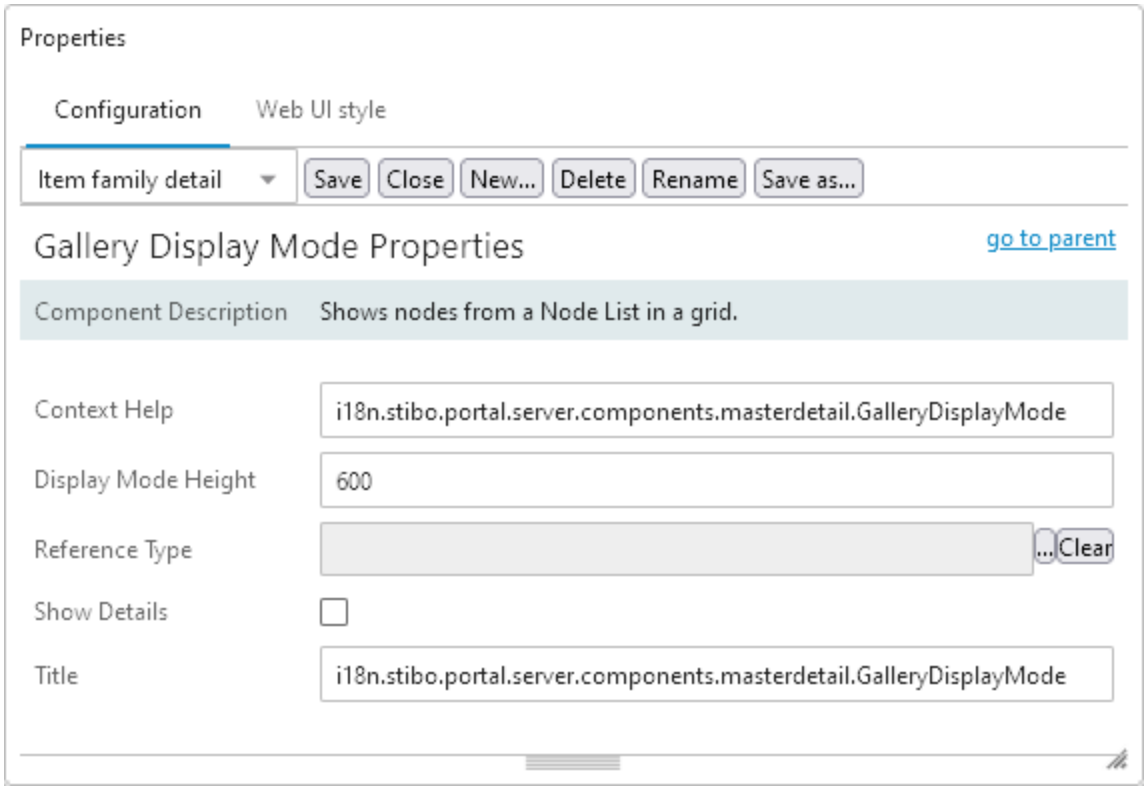
Display Mode - Gallery

Shows objects from a Node List as a grid with icons / images displayed as objects. This is typically used for lists of image assets.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Gallery Display Mode Properties



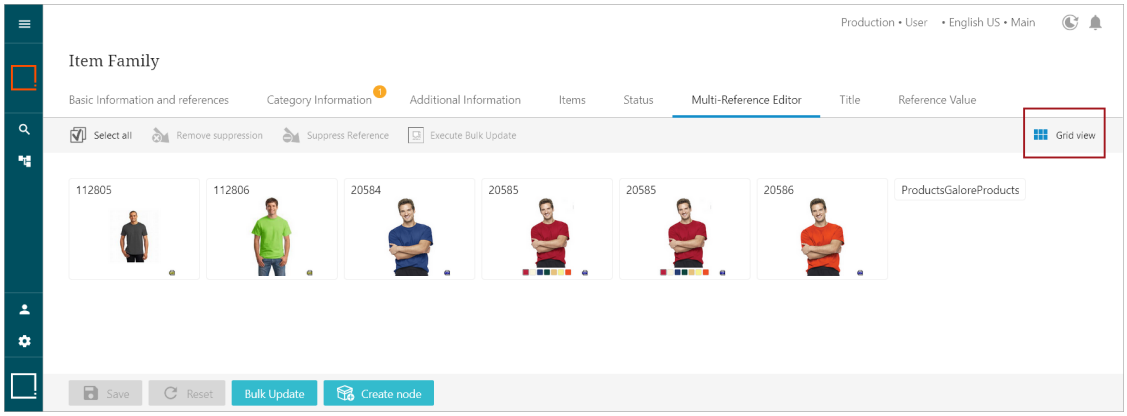
To configure the parameters in the Properties, refer to the help text that follows:

- **Context Help:** The context help shown when hovering over the gallery icon.
- **Display Mode Height:** The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when the Show Details checkbox is selected. The default value is 600 px.
- **Reference Type:** The asset reference type to use for the image display.
- **Show Details:** Check if the detail panel should be visible below the Gallery view.
- **Title:** The text displayed on the button that selects this view mode.

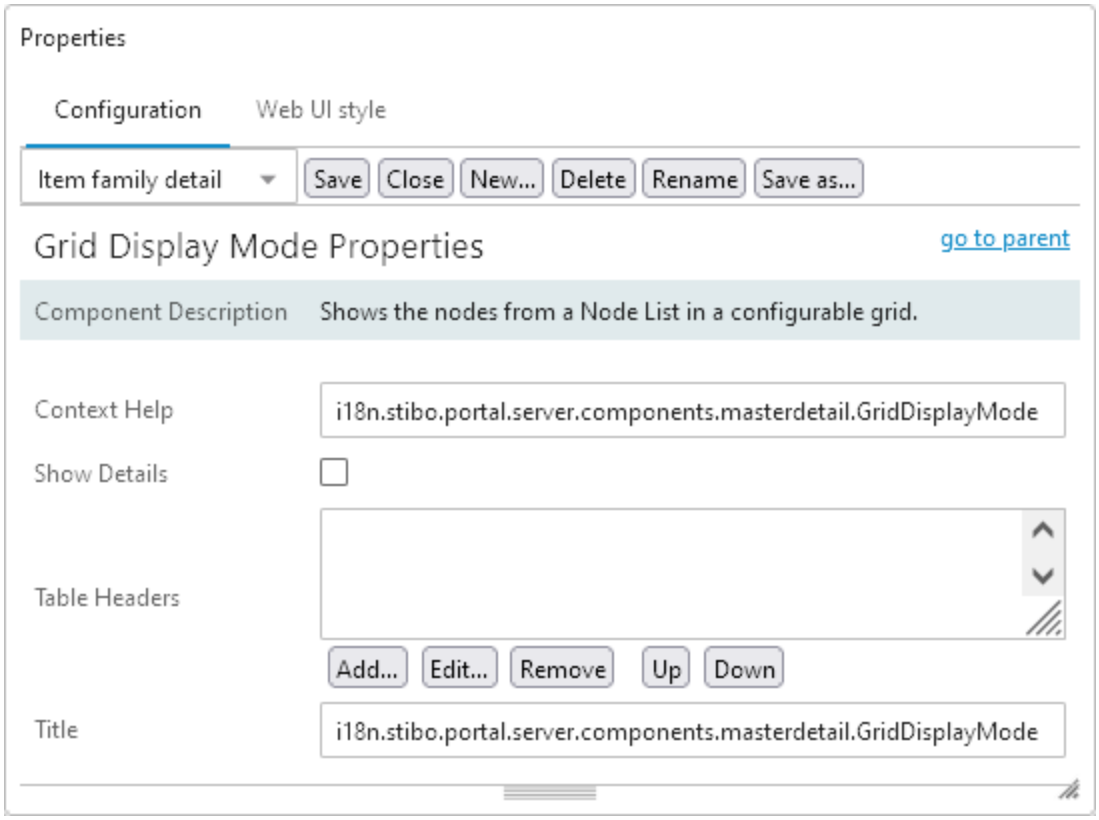
Display Mode - Grid

Displays objects from a Node List as a configurable grid which allows you to designate what attribute value is displayed.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Grid Display Mode Properties



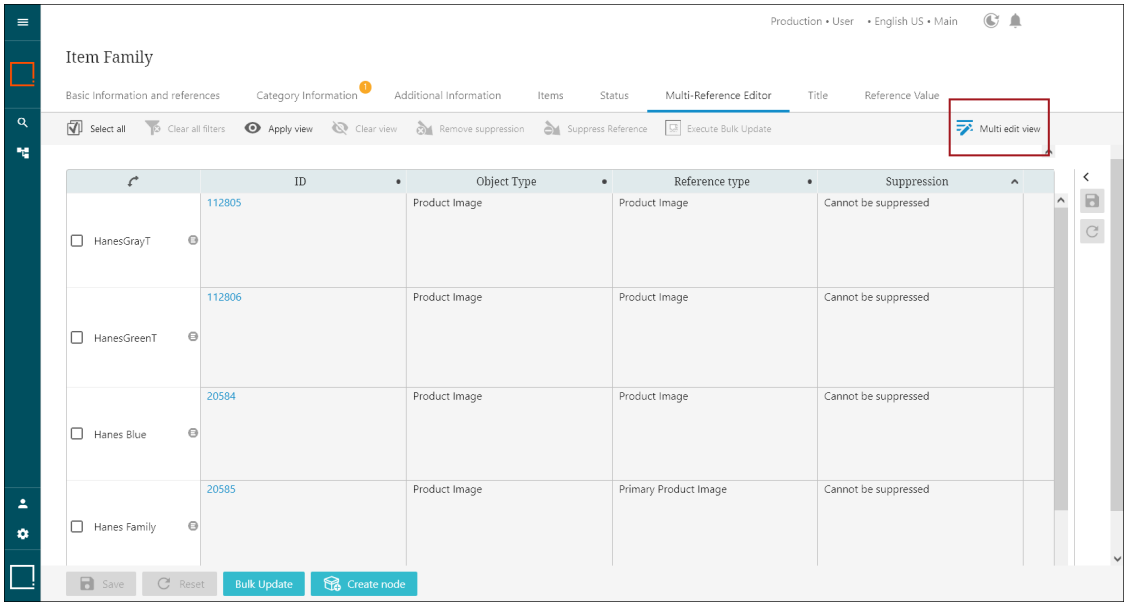
- **Context Help:** The context help shown when hovering over the toolbar icon.
- **Show Details:** Check if the detail panel should be visible below the grid.

- **Table Headers:** The information to show for each entry in the grid view. If none are specified then ID and Thumbnail are assumed.
- **Title:** The text displayed on the button that selects this view mode.

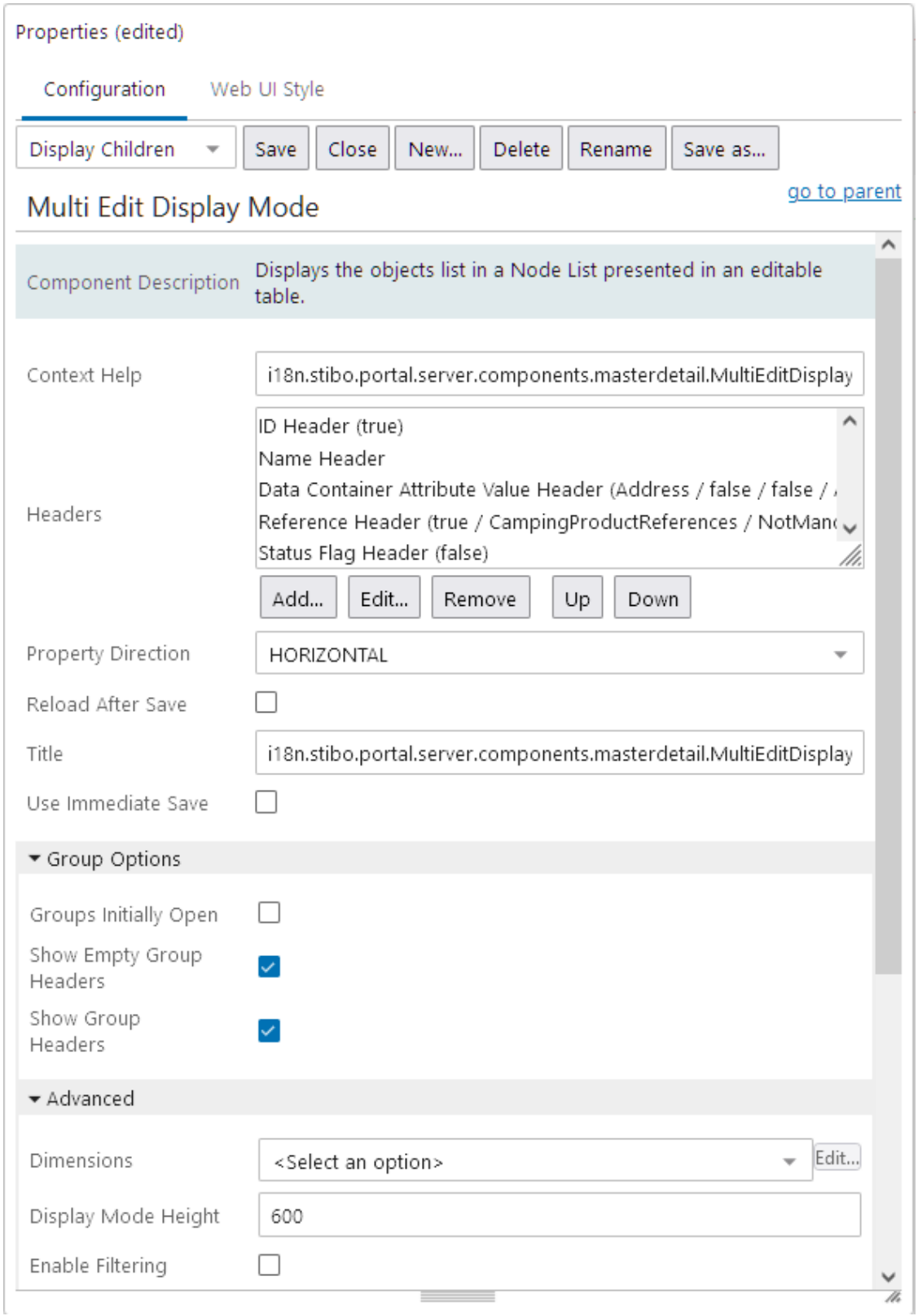
Display Mode - Multi Edit

Shows objects from a Node List in a configurable table. This table allows for the editing of objects. Freeze Panes can be enabled directly on the Multi Edit Display Mode component. Additionally, the Hide Equal and Mark Different actions are available for this view type.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Multi Edit Display Mode Properties



- **Context Help:** The context help shown when hovering over the Multi Edit view icon.
- **Headers:** The headers that show in the Multi Edit Display Mode table.
- **Property Direction:** Determines if the headers initially displayed vertically or horizontally.
- **Reload After Save:** Checking this reloads the node list after a successful save.
- **Title:** The text name that displays on the button that enacts the Multi Edit Display Mode.
- **Use Immediate Save:** If set to true, saves are done immediately as part of each edit operation.

Note: 'Use Immediate Save' must be enabled in the Multi Edit Display Mode component along with 'Save Before Executing' on the Node Details screen to ensure all data is saved in the Web UI.

Group Options

- **Groups Initially Open:** Determines if attribute groups should be open by default. This is always true if headers are not shown.
- **Show Empty Group Headers:** Check if the header should be visible if the group is empty. This can only happen if Show Only Valid Attributes is true and there are no valid attributes in the group.
- **Show Group Headers:** Check if a header should be shown for attribute groups.

Advanced

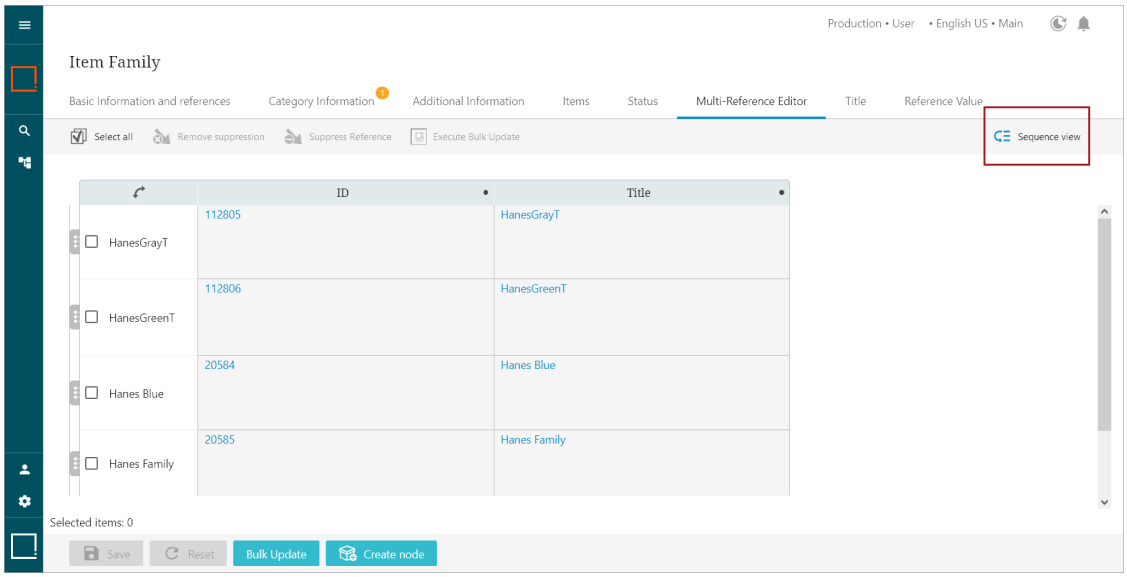
- **Dimensions:** Optional changes to the standard table dimensions.
- **Display Mode Height:** The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when Show Details is true. Set to 600 px by default.
- **Enable Filtering:** Enables filtering of the data.
- **Enable Freeze Panes:** Check to enable freeze panes.
- **Enable User Configurable View:** Enables user configurable views.
- **Title Display:** Controls what is being displayed as the title.
- **Show Details:** Check if the detail panel should be visible below this table.
- **Show Only Valid Attributes:** Check if only valid attributes should be shown.
- **Show Top Item Details on Load:** If set, details for the first items will be opened on load.

Display Mode - Sequencing

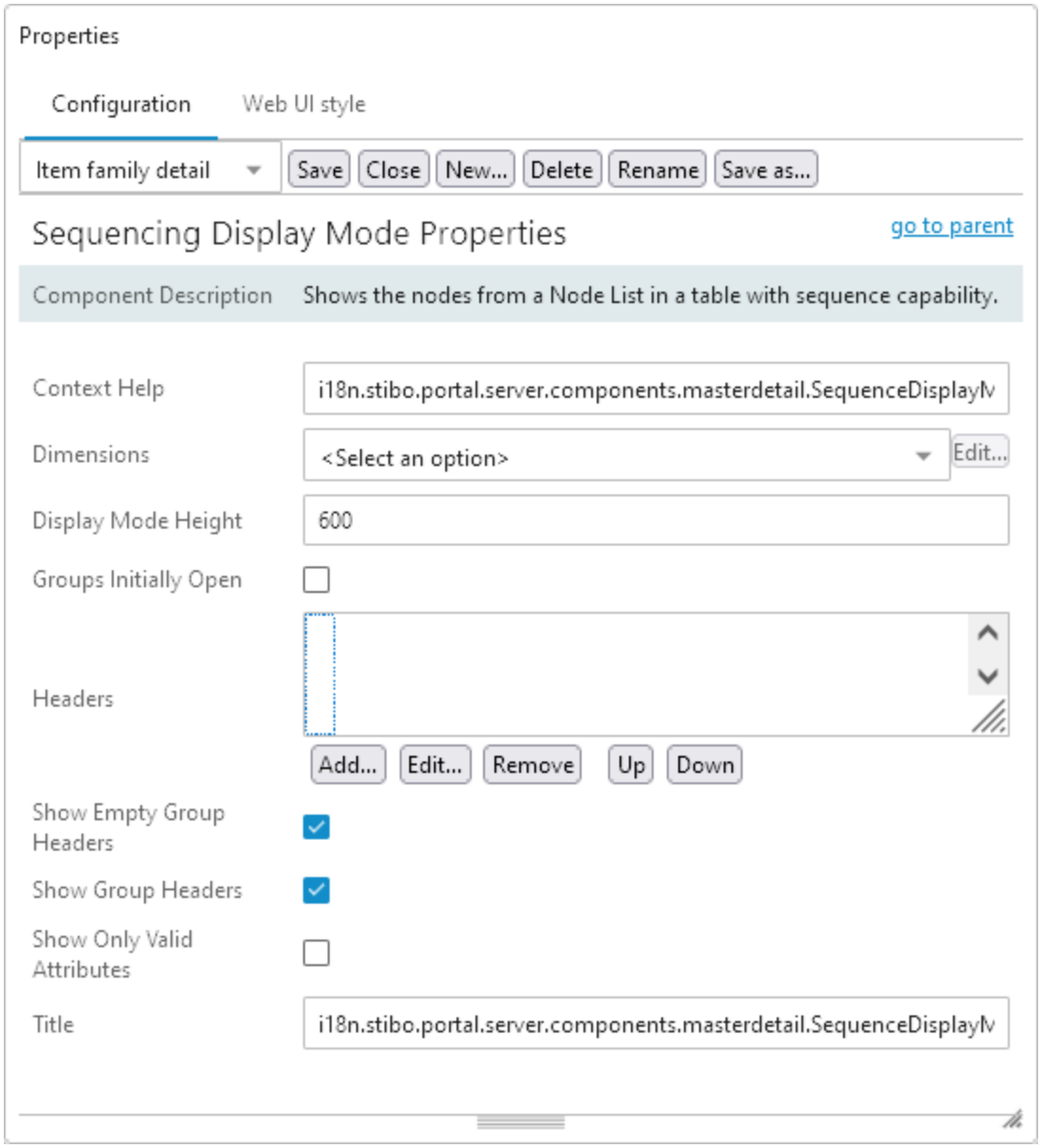
Shows objects from on a Node List as a table used for sequencing children of the current object (via the Display Children Screen and Children of Types). This can be used to sequence products, classifications, products in classification folders, and attributes.

Note: To use this, the attributes or attribute group must have 'Manually Sorted' enabled, otherwise this will not work in Web UI.

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Sequencing Display Mode Properties



- **Context Help:** The context help shown when hovering over the Sequencing Display Mode view icon.
- **Dimensions:** Optional changes to the standard table dimensions.
- **Display Mode Height:** The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when Show Details is true. Default value is 600 px.
- **Groups Initially Open:** Determines if attribute groups should be open by default; Always true if headers are not shown.
- **Headers:** The headers that show in the Sequencing Display Mode table.
- **Show Empty Group Headers:** Determines if the header should be visible if the group is empty. This can only happen if Show Only Valid Attributes is true and there are no valid attributes in the group. Enabled by default.

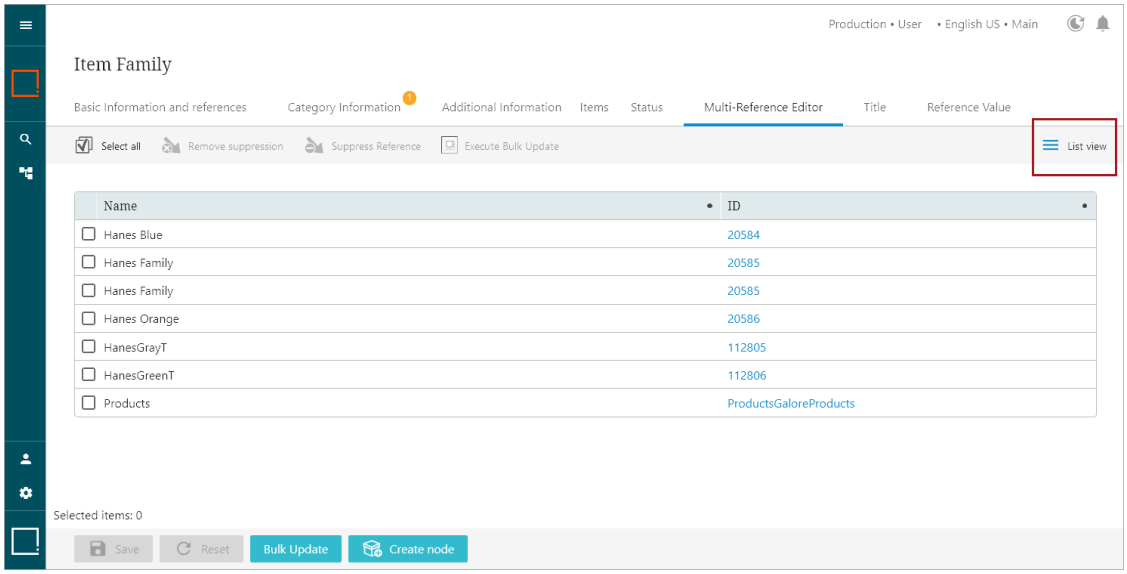
- **Show Group Headers:** Determines if a header should be shown for attribute groups. Enabled by default.
- **Show Only Valid Attributes:** Determines if only valid attributes are shown.
- **Title:** The text displayed on the button that selects this view mode.

Display Mode - Table / List

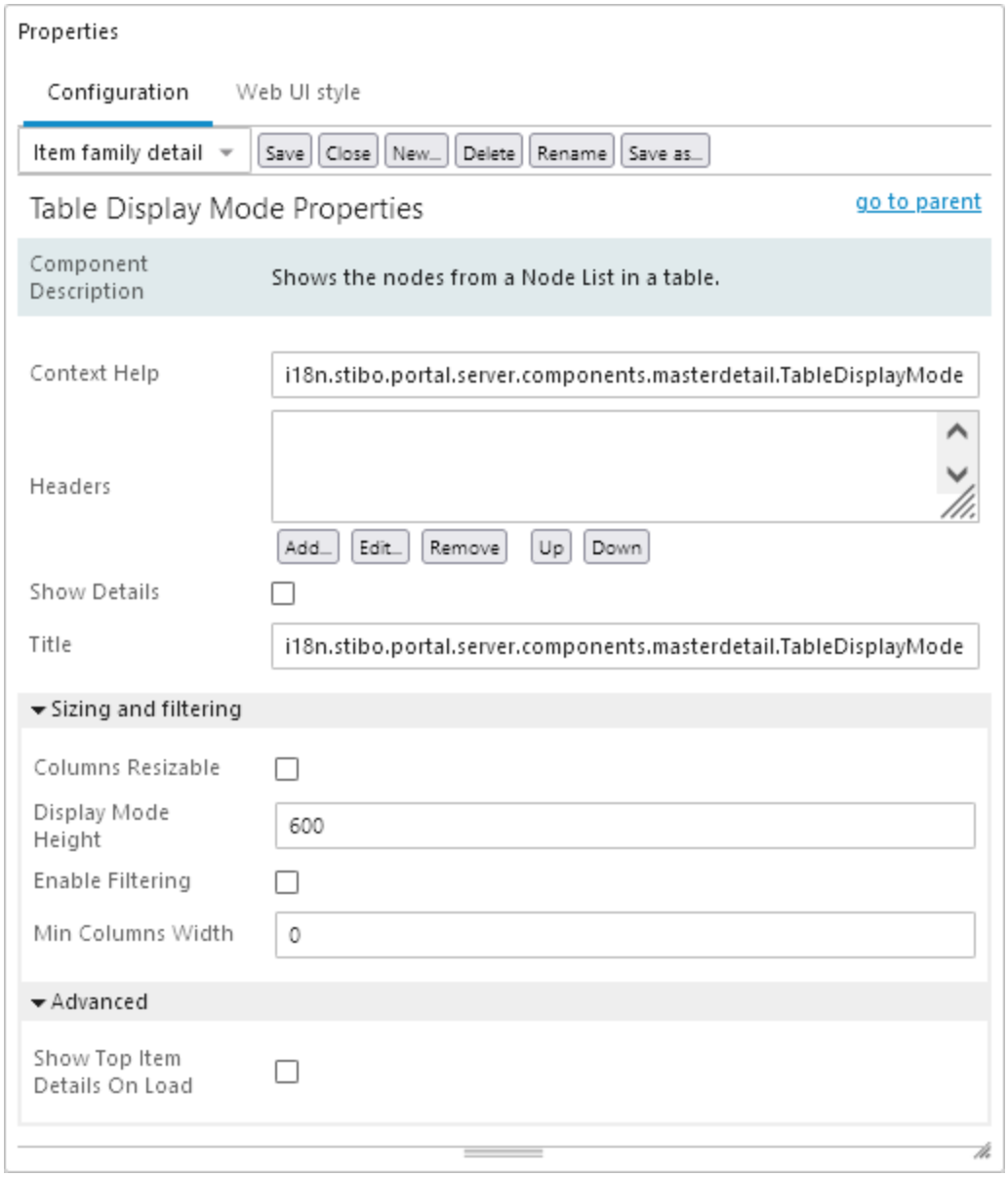
Shows objects from a Node List as a configurable list with vertical columns. Hide Equal / Mark Different is available for this view type.

Note: When setting this display mode up in the Web UI Design Mode, it is shown as 'Table Display Mode.' However, when selecting which display mode you wish to use, this display mode is shown as 'List view.'

For more information regarding display modes, refer to the **Node List Component** topic.



Configuring Table / List Display Mode Properties



- **Context Help:** The context help shown when hovering over the List View icon.
- **Headers:**The headers that show in the Table / List Display Mode table.
- **Show Details:** Check if the detail panel should be visible below this view.
- **Title:** The text displayed on the button that selects this view mode.

Sizing and filtering

- **Columns Resizable:** Check if the user should be able to drag / resize column widths.
- **Display Mode Height:** The height of the top half of the screen in pixels (px) where the items are displayed. Only applicable when Show Details is true. Default value is 600 px.

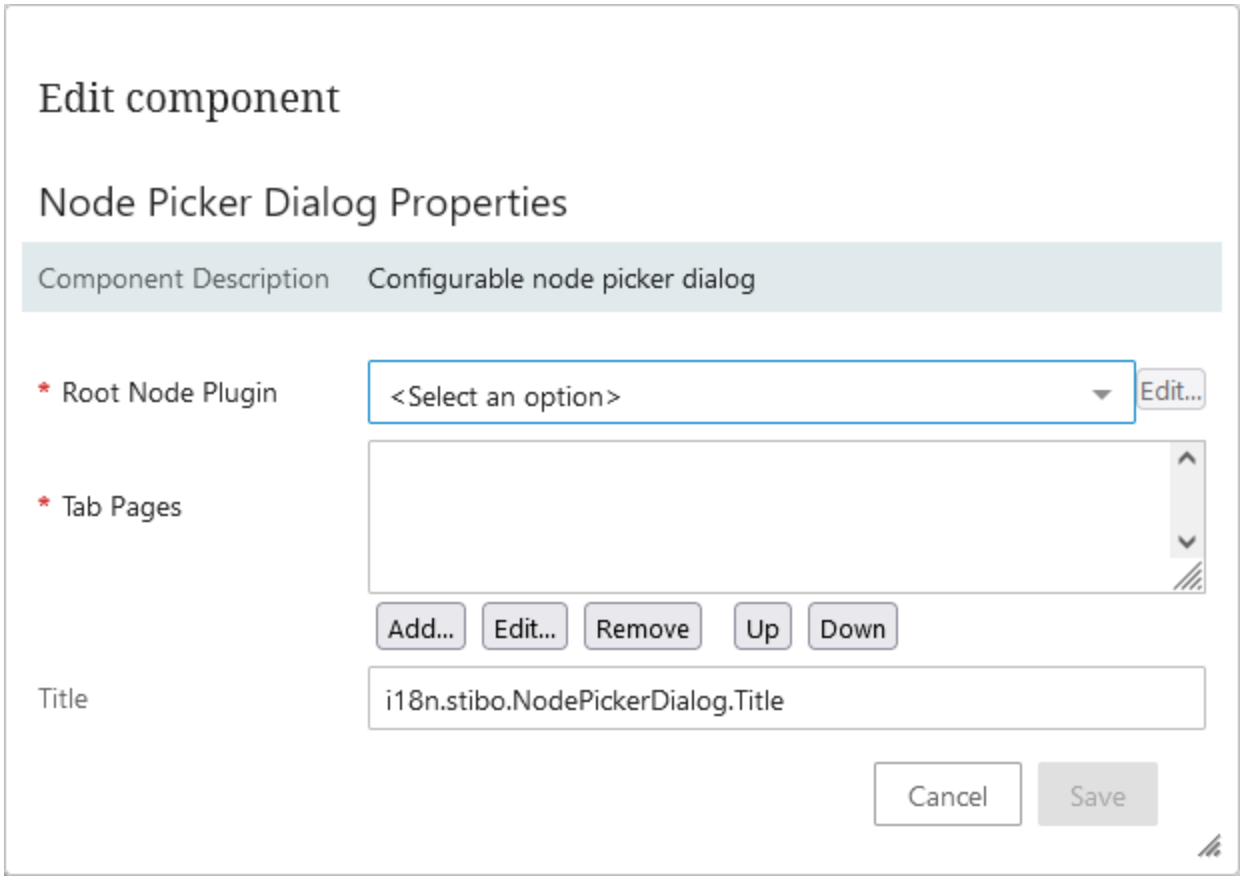
- **Enable Filtering:** Enables filtering of the data when checked.
- **Min Columns Width:** The minimal width in pixels (px) of the columns. If the value of this parameter is greater than zero (0), a horizontal scroll bar will be added and columns will not be auto adjusted to page size. Also, if preferred column width in dimension's list is less than this parameter, this column will be resized to the minimal width.

Advanced

- **Show Top Item Details On Load:** If set, details for the first items will be opened on load.

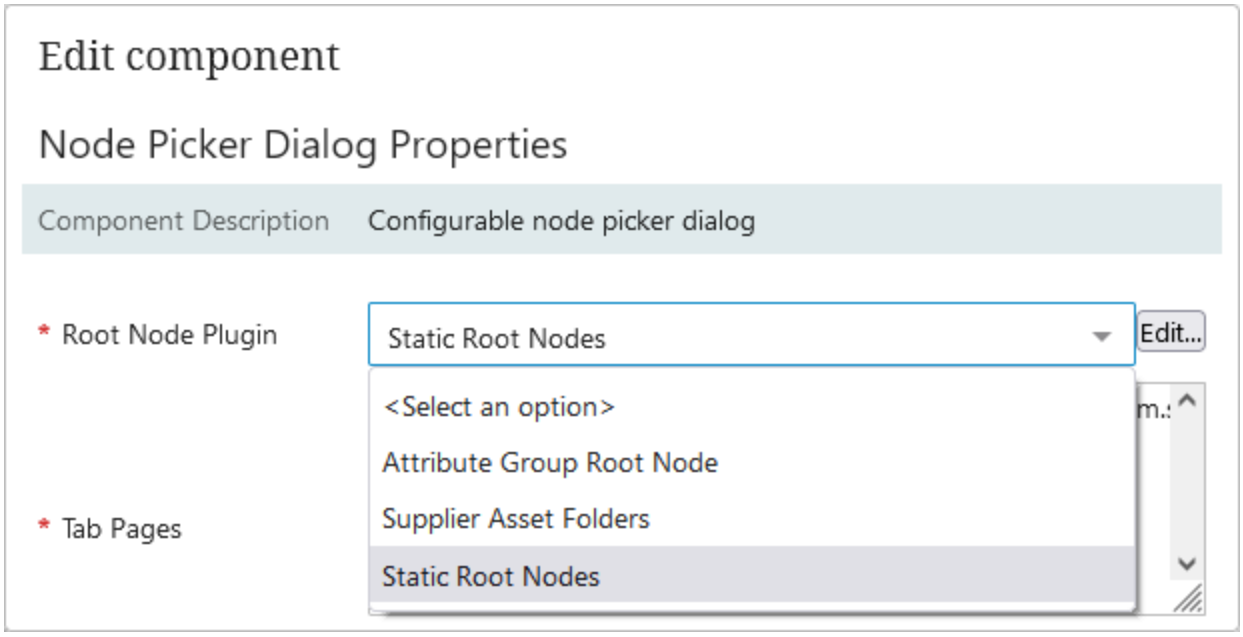
Node Picker Dialog

The Node Picker Dialog parameter is available on some components in Web UI. It allows the admin to define the nodes that are presented for selection in the dialog and also allows the admin to determine how the nodes are selectable.



Root Node Plugin

Allows the designer to limit the nodes presented to the end user.



- **Attribute Group Root Node** displays a parameter to select any number of attribute groups. These will be the only attribute groups displayed to the end user.
- **Supplier Asset Folders** displays only the asset folders for suppliers that the user is a member of.
- **Static Root Nodes** allows selection of any number of nodes in Tree to be displayed to the end user. This allows the admin to restrict the nodes displayed to the end user and can be used to eliminate invalid selections.

Tab Pages

Allows the designer to choose the tabs displayed on the node picker dialog presented to the end user.

Browse Tab

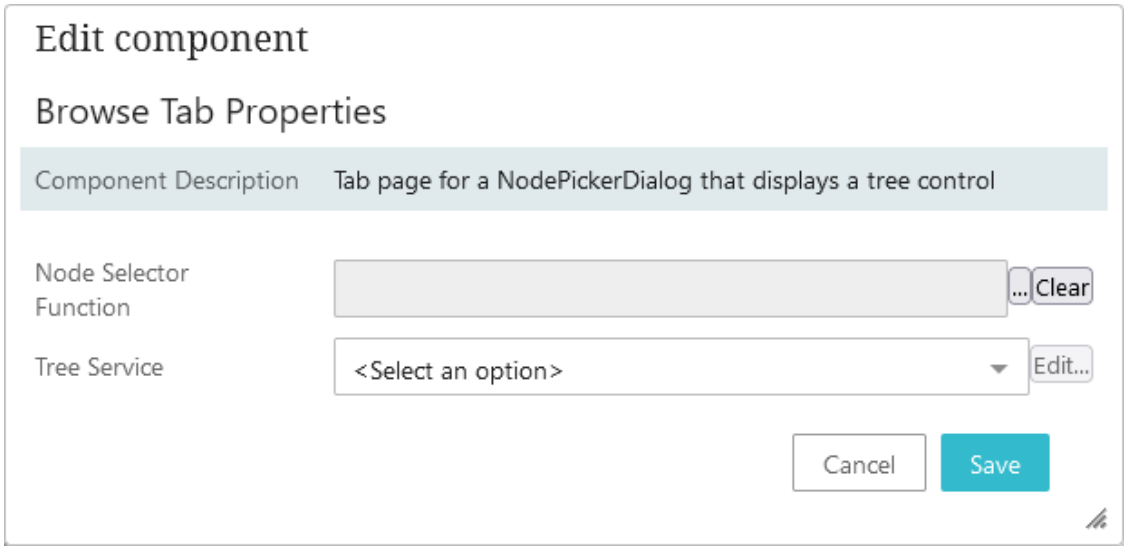
There are two parameters that can be set:

- Node Selector Function
- Tree Service

If the 'Node Selector Function' parameter is configured, it enables administrators to set a business function that brings the user directly to the desired node. This aids users who need to make numerous references throughout their workday which saves valuable time and enables tasks to be completed more efficiently.

If the business function is not set, it enables the Tree to be displayed for node selection. Only nodes configured via the Root Node Plugin will display.

If users want to hide children of certain nodes when displayed, they can enable the Tree Service parameter and select 'Hide Below.'

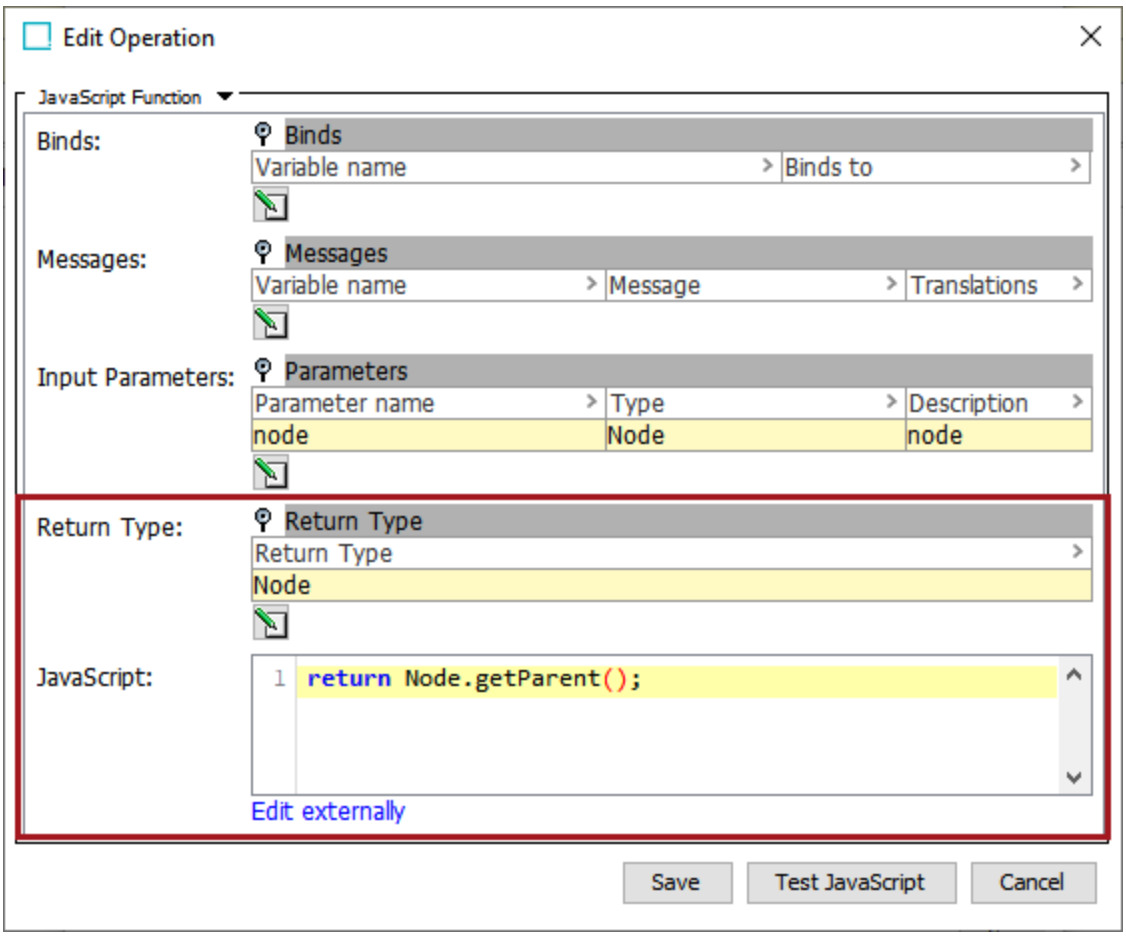


To configure the 'Browse Tab,' in the **Tab Pages** parameter:

1. Click **Add** and select 'Browse Tab' from the list.
2. Then click **Add**.

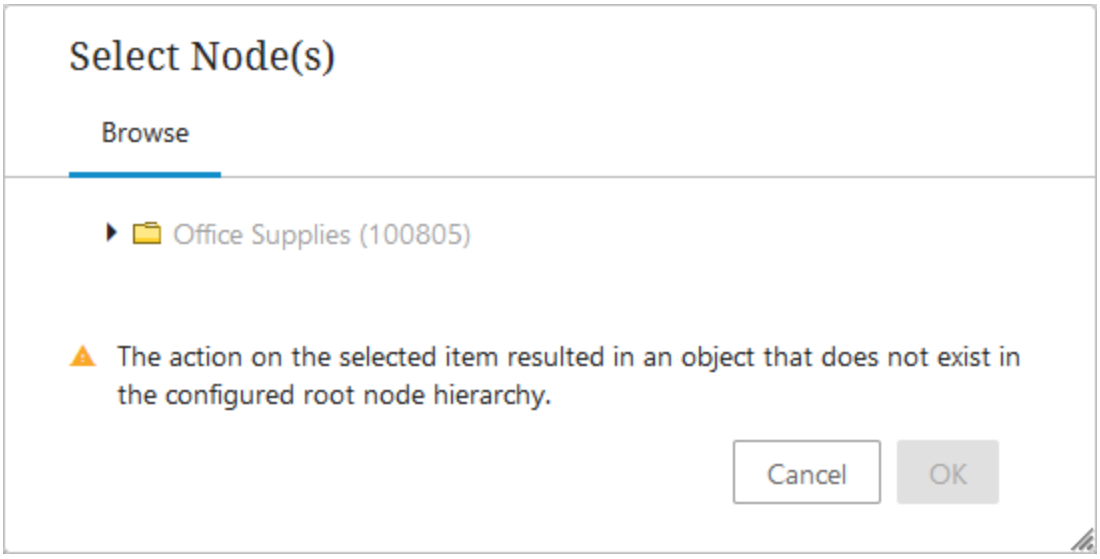
To set a 'Browse Tab' using a business function:

- Select a business function for the 'Node Selector Function' written in JavaScript that has a Return Type of 'Node.'

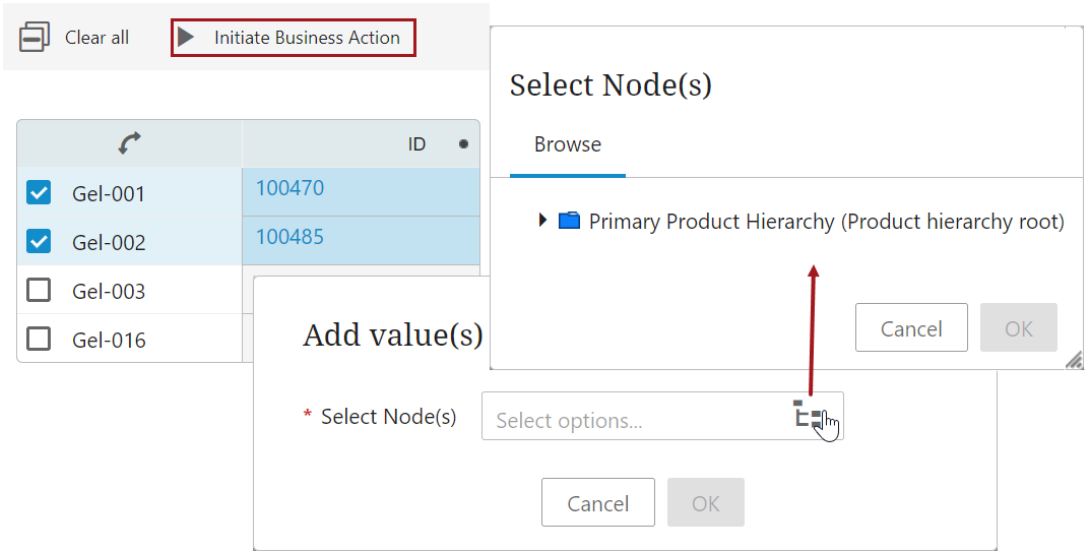


The business function selected in the 'Node Selector Function' field will be executed if the user has selected one object and the starting node exists.

If the business function configured in the Node Picker Dialog returns a node that does not exist in the static root node hierarchy, a warning message displays, and the user can manually navigate to the desired node.

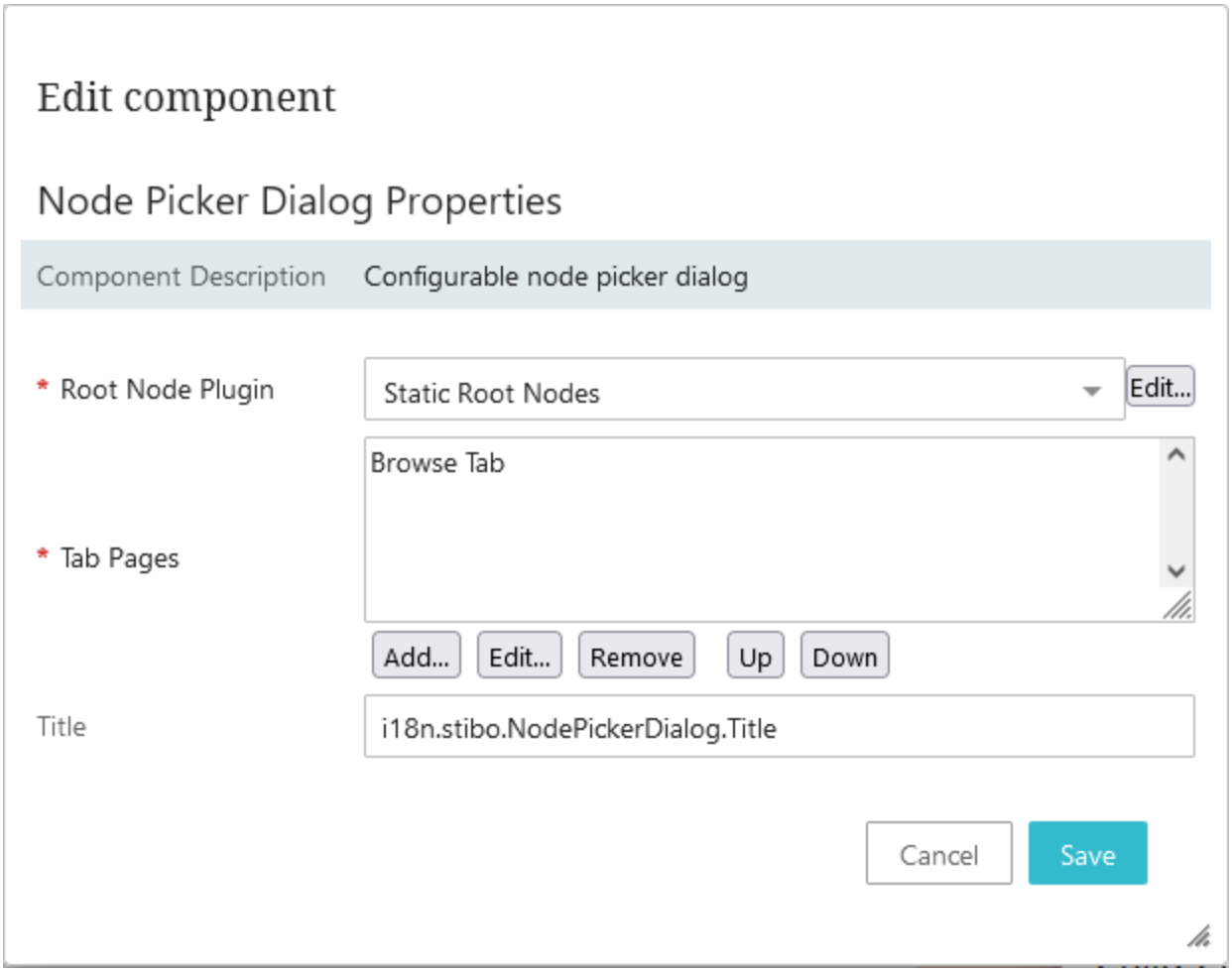


If more than one object is selected, the 'Node Selector Function' field will be ignored and the top-most node in the hierarchy will display.

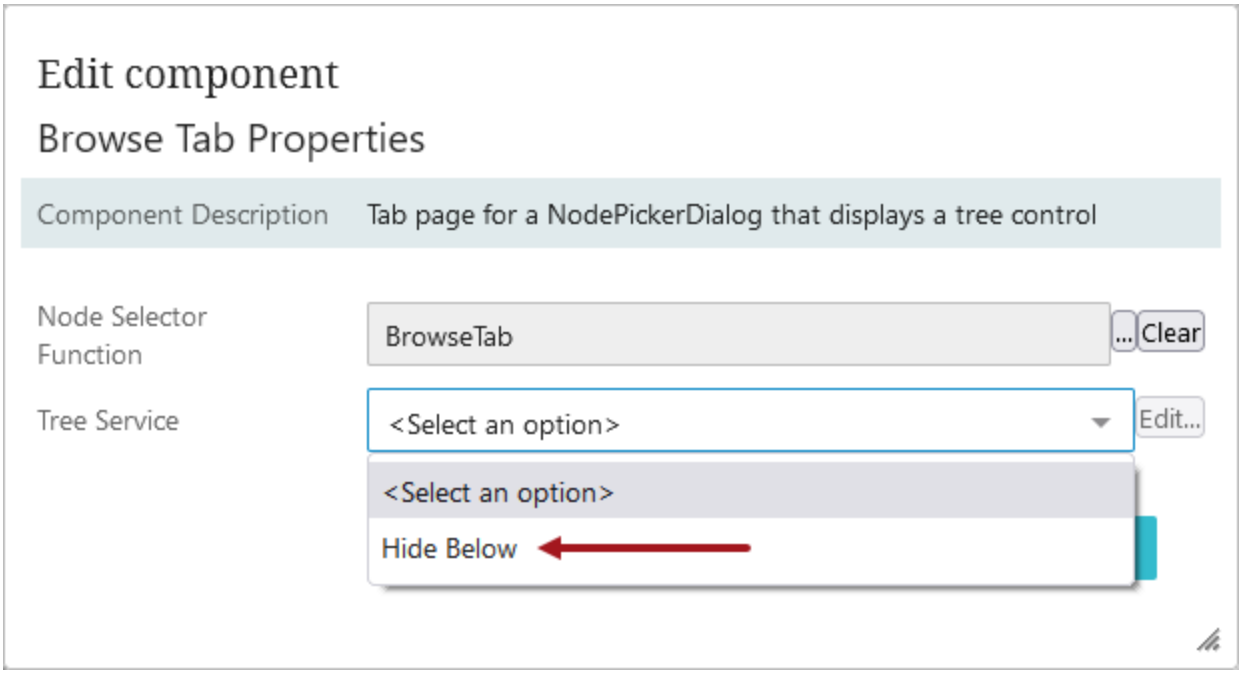


To set a 'Browse Tab' using the 'Tree Service' parameter:

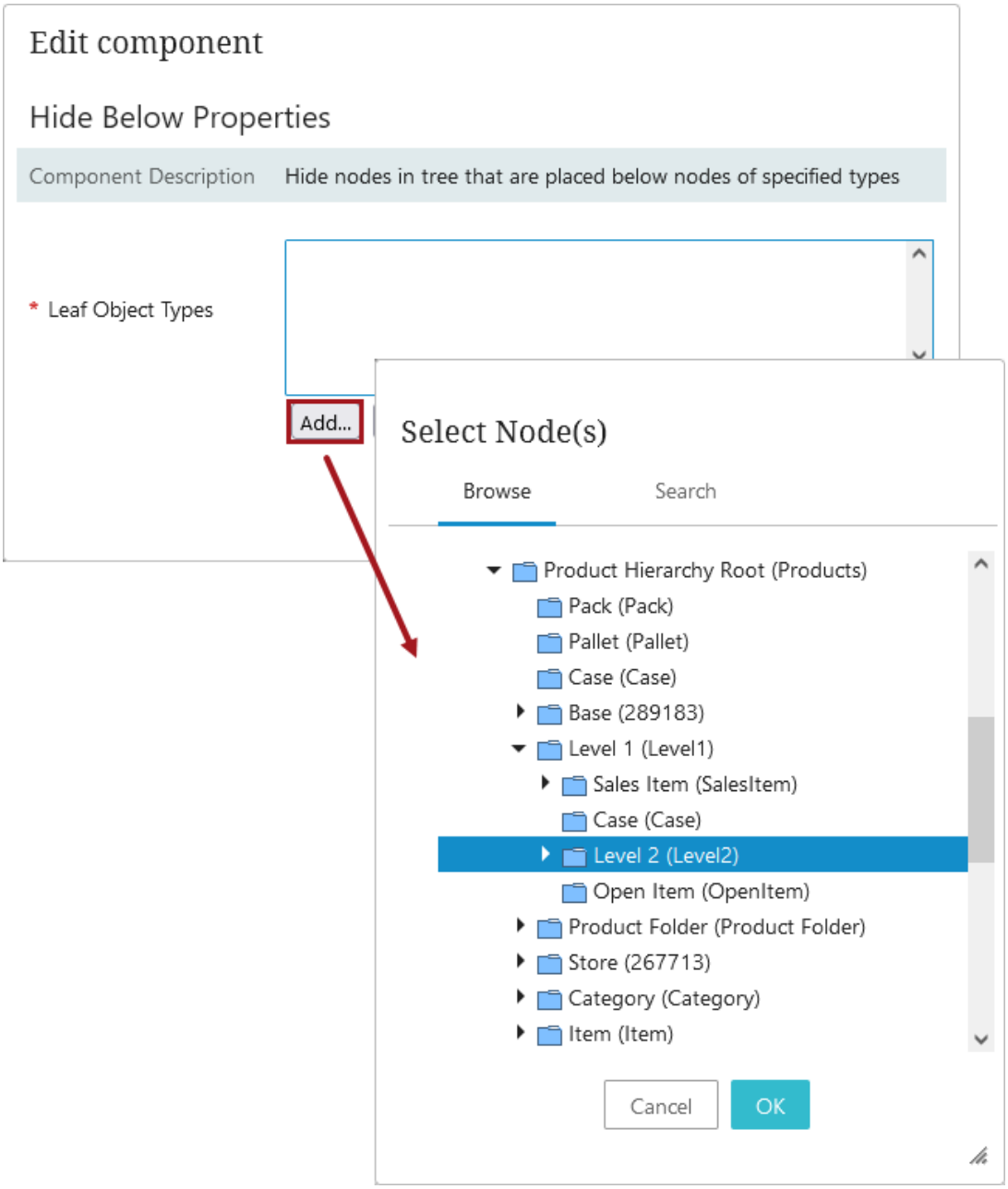
1. Double click on the **Browse Tab**.



2. In the Browse Tab Properties window that appears, select **Hide Below** from the dropdown, and click **Edit**.



3. In the Hide Below Properties window that appears, click **Add.** Select the object types which should not have their children displayed in the browse tree.

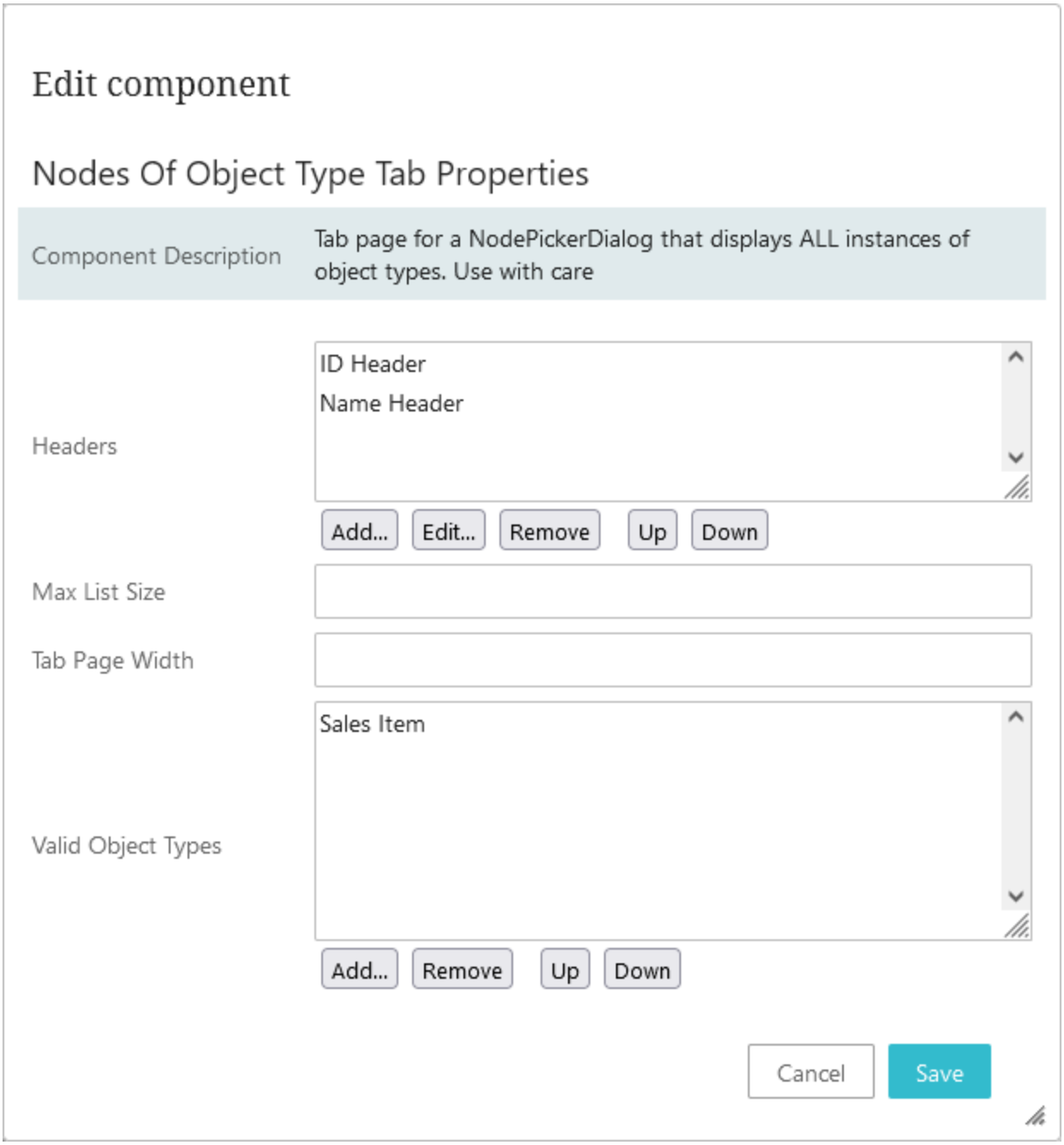


Nodes of Object Type Tab

These display all instances of object types found among the configured root nodes.

1. In the **Tab Pages** parameter, click **Add** and select 'Nodes of Object Type Tab' from the list.
2. Then click **Add**.

   A number of optional parameters are available to assist in parsing the node list.



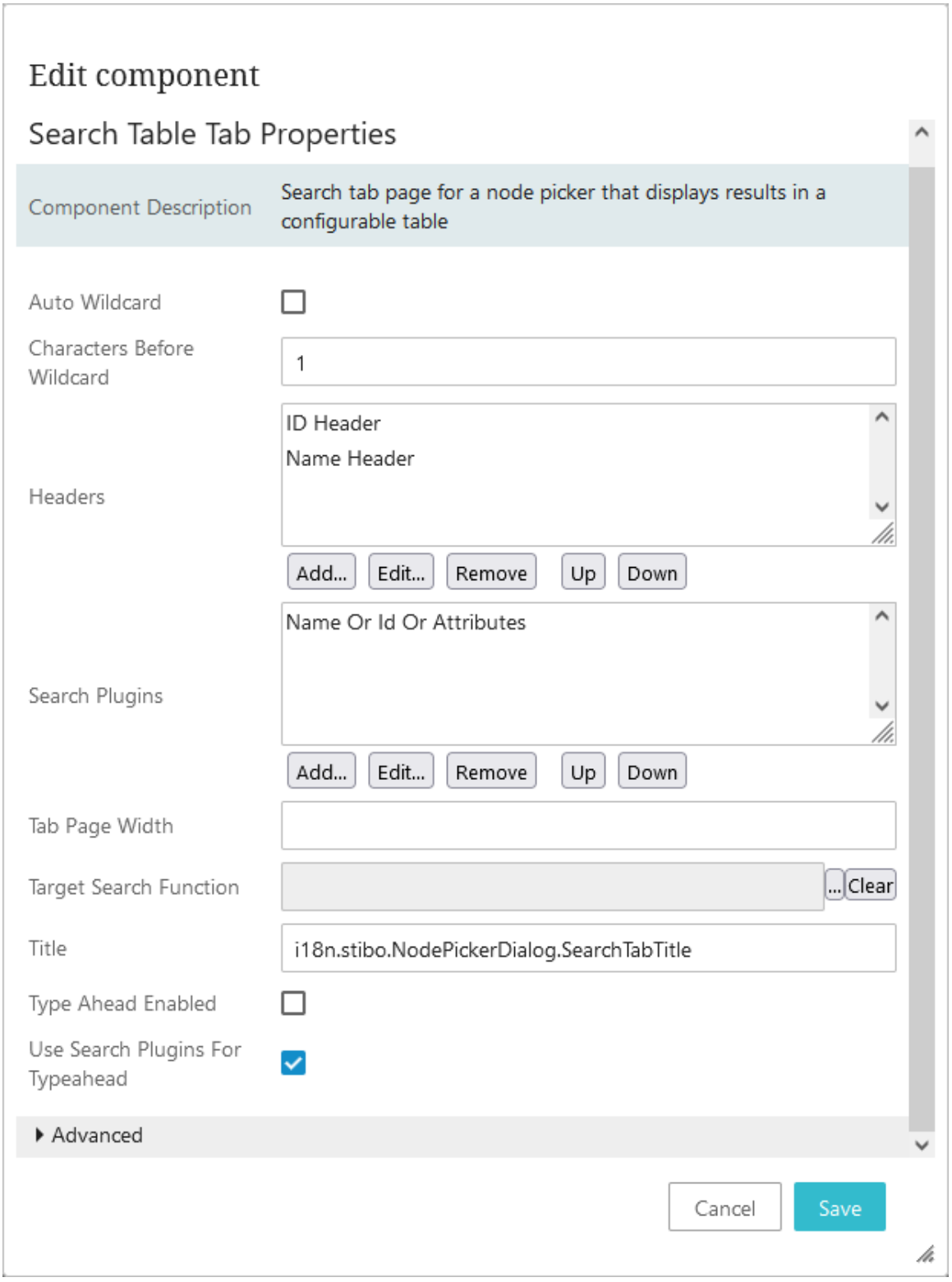
- **Headers:** This parameter is used to organize the node list with configurable headers. To add a header, click **Add** and select a header component.
- **Max List Size:** This parameter dictates the maximum nodes that can appear in the list. This list can never exceed '1000'.
- **Tab Page Width:** This parameter sets a fixed width in pixels on the tab page.

- **Valid Object Types:** This parameter can be used to specify which object types can populate the list. To add a valid object type, click **Add** and browse or search for the desired object type.

Search Table Tab

This allows objects to be found via search, and includes options such as configurable wildcards, headers, and typeahead. The Select Node(s) Search functionality returns a maximum of 100 entries.

1. In the **Tab Pages** parameter, click **Add** and select 'Search Table Tab' from the list.
2. Then click **Add**.



The following optional parameters are available:

- **Auto Wildcard:** If this parameter is enabled, a wildcard is automatically added to the end of any search strings longer the amount specified by the **Characters Before Wildcard** parameter.
- **Characters Before Wildcard:** Use this parameter to set the minimum number of characters that must come before a wildcard. Setting this to '0' allows you to include a wildcard at the beginning of the search string.
- **Headers:** This parameter is used to organize the search result list with configurable headers. To add a header, click **Add** and select a header component.
- **Search Plugins:** This parameter determines which search plugin is used to execute the search. Click **Add** to select the desired search plugin.

  Of the available selections, the **Name Or Id Or Attributes** option allows the text entered in the search field to be compared to the ID, name, or value of one or more attributes selected by the admin. The ability to search in data containers is also controlled on this parameter. For example, this option would allow searching on attribute values, including metadata values.
- **Tab Page Width:** This parameter sets a fixed width in pixels on the tab page.
- **Target Search Function:** Use a Business Function to search for a reference target. When this is set, the parameters 'Search Plugins' and 'Use Search Plugins For Typeahead' will be ignored. To read more about this functionality, refer to the **Custom Reference Target Search** topic.
- **Title:** This parameter determines the title of the individual search tab.
- **Type Ahead Enabled:** If this parameter is enabled, typeahead can be used in the search field.
- **Use Search Plugin For Typeahead:** This parameter can be disabled to improve search execution speed. More specifically, disabling it allows the usage of a prefix search via typeahead, which ignores root nodes set on the Below Search plugins, but increases the performance of typeahead searches. This parameter is enabled by default.
- **Advanced > Max Result:** If set, the typeahead search will show a limited result set. If Target Search Function is configured, this setting can be used to raise the number of search results from default 100 to max. 1000.

Each tab page needs configuration upon selecting it. If any parameters within the tab page are mandatory, then the properties dialog will open automatically upon adding.

Title

Allows the designer to use custom text as the title of the node picker dialog.

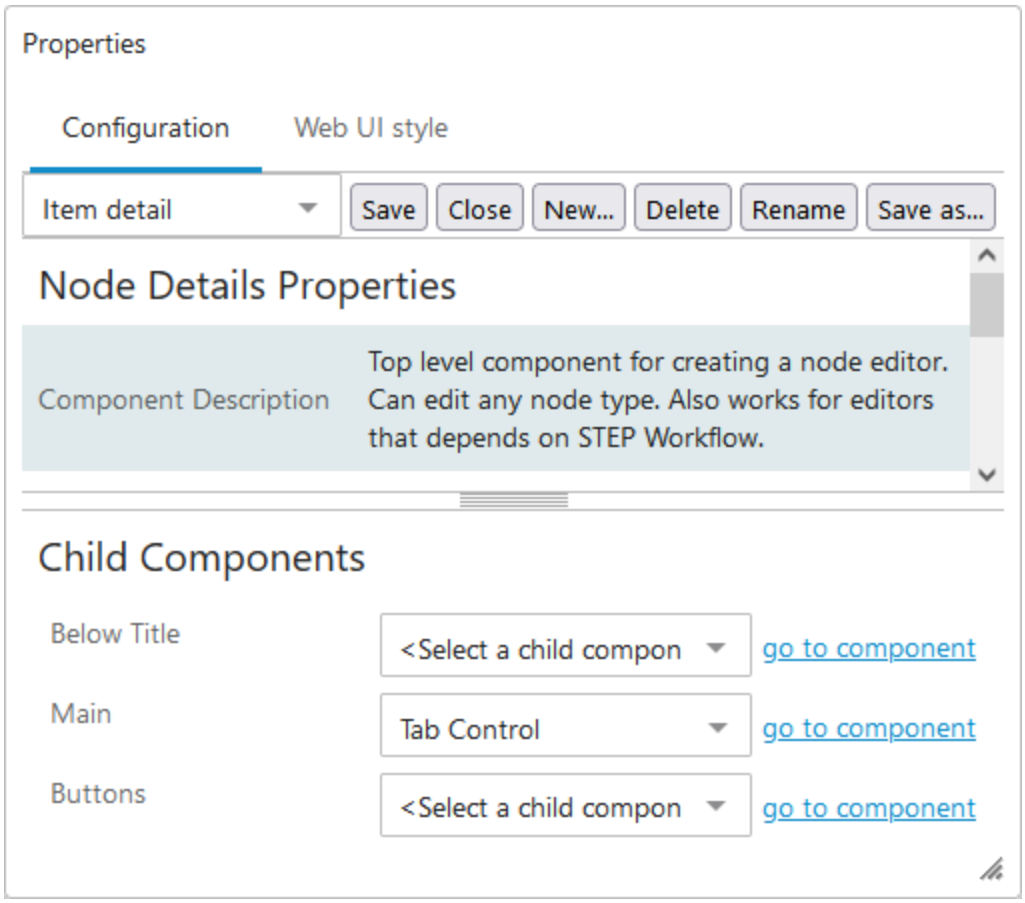
For an example of configuring a Node Picker, refer to the **Configuration of Node Picker for References in Node Details** topic in this documentation.

Configuring Node Picker for References in Node Details

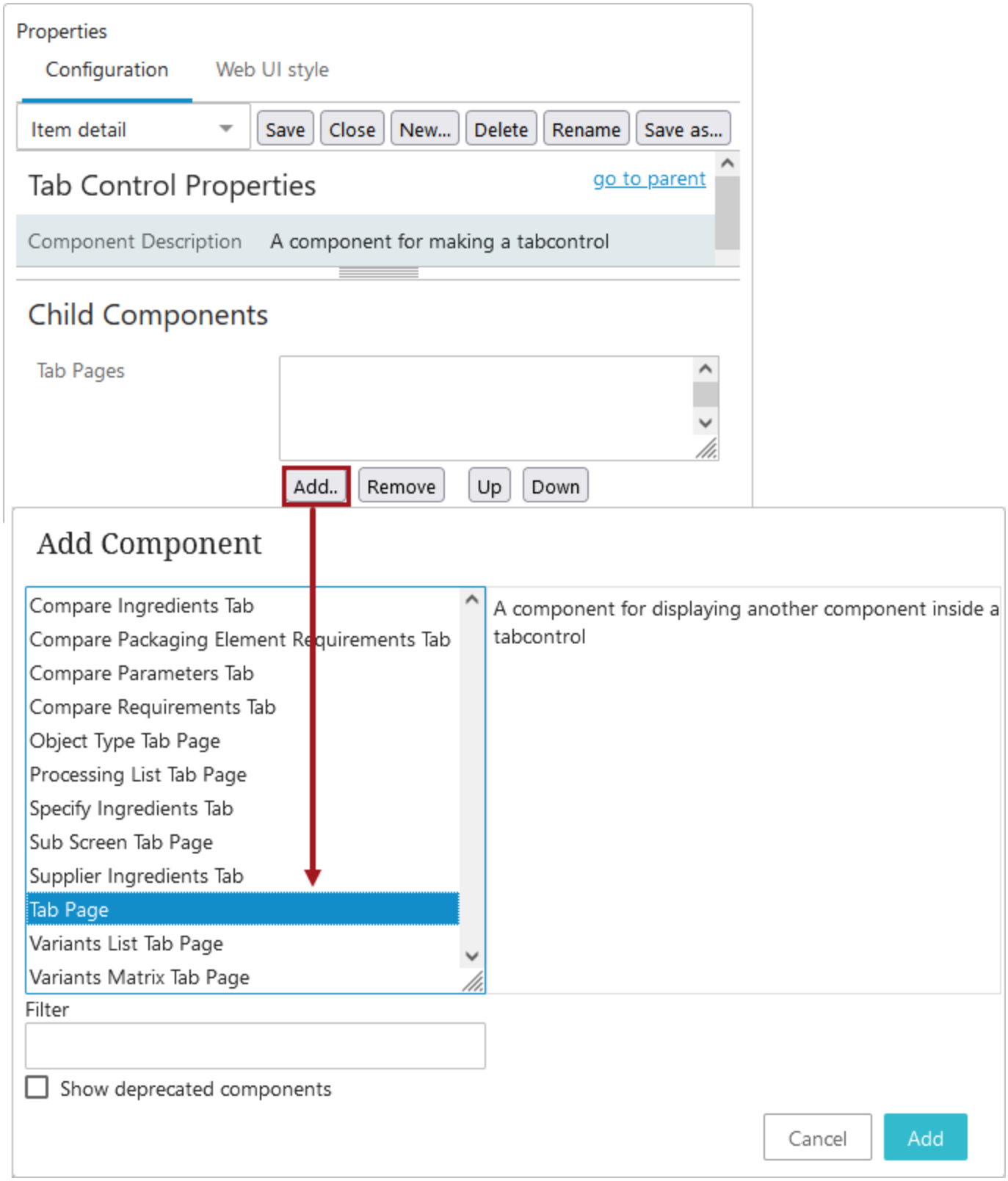
References in Node Details can be configured as follows or can also use a custom reference target search to apply further restrictions to the references allowed for selection. Refer to the **Custom Reference Target Search** topic.

The example below shows a configuration of a Node Picker for References in a Node Details screen:

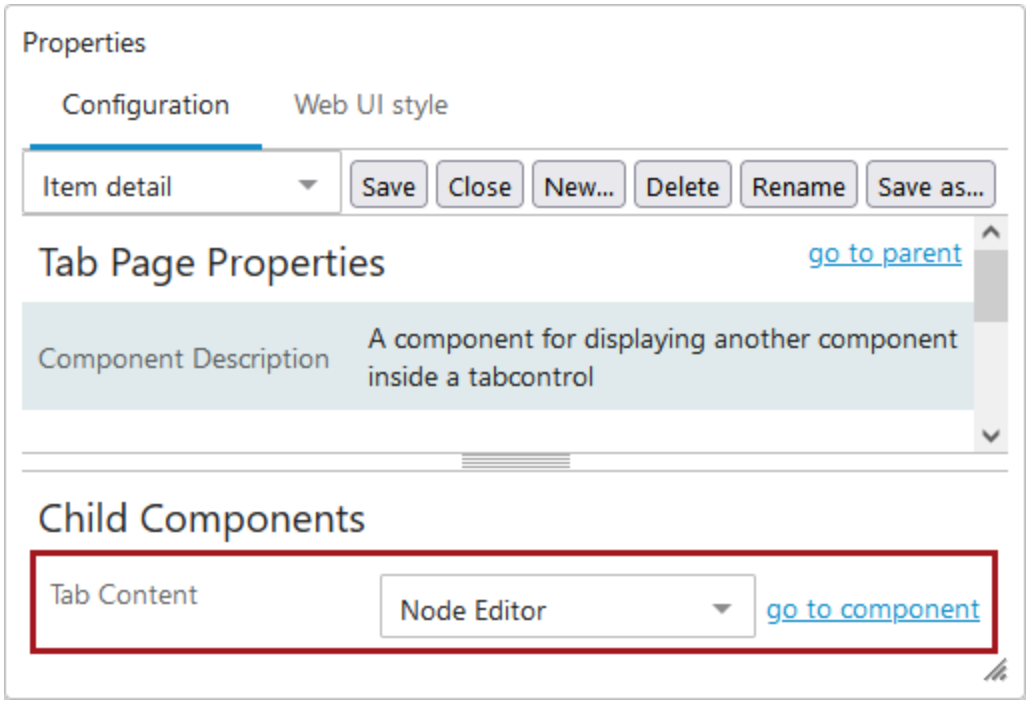
1. Select Node Details screen if already exist, if not create a new one.
2. Under the Child Component area go to > Main > Tab Control > choose **go to component**.



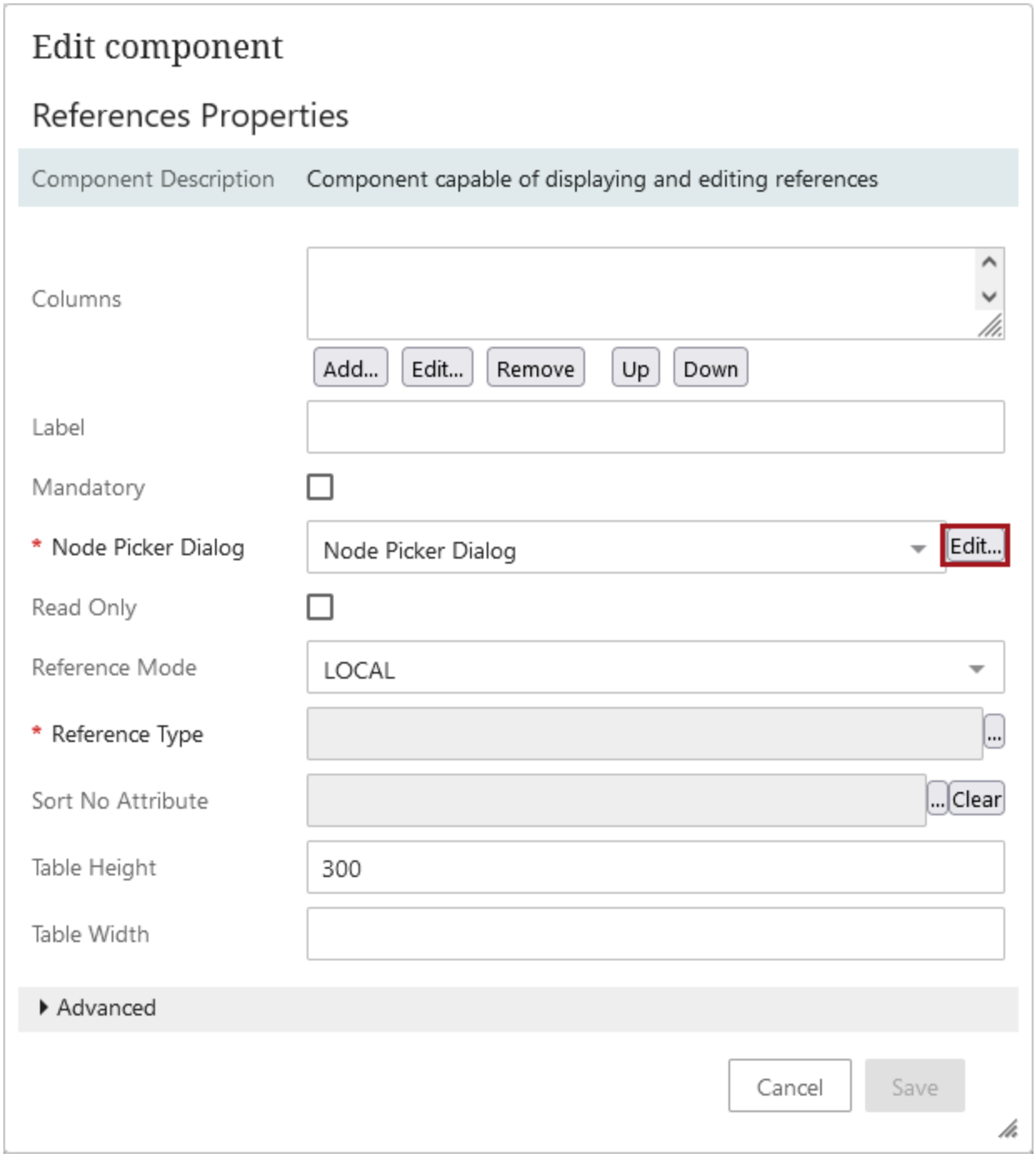
3. On Tab Control Properties, go to Child Components > Tab Pages field > add a new Tab Page by clicking on Add button.


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Tab Control Properties
go to parent
Component Description
A component for making a tabcontrol
Child Components
Tab Pages
Add..
Remove
Up
Down
Add Component
Compare Ingredients Tab
Compare Packaging Element Requirements Tab
Compare Parameters Tab
Compare Requirements Tab
Object Type Tab Page
Processing List Tab Page
Specify Ingredients Tab
Sub Screen Tab Page
Supplier Ingredients Tab
Tab Page
Variants List Tab Page
Variants Matrix Tab Page
A component for displaying another component inside a tabcontrol
Filter
Show deprecated components
Cancel
Add

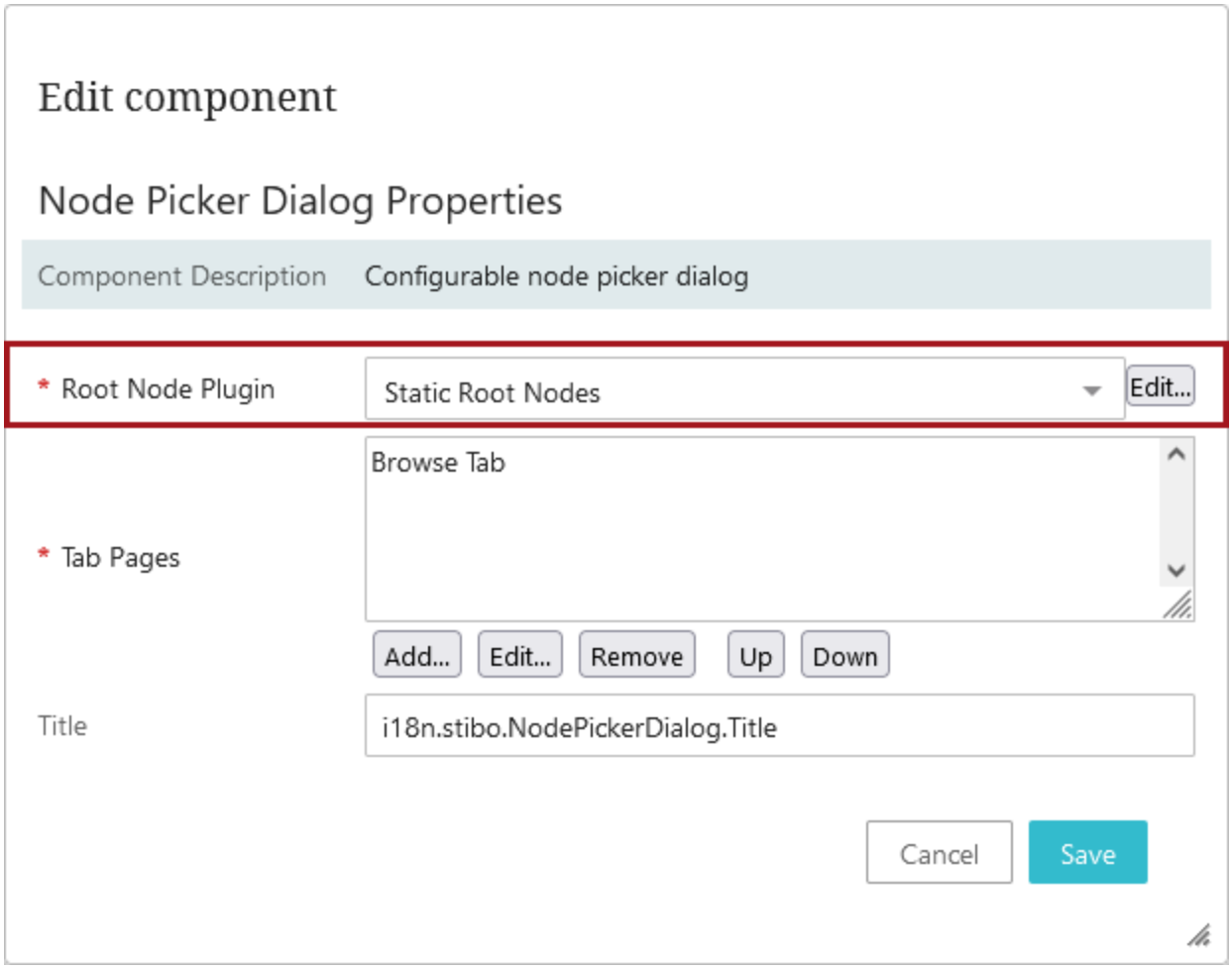
4. Once added, double click on the Tab Page.
5. From the Tab Content dropdown, select the **Node Editor** and then click on **go to component**.



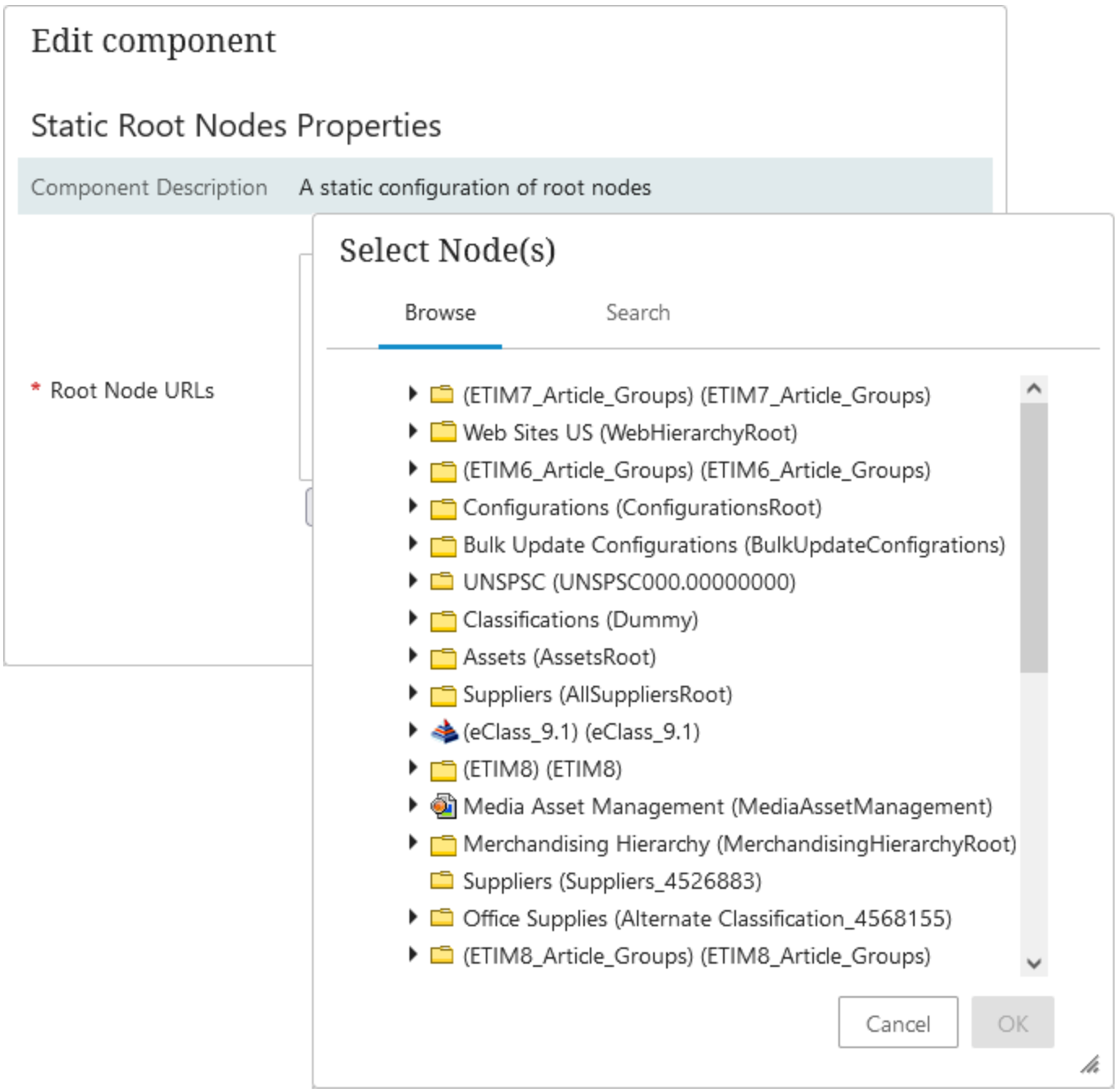
6. On the Tab Page Properties go to Child Components > Rows > add **References**.
7. In the Reference Properties screen, on the Node Picker Dialog field, select the **Edit** button.



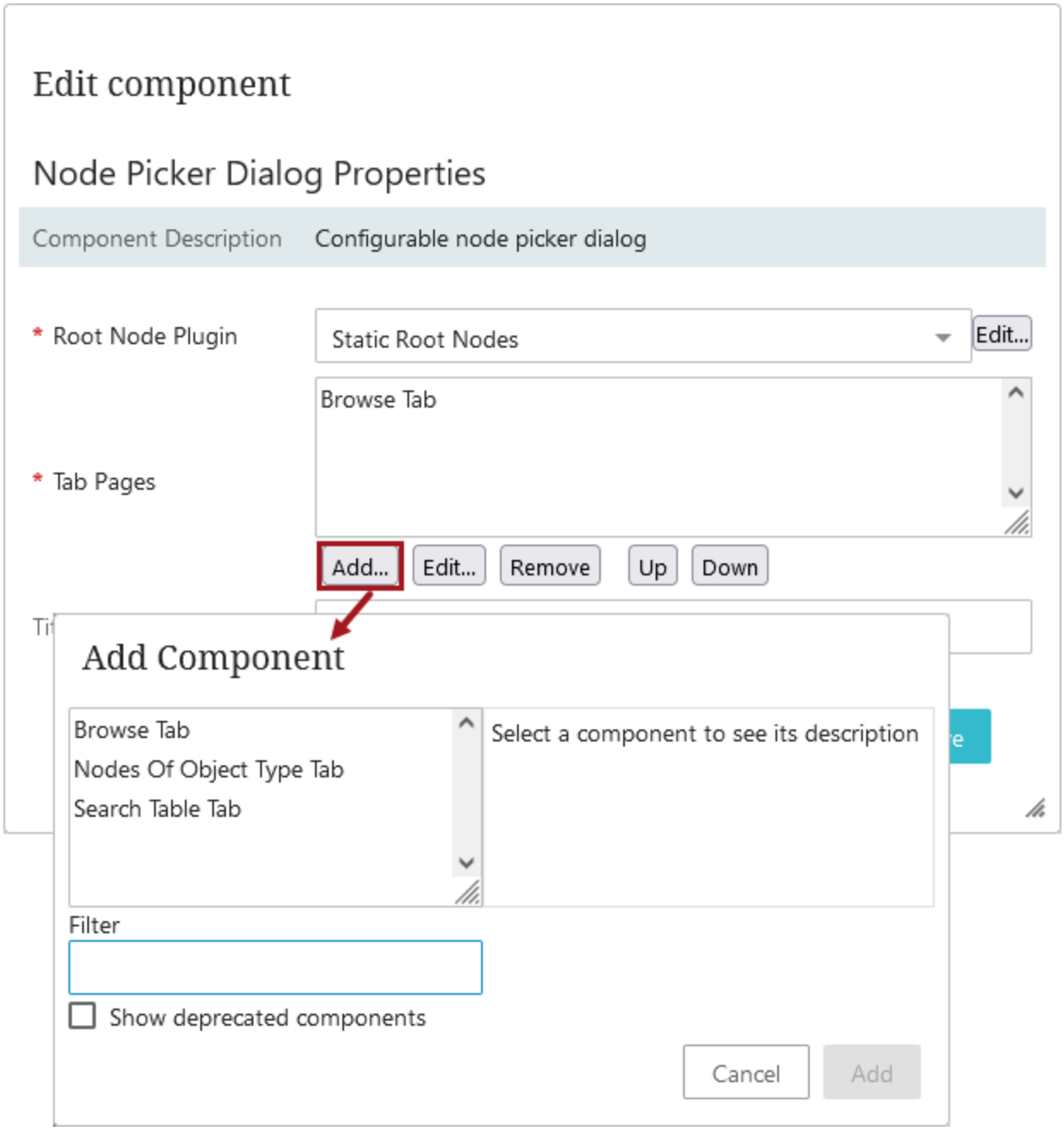
8. On Node Picker Dialog Properties under the Root Node Plugin field, select **Static Root Node** from the dropdown.



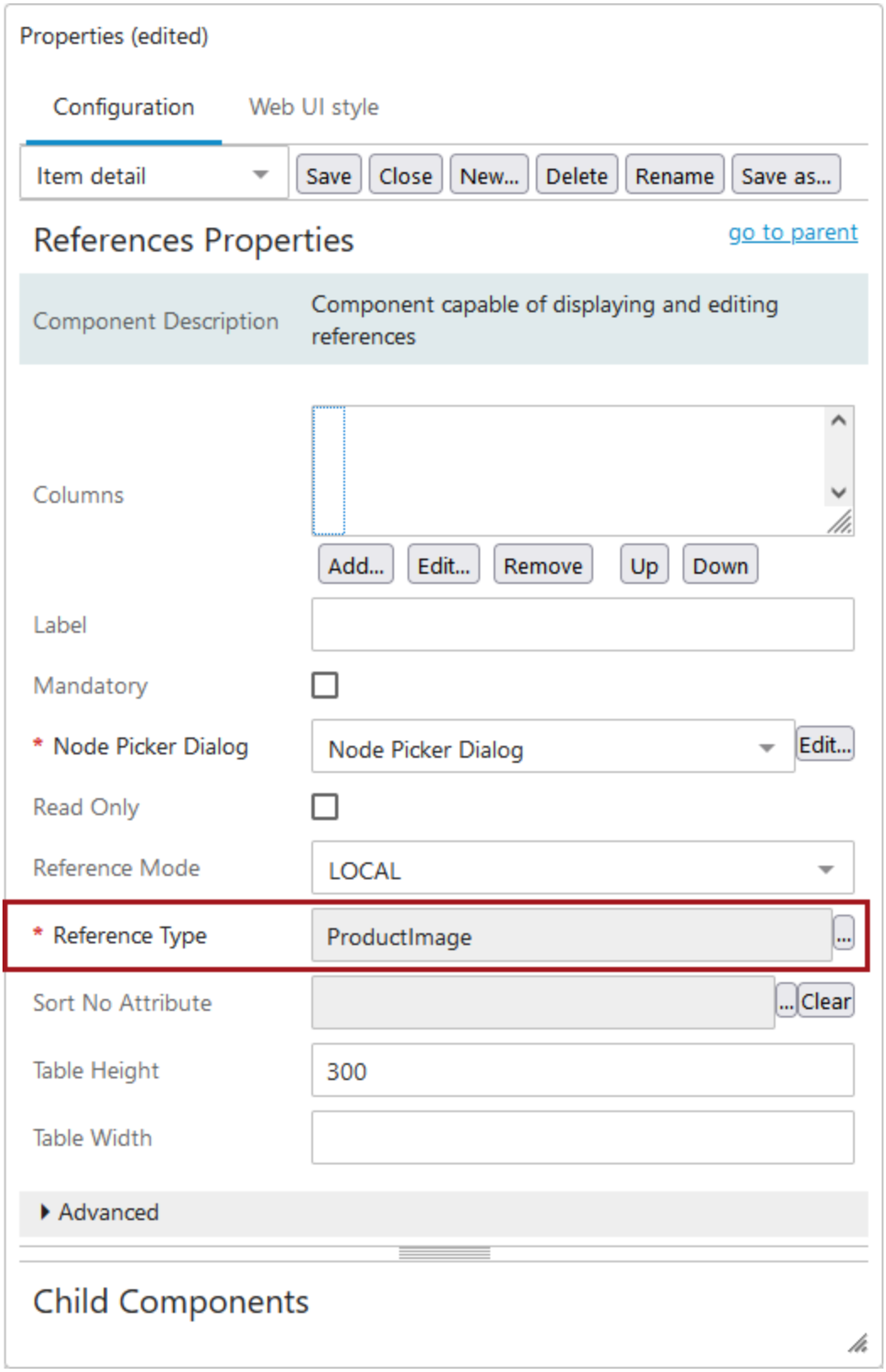
9. Click the **Edit** button to configure Static Root Node properties.
10. Add any required root nodes, click **OK**, and then click the **Save** button in on Static Root Node Properties.



11. Back on the Node Picker Dialog Properties go to the Tab Pages field and click **Add**.

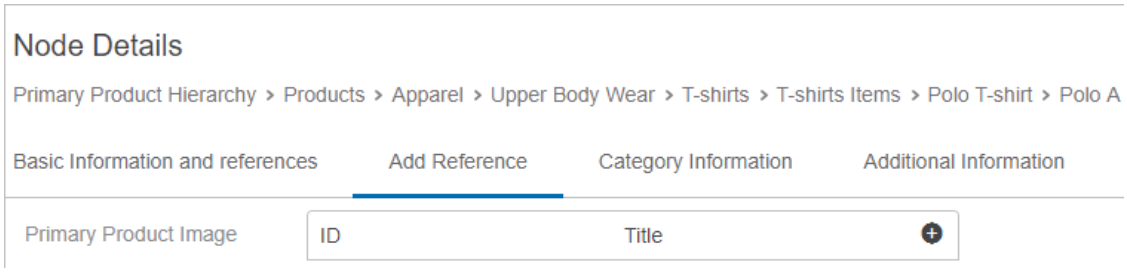


12. Select, add, and configure any required components needed.
13. In the Title Field add a title for the Node Picker.
14. Click **Save** on the Node Picker Dialog Properties and continue filing out the necessary fields on the References Properties, including selecting the Reference Type. Click **Save** when finished.



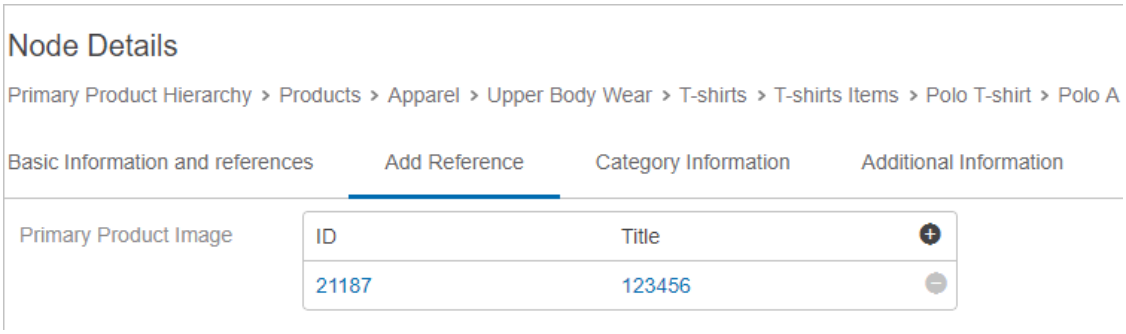
15. Save and close the Node Details screen.

In the example below, the reference type 'Primary Product Image' is available with the node picker (+) option.



To use this, a user can:

1. Stand on any available product
2. Select the Add Reference tab
3. Click on the (+) icon
4. Select the required image by expanding the node or by searching. Upon clicking OK, their reference is added to the selected product.



Custom Reference Target Search

Reference editors in Web UI determine which target objects the user is allowed to select based on the object type validity configured on the reference type. In many cases, a meaningful reference target includes far fewer options than would be included in a list based solely on the object type.

A custom reference target search presents the user with only those targets that are relevant for selection.

For illustrations, refer to the **Query Template Builder Example** section which shows the recommended method for creating a query or the **Query API JavaScript Example** section for an alternate method below.

Note: To enable a more focused search for reference target objects, a custom reference target search can be configured and applied to each reference editor in the Web UI. For more information, refer to the **Custom Reference Target Search Configuration** section of the **Web User Interfaces** documentation.

By default, the standard query search in some Web UI components provides additional filtering, for example:

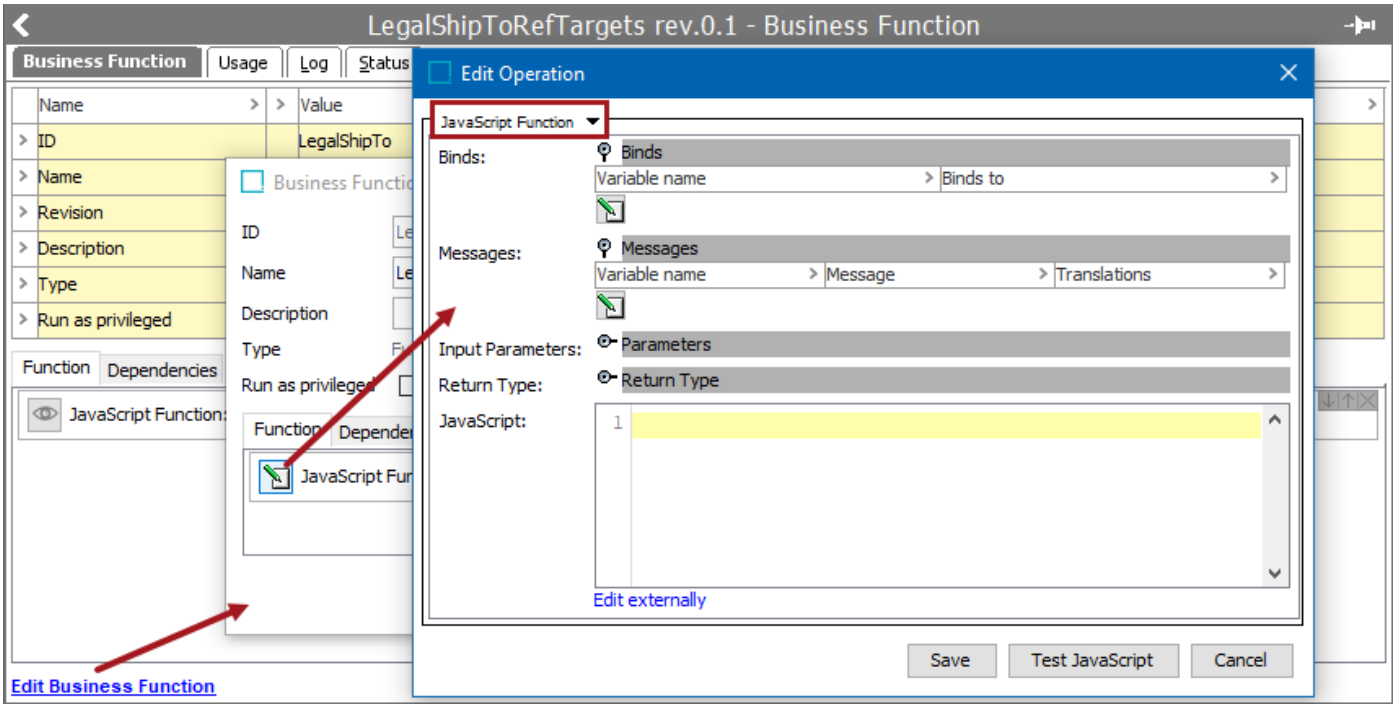
- For performance, a dropdown may only show the first 10 results and a search list may only show the first 100 results.
- For validity, a query search that would otherwise return 100 results, only shows 40 choices in the list because the other 60 are invalid as determined by the component.

Configuration

Customizing the reference component target search involves creating a business function in the workbench and assigning it for a reference target search in the Web UI. General information on business functions is in the **Business Functions** topic of the **Business Rules** documentation.

Configuration is required in both workbench and Web UI as follows:

1. In workbench, create a business function using the steps included in the **Creating a Business Rule, Function, or Library** topic.
2. On the Business Function editor, click the **Edit Business Function** link and click the edit button () for the Function.



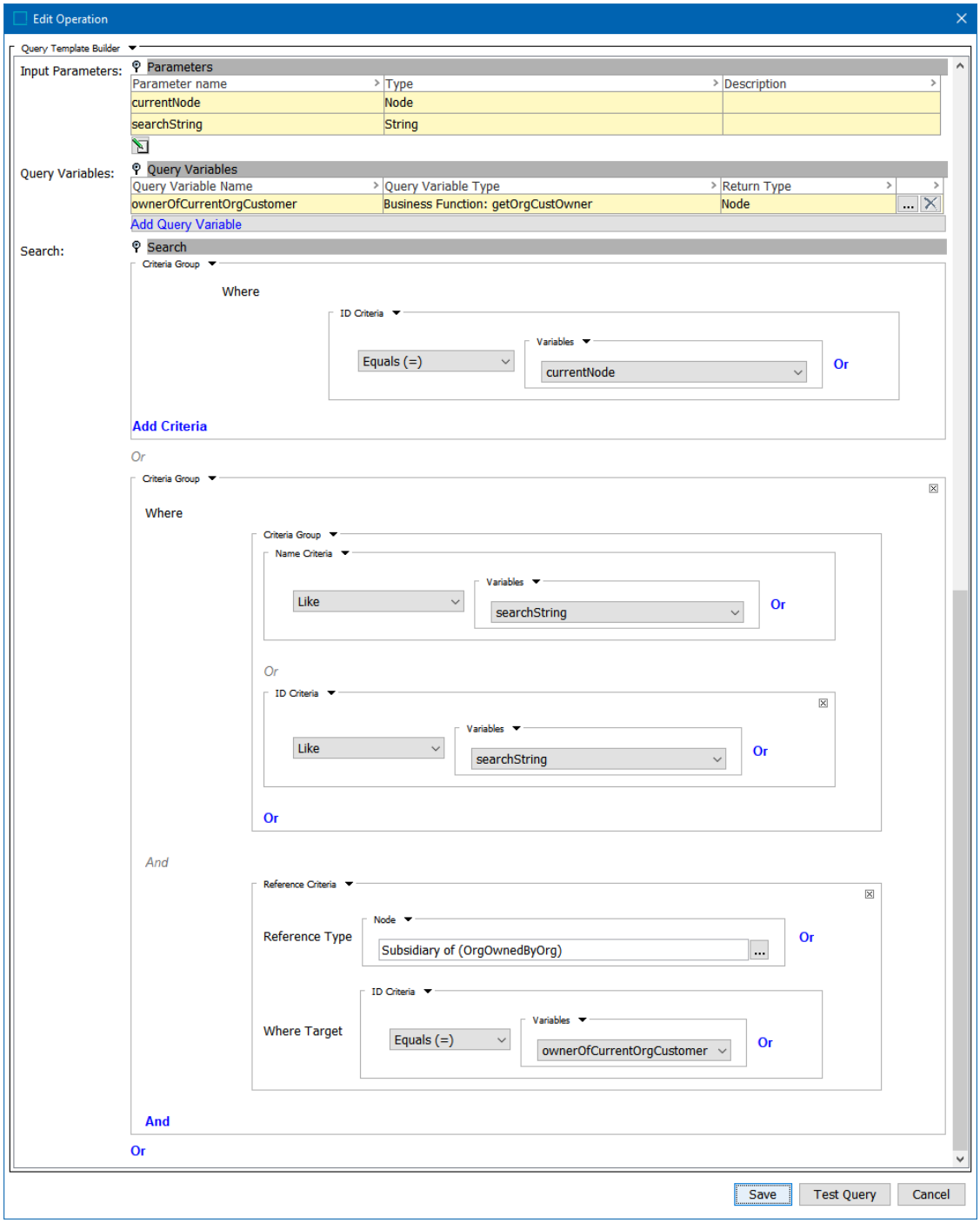
3. From the dropdown, select a method to configure a business function that returns a 'Query Specification':
   - Use the recommended Query Template Builder operation to create a Web UI search query, as described in the **Query Template Builder Operation** topic. Refer to also the **Query Template Builder Example** section below.
   - Use the JavaScript Function operation and the Query API, as described in the **JavaScript Function Operation** topic. Refer to also the **Query API JavaScript Example** section below.

   Note: The business function will be completely responsible for the search. There is no further object type validity or similar performed on top of the search. It is recommended to include an object type criteria or similar in the business function's conditions.

4. Click the **Save** button on each of the dialogs to close and save the business function.
5. In Web UI, configure the Reference Target Search feature in the desired Web UI References components, as defined in the **Custom Reference Target Search Configuration** section of the **Web User Interfaces** documentation.

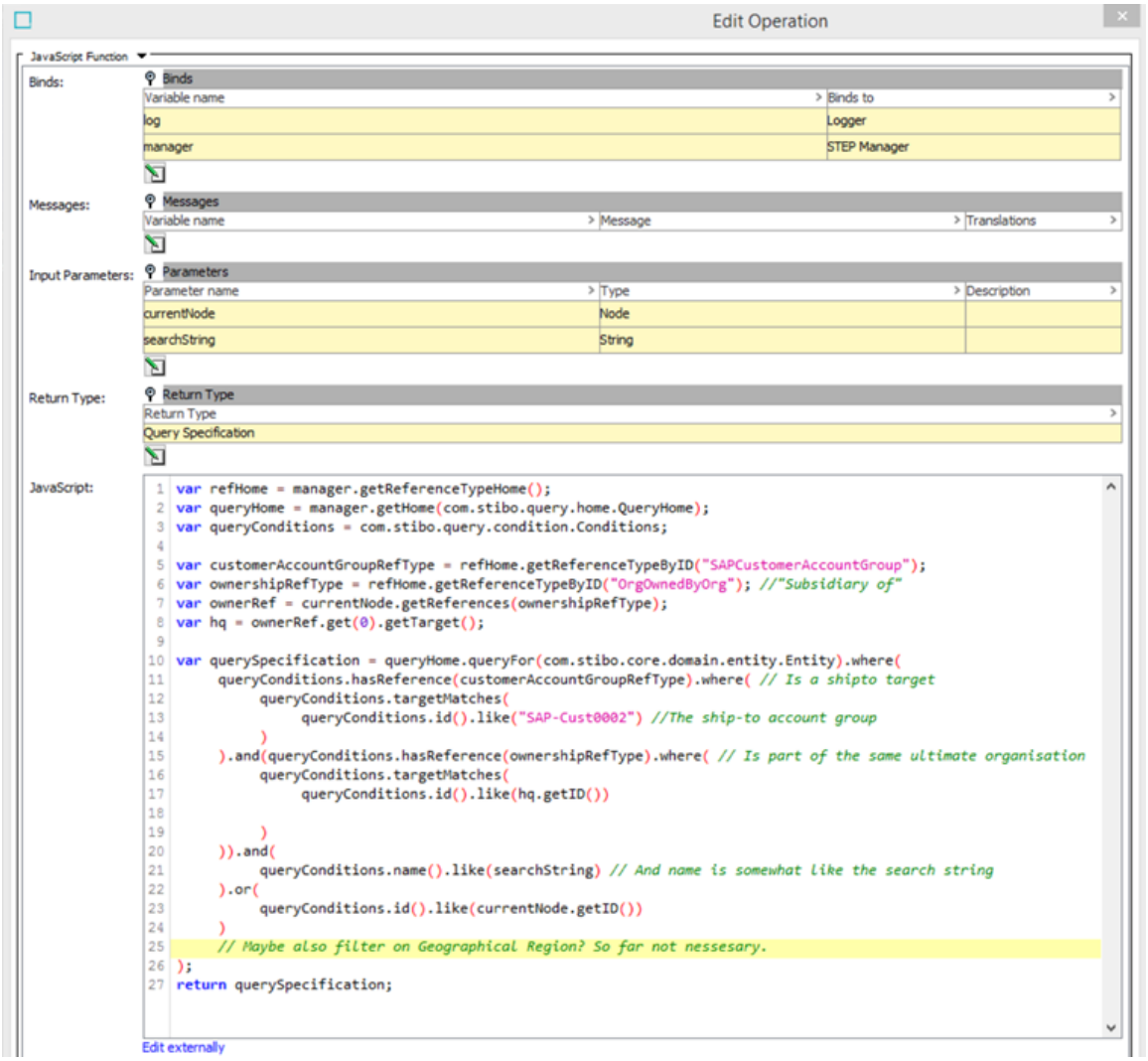
Query Template Builder Example

A use case in customer data is when selecting a 'ship to' location for a sales area. The user is allowed to select a 'ship to' location and the options will include the customer itself (to indicate direct shipments). Additionally, 'ship to' locations must belong to the 'ship to' account group and match the search characters the user entered. In the image below, the 'ship to' customer itself continues to be available regardless of the search characters entered by the user.



Query API JavaScript Example

This JavaScript use case is of a ship-to reference search, only allowing the user to select ship-to targets that are actual ship-to accounts and part of the same organization hierarchy as the currently selected node.



The following are examples of Query API JavaScript to be used with business functions that power the Custom Reference Target Search functionality.

Search Attribute in Data Container

The query below finds all entities where the Main Address data container has a zip equal to the zip variable.

```
var querySpecification = queryHome.queryFor(com.stibo.core.domain.entity.Entity).where(
    queryConditions.hasDataContainer(mainAddressDcType).where(
        queryConditions.valueOf(zipAttr).eq(zip)
    )
);
```

Nesting AND and OR

The query below finds valid ship-to targets for a reference.

A textual statement of the below query could be: The ship-to target of supermarket must either be a warehouse in the supermarket chain, or the supermarket itself.

We could also state this as:

- **Either**
  - Entity is of the Ship-to account group type
  - AND the owner is the same as the current object
  - AND name OR id match the search string
- **OR**
  - entity is the Current Object

Important: The sequence in which the logical operator methods are executed determines the logic, not the standard Java logical operator precedence. Following this, the condition X.or(Y).and(Z) will match objects for which X or Y is true and for which Z is also true.

```
var refHome = manager.getReferenceTypeHome();
var queryHome = manager.getHome(com.stibo.query.home.QueryHome);
var queryConditions = com.stibo.query.condition.Conditions;

var customerAccountGroupRefType = refHome.getReferenceTypeByID
("SAPCustomerAccountGroup");
var ownershipRefType = refHome.getReferenceTypeByID("OrgOwnedByOrg"); //"Subsidiary of"
var ownerRef = currentNode.getReferences(ownershipRefType);
var hq = ownerRef.get(0).getTarget();


var querySpecification = queryHome.queryFor(com.stibo.core.domain.entity.Entity).where(

    queryConditions.name().like(searchString) // And name is somewhat like the search string

    .or(

        queryConditions.id().like(searchString)

    ).and(
```

```
            queryConditions.hasReference(customerAccountGroupRefType).where( // Is a shipto target
                queryConditions.targetMatches(
                    queryConditions.id().like("SAP-Cust0002") //The ship-to account group
                )
            )
        ).and(
            queryConditions.hasReference(ownershipRefType).where( // Is part of the same ultimate organisation
                queryConditions.targetMatches(
                    queryConditions.id().like(hq.getID())
                )
            )
        ).or(
            queryConditions.id().like(currentNode.getID())
        )

    );
    return querySpecification;
```

Custom Reference Target Search Configuration

A Reference Target Search can be configured to appear on the following Web UI components:

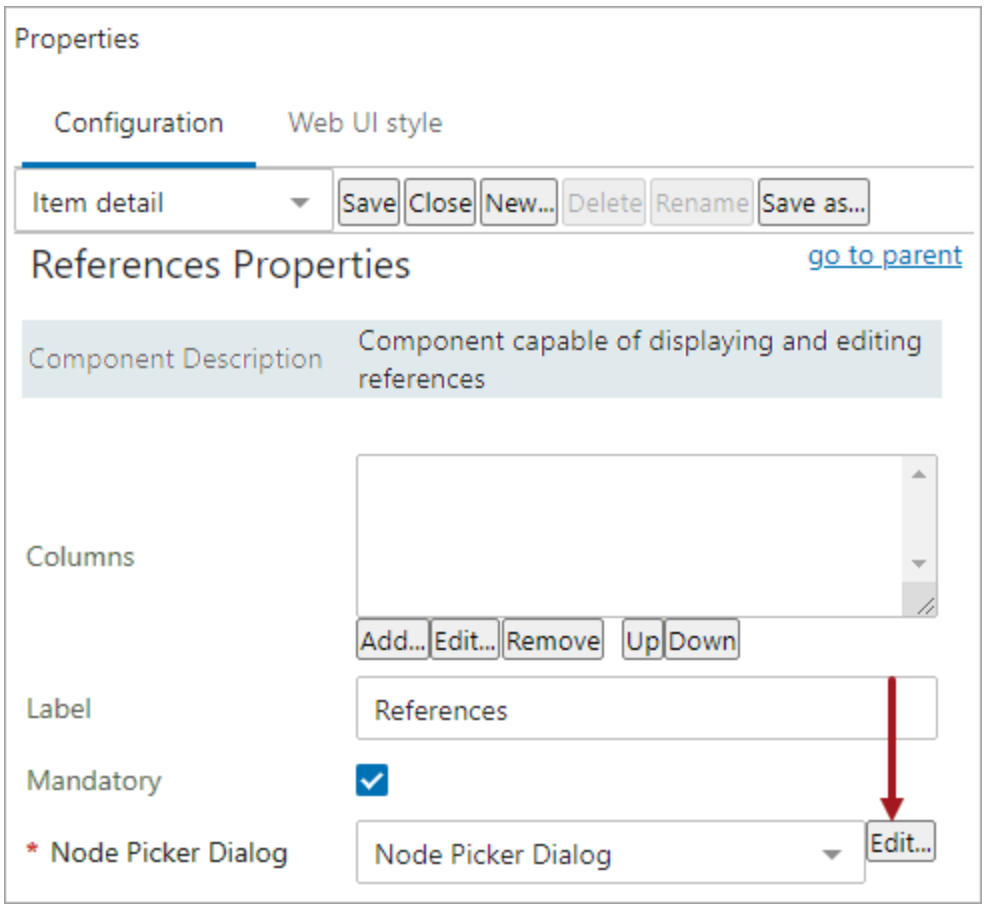
- References component within a Node Details screen (configured via Node Picker Dialog)
- Globally Configured Data Container (configured via Global Reference Representations)
- Globally Configured References (configured via Global Reference Representations)
- Reference Value component within a Node Editor screen
- Reference Header component within a Node List screen
- Referenced Asset Representation within a Node Editor screen (configured via Global Reference Representations)
- Classification Links within a Node Editor screen (configured via Node Picker Dialog)
- Classification Product Links within a Node Editor screen (configured via Node Picker Dialog)
- Add Reference Action within a Multi Reference Editor (configured via Global Reference Representations)
- Reference Header component within an Advanced Merge screen (Merge Golden Record Clerical Review Task List)
- Parent Selector within a Node Details screen (configured via Node Picker Dialog)
- Run Business Action (configured via Node Picker Dialog)

For more information, refer to the **Custom Reference Target Search** section of the **Web User Interfaces** documentation.

Configuration Example

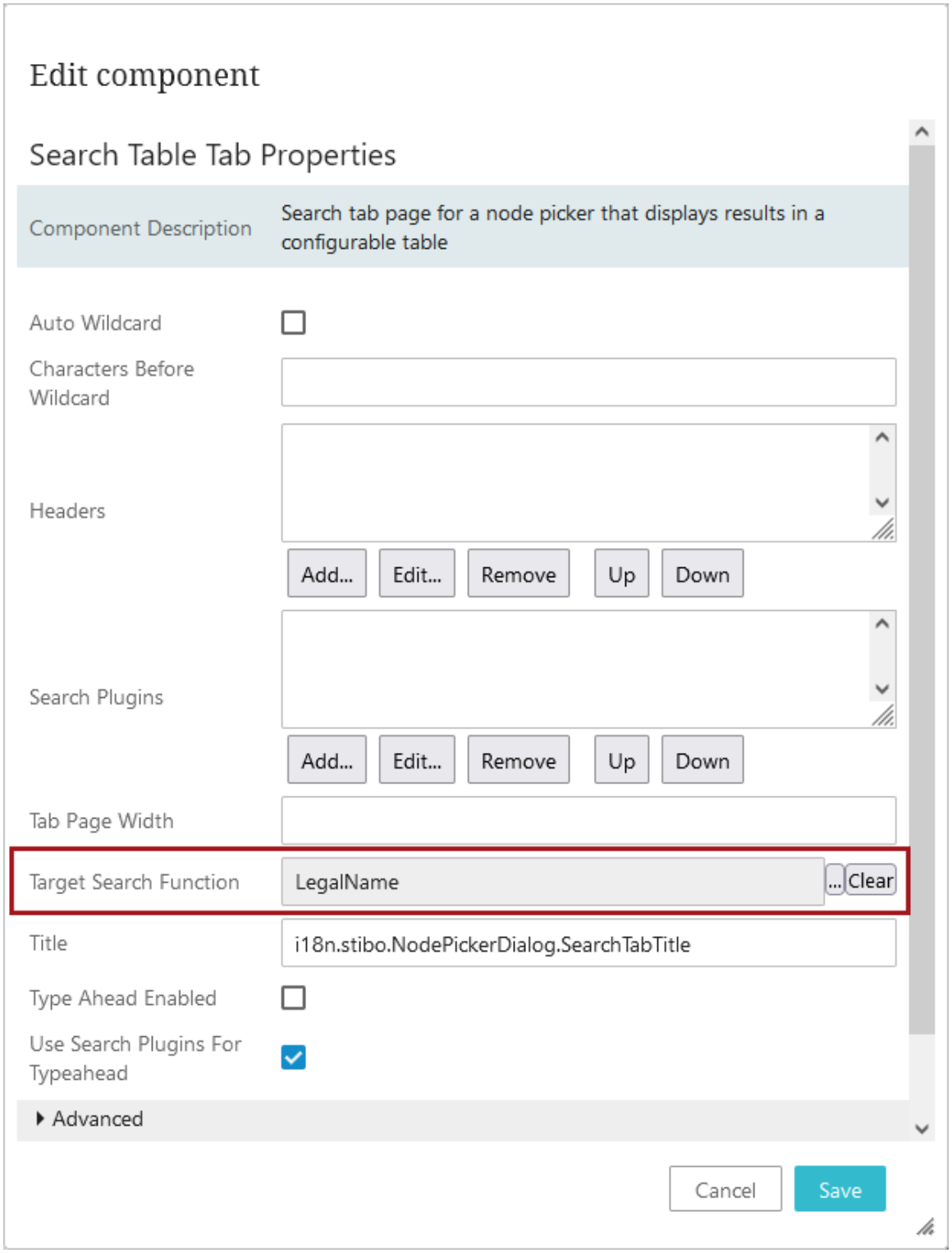
For this example, users must access and configure the Node Picker on the References component. Set up a Web UI Reference component within a Node Editor screen. For detailed instructions on setting up the Node Picker, refer to the **Node Picker Dialog** in the **Web User Interfaces** documentation.

1. Enter the Web UI designer. On Reference Properties, click the **Edit** button to the right of the field on the 'Node Picker Dialog' parameter.



2. On the 'Node Picker Dialog Properties' window, click the **Add...** button and add a 'Search Table Tab.' Alternatively, you can edit an existing Search Table.
3. On the 'Search Table Tab Properties' dialog, click the ellipsis button (...) beside the 'Target Search Function' parameter, and select your business function from the hierarchy. Click the **OK** button.

Note: When a Target Search Function is set, the 'Search Plugins' and 'Use Search Plugins For Typeahead' parameters are ignored. These fields are not always present wherever the 'Target Search Function' appears, however.



4. Save all edits to each component and the screen before exiting the designer.

Onboarding Multiple Objects Using Web UI Screens

Onboarding multiple objects using Web UI Mass Creation components requires designers to configure a screen and a widget.

Prerequisites

Detailed configuration instructions are provided in separate topics of the Web User Interfaces documentation:

- Configuring a Mass Creation Screen
- Mass Creation Widget

Additionally, end users must have the necessary privileges to create and onboard objects in STEP as well as have access to selected parts of the Tree hierarchy (e.g., the product hierarchy). For more information about privileges and user setup, refer to the **Users and Groups** section and **Adding User Privileges for a Group** section of the **System Setup** documentation.

Mass Creation Screen

The Mass Creation screen is used to set up multiple Product, Entity, and Classification objects in STEP and initiate them into STEP workflow simultaneously. Using Web UI screens to onboard multiple objects into STEP provides an alternative to using more complex import methods such as Smartsheets.

Mass Creation Widget

The Mass Creation homepage widget should be configured as the entry point to a Mass Creation screen. Admin users can set the static root nodes that limit what an end user has access to when onboarding objects. If a STEP hierarchy is extensive, this is particularly useful if an end user should focus on one product category and not another one.

Multiple widgets and screens can be set up to meet onboarding needs. As an example, multiple users may be onboarding products in different categories, and it would be useful to have multiple widgets set up to direct users to the applicable Mass Creation screen they should use.

For more information on using a configured Mass Creation screen and widget, refer to the **Using a Mass Creation Screen and Widget** section of the **Web User Interfaces** documentation.

Configuring a Mass Creation Screen

The Mass Creation screen is used to set up multiple **Product**, **Entity**, and **Classification** objects in STEP in bulk. the screen can be configured with a set of attributes (group) and, optionally, a business condition to run prior to creation of objects.

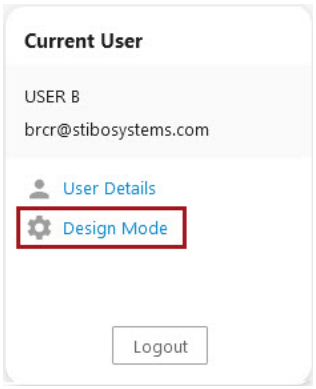
Admin users first need to create a screen using the Mass Creation screen type. Once the screen is created, configuration can begin.

Multiple screens / configurations can be saved to meet a variety of onboarding needs.

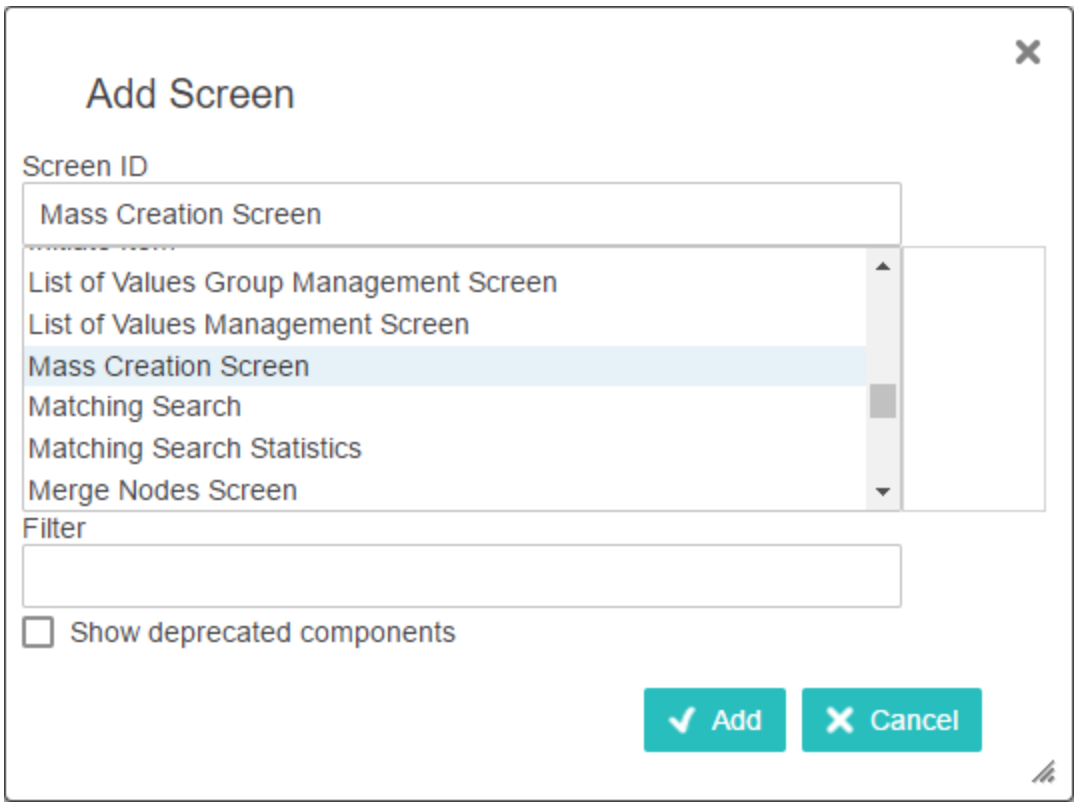
Adding a New Mass Creation Screen

To add a screen using the Mass Creation screen type:

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. Click the design mode launch button found on the Homepage (in the user widget).



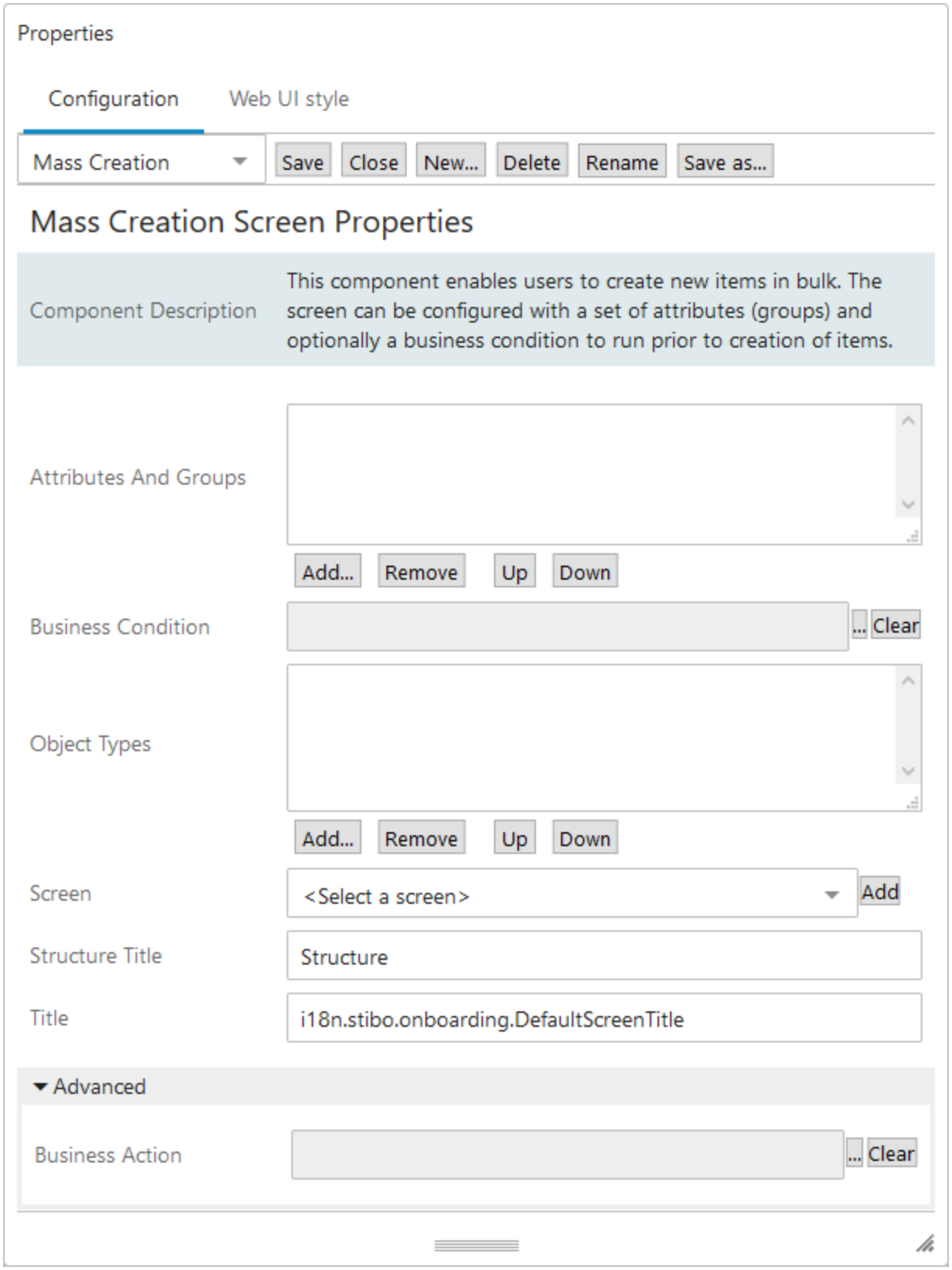
3. Click the **New** button in the action icon row.
4. Choose **Mass Creation Screen** from the screen list and type in a Screen ID. The screen ID should be something easily identifiable as this will be what is shown to anyone trying to access the screen through design mode or who is using the screen as a results screen for a Mass Creation Homepage widget.



5. Click **Add**.
6. Click **Save** in the Designer window. At this point, either close Designer and configure the screen at a later time, or continue on with the **Mass Creation Screen Properties** configuration.

Configuring a Mass Creation Screen

A screenshot of the default properties screen follows. In place of outlining steps a Web UI designer should take to configure the screen properties, the sections directly after the image explain what each parameter does and the options for configuring them. Each parameter should be configured as needed.

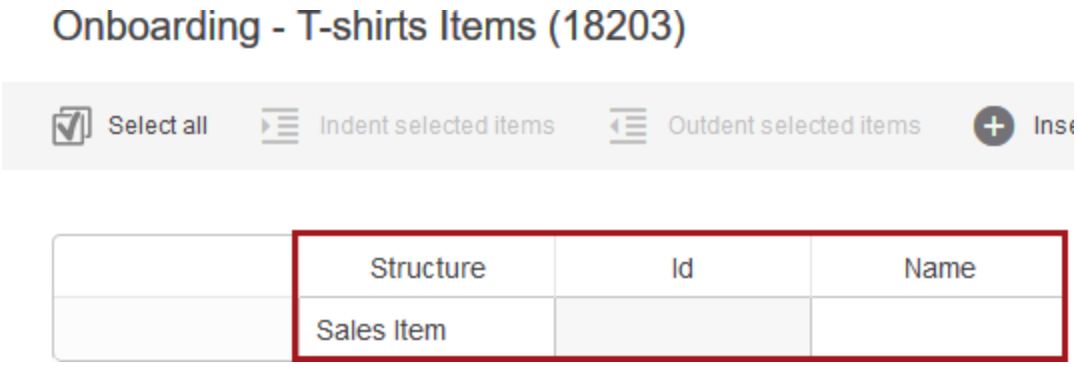

Properties
Configuration
Web UI style
Mass Creation
Save
Close
New...
Delete
Rename
Save as...
Mass Creation Screen Properties
Component Description
This component enables users to create new items in bulk. The screen can be configured with a set of attributes (groups) and optionally a business condition to run prior to creation of items.
Attributes And Groups
Add...
Remove
Up
Down
Business Condition
...
Clear
Object Types
Add...
Remove
Up
Down
Screen
<Select a screen>
Add
Structure Title
Structure
Title
i18n.stibo.onboarding.DefaultScreenTitle
Advanced
Business Action
...
Clear

Attributes and Groups

Any attribute groups and/or attributes selected will display as editable columns, if applicable, in the **Mass Creation** screen grid. These can be added, removed, and re-ordered using the buttons under the **Attributes and Groups** field.

Administrators are encouraged to follow recommended practices and put all category-specific attributes into one super attribute value group (e.g., Dimensions). Objects can be further divided into sub-groups (e.g., Height and Width). Any attribute sequencing will need to be done following standard procedures if attribute values should be filled out in a specific order.

There are three default columns that will display automatically, even if the **Attributes and Groups** field is empty. They are **Structure**, **ID**, and **Name**. Refer to the example below.



Business Condition



To apply a business condition, within **Mass Creation Screen Properties**, click the ellipsis button (...) to the right of the Business Condition field to browse / search and select one. The business condition ID displays within the properties field. Click the ellipsis button (...) to select a different business condition, and click the Clear button that is available to the right of the ellipsis button to remove an existing condition.

A business condition may be selected and used for validating object data. An end user can run a business condition validation on all rows at any time by clicking the business condition button. Also, if only a subset of the data should be tested, a user can select certain rows prior to clicking the business condition button. The business condition also runs and validates the data automatically when the Create button is clicked.

The business condition button appears to the right of the Create (shown by default) button within the user interface. The business condition name is shown on the button, and the button only displays if a business condition is selected.



For more information about Business Conditions, refer to **Business Conditions** in the **Business Rules** documentation.

Object Types

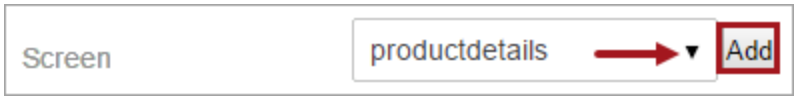


Product, **Entity**, and **Classification** object types can be added, removed, and re-ordered using the Add, Remove, Up, and Down buttons under the **Object Types** field. The configured list will serve as the object type or types available for the user when creating new objects.

Note: Assets cannot be created using a Mass Creation screen.

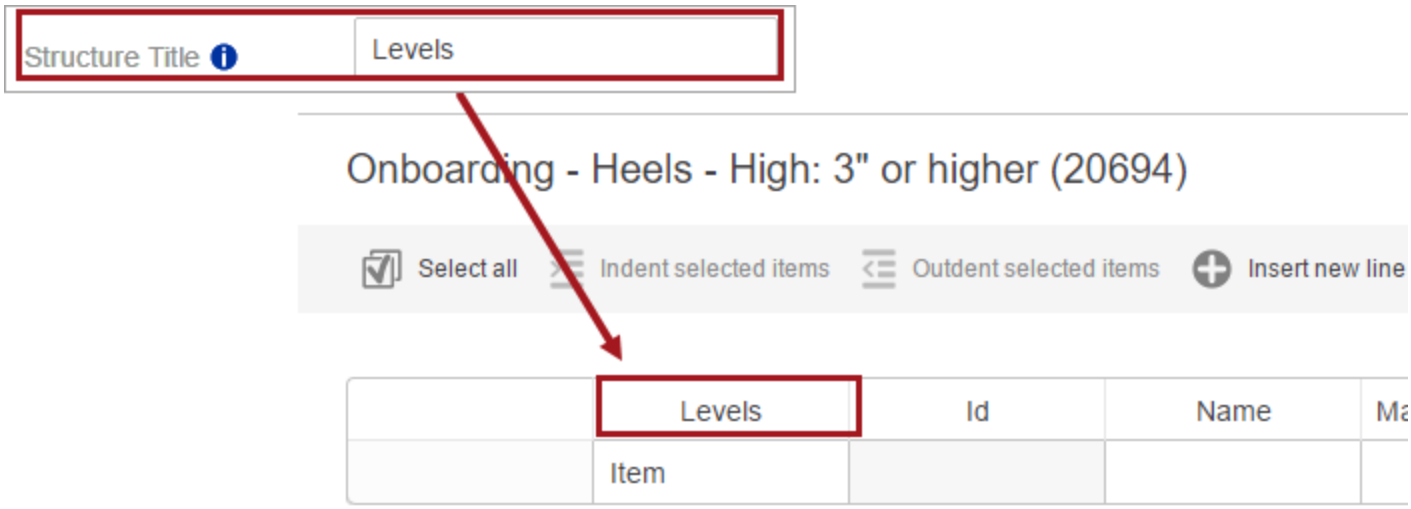
Screen

Using the Screen dropdown list, select the screen that users will be forwarded to once they create and successfully save objects in STEP. If the desired screen does not already exist, there is an Add button to the right of the dropdown.



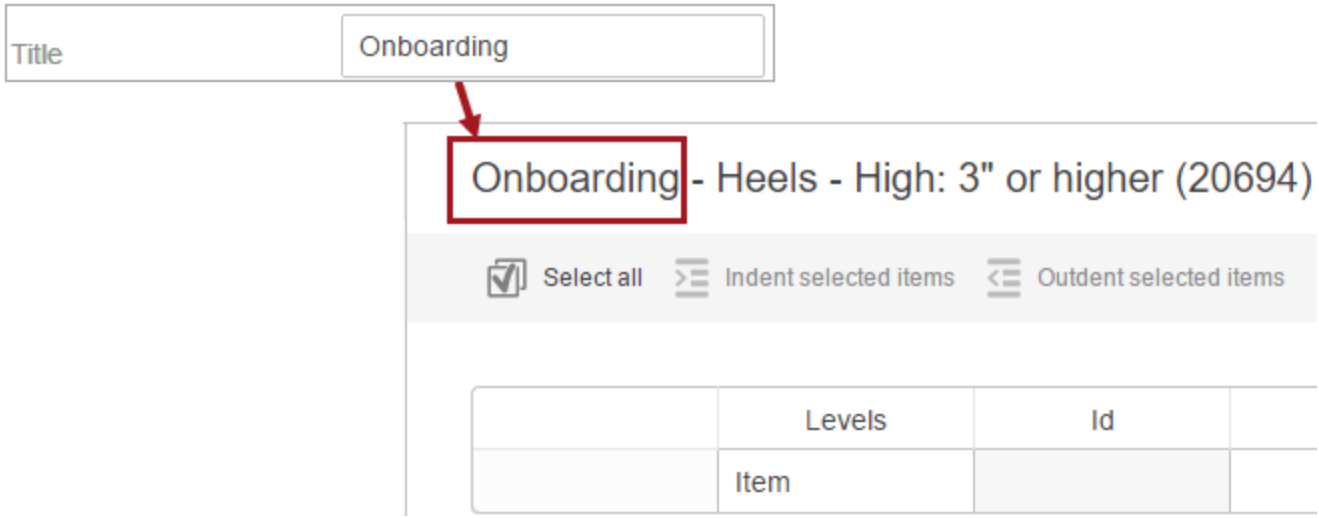
If adding a new screen, pick a screen type, and give it a descriptive Screen ID as described in the **Adding a New Mass Creation Screen** section of this topic. Once **Add** is clicked within the 'Add screen' dialog, the newly created Screen ID will auto-populate in the Screen field. Using standard processes, configuration can be done on the newly created screen once the **Mass Creation Screen Properties** are saved.

Structure Title



The object hierarchy Structure column, displayed by default, can be renamed to something more meaningful to the end user.

Title



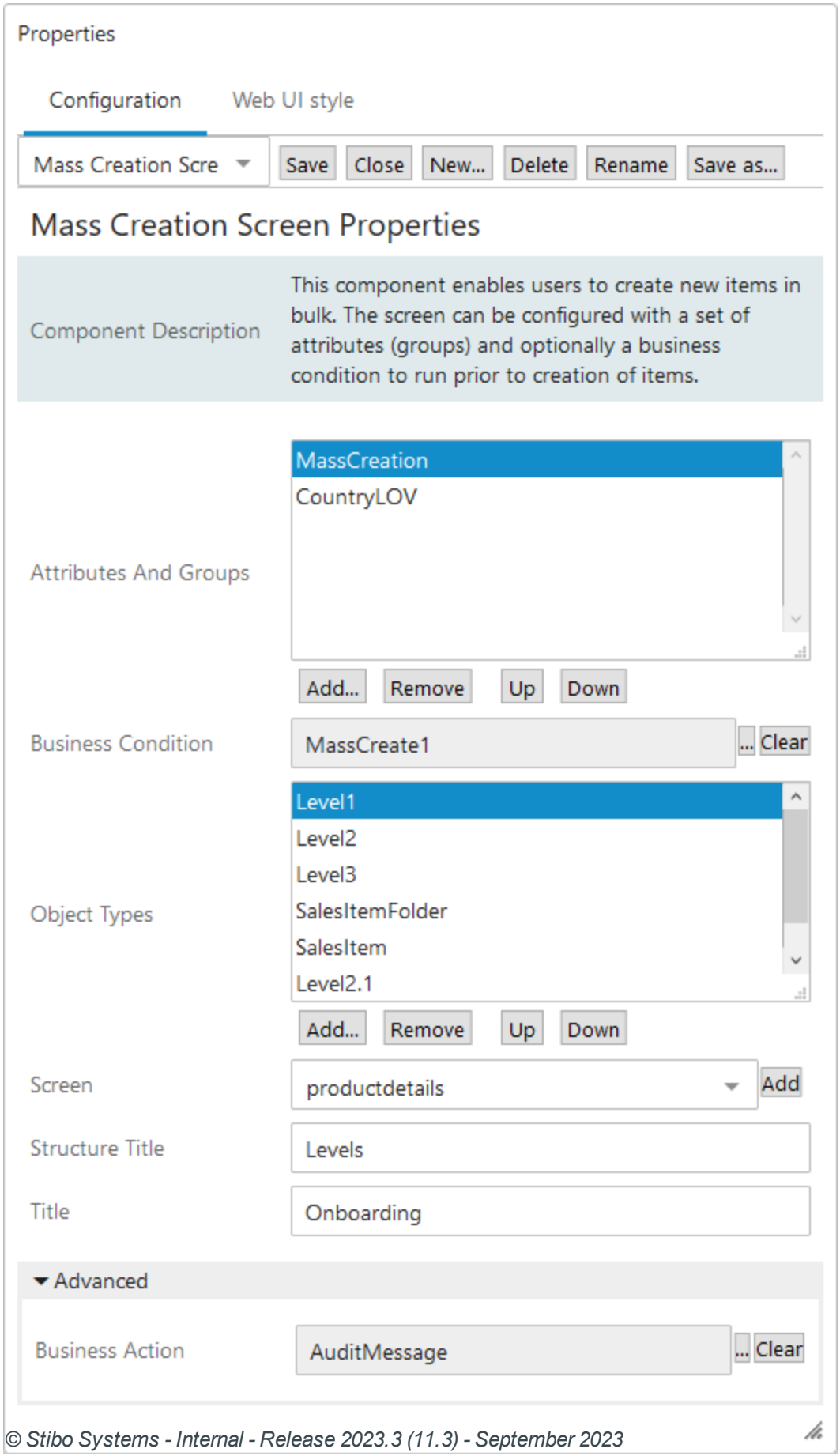
'Mass creation' is the default title given to a new Mass Creation screen and is displayed at the top of the screen above the action buttons. Edit the **Title** field, if desired, to something more descriptive. The title is especially important if using multiple Mass Creation screens to onboard different object categories or object types.

Business Action

In the **Business Action** field, found under the collapsible 'Advanced' header, users may select a business action that can be applied to incoming objects. The business action will be executed on each incoming object once the object and its aspects (e.g., name, parent object, etc.) and attribute values have been imported. Because business rules provide significant versatility, business actions added can be written to accomplish a wide range of tasks. For example, actions written to add references to incoming objects, or generating notifications to specific users when imported objects have been added in STEP, can be added in this field.

Important: If a business action is applied to the Mass Creation Screen and the incoming object must also be initiated into a workflow, it is recommended that the business action also be written to initiate the imported object into the desired workflow. Relying on the 'Initiate automatically' setting configured on the workflow itself can result in initiating the object into a workflow before its aspects and attribute values have been imported, resulting in, for example, some objects not entering relevant workflows.

Below is an example of the **Mass Creation Screen Properties**, fully configured:


Properties
Configuration
Web UI style
Mass Creation Scre
Save
Close
New...
Delete
Rename
Save as...
Mass Creation Screen Properties
Component Description
This component enables users to create new items in bulk. The screen can be configured with a set of attributes (groups) and optionally a business condition to run prior to creation of items.
Attributes And Groups
MassCreation
CountryLOV
Add...
Remove
Up
Down
Business Condition
MassCreate1
...
Clear
Object Types
Level1
Level2
Level3
SalesItemFolder
SalesItem
Level2.1
Add...
Remove
Up
Down
Screen
productdetails
Add
Structure Title
Levels
Title
Onboarding
Advanced
Business Action
AuditMessage
...
Clear

After parameter selections have been made, click **Save** at the top of the Designer window. Close the window or select --[HOMEPAGE]-- to continue on and configure the Mass Creation widget. For more information, refer to the **Mass Creation Widget** section of the **Web User Interfaces** documentation.

For more information about using the Mass Creation components, refer to the **Using a Mass Creation Screen and Widget** section of the **Web User Interfaces** documentation.

Using a Mass Creation Screen and Widget

Users can create objects, create object hierarchies, and initiate objects into workflows all on one dedicated Mass Creation screen—and get to that screen using a Mass Creation homepage widget. Multiple Mass Creation screens and Mass Creation widgets can be configured and saved to meet different onboarding needs.

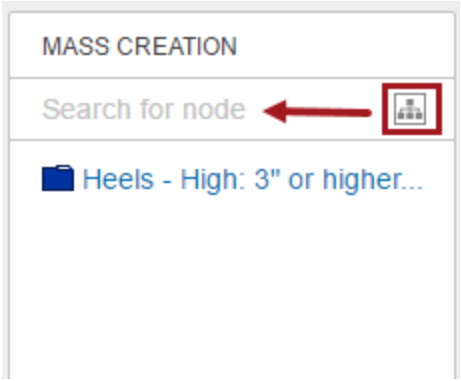
Steps to Multiple Object Creation

For simplicity, these steps and images are provided using the final property configurations shown in the **Configuring a Mass Creation Screen** and **Mass Creation Widget** documentation.

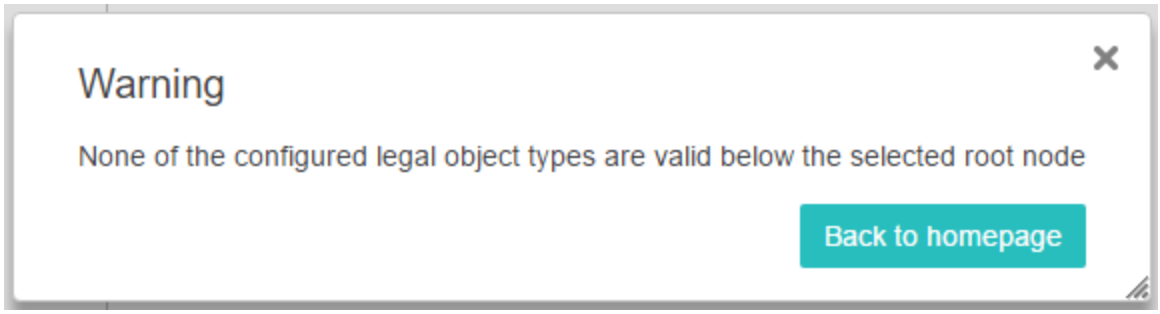
Important: A maximum of 500 objects can be created per Mass Creation screen session.

All create actions must occur in a single session without navigating away from the Mass Creation screen. Incomplete data cannot be saved in Web UI for a later submission. Also, only one super type at a time can be loaded per Mass Creation screen session (e.g., all Products or all Classifications—not a mix of both).

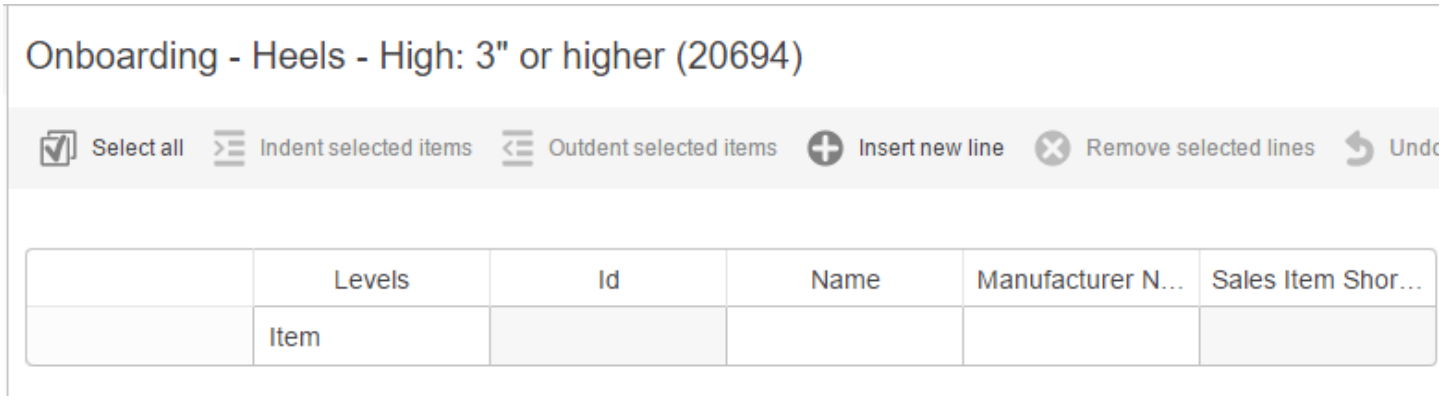
1. Go to the Mass Creation widget on the Web UI homepage.
2. Select a parent object by clicking the node picker and using the configured selection tabs. The widget also has a typeahead search feature (type in the empty area to the left of the node picker icon). The last nine selections / searches are listed on the widget under the **Latest searches** heading. The Mass Creation screen designated as the results screen in the widget configuration will display.



- If a user clicks on the widget node picker and chooses a root node that is not compatible with the Object Types selected during the screen Mass Creation Screen configuration, then the below message will display.



- If there are no issues, then the Mass Creation screen will display.



3. Enter and organize the data. *(Up to 500 objects can be created per Mass Creation screen session.)*
   - To begin, enter object data by cutting and pasting data into the table (e.g., from an Excel spreadsheet) or manually entering it.
   - Navigate by tabbing through cells or clicking in cells using a mouse. List of Values (LOV) cells are identifiable by a light gray enter icon that will display once you click or tab into the cell (↵).

   Note: Engaging an LOV cell works the same across STEP Web UI components. Standard instructions to engage an LOV are to double-click in the cell. Because behavior between browsers and systems differs, if you are using just your keyboard, press Enter twice when you have tabbed in to an LOV cell; if the LOV does not display automatically, press the Alt key and the down arrow at the same time (or just the down arrow key). Click on a value to make a selection or type two or more letters / digits to identify a selection. If you want to filter through all entries, as an example, that start with 'G,' just type the letter G multiple times to cycle through the options.

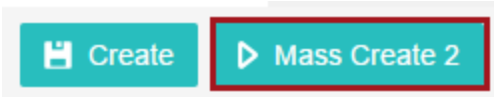
   - Once you enter data in the first available cell and press the Tab key or enter, a data row is created. An empty data row remains at the bottom of the grid for ease and convenience of entering data and adding rows. Only the data in rows marked with numbers will be used to create actual objects.
   - Organize the object hierarchy and create parent / child relationships on the screen using the Structure cell options and the action buttons.

- Users are limited by the existing object type structure. The structure on the Mass Creation screen is created based on the existing object data model set up and configured to be used.
- If more than one object type is available for the structure level you are creating, then the cell in the Structure column will change colors and there will be a dropdown of choices available.
- The action buttons are located on the screen below the title and above the grid. The buttons will become active when it is valid for them to be used. From left to right order, the buttons are:

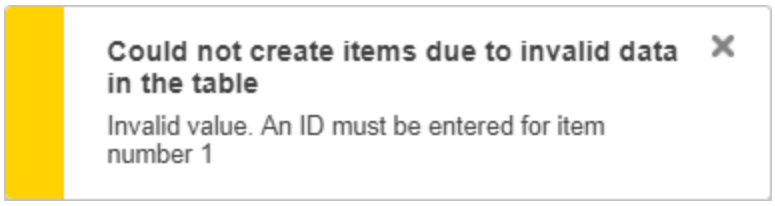
Icon	Button	Function
	Select all	Highlights / selects all lines of the grid except the last line; can be used if you want to validate data using a business condition any time during the data entry process; only displays if there are no rows selected
	Clear all	Deselects all rows; only displays if a row is selected; the button is only activated when either the Select All option is enabled, or a selection is made manually
	Indent selected items	Creates child objects; highlight row(s) and click the indent button; Structure column will update accordingly
	Outdent selected items	Creates parent objects; highlight row(s) and click the outdent button; Structure column will update accordingly
	Insert new line	Adds a row to the grid above selected entry
	Remove selected lines	Deletes rows from the grid; select at least one row to activate the button User will receive a confirmation message they must confirm; empty row cannot be removed
	Undo latest change	Allows user to undo their last change
	Redo latest change	Allows user to redo a change after undoing it

4. As data is entered, any cells with validation issues will be marked with a yellow indicator icon. These errors (e.g., entered data does not match an LOV value, entered data is not valid for the attribute's validation base type) need to be addressed before the Create button is clicked.

5. If using a business condition, additional validation can be done at any time by clicking the business condition button, which is located to the right of the Create button on the bottom left side of the screen. In the example that follows, the business condition is named Mass Create 2. The business condition automatically runs when a user clicks the Create button. Refer to **Validating Data** below for more information regarding validation responses.



6. When done entering data into the grid and correcting any validation errors, click **Create**.
7. Address any issues, if applicable, that are displayed via an informational pop-up message (refer to **Validating Data** below). If the business condition validation fails for any reason upon clicking Create, none of the objects nor the object hierarchy structure will be created. For example, the following dialog shows that an ID was not found.

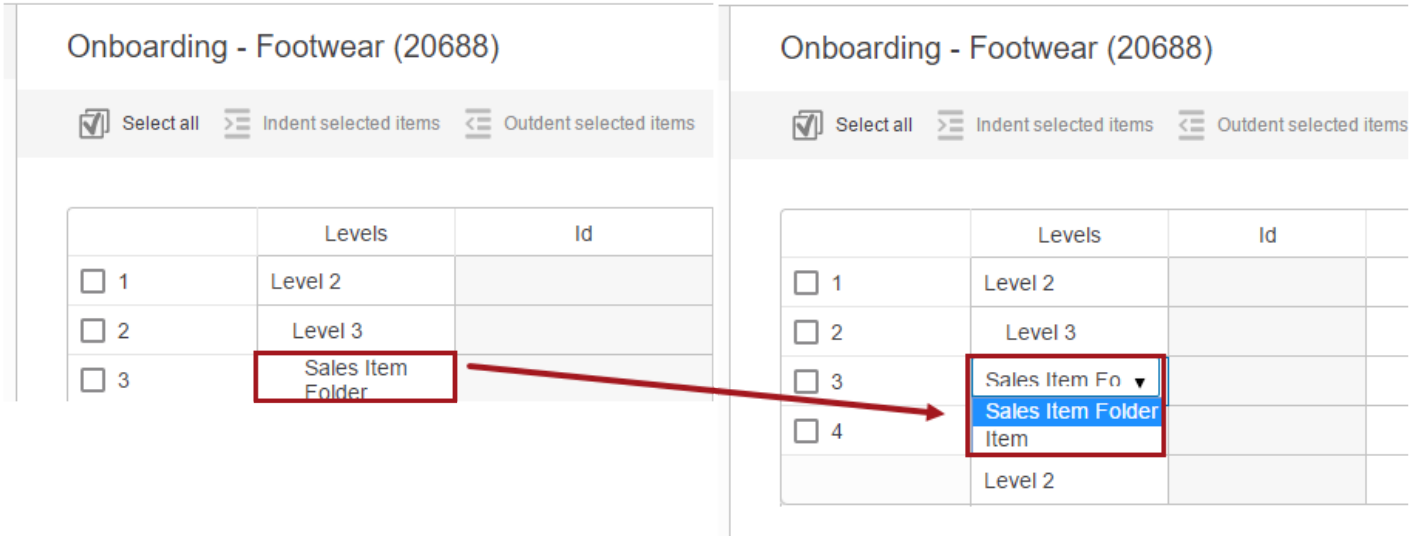


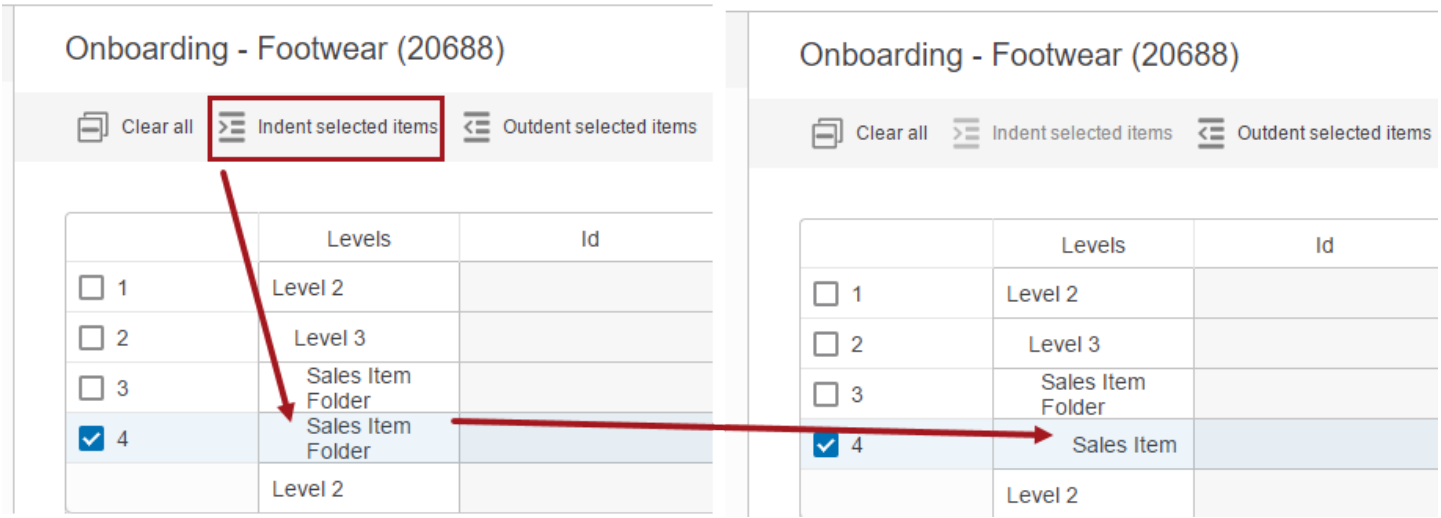
8. When creation is successful, the user will automatically be routed to the screen configured in the Screen parameter of the Mass Creation Screen Properties settings. If applicable, the new objects will automatically be initiated into workflows based on your existing workflow rules. (For more information about workflows and auto-initiation, refer to the **Auto-Initiation of Tasks in Workflows** topic in the **Workflows** documentation.)

Example

The images that follow show a simple example of objects and an object hierarchy being created.

- The object type directly under Level 3 has two options (Sales Item Folder and Item).
- Sales Item Folder or Item is being indented to become a child of Level 3.
- The set of objects passed validation when Create was clicked. The objects / object hierarchy were created and the screen was routed appropriately based on the configured Screen parameter within the Mass Creation Screen Properties.
- The newly created objects are shown in the Web UI Tree.


Onboarding - Footwear (20688)
Select all
Indent selected items
Outdent selected items
Levels
Id
1
Level 2
2
Level 3
3
Sales Item Folder
Onboarding - Footwear (20688)
Select all
Indent selected items
Outdent selected items
Levels
Id
1
Level 2
2
Level 3
3
Sales Item Fo
Sales Item Folder
Item
4
Level 2


Onboarding - Footwear (20688)
Clear all
Indent selected items
Outdent selected items
Levels
Id
1
Level 2
2
Level 3
3
Sales Item Folder
4
Sales Item Folder
Level 2
Onboarding - Footwear (20688)
Clear all
Indent selected items
Outdent selected items
Levels
Id
1
Level 2
2
Level 3
3
Sales Item Folder
4
Sales Item
Level 2

Onboarding - Footwear (20688)

Select all | Indent selected items | Outdent selected items | Insert new line | Remove selected lines | Undo la

	Levels	Id	Name	Manufacturer Name	Sales Item Short Description
1	Level 2		Dress Shoes	Rise-N-Shine	All Dress Shoes
2	Level 3		Flats	Rise-N-Shine	Dress Flats
3	Sales Item Folder		Pink Flats	Rise-N-Shine	
4	Sales Item		Girls Flats	Rise-N-Shine	Sizes 0 - 6 only
	Level 2				

Create | Mass Create 2

Items successfully created

4 items have been successfully created

Item Details

Basic Overview | Related Information | Related Information | Related Information

Approved ✗

Name

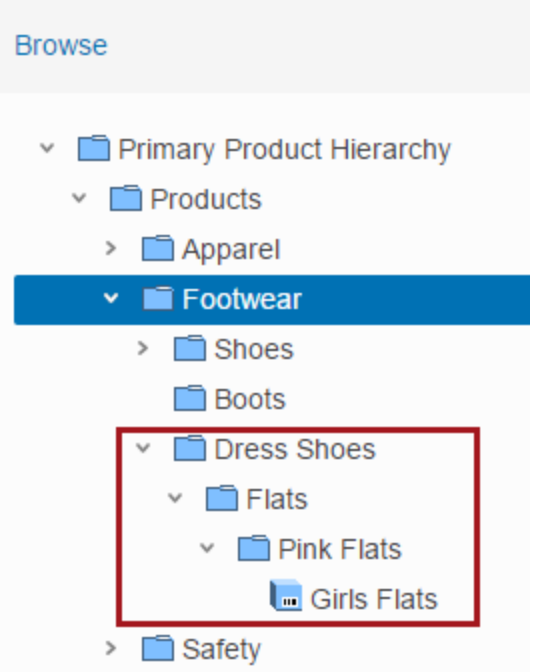
Object Type: Assets

Multi Supplier - Multi-supplier Item
FollowSingleReference Design Mode

Replacement Item - Supplier Replacement Item
FollowSingleReference Design Mode

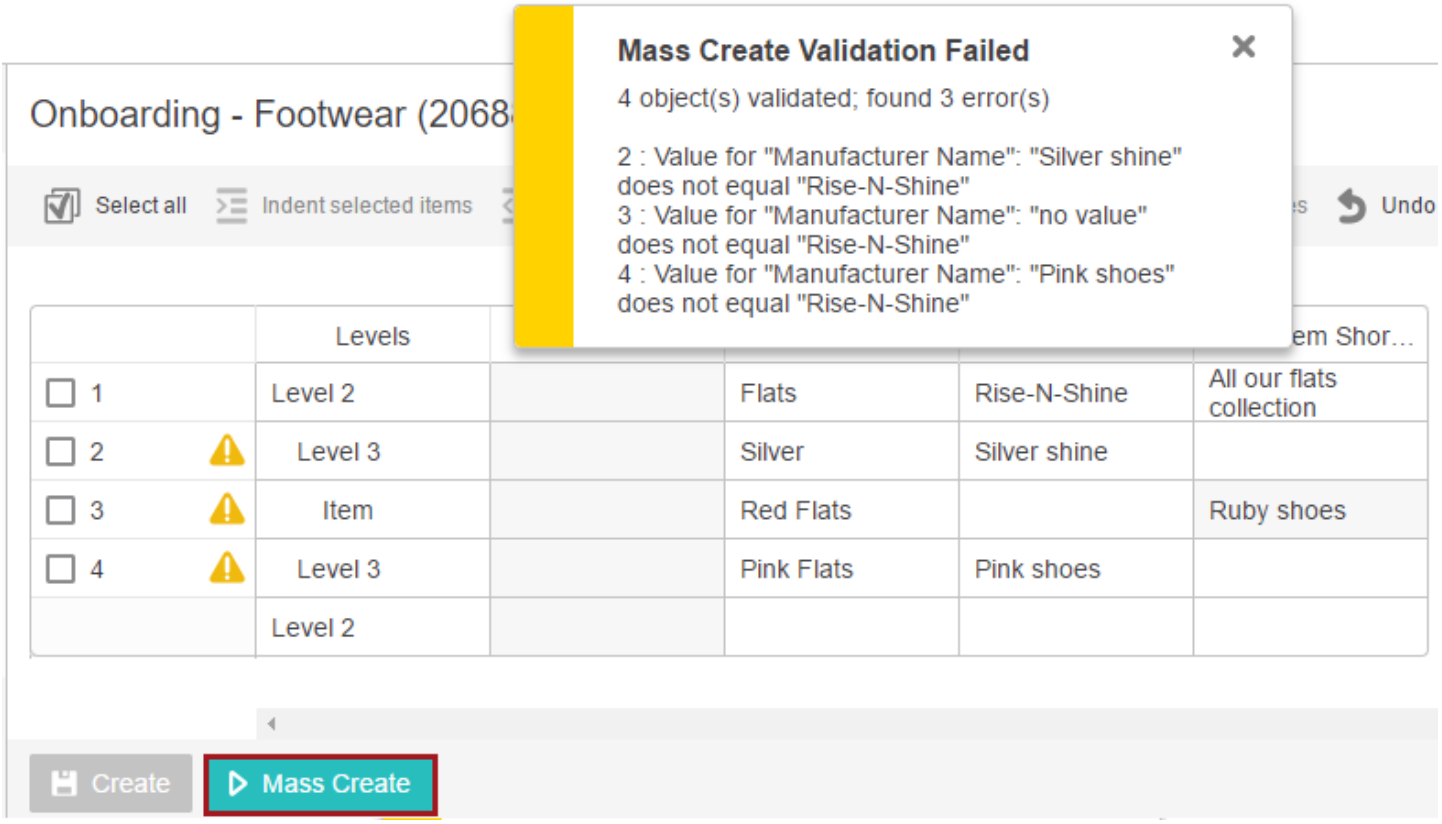
Accessory - Accessory Optional
FollowSingleReference Design Mode

Address - Address
FollowSingleReference Design Mode

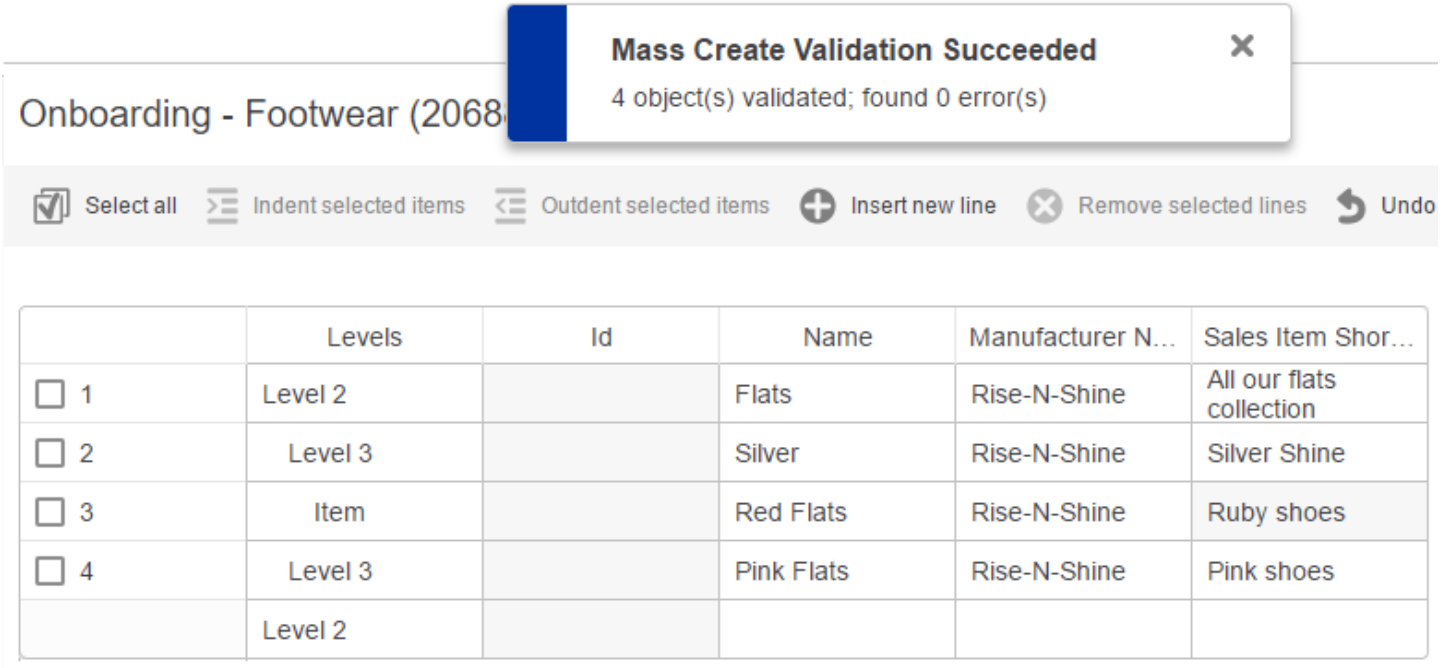


Validating Data

- If there is a **cell-level validation** error, an icon appears in the cell: ⚠
- If a **business condition validation** fails, an icon appears in the row with an error and a validation message appears:



- If a **business condition validation** is successful (pre-Create), a 'Succeeded' validation message appears:



- When the **business condition validation** is done at the time a user clicks Create, no message displays if the validation is successful. A message only appears if the validation fails.

Packaging Hierarchy Editor

The Packaging Hierarchy Editor is a component designed to ease the work with the often comprehensive task of packaging logistics. The Editor is built around an intuitive graphical user interface that visualizes all available packaging hierarchies that a selected item is part of or a packaging object is included in.

The user interface interacts seamlessly with a multi-editor, enabling the user to browse though available packaging hierarchies quickly and view relevant information about an item and packaging objects (e.g., dimensions and weight). In addition to displaying information, the multi-editor also allows for the maintaining of attribute links and attribute values on packaging objects. Users are also able to add new levels to build on existing packaging hierarchies and to unlink removed levels.

For information about setting up and using the Packaging Hierarchy Editor, refer to the following sections in the **Web User Interfaces** documentation:

- Configuring the Packaging Component in STEP Workbench
- Setting Up Packaging Hierarchy Editor in Web UI
- Using the Packaging Hierarchy Editor

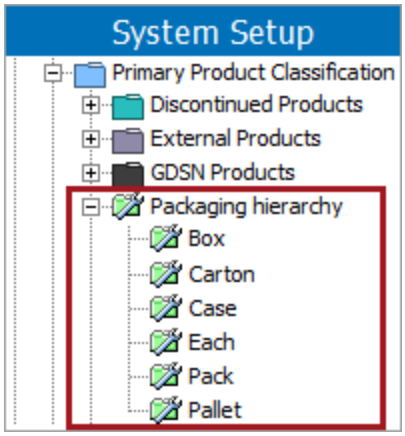
Configuring the Packaging Component in STEP Workbench

When setting up a packaging hierarchy editor in Web UI, and when sending product packaging information to Product Data Exchange (PDX), configuration must be performed in workbench. Below are the steps required for data structure and workbench setup.

1. Create object types for packaging objects
2. Create references between the packaging objects
3. Create quantity attribute
4. Set up the Packaging Component Model

Create object types for packaging objects

The first step when configuring the STEP Workbench is to create the packaging object types that are going to be used. These packaging objects represent the different packaging types making up the packaging hierarchies (e.g., box, case, and pallet). The packaging object types should be created under Object Types & Structures under System Setup. Once the desired folder is found, right-click on it to create a New Object Type.



Important: All packaging object types created should be configured to have automatically generated IDs, which is achieved by setting the ID Pattern parameter to **[id]**.

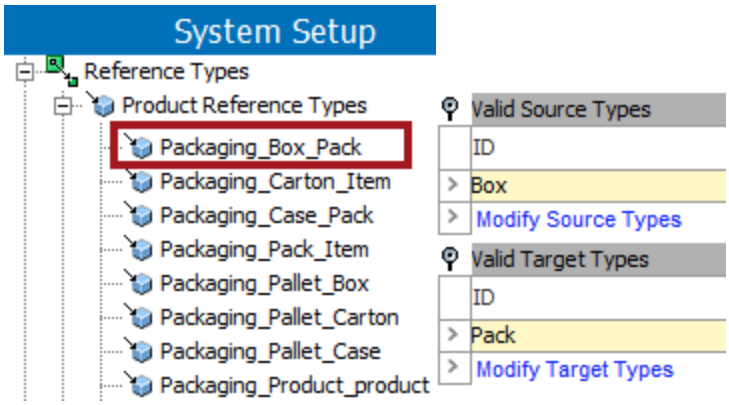
Description

Name	Value
ID	Box
Name	Box
Last Edited by	2014-12-05 10:25:00 by STEPSYS
Name Pattern	
ID Pattern	[id]
Manually Sorted	No
Enable Profiling	No
InDesign Template Allowed	No
Quark Template Allowed	No
Icon	
Dimension Dependencies	
Offers	

Create references between the packaging objects

In order to create the level structure of the packaging hierarchy, after creating the needed packaging objects, the objects should be linked to each other. This is done by creating product references between the packaging objects (System Setup > Reference Types > Product Reference Types).

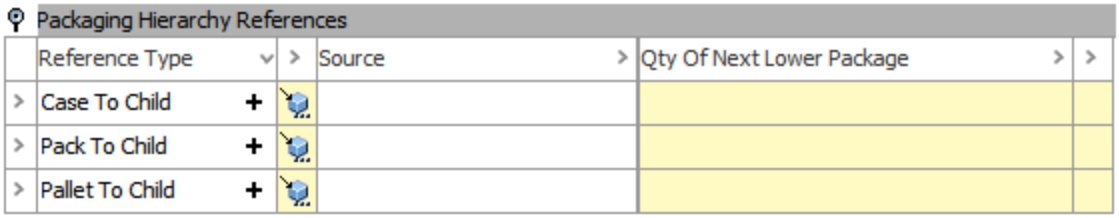
Since the direction of the references between the packaging objects decides the packaging hierarchy structure, it is crucial that the reference source is the higher level packaging object and the reference target is the lower level object type. For example, Pallet-to-Box, and Box-to-Pack.



Create quantity attribute

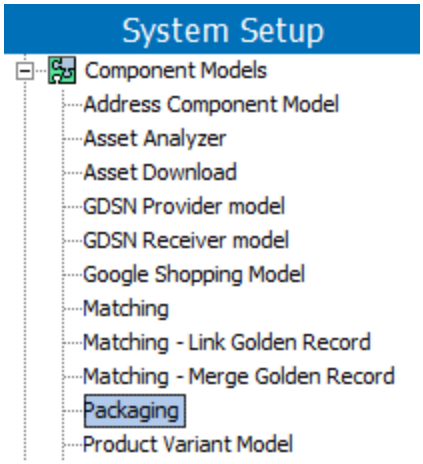
A description attribute valid for all configured references between packaging types is required. This attribute should be set up to contain the quantity of the next lower level package quantity and will be used in the component model configuration, which is explained in the next section. In the examples going forward, this attribute is named 'Qty of Next Lower Package.'

Note: This quantity attribute should be a single-valued attribute. If it is a multi-valued attribute, end users may run into errors within the Web UI Packaging Hierarchy Editor (Number Of Items calculations and Node List editing).

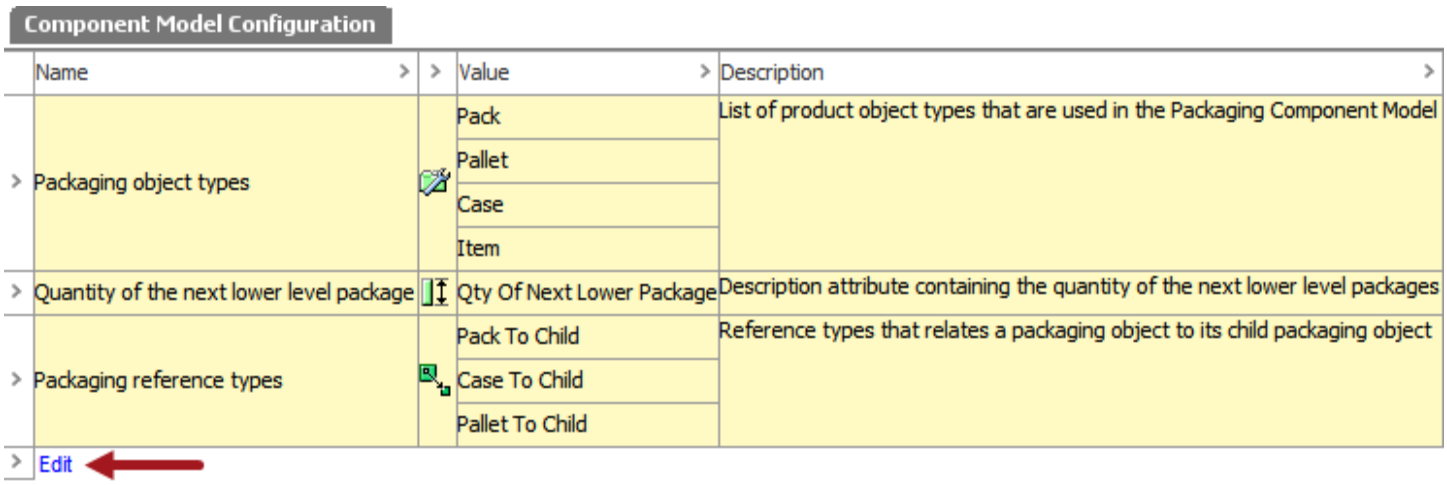


Set up the Component Model

When all previously mentioned steps have been completed and the data structures have been defined, it is possible to set up the component model configuration. The component model for the packaging hierarchy is found under Component Models on the System Setup tab.



Important: In order to set up the component model properly, it is important the that packaging hierarchy object types contain the item (product), which represents the lowest level in the packaging hierarchy.



The configuration of the Packaging Component Model consists of three sections:

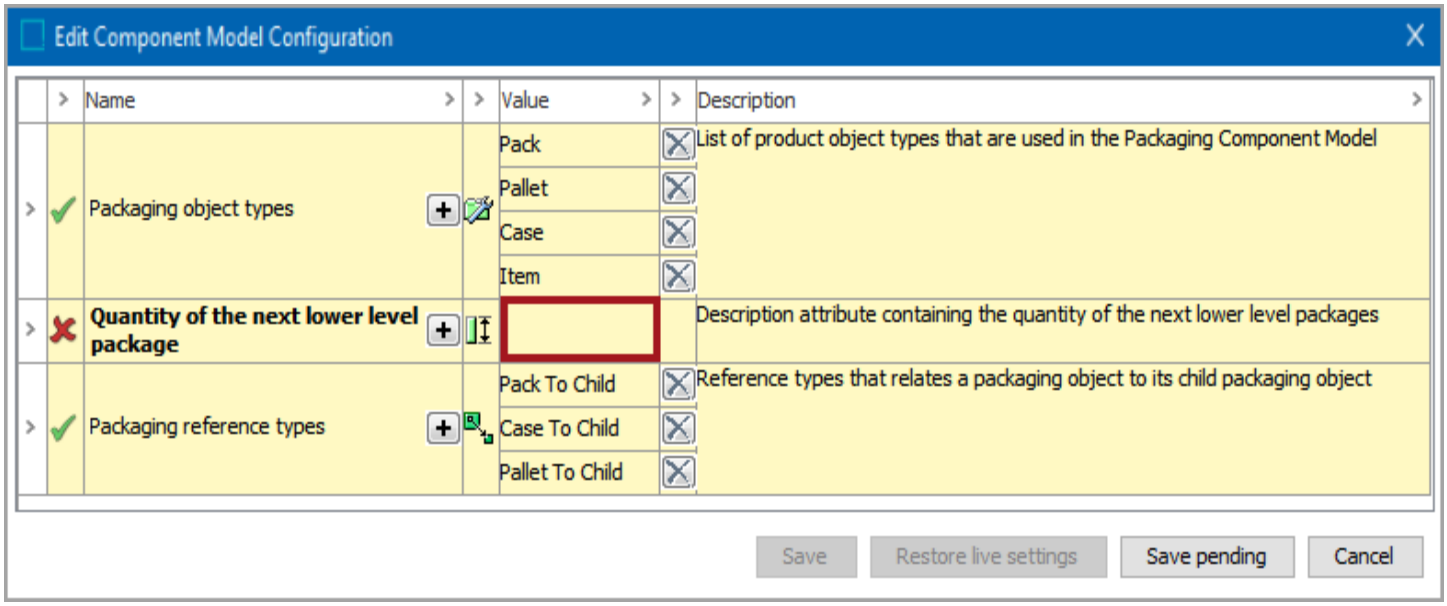
- **Packaging object types** should contain all object types used in the packaging hierarchy.
- **Quantity of the next lower level package** should point to the quantity attribute created as part of the setup.
- **Packaging reference types** should include all reference types that are used in the packaging hierarchy structure.

Click the Edit link to display the Edit Component Model Configuration dialog and allow editing of the packaging component model configuration.

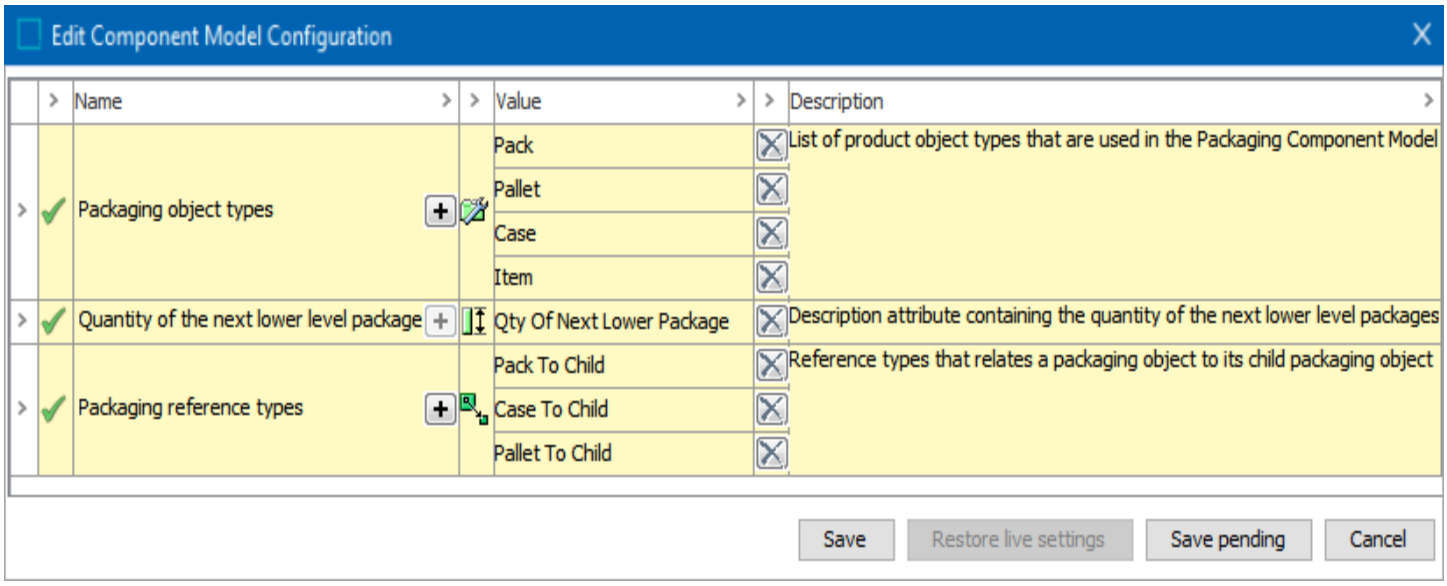
- Double-click the edit button ( ) to make value additions.
- Click the delete button ( ) to remove values.
- Click the **Save** button to retain your changes.

As changes are made, the first column is updated with ✓ to indicate that the section is verified, or ✗ to indicate that the section cannot be verified against the other sections.

For example, as shown below, when no 'Quantity of the next lower level package' attribute has been selected, the component is not verified and can only the **Save pending** button is available.



Supplying the missing data then displays a verified indicator. When all sections are verified, as shown below, click the **Save** button, and the component model is ready to use.



To use the Packaging Hierarchy Editor in Web UI, continue with the **Setting Up Packaging Hierarchy Editor in Web UI** section in the **Web User Interfaces** documentation. For information about using a packaging hierarchy, refer to the **Using the Packaging Hierarchy Editor** section in the **Web User Interfaces** documentation.

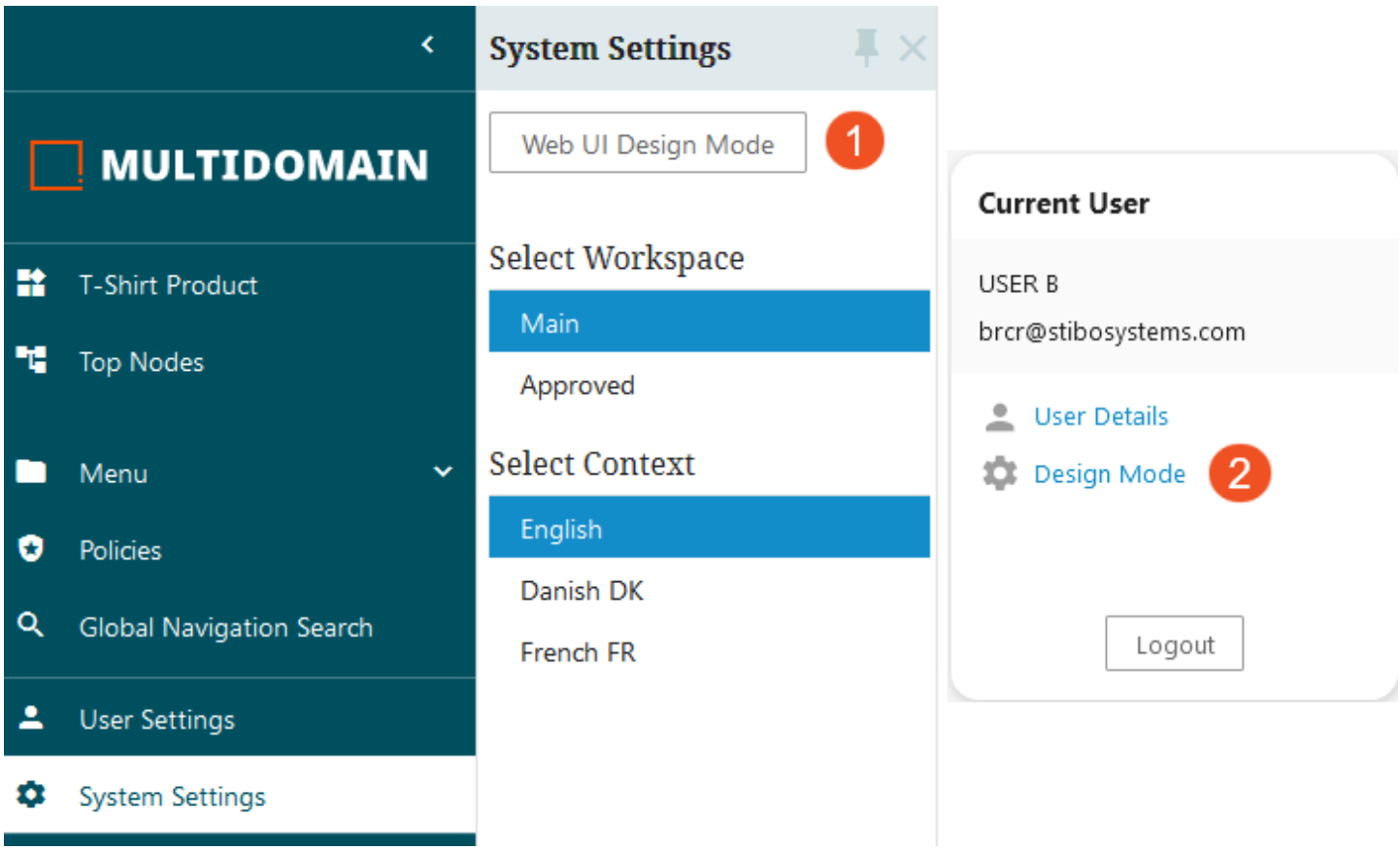
To send the packaging hierarchy data to Product Data Exchange (PDX), refer to the Transferring the Packaging Hierarchy topic in the Data Integration documentation.

Setting Up Packaging Hierarchy Editor in Web UI

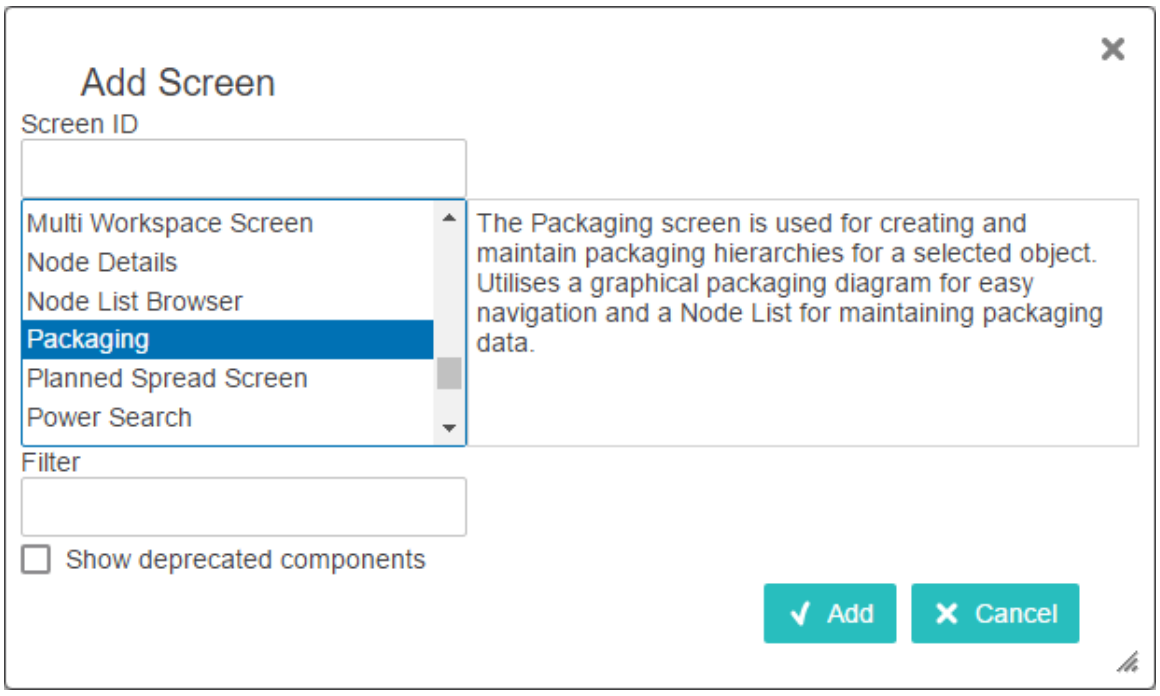
Prior to setting up the Packaging Hierarchy Editor in Web UI, make sure the STEP Workbench setup has been completed. For more information, refer to the **Configuring the Packaging Component in STEP Workbench** section in the **Web User Interfaces** documentation.

Create a new screen

1. Log in to the Web UI. User must have privileges to edit Web UI configurations.
2. On the Global Navigation Panel, navigate to the System Setting section, and click on the 'Web UI Design Mode' button, or click the design mode launch button found on the homepage (in the user widget).



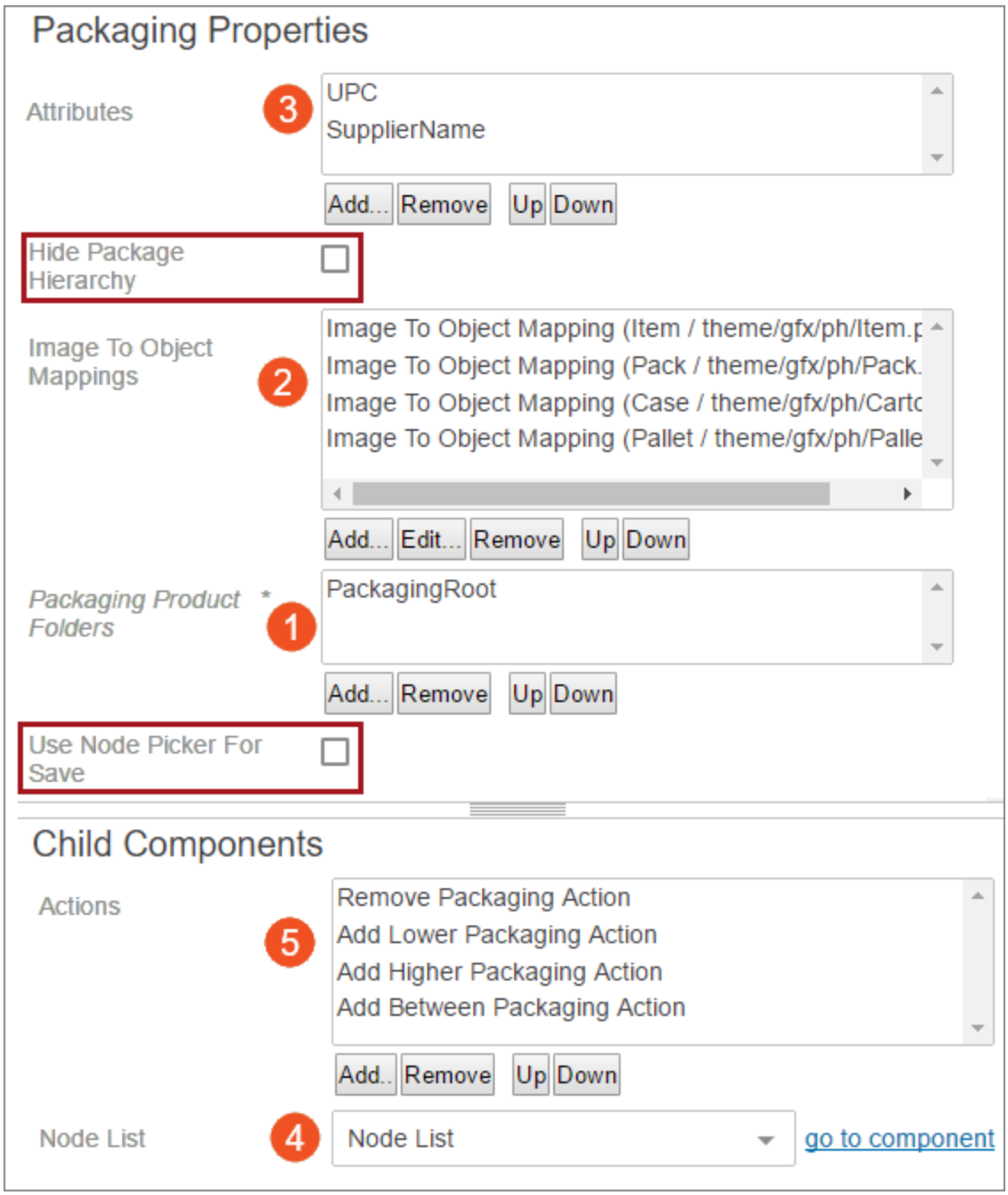
3. To create a new screen, click New and select Packaging to add the Packaging Hierarchy screen. Also, type in a Screen ID. This should be something users can easily identify, if needed, from the list of screens.



Configure the Packaging Hierarchy Editor Screen

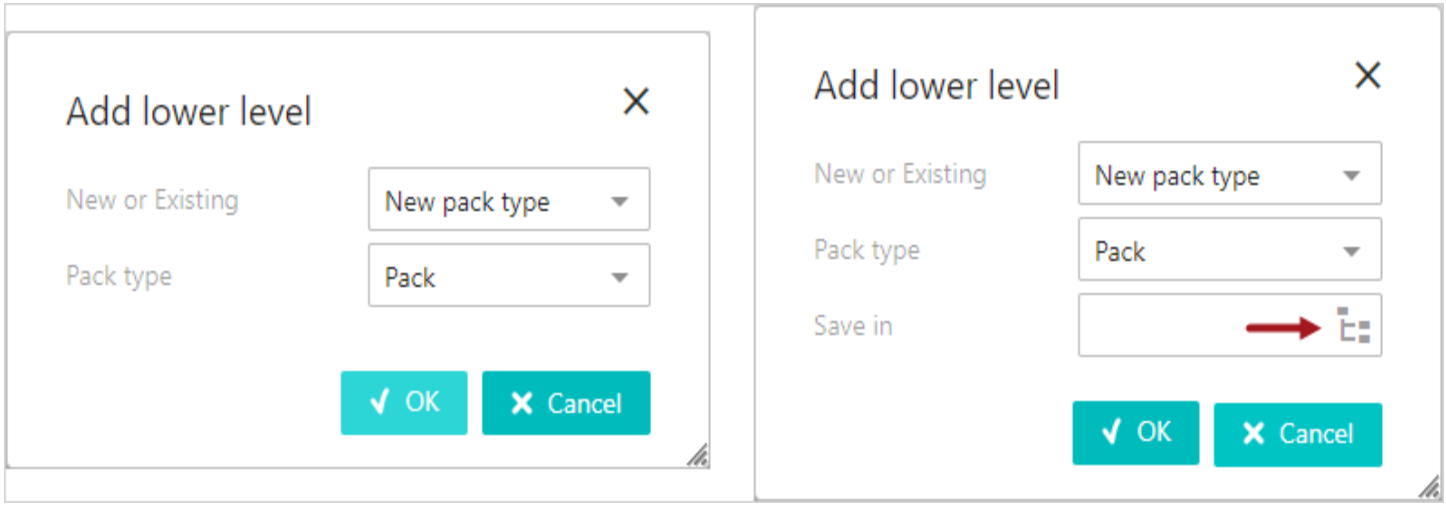
There is a basic default configuration as part of the STEP system, however, some additional setup is required.

If still in the designer mode after creating a new screen, go to the following step. Otherwise, log in to Web UI and enter design mode before continuing. Bring up the Packaging Properties for the Packaging Hierarchy Screen ID.



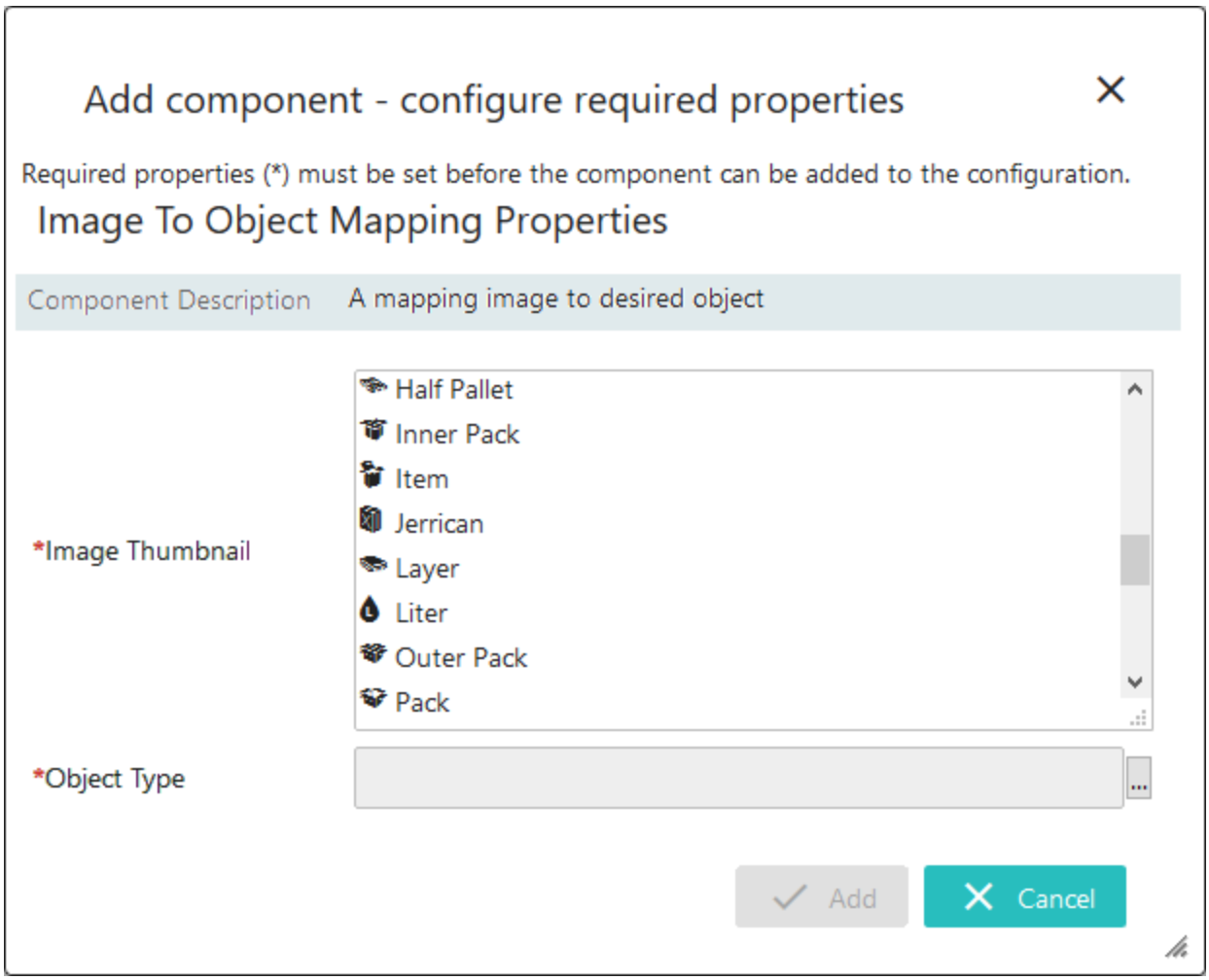
1. Configure the **Packaging Product Folders** parameter to designate the folder or folders where the packaging objects are / will be saved. Folders need to be set up prior to using this Add functionality.

   If users should only pick from the configured designated Packaging Product Folders when saving a packaging object, choose to disable / uncheck the **Use Node Picker for Save** parameter. *(If the Node Picker option is enabled / checked, users will be given a node chooser dialog to pick any folder available Refer to the example screenshots that follow.)*



2. Configuring **Image To Object Mappings** will connect a predefined icon to a specific packaging object type. These icons are used as representations of the specific packaging types in the Packaging Hierarchy Editor and help distinguish between the available packaging types. On the ' Image to Object Mapping' parameter, click the 'Add' button beneath the field. Select an icon type in the 'Image Thumbnail' field.

   For the 'Object Type' field, click the ellipsis button (...) to the right of the field. Using the Node Picker window that displays and select from the Node Picker select an Object Type to connect to the icon.



3. If desired, up to two **Attributes** can be configured to show on the graphical elements along with the packaging icon. This makes it possible to display valuable information directly in the diagram, allowing users to quickly get a visual overview of the available Packaging Hierarchies for the selected product.

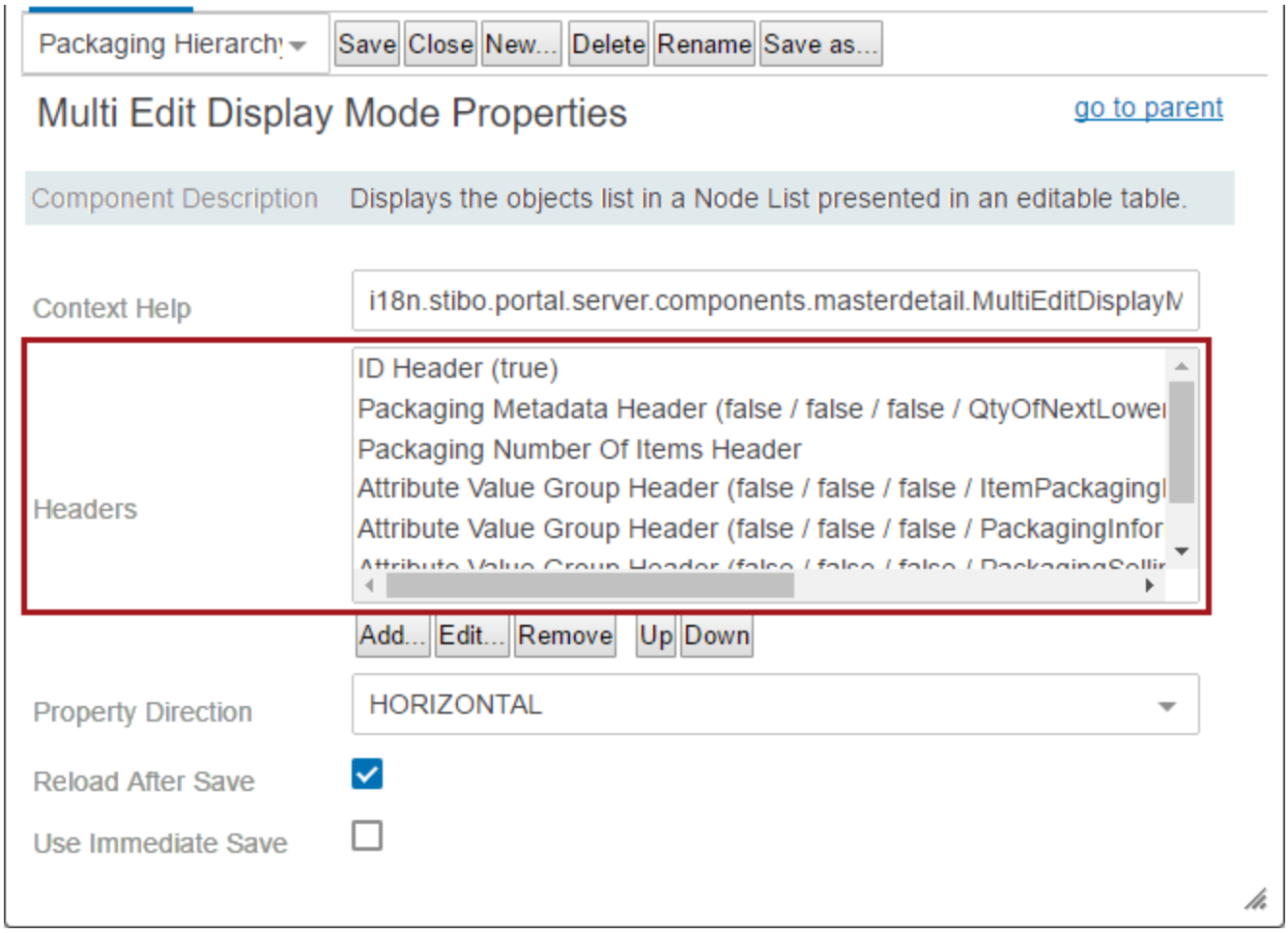
   Example of an icon that includes the packaging type icon and two attribute values:



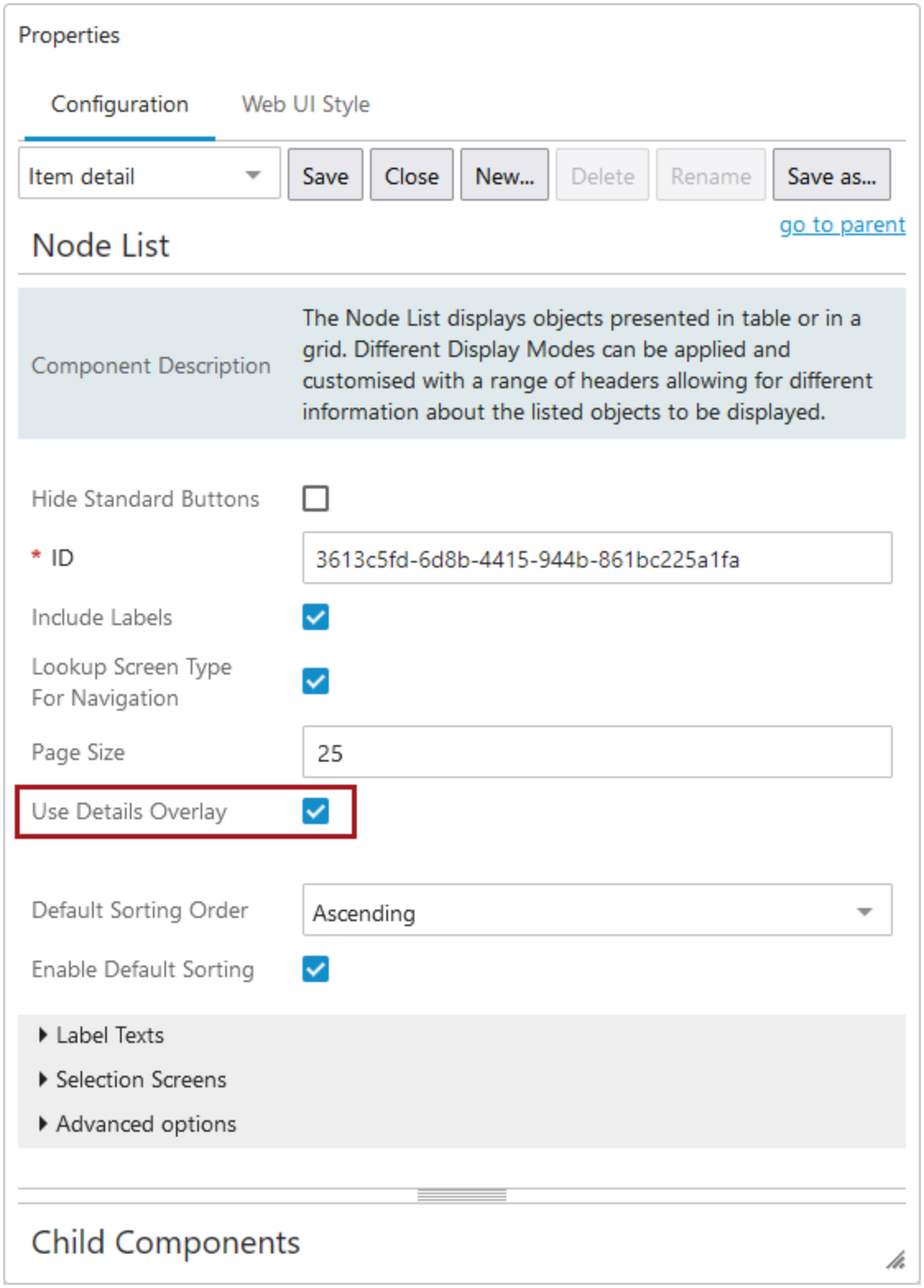
Note: More than two attributes can be added in the Attributes parameter value field on the Packaging Properties screen. However, only the first two attributes will display on the icon.

Hide Package Hierarchy can be enabled to remove the graphical user interface from display. This may be useful for simple hierarchies where end users do not need to view the graphics and just want to work within the Node List itself.

4. When setting up the Packaging Hierarchy Editor Child Components, It is possible to configure the **Node List** component like any other Web UI Node List. For more information, refer to the **Node List Component** topic in this documentation. However, by default, Multi Edit Display Mode is set as the display mode. The Multi Edit Display Mode is pre-populated with four attribute headers: Name, ID, the quantity attribute used in the Component Model Configuration, and Number Of Items (determined by hierarchy structure and the quantity attribute).



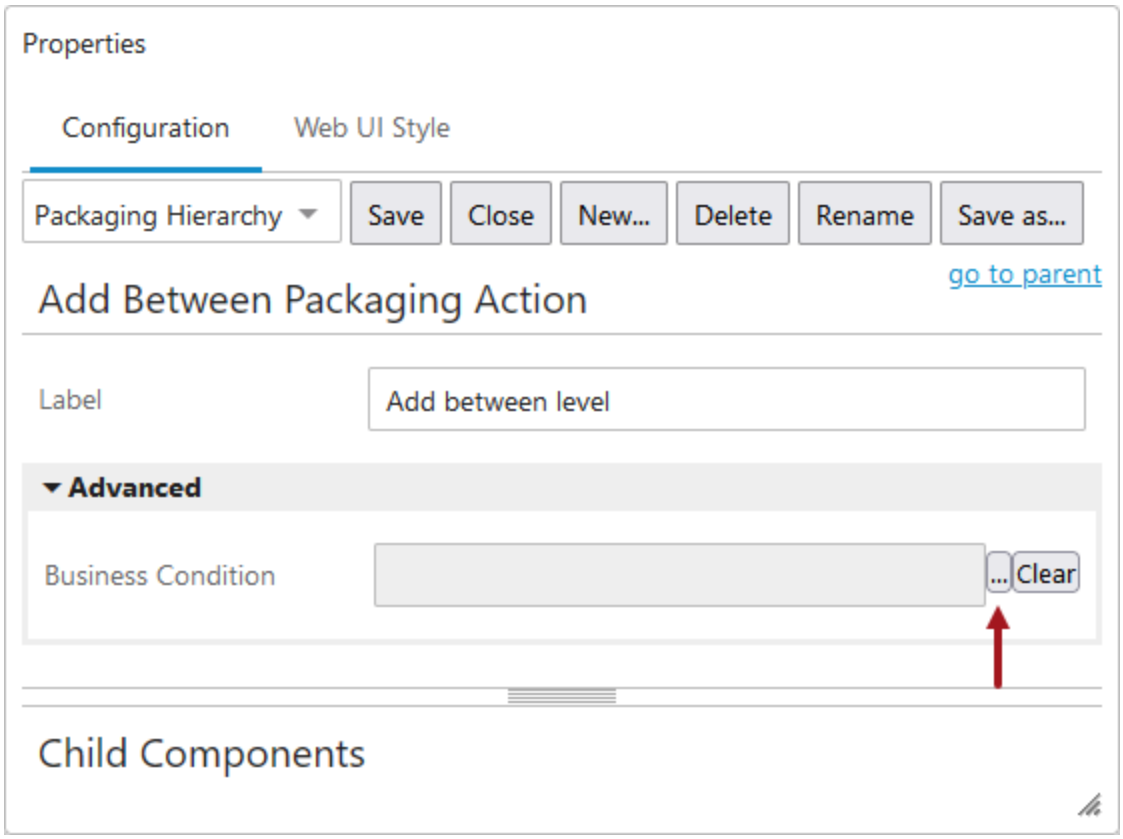
5. Under the Node List properties, select the Use Details Overlay so that when a user selects any item on the node list, the packaging list details will display as an overlay. Users can easily return to the results list / Node List by clicking the icon in the upper right corner and can use the arrows to navigate through each Node List item.



6. Also under Child Components, users can set up the following Packaging Hierarchy **Actions** using the Add button: Add Lower Packaging Action, Add Higher Packaging Action, Add Between Packaging Action and

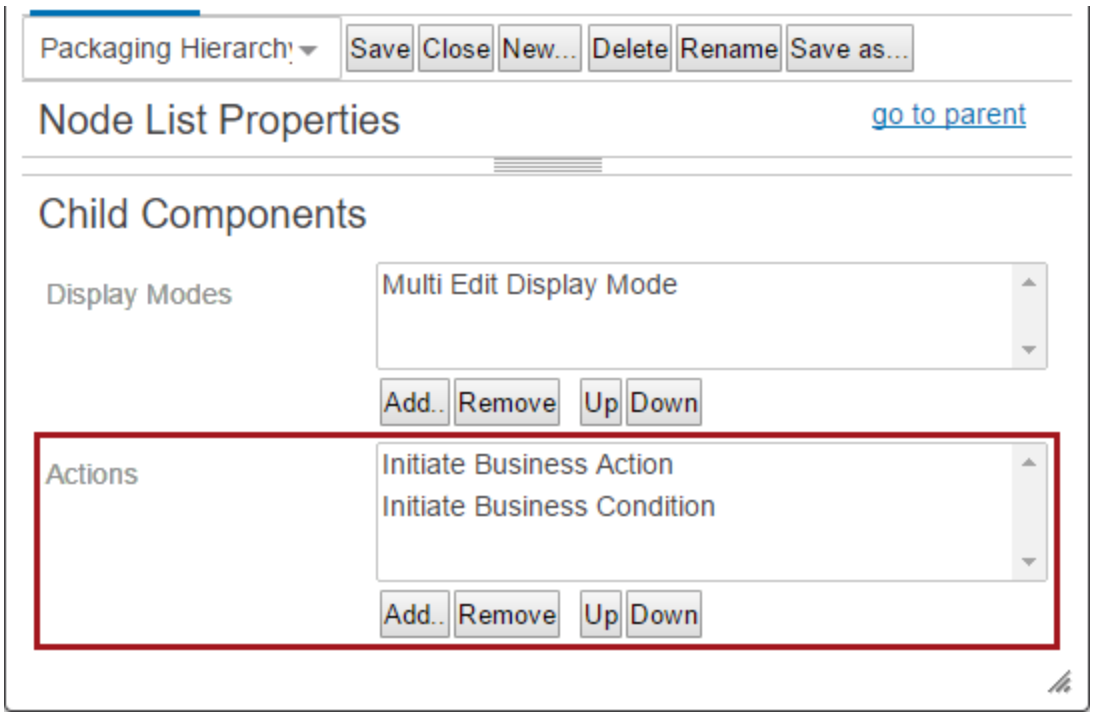
Remove Packaging Action.

Also, a **Business Condition** can be added to each action. This option can be found under the Advanced section of each Action Properties screen.



Validation of packaging hierarchy

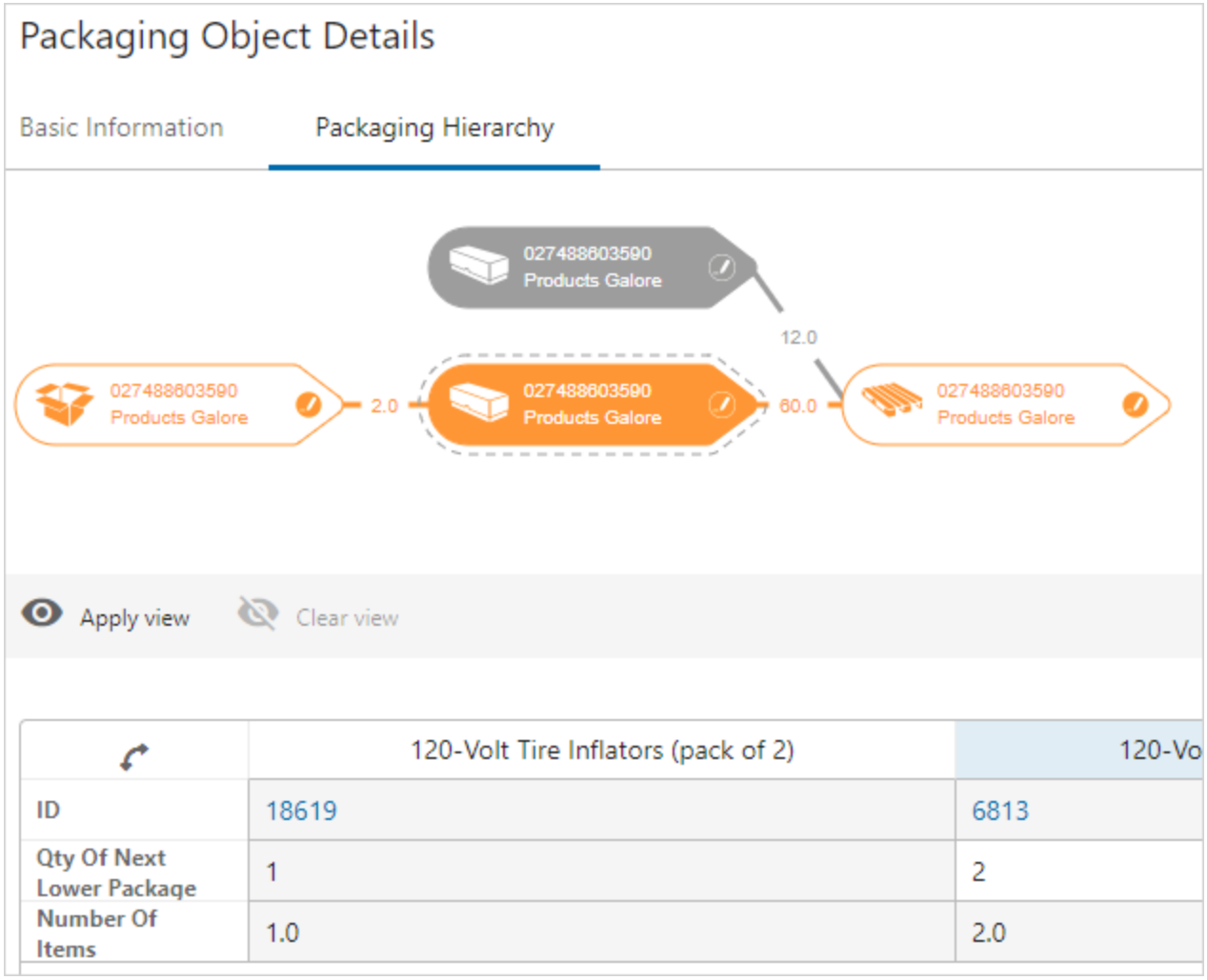
It is possible to run a business rule / business condition to validate the entire Packaging Hierarchy. Business rules and conditions can be added using the Actions component on the Node List Properties accessed from the Packaging Properties screen.



For additional information about using packaging hierarchy, refer to the **Using the Packaging Hierarchy Editor** section in the **Web User Interfaces** documentation.

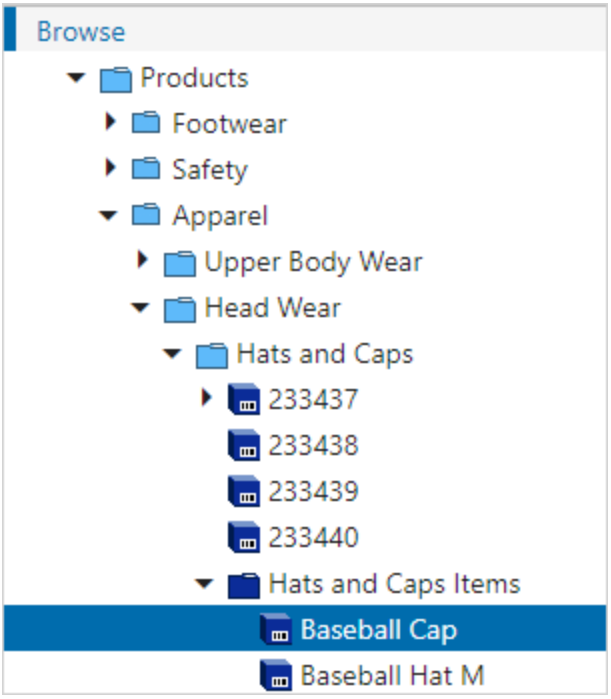
Using the Packaging Hierarchy Editor

When the Packaging Hierarchy Editor has been configured to display in Web UI, it is possible to view and edit packaging hierarchies. When set up and used correctly, the Packaging Hierarchy Editor looks similar to the following screenshot:

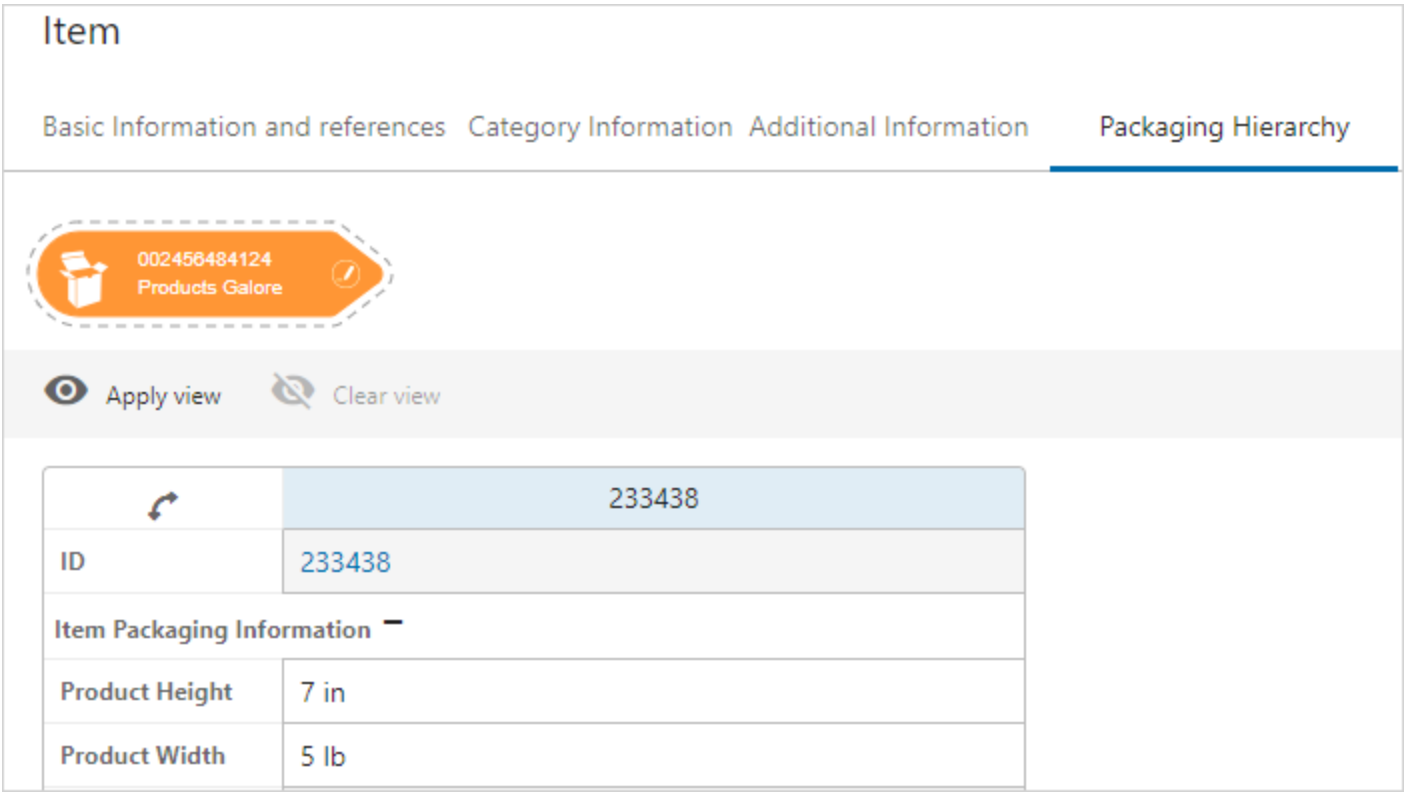


Opening the Packaging Hierarchy Editor can be done by selecting an object or a packaging type from the Tree or from on a product details screen.

For the Packaging Hierarchy Editor to display, the packaging hierarchy for a selected object type needs to be configured in the Component Model. For more information about the Component Model configuration, refer to the **Configuring the Packaging Component in STEP Workbench** section in the **Web User Interfaces** documentation.



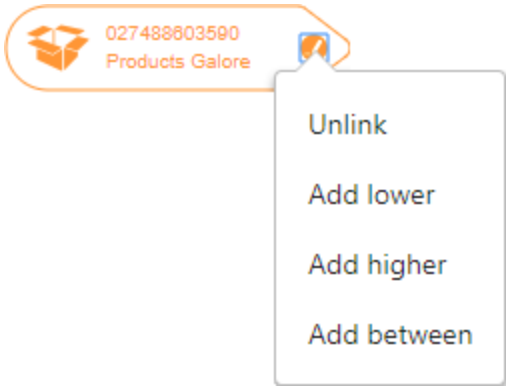
When configured properly the Packaging Hierarchy Editor will display the packaging hierarchy for a selected item or packaging type. If the selected item is not included in a packaging hierarchy, only the selected item will be represented in the Editor as shown below and the table will only have one column:



Create or modify a packaging hierarchy

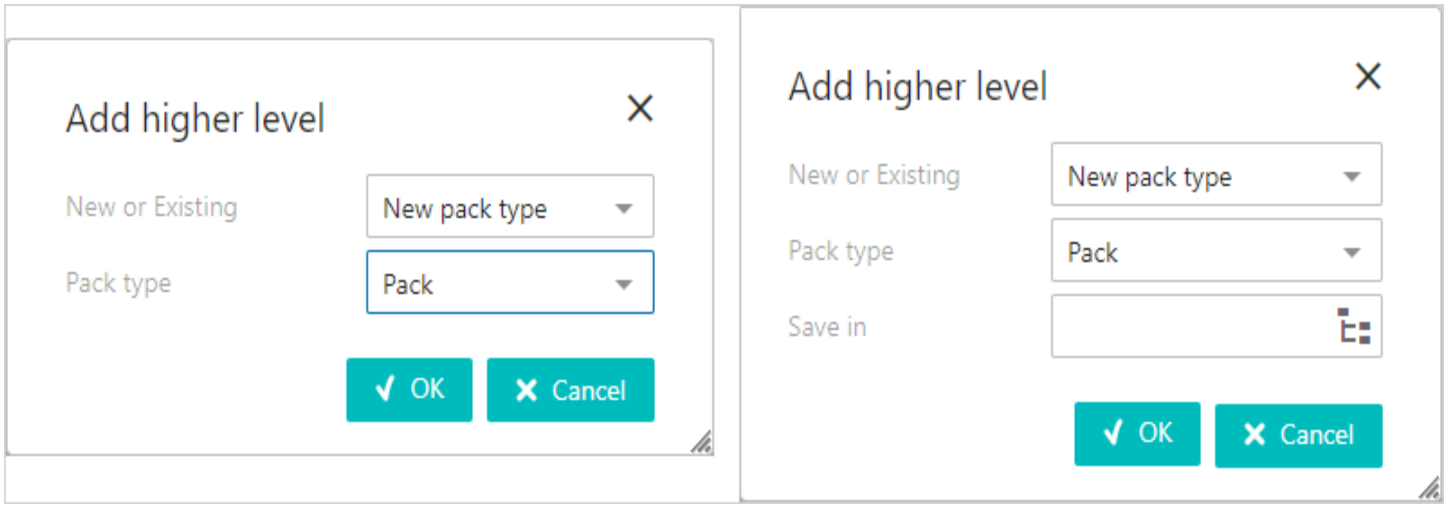
1. To create a packaging hierarchy for the selected item or to create an additional hierarchy for the item, the user can click on the edit button on the right side of the icon and select the configured actions. In the example, available actions are: Add lower level, Add higher level, Add between level, or Unlink.

   - When adding levels to a hierarchy, it is best to build the hierarchy upward (e.g., from item to pallet).
   - To use the 'Add level between' feature, the user must be on an orange icon.
   - The lower, higher, and between levels may show differently on an end user's screen depending on what titles these options were configured with.



2. When adding a level, a dialog box with the available packaging types will appear. It is only possible to select the valid packaging types that have been set up in the workbench and in accordance with the references between the packaging types. If a new pack type is chosen, then it is possible to select the Packaging Product Folders folder / folders by using 'Save in' (either by dropdown selection or Node Picker - depending on the configuration set up for Packaging Properties).

   If only one folder is configured for the Packaging Product Folders parameter and the Packaging Properties Node Picker option is disabled, the new packaging type will automatically be saved in the designated folder. The 'Save in' option will not display.

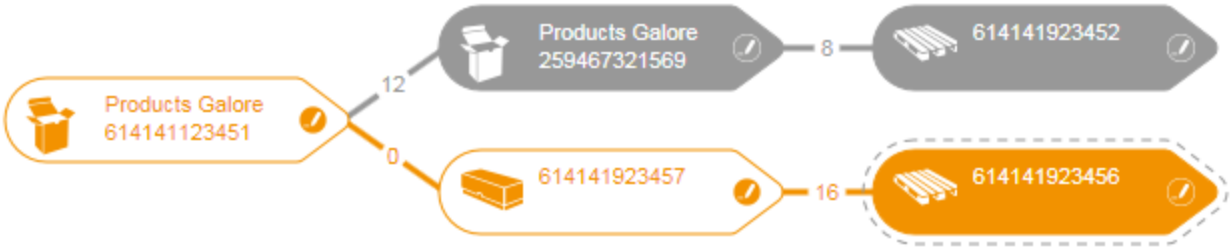


Note: It is also possible to create new actions for maintaining the Packaging Hierarchy Editor by using the Extension API for full control of the behavior and logic that applies when adding and removing a level to the Packaging Hierarchy. For more information on the Extension API, click the **STEP API Documentation** button on the Start Page.

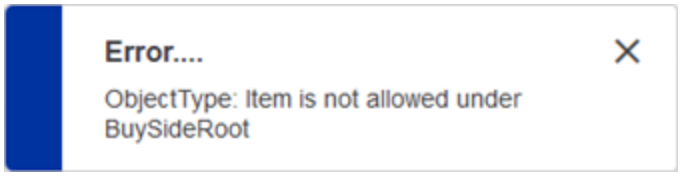
3. After clicking the OK button, the new level is added to the graphic as well as adding a new level to the packaging hierarchy for the selected item.



4. Using the 'Add higher level' feature, it is possible to create various types of hierarchy structures. The image below shows an item for which two packaging hierarchies are available:



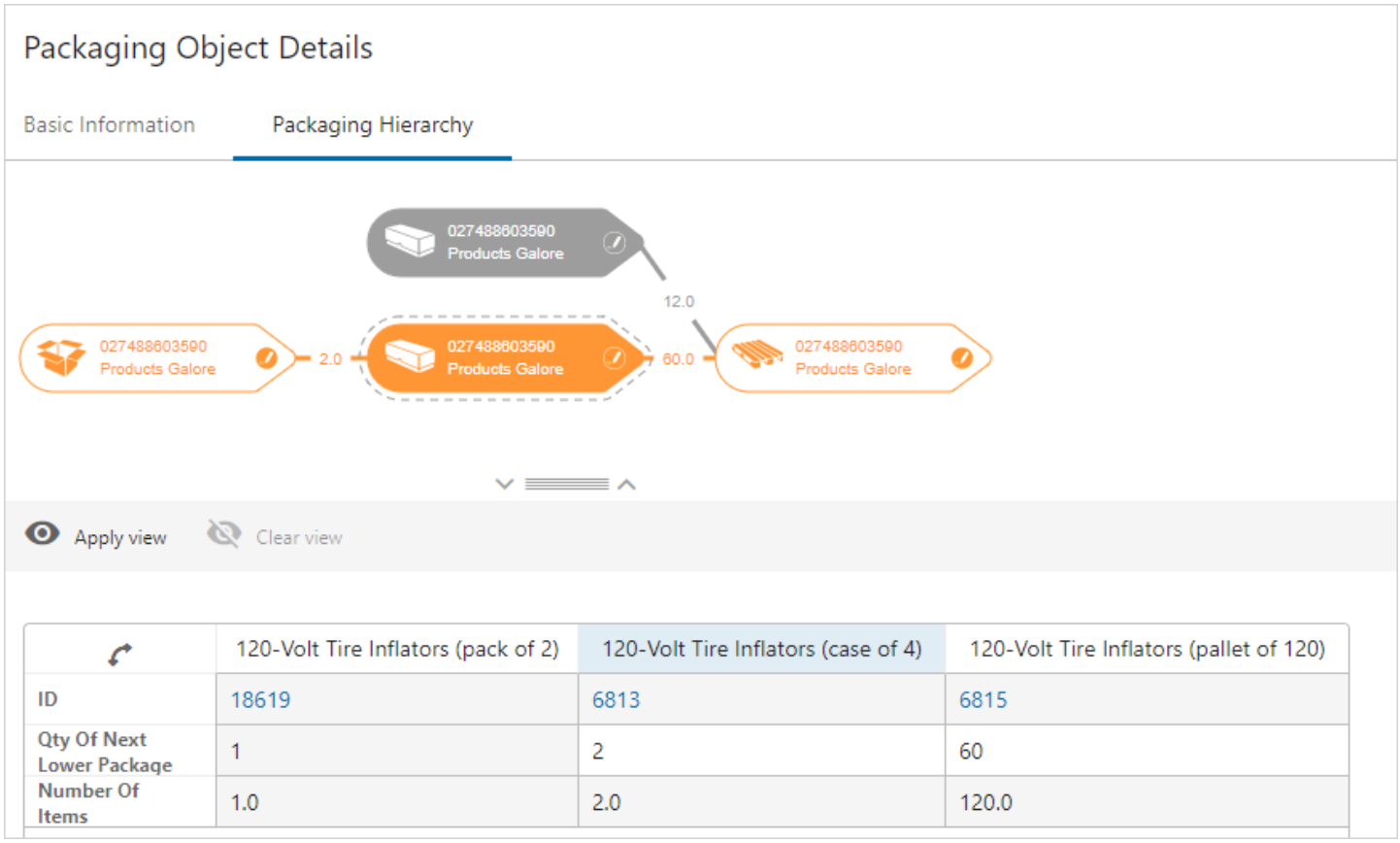
In this example, using the 'Add higher level' feature, a 'Pallet' object is added. Similarly, a 'Case' or 'Pack' object can be added using the 'Add lower level' feature. To insert between the 'Pallet' and 'Pack' objects, use the 'Add between level' feature to add a 'Case' object. Attempting to add an object without validity results in the following error:



Removing objects is possible via the 'Unlink' feature. This includes conformation before unlinking with an 'Unlink from hierarchy' dialog. Click OK to unlink, or Cancel to leave the hierarchy unchanged.



To select a particular packaging type in the hierarchy, click on the icon in the graphic and the selected packaging type will be highlighted in both the graphical view and in the table.



	120-Volt Tire Inflators (pack of 2)	120-Volt Tire Inflators (case of 4)	120-Volt Tire Inflators (pallet of 120)
ID	18619	6813	6815
Qty Of Next Lower Package	1	2	60
Number Of Items	1.0	2.0	120.0

To edit the quantity (of next lower level package) attribute, click on the associated cell in the row / column. It will then be possible to change any existing value or enter a new value for that cell. Remember to save any changes. Any updated or added values will be changed in the graphical view and Number Of Items will recalculate based on the new quantity.

	120-Volt Tire Inflators (case of 10)	120-Volt Tire Inflators (pallet of 120)
ID	6812	6815
Qty Of Next Lower Package	1	12
Number Of Items	1.0	12.0

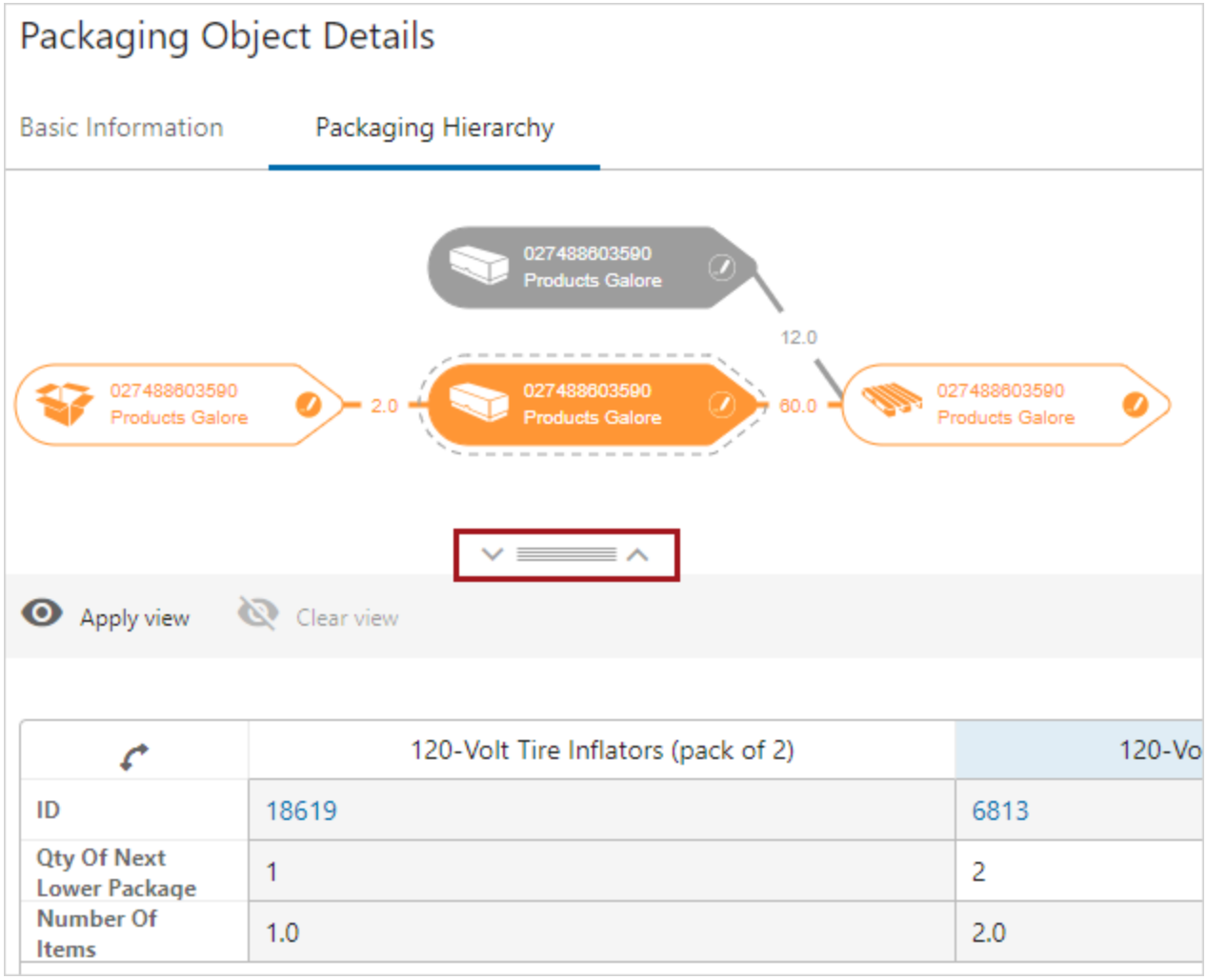


Note: Number Of Items is a system-calculated number based on the quantity attribute and the hierarchy. Users cannot edit these values.

Collapsible splitter feature

The individual panels on the Packaging Hierarchy Editor screen are collapsible and expandable through the use of a collapsible splitter feature.

When the screen is configured with a horizontal split panel, a drag handle splits up the panels / components on the screen. The drag handle displays a down arrowhead to the left and an up arrowhead to the right.



Clicking the up arrowhead removes the main component (graphical user interface) from display, allowing more screen space to focus on the Node List. This is useful if the user wants to focus on entering data in the table and no longer needs to view the packaging diagram to do so but does not want to hide the graphical user interface through the Packing Properties settings.

Clicking the down arrowhead returns the hidden component back to the screen display.

Similarly, if the user first clicks the down arrowhead, the child component is hidden from display so the user can focus on the packaging diagram.

For information about setting up the Packaging Hierarchy Editor, refer to the **Configuring Packaging Hierarchy Editor in STEP Workbench** and the **Setting Up Packaging Hierarchy Editor in Web UI** sections in the **Web User Interfaces** documentation.

Parameterized Business Actions in Web UI

The option to configure and associate a business action with a number of referenced parameters allows users to provide their own values when running a business action in the Web UI. This not only gives the users a better sense of control, as the changes entailed by running a business action become much more apparent, but also provides a more dynamic and useable setup. A single business action can be reused for a variety of similar tasks without the need for reconfiguration.

Parameterized Business Action functionality is only supported for JavaScript business actions in Web UI. The workbench 'Time & Test Business Rule' functionality does not support parameterized business actions.

Using a parameterized business action in Web UI requires the following setup:

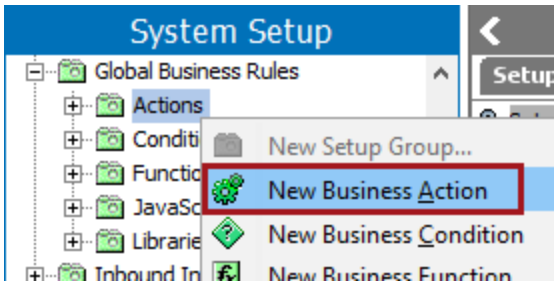
1. Create a JavaScript business action in STEP Workbench
2. Create a Bulk Update Configuration (with the business action) in STEP Workbench
3. Configure the Bulk Update action in Web UI

Each of these steps is defined in the sections below.

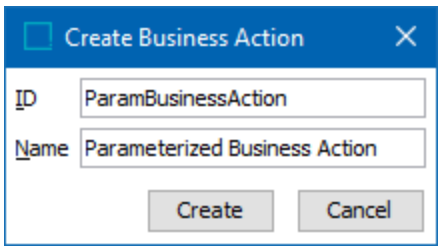
Creating a JavaScript business action in STEP Workbench

A JavaScript business action supplies the necessary parameters to the Web UI user. For more information, refer to the **Business Rules** documentation.

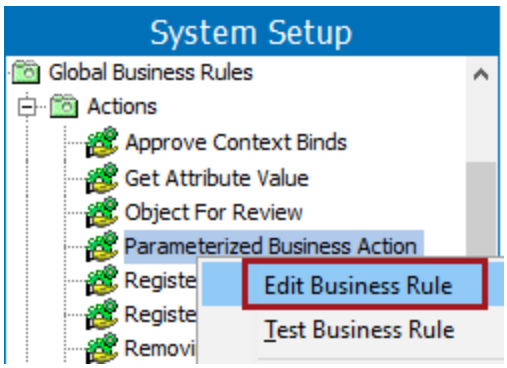
1. In workbench, on System Setup, select the desired business action node, right-click, and select **New Business Action**.



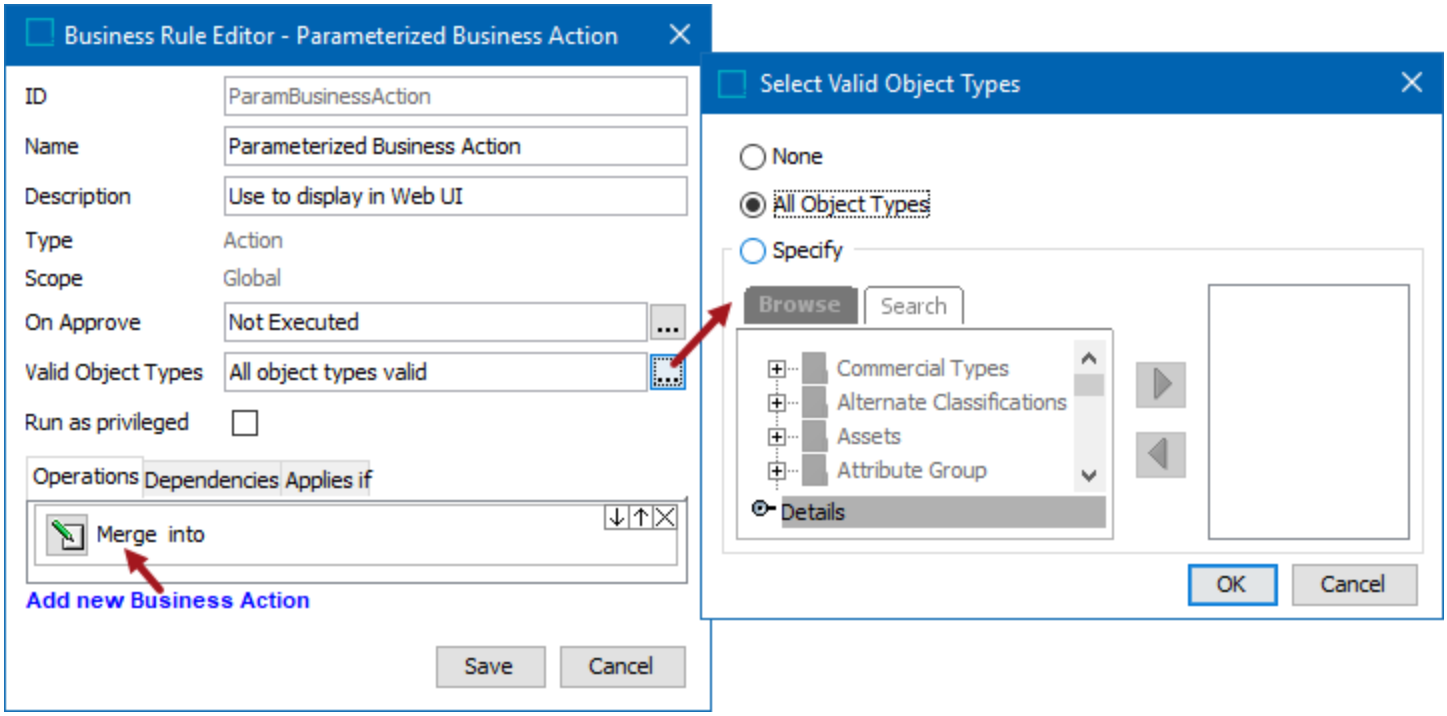
2. Add an ID and a Name, and click the **Create** button. The new action is displayed in the selected node.



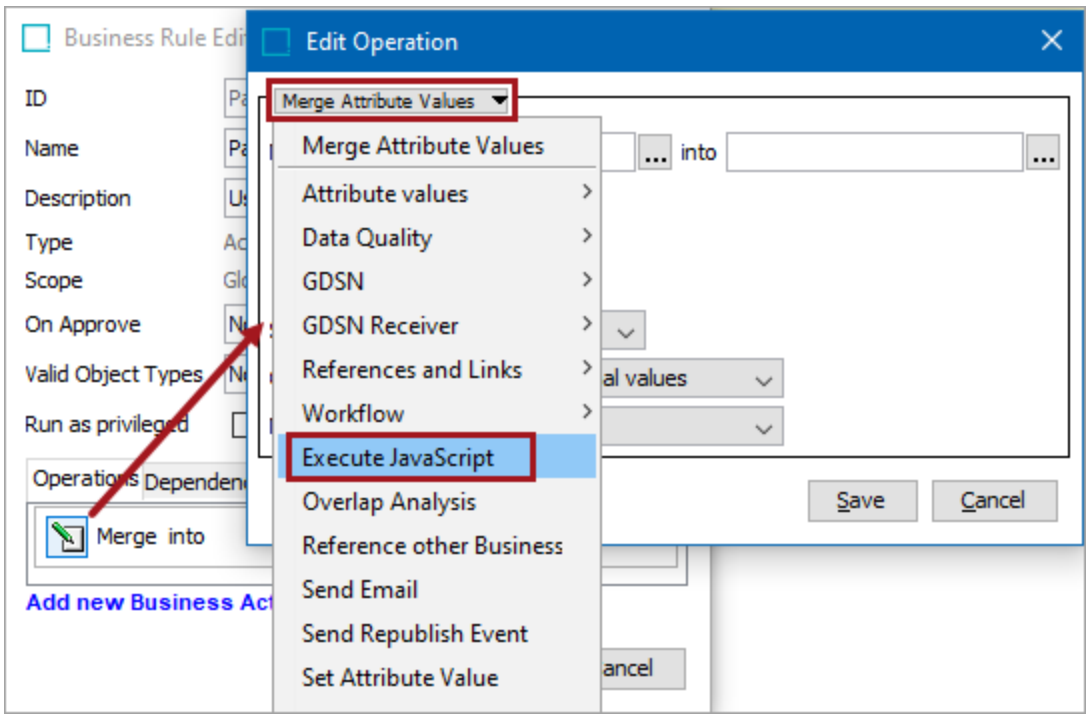
3. Select the new action, right-click, and select **Edit Business Rule**.



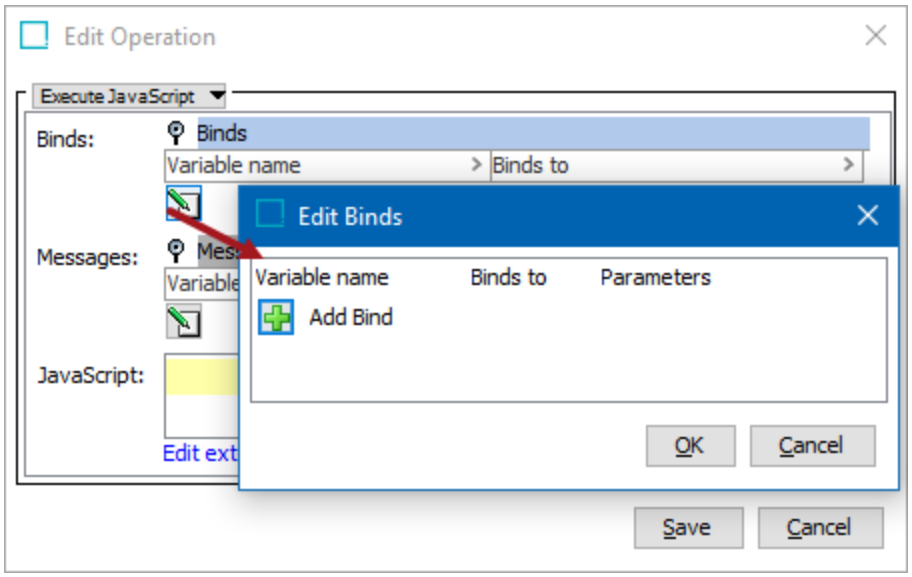
4. On the Business Rule Editor dialog:
   - Click the ellipsis button (...) for the **Valid Object Types** parameter to display the Select Valid Object Types dialog. To activate the business rule, select the All Object Types radio button or the Specify radio button. When specifying object types, select one or more object types using the Browse or Search tab and then click the button to move to the included list. Click **OK** to update the business rule.
   - On the Operations tab, click the **Add new Business Action** link to add the default 'Merge into' operation.



5. Click the operation edit button ( ) to display the Edit Operation dialog, and select 'Execute JavaScript' from the dropdown.



6. Click the edit button ( ) below the Binds flipper to display the 'Edit Binds' dialog.

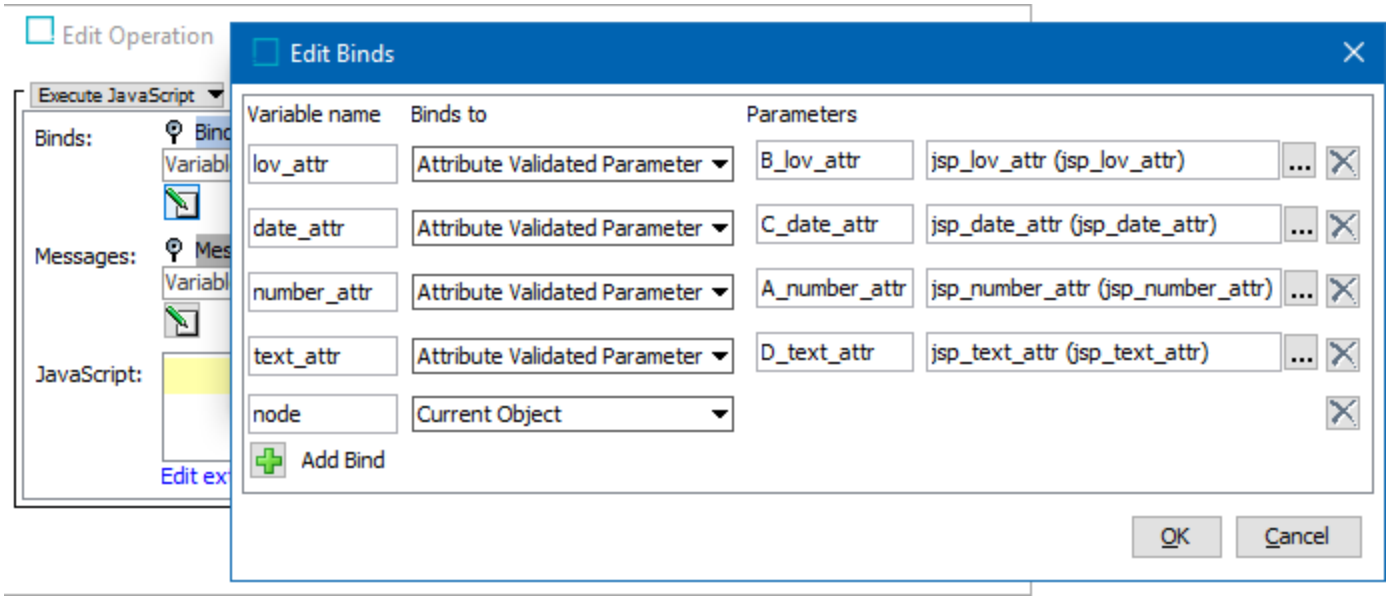


7. Click the **Add Bind** button ( ) to create a bind for each parameter required, as indicated in the following image:

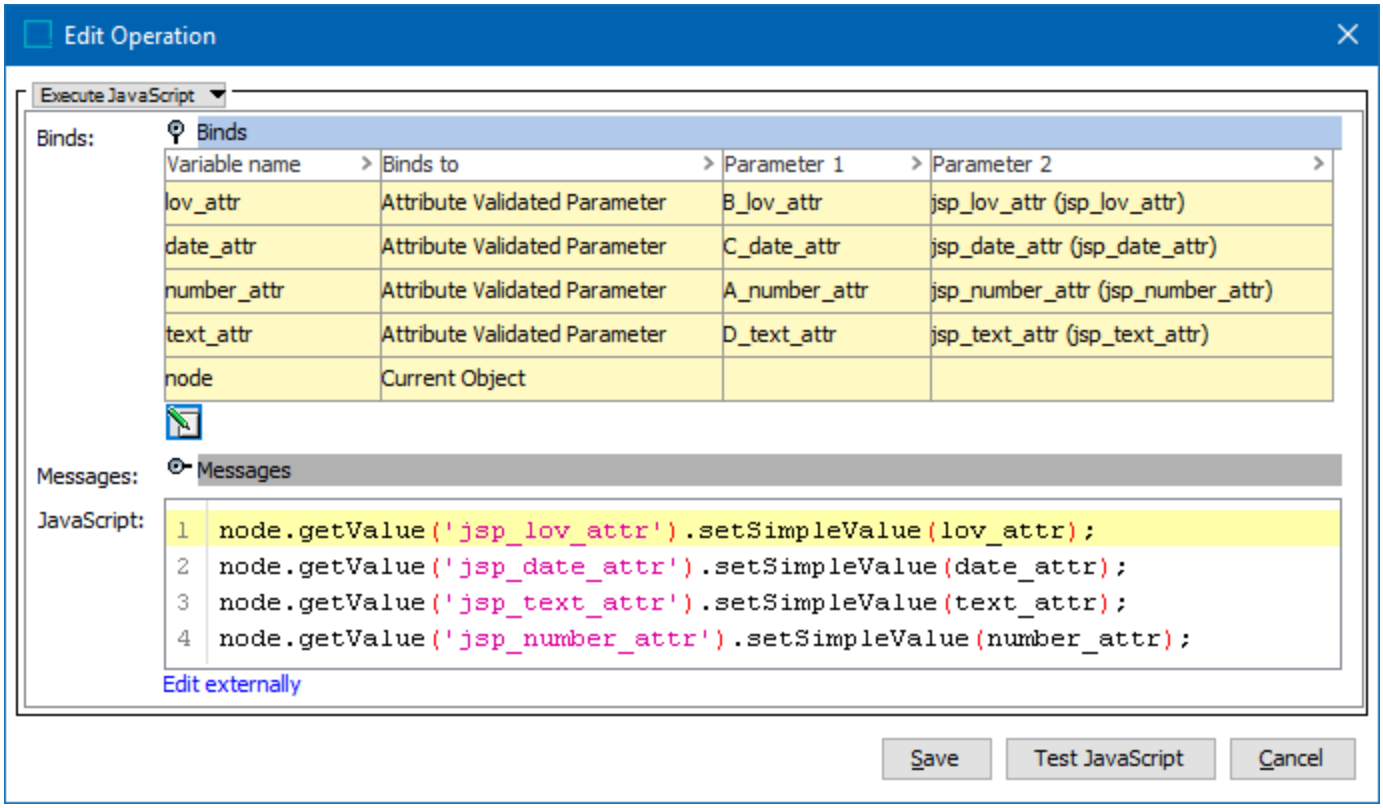
   - **Variable name** - Required. Add text used for the name of the parameter to be executed.
   - **Binds to** - Required. Use the dropdown to select the bind type. In the example shown below, 'Attribute Validated Parameter' and 'Current Object' are selected.

- **Parameters** - Required for 'Attribute Validated Parameters' binds. In the first text box, enter the external ID of the parameter which will be used when embedding the business action in a bulk update configuration. The value entered in the first 'Parameters' text box determines the ordering of the attribute validated parameters. In the example below, the natural alpha order does not put these parameters into the desired order. So a secondary alpha order has been imposed on these parameters by prepending a capital letter and an underscore to the external ID. This determines the ordering of the parameters as they display when the business rule is accessed. This ordering is also applied when the business rule is run in the Web UI via the Run Business Action.

  Click the ellipsis button (...) in the second field to display the Select Attribute dialog. Select an attribute and click the Select button to determine the validation base type used to validate the parameter value in the Web UI. If this field is left empty, the value will be validated as text. It is possible to select between the validation base types: Text, Number, Date, or List of Values. For example, the parameter of a business rule that is bound to a date validated attribute will display a date picker, while LOV options will display as a dropdown.



8. Click **OK** to display the binds in the Edit Operation dialog.
9. In the JavaScript parameter, add the JavaScript code that uses the configured binds.



10. Click the Test JavaScript button to verify the JavaScript code. For more information, refer to the **Testing a Business Rule** topic in the **Business Rules** documentation.
11. Click the **Save** button to add the configured operation to the business rule.

Creating a Bulk Update configuration in STEP Workbench

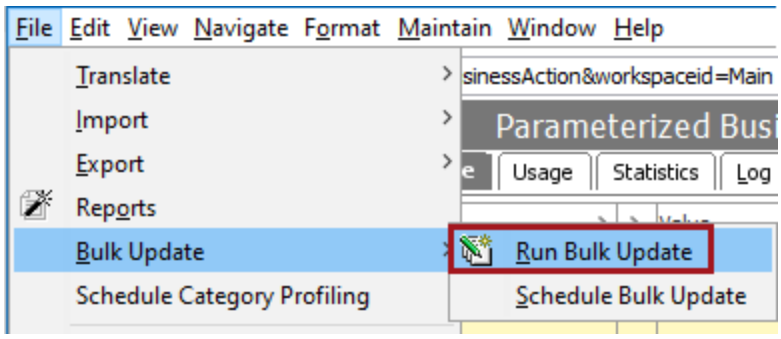
Once configured, the business action must be embedded into a bulk update configuration to work as a parameterized business action in the Web UI. For more details, refer to the **Bulk Updates** documentation.

Prerequisites

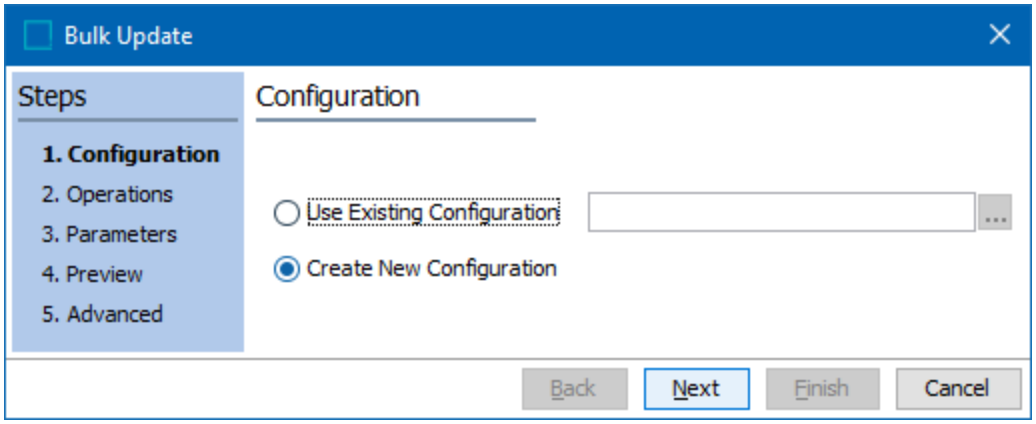
- Performing bulk updates requires the user to have privileges to maintain bulk updates, view classifications, view attributes, and create collections.
- For ease of maintenance and troubleshooting, a single business action should be used in each bulk update configuration.

Configuration

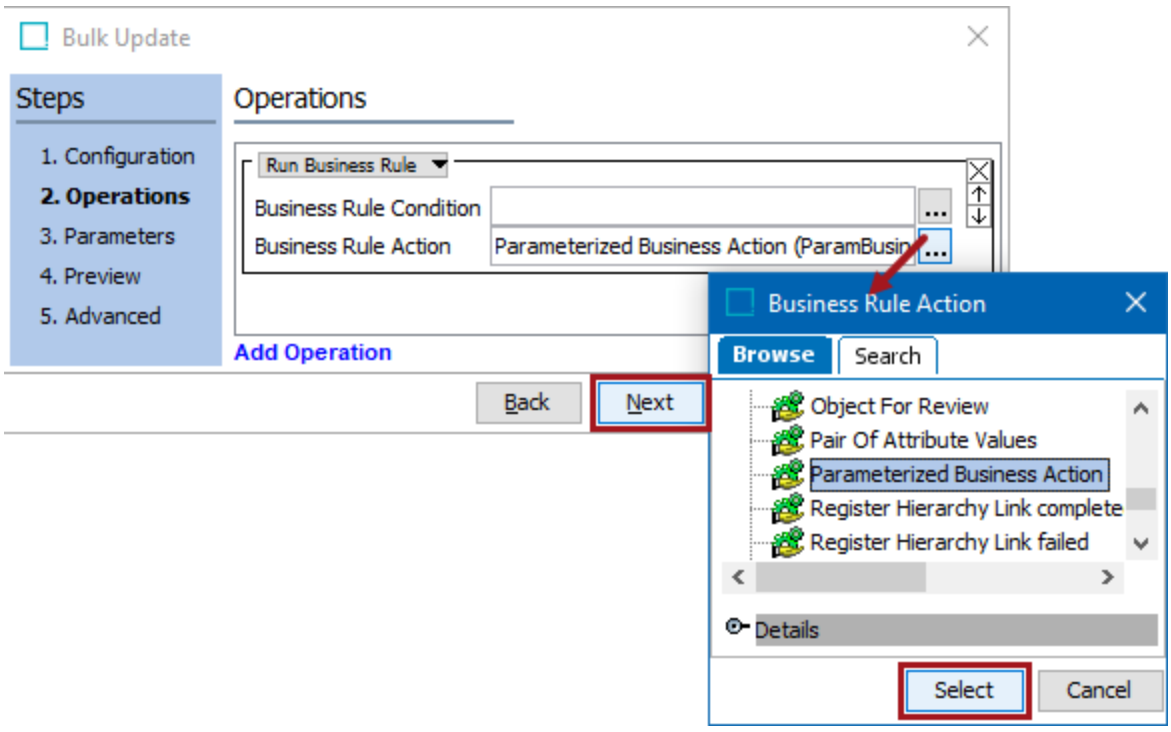
1. In workbench, from the File menu, select Bulk Update > Run Bulk Update.



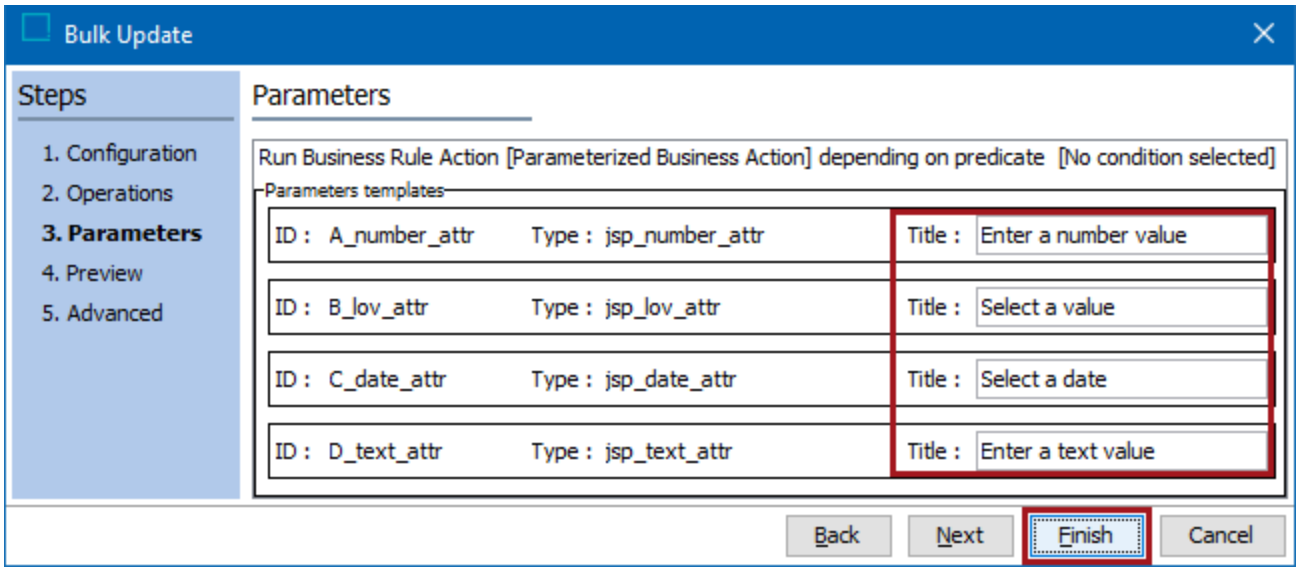
2. On the Configuration step, click the required radio button:
   - Select 'Create New Configuration' to create a new bulk update configuration, or select 'Use Existing Configuration' to modify an existing radio button.
   - Click the **Next** button.



3. On the Operations step:
   - Select 'Run Business Rule' from the dropdown.
   - On the Business Rule Action parameter, click the ellipsis button (...) to display the Business Rule Action dialog. Select the business rule created above.
   - Click the **Next** button.

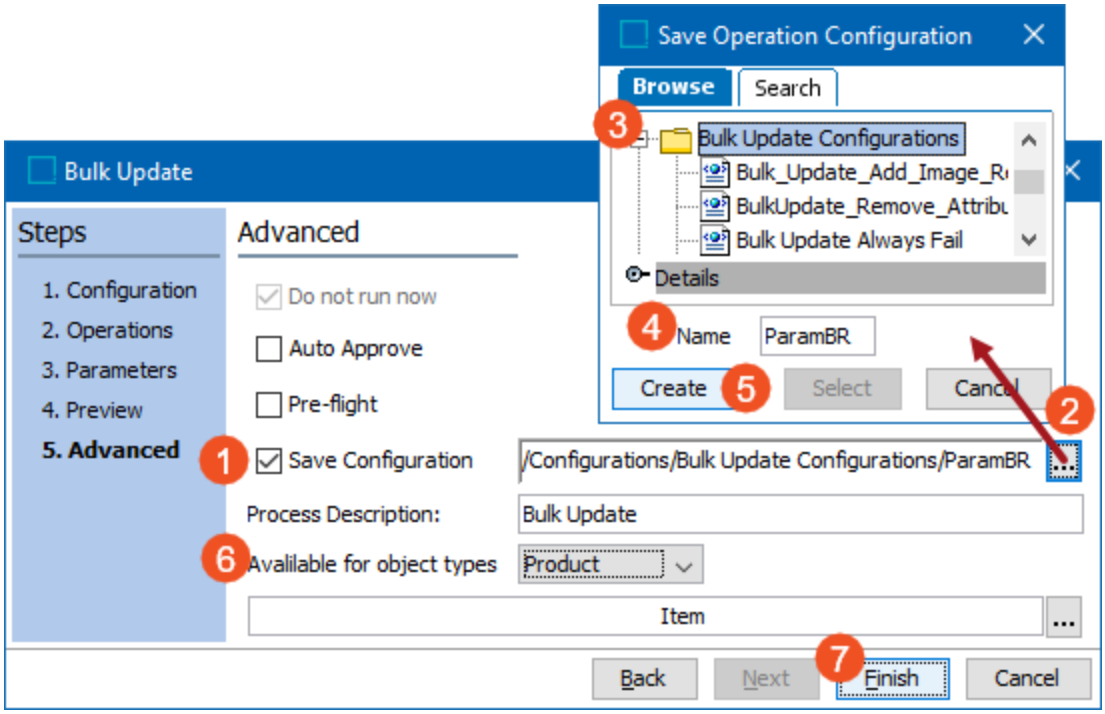


4. On the Parameters step, enter a title for each of the configured parameters. The title displays as a label in the Web UI dialog when running the bulk update configuration, as shown in the **Make the Bulk Update action available in Web UI** section below.



Once configured, the parameters created in the JavaScript business action, and included in a bulk update configuration, are displayed in a bulk update dialog and allow the user to supply the values. This is demonstrated in the **Make the Bulk Update action available in Web UI** section below.

5. Click the **Next** button two times to display the Advanced step.
6. On the Advanced step:
   - Check the **Save Configuration** parameter checkbox.
   - Click the ellipsis button (...) to display the Save Operation Configuration dialog.
   - Select a Tree location to save the configuration.
   - Enter a name for the configuration.
   - Click the **Create** button.
   - On 'Available for object types,' select the appropriate object type(s) from the dropdown. Click the ellipsis button (...) to specify individual object types if necessary. For example, in the image below, only products with an object type of 'Item' are available for the bulk update with the parameterized business action.
   - Click the **Finish** button.

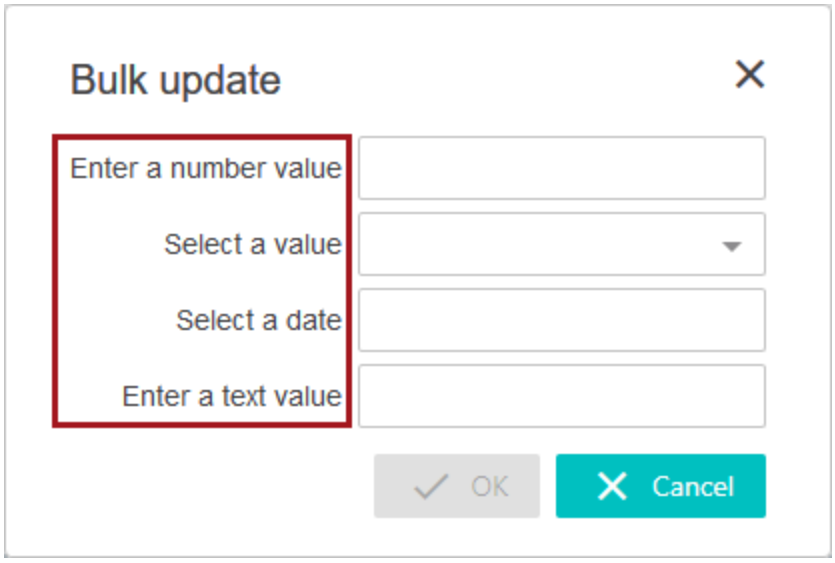


Configuring the Bulk Update action in Web UI

The parameters created in the JavaScript business action, and included in a bulk update configuration, can be displayed in the Web UI on a bulk update dialog.

Selecting an object displays the configured bulk update action button. Clicking the action button displays the 'Bulk update' dialog. Only bulk update configurations applicable for the selected object types are included.

The 'Bulk update' dialog allows a user to supply the parameterized values within Web UI.



Note: When entering text where multiple lines are allowed, Ctrl + Enter adds a new line. Pressing Enter alone closes the dialog.

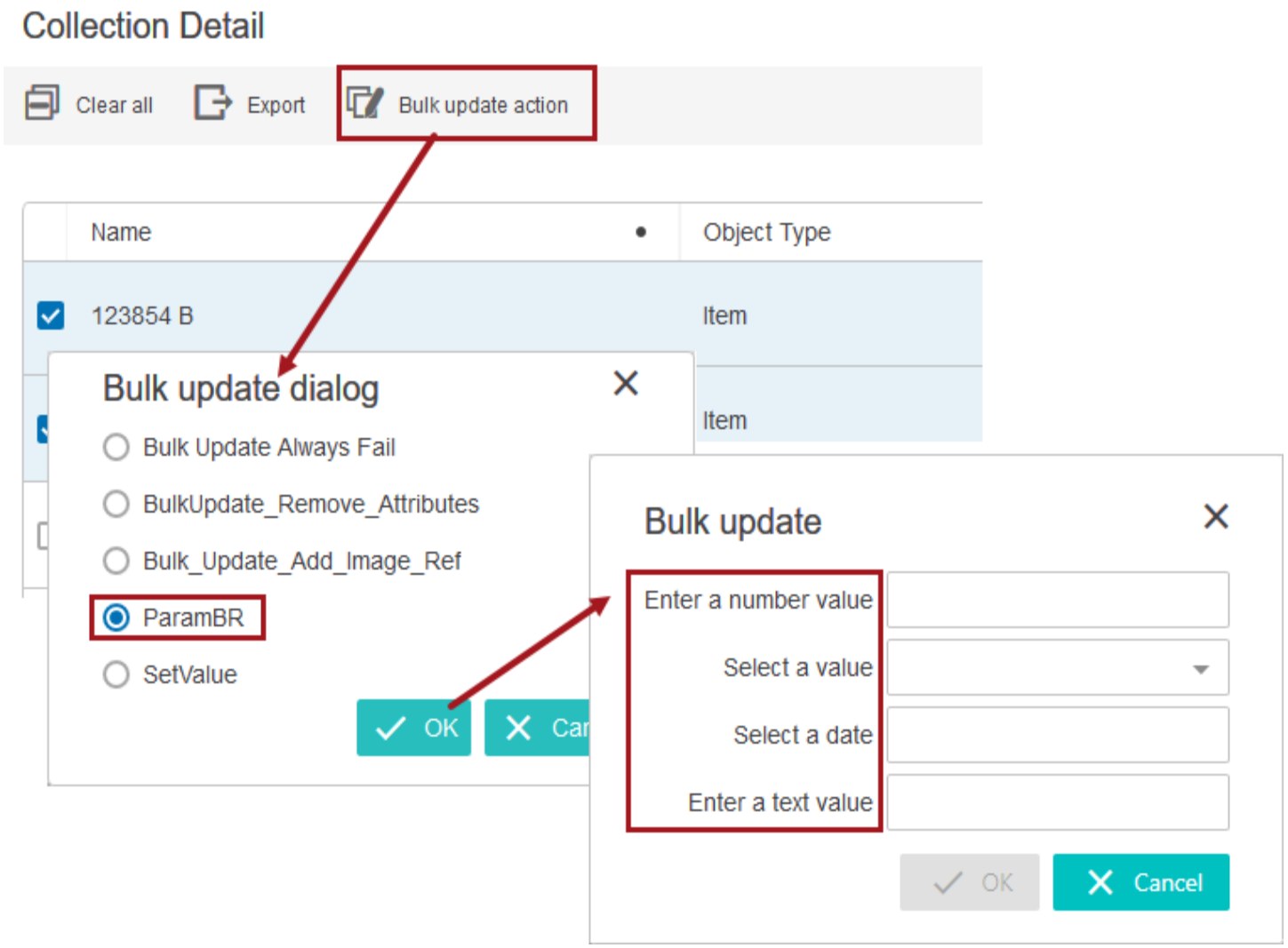
The following components can include an action button to initiate the bulk update and display the bulk update dialog:

1. **Bulk Update List Action** - a toolbar action on a Node List
2. **Bulk Update Template Action** - a toolbar action on a Node List
3. **Run Bulk Update Template Action Button** - a button on a Node Details screen

The setup for each component is defined in the following sections.

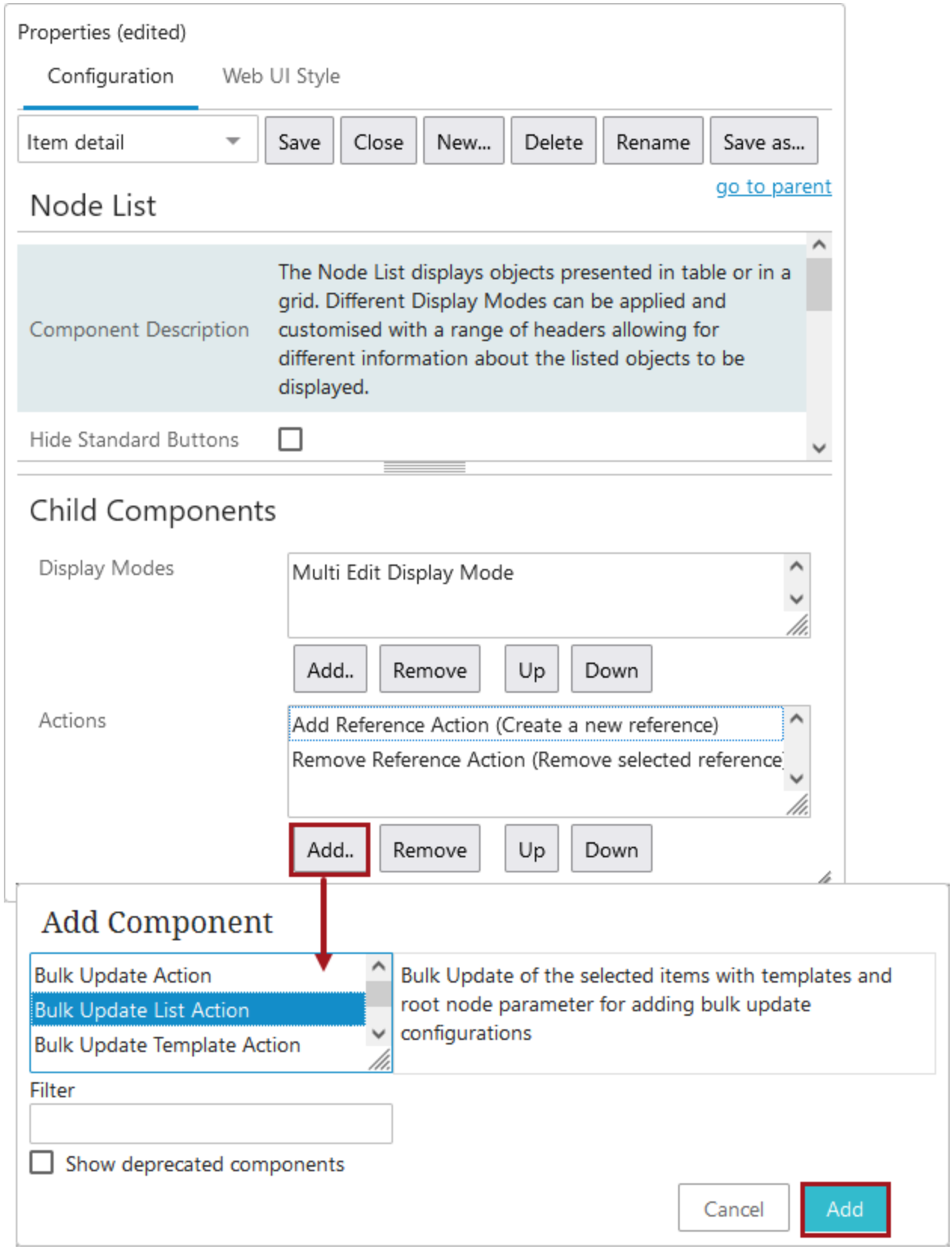
Bulk Update List Action

When objects are selected on the Node List, this setup displays a 'Bulk update action' on the toolbar. Clicking the action displays the 'Bulk update dialog' where a valid bulk update configurations is selected. The 'Bulk update' dialog allows the parameterized values to be added prior to running the bulk update in a background process. **If any of the attributes used as binds for the bulk update parameters are mandatory, then the OK button will be disabled until all these mandatory values are populated.**

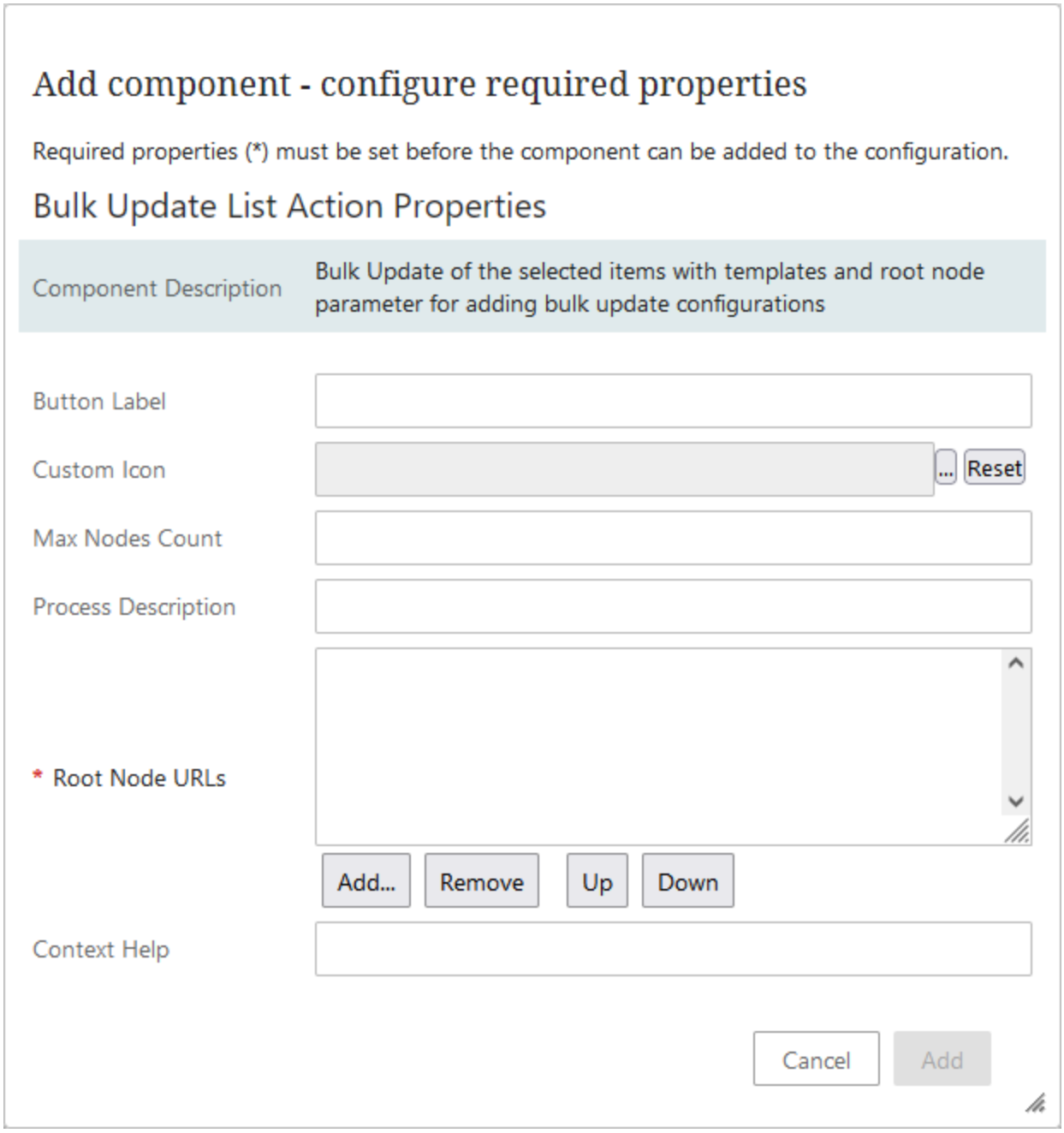


Use the following steps to configure the Bulk Update List Action.

1. On a Node List screen, open the designer.
2. In the Child Components section, click **Add...** and select the **Bulk Update List Action**.


Properties (edited)
Configuration
Web UI Style
Item detail
Save
Close
New...
Delete
Rename
Save as...
go to parent
Node List
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Hide Standard Buttons
Child Components
Display Modes
Multi Edit Display Mode
Add..
Remove
Up
Down
Actions
Add Reference Action (Create a new reference)
Remove Reference Action (Remove selected reference
Add..
Remove
Up
Down
Add Component
Bulk Update Action
Bulk Update List Action
Bulk Update Template Action
Bulk Update of the selected items with templates and root node parameter for adding bulk update configurations
Filter
Show deprecated components
Cancel
Add

3. Double click the Bulk Update List Action to display the Bulk Update List Action Properties dialog.

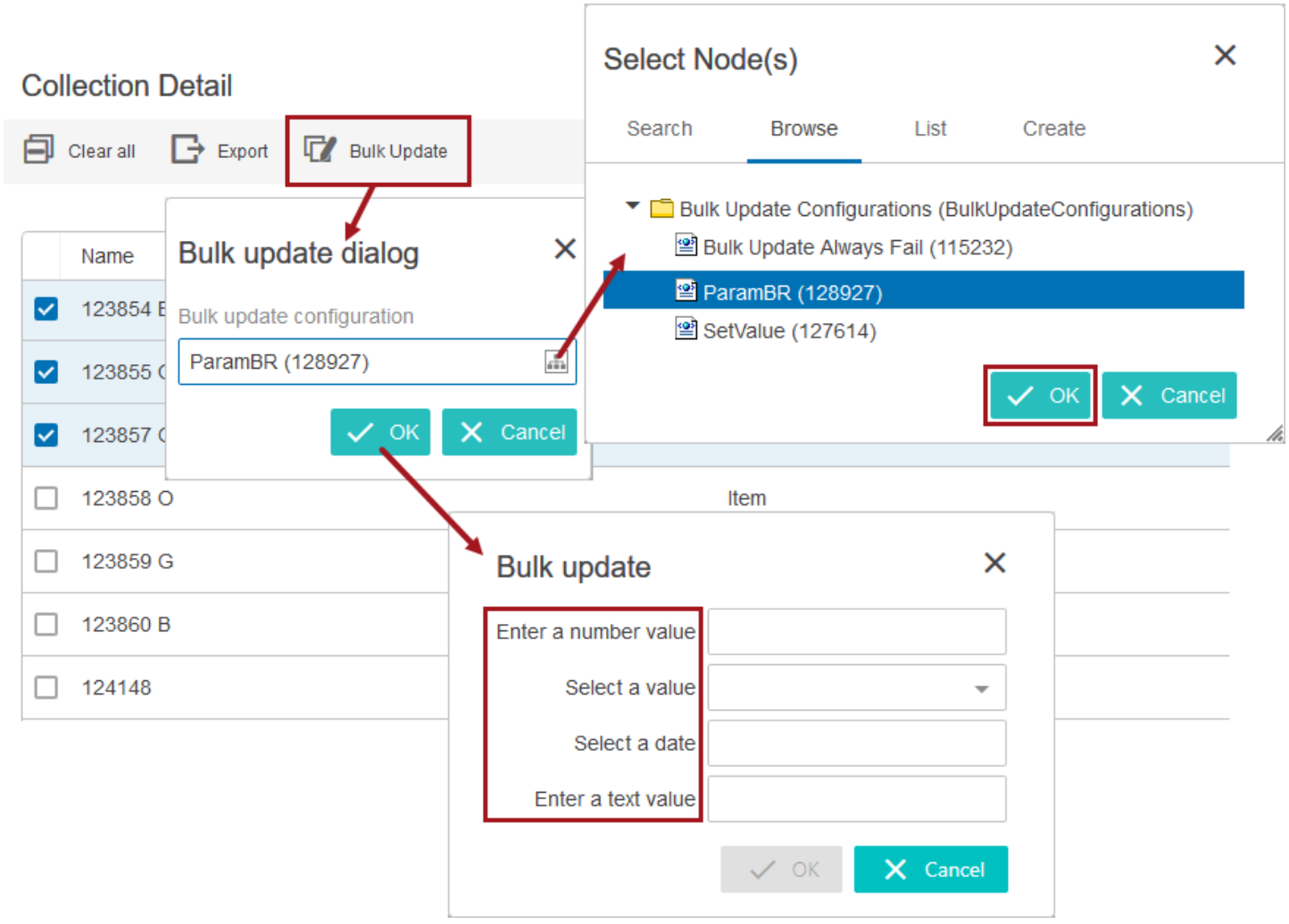


4. For the **Root Node URLs** parameter (required), click **Add...** and select the location of one or more root nodes that house bulk update configurations. All valid bulk update configurations in the nodes are selectable in the bulk update dialog. When more than ten (10) bulk update configurations are available, the list displays a scroll bar.
5. For the **Max Nodes Count** parameter, define the number of allowed objects. When the user selects a greater number of objects than defined, the warning 'Too many nodes are selected, bulk update cannot be performed.' is displayed.

6. Set any other parameters as desired.
7. On the Bulk Update List Action Properties dialog click the **Add** button to display the action on the Node List.
8. On the Node List Properties dialog click the **Save** button and click the **Close** button to exit the designer with the new settings.

Bulk Update Template Action

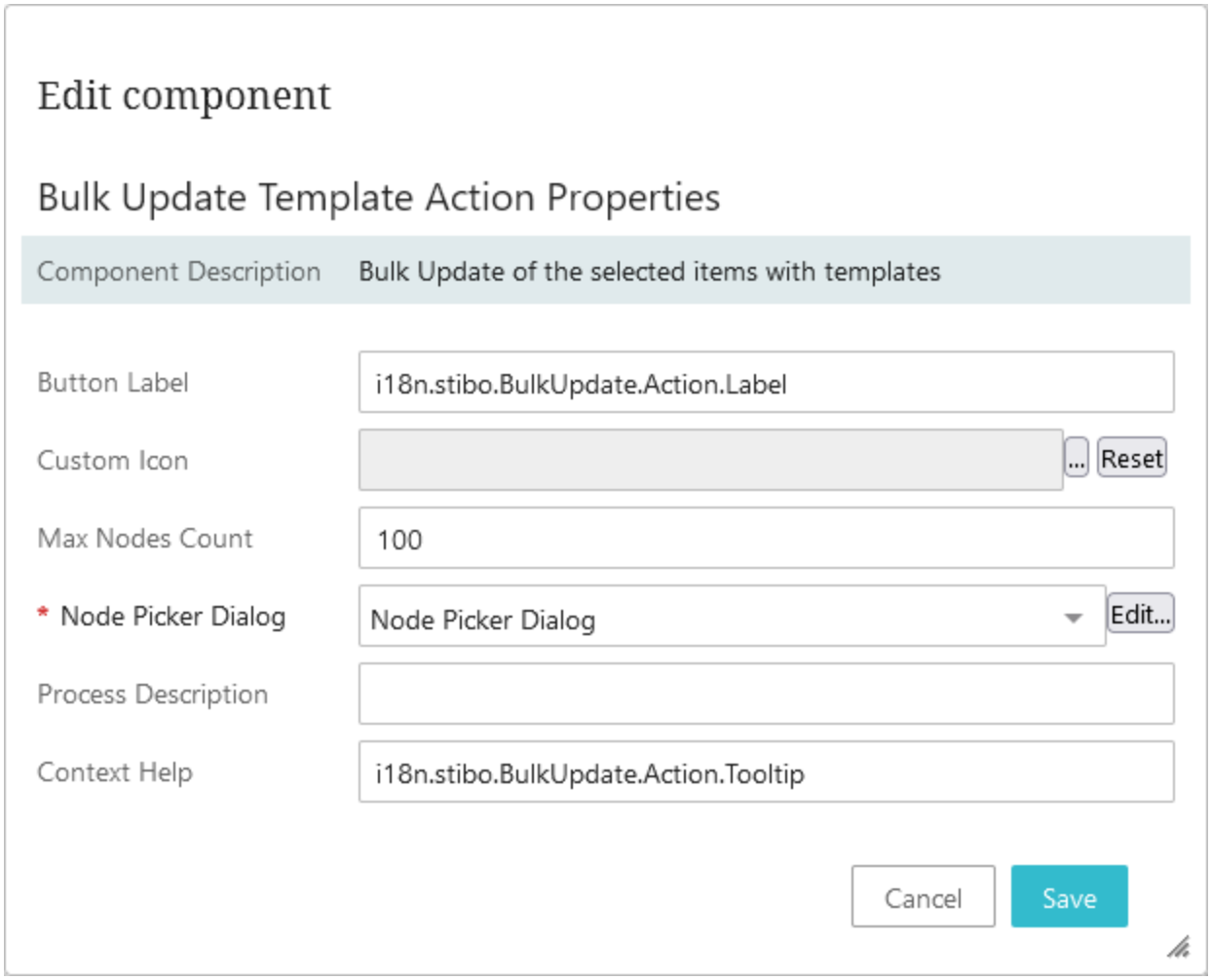
When objects are selected on the Node List, this setup displays a 'Bulk Update' action. Clicking the action displays the 'Bulk update dialog' where a valid bulk update configurations is selected via a Node Picker dialog. The 'Bulk update' dialog allows the parameterized values to be added prior to running the bulk update in a background process. **If any of the attributes used as binds for the bulk update parameters are mandatory, then the OK button will be disabled until all these mandatory values are populated.**



Use the following steps to configure the Bulk Update Template Action.

1. On a Node List screen, open the designer.
2. In the Child Components section, click **Add...** and select the **Bulk Update Template Action**.

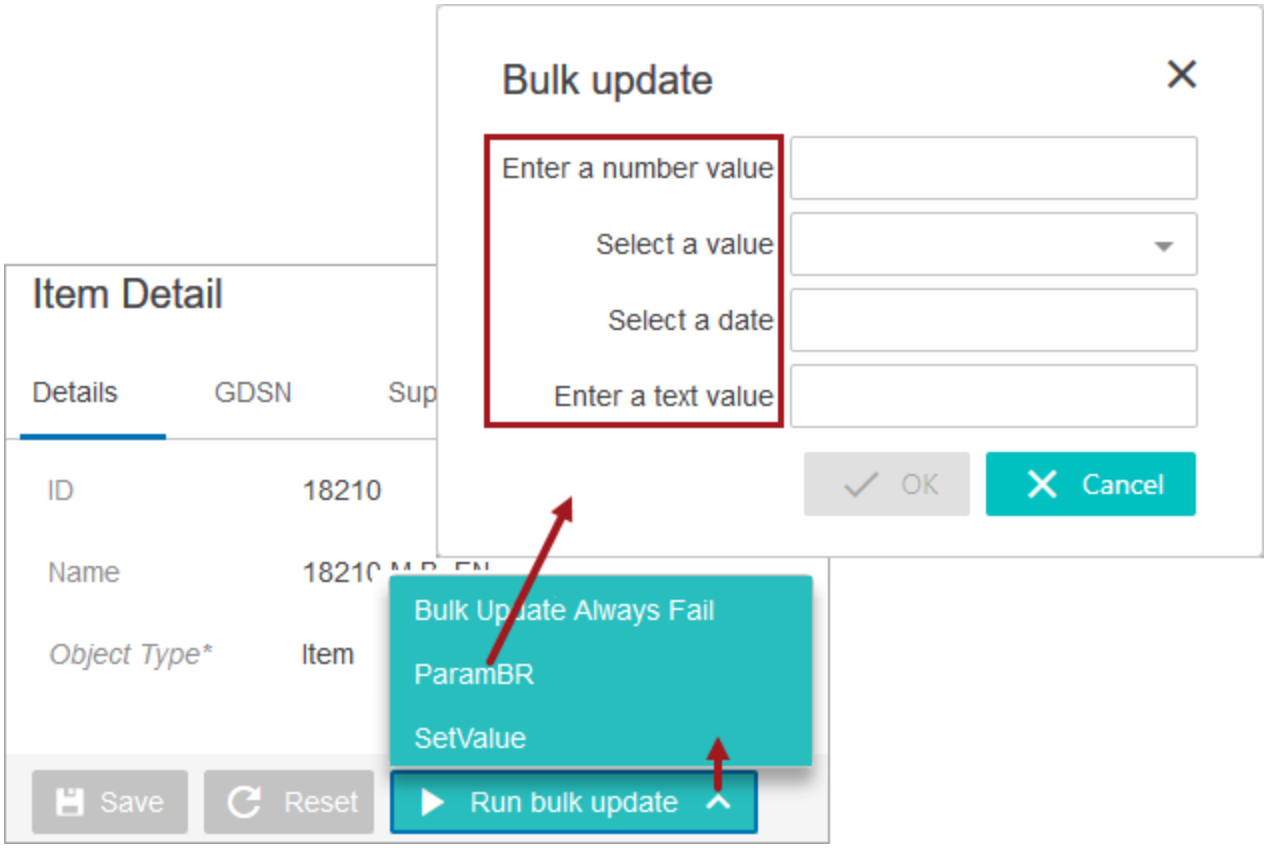
3. Double click the Bulk Update Template Action to display the Bulk Update Template Action Properties.



4. For the **Max Nodes Count** parameter, define the number of allowed objects. When the user selects a greater number of objects than defined, the warning 'Too many nodes are selected, bulk update cannot be performed.' is displayed.
5. For the **Node Picker Dialog** parameter (required), click **Edit...** and set the properties as defined in the **Node Picker Dialog** topic.
6. Set any other parameters as desired.
7. On the Bulk Update Template Action Properties dialog click the **Save** button and click the **Close** button to exit the designer with the new settings.

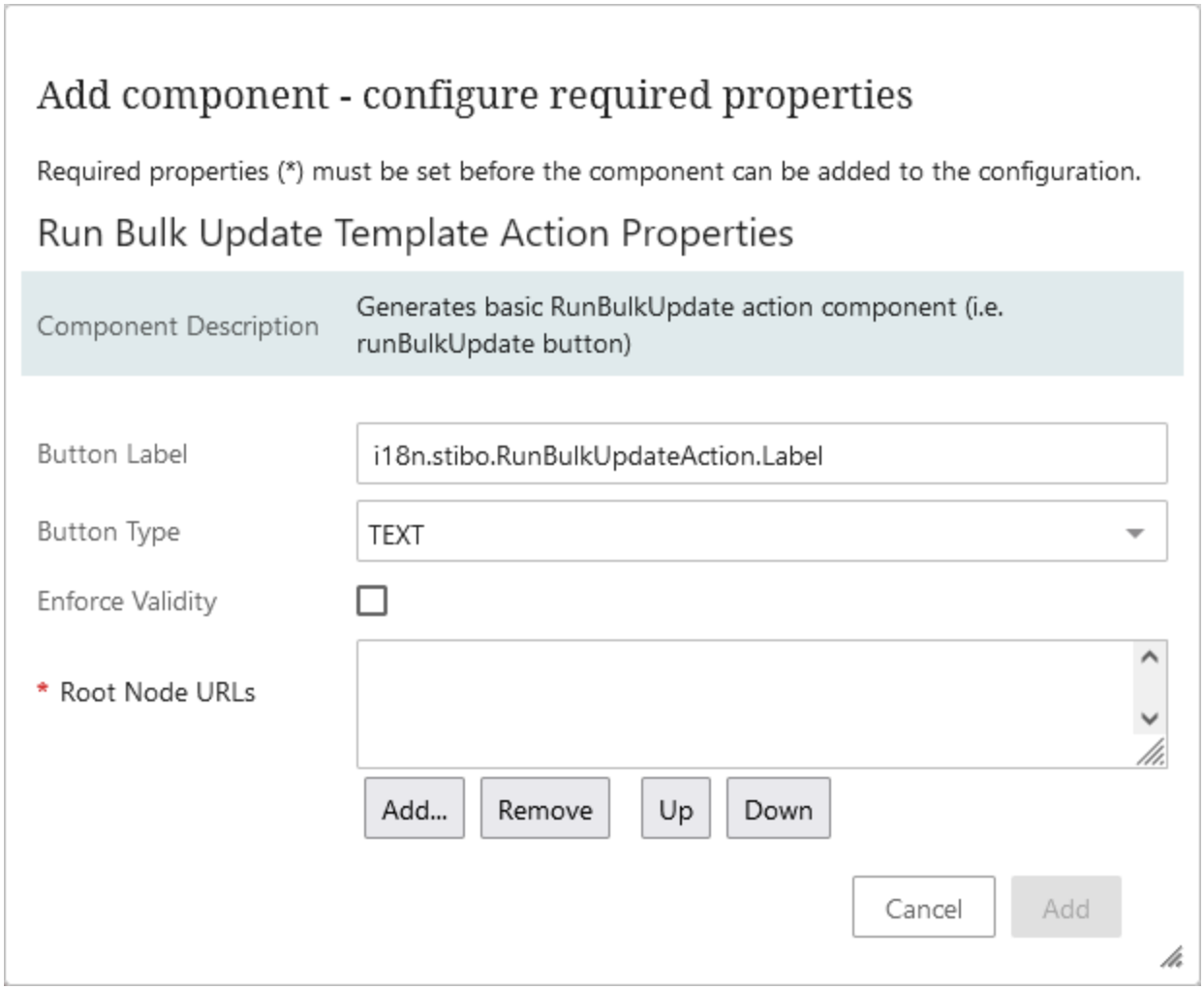
Run Bulk Update Template Action Button

When a valid object is displayed on a Node Detail, this setup displays a 'Run bulk update' button. Clicking the button displays a list of the valid bulk update configurations. Once a configuration is selected, the 'Bulk update' dialog allows the parameterized values to be added prior to running the bulk update in real-time, not in a background process. **If any of the attributes used as binds for the bulk update parameters are mandatory, then the OK button will be disabled until all these mandatory values are populated.**



Use the following steps to configure the Run Bulk Update Template Action button.

1. On a Node Detail screen, open the designer.
2. In the Child Components section, on the Buttons parameter, select **Buttons** from the dropdown and click the **go to component** link display the Buttons Properties.
3. In the Child Components section, on the Actions parameter, click the **Add..** button and select the **Run Bulk Update Template Action** from the component list and click the **Add** button.
4. Double click the Run Bulk Update Template Action to display the Run Bulk Update Template Action Properties.

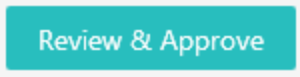


5. For the **Root Node URLs** parameter (required), click **Add...** and select the location of one or more root nodes that house bulk update configurations. When more than ten (10) bulk update configurations are valid, the list is replaced by a dialog with radio buttons.
6. Set any other parameters as desired.
7. On the Run Bulk Update Template Action Properties dialog click the **Save** button and click the **Close** button to exit the designer with the new settings.

Partial Approval in Web UI

The Partial Approval Action gives users the ability to approve specific data points on a given object (i.e., attributes, attribute link data, data containers, references) rather than restrict approval to a single approve action on the entire object. This feature can be helpful to enable teams to approve only those object data points for which they are responsible.

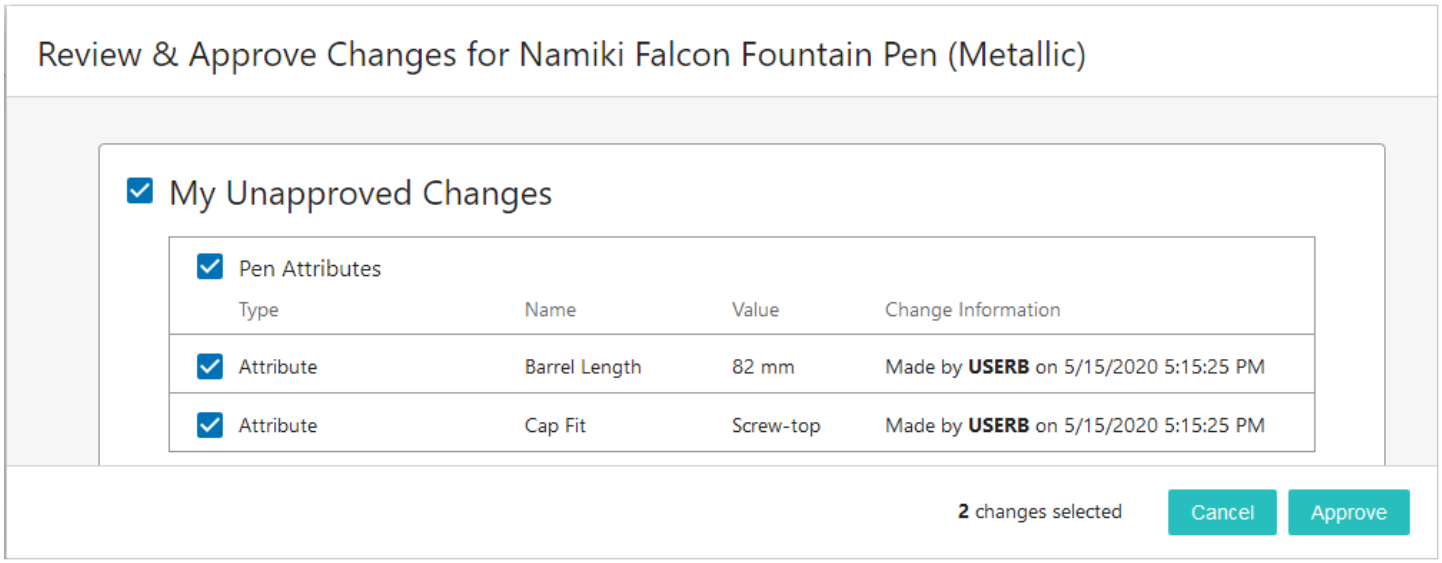
The Partial Approval button can be added to the bottom of Node Editor screens. The default button text for Partial Approval is 'Review & Approve'.



No configuration is required to enable this button. In the designer, users may only select, using the 'Button Type' parameter, whether the 'Review & Approve' button will display with the text alone, or if the button will display with an icon accompanying the text.

Following a click on the Partial Approval button, a full-screen overlay displays that shows users the following:

- all unapproved changes to attributes, attribute link data, data containers, and references
- the object type of the changed object
- the name of the specific object
- the new value
- information related to the user who made the change, including the user's name and a timestamp (date and time) of when the change was made

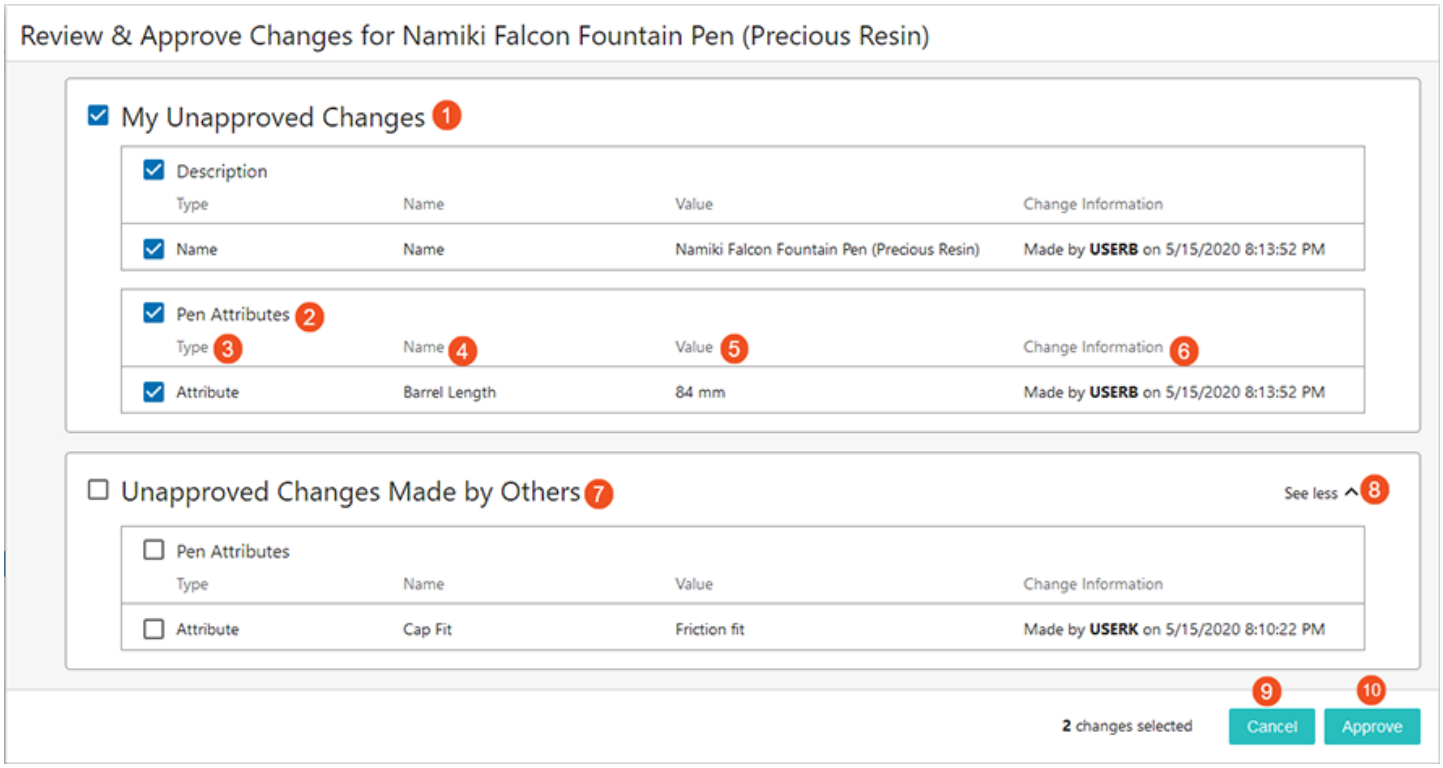


Note: The attribute groups displayed to a user in the Partial Approve dialog are controlled by privilege rules. For more information, refer to the **Privilege Rules** topic in the **Users and Groups** section of the **System Setup** documentation.When an attribute is linked to multiple attribute groups that a user has privileges to, the attribute will display to the user in all of these attribute groups.

Users have the three options when handling approvals: they may select and approve all unapproved changes, select and approve a group of changes to approve, or approve each change one-by-one. Once the user makes their selections and clicks 'Approve', the approved changes will display in the approved workspace.

Using Partial Approval in Web UI

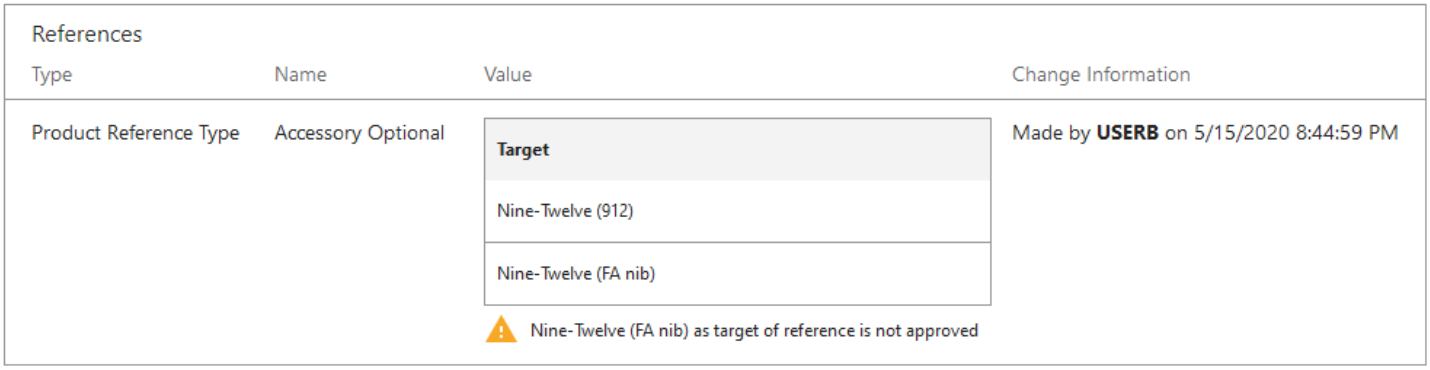
What follows is a screenshot of the full-screen overlay that displays when 'Review & Approve' is clicked. Elements of the interface are accompanied by numbers. Below the screenshot is a numbered list, each number corresponding with its number in the screenshot, followed by a description of each element.



1. **My Unapproved Changes** - This is a header describing the primary section of the overlay, and it is also a checkbox that helps determine which changes are selected for approval. When the checkbox beside 'My Unapproved Changes' is checked, all unapproved changes made to the object by the logged-in user are selected. When a user first clicks the 'Review & Approve' button, the 'My Unapproved Changes' checkbox is automatically populated with a checkmark. This auto-selection of unapproved changes is to support the scenario in which the user wants to quickly review the changes they have made to an object and approve them all at once. Deselecting the checkbox removes the selection for all unapproved changes made by the logged-in user.
2. **Attribute group name** - Each box describes a change that was made to the object. At the top of each box, the attribute group name displays. In this case, the attribute group in which the changed attribute resides is 'Pen Attributes.'
3. **Type** - Denotes the kind of value that has been changed. In this case, the changed object type is 'Attribute,' but it can also be an aspect, reference type, or data container type, for example.
4. **Name** - Lists the name of the changed value. In this case, it is the attribute 'Barrel Length.'

5. **Value** - This shows the new changed value. In this case, the new value is '84 mm.' The previous value is not listed in this overlay.
6. **Change Information** - This lists the user who made the change (always the logged-in user), and the date and time the changes were made. The time is derived from the time set on the machine the Web UI is being viewed.
7. **Unapproved Changes Made by Others** - This section shows all unapproved changes made by users other than the logged-in user. As with 'My Unapproved Changes,' if the checkbox beside 'Unapproved Changes Made by Others' is checked, then all changes made by other users are selected and can be approved at once.
8. **See less / more** - The 'Unapproved Changes Made by Others' section is minimized when the overlay is first opened. Clicking the 'See more' arrow expands this section so all changes in this section can be viewed.
9. **Cancel** - Clicking this button closes the overlay without approving any of the listed changes.
10. **Approve** - Clicking 'Approve' approves all selected changes and closes the overlay.

Find below a screenshot of a changed reference displaying in the partial approval full-screen overlay.



In the above screenshot, two references of the 'Accessory Optional' product reference type have been added to the object: 'Nine-Twelve (912)' and 'Nine-Twelve (FA Nib),' but no checkbox displays to select the changes for approval. The reason for this is noted in the warning notification displaying beneath the two reference targets. Because the product named 'Nine-Twelve (FA nib)' is unapproved, the new reference from the current object to that target object cannot be approved. Once the target object is approved and 'Review & Approve' clicked again, the warning no longer displays, and the new references can be selected for approval.

To avoid potential confusion, it is important to note that if an attribute's value has been changed, and that attribute is part of multiple attribute groups, the single change will be listed for each attribute group the attribute is part of. This can result in a long list of changes that is actually one change.

Notes and Considerations

There are instances where users may select all changes available in the Partial Approval overlay and still not successfully approve the object. If all changes are submitted for approval in the Partial Approval overlay and the object is still not approved, these are some potential reasons why (not presented in any particular order):

- the logged-in user may not have the privileges required to approve all object data
- unapproved changes may exist in a different context

- changes may have been done to tables in workbench, which do not display in the Web UI
- changes may have been done to product overrides

For more information on the Partial Approval Action button, refer to the **Action Buttons** topic in the **Web User Interfaces** documentation.

Power Search Screen

The Power Search Screen allows users to quickly generate search results based on criteria. The Power Search component functions as a component accessible via the Global Navigation Panel. For more information, refer to the **Global Navigation Panel** topic in the **Web User Interfaces** documentation.

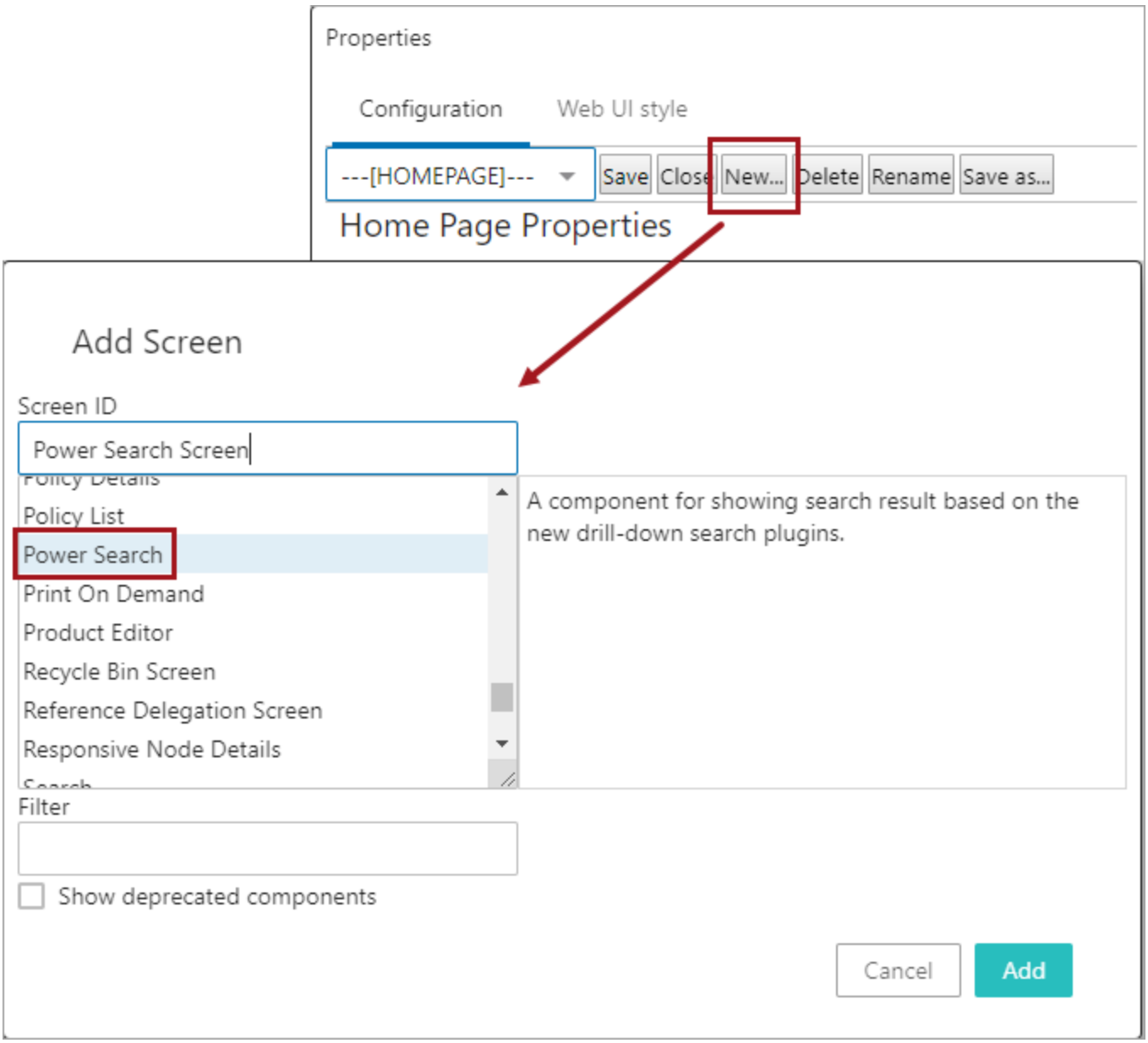
Prerequisites

It is expected that anyone configuring the Power Search Screen component is familiar with the Web UI Designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

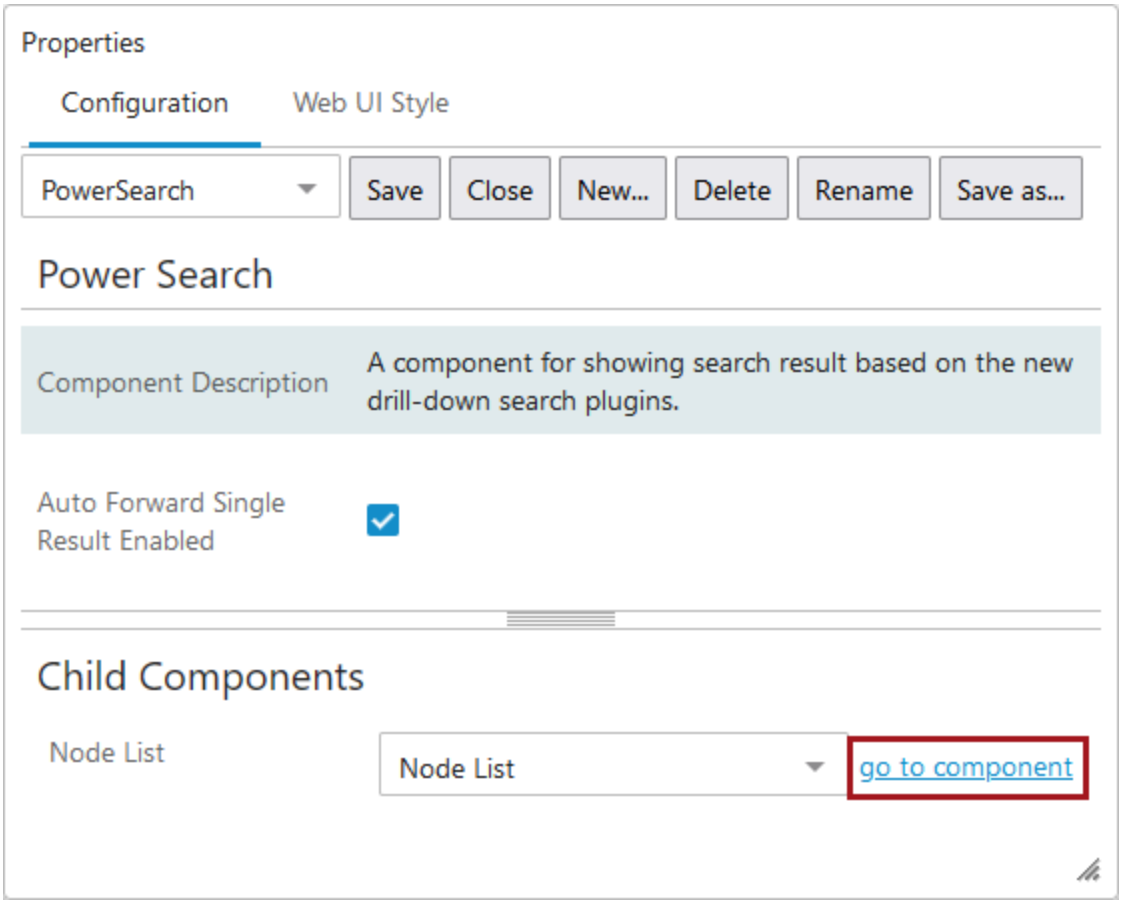
Configuration

To configure the Power Search screen, follow the directions below:

1. In the designer, create a new screen by selecting **New**. Select the **Power Search** option for a new screen, and create a name for the Screen ID field. In the example below, the Screen ID is named 'Power Search Screen.' Click **Add**.

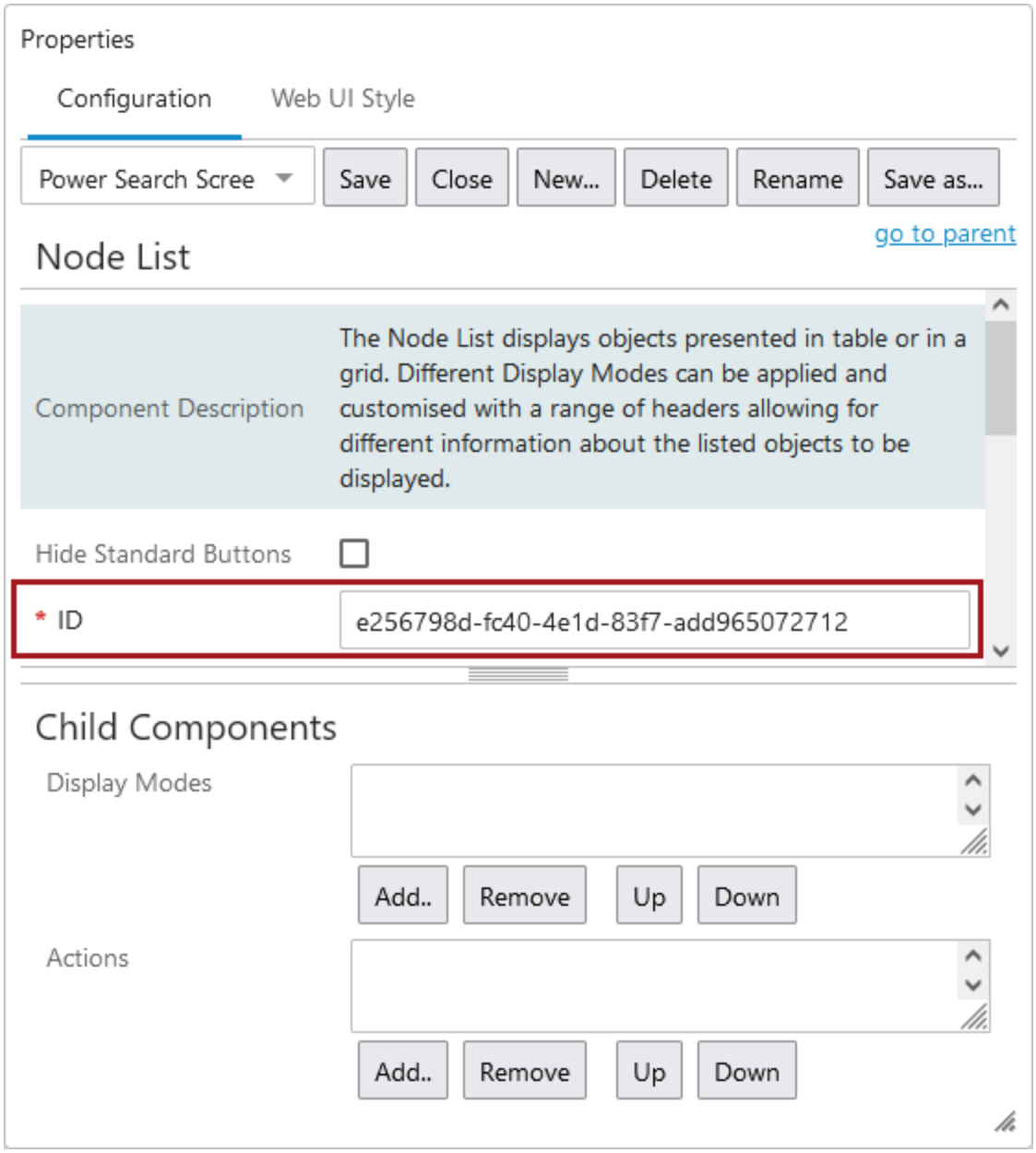


2. Once this screen is created, in the Power Search Properties, select the **go to component** link on the Node List option under Child Components.

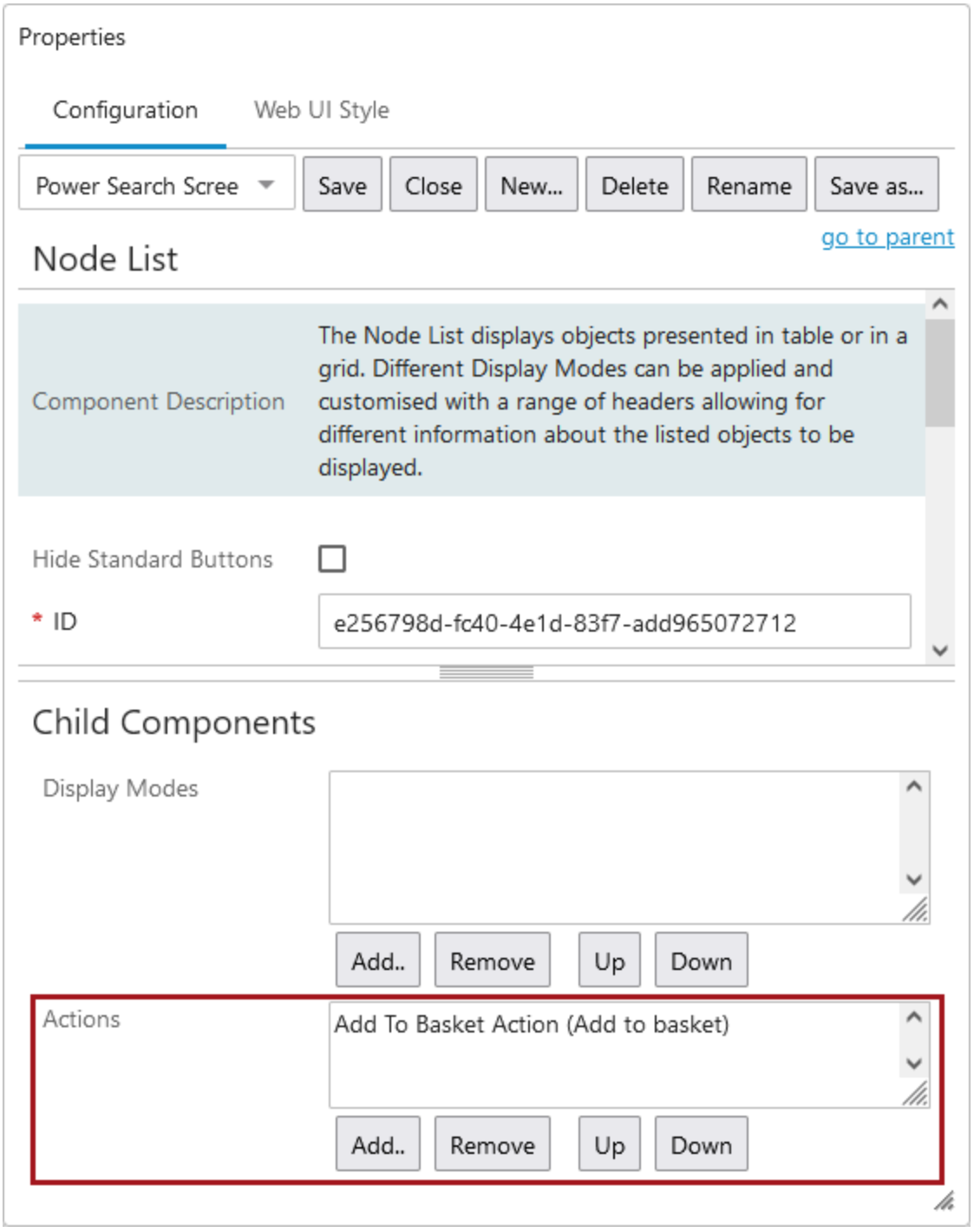


This opens up the Node List component, which contains several options for configuration. The only required parameter on a Node List for the Power Search screen to work is the **ID** field, which is auto-populated to a unique value but may be changed as desired.

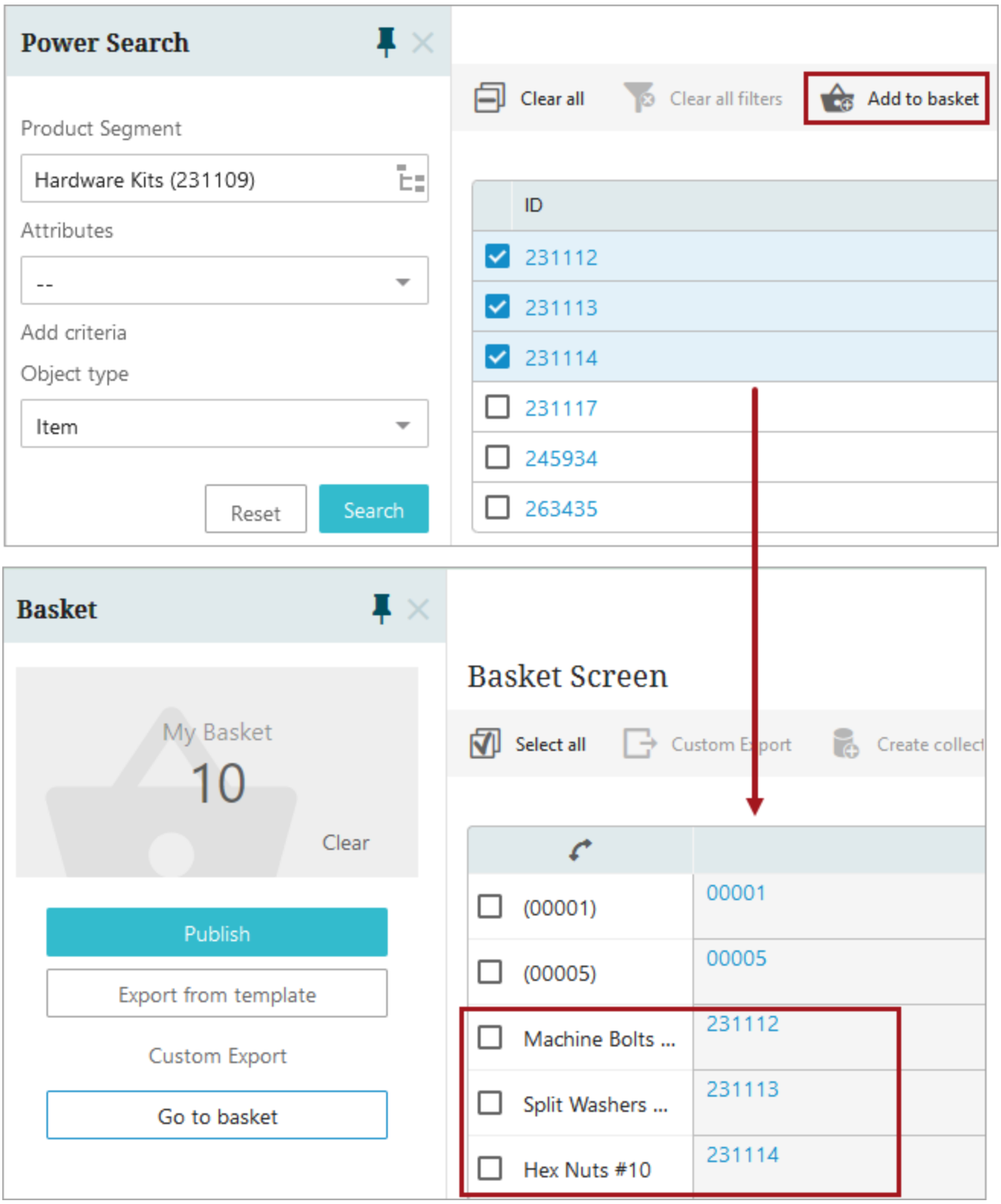
Configuring other parameters on the Node List will allow expanded functionality of the Power Search component. For more on configuring a Node List, refer to the **Node List Component** topic in **Using a Web UI**


Properties
Configuration
Web UI Style
Power Search Scree
Save
Close
New...
Delete
Rename
Save as...
go to parent
Node List
Component Description
The Node List displays objects presented in table or in a grid. Different Display Modes can be applied and customised with a range of headers allowing for different information about the listed objects to be displayed.
Hide Standard Buttons
* ID
e256798d-fc40-4e1d-83f7-add965072712
Child Components
Display Modes
Add..
Remove
Up
Down
Actions
Add..
Remove
Up
Down

3. An optional action button can be added to the Node List called, **Add to Basket**.



This allows the user to add items to a basket that they can then open and perform actions on.



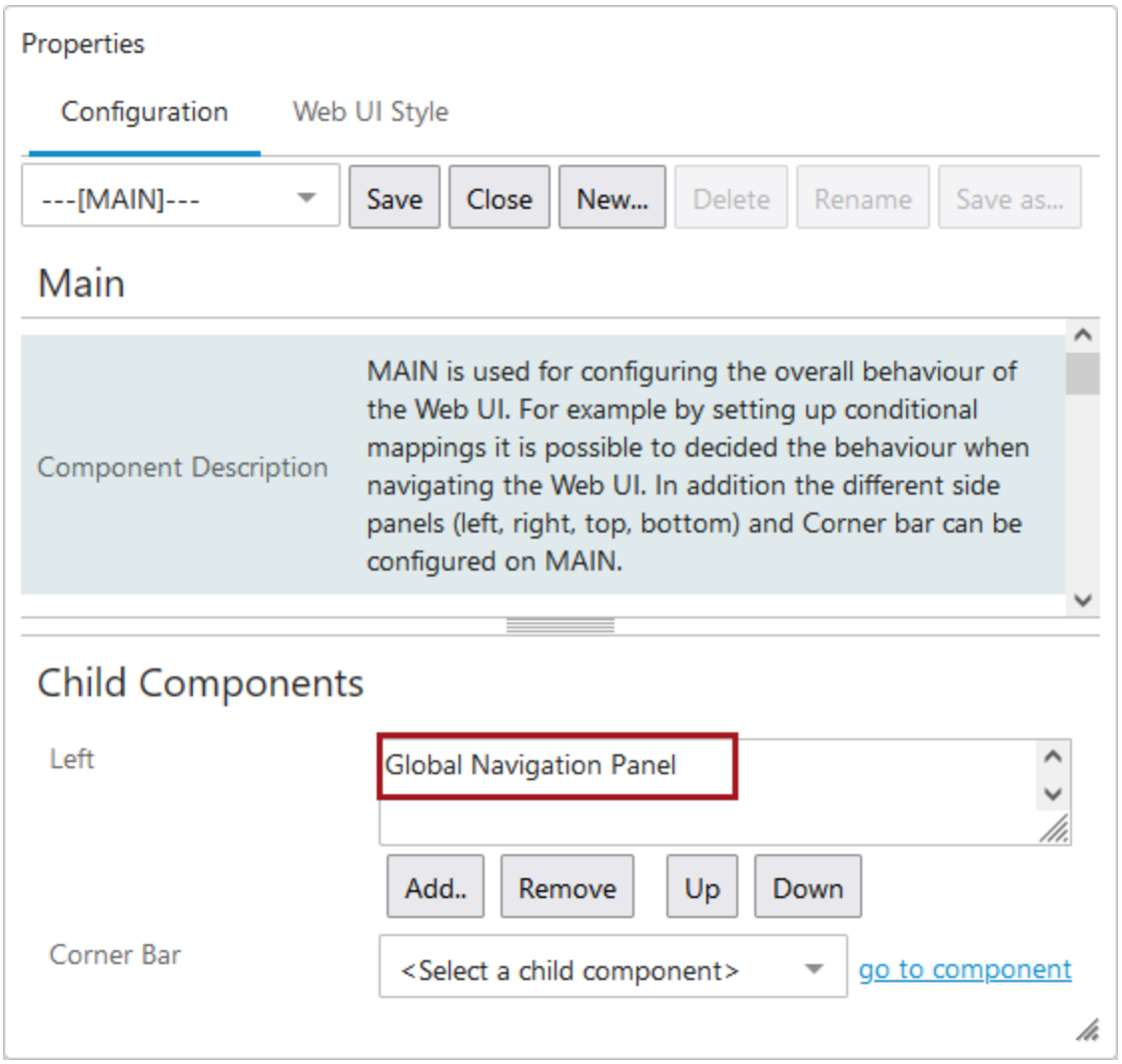
To learn more on how to setup and use the 'Add to Basket' action button, refer to the **Search Screen Basket** topic in the **Using Web UI** section of the **Web User Interfaces** documentation.

Implementing the Power Search Screen

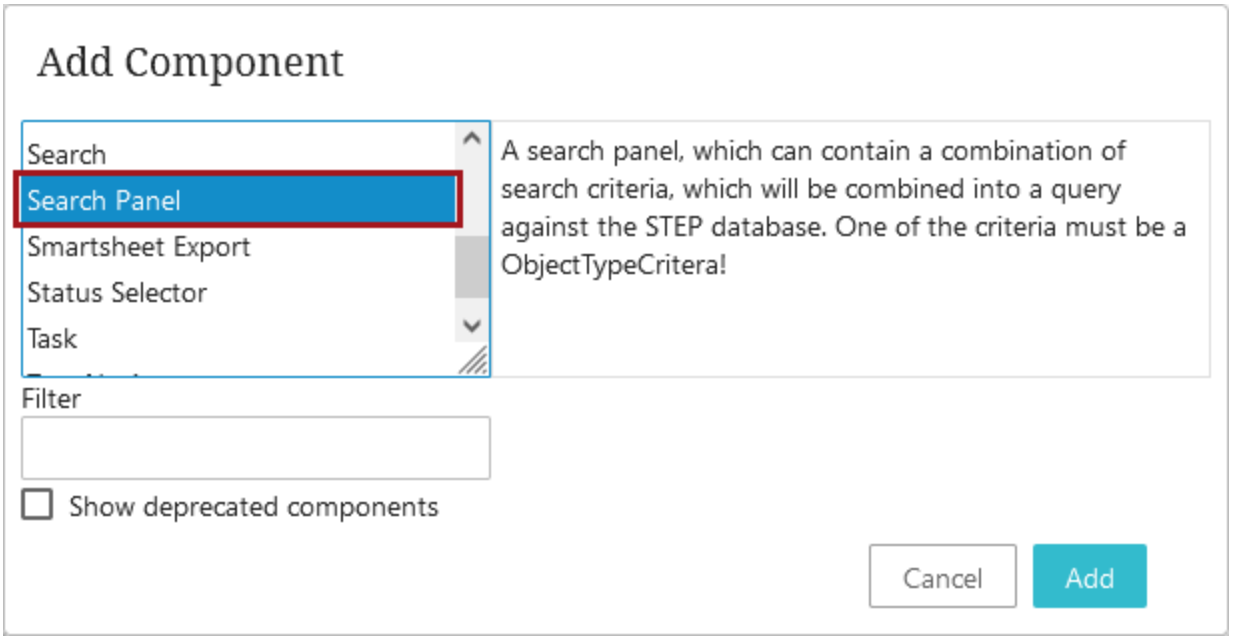
Once the Power Search screen is created, a Search Panel component must be added to the Global Navigation Panel.

1. From the Main Properties screen, go to Child Components > Left > and add a **Global Navigation Panel** component. Once added, double-click the Global Navigation Panel component.

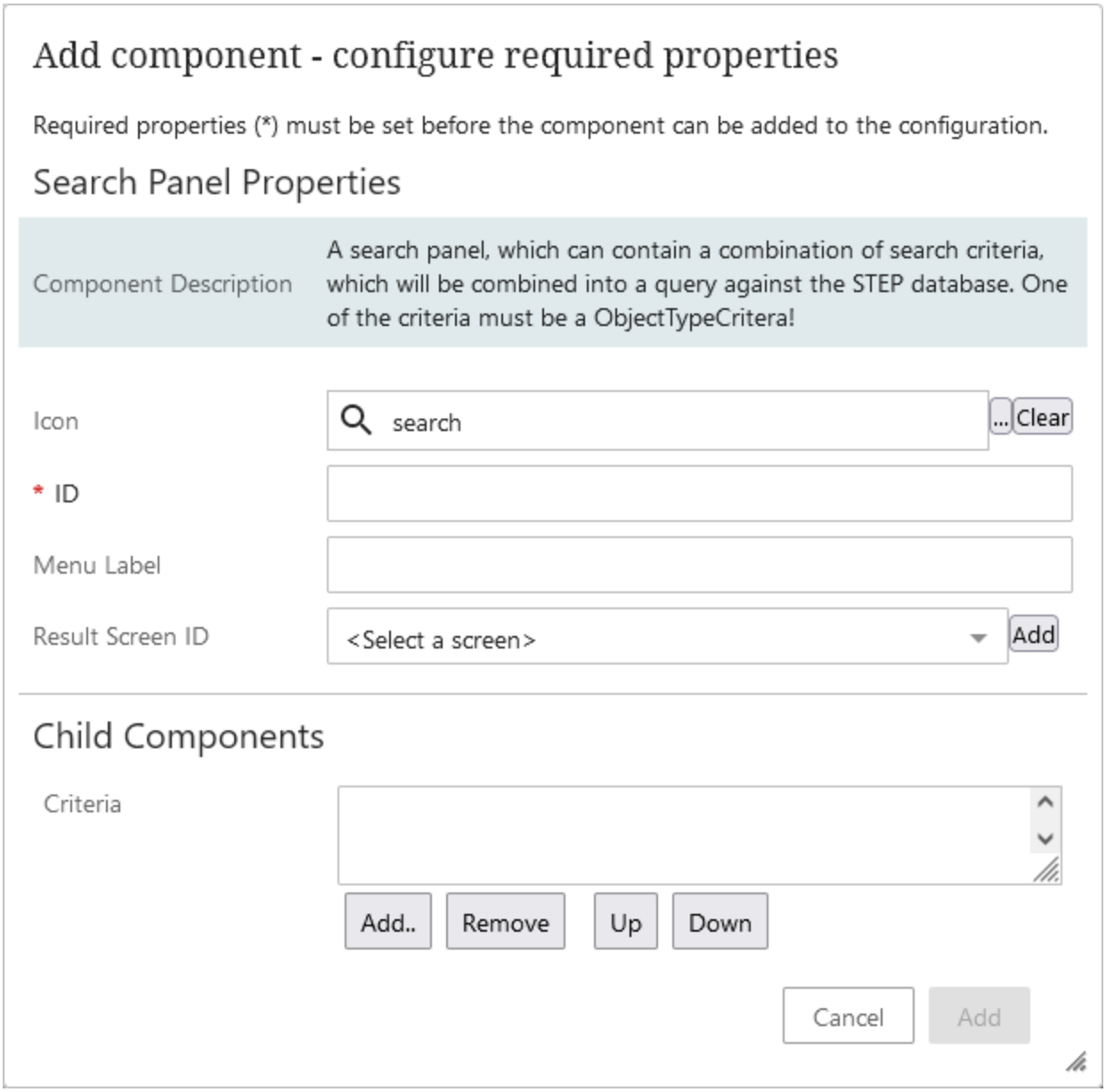
   For more information on the Global Navigation Panel, refer to the **Global Navigation Panel** topic, also found in the **Web User Interfaces** documentation.



2. On the Global Navigation Panel, go to Child Components > Menu Items > and select **Search Panel.** Click **Add**.

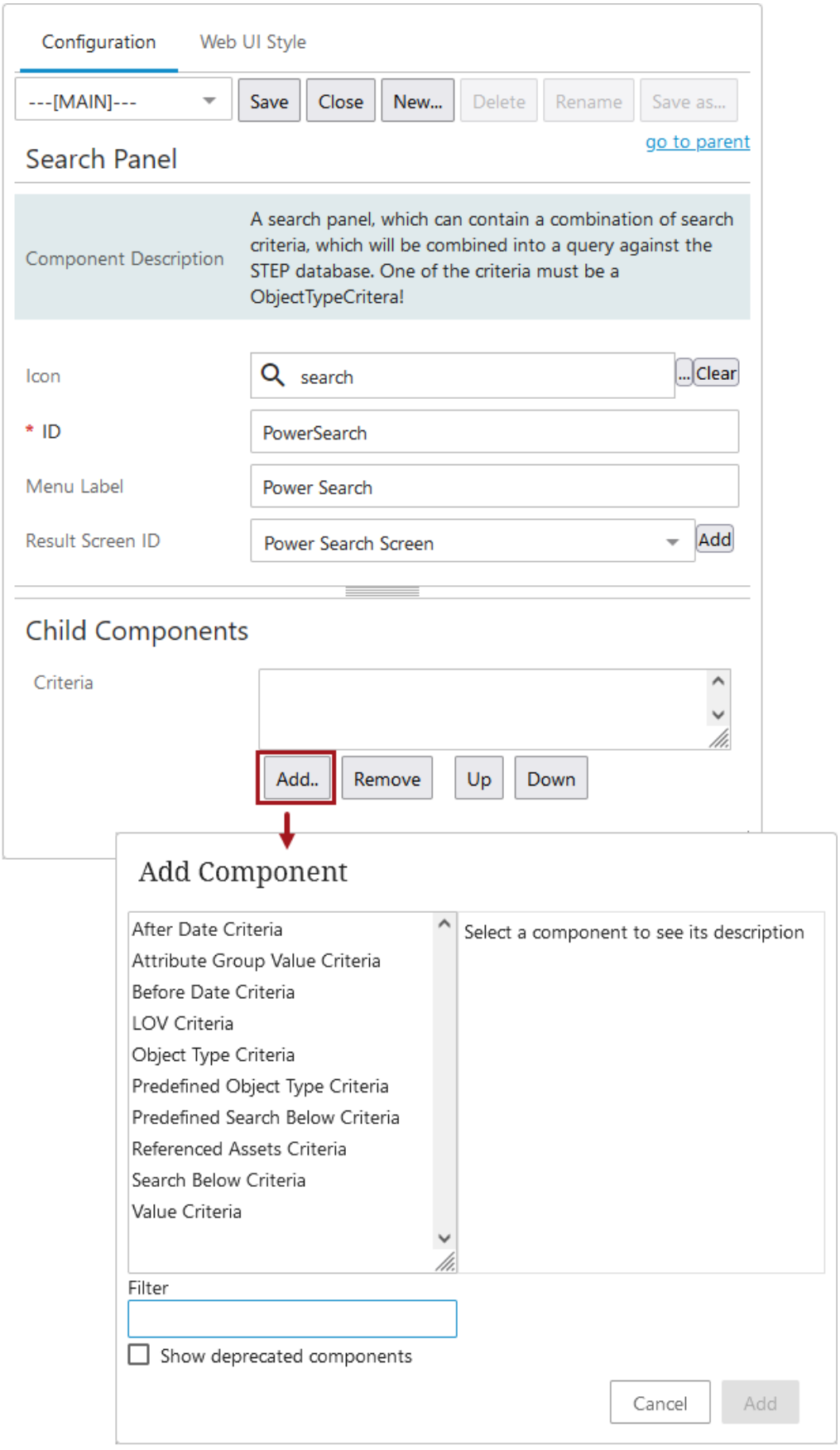


3. The 'Search Panel Properties' displays with the **ID** being the only mandatory parameter. Add values to the parameter fields, and click **Add**. Each of the parameters is described below.



- **Icon**: Determines which icon will display on the 'Search Panel' button in the Global Navigation Panel. Defaults to a magnifying glass icon but can be changed to a different icon.
- **ID**: The value entered in this field determines the ID of the 'Search Panel' component being configured.
- **Menu Label**: The value entered in this field displays when a user hovers their cursor over the Search Panel button. This value also displays as the header in the secondary column when the Search Panel button is clicked.
- **Result Screen ID**: Select the screen that the Web UI will navigate to when a user clicks on any search results. To enable the Power Search screen, select the Power Search screen created in the first section of this topic in this field.

4. Under Child Components is a 'Criteria' field. In this field, users can configure what kind of searches will be available in the secondary column when the Search Panel button is clicked.


Configuration
Web UI Style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Search Panel
Component Description
A search panel, which can contain a combination of search criteria, which will be combined into a query against the STEP database. One of the criteria must be a ObjectTypeCritera!
Icon
search
...
Clear
* ID
PowerSearch
Menu Label
Power Search
Result Screen ID
Power Search Screen
Add
Child Components
Criteria
Add..
Remove
Up
Down
Add Component
After Date Criteria
Attribute Group Value Criteria
Before Date Criteria
LOV Criteria
Object Type Criteria
Predefined Object Type Criteria
Predefined Search Below Criteria
Referenced Assets Criteria
Search Below Criteria
Value Criteria
Select a component to see its description
Filter
Show deprecated components
Cancel
Add

The criteria component options are as follows and can be added in many combinations:

Important: The 'Object Type Criteria' MUST be added for the Power Search to work.

- **After Data Criteria**: Search criteria for locating items based on an after date criteria.

  Note: Configuring multiple components of this type on the same query panel with the same attribute will result in an error.

- **Attribute Group Value Criteria**: Search criteria for finding items by attribute values found in a specific attribute group. The attribute group must be set.
- **Before Data Criteria**: Search criteria for locating items based on the before date criteria.

  Note: Configuring multiple components of this type on the same query panel with the same attribute will result in an error.

- **LOV Criteria**: A component used to restrict the criteria in a modular search depending on values in a List of Values based attribute.
- **Object Type Criteria**: A component used to restrict the criteria in a modular search depending on the object type.

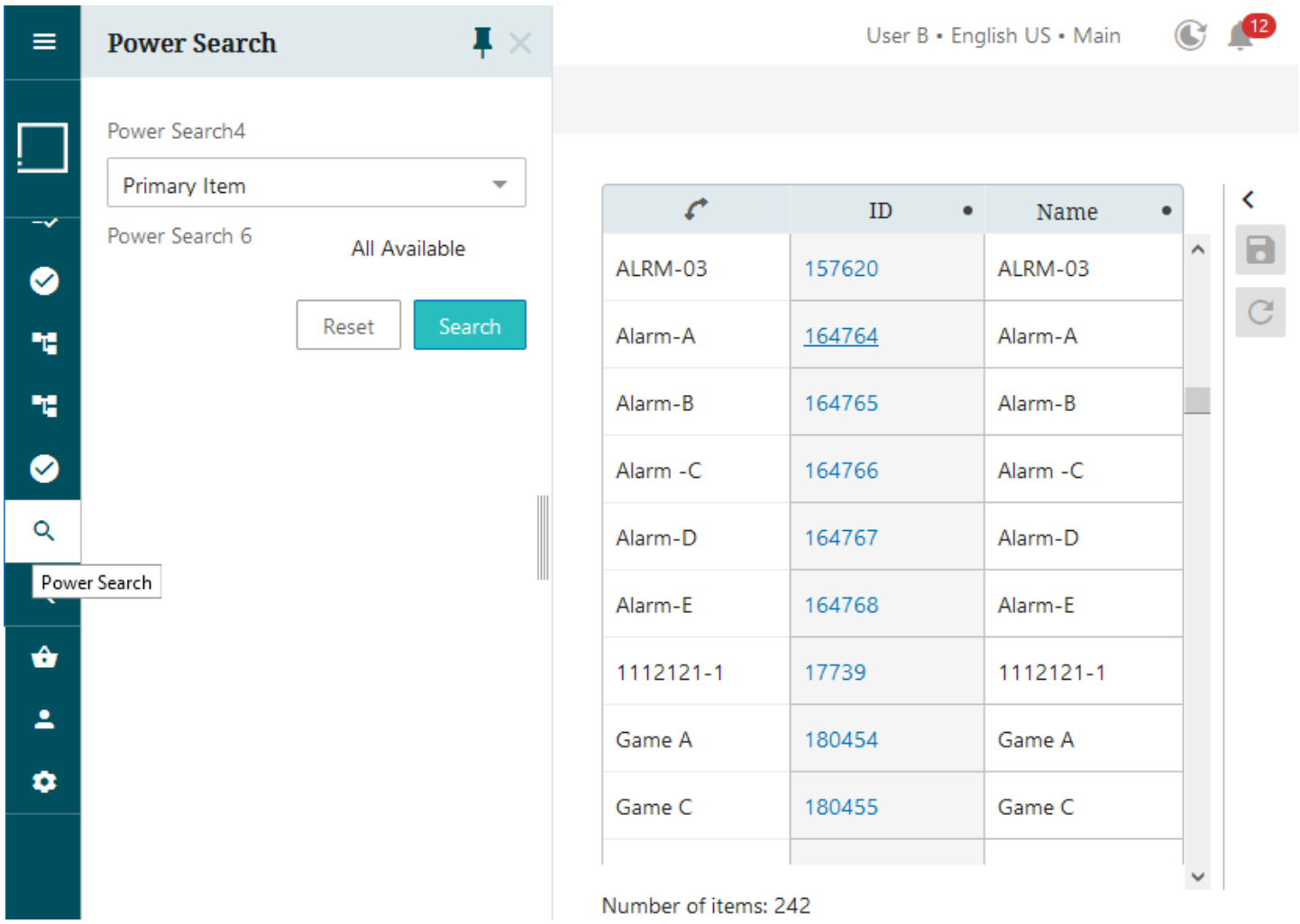
  Important: The 'Object Type Criteria' MUST be added for the Power Search to work.

- **Predefined Object Type Criteria**: A component used to restrict the criteria in a modular search from a list of predefined object types.
- **Predefined Search Below Criteria**: A component used to restrict the criteria in a modular search from a list of predefined root nodes.
- **Referenced Assets Criteria**: Search criteria for finding assets referenced by a product.
- **Search Below Criteria**: Search criteria for restricting search to only search below the indicated node.
- **Value Criteria**: Search criteria for finding items by ID, name, or attribute values. If neither Attribute, Match ID, or Match Name is specified, it will try to match any item that has a value, ID, or name matching the pattern.

For more information on configuring search criteria in the field and examples, refer to the **Advanced Search Initial Configuration** topic, also found in the **Web User Interfaces** documentation. Specifically, review the section entitled 'Editing Advanced Search Screen Properties.'

5. Once the desired criteria is added, save and close the designer.
6. From the Web UI homepage, select the newly added 'Power Search' component from the Global Navigation Panel. In this example, a 'Primary Item' object type is configured. The results will display as

follows:



Note: Ensure that no other screen is configured for the object type at a higher order than the Power Search screen in the **Main Properties** screen mappings. For example, if an 'ID and Name' screen is configured to show on Items, that screen will instead show the Power Search results screen. For more information, refer to the **Mappings** topic in the **Web User Interfaces** documentation.

Product Editor Screen

The Product Editor screen is optimized for a read-only view of non-orphaned attribute values on objects of the product super type. The Edit view displays all valid editable and read-only attributes and allows users with edit attribute privileges to modify values. This screen requires minimal Web UI setup and displays product details based on user privileges, the workbench System Setup attribute hierarchy, as well as parameter settings on attribute groups and attributes. This means that the user's view of data in Web UI automatically matches what displays in the workbench.

Note: Besides having the necessary privileges necessary to edit attributes, users also need the 'Maintain Data Container Type' privilege to save changes to attribute values. For more information regarding privileges, refer to the **Action Sets** topic in the **System Setup** documentation.

Responsive resizing functionality ensures this screen can be used successfully on displays of different sizes and resolutions. For information on getting started with the Product Editor, refer to the **Setting up the Product Editor Screen** topic.

The elements on the screen provide information about the selected product. Each element is identified by the numbers 1-7 in the image and each is described below.

Primary Product Hierarchy ▸ CultureClothing ▸ Jackets

Parker Camo jacket

1

GTIN_1197229 · Unapproved changes · 0.7 · Updated 6 minutes ago

2 1 messages | Quality 50 Asset Quality 100 Image 0 Co...

3 Edit

Overview 4







+2

5



Hierarchy Details

Brand	Odd Style Apparel
Category	Training Jacket
Segment	Mens wear
Finished Product Code	89756543
Model Number	3234_Parker_Camo
Sector	Apparel

6

Target Market Information

Country TM	US
Model Number	3234_Parker_Camo
Product Title Long	Walker Parker Camo
Product Title Short	Parker Camo
Search Terms	Camo, Jacket, Down, G ore Tex

Basic Product Details

Color Detail	Camouflage and Khaki
Country of Sale	US / CA

Marketing Details

Marketing Details Initial

Product Description

The Camo is a modern, refined parka st reamlined for urban environments. Styli sh, warm and stormproof, the Camo Pa rka delivers truly waterproof, windproof and breathable, weather protection on the harshest days. The Camo uses an N 150p-x GORE-TEX 2L face fabric that ha s a soft hand, supple feel and longwearing performance.

Marketing Details

Distributed By Odd Style Warehouse

Econtent Marketing Product Description

Designed with reflective details, this wind jacket is perfect for late-night runs. Lightweight and breathable, it also features laser-cut ventilation holes for optimum ventilation.

Features & Benefits

Features and Benefits 1	Relaxed Fit
Features and Benefits 2	Chinguard
Features and Benefits 3	Lacercutted holes under sleeves for ventilation
Features and Benefits 4	Material: 100% Polyester Recycled

7

Unit Of Measure Details

Case Count in Layer	8
Case Count in Pallet	10

Consumer Care

Consumer Care Phone	1-801-645-6561
Consumer Care Return Address	Return in local store

SuffScoreAtrGrp

SuffScoreText	41

Summary information

The summary information (item 1) is displayed at the top of the Product Editor screen and includes:

- The path including the three nearest ancestors. The full product path is available when hovering over the path. Clicking the path copies the full path to the clipboard, and displays a confirmation message.
- The product name, prominently displayed.
- The product ID (STEP ID), approval status, revision number, and update status in hours. Hovering over the update status shows the day, date, and time of the last update.

To display the summary information on the Product Editor screen, refer to the **Setting up the Product Editor Screen** topic.

Sufficiency indicators

The sufficiency indicators (item 2) include defined metrics to demonstrate how close a product is to being considered complete. The red and yellow scores identify areas where more work is required, while the green scores indicate a complete sufficiency. Clicking the sufficiency indicator opens the Sufficiency Panel with details for each metric being tracked. For more information, refer to the **Sufficiency Panel** topic in the **System Setup**.

Edit access

The Edit button (item 3) is only displayed for users with edit privileges. Clicking the Edit button enables the edit mode and displays all attributes valid for the product. Existing values can be updated and new values can be added to attributes that are blank. For more information, refer to the **Editing Data on the Product Editor Screen** topic.

Sections and Cards

The 'section' (items 4 and 7) and 'card' (items 5 and 6) visual elements allow product information to be organized in a meaningful way.

'Sections' (item 4) organize sets of product information into categories with related content and allow the grouping of one or more attribute groups and their corresponding values. In the image, the sections are labeled with the 'Overview' and 'Marketing Details' headers. Section headings are configured via a metadata attribute on an attribute group. Attributes with values but that are in an attribute group without a defined section (item 7) are always displayed in the last section and have no header. For more information, refer to the **Modifying Sections on the Product Editor Screen** topic.

'Cards' organize the sections by displaying the product images (item 5) or attribute group data (item 6). Attribute groups that are assigned to a section are displayed on an attribute details card when at least one attribute in the group includes a value. The order of the attribute cards is controlled via a metadata attribute on the attribute group. In the image, the 'Overview' section cards are images, 'Hierarchy Details,' 'Basic Product Details,' and 'Target Market Information.' For more information, refer to the **Modifying Cards on the Product Editor Screen** topic.

Product images

If the product being viewed references a primary product image, that image automatically displays as the first card in the first section of the screen (item 5). If the primary product image reference type is single valued, only a single image can be displayed; a multi-valued reference type allows additional referenced images to display in an image carousel as shown above. The set of images is automatically scaled to match the width of other cards while also keeping the aspect ratio of the images. The image card settings cannot be modified. The 'primary product image' reference type is set in the Users & Group system settings as defined in the **Primary Image Type** topic of **System Setup** documentation.

For more details on images, refer to the **View all referenced product images** section of the **Modifying Cards on the Product Editor Screen** topic.

Setting up the Product Editor Screen

The Product Editor screen is optimized for a read-only view of non-orphaned attribute values on objects of the product super type. The Edit view displays all valid editable and read-only attributes and allows users with edit attribute privileges to modify values. This screen requires minimal Web UI setup and displays product details based on user privileges, the workbench System Setup attribute hierarchy, as well as parameter settings on attribute groups and attributes. This means that the user's view of data in Web UI automatically matches what displays in the workbench.

For details on how the screen functions, review the **Product Editor Screen** topic.

For information on related components for use by data stewards, refer to the **Data Enrichment Components** topic in the **Search Screen** section of the **Web User Interfaces** documentation.

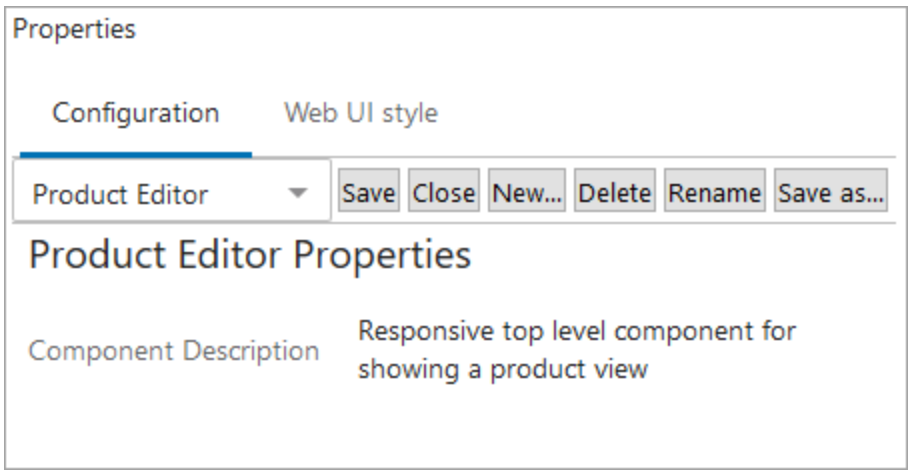
Prerequisites

1. Anyone setting up the Product Editor screen should be familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** topic.
2. Activate the 'ui-product-editor' add-on component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

Adding a Product Editor screen

Use the following steps to create a read-only view of product data with the option to edit data.

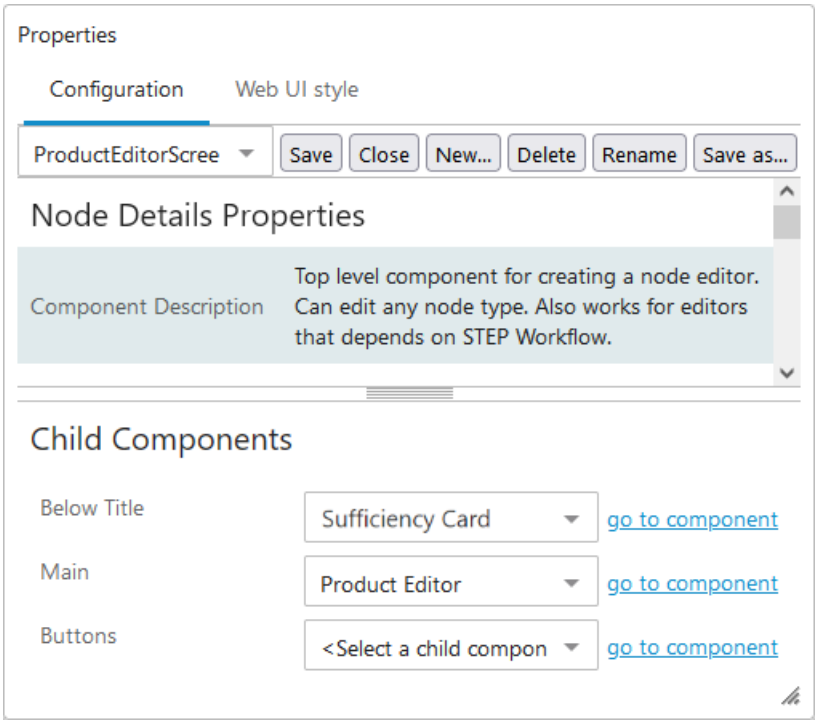
1. In the Web UI designer, create a new screen of the type 'Product Editor' as defined in the **Design Mode Basics** topic.



2. Create a Node Details screen as defined in the **Node Details Screen** topic.
   - For the Below Title parameter, select Product Sufficiency Card (which is only valid on a Node Details screen). No additional configuration is available for this component. The Product Sufficiency Card is not

impacted by privilege rules. If sufficiency scores are configured for the Product Editor screen, they are visible for all users.

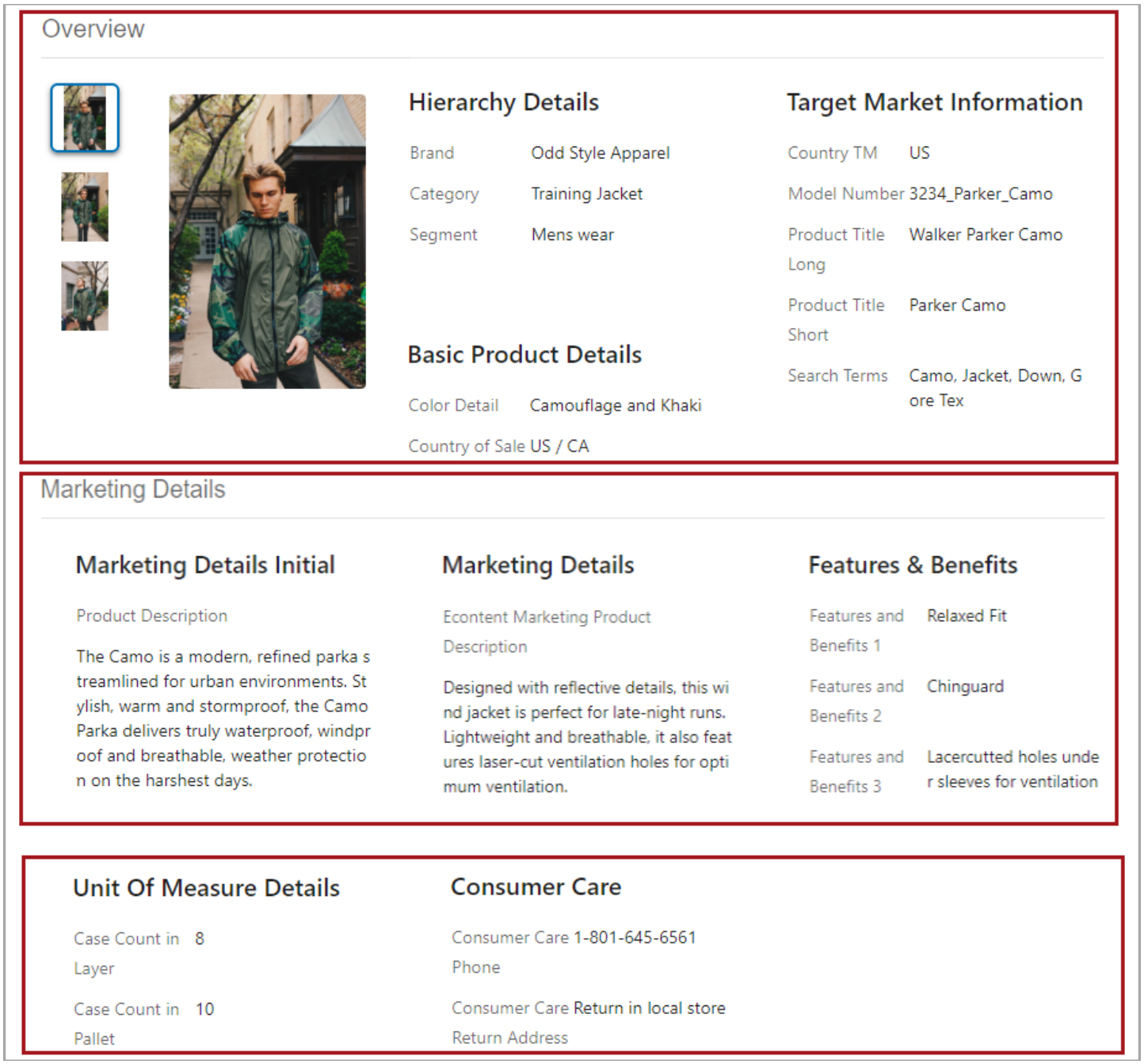
- For the Main parameter, select the Product Editor screen created above.
- For the Buttons parameter, no selection is necessary. The Edit button is automatically displayed, allowing users with edit privileges access to an editable view.



3. On the ---[MAIN]--- page, update the Mappings parameter to map the new Node Details screen, as defined in the **Mappings** topic.
4. Save and close the designer.
5. Configure the contents of the screen as defined in the following topics:
   - Modifying Sections on the Product Editor Screen
   - Modifying Cards on the Product Editor Screen

Modifying Sections on the Product Editor Screen

As described in the **Product Editor Screen** topic, sections allow the user to view related content about the product, for example, based on the purpose of the data. In the following image, the sections are outlined in red.



The data displayed in a section is controlled in workbench, using parameters accessible in System Setup. The modifications that can be applied to sections include:

- Define a List of Values (LOV) for section label text
- Add a new section to the screen
- Remove a section from the screen
- Change the order of the sections on the screen

Details regarding how users can make modifications to sections are described below.

For information about modifying cards and their contents, refer to the **Modifying Cards on the Product Details Screen** topic.

Define a List of Values (LOV) for section label text

Creating the LOV as instructed below allows users to add an attribute group card within a section by selecting the section label text from a metadata attribute on the attribute group.

Perform the following steps in workbench, on the System Setup tab.

1. Create an LOV with the following parameter settings.
   - The **ID** parameter must be set to 'AttributeGroupSection'.
   - The **Name** parameter can be set as desired.
   - The **Use Ids on values** parameter is set to Yes.
   - The **Use Ids for sorting** parameter is set to Yes or No as desired.
   - The **Value-ID Pattern** parameter has no value.

     Note: Setting this parameter to [id] is not recommended since values must then be entered in the order they should be displayed.

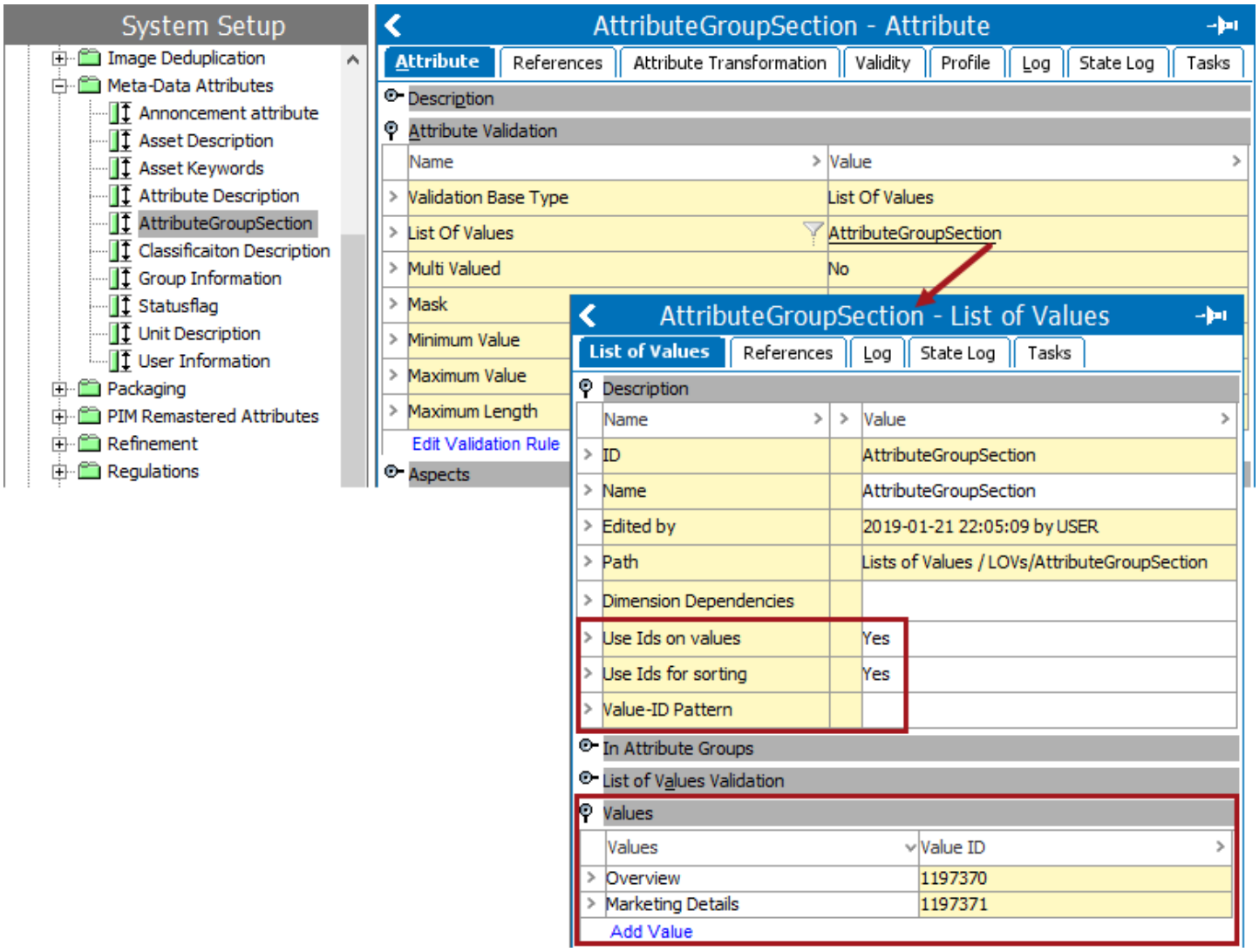
   - In the **List of Values Validation** flipper, the Validation Base type is set to Text, Integer, Number, or Numeric Text.
   - In the **Values** flipper, the Values column displays text for the desired section labels.

   Important: Enter the text for LOV Values in the same order they are required to display on the screen. The smallest Value ID column value displays as the first section, with the others following in ascending order. For information on reordering sections, refer to the **Change the order of the sections on the screen** steps below.

2. Create an attribute to use the LOV with the following parameter settings.
   - The **ID** parameter must be set to 'AttributeGroupSection'.
   - The **Name** parameter can be set as desired.
   - The **Type** parameter is set to Description.
   - The **Validation Base Type** parameter is set to List of Values.
   - The **List of Values** parameter is set to the LOV created above.

- On the Validity tab, open the **Valid for Product Types** flipper, and confirm the object type of the products being viewed is checked.

The setup required for the LOV and the attribute that uses the LOV is shown in the following image.

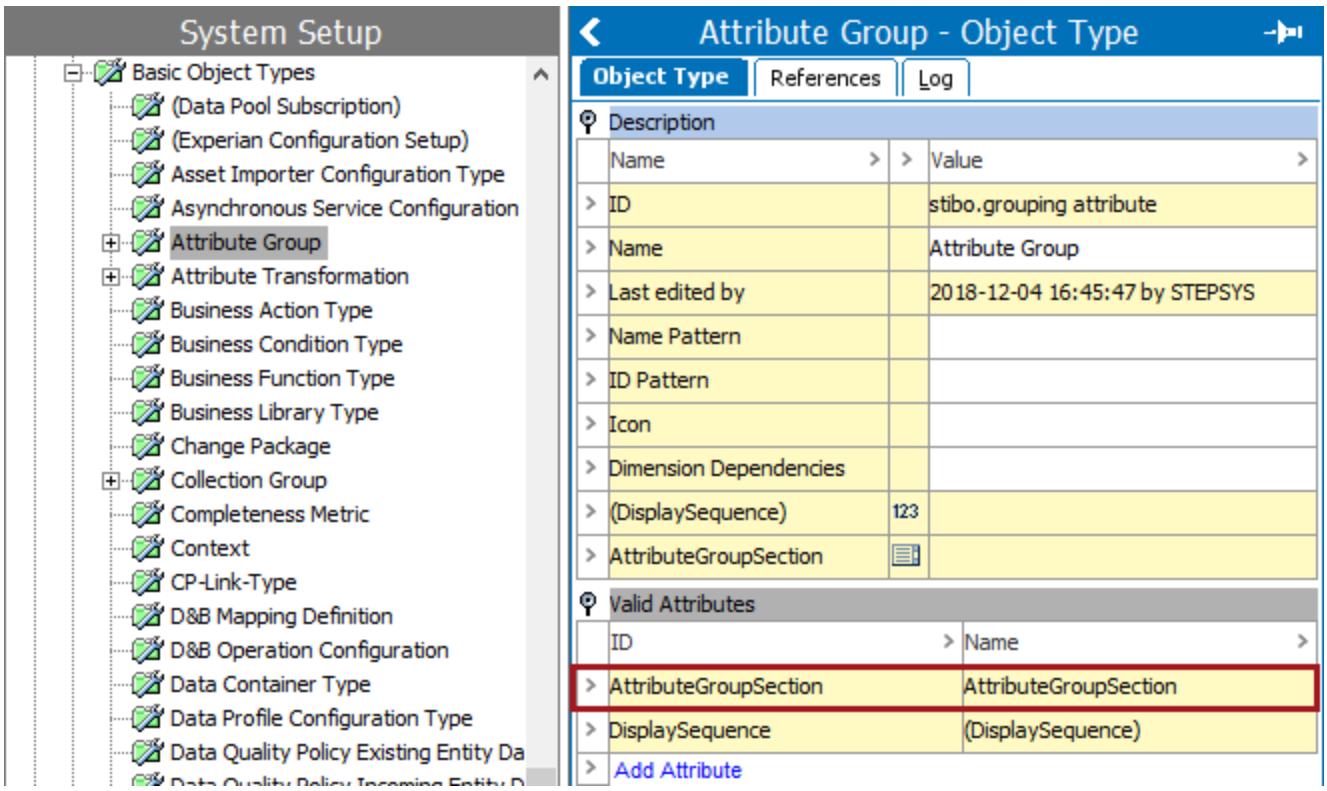


For details on creating an LOV, refer to the **Creating an LOV** topic in the **System Setup** documentation.

For details on adding LOV values, refer to the **Adding Values to an LOV** topic in the **System Setup** documentation.

For details on creating a description attribute, refer to the **Creating Attributes** topic in the **System Setup** documentation.

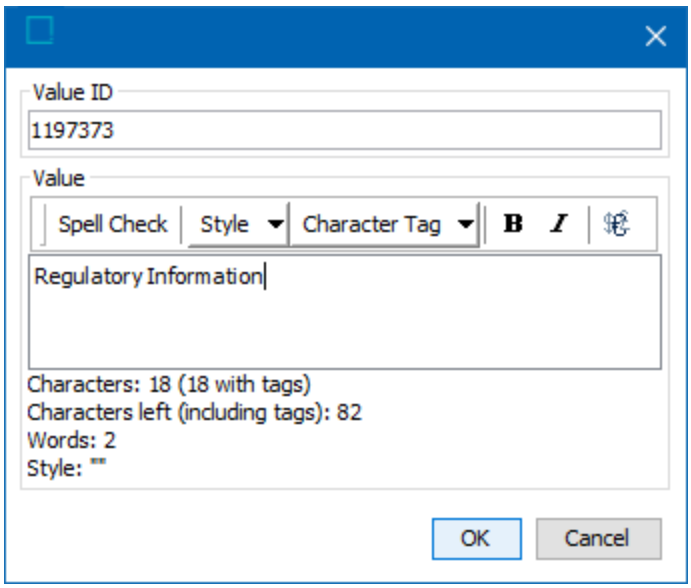
3. Update the Attribute Group object type to display the new attribute, as shown below and defined in the **Attribute Metadata on Attributes** topic in the **System Setup** documentation.



Add a new section to the screen

Creating a new section is the first step in having it display on the Product Editor screen in Web UI. For the section to display, an attribute group must be configured and assigned to the section, as described below.

1. In workbench, on the System Setup tab, open the LOV created to hold attribute group sections, as described above.
2. In the Values flipper, click the **Add Value** link to display the Value ID editor shown below.



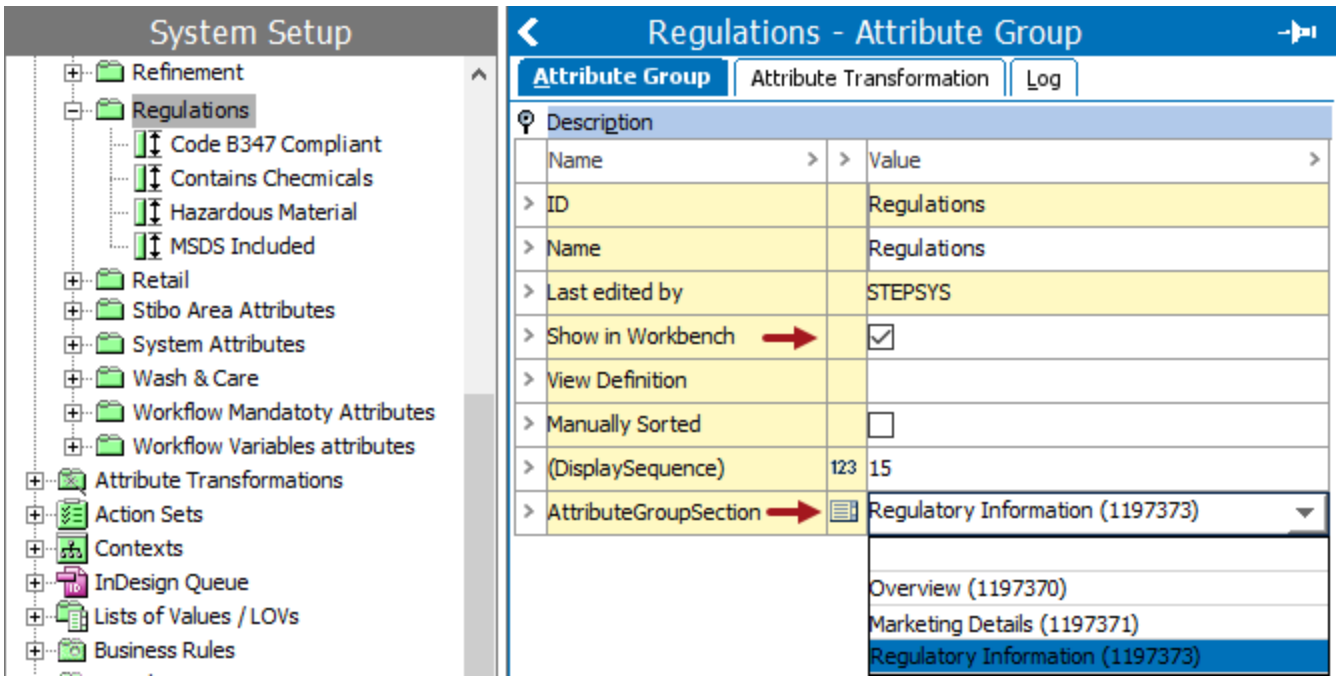
3. Add the new section label text in the Value text box and click the **OK** button. The new value is displayed in the LOV Values flipper.

   Note: A section will not display on the Product Details screen until at least one attribute group is assigned to the section as a card.

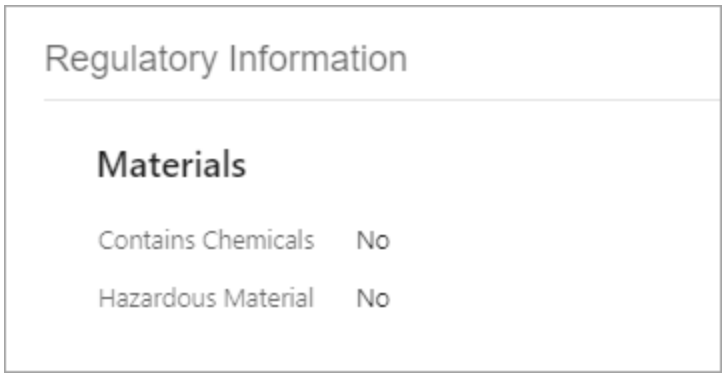
4. Select the attribute group to display in the new section, and set the following parameters:

   - Check the **Show in Workbench** parameter checkbox.
   - On the user-defined 'AttributeGroupSection' parameter, select the required label from the dropdown.

   In the following example, the Regulations attribute group has been assigned to the 'Regulatory Information' section using the 'AttributeGroupSection' metadata attribute.



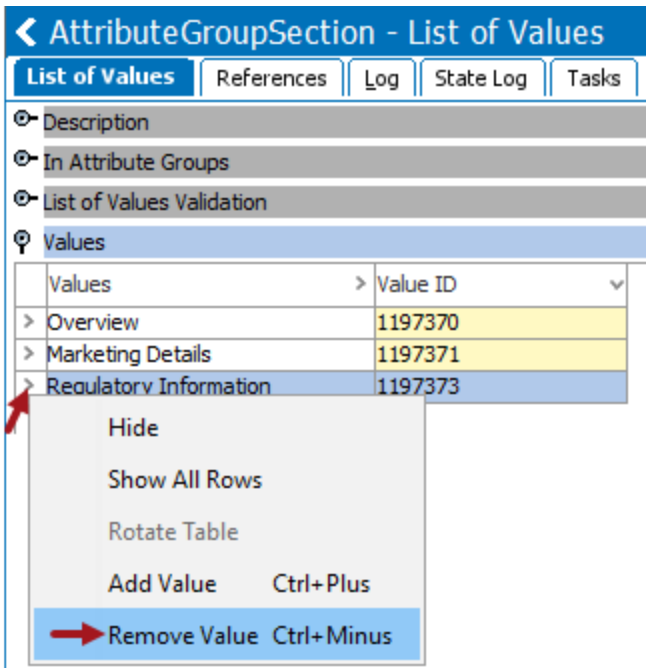
Attributes with values are now displayed in the attribute group card in the new 'Regulatory Information' section on the Product Details screen in Web UI.



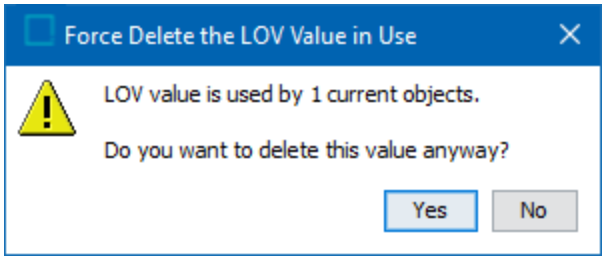
Remove a section from the screen

Removing a section from the LOV that stores the section text prevents users from assigning any information to the section, and also removes is from the Web UI.

1. In workbench, on the System Setup tab, open the attribute group section LOV.
2. On the Values flipper, right-click the first column of the value row that will be removed. Click the **Remove Value** option.



3. If the value is in use, select an option on the 'Force Delete the LOV Value in Use' dialog:



- **Yes** removes the value and sets the attribute groups that used that value to blank.
- **No** leaves the value unchanged.

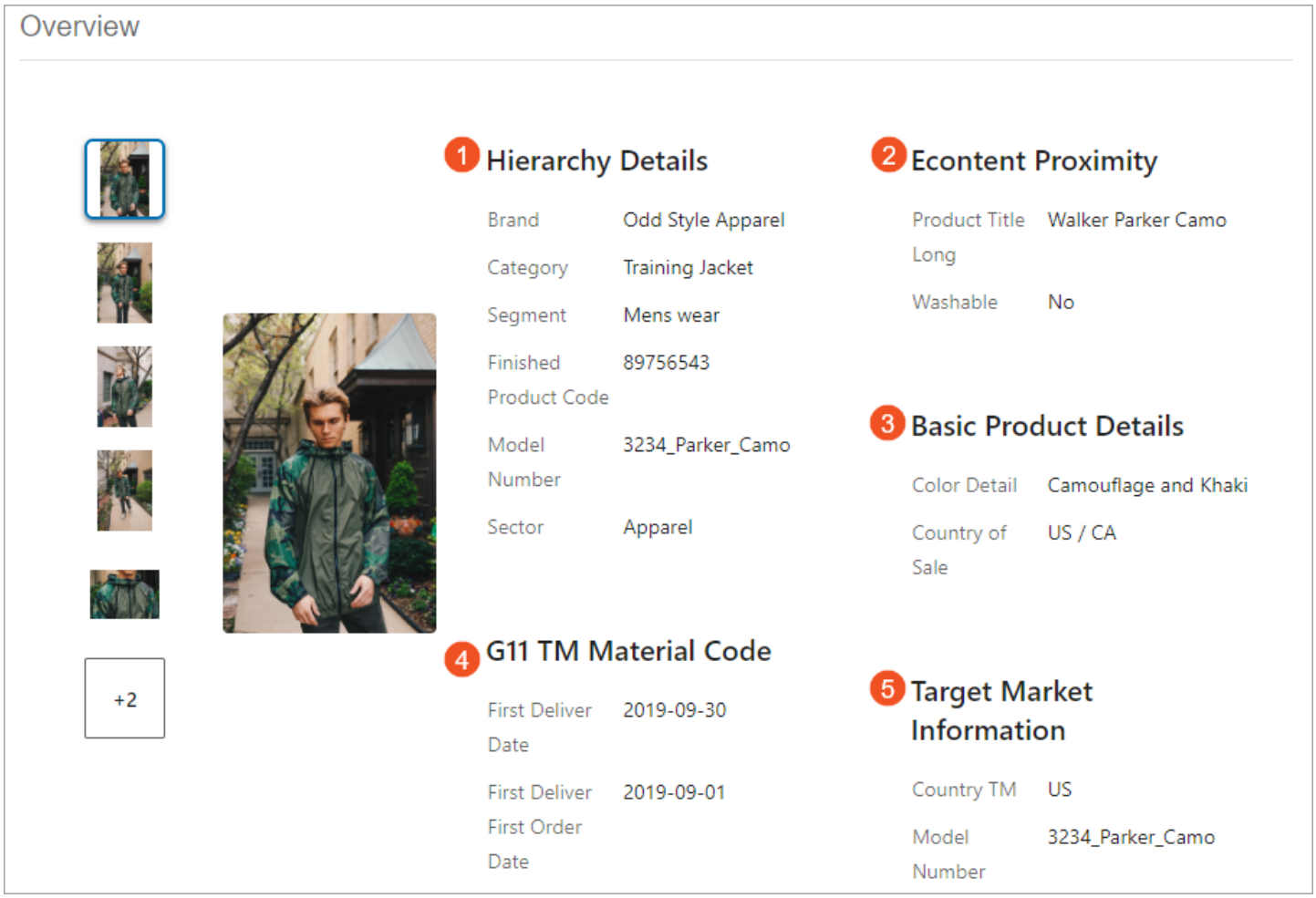
Change the order of the sections on the screen

The order in which the sections are displayed on the Product Editor screen is determined by the value in the Value ID column on the LOV in the Values flipper. The section text with the smallest Value ID is displayed first.

1. In workbench, on the System Setup tab, open the attribute group section LOV.
2. Determine the desired order of the sections.
3. Choose a method to reorder the Value IDs:
   - If no sections have been assigned to attribute groups, first delete the values, and then add them again in the desired order.
   - If sections have been assigned to attribute groups, the process is more involved. First create a set of duplicate values in the desired order, and then merge each of the duplicates. For more information, refer to the **Merge Values in LOV** option as defined in the **Merging Values in an LOV** topic in the **System Setup** documentation.

Modifying Cards on the Product Editor Screen

As described in the **Product Editor Screen** topic, cards allow the user to view selected attribute groups, attribute names, and their values. In the following image, the cards are numbered.



The data displayed on a card is controlled from workbench, using parameters in System Setup. The available modifications, defined below, include:

- Add an attribute group as a card
- Remove an attribute group card
- Change the order of cards
- Add an attribute to a card
- Remove an attribute from a card
- Change the order of attributes on a card
- View all referenced product images

For information about modifying cards and their contents, refer to the **Modifying Sections on the Product Editor Screen** topic.

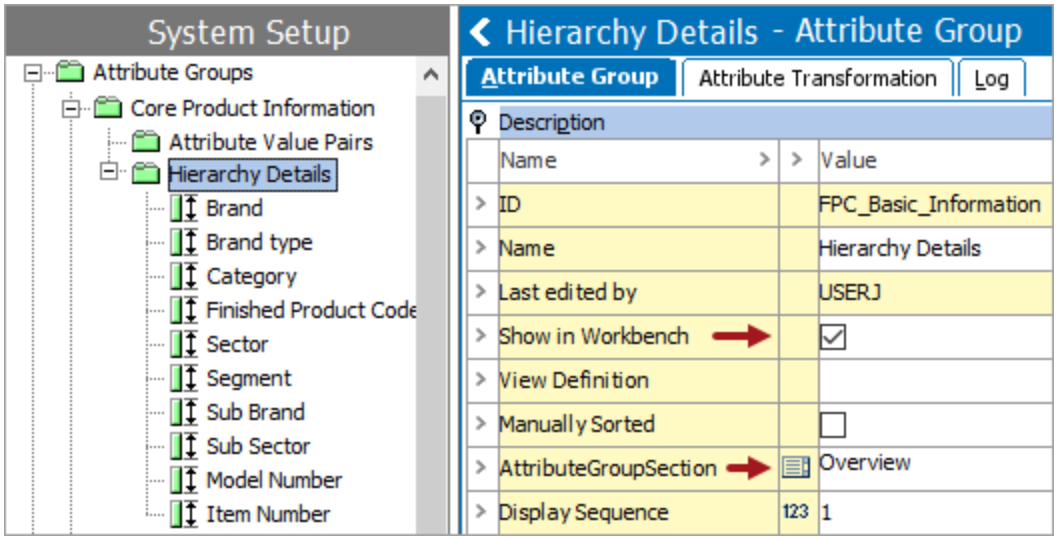
Add an Attribute Group as a Card

An attribute group can be added as a card, but the card only displays when a values exists for at least one attribute in the group. Only attributes with values are displayed in the view mode. All valid attributes are displayed in edit mode.

1. In workbench, on the System Setup tab, open the attribute group editor for the attributes that should be displayed.
2. Check the **Show in Workbench** parameter to display the attribute group as a flipper on the product editor in workbench and as a card in the Product Editor screen in Web UI.
3. On the user-defined 'AttributeGroupSection' parameter, select the desired section from the dropdown. The available options are defined by the LOV described in the **Modifying Sections on the Product Editor Screen** topic.

> **Note:** These steps allow the attribute to immediately show in the product editor, but the card is only displayed in the Web UI when at least one value exists for one attribute in the group.

In the image above, the 'Hierarchy Details' group is configured for the Overview section. The 'Hierarchy Details' group is displayed as a card.

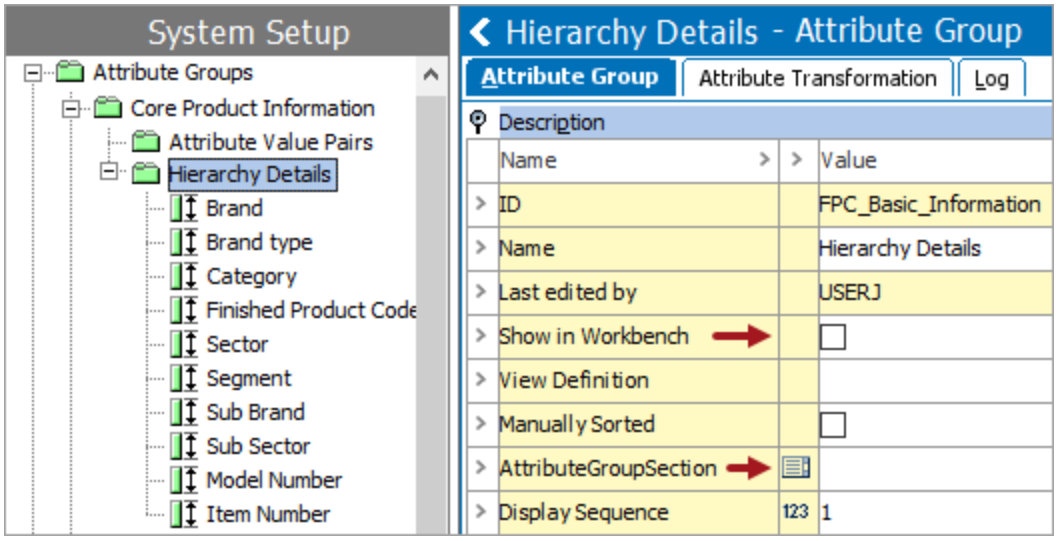


Remove an Attribute Group Card

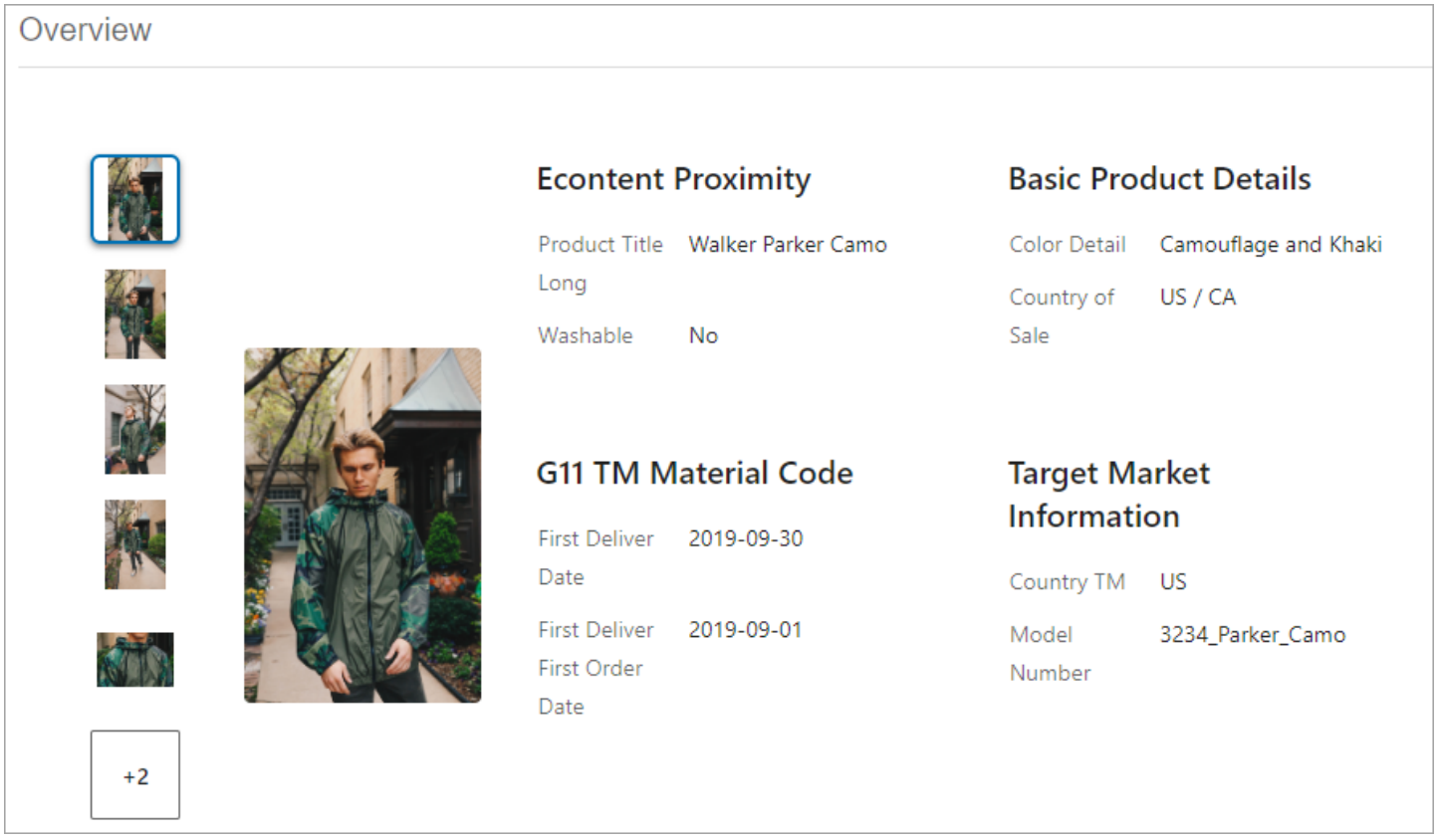
Removing an attribute group card allows you to no longer display information in the Product Editor screen when it is no longer required.

1. In workbench, on the System Setup tab, open the attribute group editor for the attributes that should be removed.
2. Remove the checkmark from the **Show in Workbench** parameter. This removes the card from the Product Editor screen in Web UI, and also removes the flipper for the attribute group on the product in the Tree in workbench.

In this example, the 'Hierarchy Details' group is removed from the 'Overview' section.



The Product Editor screen 'Overview' section no longer shows the 'Hierarchy Details' attribute group as a card.

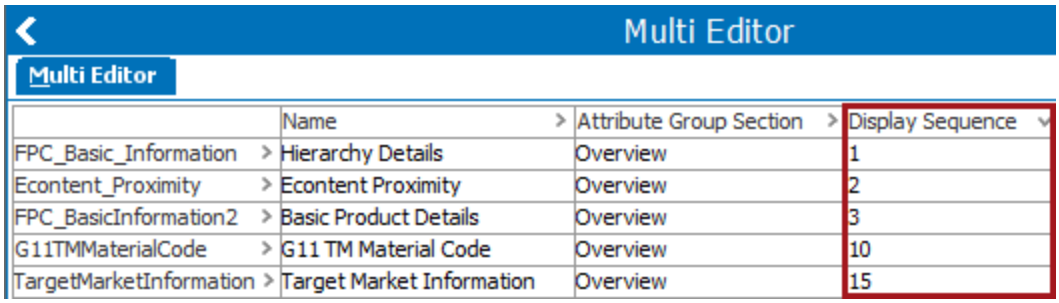


Change the Order of Cards

The display order of cards can be controlled, allowing the most important to be displayed prominently.

1. In workbench, on the System Setup tab, multi-select the attribute groups that should be reordered. This displays the Multi Editor with the metadata attribute values for selected groups.

   Attribute groups can also be modified one at a time, by editing each group individually.



	Name	Attribute Group Section	Display Sequence
FPC_Basic_Information	Hierarchy Details	Overview	1
Econtent_Proximity	Econtent Proximity	Overview	2
FPC_BasicInformation2	Basic Product Details	Overview	3
G11TMMaterialCode	G11 TM Material Code	Overview	10
TargetMarketInformation	Target Market Information	Overview	15

   On the Multi Editor, the columns and rows displayed can be hidden as needed to make editing easier. For information, refer to the **Editing Objects in the Tree Tab** topic in the **Getting Started** documentation.

2. Verify that all attribute groups selected have the same user-defined 'AttributeGroupSection' parameter value.
3. Modify the value for the user-defined display sequence parameter to indicate the order that cards should display. Groups are displayed starting with the top edge of the card with the smallest display sequence value to the largest. Groups that do not include a display sequence value are positioned in alphanumeric order, left to right, after the groups that do have a display sequence value.

   For more information, refer to the **Display Sequence Attribute** topic in the **System Setup** documentation.

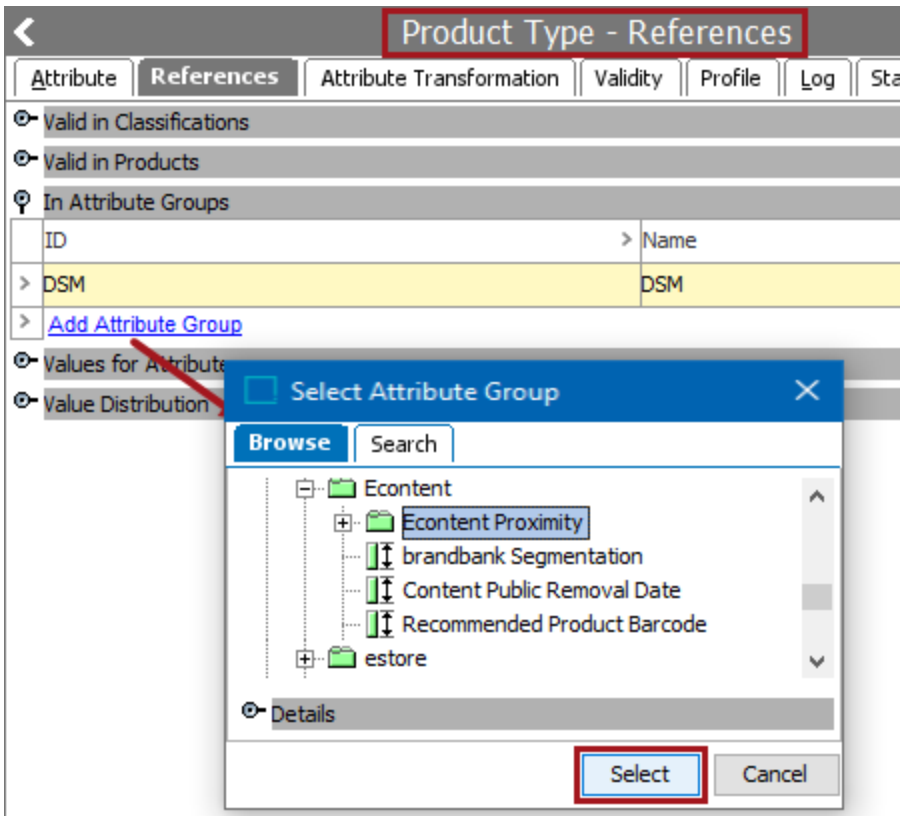
   In this example, the attribute groups are all assigned to the 'Overview' section. The attribute groups 'Hierarchy Details,' 'Econtent Proximity,' 'Basic Product Details,' 'G11 TM Material Code,' and 'Target Market Information' each have an ascending 'Display Sequence' value. Notice that 'Basic Product Details' is third because the top edge of that card is higher than the top edge of the 'G11 TM Material Code' card.

Add an Attribute to a Card

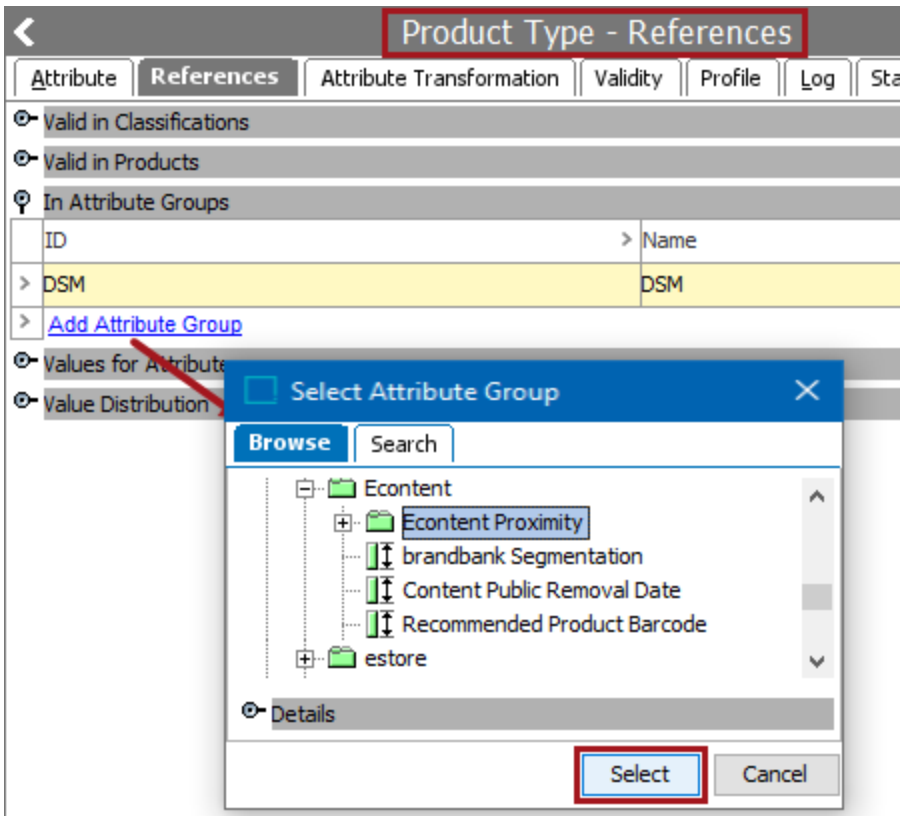
Adding an attribute to a card allows you to view additional information about the product. A value must exist for the attribute before it will be displayed.

1. In workbench, on the System Setup tab, open the editor for the desired attribute.
2. On the References tab, open the **In Attribute Groups** flipper.
3. Click the **Add Attribute Group** link and use the Browse or Search tabs to find the attribute group currently displayed as a card on the Product Editor screen. Select the attribute group and click the **Select** button.

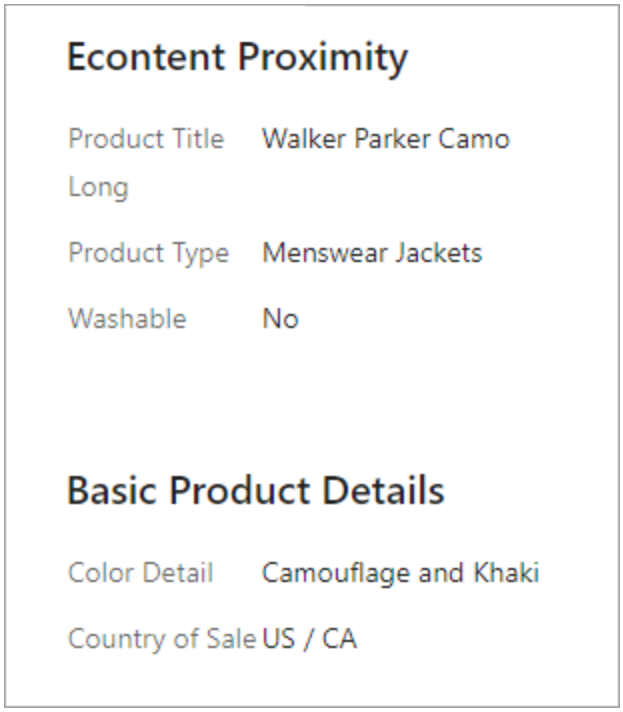
   In this example, the 'Features and Benefits 3' attribute is added to the 'Benefits' attribute group, which is already being displayed as a card in the 'Basic Information' section.



In this example, the 'Product Type' attribute is added to the 'Econtent Proximity' attribute group, which is already being displayed as a card in the 'Overview' section.



The Product Editor screen 'Econtent Proximity' card now includes the 'Product Type' attribute.

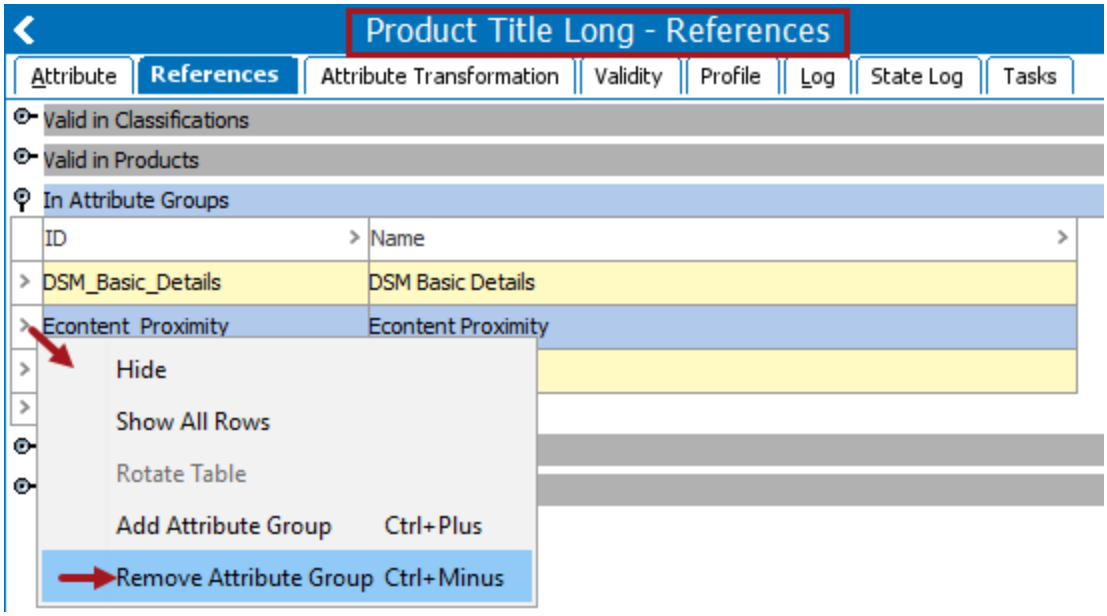


Remove an Attribute from a Card

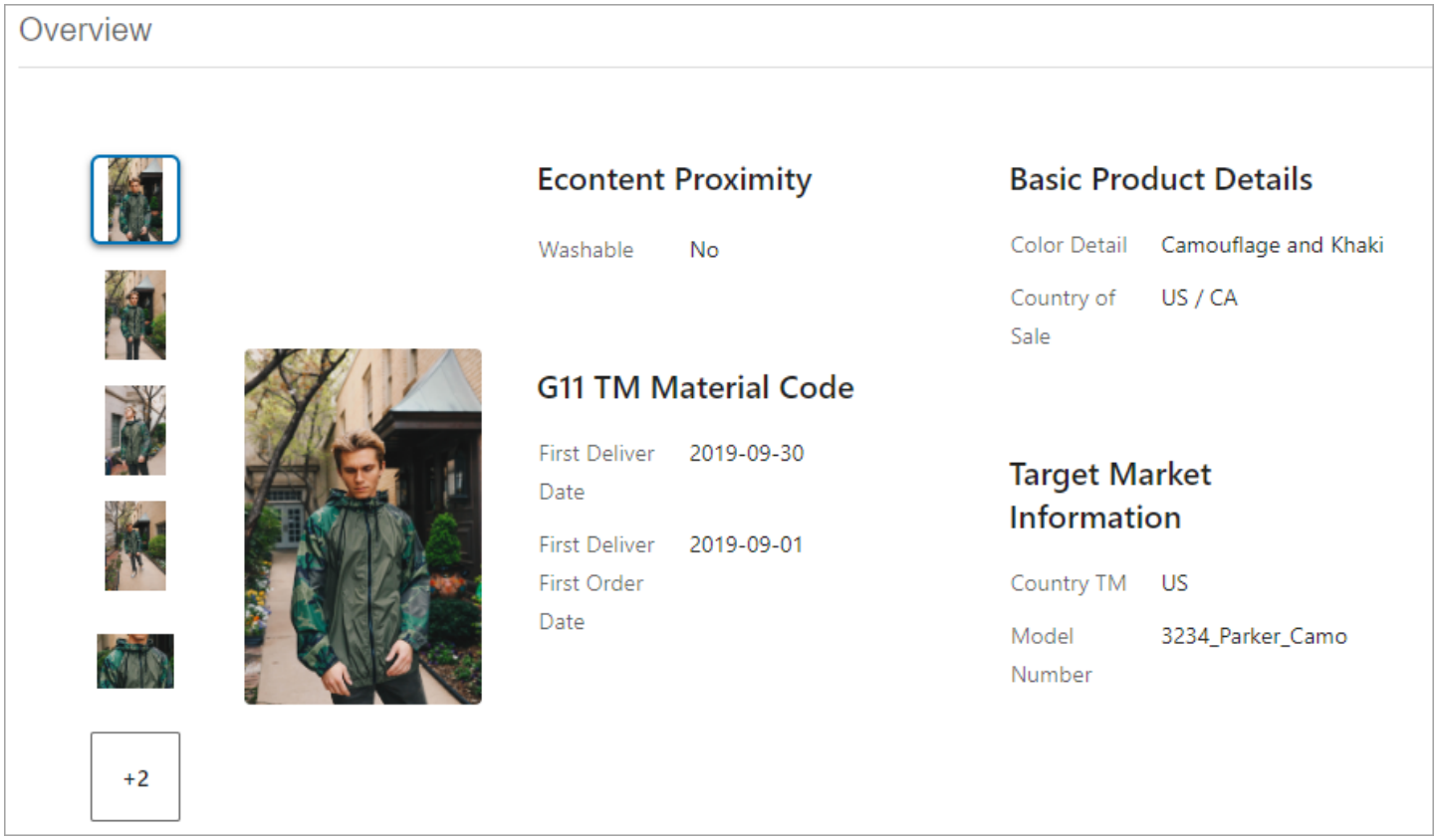
When an attribute is no longer required on the Product Editor screen, it can be removed from view.

1. In workbench, on the System Setup tab, open the editor for the desired attribute.
2. On the References tab, open the **In Attribute Groups** flipper.
3. Right-click the first column of the row of the attribute group, and click the 'Remove Attribute Group' option.

   In this example, the 'Product Title Long' attribute is removed from the 'Econtent Proximity' attribute group, which is being displayed as a card in the 'Overview' section.



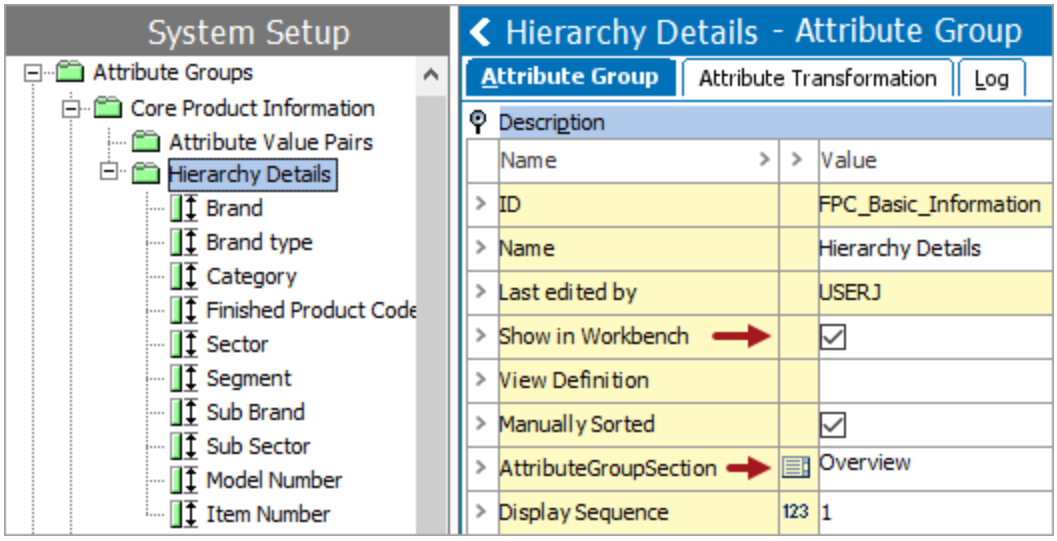
   The Product Editor screen 'Econtent Proximity' card now excludes the 'Product Title Long' attribute.



Change the Order of Attributes on a Card

The display order of attributes can be controlled, allowing the most important to be displayed prominently.

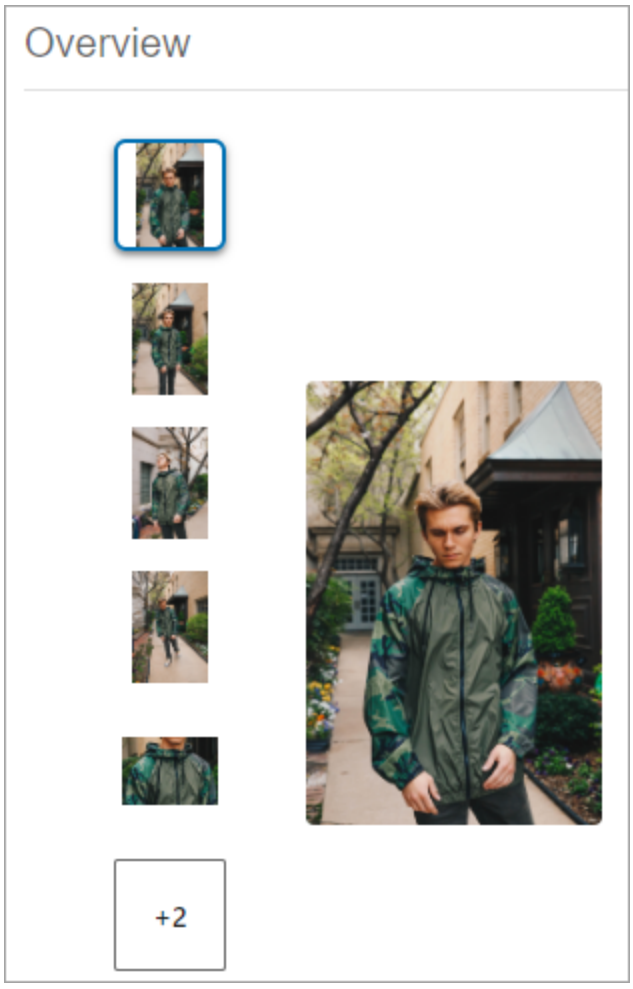
1. In workbench, on the System Setup tab, open the attribute group editor.



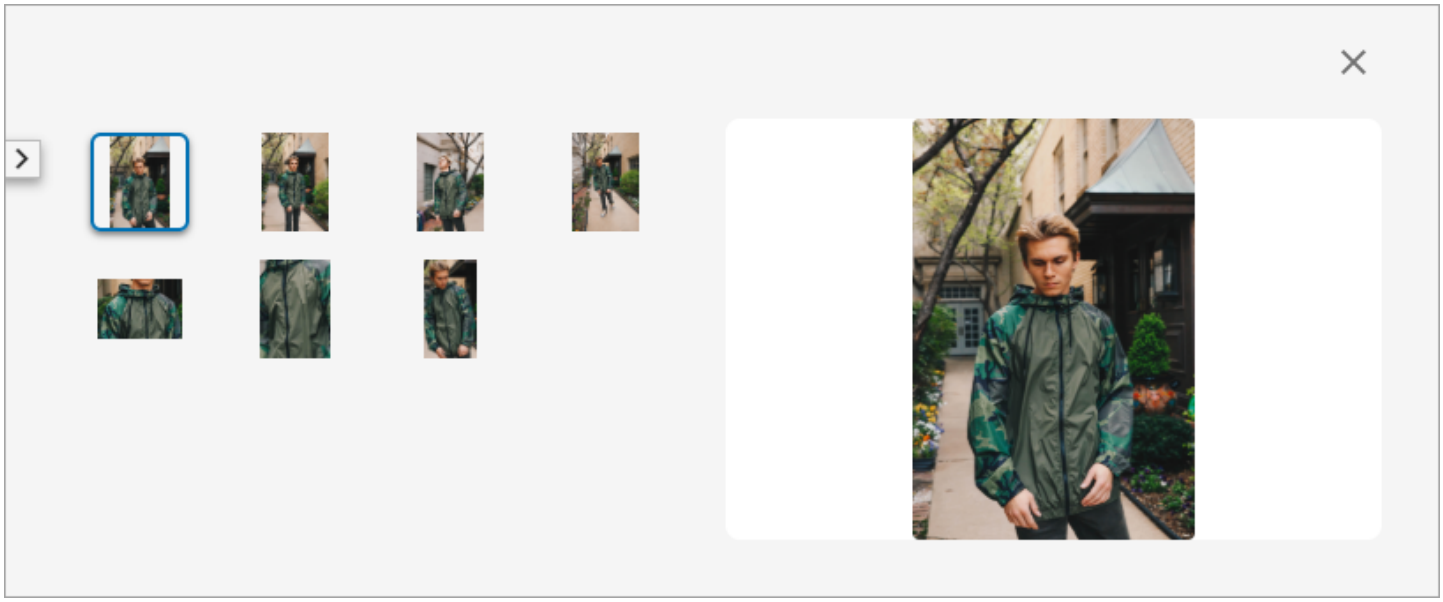
2. Check the **Manually Sorted** parameter to allow the order of the attributes within the group to be changed.
3. Open the attribute group to display the attributes, select an attribute to move, and drag it to the new position within the group. For more information, refer to the **Manually Sorting in Attribute Groups** section of the **Attribute Groups** topic in the **System Setup** documentation.
4. Refresh the Product Editor screen in Web UI to view the updated order. This same order is also used on the product editor in the Tree in workbench.

View All Referenced Product Images

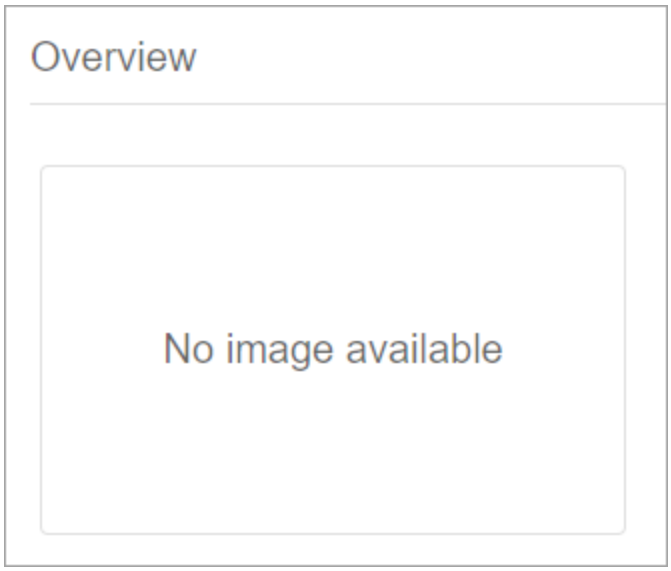
On the first section, when a primary image is referenced by the product, the first card displays the available images. A carousel includes image thumbnails and an indicator of how many additional images are referenced. A blue box indicates the image with focus, which is displayed larger and to the right. Hover over an image to view the asset name. Click the numbered box to show all referenced images on a new screen.



In the example image above, clicking the '+2' thumbnail displays a new page shown below with all images available for review. Click an image to display it larger and to the right. Click the X button to return to the Product Editor screen.



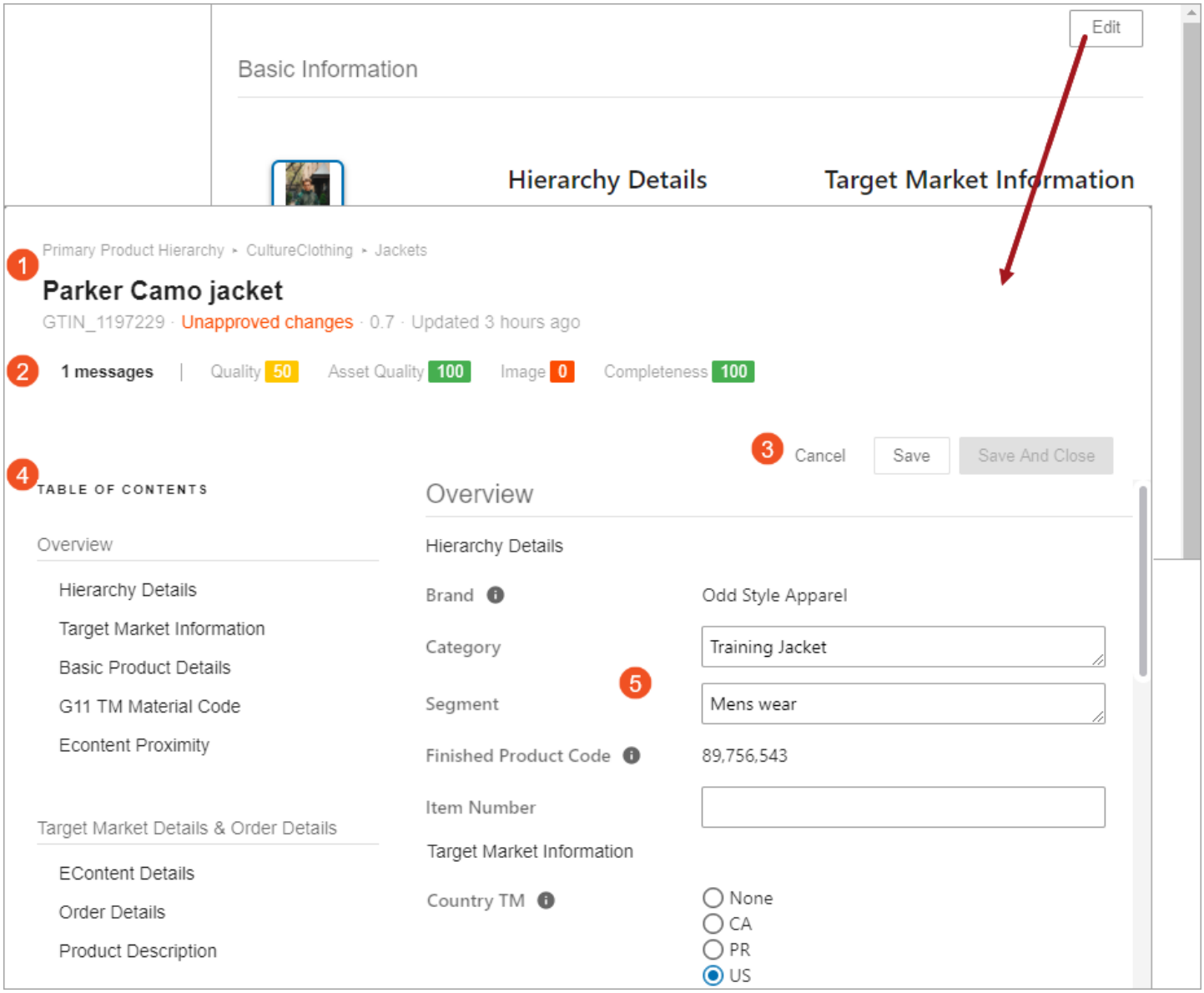
When no primary product image is referenced, the 'No image available' placeholder is displayed.



For more details on images, refer to the **Product images** section of the **Product Editor Screen** topic.

Editing Data on the Product Editor Screen

While the Product Editor screen is optimized for viewing data, for users who have edit privileges, the Edit version of the screen is optimized for adding and modifying attribute values. Clicking the Edit button (which is available based on privileges) on the Product Editor screen displays all valid attributes, includes an editable format for attributes that can be modified, and also displays read-only attributes and values.



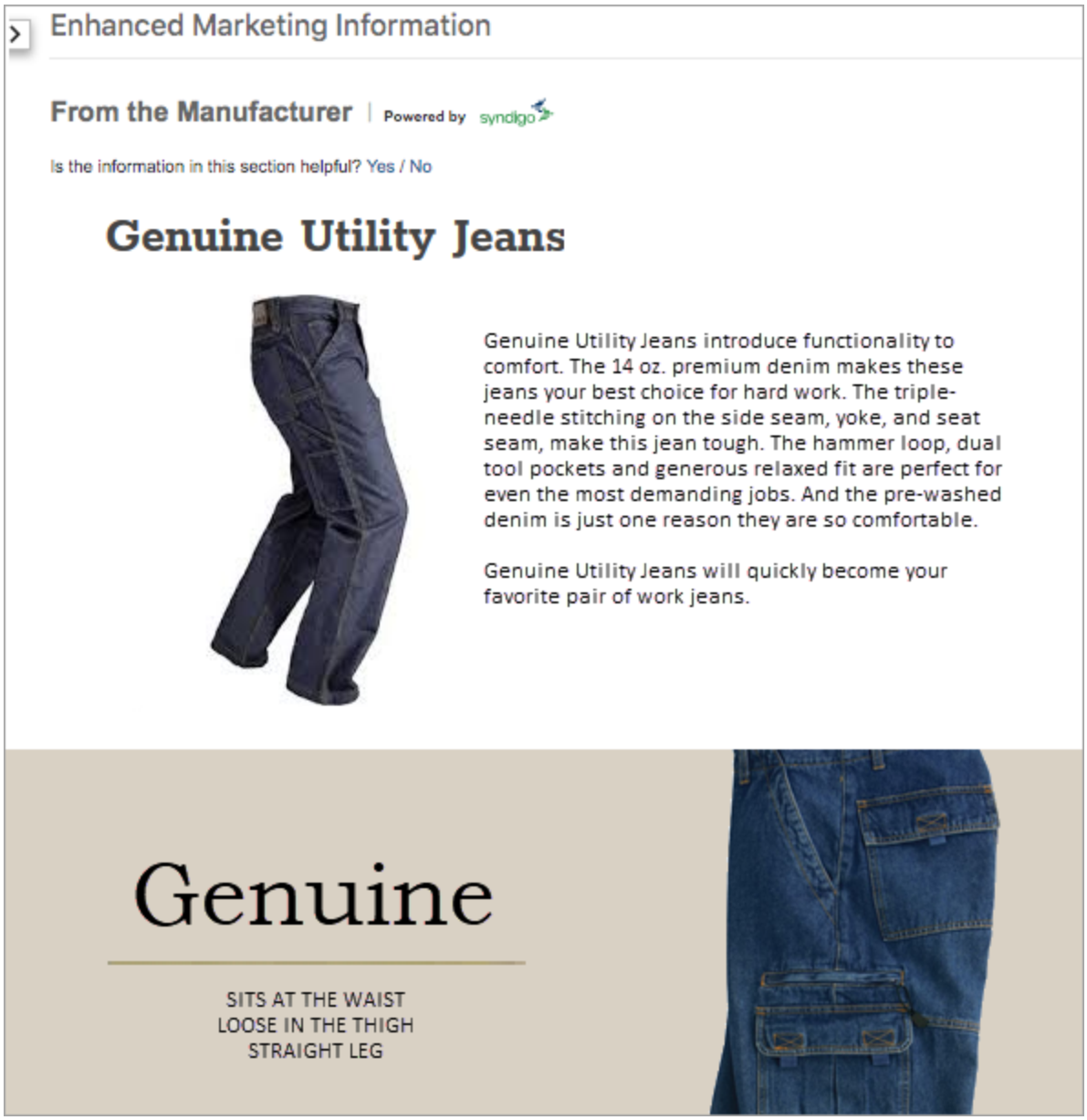
The edit view of the screen includes the numbered items shown above:

- The summary information (item 1) and sufficiency panel (item 2) as defined in the **Product Editor Screen** topic.
- Buttons (item 3) to **Cancel** the edit mode, **Save** changes made while remaining in edit mode, and **Save And Close** to save changes and return back to the view mode displaying all enriched attributes.

- A table of contents (item 4) displays links for all valid attribute groups, categorized by their section.
- Valid attributes (item 5) are displayed by section and attribute group. Editable attributes are modified via predefined controls (text box, dropdown for LOVs, radio buttons for single-valued attributes, or checkboxes for multi-valued attributes).

Adding Rich Marketing Content from Syndigo

Enhanced marketing content is available to retailers from Syndigo, a Content Delivery Network (CDN). The information can include text, images, and videos, and is primarily used in downstream systems. Within Web UI, the information can be previewed on the Product Editor screen, as shown in the image below.



For information on related components for use by data stewards, refer to the **Data Enrichment Components** topic in the **Search Screen** section of the **Web User Interfaces** documentation.

Prerequisites

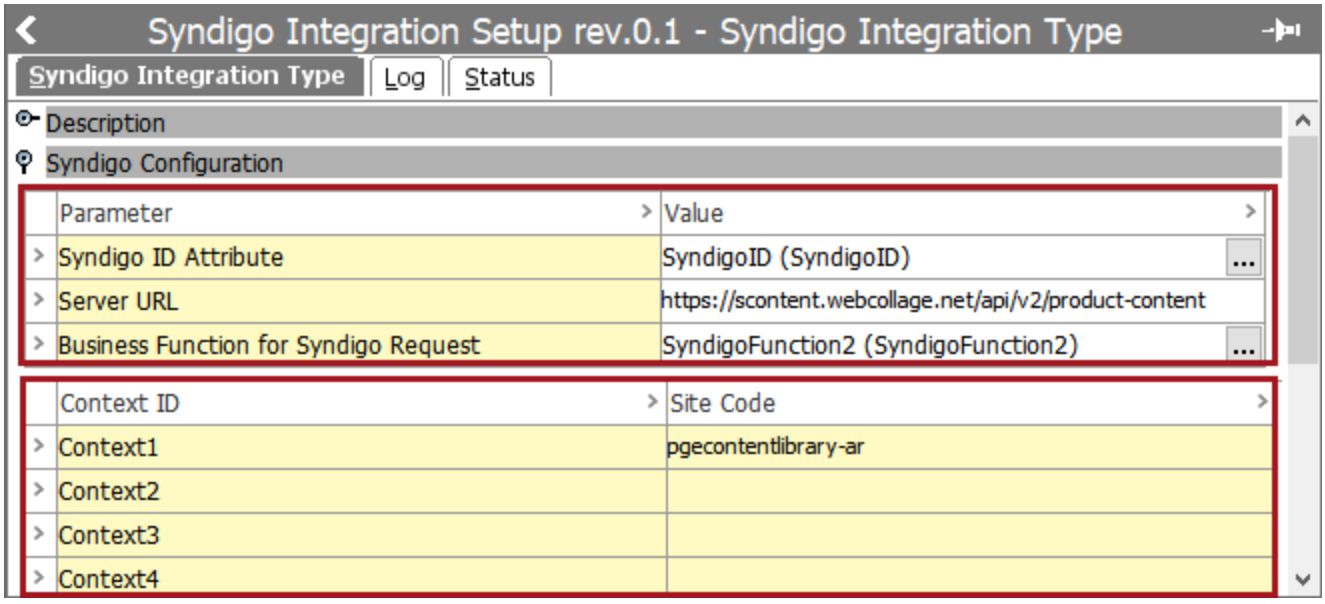
Complete the following prerequisites before starting the Syndigo integration configuration:

1. An account with Syndigo is required before the following steps can have the desired result in Web UI. Search the web for information on becoming a Syndigo customer.
2. If your Syndigo account is not using the STEP ID for products, create an attribute in STEP. For example, 'SyndigoID'. The value will be used to map products between Syndigo and STEP.
3. Activate the 'syndigo' add-on component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.
4. Activate the 'ui-product-editor' add-on component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.
5. Complete the one-time setup defined in the **Initial Setup for Syndigo Integration** topic.
6. Complete the setup defined in the **Setting up the Product Editor Screen** topic.

Configuration

After completing the Prerequisites above, identifying your Syndigo account is included in the workbench configuration steps below. Once configured, available Syndigo information is displayed in the Web UI on the Product Editor screen.

1. In workbench System Setup, select the Syndigo integrations node and create a new configuration. The Syndigo Integration Type editor is displayed.
2. Open the Syndigo Configuration flipper to display the parameters.



3. In the **Parameter** / **Value** section:

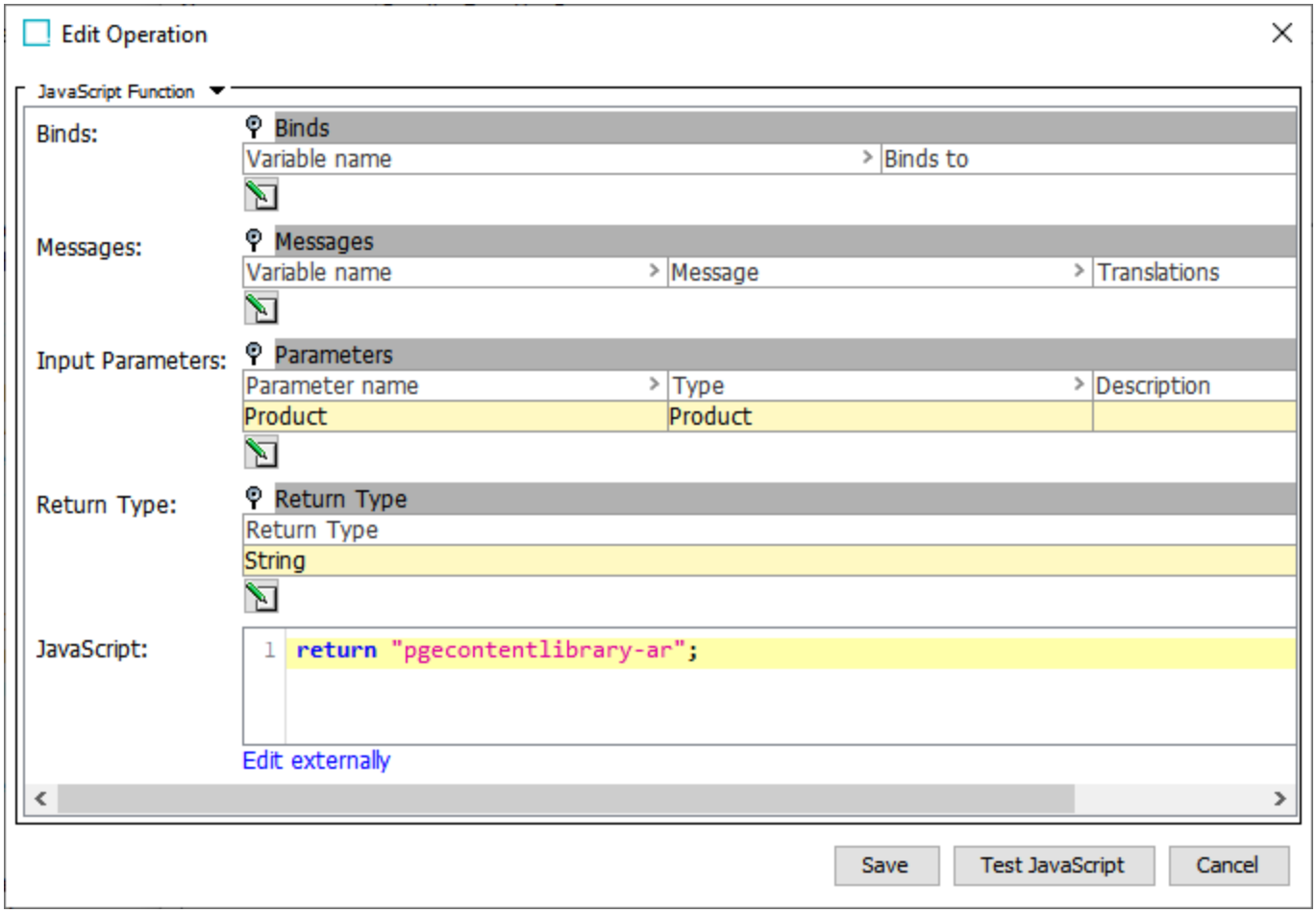
- For the **Syndigo ID Attribute** parameter, click the ellipsis button (...) to display the 'Select attribute representing Syndigo ID' dialog. Click the attribute that holds the Syndigo ID from the dialog and click the Select button.

Note: Leaving this parameter blank will result in using the STEP ID for identifying products in Syndigo.

- For the **Server URL** parameter, no change is required. The default is 'https://scontent.webcollage.net/api/v2/product-content' and will only change with direction from Syndigo.
- For the **Business Function for Syndigo Request** parameter, it is optional. Configuring a business function enables users without country / language dimensions for country–dependent data to display the available information from Syndigo.

Important: When both a context and the business function are configured, the business function takes precedence.

When configuring a business function for Syndigo, **Product** must be selected for the Input Parameters, and **String** must be selected for the Return Type.



For information on creating business functions, refer to the **Business Functions** section in the **Business Rules** documentation.

4. In the **Context ID** / **Site Code** section, all STEP Context IDs are displayed in the Context ID column and allows context-specific data to be accurately displayed based on the selected context in Web UI. Assign the Syndigo Site Code that corresponds to the STEP Context ID for contexts with marketing content available.

   If necessary, use the **Add New Context** link to create a new context. For more information, refer to the **Contexts** topic in the **System Setup** documentation.

   Important: If the Business Function for Syndigo Request parameter is also configured, the business function takes precedence, and the Context ID/ Site Code section is not editable.

5. If a Syndigo ID attribute is in use via the **Syndigo ID Attribute** parameter, add the Syndigo ID value to a product.

Verify Rich Marketing Content

Once configuration is complete, the following results are possible in Web UI when viewing a context that is mapped for Syndigo content.

On the Product Editor screen below the Enhanced Marketing Information section:

- For a product with a valid Syndigo ID and content for the selected context, the Syndigo data is displayed.
- For a product with an invalid Syndigo ID or no content for the selected context, the text 'No Syndigo Content' is displayed.

Initial Setup for Syndigo Integration

Before you can display enhanced marketing data from Syndigo in Web UI, you must perform the following one-time setup steps. Details for each of these are provided below.

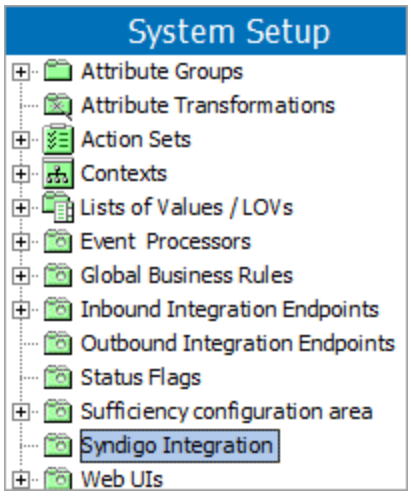
1. Create a setup group type for the Syndigo integration.
2. Link the Syndigo integration object types to setup group types.
3. Create a Syndigo integration setup group.

For information on related components for use by data stewards, refer to the **Data Enrichment Components** topic in the **Search Screen** section of the **Web User Interfaces** documentation.

Prerequisites

Only users with the Maintain Setup Entity privilege can set up Syndigo integrations. For detailed information, refer to the **Setup Actions and Error Descriptions** section in the **System Setup** documentation.

Review your System Setup tab to determine if a Syndigo integration node already exists. The name of the node on your system is not required to match the one in the image below.

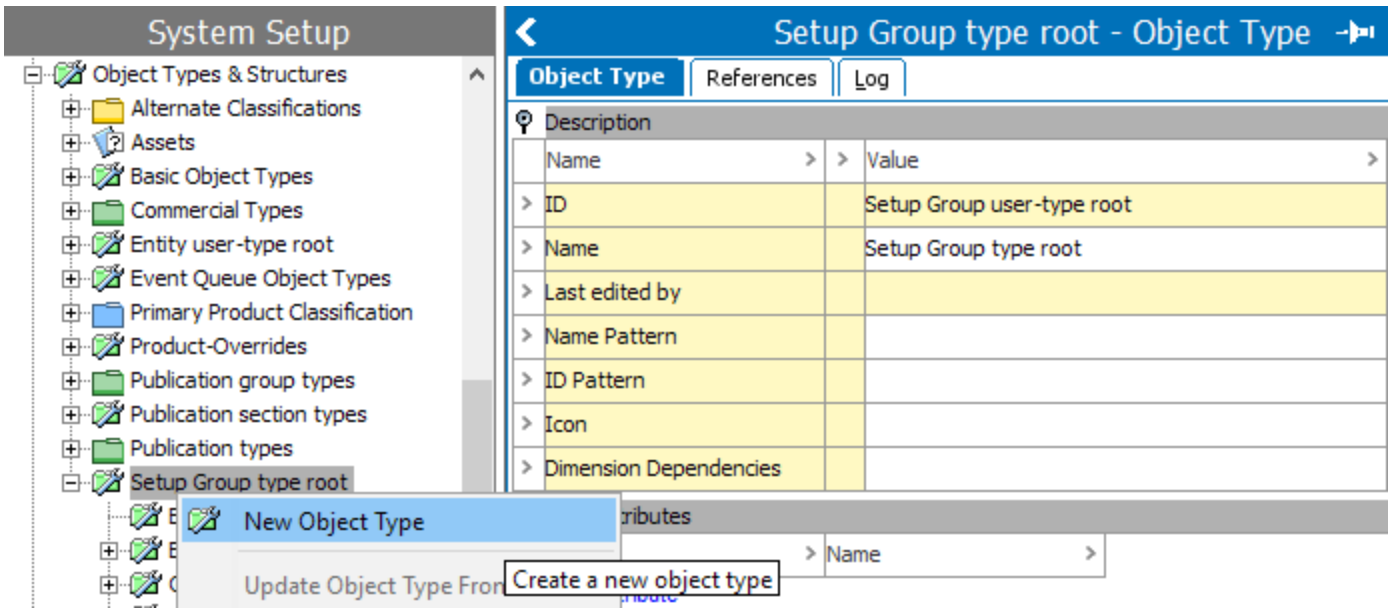


Once the setup has been completed, the steps in this section are only needed if additional levels of organization are desired.

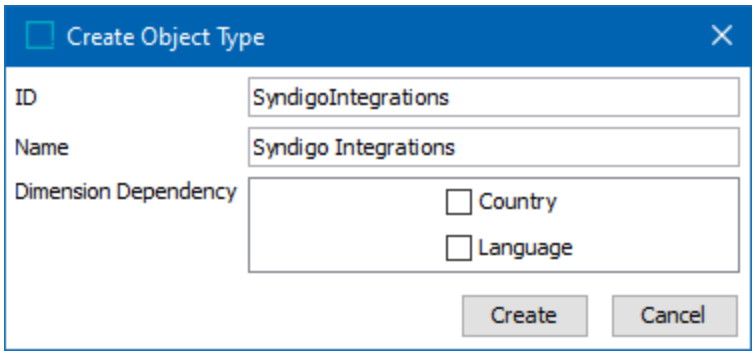
Create Setup Group Type for Syndigo Integrations

A Syndigo integration setup group type defines the structure and allowed locations of a Syndigo integration.

1. Go to System Setup, expand Object Types & Structures, and select **Setup Group type root**.
2. Right-click **Setup Group type root**, and the New Object Type option will display.

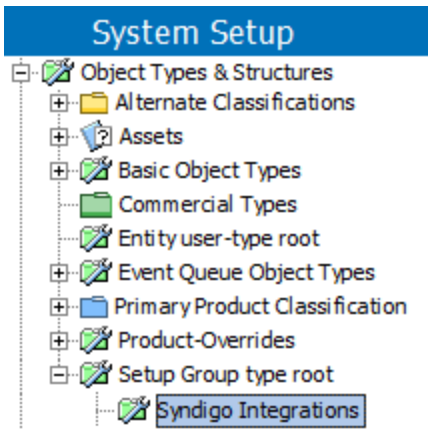


3. Click **New Object Type**, and the Create Object Type dialog will display.



4. Enter an **ID**.
5. Enter a **Name**.
6. Select any required **Dimension Dependency**.
7. Click **Create**.

   The Create Object Type dialog closes and the newly created group type for the Syndigo integrations will display beneath the Setup Group type root.



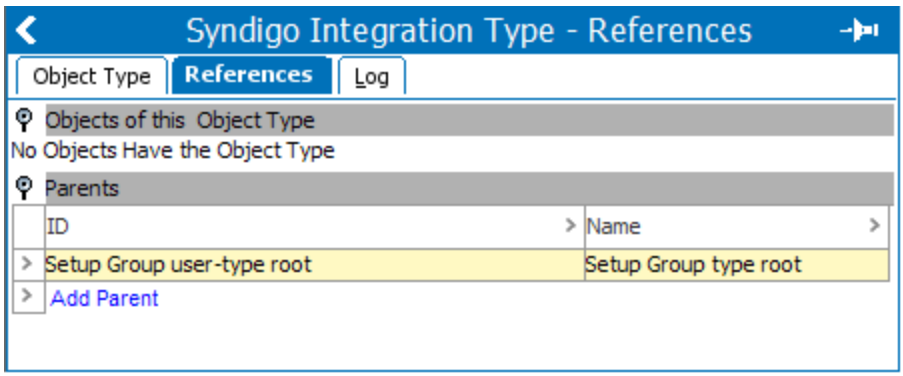
Link Syndigo Integrations Type to Setup Group Types

Linking determines the object types that can be displayed at each level of a hierarchy.

The Basic Object Type 'Syndigo Integration Type' is created by activating the 'syndigo' add-on component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

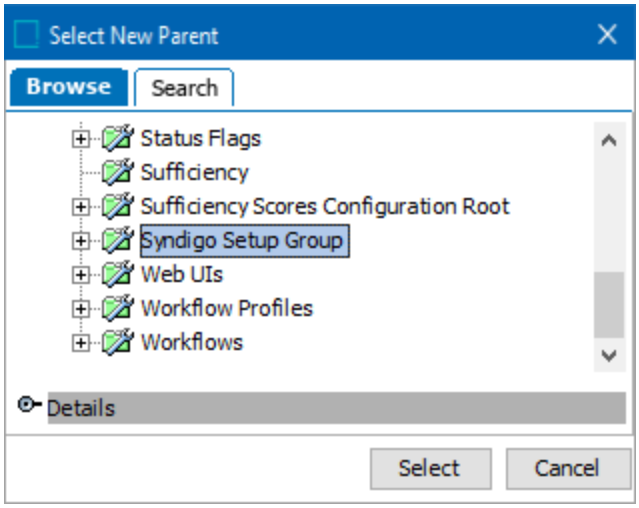
Important: By default, the Setup Group type root is listed as the parent. Optionally add the newly created setup group type as a parent of itself so that additional Syndigo integration group types can be added below the main level.

1. Go to System Setup and expand Object Types & Structures and expand **Basic Object Types**.
2. Select your **Syndigo integrations object type** to display the editor.

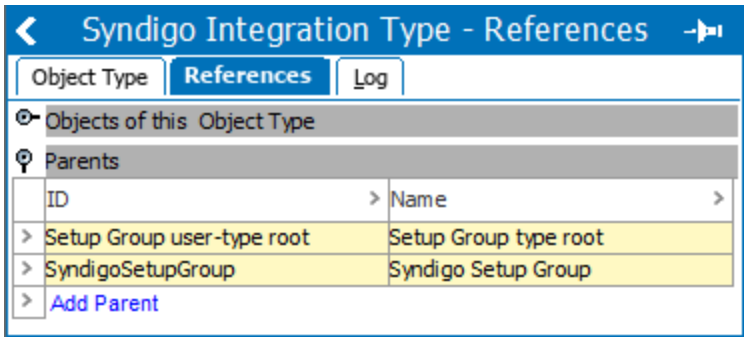


3. Click the **References** tab.
4. Open the **Parents** flipper.
5. Click the **Add Parent** link, and the Select New Parent dialog will display.

6. Browse or search to select **the relevant setup group type**.
7. Click the **Select** button.



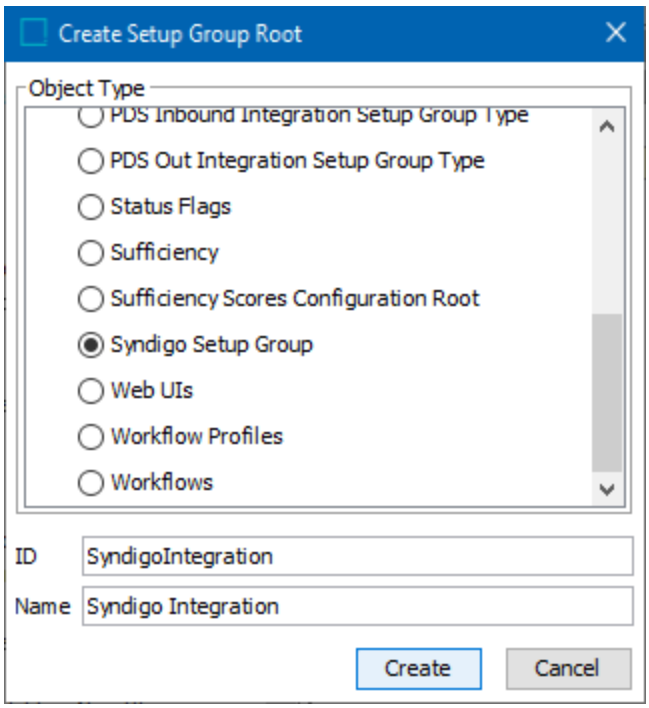
The dialog closes and the newly created setup group type (i.e., SyndigoSetupGroup) is listed as a parent along with the Setup group user-type root.



Create a Syndigo Integration Setup Group Root

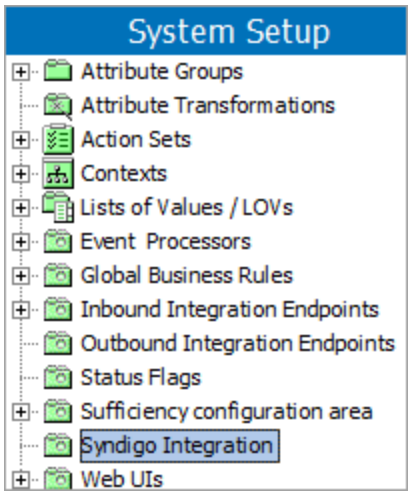
Creating a setup group root allows your Syndigo integration setup group type to appear as a node in the System Setup hierarchy.

1. Go to System Setup and select any object in the hierarchy.
2. On the menu bar, select the **Maintain** menu, point to **Insert** and then click **Setup Group Root** to display the Create Setup Group Root dialog.



3. Select **your Syndigo integration object type**.
4. Enter an **ID**.
5. Enter a **Name**.
6. Click **Create**.

   The setup group is created and appears as a node in the System Setup hierarchy.



Reference Help Text in the Web UI

Help texts can globally configured, per reference type, to provide information to end users about a reference or its metadata, and how the reference should be populated.

The method of adding help text described in this topic is best applied when help text for a given reference is the same wherever that reference type is used. For instance, let us say a series of products must reference an accessory product using the 'Accessory Optional' reference type. By enabling global context help on the reference type itself, any reference component added in the Web UI will display the same help text wherever it is added, giving guidance to the end user about which accessory product to reference.

Using this method, help texts can be added to multi-object editors and grid views (Node Lists), or to individual object editors (Node Editors), as shown below.



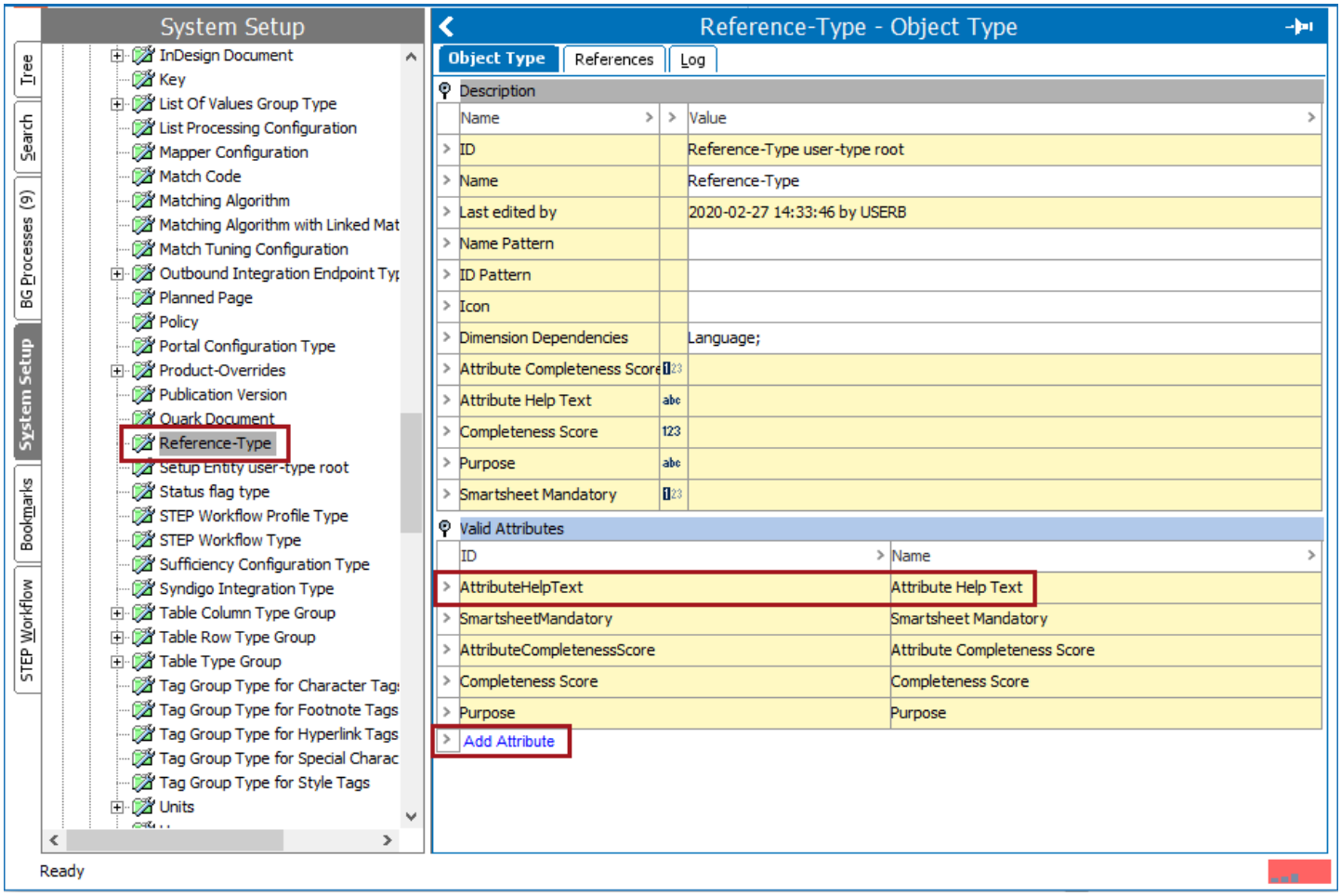
This section describes the steps necessary to provide reference help texts in the Web UI.

Prerequisites

To configure reference help text, it is expected that the user has knowledge of System Setup functions and the Web UI designer.

For configure help text globally, the system must first have a metadata attribute available to house the global help texts. For more information on creating description attributes, also called metadata attributes, refer to **Creating Attributes** in the **System Setup** documentation.

To make a metadata attribute valid for reference types, navigate to the reference object type under System Setup > Object Types & Structures > Basic Object Types. Click on 'Reference-Type,' and under 'Valid Attributes', click 'Add Attribute.' Select the metadata attribute you have created and add it.

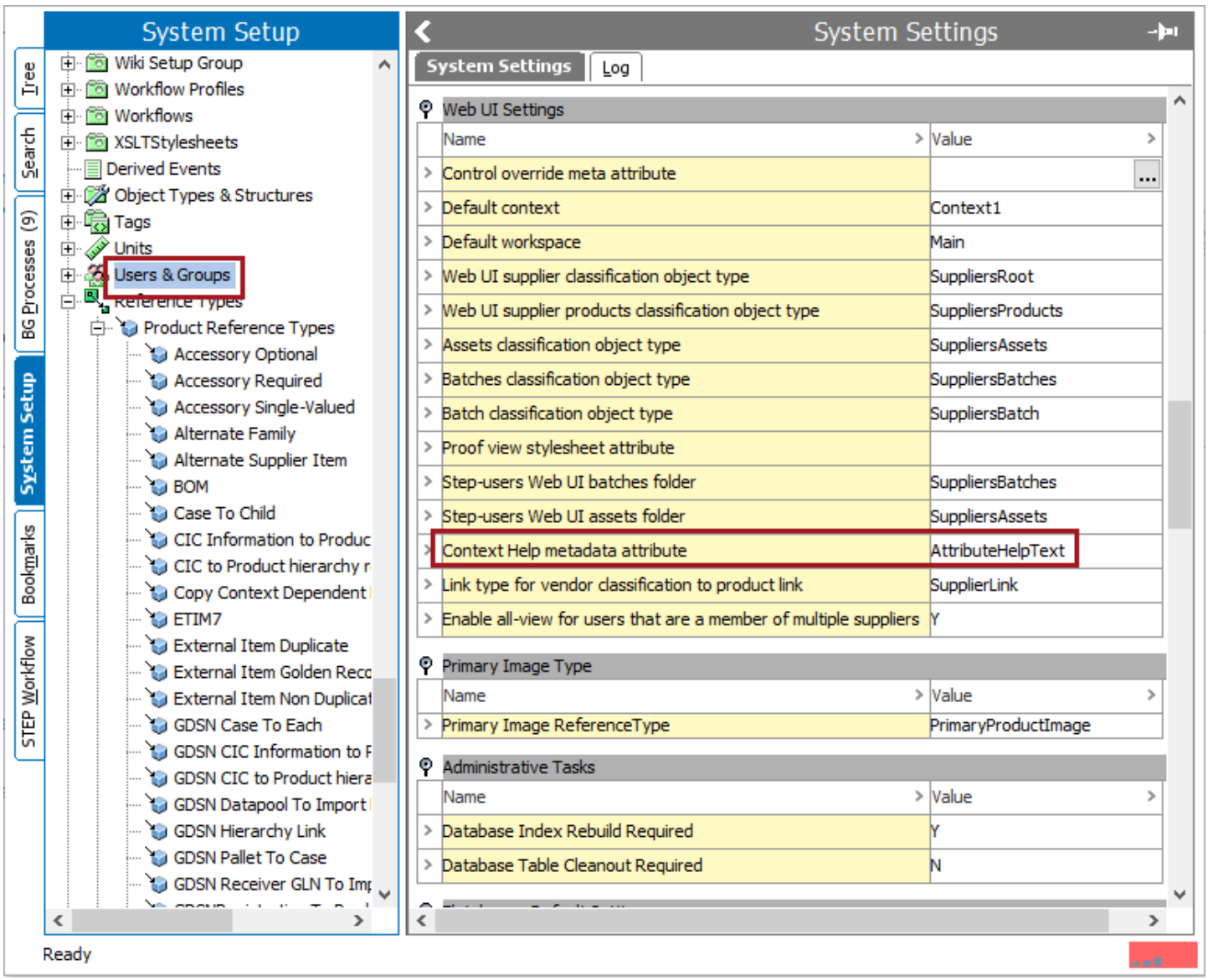


Once completed, follow the below steps to enable reference help text in the Web UI.

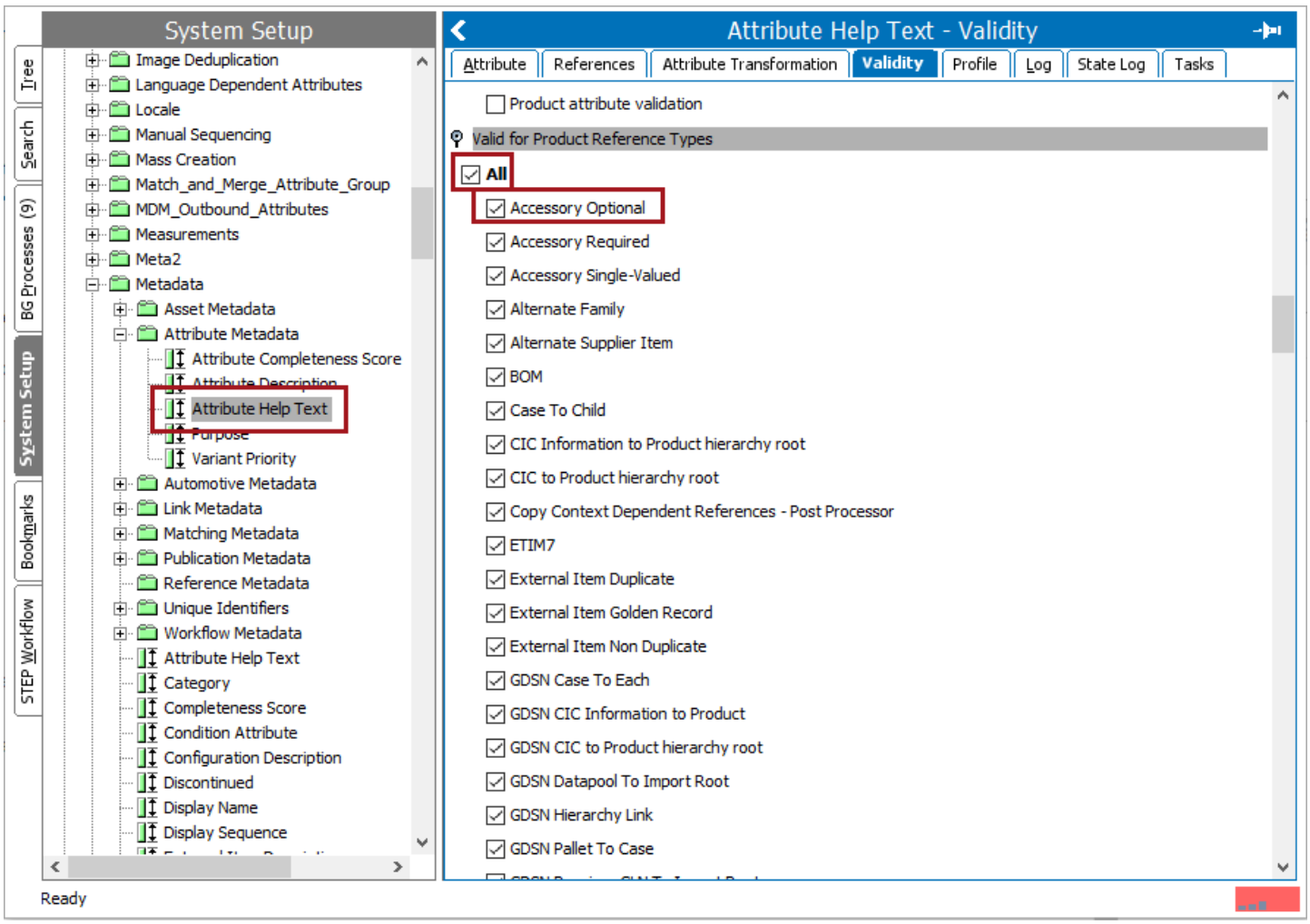
Identify the metadata attribute used for help texts in System Settings

To ensure the appropriate help text flows to the relevant reference components in the Web UI, the metadata attribute created in the previous step in the workbench must be specified in the 'Context Help metadata attribute' setting in Users & Groups.

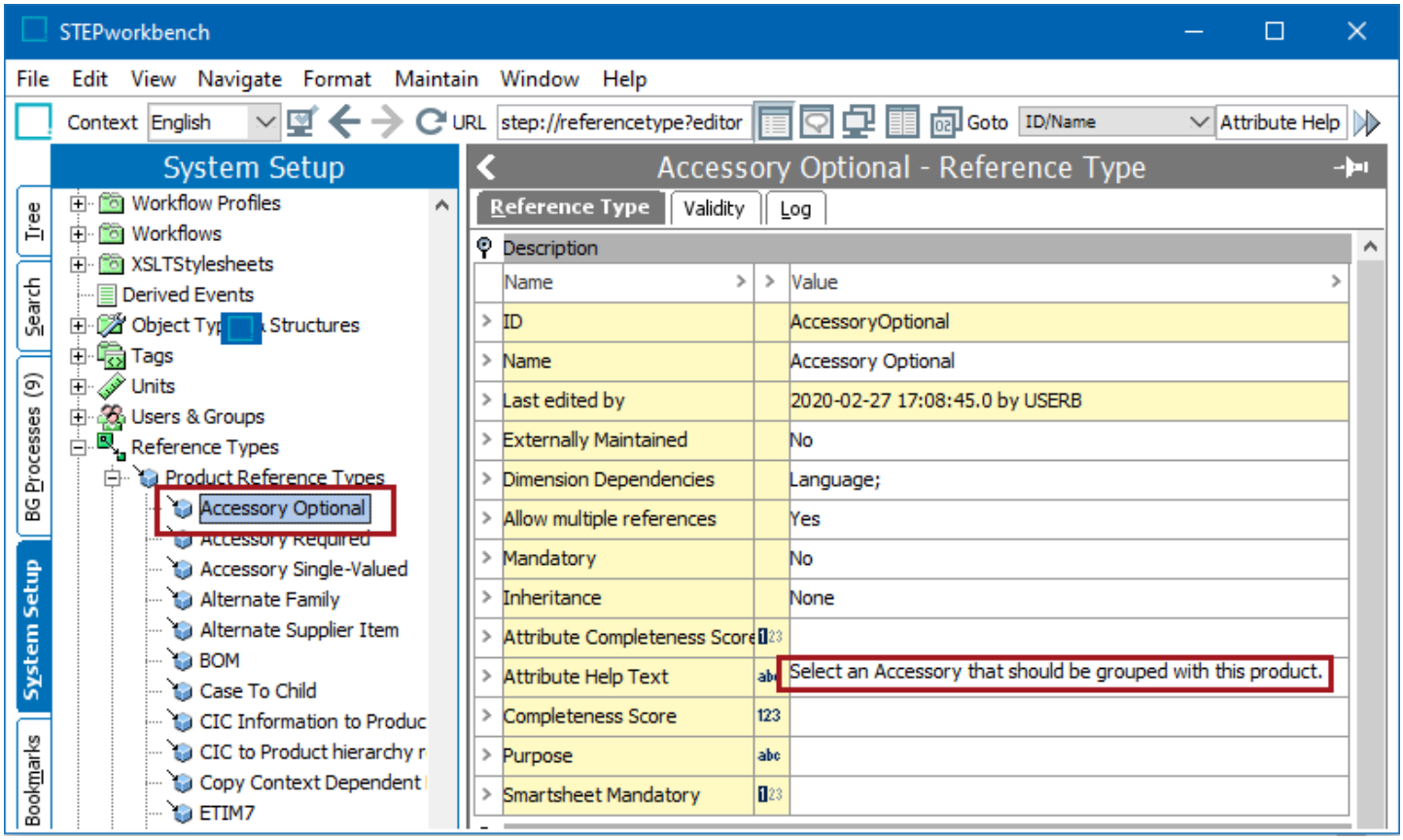
To navigate there, first open the **System Setup** tab in workbench, navigate to the **Users & Groups** root node, open the **Web UI Settings** flipper, and in the setting called **Context Help metadata attribute**, type the ID of the metadata attribute. In this example, the ID for the created metadata attribute is 'AttributeHelpText.'



Then navigate to the new attribute. Once there, open the 'Validity' tab and select which reference type the attribute should be valid for. In this example, and in the screenshot shown below, the attribute 'Attribute Help Text' has been made valid for all product reference types, which includes 'Accessory Optional.' This allows unique global context help to be configured for each product reference type.



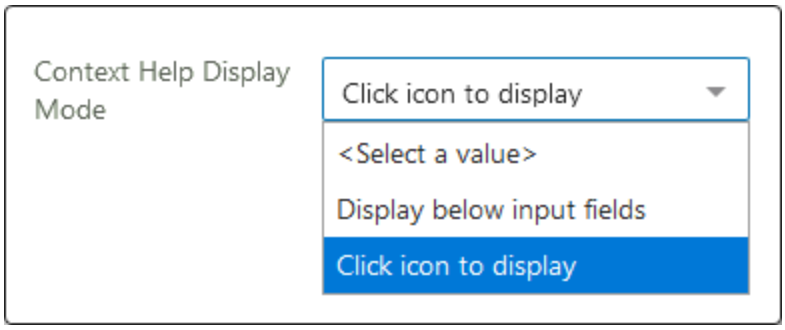
With the metadata attribute specified in **Users & Groups**, and made valid for product reference types, the attribute must now be populated valid for the reference object type. In this example, the text is 'Select an Accessory that should be grouped with this product' and it has been added to the 'Accessory Optional' reference type.



Set Component Properties in the Web UI

Once the workbench setup is complete, help text for references can be enabled in the Web UI.

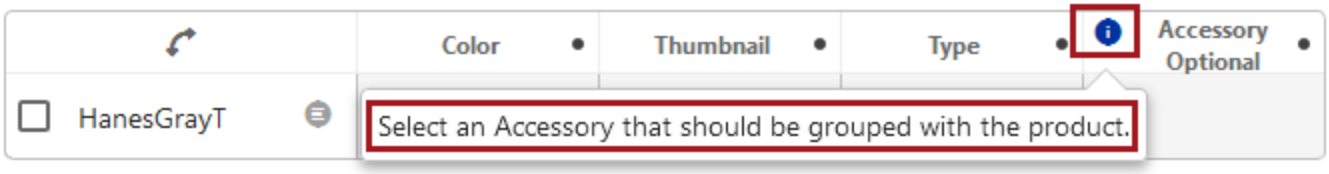
For the 'References' component for Node Editor screens, users can determine whether the configured help text displays beneath the field (Display below input fields), or displays after a user has clicked the help icon to the right of the field (Click icon to display). This is configured on the Node List Properties page in the designer:



The help text displays like this in the Node Editor:

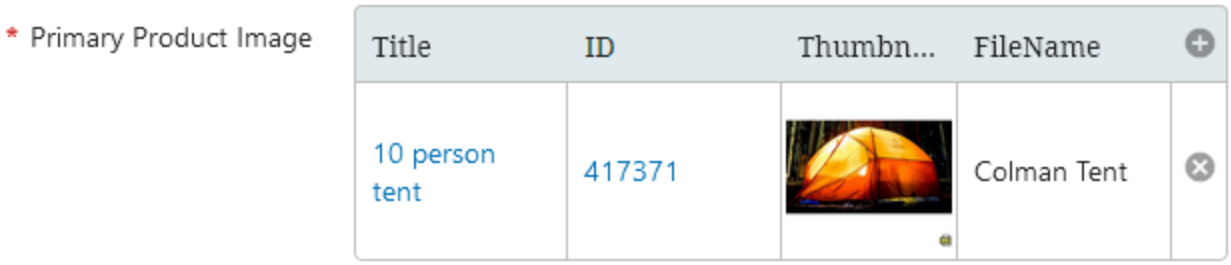


And like this in a Multi Edit View Mode on a Node List (via a click of the help text icon):



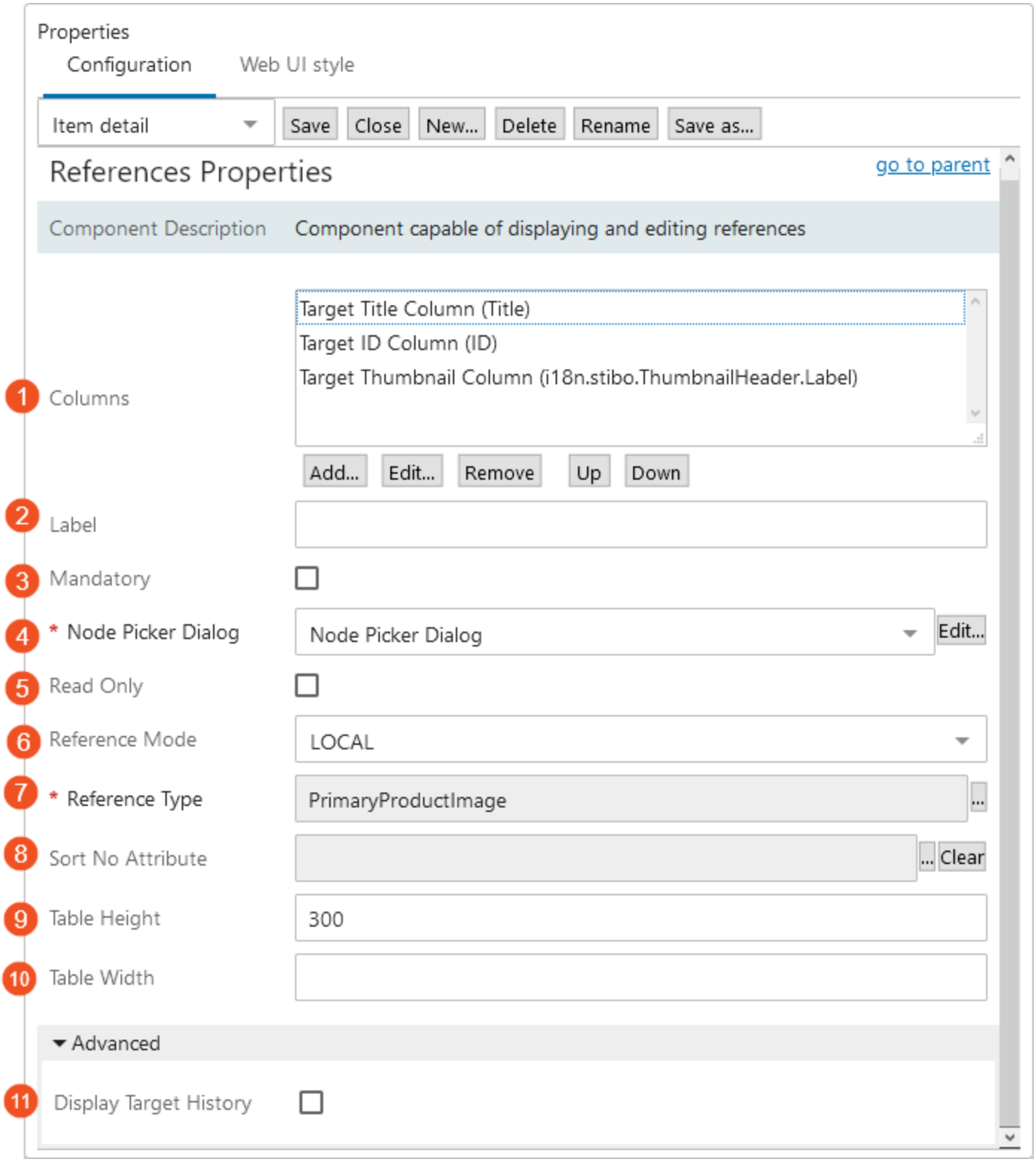
References Component

The References component, which is applied to a Node Editor, is used to view the references a product belongs to, add new references, remove references, view and edit metadata on the reference the product is linked to, and navigate to a linked reference from the selected product.

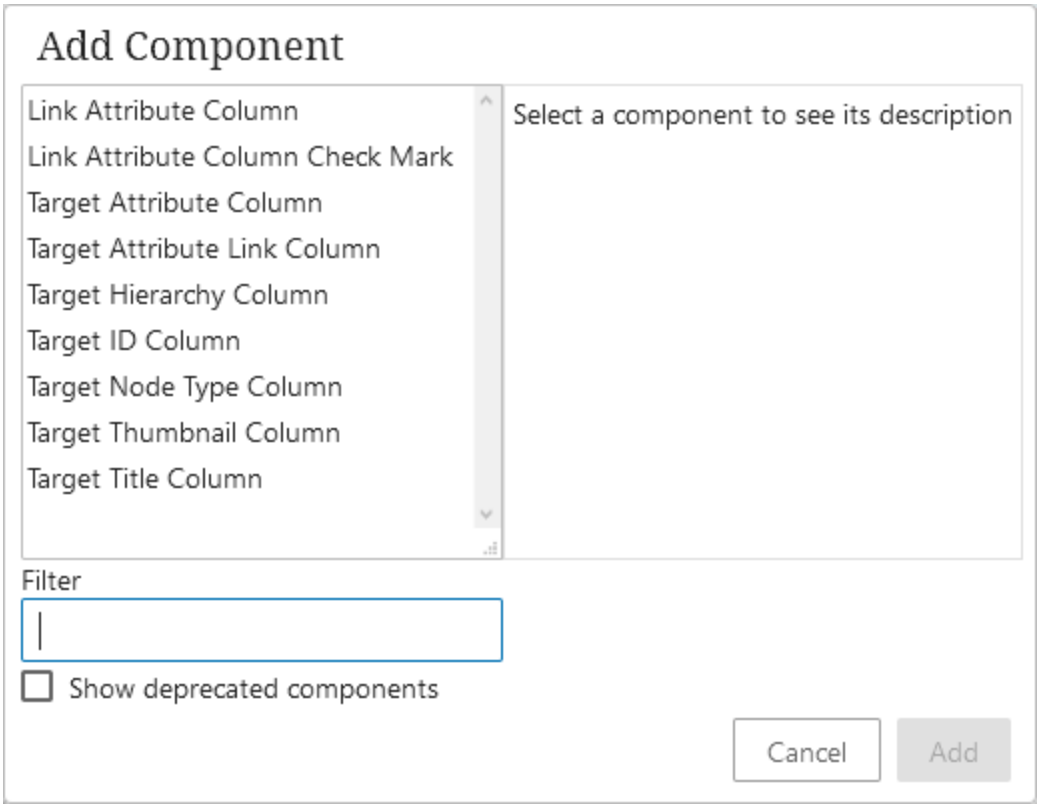


References Component Setup

There are only two mandatory parameters to configure the Reference Component: Node Picker Dialog and Reference Type. Configuration for the Reference Component is as follows:


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
References Properties
go to parent
Component Description
Component capable of displaying and editing references
1
Columns
Target Title Column (Title)
Target ID Column (ID)
Target Thumbnail Column (i18n.stibo.ThumbnailHeader.Label)
Add...
Edit...
Remove
Up
Down
2
Label
3
Mandatory
4
* Node Picker Dialog
Node Picker Dialog
Edit...
5
Read Only
6
Reference Mode
LOCAL
7
* Reference Type
PrimaryProductImage
8
Sort No Attribute
Clear
9
Table Height
300
10
Table Width
Advanced
11
Display Target History

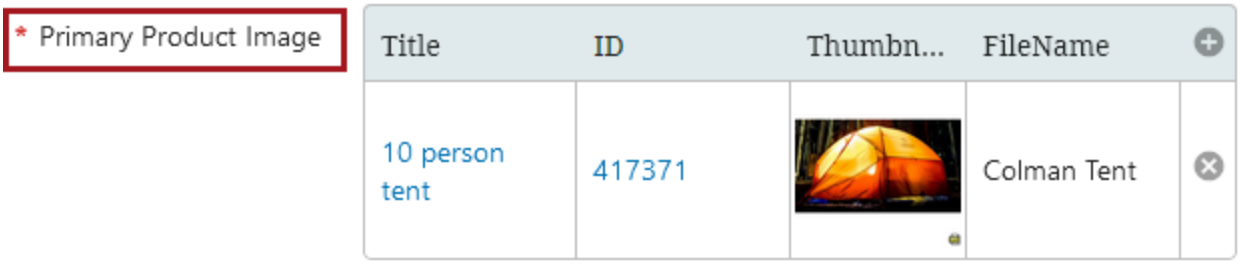
1. **Columns:** There are several columns that can be added as needed.



- **Link Attribute Column**: Displays the attribute on the link / reference.
- **Link Attribute Column Check Mark**: Displays a Boolean attribute on a link / reference as checkmarks. Adding this column allows for the showing (and editing) a meta-attribute of a Boolean characteristic. This means an LOV with values 0 and 1, which could be an LOV with values 0/1 or an LOV with ID where IDs are 0/1.
- **Target Attribute Column**: Displays the attribute from the target. Depending on privileges and how this attribute was created, the user can edit the metadata on this attribute.
- **Target Attribute Link Column**: Displays an attribute value from the target as a link.
- **Target Hierarchy Column**: Displays the hierarchy of the reference target.
- **Target ID Column**: Displays the ID of the target asset classification.
- **Target Node Type Column**: Displays the target node type icon.
- **Target Thumbnail Column**: Displays the primary image that was configured to display with this target classification.
- **Target Title Column**: Displays the classification title.

2. **Label**: The title given to the Asset Group in Web UI when displaying the classifications the asset is linked to.
3. **Mandatory**: If selected, at least one reference must be selected.

4. **Node Picker Dialog**: This field is mandatory. It is a customizable picker that is used to find new classifications.
5. **Read Only**: If enabled, the classifications and the values displayed by the Asset Group component can not be modified.
6. **Reference Mode**: Indicates what references should be shown, for example: ALL, INHERITED, LOCAL, etc.
7. **Reference Type**: This field is mandatory. It indicates what reference type is displayed by the component. The name of this reference will also be the name of your reference group in Web UI.

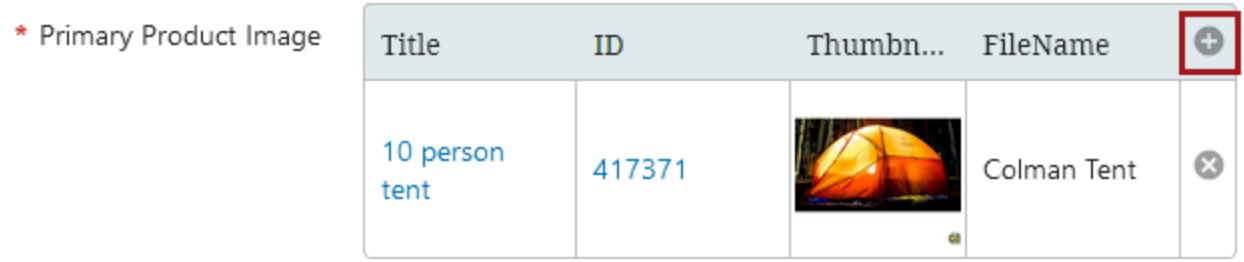


8. **Sort No Attribute**: If set, the order of the classifications is based on and saved back to this numeric attribute.
9. **Table Height**: The maximum height of the table before scrolling. If not specified, it will default to 300 Pixel.
10. **Table Width**: An optional width in pixels for the component. If no value is provided, or the provided value is equal to or below zero, it will span the primary frame.
11. **Display Target History**: Controls whether reference target history should be displayed.

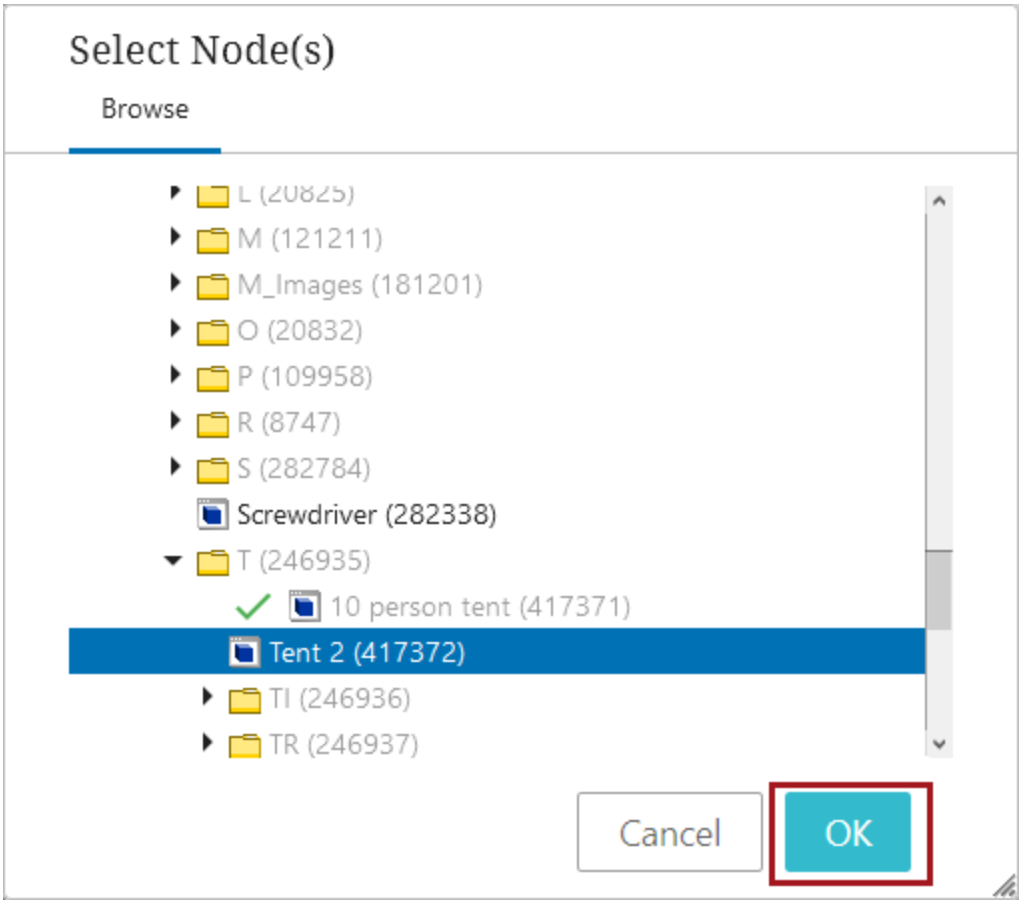
Using References

Once you have the References component configured, navigate to the desired product and locate the Reference group.

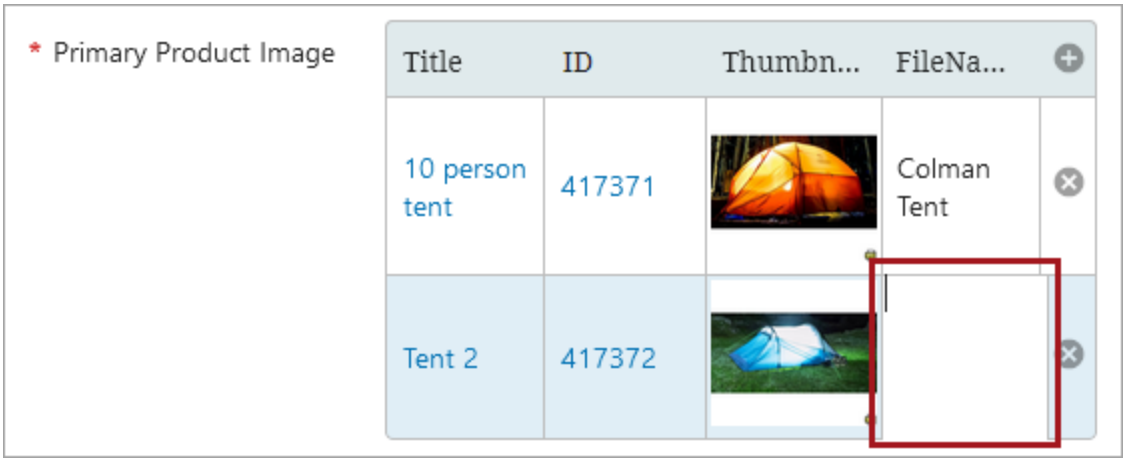
1. In this example, the Primary Product Image is the name of the reference group. To add a reference, click on the plus sign.



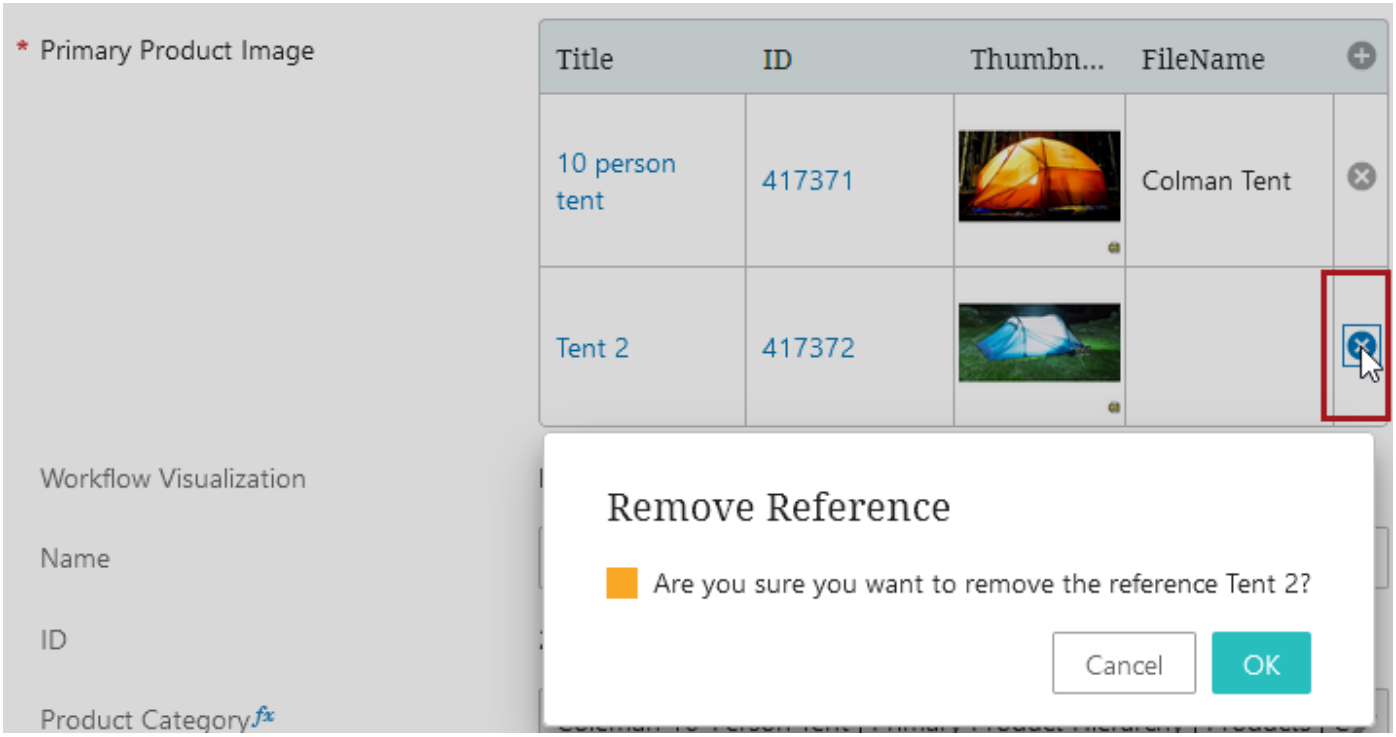
2. Navigate via the Node Picker to select the desired reference, and click **OK**. Click **Save** on the Node Editor to save any changes.



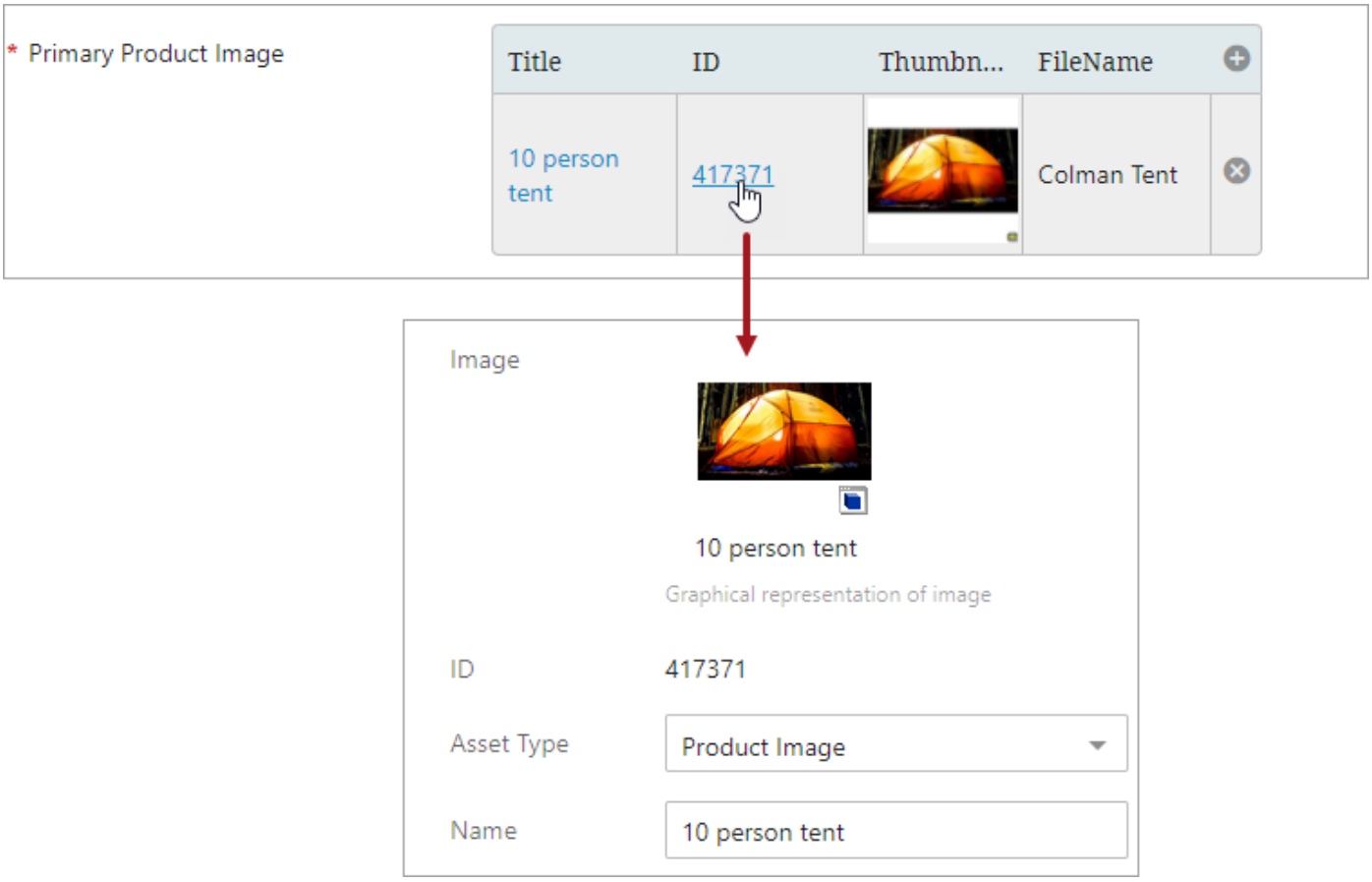
3. Once added, edit any necessary fields by double-clicking inside of the cell. Click **Save** on the Node Editor to save changes.



4. To delete a reference, click on the '**x**.' A popup will appear asking to confirm the deletion of the reference. Once deleted, click **Save** on the Node Editor to save changes.



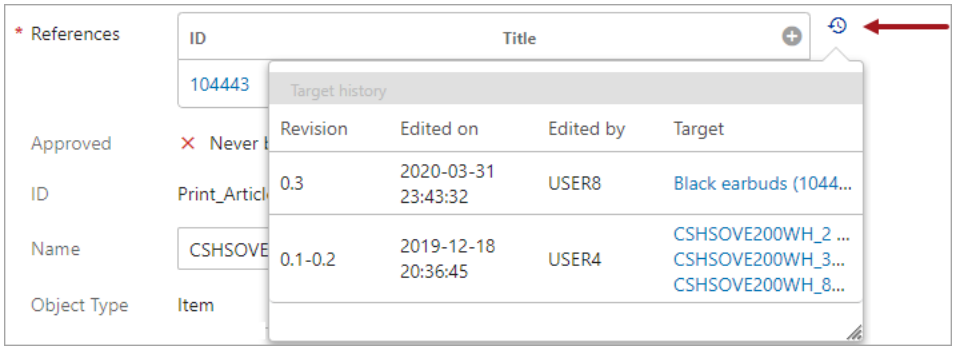
5. To navigate to one of the references from the reference component, click the blue link in either the Title or ID column. In this example, the ID has been selected.


* Primary Product Image
Title
ID
Thumbn...
FileName
10 person tent
417371
Colman Tent
Image
10 person tent
Graphical representation of image
ID
417371
Asset Type
Product Image
Name
10 person tent

References and Links Target History

It is possible to view the historic target data of certain references and classification links to easily identify where references and links have been referenced to over time. This functionality is accessible when viewing an object details page (Node Details) in Web UI. Hovering over the component title makes the history icon appear for a reference / link type, and clicking the icon opens a simple 'Target history' view displaying historic information which includes: Revision, Edited on (date / time), Edited by, and the Target.

Note: Metadata changes on references and links currently do not break out a revision to be displayed as an individual entry in the history list. Individual revisions are displayed only if the actual target is different between them.



Viewing the history of a reference or link is only available with the following components, which are all available as child components within the Node Editor component:

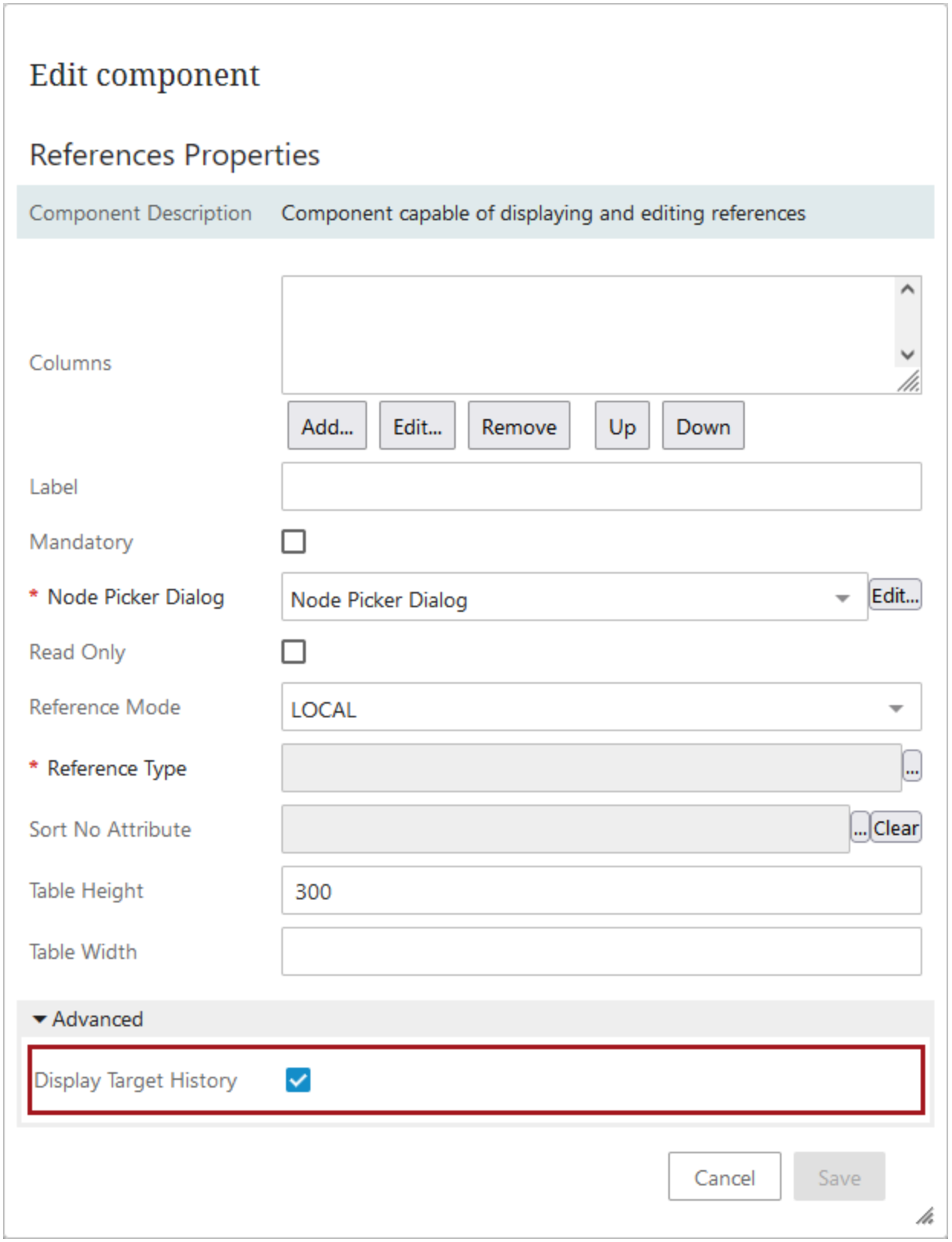
- Reference Value
- References
- Referenced Asset Representation
- Classification Links
- Classification Product Links

To be accessible to users, the 'Target history' pop-up needs to be configured in the designer. It is disabled by default.

Configuring Target History

Target history can only be enabled for the components referenced directly above this section.

In all mentioned components, while in Design Mode, scroll down within the Properties configuration and expand the **Advanced** flipper. Click / enable the checkbox for the **Display Target History** parameter, then save, and close the editor.


Edit component
References Properties
Component Description
Component capable of displaying and editing references
Columns
Add...
Edit...
Remove
Up
Down
Label
Mandatory
* Node Picker Dialog
Node Picker Dialog
Edit...
Read Only
Reference Mode
LOCAL
* Reference Type
Sort No Attribute
Clear
Table Height
300
Table Width
Advanced
Display Target History
Cancel
Save

After enabling, you will be able to view the history icon and access the 'Target history' pop-up. By clicking on the hyperlinked Target values, you will navigate to the configured screen for that target object.

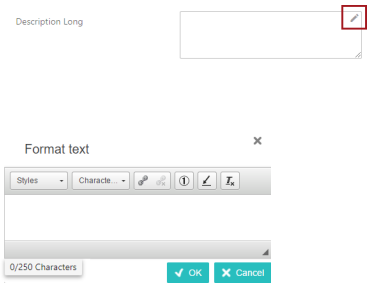
Rich Text Editor

Rich text editing allow users to enter, edit, and format text within a web browser. Text-editing options in a Rich Text Editor (RTE) include character formatting, adding hyperlinks, footnotes, and inline references. Using an RTE when editing attribute values within a Node Editor eliminates the need for users to be familiar with any special coding and web markup languages such as XML or HTML. Another benefit of using RTEs is that users can view the max number of characters allowed within the text field, and how many characters they have already input. When finished, users can view what the published text will look like immediately within the editor window.

Rich text editing is available for attributes with Text, Text (exclude tags), Numeric Text, and Numeric Text (exclude tags) validation base types. The Rich Text Editor icon displays when rich text editing is enabled via the Enable Tag Conversion parameter within the Attribute Value properties, and the Enable Tag Conversion parameter or Rich Text Editing parameter within the Attribute Value Group component properties.

Rich Text Editor Icon

Users can identify when an attribute value field is using an RTE based on the icon that displays on the right side of the field. Click the edit icon to display the 'Format text' dialog.



Once an attribute field has had any formatting applied to the text via an RTE, the content in the field becomes locked, meaning users cannot click into the field to edit it. Clicking the RTE icon is the only way to make additional edits to the text.

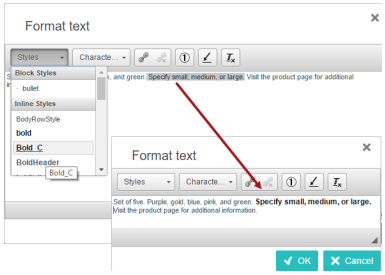
Format Text Options

The 'Format text' dialog options, and their descriptions, are listed below. These text formatting options are important since they will apply, if applicable, when fed into other systems (for example, when used as website text or within printed publications).

The headings below correspond with the hover text that displays when you mouse over each of the format dropdowns or icons at the top of the 'Format text' dialog.

Formatting Styles

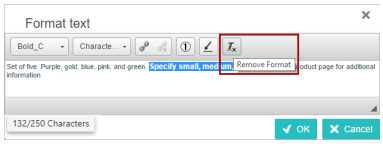
To apply a style, you must first select the text to apply it to. Then make a selection via the **Styles** dropdown.



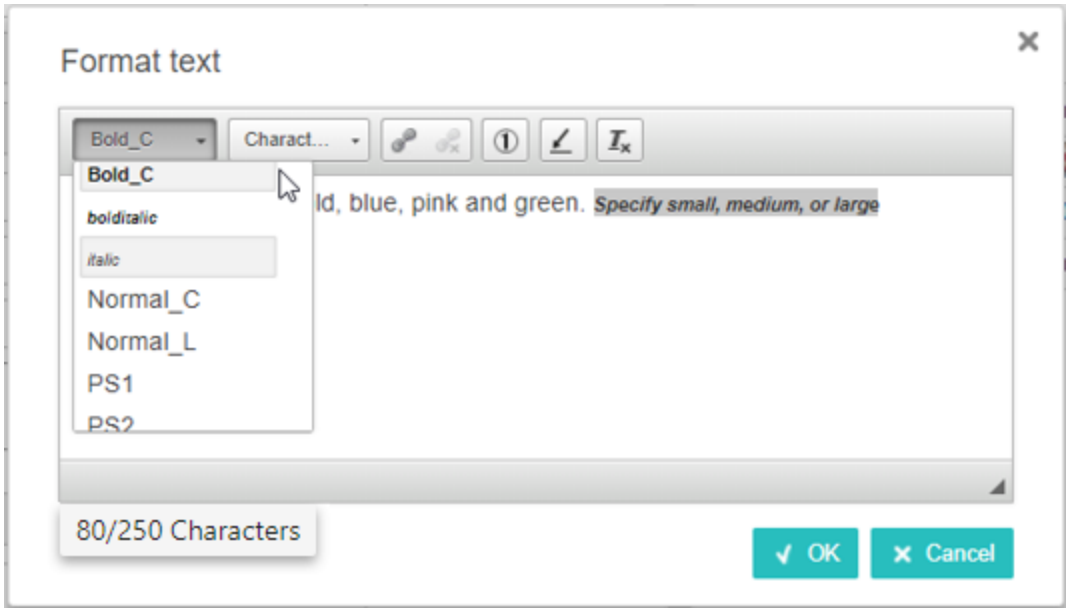
Note that a set of style tags may already exist within your STEP system. Additional styles can be created in the STEP Workbench and will then be available in the **Styles** dropdown list. For more information on style tags, refer to the **Tags** section of the **System Setup** documentation.

Remove Format

To delete a style and go back to the default text (no style), select the specific word or phrase that has a style applied to it, then click the 'Remove Format' icon. To remove character styles from the entire body of text, select it all before removing the formatting.



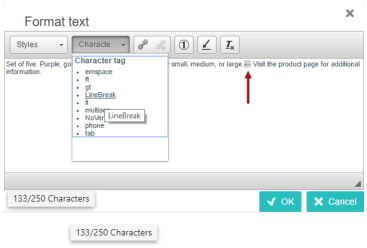
Note: An applied style can be removed by selecting the word or phrase and clicking on the style that has been applied (applied style will be highlighted style italic as shown in below screenshot).



Character tag

To insert a character tag, place your cursor within the text exactly where you want the character tag to display. Then, click the **Character tag** dropdown and make a selection. Character tags appear with a gray background within the 'Format text' dialog and within the attribute value field.

No special icon is required to delete a character tag. Just delete from the text using standard procedures (Delete or Backspace).

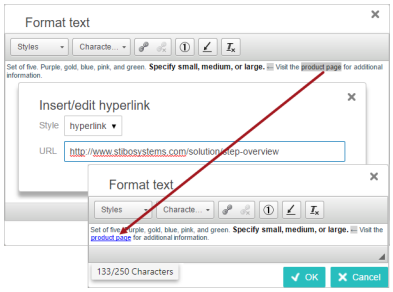


Note that some character tags may already exist. Additional character tags can be created in the STEP Workbench and will also be available in the **Character tag** dropdown list within Web UI. For more information on character tags, refer to the **Tags** section of the **System Setup** documentation.

Add/edit Hyperlink

Hyperlinks are added to text similar to how styles are applied. Select the text you want to make into a hyperlink, type the URL in the 'Insert / edit hyperlink' dialog, and click OK.

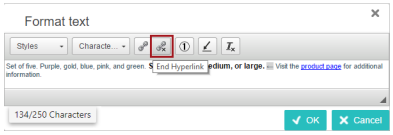
To edit the hyperlink, place your cursor anywhere within the hyperlinked text, and click the 'Add/edit' hyperlink icon. Make any changes within the URL field and click OK.



If the hyperlink tag does not already exist, a hyperlink tag (or tags) can be created and formatting set up in the workbench and will be available in the **Insert/edit hyperlink** > **Style** dropdown list within Web UI. For more information on hyperlink tags, refer to the **Tags** section of the **System Setup** documentation.

End Hyperlink

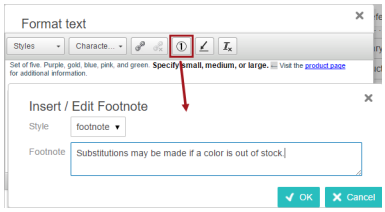
The 'End Hyperlink' icon activates when you click anywhere within hyperlinked text. Click the icon to remove the applicable hyperlink.



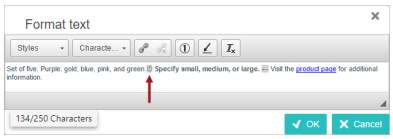
Add/edit Footnote

To insert a footnote into the text, place your cursor where you want the footnote inserted and click the 'Add/edit Footnote' icon.

If the footnote tag does not already exist, one can be created in the workbench and will be available in the **Insert/Edit Footnote** > **Style** dropdown list within Web UI. For more information on how to add a footnote tag, refer to the **Footnotes** section of the **System Setup** documentation.



To edit a footnote, select the footnote icon that is within the text body, taking care to highlight only the icon. Click the 'Add/edit Footnote' icon, make any changes within the 'Insert/Edit Footnote' dialog that displays, and then click OK.

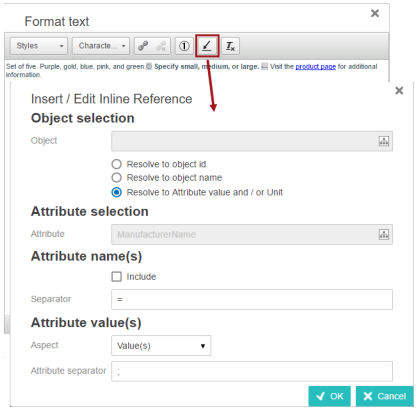


No special icon is required to delete a footnote. Just delete from the text using standard procedures (Delete or Backspace).

Add/edit Inline Reference

Using the RTE, inline references can be embedded in attribute values using Web UI. For an introduction to inline references, refer to the **Inline References to Attribute Values** section of the **Getting Started** documentation.

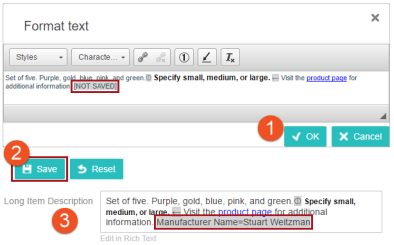
Place your cursor where you want the inline reference to go—or select the text you want to replace—and click the 'Add/edit Inline Reference' icon.



1. For the **Object** field, click the Node Picker icon ( ) to open the 'Select Node(s)' dialog. Search or browse for the relevant object that holds the attribute value to be referred to, and then click OK.
2. Choose 'Resolve to object ID,' 'Resolve to object name,' or 'Resolve to Attribute value and / or Unit' by clicking the corresponding radio button.

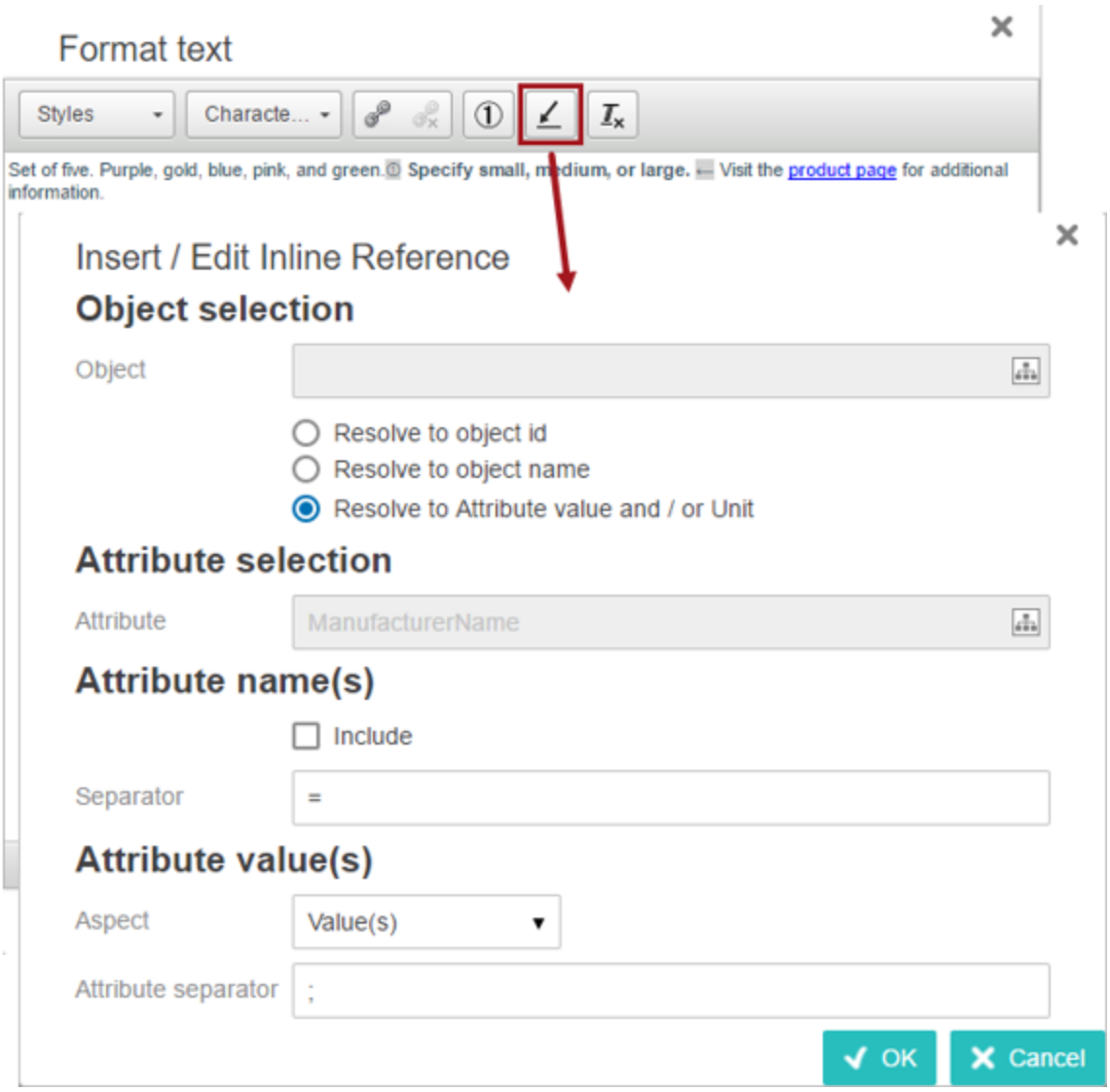
> **Note:** When 'Resolve to Attribute value and / or Unit' is selected, then the other selections within the 'Insert / Edit Inline References' dialog activate and the remaining steps outlined below become valid. If selecting an alternate radio button, then click OK and your steps are complete.

3. For the **Attribute selection** > **Attribute** field, click the Node Picker icon to open the 'Select Node(s)' dialog to search and browse for the relevant attribute (or attribute group) for the inline reference, and then click OK. (Only one attribute or attribute group may be selected.)
4. For **Attribute name(s)**, check the 'Include' check box if the name of the attribute(s) should be included in the inline reference. If including the name, then go on to Step 5. If not, skip to Step 6.
5. In the **Separator** field, type a Separator to be used between the name and value of the attribute. An equals sign (=) is the default.
6. Under **Attribute Value(s)**, use the **Aspect** dropdown to select the relevant value to include for the attribute. You can select between Value(s) and Unit(s), Value(s), and Unit(s).
7. The **Attribute Separator** field is only available if a multi-valued attribute has been selected. If applicable, in the **Attribute Separator** field, type a separator to specify how values should be separated. A semicolon (;) is the default separator. If using a decimal separator, it will be localized according to the current Web UI context.
8. Click **OK**.
9. Once you click OK, the 'Format text' editor will show the inline reference as '[NOT SAVED].' You will need to click OK on the text editor and then save the data before it will display in the value field. The attribute must be valid for the object type, otherwise the inline reference disappears from the value field upon save.



Editing an Inline Reference

Editing an inline reference works the same way as editing a footnote. Select the inline reference text within the editor, taking care to highlight only the applicable text. Click the 'Add/edit Inline Reference' icon, make any changes within the 'Insert/Edit Inline Reference' dialog, and then click OK.



Next, click OK on the text editor dialog, and then click Save (or Save & Approve) on the screen that you are one.

For more information about the attribute components in Web UI, refer to the **Attribute Value Component** topic and the **Attribute Value Group Component** topic.

Important: After all changes have been made within the text editor, you must click **OK** to save all of the changes. Clicking 'Cancel' or navigating away from the page means that the changes made in the RTE will not be saved or displayed.

Note: When a multivalued attribute value is called via Inline Reference in Attribute Value component or Attribute Value Group Component, then multivalued attribute values are displayed with a multi-separator tag with rendering as it works in workbench.



If you experience issues while using the Rich Text Editor in Internet Explorer, use an alternate browser such as Chrome, Firefox, or Safari.

Search Screen

The Search Screen allows users to search STEP data via a modern faceted search experience powered by the Elasticsearch search engine, based on criteria within the Elasticsearch configuration.

Additional information can be found in the following **Web User Interfaces** documentation:

- For illustrations of results while searching, refer to the **Search Screen Search Result Examples** topic.
- For details on using the search options, refer to the **Search Screen Details** topic.
- For details on what data is available in the Search Screen, refer to the **Elasticsearch Searchable Data Setup Options** topic.
- For information on related components for use by data stewards, refer to the **Data Enrichment Components** topic.

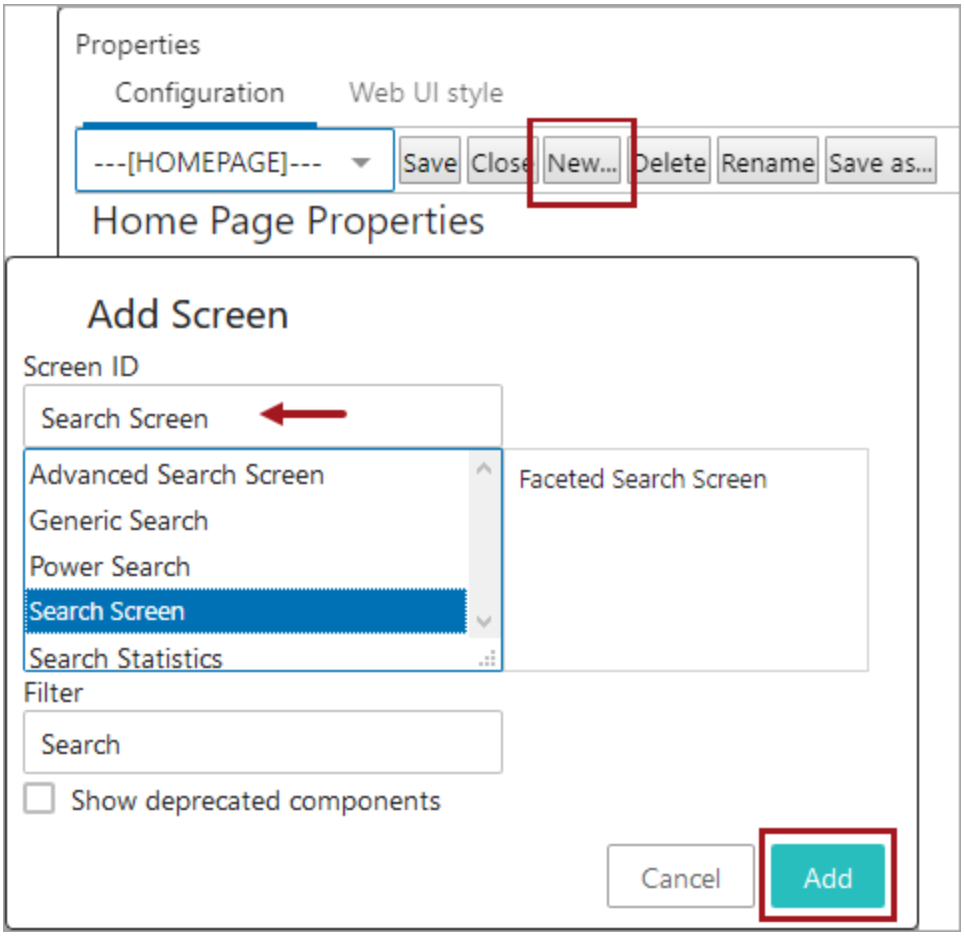
Furthermore, Elasticsearch allows for the use of full-text search capabilities for SaaS and on-premises installations, while the use of In-Memory is strongly suggested. For those with an on-premises installation and additional search options, refer to the **Full Text Indexable Attributes** topic in the **System Setup** documentation.

Prerequisites

1. Configuring this screen requires Web UI Designer basic concepts and appropriate privileges. For more information, refer to the **Designer Access** section of the **Web User Interfaces** documentation.
2. Install and configure the Elasticsearch search engine, then configure and invoke the event processor as defined in the **Elasticsearch Setup** topic.

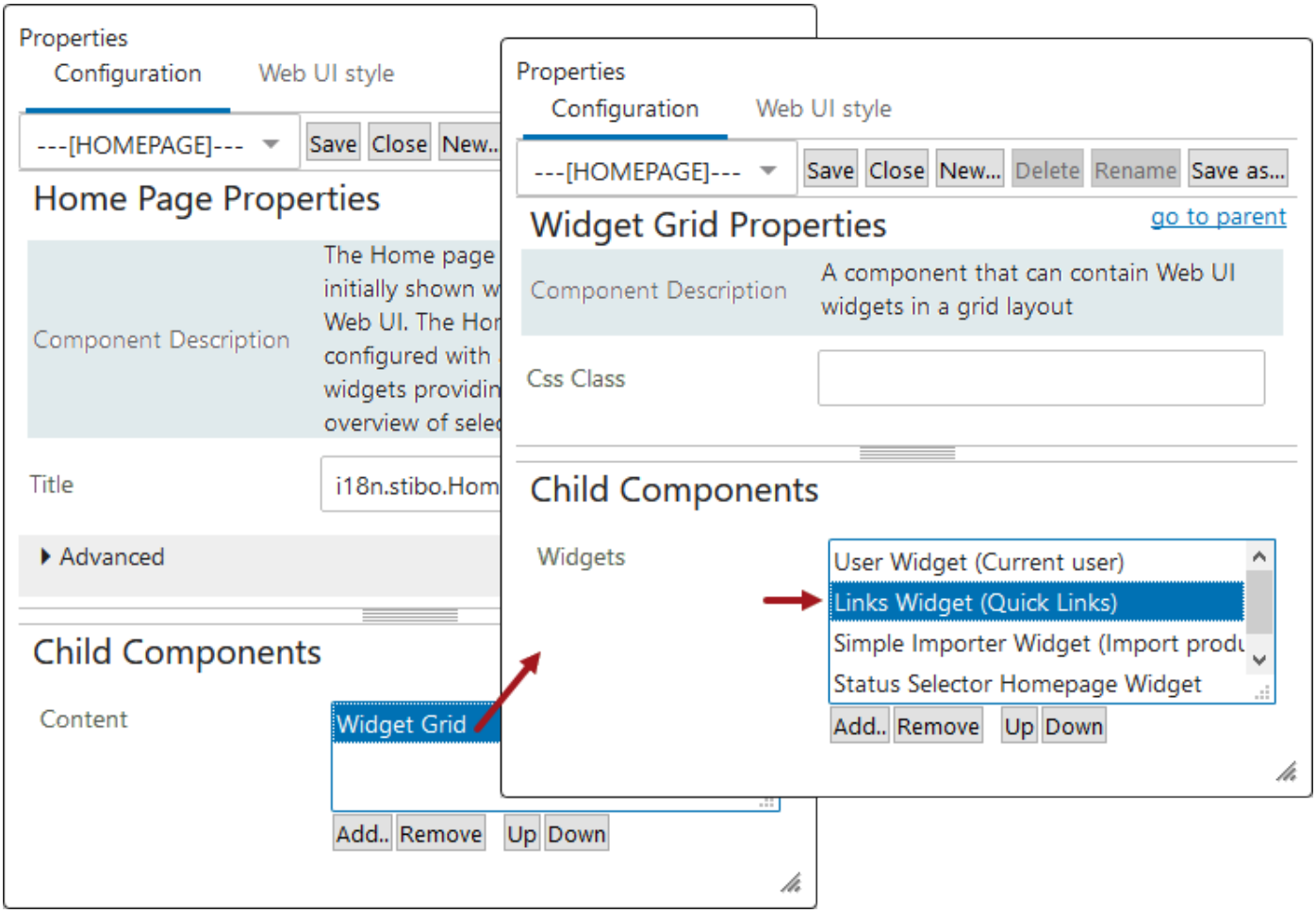
Configuration

1. In the Designer, create a new screen by selecting **New**. In the 'Add Screen' dialog, type 'Search' in the Filter parameter to limit the list displayed. In the Screen ID parameter create a name, select the **Search Screen** option, and click the **Add** button. In the example below, the Screen ID is named 'Search Screen' and will be selected later.

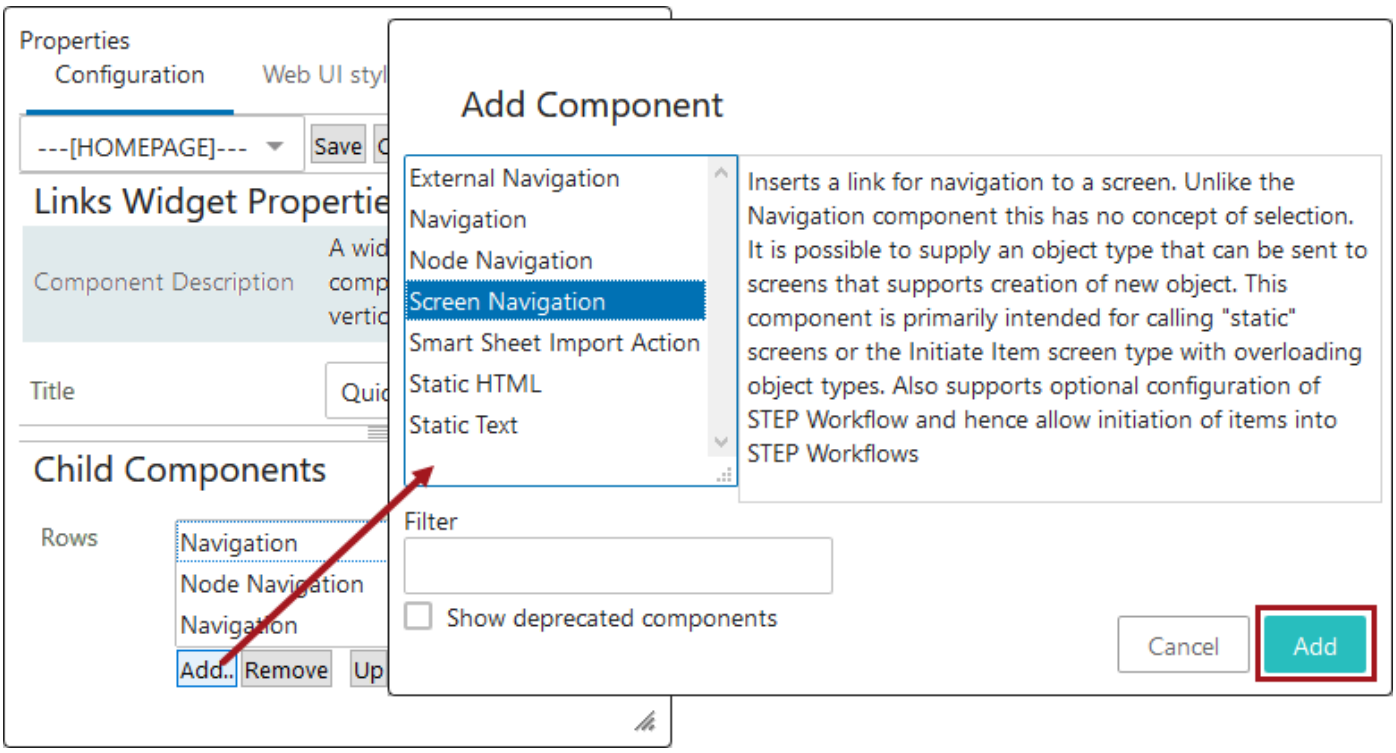


2. From the Home Page configuration screen (shown in the image below), in the Child Components section, add a Widget Grid or double-click the Widget Grid that is displayed. For more information, refer to the **Adding Widgets to a Homepage** topic.
3. On the Widget Grid configuration screen (also shown in the image below), in the Child Components section Widgets field, add a Links Widget or double-click the Links Widget that is displayed. For more information,

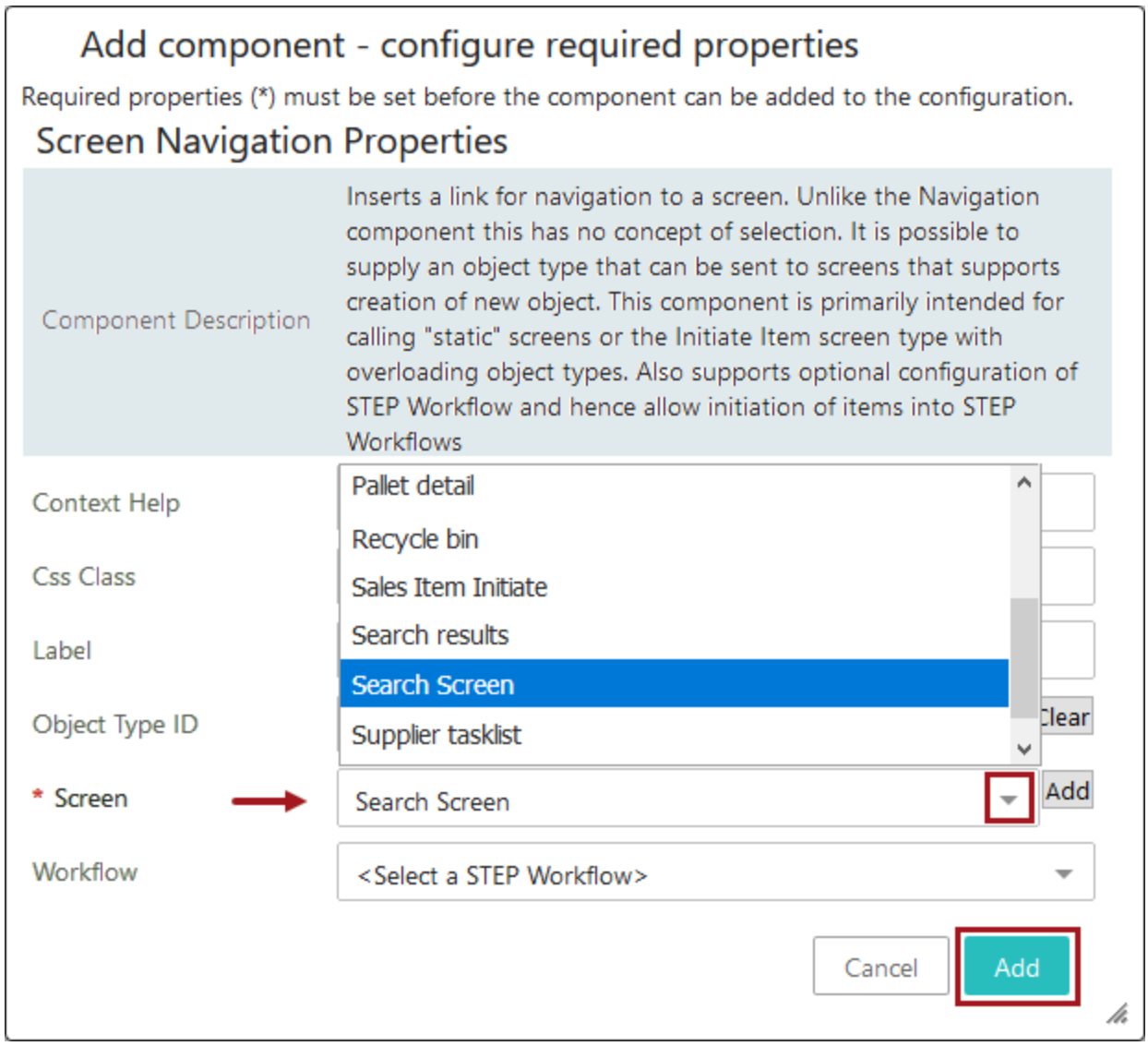
refer to the **Homepage Widgets** topic.



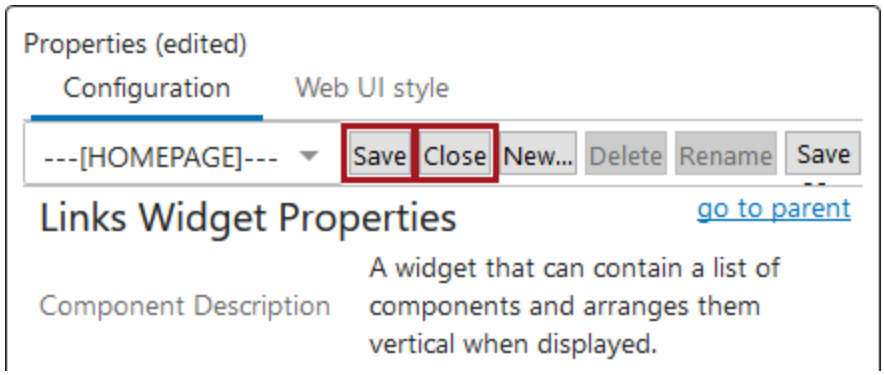
4. On the Links Widget configuration screen (shown in the image below), in the Child Components section Rows field, click the **Add** button to display the Add Component dialog. Select the 'Screen Navigation' component and click the **Add** button.



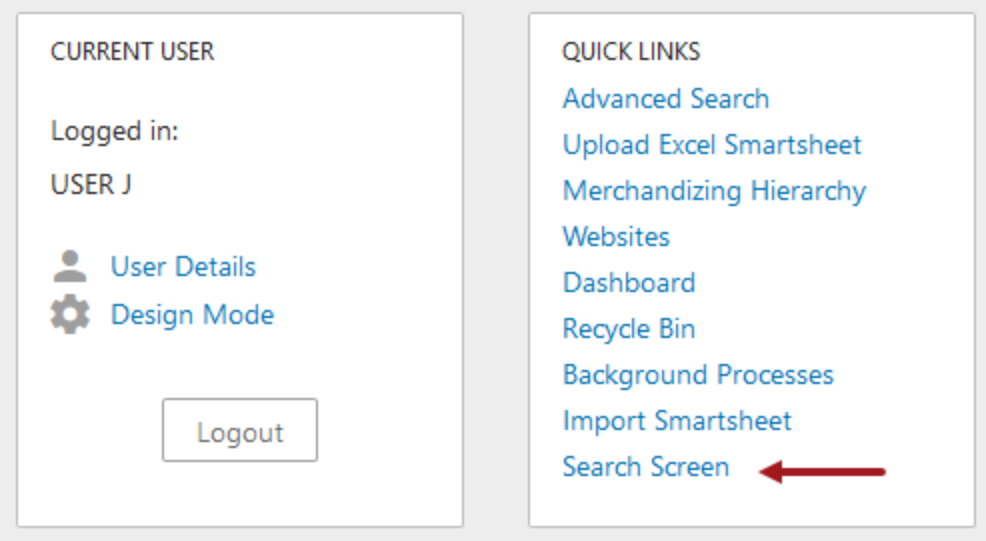
5. On the Screen Navigation configuration screen (shown in the image below), in the Screen parameter select the Search Screen created earlier in this process. Make edits to the additional parameters as desired. Click the **Add** button.



6. Click **Save** to confirm all selections and click **Close** to leave the designer.



7. On the homepage, verify the new Search Screen option displayed in the Links widget.



8. Update your Global Navigation Panel settings to define the search functionality per Web UI as defined in the **Global Navigation Panel** topic.

9. Verify or set privileges for users who will access the Search Screen:

   - User action privileges and/or User Group Permissions are required as defined in the **Elasticsearch Searchable Data Setup Options** topic.
   - The Search Screen is accessible for users with the privileges outlined in the **Web UI Access Privileges** topic of the **Web User Interfaces** documentation.

10. For more information on using the Search Screen, refer to the **Search Screen Details** topic.

Data Enrichment Components

Data stewards are primarily tasked with enriching data in Web UI. The process includes identifying objects, enhancing object details, and sharing object data with downstream systems.

The faceted Search Screen allows users to find the data they need and then provides several ways to enrich the data, for example, using an editor screen or an export. Other components can complement the Search Screen to improve the user's work experience.

Important: Primary feature components must be installed before optional components.

The availability of the Search Screen's full functionality is managed by the components and licenses defined below. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager. Contact your account manager or partner manager to begin the process of enabling a license or licenses for your system.

Important: Activation and configuration for the faceted Search Screen and Elasticsearch should not be done without the assistance of Stibo Systems.

Primary Feature	Optional Feature	Component	License	For More Information
Search Screen		ui-search elasticsearch-integration	X.Elasticsearch	Search Screen
	Display the Basket in the Global Navigation Panel	ui-basket		Search Screen Basket
	Publish to PDX via the Basket	ui-basket productdatasyndication-integration	X.Adapter.ProductDataSyndication	Search Screen Basket
Product Editor screen		ui-product-editor		Product Editor Screen

Primary Feature	Optional Feature	Component	License	For More Information
	Display Syndigo data	syndigo		Adding Rich Marketing Content from Syndigo
	Display the Sufficiency Indicator and the Sufficiency Panel	data-sufficiency		Sufficiency Panel

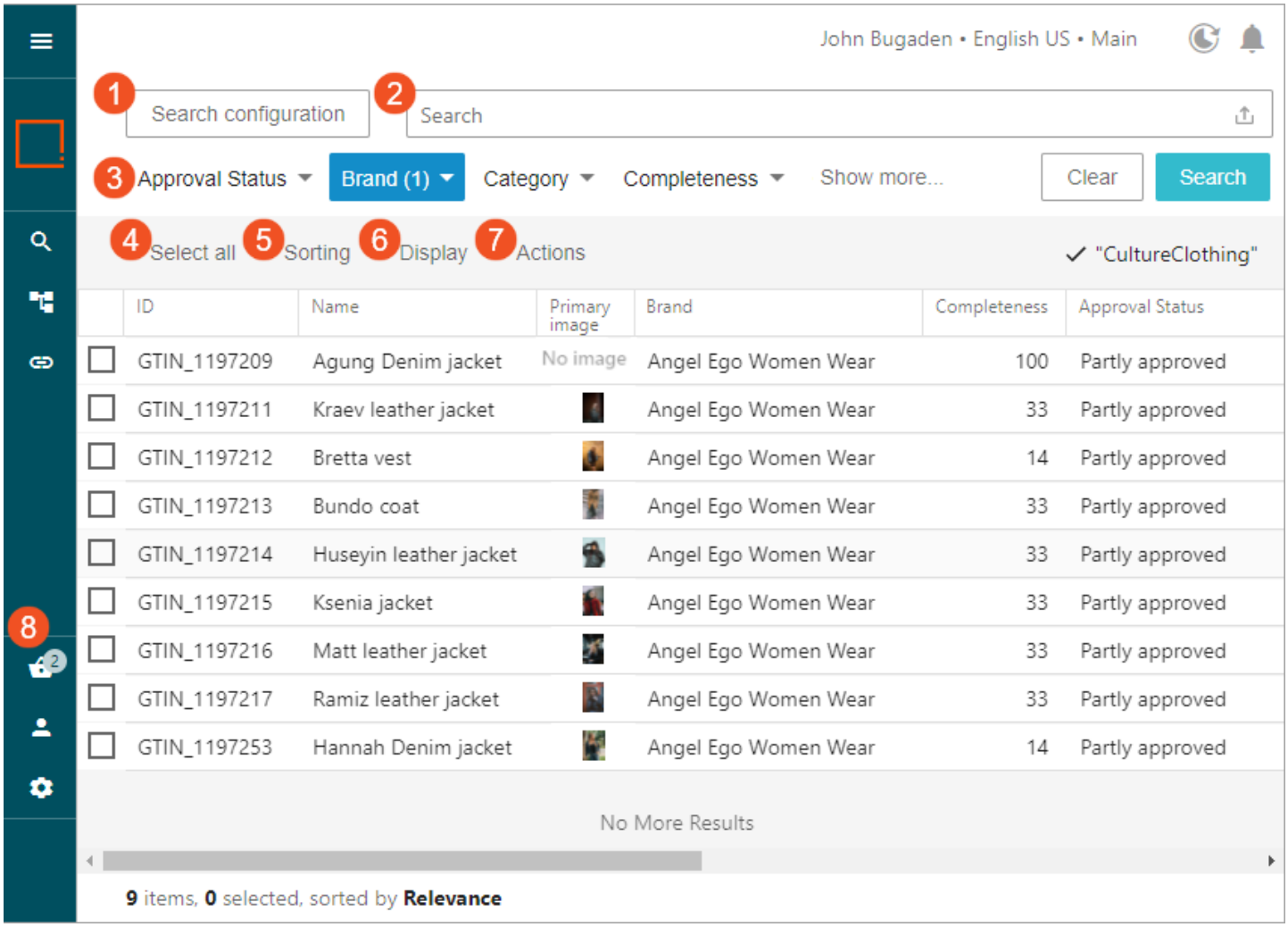
Search Screen Details

The faceted Search Screen uses the third-party Elasticsearch search engine to provide a number of search options. Functionality includes a search bar with a variety of search types, static facet search operations, personalized views by user, the ability to display results as a table or cards, and a basket for collecting and exporting or publishing search results. Opening the search screen displays the results of your configured favorite search (as defined in the Searches menu) or displays the available data based on your access privileges and the data in the Elasticsearch database. Additional data filters can be applied via the search options defined.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Use the checkbox on a search result to select it (as shown below). Then use the Actions menu to add selections to the basket or run a business action against them. The browser Back and Forward buttons allow the user to move backward and forward through the history of screens previously displayed.

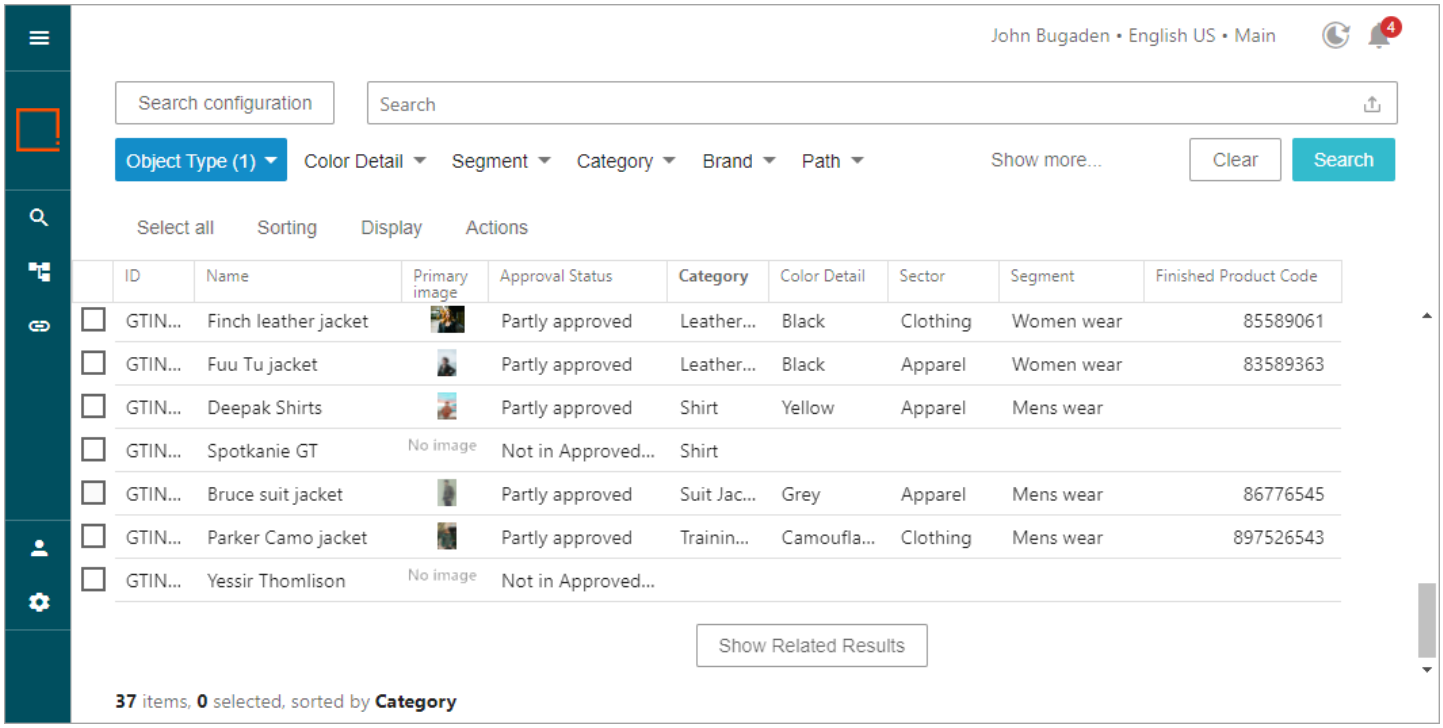
Each option is identified by the numbers in this image, and is defined in the topic links below:



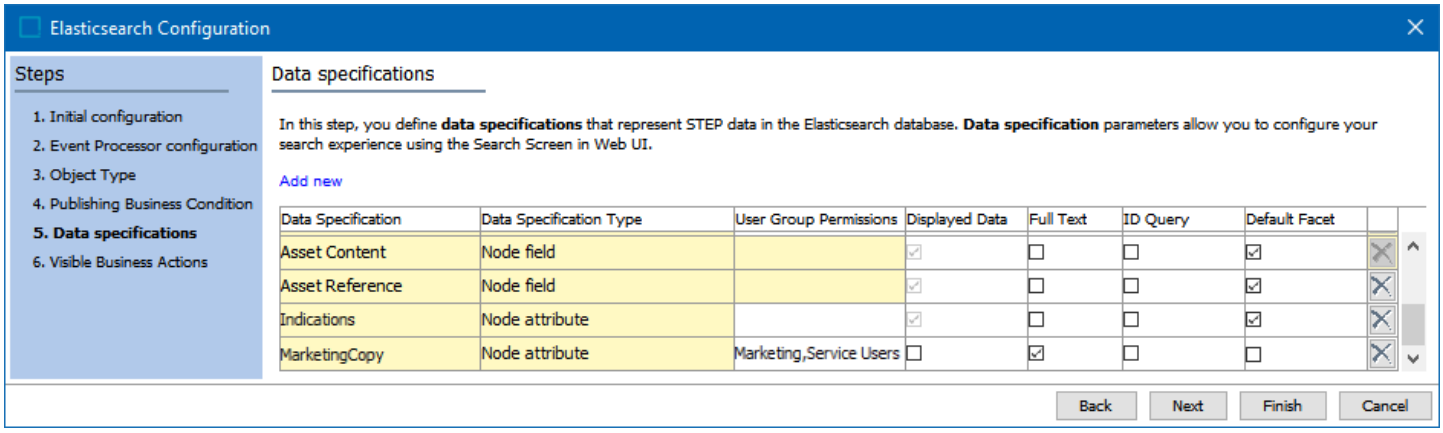
1. Search Screen Search Configuration
2. Search Screen Search Bar
3. Search Screen Static Facets
4. Search Screen Select All
5. Search Screen Sorting
6. Search Screen Display
7. Search Screen Actions
8. Search Screen Basket

Search Screen Search Result Examples

In these examples, the object type static facet is set to a single selection (GTIN) to produce a data set of 37 objects that demonstrate how search bar text impacts the faceted search results.



Search options are set for attributes via 'data specifications' in the Elasticsearch configuration, as defined in the Creating an Elasticsearch Configuration topic. The Displayed Data, Full Text, ID Query, and Default Facet settings determine how data can be searched. Each search option is demonstrated in the sections below.



Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

The data displayed in the Search Screen is managed by the 'Define view' options. Searches include all data indicated by the Elasticsearch configuration, not just the data that is visible on the Search Screen. For details, refer to the Search Screen Search Configuration topic.

Result Set Filtering Process

All search results are first subject to access privileges. For example, a user without rights to view a primary product hierarchy node will not be able to view data from that node, regardless of the search methods used.

Text in the search bar is evaluated in the following order:

- an exact match for an ID using the ID Query configuration selections
- an exact match for attribute values using the Full Text configuration selections
- a 'fuzzy' search using the Full Text configuration selections

Additionally, manually clicking the 'Show Related Results' button displays other 'near match' objects.

For more information, definitions, and examples, refer to the Search Screen Search Bar topic.

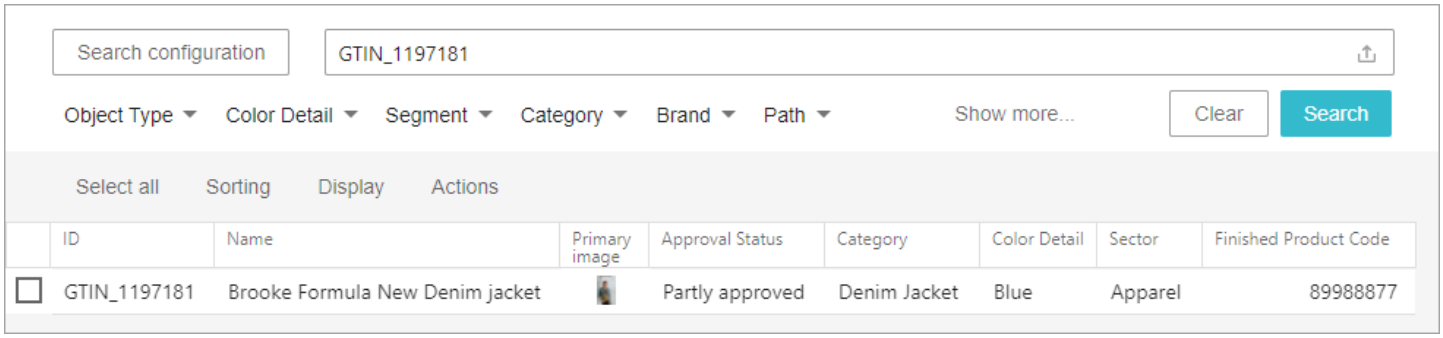
Search Result Examples

The following searches demonstrate how to achieve the desired results.

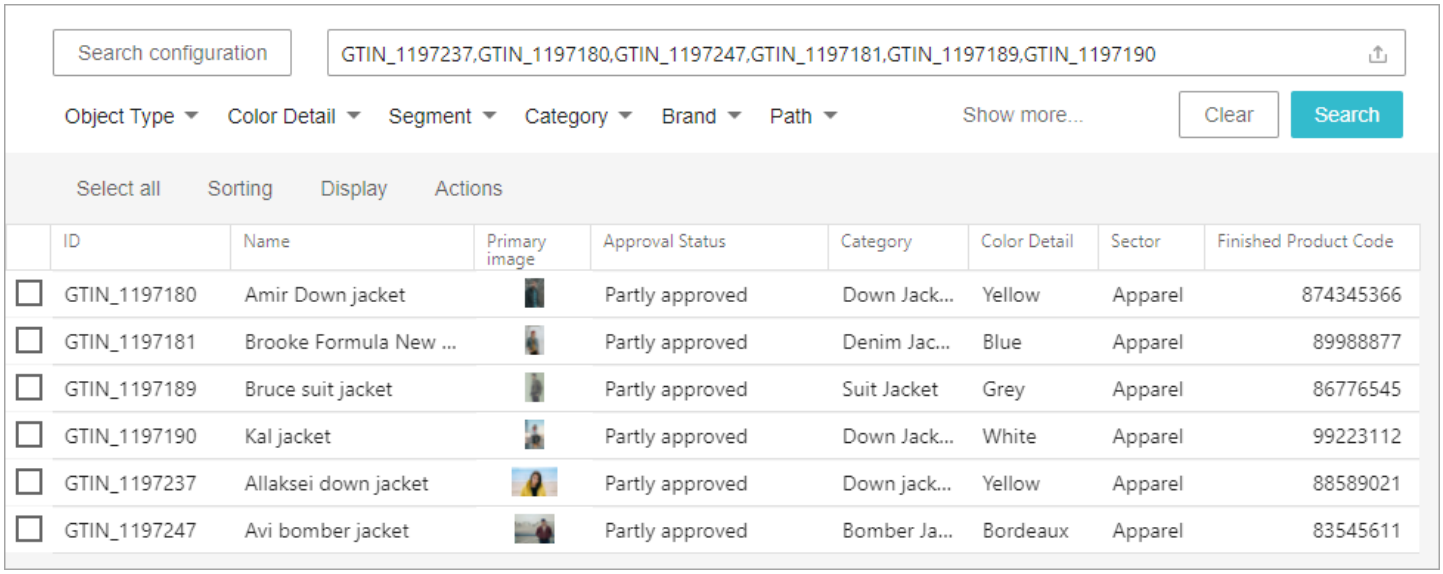
ID Searching

The Elasticsearch configuration for the following image includes the ID data specification (which is the STEP ID) as the only 'ID Query' selection. Data specifications set as 'ID Query' in the Elasticsearch configuration return exact matches.

Searching for a single ID requires that all characters of the ID are entered in the search bar as shown below.



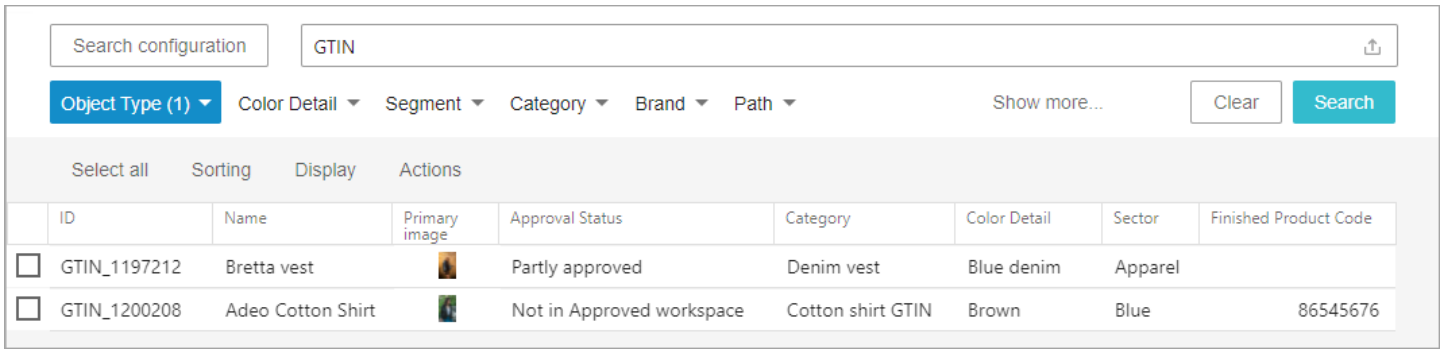
Searching for multiple IDs requires that all characters of all IDs are entered in the search bar, separated by a comma, as shown below.



ID and Full Text Searching

The Elasticsearch configuration for the following image includes the ID data specification as the only 'ID Query' selection.

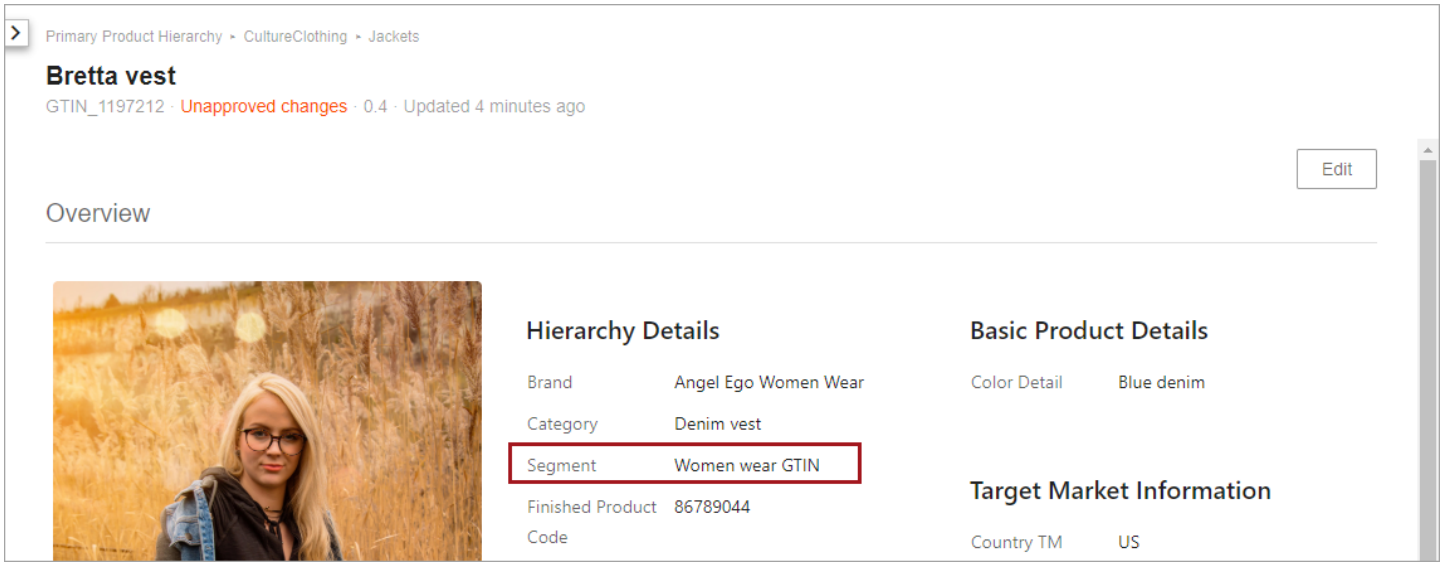
The data set includes 'GTIN' as the first letters of the ID on every object. However, searching for 'GTIN' returns only the objects with the text in the full text attribute values because none of the IDs are an exact match.



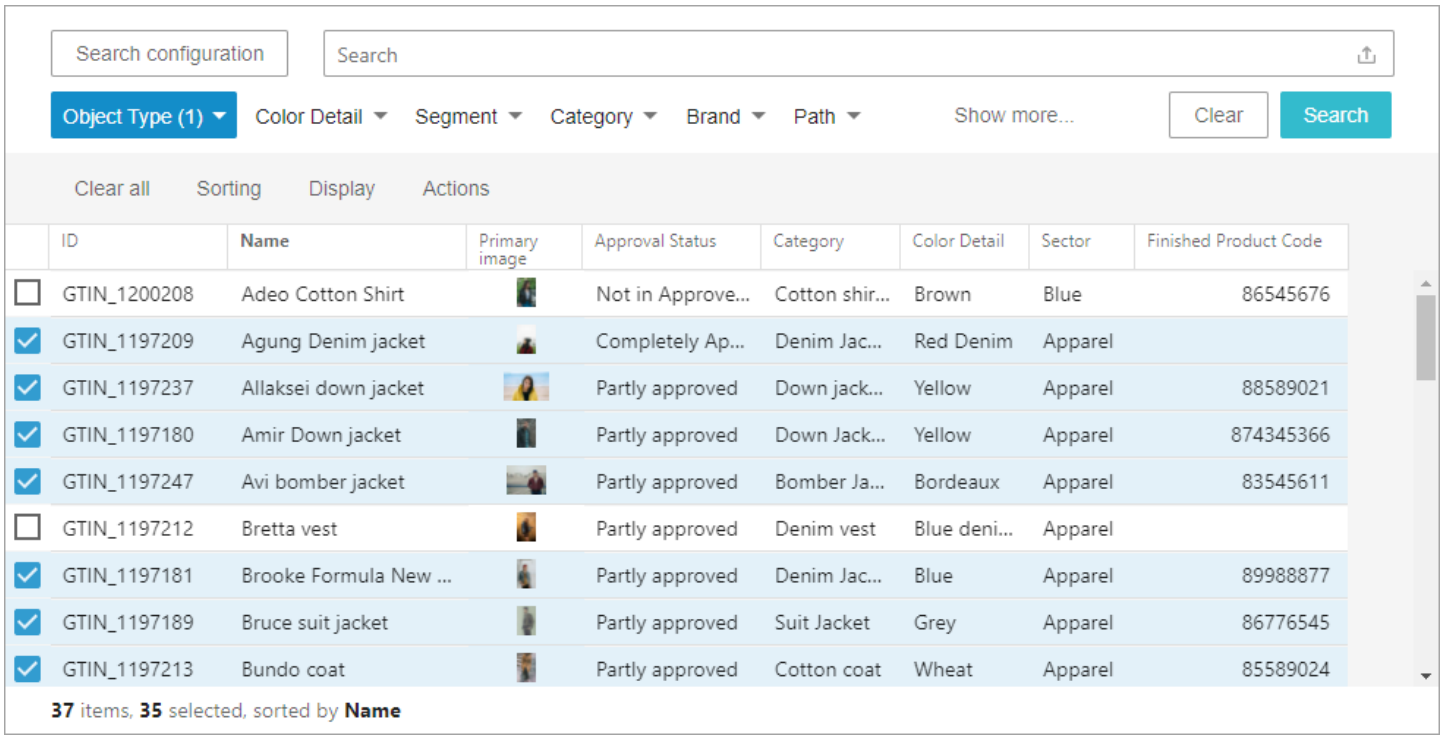
Although 'GTIN' is not visible on the table layout for the first item, the text is included within the value of the 'Segment' attribute, and that attribute is set for Full Text in the Elasticsearch configuration.

To view the instance of the text that explains why this object is displayed as a search result, the user can:

- use the Define View option on the Search Configuration menu to add 'Segment' as a column in the table layout (or on a card).
- use the Product Editor screen to view all valid attributes and their values as shown below.

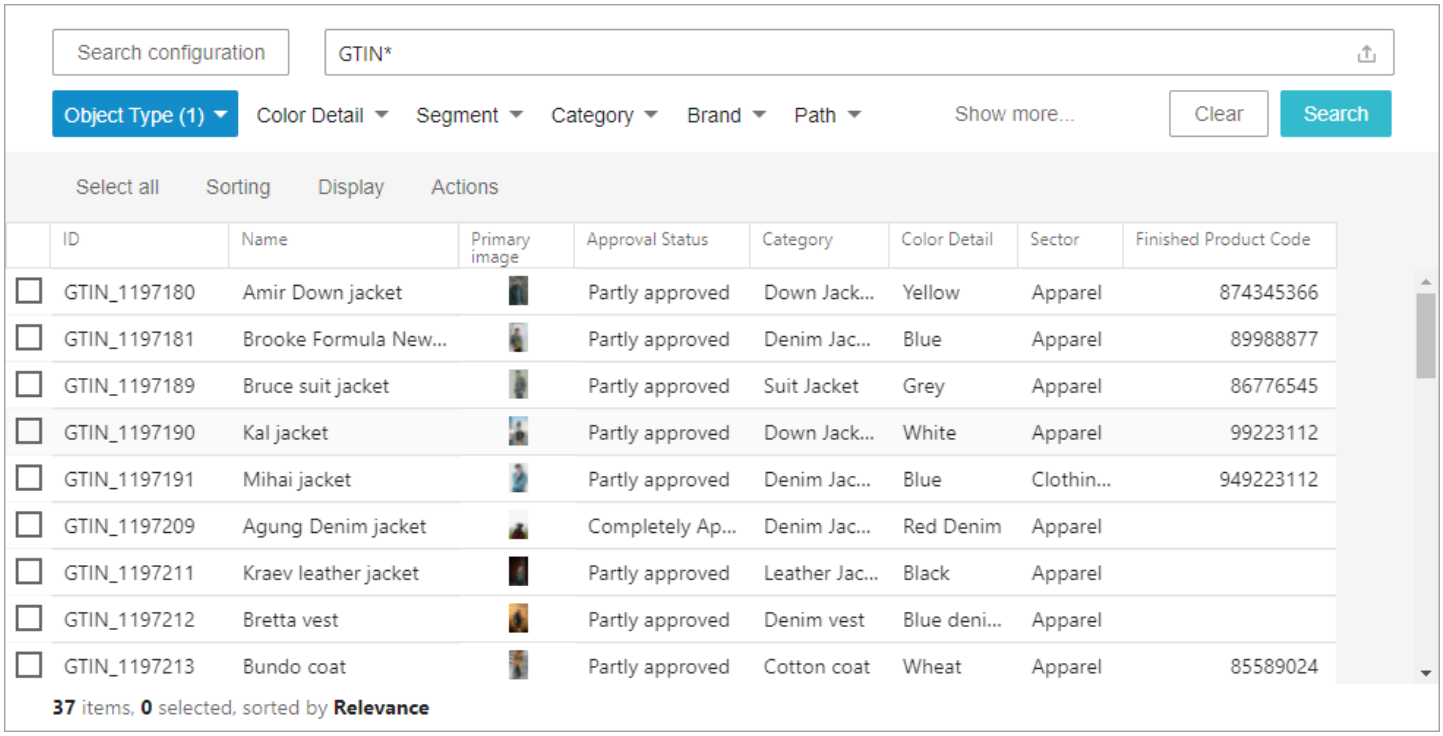


The selected objects in the image below are excluded in the search bar 'GTIN' search because 'GTIN' is not an exact match for any ID and is also not included in any of the full text attribute values.



Setting the ID data specification as 'Full Text' and also as 'ID Query' allows the use of wildcards to find IDs. This configuration also means that all objects with a match for the searched data in 'Full Text' data specifications are returned.

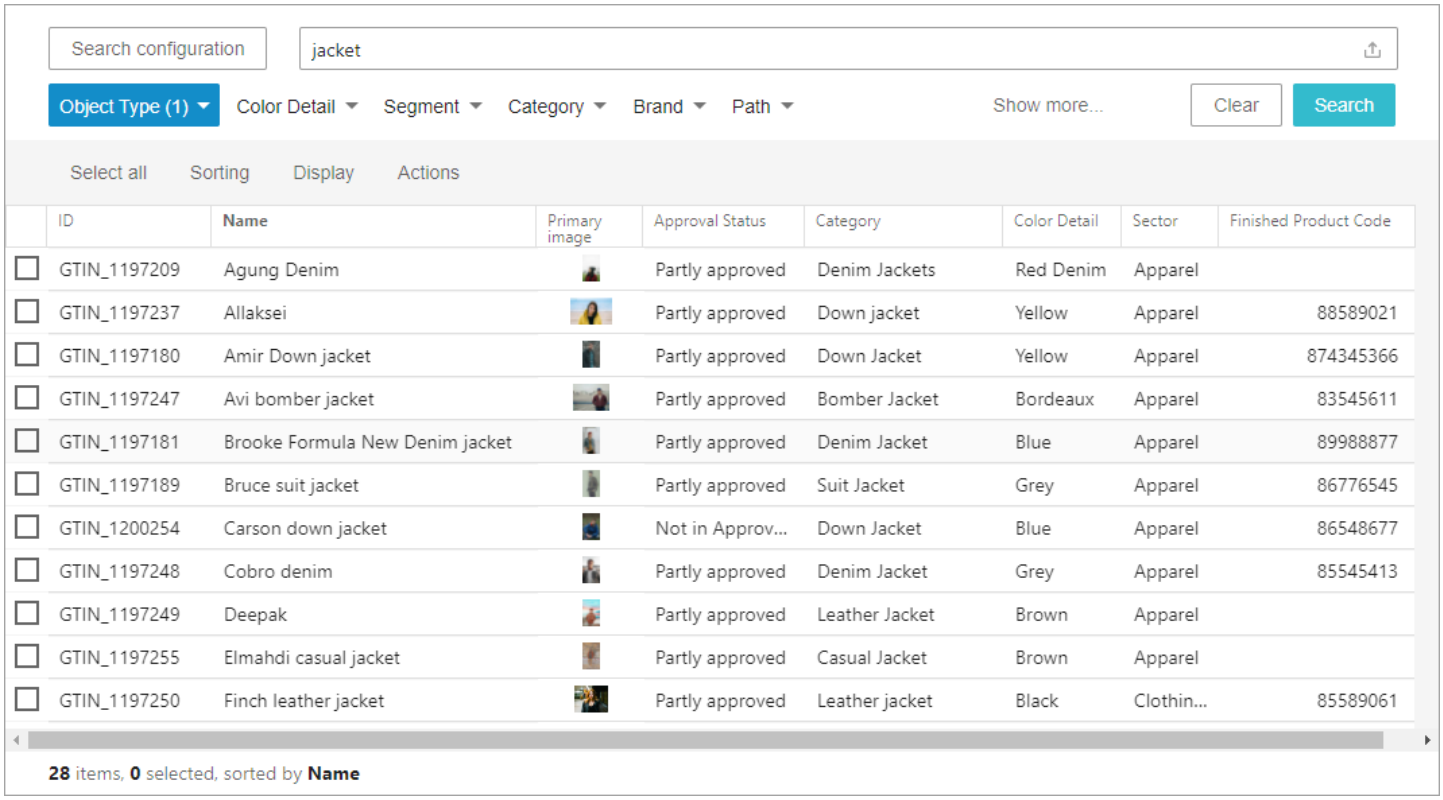
The image below shows an ID data specification that is set as ID Query and as Full Text. The wildcard search for 'GTIN*' returns all objects because it is including ID in the full text search.



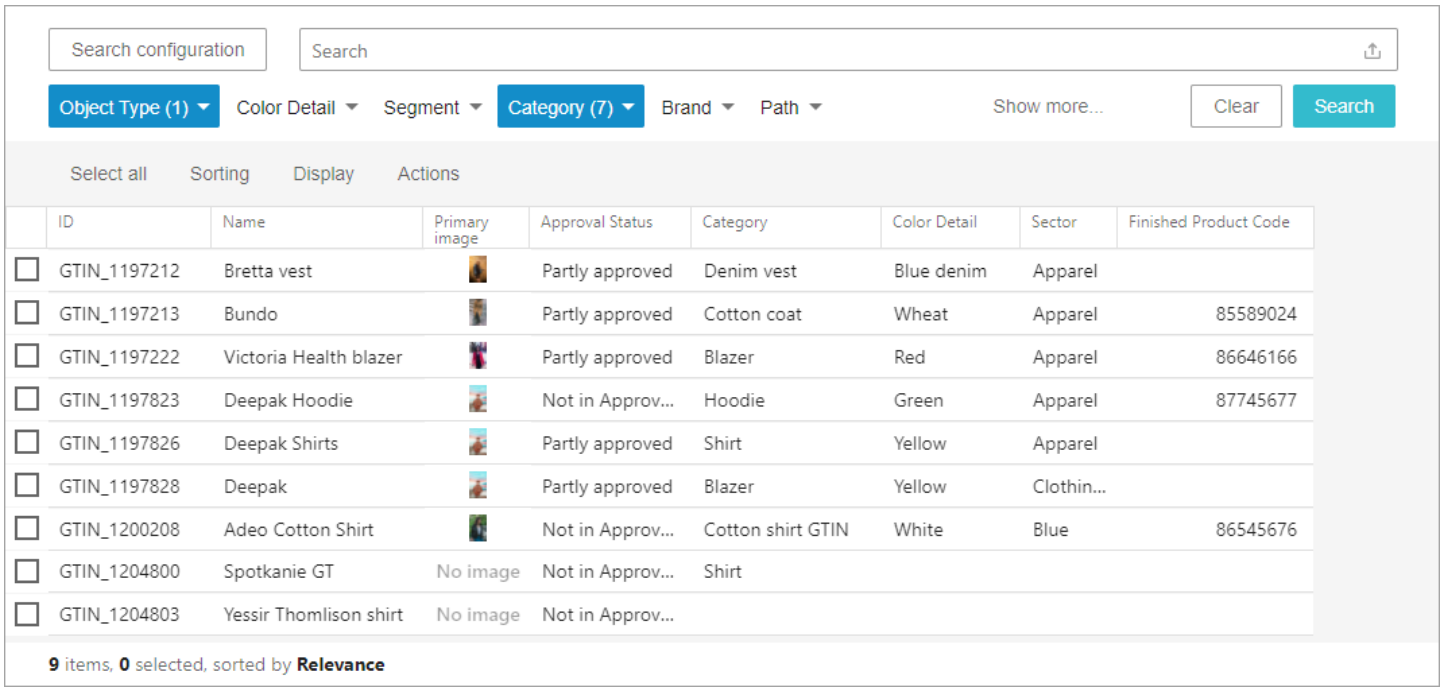
Full Text Searching

The Elasticsearch configuration for the following image includes the Name and Category ID data specifications as 'Full Text' selections.

Searching for 'jacket' returns all GTIN objects with that text within 'Full Text' data specifications. In the sample data set, the results are 28 of the 37 total objects. The 'jacket' text is included in the Name and/or Category columns.

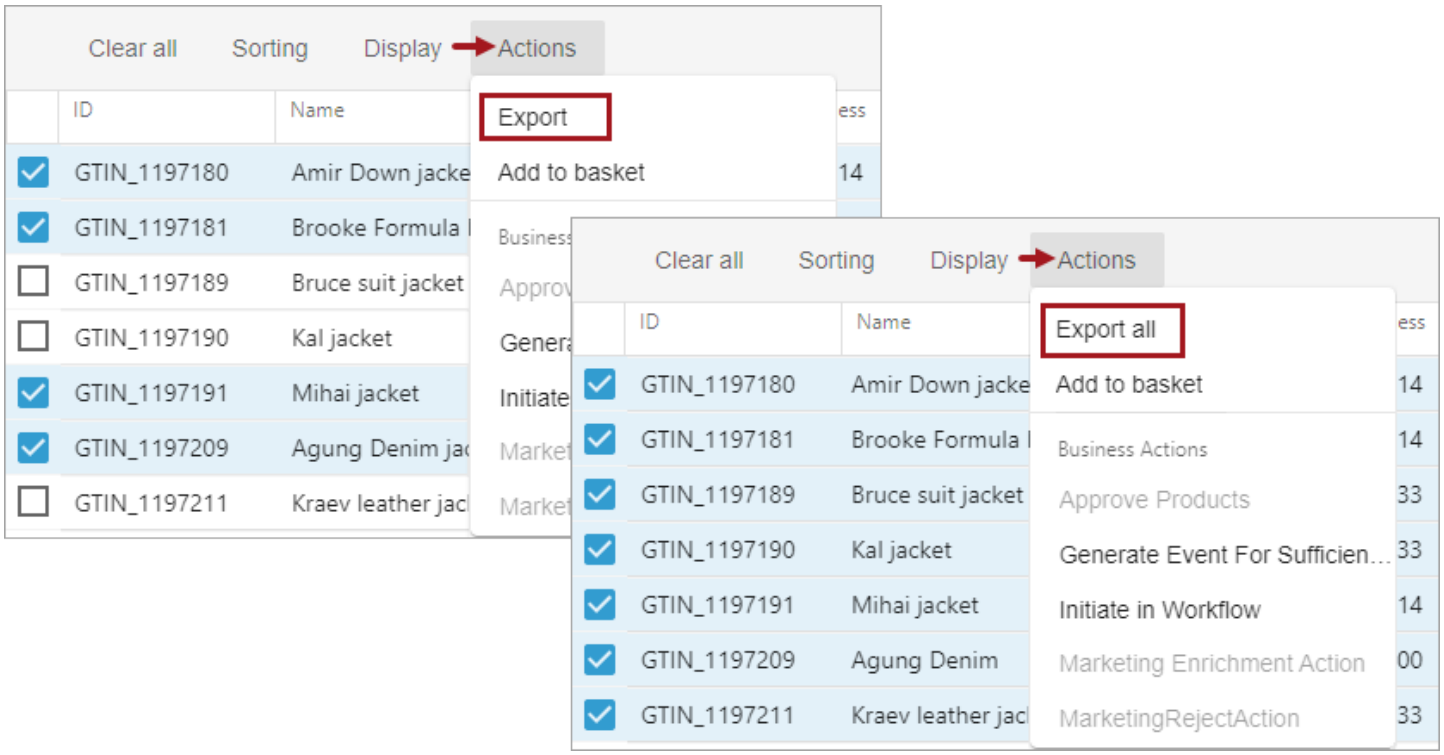


The excluded data is shown below via the Category attribute values where 'jacket' is not found in the full text data specification values.



Search Screen Actions

The Actions menu includes options that impact the selected objects in the faceted search results.



- **Export / Export all** - requires that at least one item is selected and allows the attributes currently displayed to be exported for the selected search items via background process. The 'Export' option indicates that not all search results are selected while the 'Export all' option indicates that all search results are selected (either individually or using the 'Select all' button).

  Starting an export of more than 10,000 items displays a message with the exact count of items, text that the background process may take longer than expected, and the option to cancel the export.

  The attributes included in the view are determined by the selection from the 'Define view' option and the export includes all data for the selected objects — even data hidden by scroll bars. For information on the 'Define view' option, refer to the Search Screen Search Configuration topic.

  This functionality is also available and documented in the Custom Export Action topic.

  For information on monitoring background processes in Web UI, refer to the Background Process List Screen topic.

- **Add to basket** - Includes the selected items in the basket, making them available for exporting or publishing to PDX. The 'Add to basket' option is disabled when more than 10,000 items are selected. For more information, refer to the Search Screen Basket topic.

Objects added to the basket are stored in a temporary collection with an ID of 'basket-*[user ID]*' where the [user-ID] designation is the login ID of the user who created the basket. The temporary collection can be viewed from Tree within the Collections node. For more information, refer to the Collections topic in the Getting Started documentation.

- **Business Actions** - Executes an action against all selected objects, via a background process. Business rules shown in dark text (such as 'Initiate in Workflow' in the image above) are valid for all of the selected objects. Business rules shown in light gray text (such as 'Approve Products' in the image above) are not valid for all of the selected objects.

  Note: Only business actions that the user is privileged to view are displayed, including those without a name. Unnamed actions are displayed with an automatically generated ID, such as: (acn-bfe9d658-0db1-434e-8d57-30cab3e90f8f). Use the 'Visible Business Actions' step in the Elasticsearch configuration wizard to set restrictions on accessing specific business actions based on user groups. For more information, refer to theCreating an Elasticsearch Configuration topic.

  For more information on business rule validity, refer to the 'Valid Object Types Parameter' section of the topic Editing a Business Rule or Function in the Business Rules documentation.

  For general information on business actions, refer to the Business Rules documentation.

  For information on monitoring background processes in Web UI, refer to the Background Process List Screen topic.

Note: Exporting from search results does not have the ability to export data containers.

Search Screen Basket

The Search Screen basket is used to temporarily hold a group of objects for the current user. Objects selected from search results are added via the Actions menu (defined in the Search Screen Actions topic) before being published or moved into a collection.

Prerequisites

1. The basket functionality requires the activation of the 'ui-basket' component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

   Once activated, the basket button () and a count of the items in the basket displays automatically on the Global Navigation Panel when new Web UIs are created and when the Global Navigation Panel is added to a Web UI. Refer to the Global Navigation Panel topic in the Web User Interfaces documentation.

2. Determine if the Search Screen Basket button should only display in certain Web UIs and not display in every Web UI. To limit the Web UIs displaying the basket, add the following case-sensitive property to the sharedconfig.properties file on the application server: `PrimaryNavigation.IncludeBasket`. The property value is a list of the Web UI IDs that should display the basket, each separated by a semicolon. For example, to indicate that two Web UIs with the IDs 'Asset_Maintenance' and 'Product_Maintenance' should display the basket functionality, add the following:

   ```
   PrimaryNavigation.IncludeBasket=Asset_Maintenance;Product_Maintenance
   ```

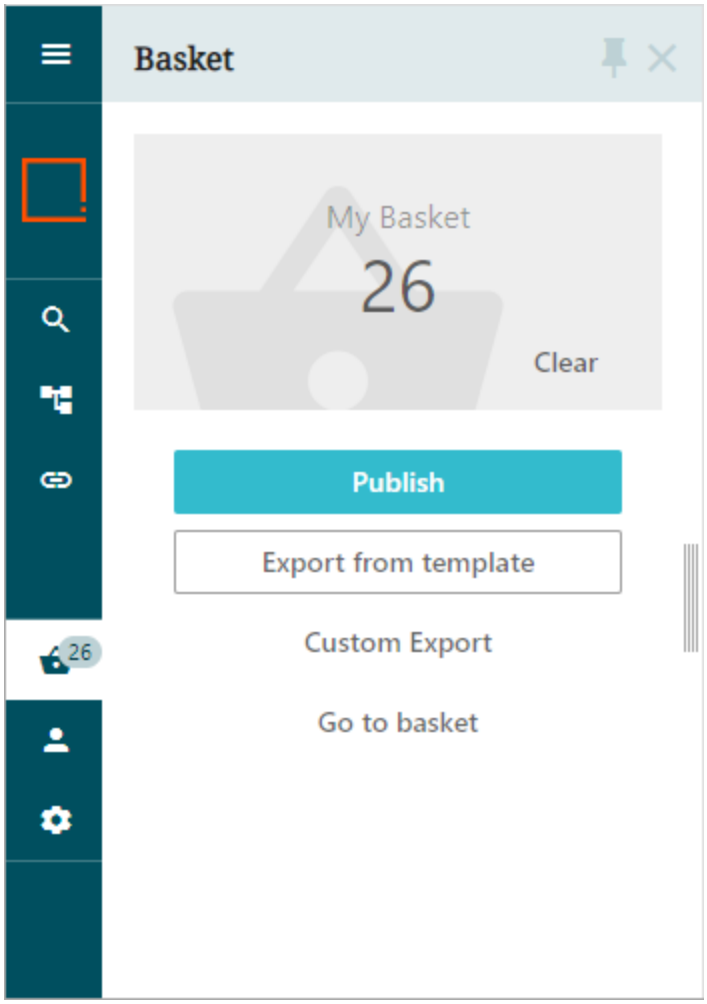
   If the basket functionality should not display in any Web UI, either remove the 'ui-basket' component or add the `PrimaryNavigation.IncludeBasket` property with a non-existent Web UI ID for the value.

3. To display the 'Publish' button for the Search Screen Basket, install the X.Adapter.ProductDataSyndication license.

For information on related components for use by data stewards, refer to the **Data Enrichment Components** topic in the **Search Screen** section of the **Web User Interfaces** documentation.

Basket Dialog

Objects are added to the basket using the 'Add to Basket' option on the Actions menu as defined in the Search Screen Actions topic. To display the basket dialog, click the basket button in the Global Navigation Panel.



The number of objects in the basket is displayed on the basket button and at the top of the basket dialog. The **Clear** button removes all objects from the basket.

The actions available for the contents of the basket are defined in the sections below.

Publish

Important: To display the 'Publish' button for the Search Screen Basket, the license X.Adapter.ProductDataSyndication needs to be installed.

The 'Publish' option starts a wizard that enables you to send the basket contents to a selected PDX (Product Data Exchange) channel. For more on PDX, refer to the Product Data Exchange topic in theData Integration documentation.

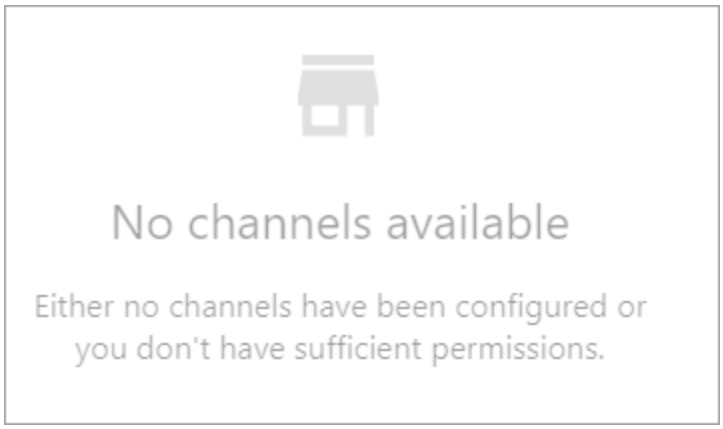
Note: For products to be successfully published to a channel via the Search Screen Basket, they must already exist in PDX as master data first. For instructions on how to publish to PDX, refer to the Setting Up the PDX OIEP topic in the Product Data Exchange section of the Data Integration documentation.

For access to channels, the user must have an email address in STEP that matches their email address in PDX. This is required to correctly filter channels displayed in the Publish wizard. To add an email address, refer to the Working with Users topic in the System Setup documentation.

If a user has no email address in STEP, this error is displayed:



If a user has an email address in STEP that does not exist in PDX, this error is displayed:



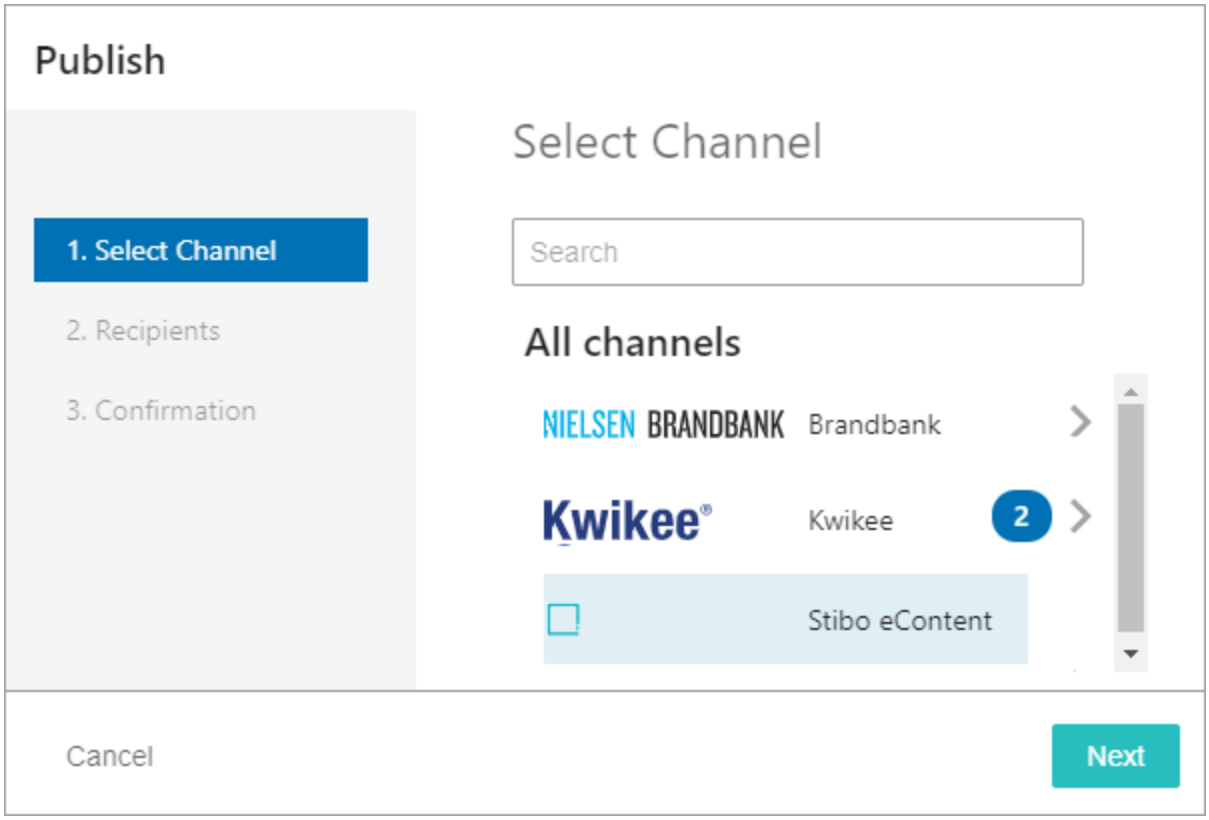
For information on using a sufficiency business condition and two business actions to identify products that meet your data standards and then only publishing those sufficient products to PDX, refer to the Publishing Only Sufficient Products to PDX topic.

To publish data to PDX channels:

1. Add objects to the basket, and on the basket dialog click the **Publish** button to display the Publish dialog.

   Note: Click the **Cancel** button on any wizard step to discontinue the publishing process.

On the Select Channel step, channels and sub channels are displayed in a nested structure.



2. Search for and select one or more channels from the list and click the **Next** button.
   - Click the right arrow button ( ) to open the nested structure of sub channels available for each primary channel.
   - Select an individual channel or, after displaying the nested sub channels, use the All or None selection links (Select: All, None) to update the selections. Selecting a channel is reflected by the count (2) displayed on the 'All channels' page.
   - While on a sub channel, click the left arrow button ( ) to go back through the nested channel structure, ultimately returning to the 'All channels' page.
3. When the selected channels are managed by vendors, the optional Recipients step is displayed, supply the required data and click the **Next** button or click the **Back** button to return to the previous step.
4. On the Confirmation step, review the publishing action that will be performed. Click the **Publish** button if you approve of the action or click the **Back** button to modify previous steps.

   Note: The basket contents are emptied when the publish action is completed.

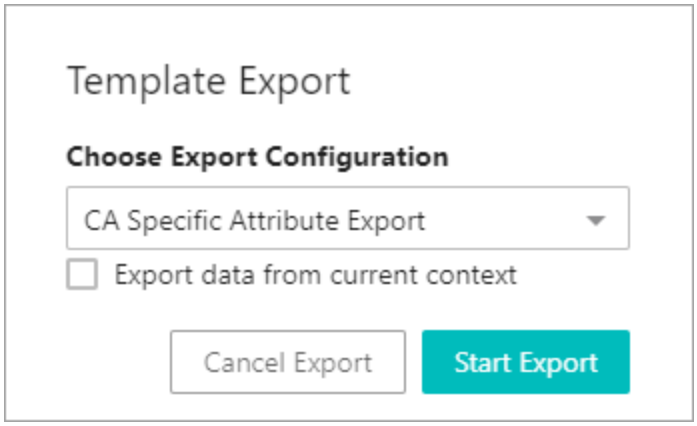
5. Verify the results of the publishing action:

- **Success** indicates that all products have been accepted for submission to the channel.
- **Submitted with errors** indicates that only some products have been accepted for submission to the channel and others failed on a validation level.
- **Communication error** indicates that there is a problem with the environment setup or that the user is missing an email address in STEP.

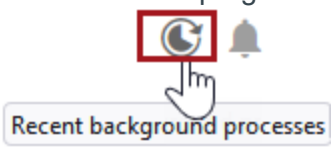
Note: For channels managed by a vendor, when at least one product was accepted for submission to the channel, a link is displayed. Click the link to download an Excel file with submission status information.

Export From Template

The 'Export from template' option exports the basket contents using a template previously defined in the workbench. For more information, refer to the 'Export Action' section in the Action Buttons topic within the Web User Interfaces documentation.



1. On the basket dialog, click the **Export from template** button to display the Template Export dialog.
2. On the Choose Export Configuration parameter, from the dropdown, select an export configuration. All saved export configurations are displayed. For more information, refer to the Maintaining a Saved Export Configuration topic.
3. On the 'Export data from current context' checkbox, use the following information to determine if the checkbox should be checked.
   - By default, STEPXML and Advanced STEPXML configurations export data from the current Web UI context.
   - By default, non-STEPXML configurations export data from the context saved in the export configuration. To overwrite the configuration context and export data from the current Web UI context, check the 'Export data from current context' parameter.
4. Click the **Start Export** button to start the export background process or click the **Cancel Export** button to terminate the export process.

The user can track the progress of the export by clicking on and opening the 'Recent background processes' panel, 

, in the upper right corner of Web UI, or if configured, the Background Process List Screens. For more information on configuring the Background Process List Screen, refer to the Background Process List Screen section of the **Using a Web UI** documentation.

To assign a new file name in Web UI, once the file name is displayed as a background process with status 'Succeeded,' right-click the file name link and choose **Save Link As** option to provide the desired file name.

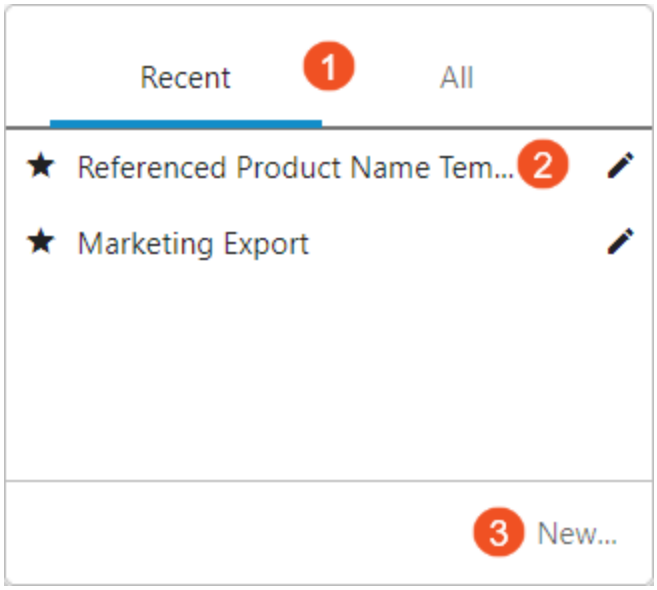
Note: Exporting from search results does not have the ability to export data containers.

Custom Export

The 'Custom Export' option allows you to display the Custom Export dialog and create an export of the basket contents. No configuration is required for the Custom Export when used from the basket, but because it can also be used elsewhere in the Web UI, configuration is defined below and in the Custom Export Action topic.

Custom Export Dialog

The numbered items in this dialog are defined below:



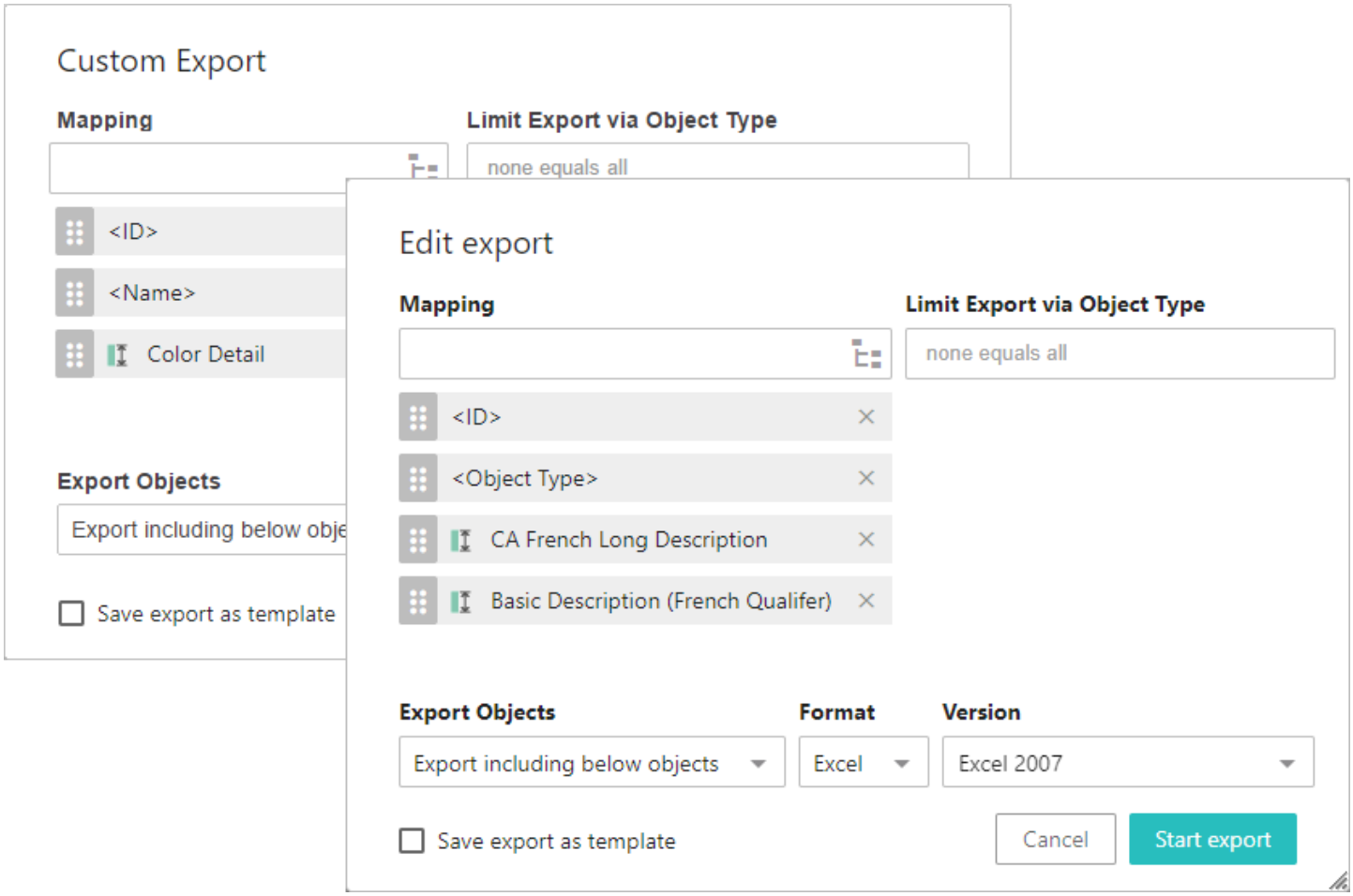
1. **Recent** and **All** - Click the **Recent** tab or the **All** tab to display a list of saved custom export
2. Saved custom exports - Click the row of a saved export (such as 'Marketing Export' shown above) to display the 'Edit export' dialog (shown below). This allows you to review the export settings and start the export. Right-click the edit button (✎) to display Edit, Delete, Rename, and Share options. If shared, the export configurations can be reused by all members of the designated user groups.

3. **New...** - Click the **New...** button to display the 'Custom Export' dialog (shown below) and to define a new custom export.

The **Close** button closes the dialog without initiating an export.

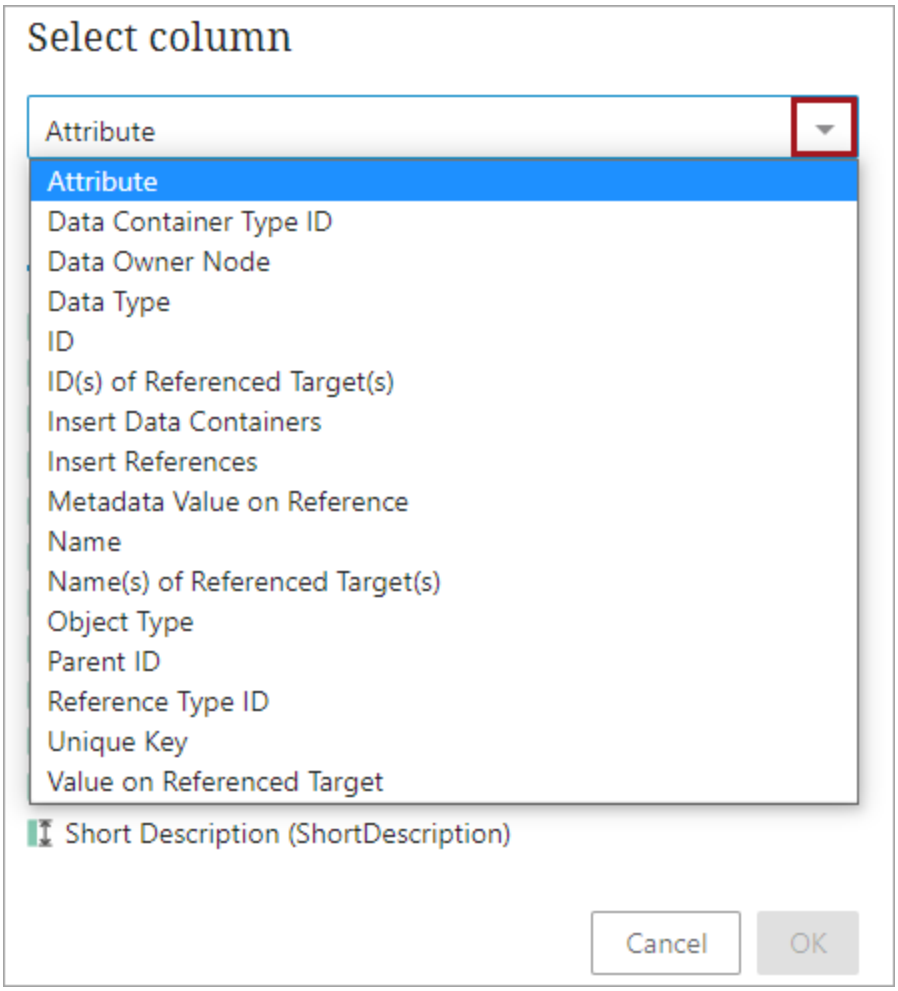
Configuring a Custom Export

The 'Custom Export' and the 'Edit export' dialogs include the same parameters to define the export data.



1. For the Mapping parameter, use the typeahead field to search for attributes by name, or click the node picker button ( ) to display the **Select column** dialog (shown below) to select the type of item for mapping from the available options. Use the dropdown to set the item and display additional options based on selection. Refer to the **Example** section below for more information.

Once added, the new mapping can be reordered by clicking and holding the sort button ( ), dragging to the desired place in the list, and then releasing the button. The screenshot below shows the kinds of headers users can include in their custom imports. Below the screenshot is a list of the available column types.



- **Attribute** - When selected, users are prompted to select the desired attribute from those configured on the system. The selected attribute's value displays in a column named after the attribute. This is the default column type.
- **Data Container Type ID** - The 'Data Container Type ID' option allows output of the ID of the data container type for rows representing a data container object. This option is primarily relevant to export data containers of different types or to be able to import the exported file again.
- **Data Owner Node** - When using the 'Insert References / Data Containers' functionality, by convention, all non-NODE rows following a NODE row, represent data owned by the NODE. The 'Data Owner Node' option allows you to make the relationship between the NODE and non-NODE rows more explicit. For each row representing a data container object, a reference object, or a classification product link object, the owner node ID can be included in the 'Data Owner Node' column.

- **Data Type** - The 'Data Type' data source exports static text values of 'NODE', 'DATA_CONTAINER', or 'REFERENCE' to identify the reference or data container information on the row.
- **ID** - Displays the ID of the listed objects in a column with the header 'ID.'
- **ID(s) of Reference Target(s)** - Displays the ID of a target object referenced by the source object. For instance, if Acme SmartPhone is the object listed in the table, and Acme SmartPhone references Acme Headphones, the ID of Acme Headphones will display in this column.
- **Insert Data Containers** - The 'Insert Data Containers' data source can export data container values and reference target IDs and names, that are owned by the exported object in a separate row. This option is available in the CSV and Excel formats and is effective when exporting product or entity objects, both of which can own data containers.
- **Metadata Value on Reference** - Displays a value of an attribute on the reference that links the listed source object to the reference target object. For instance, if the reference connecting Acme SmartPhone to Acme Headphones has on it a metadata attribute related to Bluetooth compatibility, then the value of this metadata attribute will display in this column. Users have the option to also include the Reference Type name to display alongside the metadata value to help users differentiate between similar values across multiple Metadata Value on Reference columns. This can be done by checking the 'Include reference type in header' setting when configuring this header.
- **Name** - Displays the 'Name' value of the selected objects in a column with the header 'Name.'
- **Name(s) of Referenced Target(s)** - Displays the name of a target object referenced by the source object. For instance, if Acme SmartPhone is the source object listed in the table, and Acme SmartPhone references Acme Headphones as the target object, the name 'Acme Headphones' will display in this column.
- **Object Type** - Displays the object type of the listed object in a column with the header 'Object Type.'
- **Parent ID** - Displays the Parent ID of the listed objects in a column with the header 'Parent ID.'
- **Reference Type ID** - The 'Reference Type ID' option allows output of the ID of the reference or classification product link type for rows representing a reference or classification product link object. This option is primarily relevant to export references and links of different types to be able to import the exported file again.
- **Unique Key** - If a unique key is configured for the listed object, the unique key will display in a column with the header 'Unique Key.'
- **Value on Referenced Target** - Displays a value of an attribute on the referenced target object. For instance, if the source product is Acme SmartPhone and it references a target object called Acme Headphones, and the requested data is the value of the 'Color' attribute on Acme Headphones, then a color value like 'Metallic Gray' would display in this column. Users have the option to also include the Reference Type name to display alongside the referenced target value to help users differentiate between similar values across multiple Value on Referenced Target columns. This can be done by checking the 'Include reference type in header' setting when configuring this header.

2. For **Limit Export via Object Type**, the exported objects can be limited further by choosing specific object types to be exported. Click the parameter to display a list of all the object types in System Setup. If nothing is

added to this parameter, the export is not limited by object type.

3. For **Export Objects**, the user can choose which objects to export:
   - Export including below objects
   - Export only leaf objects
   - Export only selected objects
4. For **Format**, select an export format: Excel or CSV. If CSV is selected, the user can choose which delimiter to use (if the default configured in the Custom Export Action designer is not applicable for the given job).
5. For **Version**, choose an Excel version to be used. It is recommended that the newest supportable version of Excel is used. The default is Excel 2007.
6. For **Save export as template**, check the box to name the export, retain the settings, and display it for selection on future custom exports.

   Important: The **Maintain type hierarchy (node types)**, a setup action for Object Types, must be granted in order for a user to have access to the 'Save export as template' action in Web UI. Refer to the Setup Actions and Error Descriptions topic in the System Setup documentation for more information.

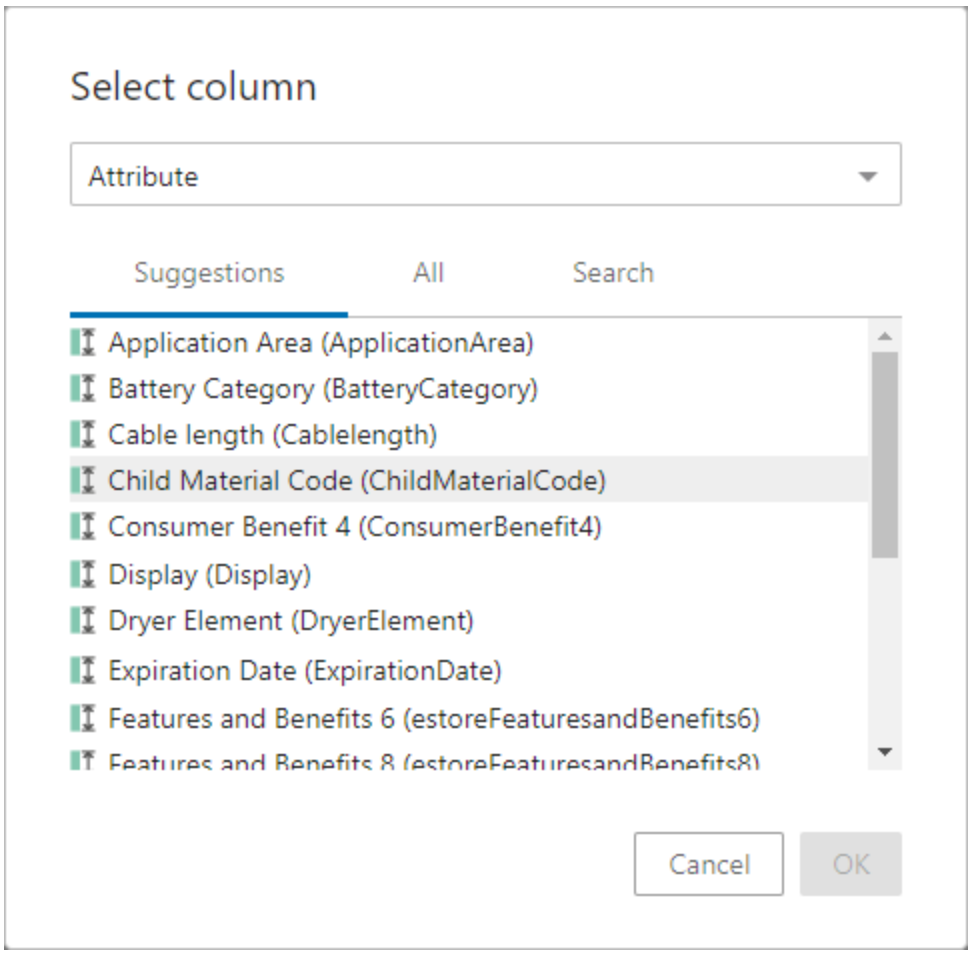
7. Click **Start Export** to begin the background process or **Cancel** to leave the dialog without saving.

   The exported file is automatically named. For example, 'excel-2020-07-24_11.12.27.xlsx' where 'excel' indicates the file type (Excel and CSV are the only options for this action), '2020-07-24_11.12.27' is the timestamp of the background process as YYYY-MM-DD_HH.mm.ss. To assign a new file name, once the file name is displayed in the **Background Process Node Details Screen** as a background process with status 'Succeeded,' right-click the file name link and choose **Save Link As** option to provide the desired file name.

   The file name is also used as the process description and can be viewed in the Web UI in the 'Recent background processes' side panel. For more information, refer to the Recent Background Processes Side Panel topic and the Background Process List Screen topic in the **Web User Interfaces** documentation. For more information on the BG Processes tab in workbench, refer to the BG Processes Tab topic in the Getting Started documentation.

Example

For example, when the attribute option is selected, three tabs are displayed to help you find the required attribute. Suggestions are given based on a sample of the objects in the beginning of the selection. Under the 'All' tab you can browse through all the attributes in the system. Finally, you can search for a given attribute under the 'Search' tab.



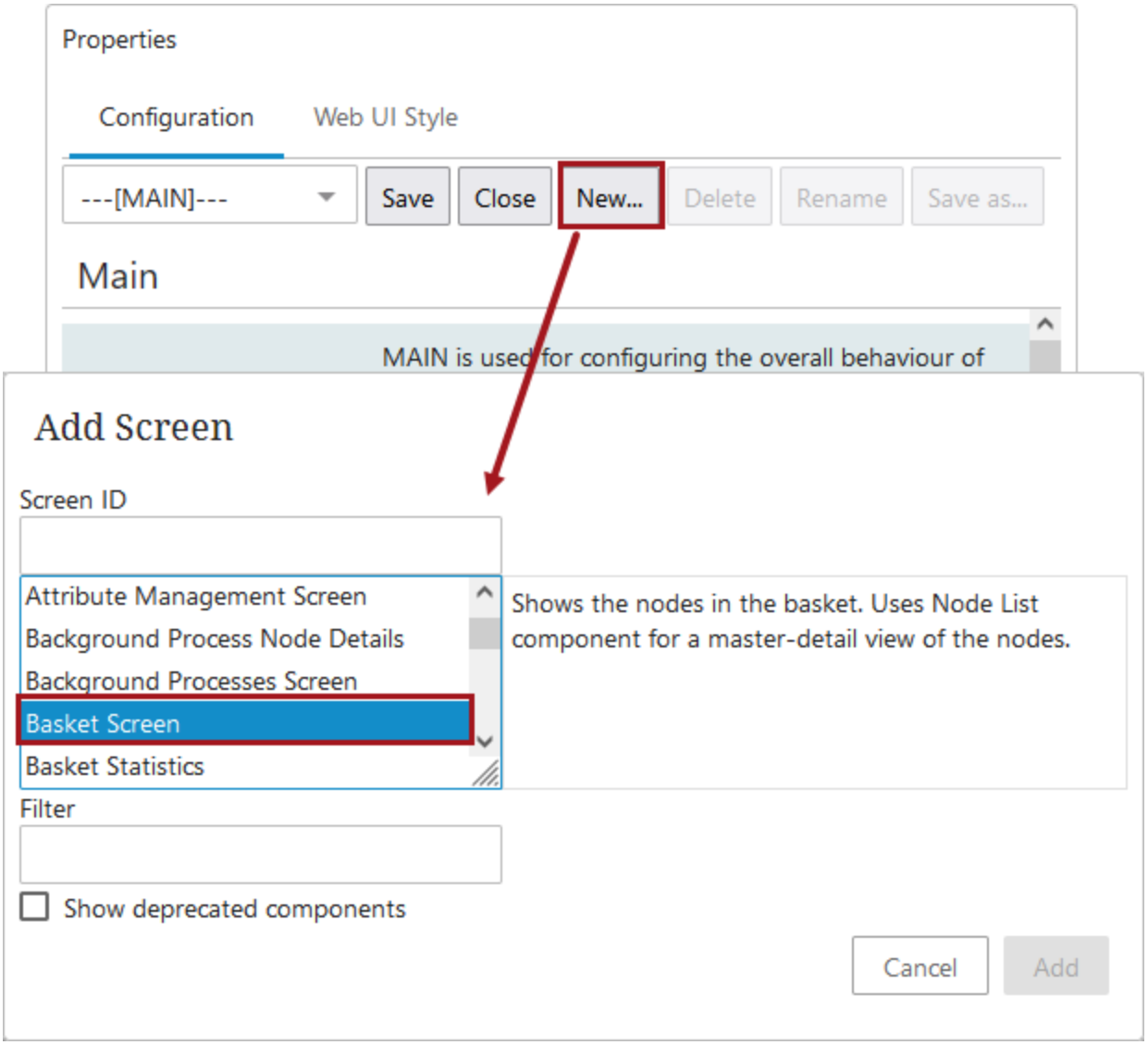
If you select ID, Name, or Object Type, no additional information is required. Click **OK** to return to the previous dialog.

Go To Basket

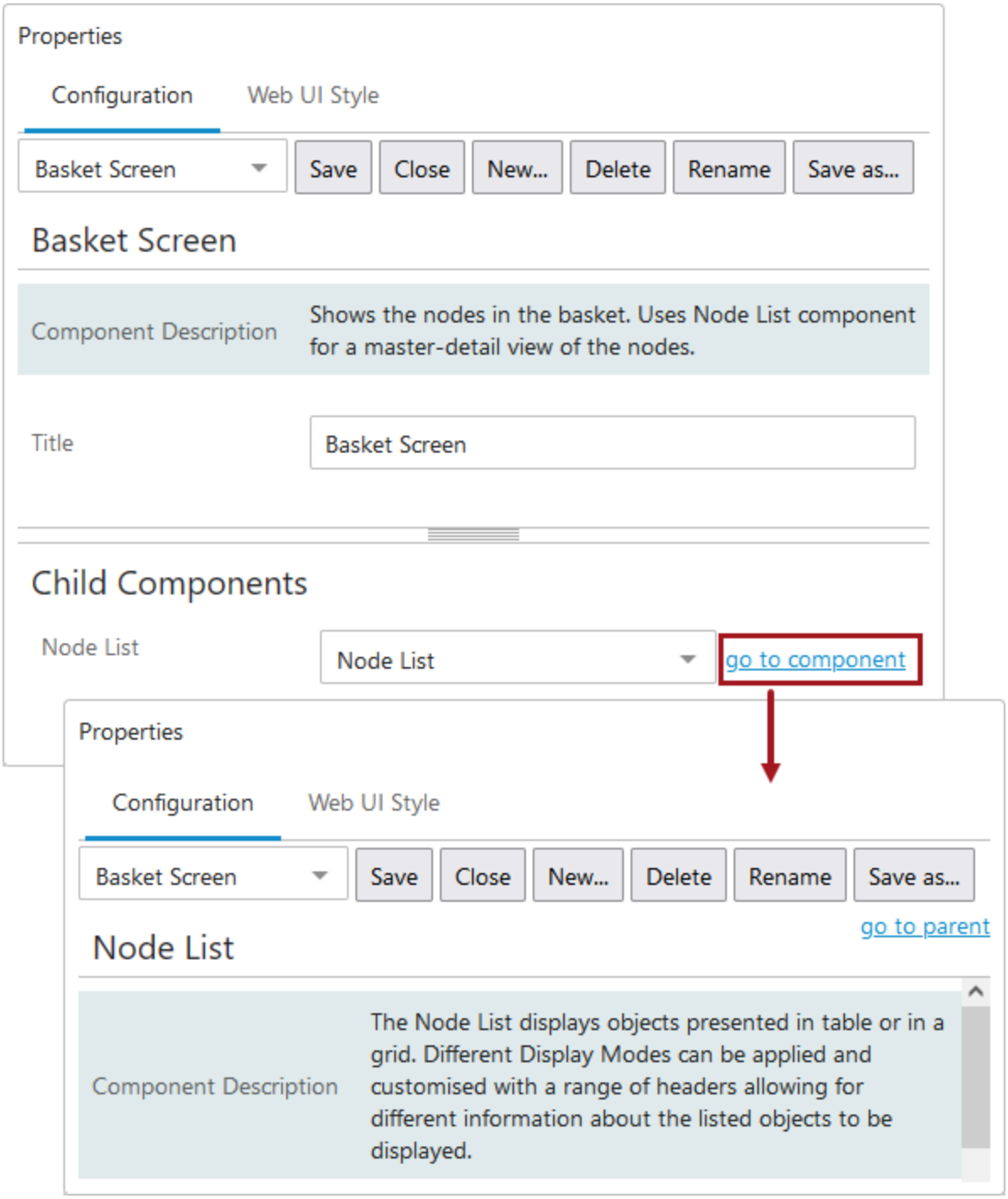
The 'Go to basket' option displays the basket contents in a Basket Screen using a Node List view where additional actions can be performed as allowed.

To configure properly:

1. Open the designer, click **New...**, and select **Basket Screen**.



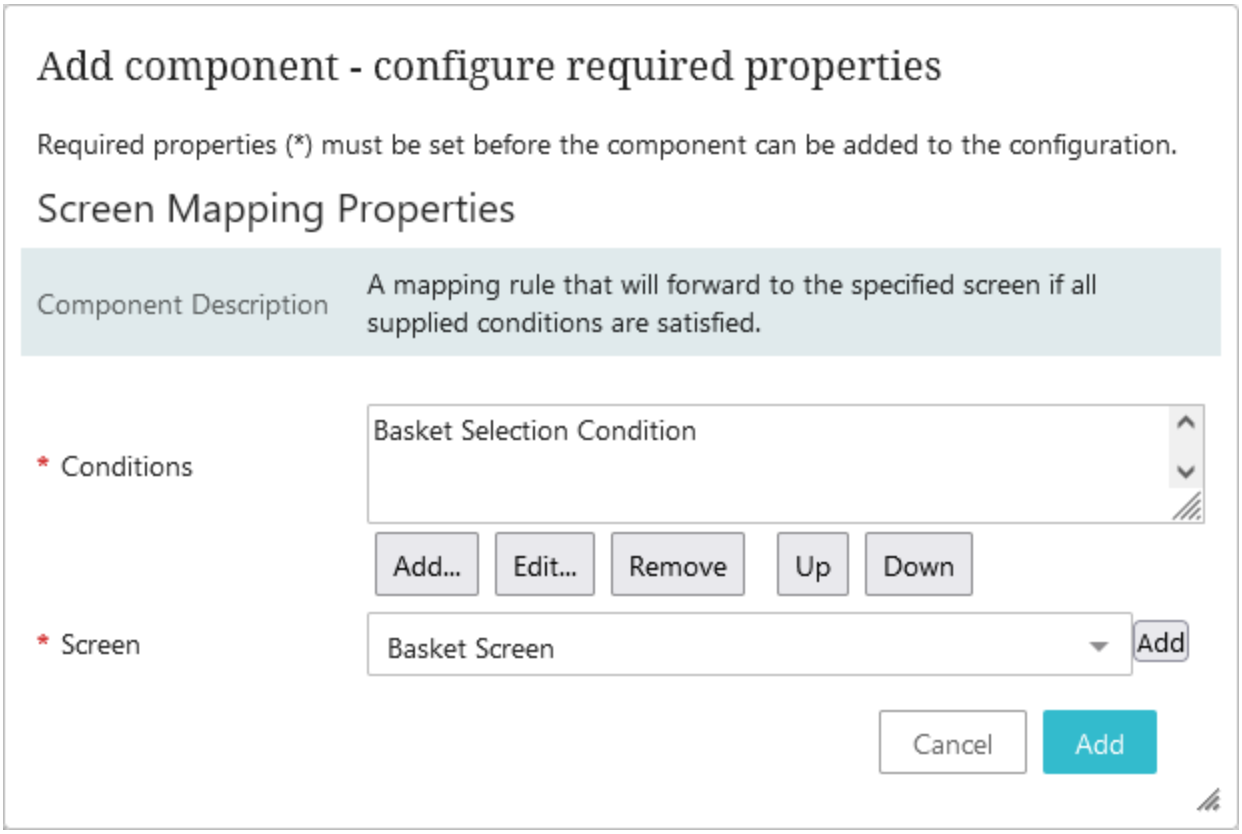
2. Enter in a **Screen ID**, and click **Add**.
3. On the Basket Screen, fill in the **Title** parameter, and under child components, select **Node List** from the dropdown.
4. Click **go to component** next to the Node List dropdown and fill out the Node List as needed.



For more information on how to configure a Node List, refer to the Node List Component topic in the Web User Interfaces documentation.

5. Next, go to **--[MAIN]--** in the designer, and go to the **Mappings** parameter. Click, **Add**.

6. Select the **Basket Selection Condition**. In the **Screen** parameter dropdown, choose the Basket Screen you created in the previous steps. Click, **Add**. Save and close the designer.



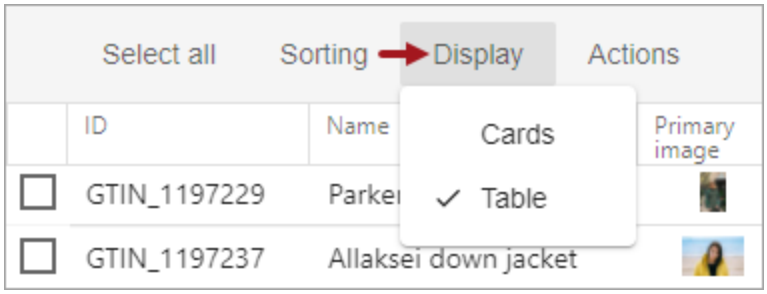
Search Screen Display

'Display' allows you to change the arrangement of information using a card layout or a table layout, which is the default display. Both layouts follow the selections made in the 'Define view' option (accessible from the Search Configuration button) to determine the information displayed and the 'Sorting' options determine the order of the data.

Actions and settings are applied to all layouts. This means that changing between layouts retains the view, select, and sorting settings, as well as the actions taken, such as objects added to the basket.

The scroll position of the objects being displayed is retained. For example, if while working through a list of items on the Search Screen, a user goes to the Product Editor screen to view additional data or make changes, returning to the Search Screen displays the list in the same position as it was previously.

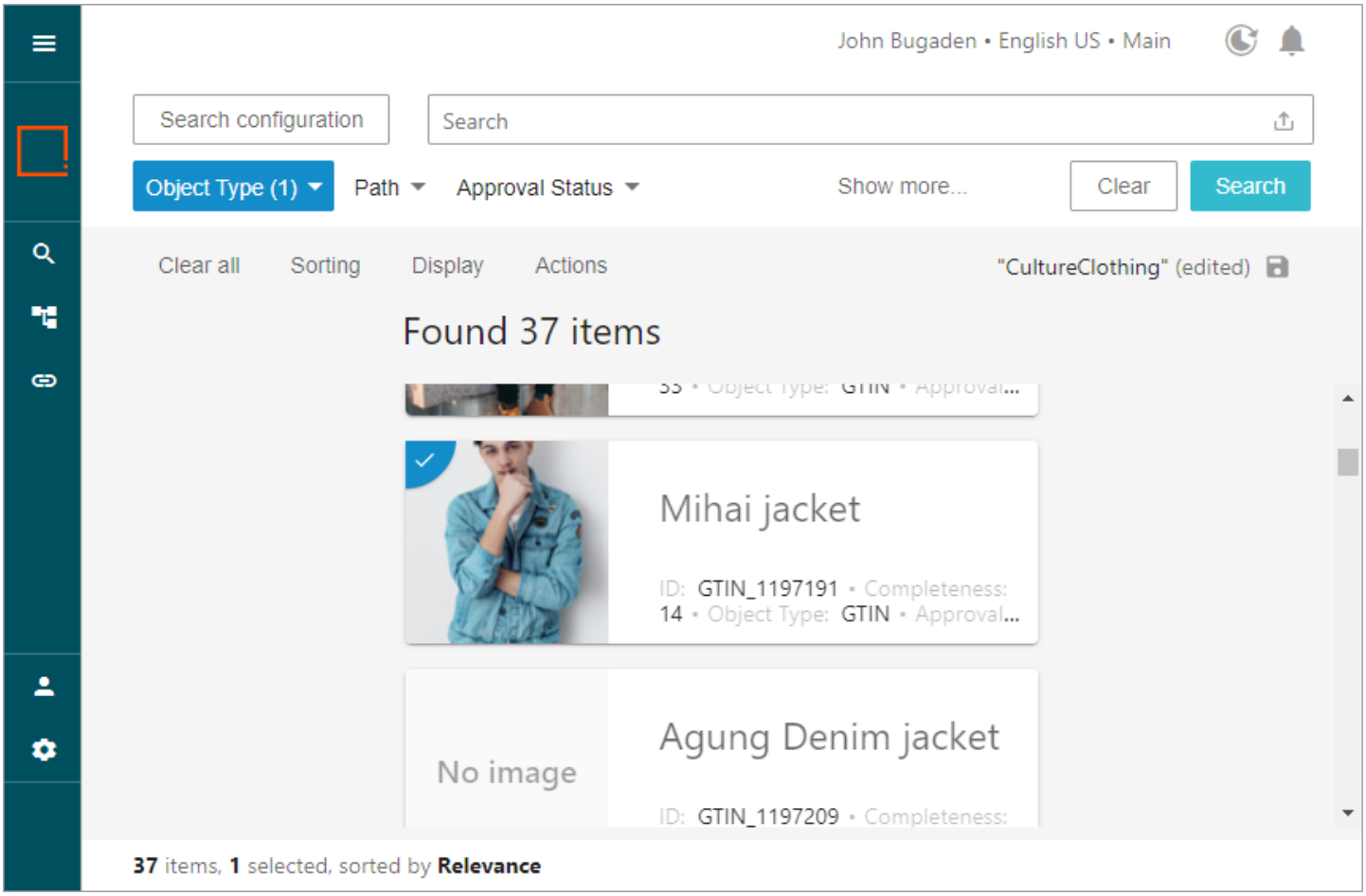
Click the 'Display' tab to show the following options:



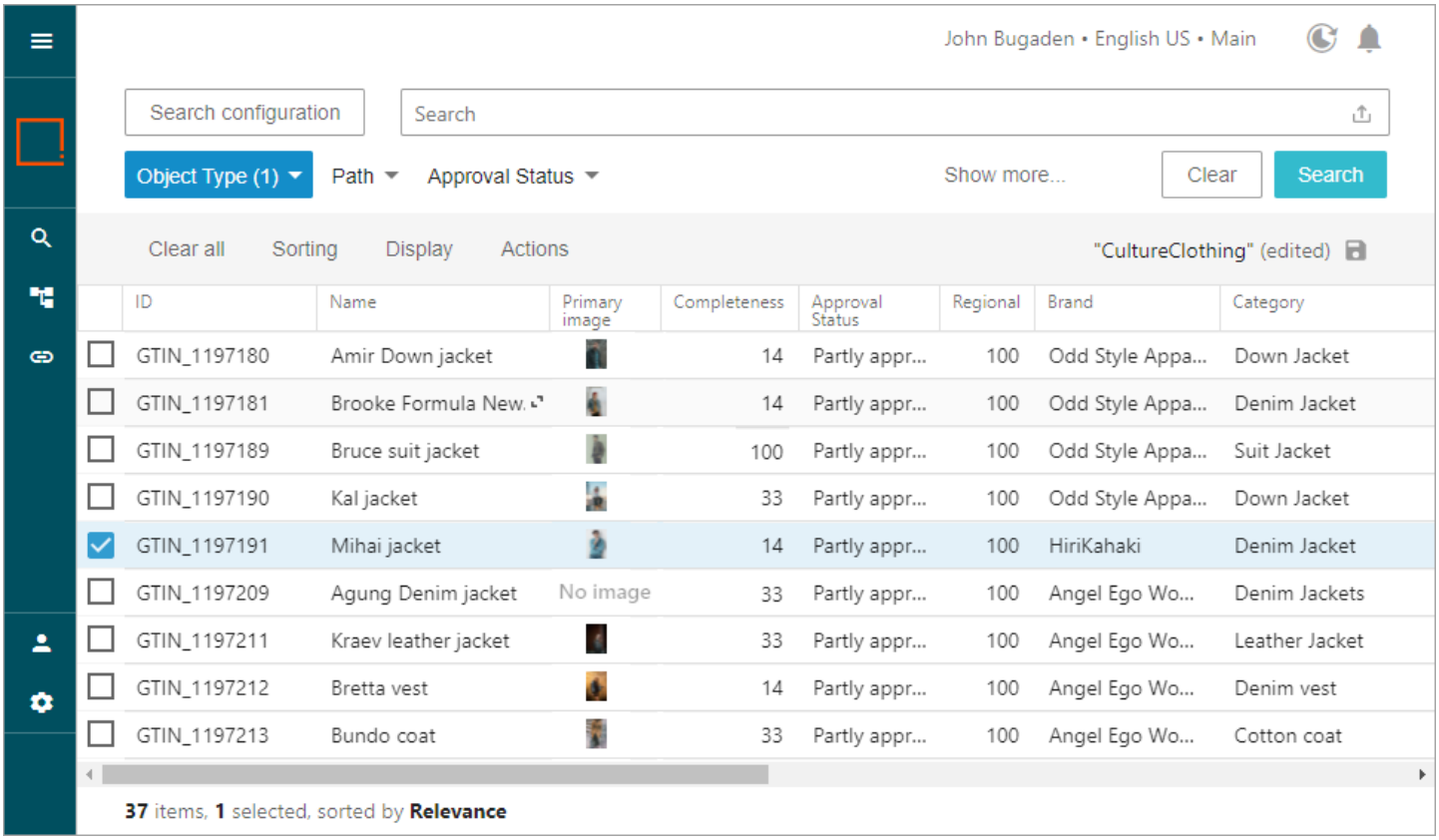
Regardless of the 'Display' selection, clicking the object name displays the object information on the configured screen. The user can click the browser's Back button to return to the previously displayed layout.

The same settings are used for the following two examples, only the layout of the data is different:

- **Cards** - Cards display object information in a graphical manner, including sizable thumbnails when available.



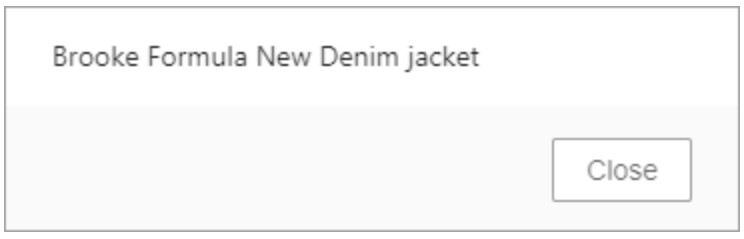
- **Table** - A row is displayed for each object, including small thumbnails when available.



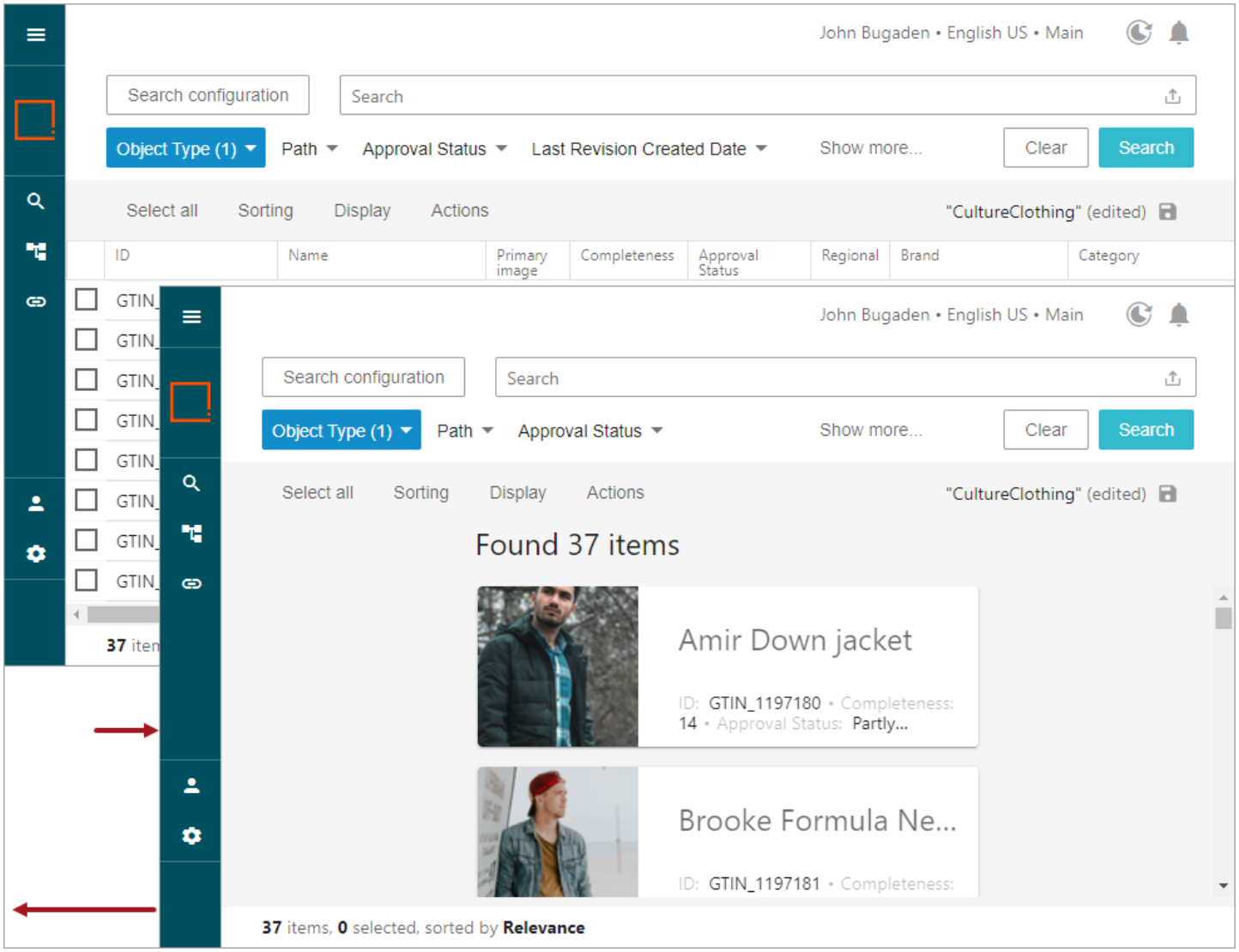
Columns can be manually resized by dragging the column dividers to display more or less data within a column. The modified column size is respected until the user changes it again, even when leaving and returning to the table view.

Note: When a horizontal scroll bar is displayed, columns can be resized only when the right-most column is on the screen (scroll right to show the last column). To make columns wider, repeatedly scroll right and widen the column as needed. For more resizing flexibility, maximize your window size or use the Define View option (documented in the Search Screen Search Configuration topic) to remove unneeded columns from the display.

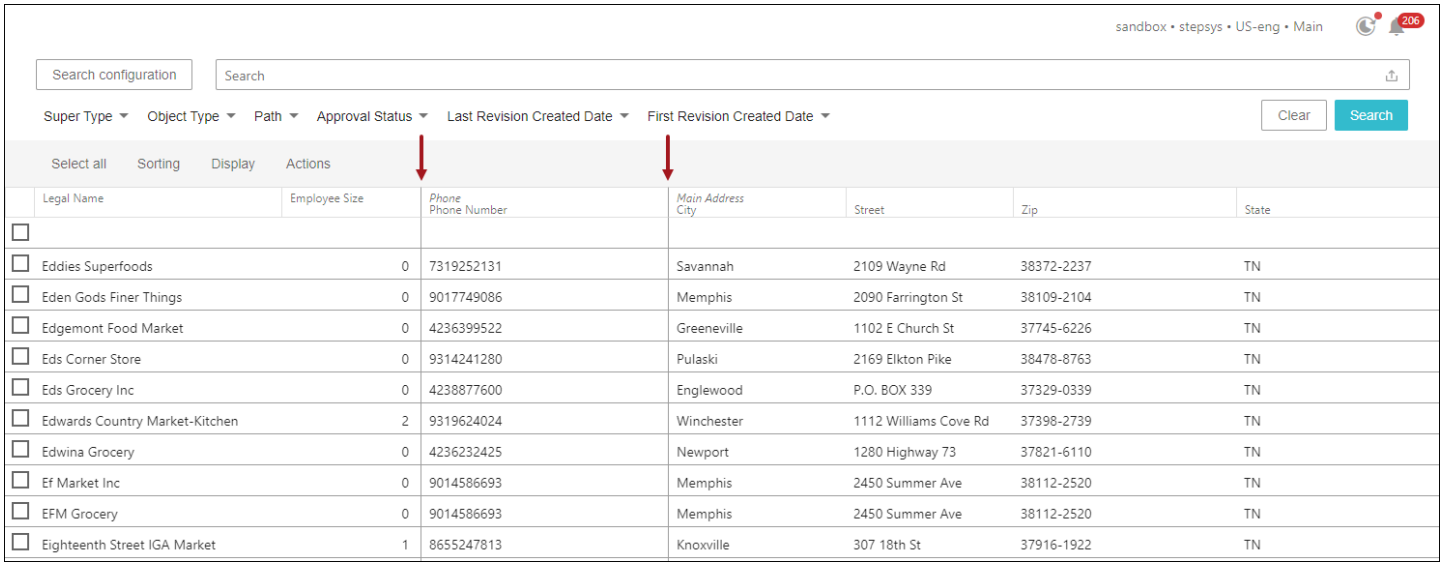
When additional data is available for a table cell, hover over the cell to display the 'show details' button (⤢). Click the button to display the full contents of the cell. For example, on the 'Brook Formula New' row in the image above, clicking the 'show details' button for the 'Name' column displays the following information:



Reducing the width of the screen while using the table layout results in a switch to the card view. Enlarging the screen width restores the table layout.

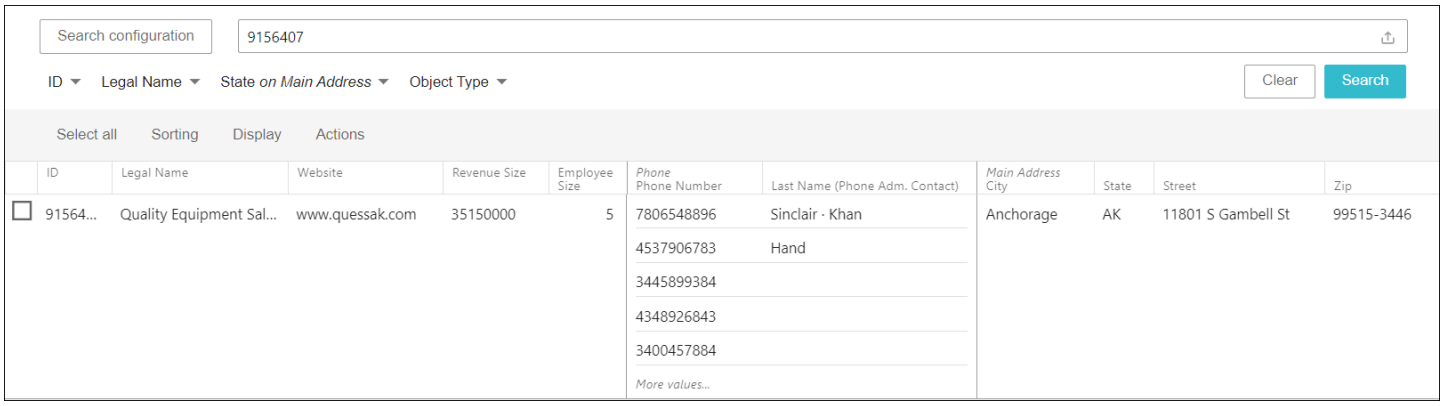


When displaying attributes that belong to a data container, a vertical dividing line will visually group said attributes together.



Legal Name	Employee Size	Phone Number	Main Address City	Street	Zip	State
Eddies Superfoods	0	7319252131	Savannah	2109 Wayne Rd	38372-2237	TN
Eden Gods Finer Things	0	9017749086	Memphis	2090 Farrington St	38109-2104	TN
Edgemont Food Market	0	4236399522	Greeneville	1102 E Church St	37745-6226	TN
Eds Corner Store	0	9314241280	Pulaski	2169 Elkton Pike	38478-8763	TN
Eds Grocery Inc	0	4238877600	Englewood	P.O. BOX 339	37329-0339	TN
Edwards Country Market-Kitchen	2	9319624024	Winchester	1112 Williams Cove Rd	37398-2739	TN
Edwina Grocery	0	4236232425	Newport	1280 Highway 73	37821-6110	TN
Ef Market Inc	0	9014586693	Memphis	2450 Summer Ave	38112-2520	TN
EFM Grocery	0	9014586693	Memphis	2450 Summer Ave	38112-2520	TN
Eighteenth Street IGA Market	1	8655247813	Knoxville	307 18th St	37916-1922	TN

When displaying multi-instance data containers, individual values will be listed in the associated attribute column as extra rows. Click 'More values...' to view values beyond the first 5 displayed. Data container reference values appear in the same row as the associated data container attribute value being referenced. When displaying multi-reference values, the extra values appear beside each other in the same cell, separated by a dot.



ID	Legal Name	Website	Revenue Size	Employee Size	Phone Number	Last Name (Phone Adm. Contact)	Main Address City	State	Street	Zip
91564...	Quality Equipment Sal...	www.quessak.com	35150000	5	7806548896	Sinclair · Khan	Anchorage	AK	11801 S Gambell St	99515-3446
					4537906783	Hand				
					3445899384					
					4348926843					
					3400457884					
					More values...					

Note: The table view results specifically display domain values for entities, products, assets, and classifications.

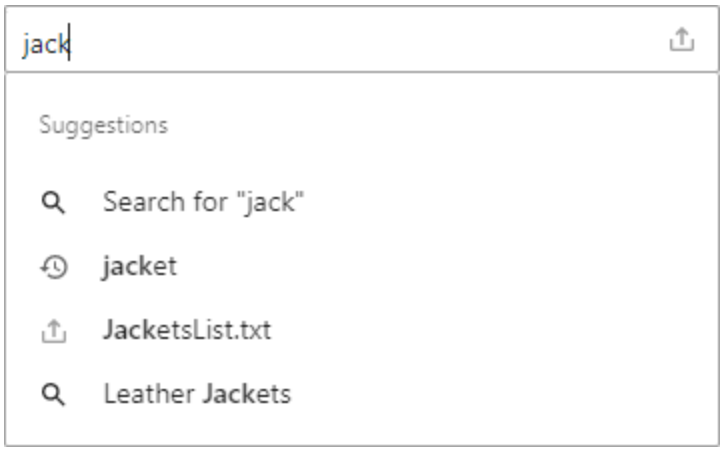
Search Screen Search Bar

No configuration is required for the faceted search bar functionality; however, sometimes operators are needed to indicate a particular type of search. Additional results can be added to the initial result set via the 'Show Related Results' button as defined below.



Typing into the search bar shows suggestions based the previous entries and can include:

- - indicates saved searches (refer to the **Saved Searches** and **Shared With Me** sections in the Search Screen Search Configuration topic.)
- - indicates text previously used in the Search Bar.
- - indicates a file previously uploaded.



Activate a search by typing your search text into the 'Search...' field, including the operators defined below to indicate the search type desired:

- **ID search** - requires no operator and finds objects that exactly match the specified ID. When more than one ID is searched, separate each with a comma. Multiple data specifications can be considered by the ID search, as defined by the 'ID Query' option in the Creating an Elasticsearch Configuration topic. Since this is an exact match search, the 'Show Related Results' button is not displayed.

  For example, '123456' will return the object(s) with 123456 in any of the attributes configured to be searched as an ID; and '123456, 654321' will return object(s) with the text for data specifications with the 'ID Query' option enabled in the configuration. Searching '123455' will return zero objects if the exact text is not included in any of the configured 'ID Query' or 'Full Text' data specifications.

  Note: You can copy a list of IDs from a table where a single ID is on each row / column, or when each ID is separated by a line break, comma, or tab. For example, tables or lists from Microsoft Office Suite

programs. Paste the list into the search bar and press the Enter key or click the Search button to display ID search results.

Also, refer to the **upload** button option below for information about using a list of IDs from a file.

- **Full-text search** - requires no operator and considers text within the data specifications, as defined by the 'Full Text' option in the Creating an Elasticsearch Configuration topic. When multiple words are searched, any object that contains at least one of the words is displayed.
- **Match phrase search** - requires double quote mark (" and ") operators and finds items that precisely match the typed search value, including the order of the words. With this search no allowance is made for typing mistakes as is allowed when using fuzzy searches (defined below).

  For example, searching "stainless steel" would not return an object with 'steel stainless' nor would it include an object with 'stainless' nor 'steel' only.
- **Fuzzy search** - requires no operator and after three correct first characters (defined by the 'FuzzyPrefixLength' parameter described below) it allows for up to one non-matching characters in a search value. Values that are potential matches are displayed. The 'Show Related Results' button is only displayed if there are additional results.

  An administrator can modify the fuzzy search result functionality using the following sharedconfig.properties settings. These examples show the default settings:

  ```
  Elasticsearch.Query.Fuzziness=AUTO
  Elasticsearch.Query.FuzzyPrefixLength=3
  ```

  Changes to the properties file are implemented when the server is restarted. For more information, refer to the Configuration topic in the Administration Portal documentation or search Elasticsearch online.

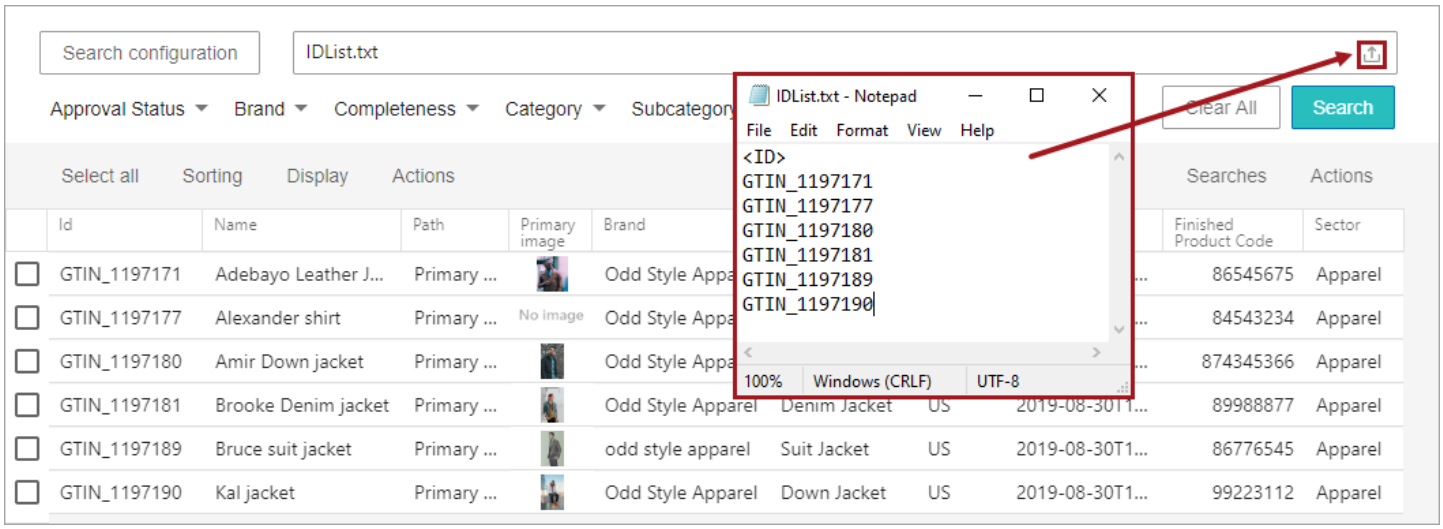
  For example, if the intended search word is 'active' but 'actevi' is typed instead, objects with 'active' are still displayed. However, searching 'svyive' (where the first three characters do not match any searched values) will not display 'active' results.
- **Wildcard search** - the asterisk (*) operator can be used to indicate any number of missing characters, and the question mark (?) operator can be used to indicate a single missing character.

Important: Wildcards are ignored when used as the first character in a search string since it could result in searching every available value, which would cause performance issues. When a wildcard is the first character in a search, a fuzzy search is performed instead.

For example, searching 'Ot_*' returns all objects that have a value that starts with 'Ot_' regardless of the text that follows these characters. Ot_289 would be returned, but Ot-289 would not be included. Additionally, searching 'Ot?1' returns only objects that start with Ot, have a single variable character, and end with 1. So 'Ot_1' and 'Ot-1' would be returned, but 'Ot_2' would not be included in the results.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

The **upload** button ( ) allows the user to select a .TXT file (with a maximum size of 100MB) that includes a list of object IDs to be searched, where each ID is on a new line. The file name is displayed in the search bar while the IDs from the file are searched automatically.



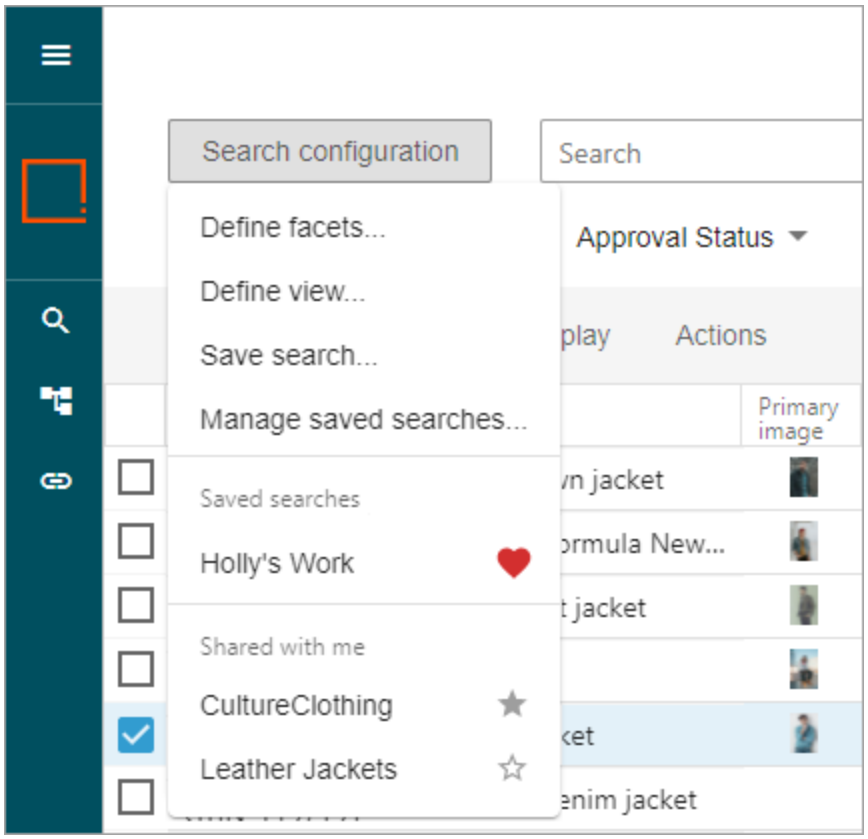
The **Show Related Results** button (Show Related Results) is available if additional results are available that are not exact matches, but that may be useful for the current task. This adds fuzzy search results to the list of objects that exactly matched the criteria selected. The 'Show Related Results' button is not displayed for ID searches (where only exact matches are returned) nor is it displayed for fuzzy searches when no additional results are available.

When all searched objects are already displayed, the text 'No More Results' is shown after the list of returned objects. This message indicates all possible matches are already displayed and no more matches are available for the search criteria regardless of the fuzzy setting.

Search Screen Search Configuration

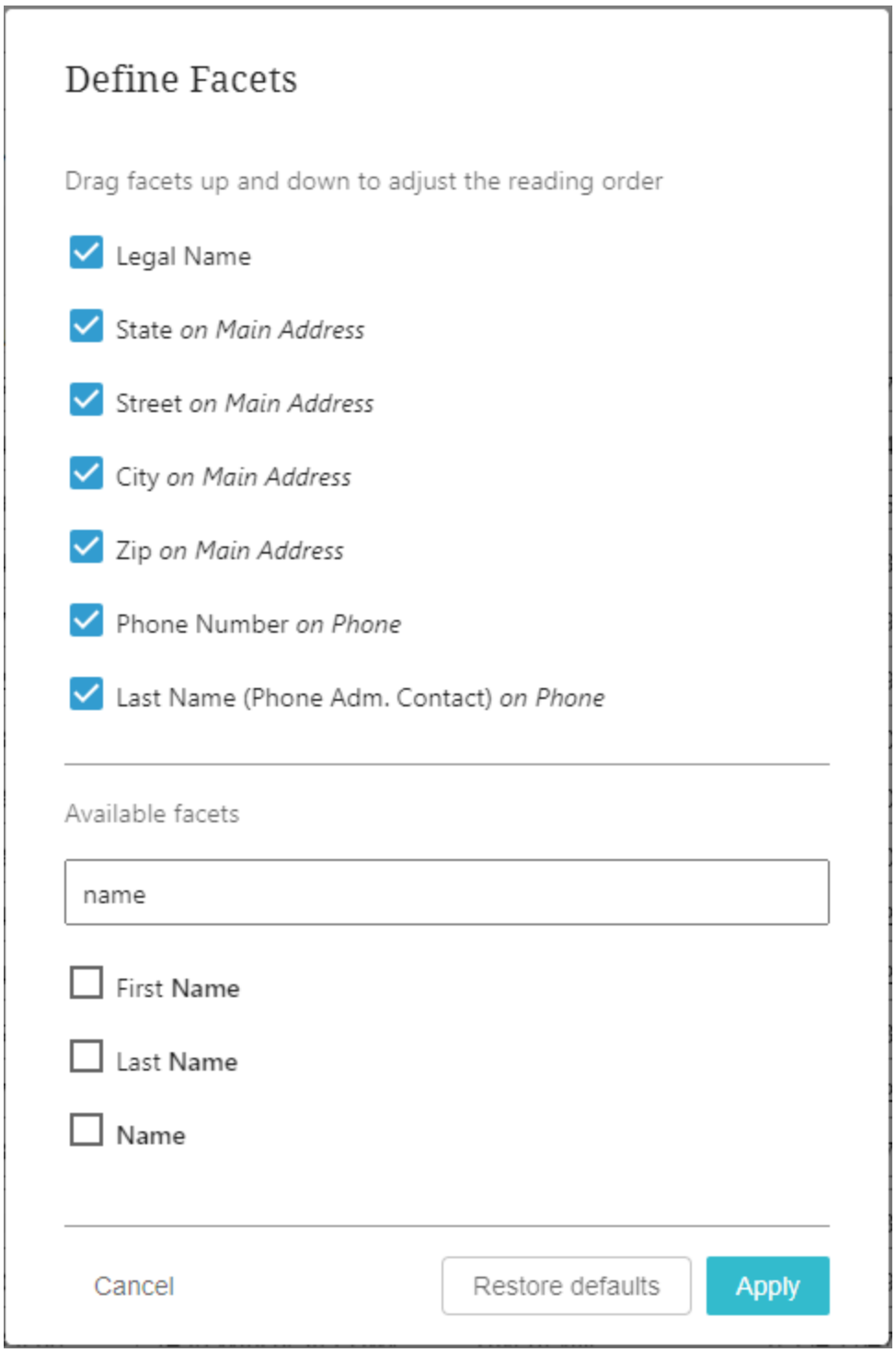
The 'Search configuration' button allows you to:

- Define your displayed static facets with the 'Define facets' option.
- Define the data presented for your search results with the 'Define view' option.
- Work with saved searches with the 'Save search,' 'Manage saved searches' (which also allows you to share a search), the 'Saved searches,' and 'Shared with me' options.



Define Facets

The 'Define facets...' option includes additional static facets from the Elasticsearch configuration but that may not be selected for the current user's display. Clicking 'Define facets' displays the Select Static Facets dialog.



Use the following options on the 'Select Static Facets' dialog to modify your static facets:

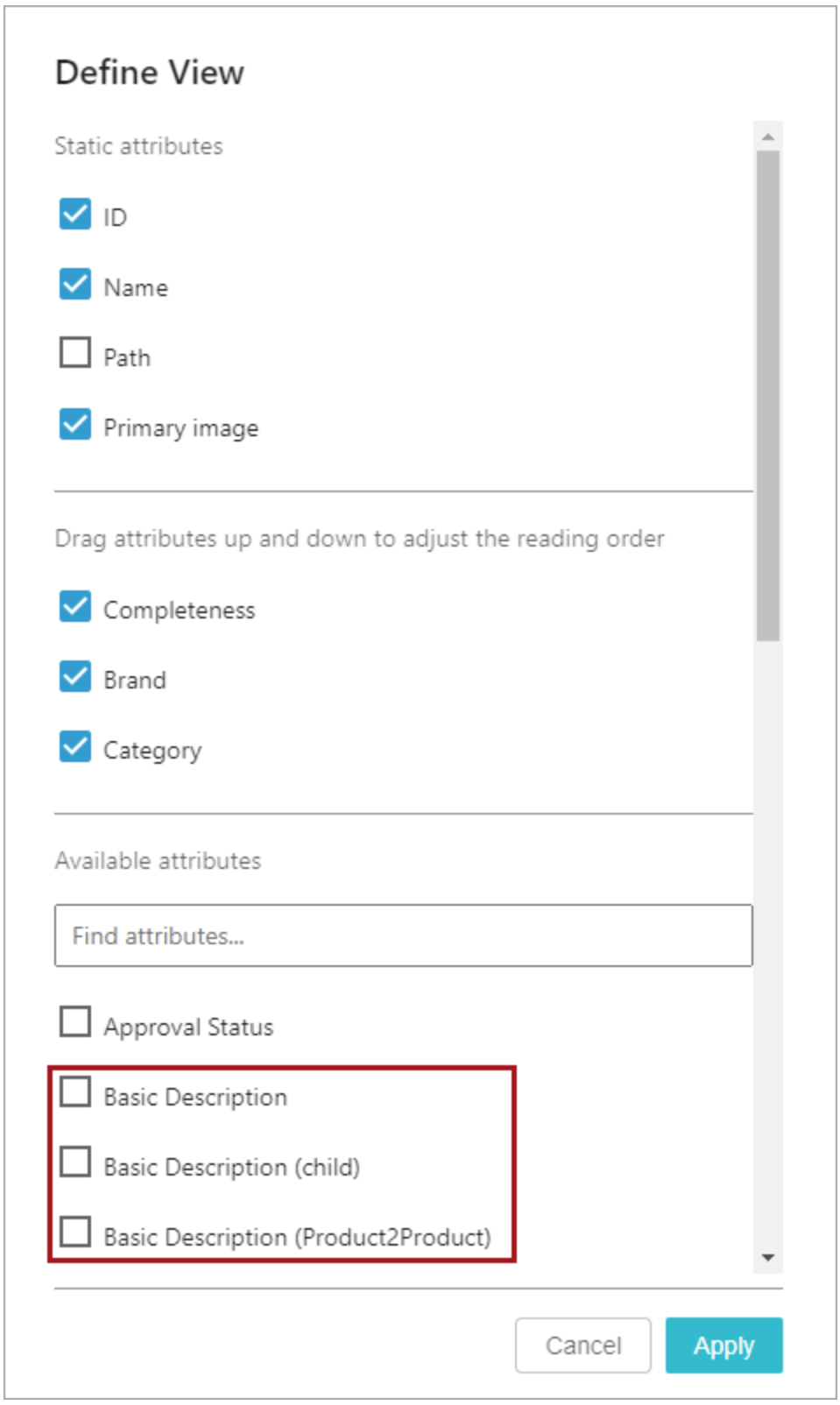
- **Drag facets up and down to adjust the reading order** - This section lists the facets to be displayed and allows you to rearrange the sequence, either left-to-right or top-to-bottom. You must click the **Apply** button to update the Search Screen.

- **Available facets** - The attributes listed in this section are configured as 'Displayed Data' or a 'Default Facet' in the Elasticsearch configuration but are not displayed as a facet for the current user. Check a facet to move it to the 'Drag facets up and down...' section above. When applied, the selected facets are shown in order. For example, clicking Apply with the selected facets shown in the image above ('Object Type,' 'Path,' 'Approval Status,' and 'Asset Quality') results in the static facets displayed in the inset image.
- **Find facets ...** - Type the configured attribute you want to display as a filter for the search results. The 'Available facets' list (defined below) is updated to show matches as you type. Click the checkbox for the desired facet. Clicking the **Apply** button (defined below) displays the checked attributes as static facets for filtering; unchecked attributes are not available on the Search Screen for filtering. You can also find attributes you are looking for by searching on the data container they belong to.
- **Restore Defaults...** - Click the **Restore Defaults** button to remove changes made by the user to static facets. You must click the **Apply** button to update the Search Screen. The defaults are determined by the 'Default Facet' data specifications, as defined in the Creating an Elasticsearch Configuration topic.
- **Apply** - Click the **Apply** button to update the static facets based on the current selections.

Note: Data container names appear in italics beside the associated attributes and data container reference attributes.

Define View

Views allow individual users to display the attributes that are important for their work. Creating a view involves selecting the attributes to be visible on the faceted Search Screen. The 'Define View' dialog displays the attributes selected as a data specification in the Elasticsearch configuration, as defined in the Creating an Elasticsearch Configuration topic.



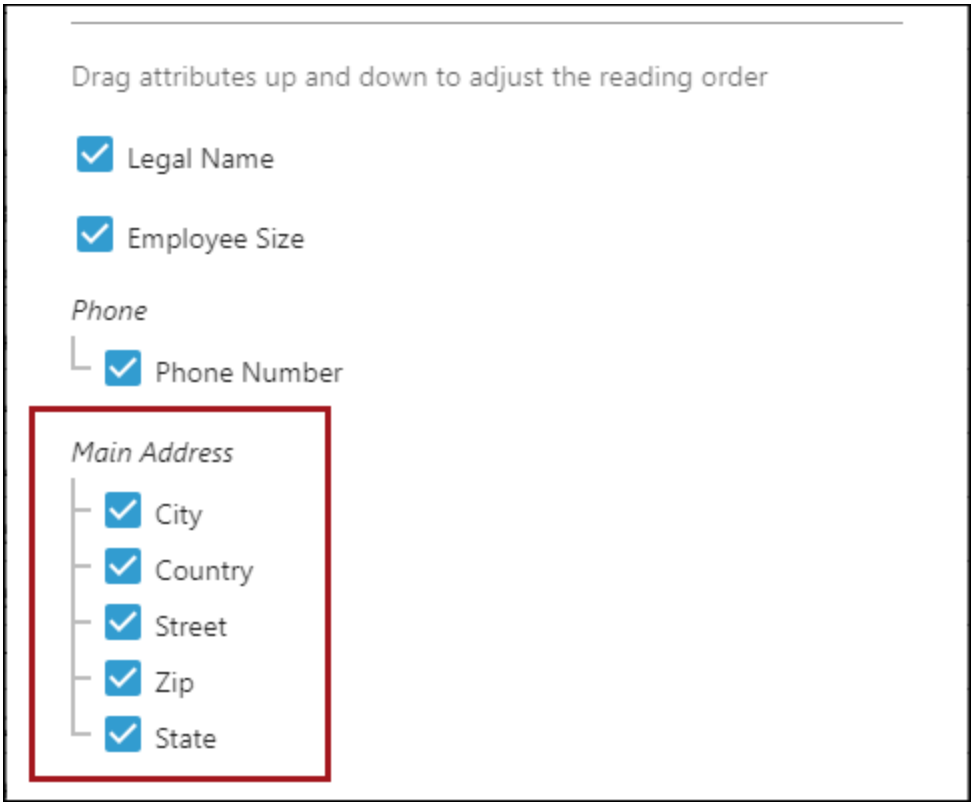
Use the following options on the 'Define View' dialog to modify your search result data:

- **Static attributes** - By default, the first set of attributes (ID, Name, and Path, and Primary image) are checked and display in the view. The display order for these attributes cannot be changed. Uncheck an option to hide it from the view.

  When 'Primary image' is selected but an image is not available, 'No image' displays instead. When 'Show as' is set to the Card layout, the Primary Image is always displayed first.

- **Drag attributes up and down to adjust the reading order** - When attributes available for display (based on the Elasticsearch Configuration) have been selected, they display in this section. These attributes can be rearranged to the desired order. Uncheck an attribute to remove it from this section and also uncheck it in the 'Available attributes' section below.

  Attributes belonging to the same data container will be automatically grouped together and can only be reordered within that group. The data container as a whole can be dragged around as well.



  In the table view, a vertical dividing line will visually group these attributes together.

- **Available attributes** - Attributes available for display (based on the Elasticsearch Configuration) are listed in this section. Use 'Find attributes...' to search for configured attributes and update their display status on the view. This field uses typeahead and will display attributes that match the text in the 'Available attributes' section.

  Attributes can have the same name while being relevant for different scenarios, as illustrated by the name 'Basic Description' in the previous image. The 'Basic Description' option is the attribute found directly on the objects being searched. When an attribute with that same name is a reference for a searched object, the

name of the reference is displayed in parentheses (like 'Basic Description (Product2Product)'). When an attribute with the same name has a value found on children of the searched objects, the word 'child' is displayed (like 'Basic Description (child)').

- Check an attribute to include it in the 'Drag attributes up and down...' section above.
- Uncheck an attribute to remove it from the 'Drag attributes up and down...' section above.

Note: The number of attributes selected can affect column sizing as explained in the **Table** section of theSearch Screen Display topic.

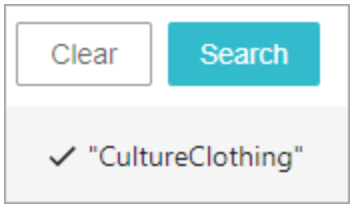
You can also find attributes you are looking for by searching on the data container they belong to.

- **Cancel** - Returns to the search results page without making any changes.
- **Apply** - Display the view for objects included in the search results.

Save Search

Saving a search allows you to save a set of search criteria (not a set of data) as a named search. This means, for example, that you can repeatedly run searches for assets only displayed as cards, based on the object type facet setting. Searches are saved per user, can be run on demand, and can be updated and marked as favorite. The results produced by a saved search vary based on the data when the search is run.

When a saved search is used to generate the results, the name of the search is displayed below the Clear and Search buttons, along with a check mark (✓) to indicate the saved search was not modified.

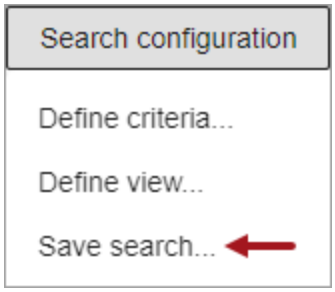


Saving a search stores the current following search result settings for future use:

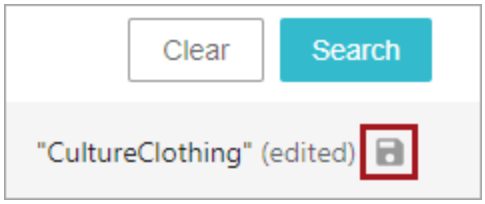
- search bar text
- static facet selections
- attributes displayed and their order (set in the 'Define view')
- table or cards format (set in the 'Display' tab)
- sorting (set in the 'Sorting' tab and/or on table columns)

To save a search:

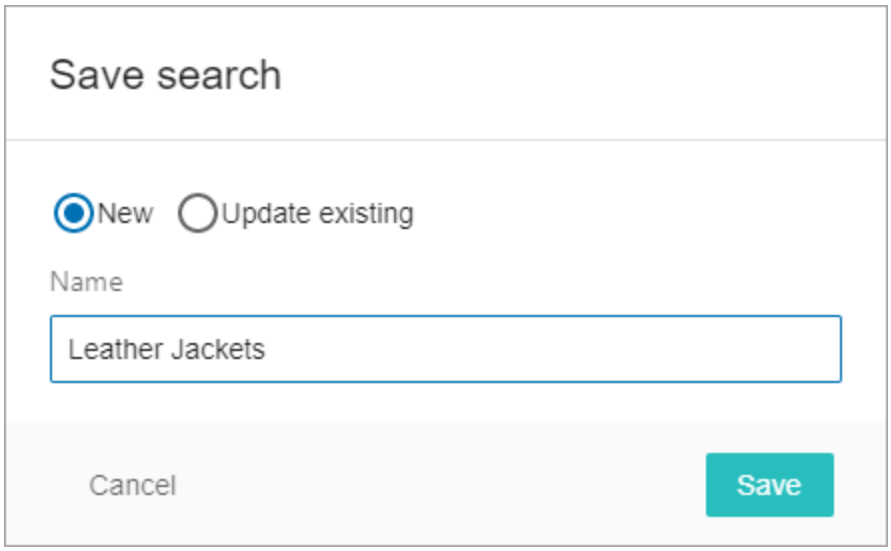
1. On the Search Screen, generate the desired layout of the result set.
2. Choose a save option:
   - Click the 'Search configuration' button and click the **Save Search...** option.



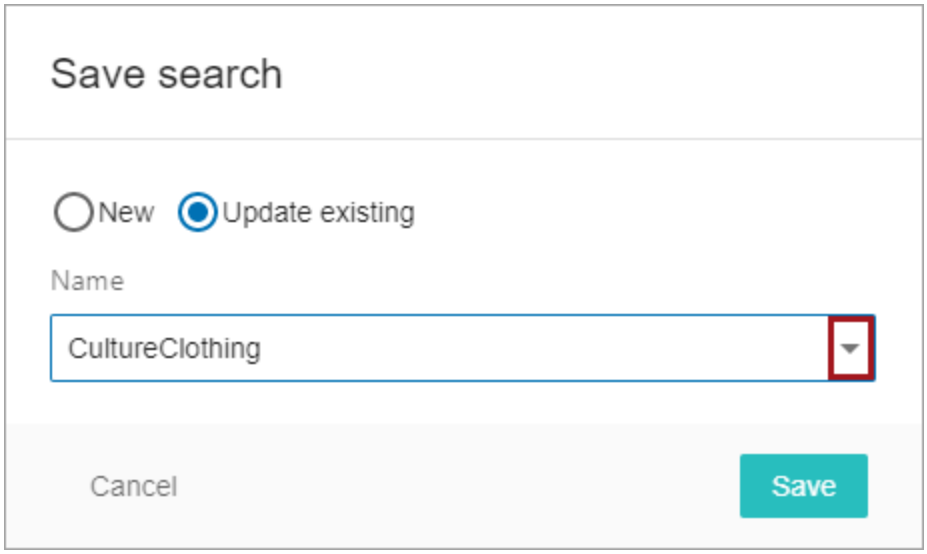
   - Click the disk button for an edited saved search.



3. On the 'Save search' dialog:
   - Click the **New** radio button, type a name for the search, and click the **Save** button. A confirmation message is displayed, and the new saved search name is added to the 'Saved searches' menu and it is also displayed below the Clear and Search buttons.



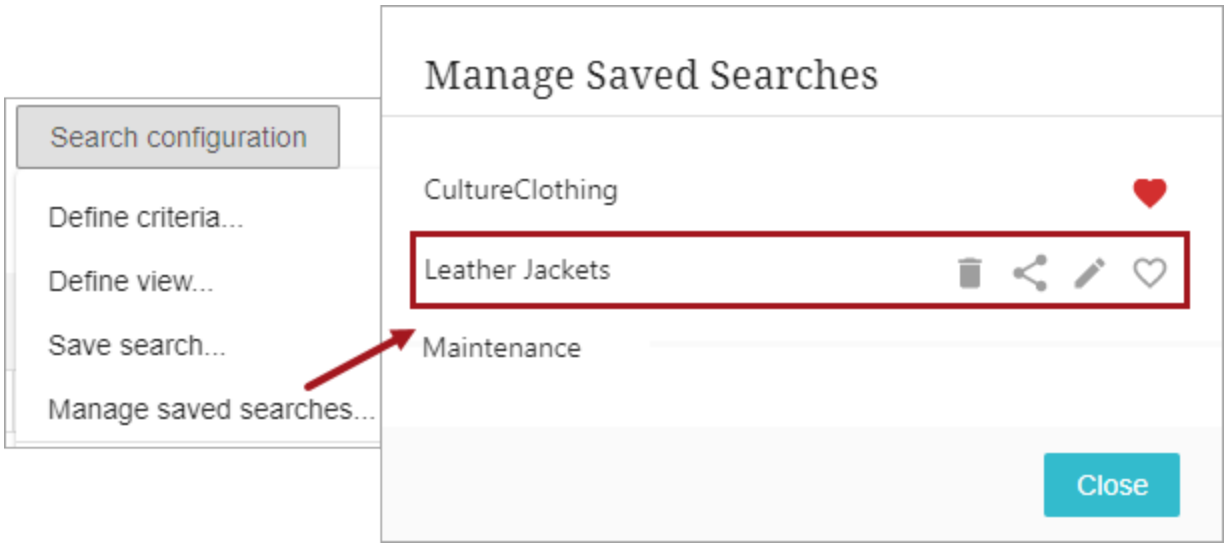
- Click the **Update existing** radio button, select a named search from the dropdown, and click the **Save** button. An update confirmation message is displayed, and the current search criteria overwrites the saved search previously created.



- Click **Cancel** to exit the dialog without saving.

Manage Saved Searches

Use the 'Manage Saved Searches' option to delete a saved search, share a saved search, edit a search name, or set your own favorite.



To view information on saved searches:

1. From the 'Search configuration' button, click the **Manage Saved Searches...**.
2. Identify the saved search with favorite status, for example, on the 'CultureClothing' search shown above. A user can only have one favorite saved search. The user's favorite search is automatically loaded and run when the Search Screen is opened.
   - ♥ - click to remove the favorite status.
3. Hover over a search name (as shown above for the 'Leather Jackets' search) to display the following options:
   - 🗑 - click to delete the saved search.
   -  - click to share the saved search or modify the sharing status. Sharing saved searches requires configuration in workbench as defined in the **Configure search sharing** section below.
   -  - click to edit the name of the saved search. If the search has been shared, the name is also updated for the users who received the saved search.

   Note: To update the criteria for a saved search, set the criteria and use the 'Update existing' option from the **Save Search** section above.

   - ♡ - click to set the saved search as the user's favorite (as shown above for the 'Leather Jackets' search) or to remove the favorite setting (as shown above for the 'CultureClothing' search).

Configure search sharing

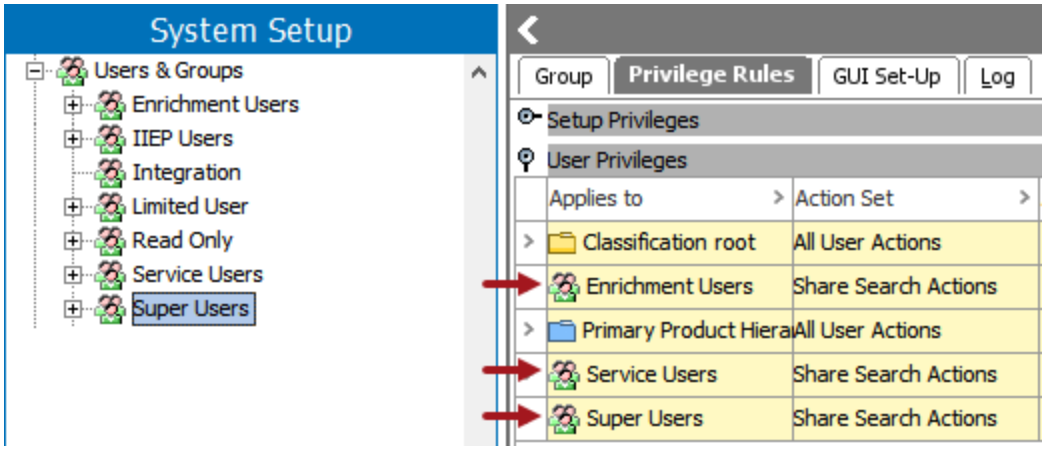
The following workbench configuration is required to allow sharing Web UI Search Screen searches. (This setup is similar to the requirements for sharing Web UI Advanced Searches used for data outside of the Search Screen, as defined in the Restricting and Sharing Advanced Searches topic.)

1. Log into workbench as a user with privileges to update Users and Groups on the System Setup tab.
2. On System Setup, expand the 'Action Sets' node and create or verify a User Actions node for the 'Share search with group' action. The name of this action set can vary by system. For more information, refer to the Web UI section of the User Actions and Error Descriptions topic in the System Setup documentation.
3. Expand the 'Users & Groups' node and select a group that will share searches from the Web UI Search Screen.
4. On the Privilege Rules tab, open the User Privileges flipper and click the **Add Privilege** link.
5. On the Add Privilege Rule dialog, set the group that will share searches:
   - For the 'Apply to' section, click the **User group** radio button and select the group that will share searches.
   - For the 'Action Set' parameter, select the action set that holds the 'Share search with group' action.
   - For the 'Apply to Group' parameter, the group that will share searches is displayed.
6. On the Add Privilege Rule dialog, add the group(s) that will receive shared searches:

- For the 'Apply to' section, click the **User group** radio button and select a group that will receive share searches.
- For the 'Action Set' parameter, select the action set that holds the 'Share search with group' action.
- For the 'Apply to Group' parameter, the group that will share searches is displayed.
- Repeat for all groups that will receive shared searches.

7. Continue with Web UI as shown in the **Sharing searches and modifying share settings** section below.

In the following image, 'Share Search Actions' is the name of the action set that contains the 'Share search with group' user action. The Super Users group can share searches with users in their own group, as well as users in the Enrichment Users group and the Service Users groups. Since the Enrichment Users and Service Users do not have the action set applied to their own group, they cannot share searches from the Web UI,



Sharing searches and modifying share settings

The share searches option ( ) is only available for users in a group that has been configured to share searches.

Shared searches are displayed within the 'Search configuration' button menu. Shared searches can be recommended as a default by the user who shared the saved search for the user receiving the saved search. The latest default suggestion is indicated by a filled star ( ) and previously shared default suggestions are shown with an open star ( ).

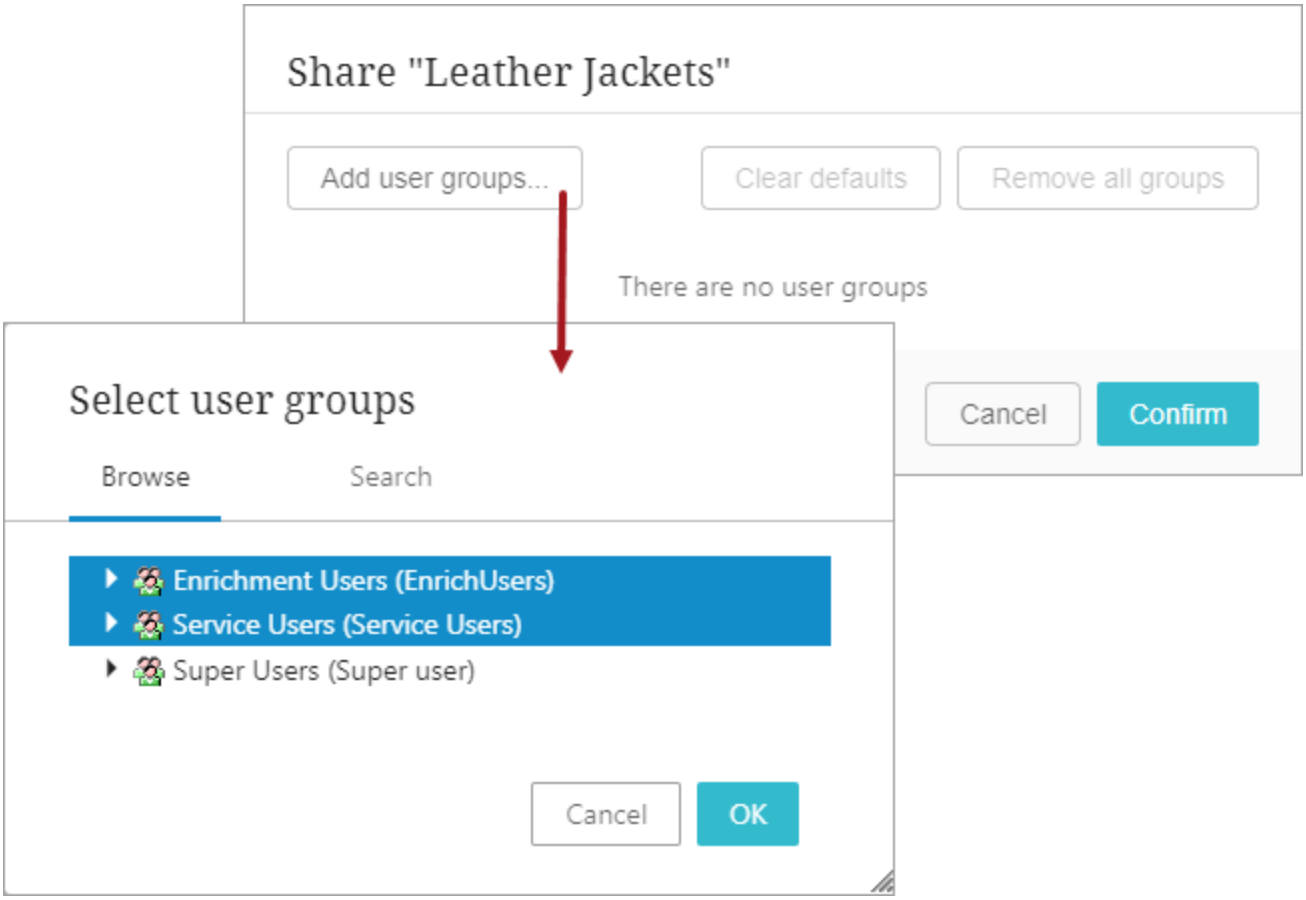
Note: The data displayed for the user running a shared search is based on that user's access privileges, therefore, results may not match for all users.

To modify the sharing status of a saved search:

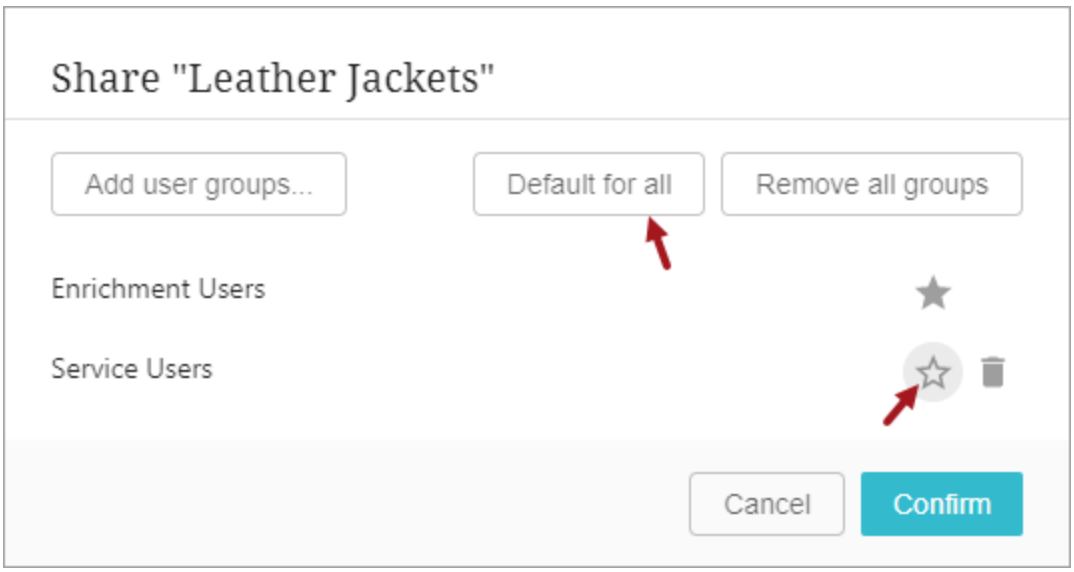
1. Log into Web UI as a user in the group privileged to share searches.
2. Open the Search Screen, click the 'Search configuration' button, click the 'Manage saved searches' option, hover over the search to be modified, and click the share button.



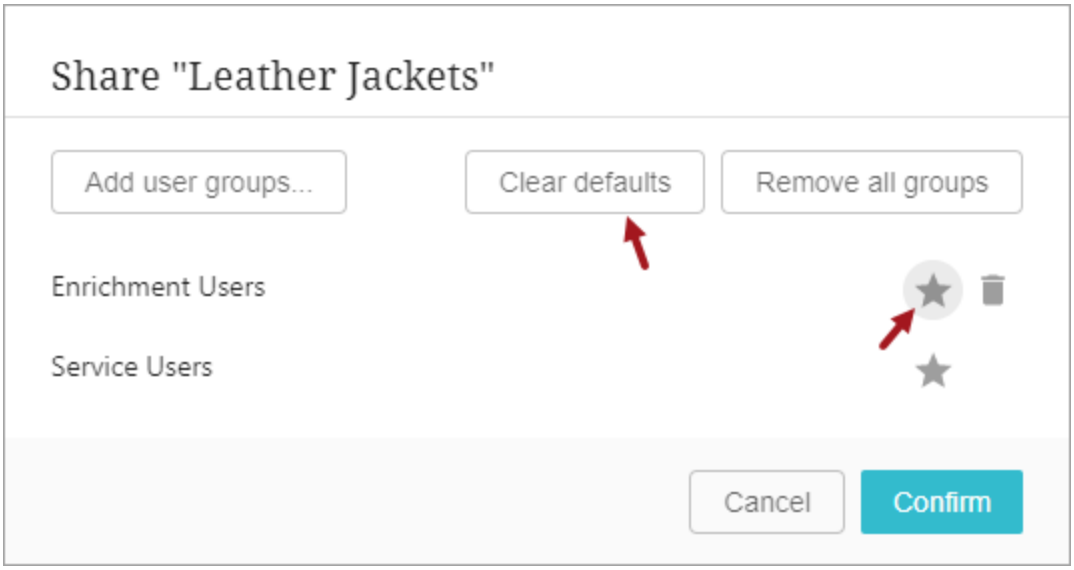
3. To add groups to receive saved search, click the **Add user groups** button, select one or more group(s) to receive the saved search, and click the **OK** button.



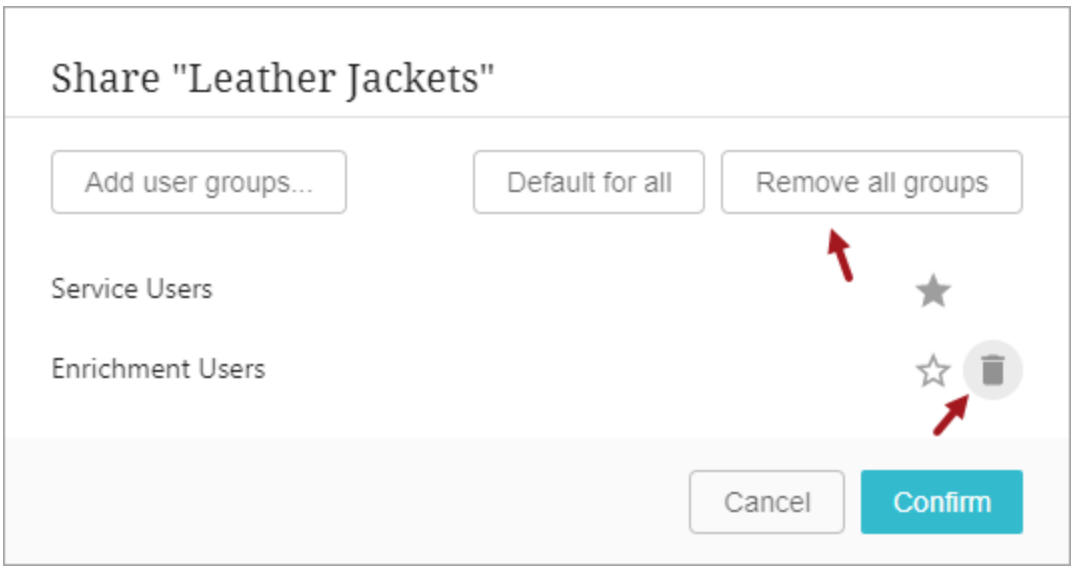
4. To add a default search suggestion, hover over the group and click the open star (☆) button for an individual group or click the **Default for all** button. A receiving user's favorite search overrides any default search suggestions as the default search, but the star is displayed to alert the user of the suggestion.



5. To remove a default search suggestion, hover over the group and click the filled star (★) button for an individual group or click the **Clear defaults** button.



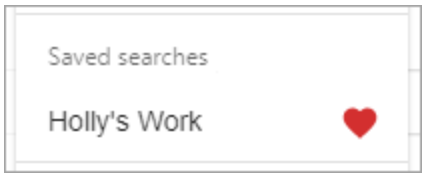
6. To discontinue sharing a search with a group, hover over the group and click the delete (🗑) button or click the **Remove all groups** button. The saved search is not deleted, but it is no longer shared, and it is removed from the 'Shared with me' section for users who previously received it.



7. Click **Confirm** to save all changes or click **Cancel** to close without saving.

Saved Searches

To run a saved search from the 'Search configuration' button, click a search displayed in the 'Saved searches' section. The Search Screen is updated with results based on the saved search bar text, the facet settings, and the view settings.



You can also run a saved search from the Search Screen Search Bar topic.

Shared With Me

To run a saved search that was shared from another user, click a search in the 'Shared with me' section. The Search Screen is updated with results based on the shared saved search.

Suggested default searches are shown with filled star for the most recently shared default suggestion. If a favorite search is set, all suggested defaults are displayed with open stars.

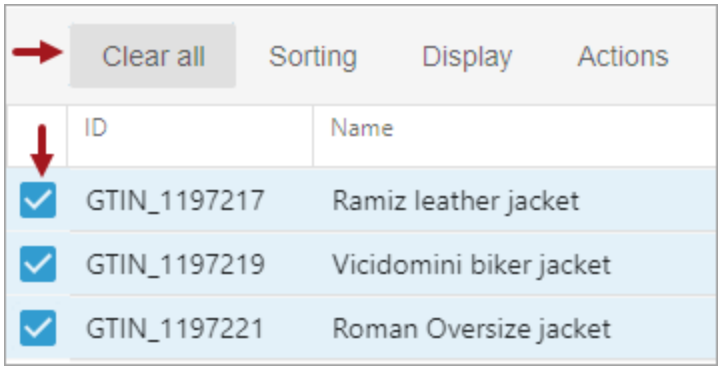


Search Screen Select All

The **Select All** button checks the select box for all items in the result set. Actions are available for selected items, such as adding to the basket for publishing to PDX (defined in the Search Screen Basket topic) or running a business rule (defined in the Search Screen Actions topic).

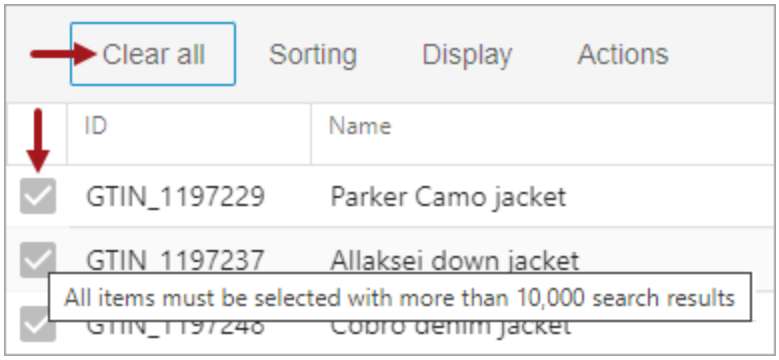


When the total number of items selected is less than 10,000, individual checkboxes can be unchecked, or the **Clear all** button can be used to uncheck them all. Changing any search criteria also unchecks all items.



When the total number of items selected is greater than 10,000, the checkboxes are grayed out and cannot be individually unchecked, the **Clear all** button must be used instead.

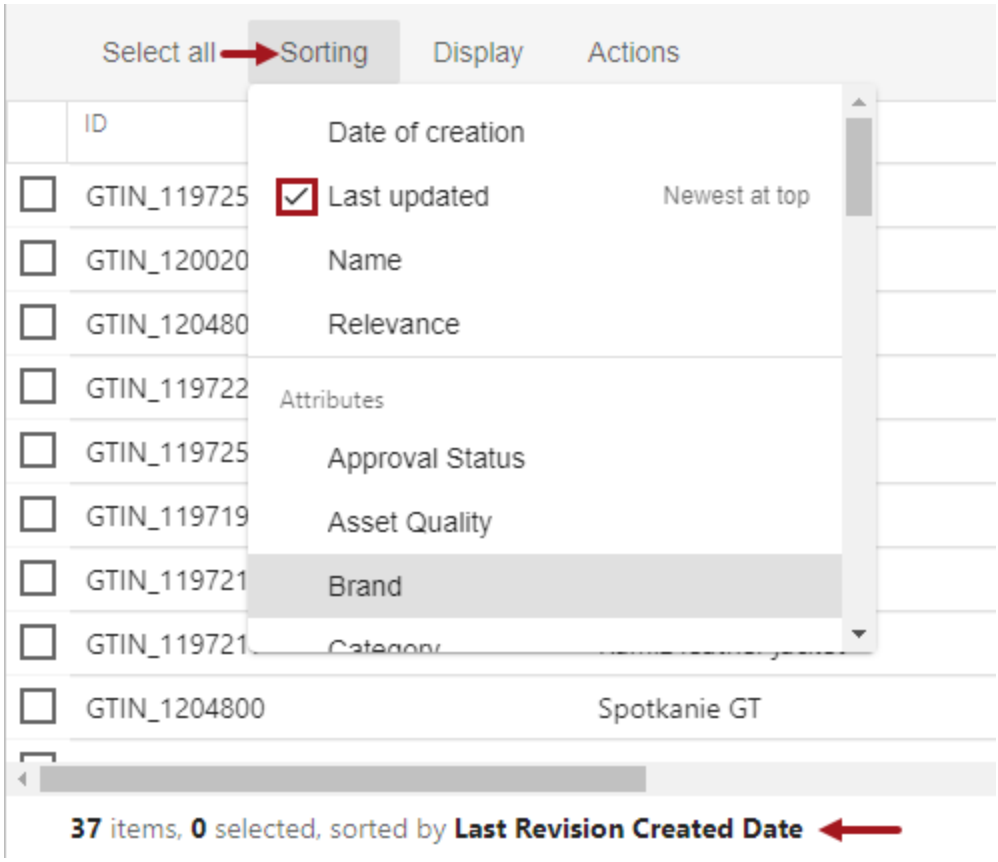
Hovering over a grayed-out checkbox indicates that action must be taken on the group as a whole, for example 'Clear all' or 'Export all'.



Search Screen Sorting

For all views, the Sorting menu allows the faceted search results to be rearranged based on a single selected option, as defined below. Sorting is also available by clicking a column header on the table view.

Within a sorted list, results are grouped by value. When duplicate values are found while sorted A-Z, the group is further sorted on letter case with upper case values first, followed by mixed case, and then lower case. Finally, within the letter case groups, ID is used to sort in ascending order. For example, while sorted A-Z, values of 'Milan Rough,' 'MILAN ROUGH,' and 'milan rough' are displayed in the search results with 'MILAN ROUGH' first, 'Milan Rough' second, and 'milan rough' third.



Click the 'Sorting' tab to display the following options:

- **Date Of Creation** - the date of the first STEP revision, with the newest date at the top by default.
- **Last Updated** - the date of the object's last revision, with the newest date at the top by default. In the image above, Last Updated is the current sorting option.
- **Name** - the object's name, alphabetically (A-Z) by default.
- **Relevance** - objects that best match the configured search word(s). This always returns the best-matched results at the top and the order cannot be reversed. Relevance must be applied via the Sorting menu.

- **Attributes** - values for the selected attribute, alphabetically by default. Available options are determined by the data specifications on the Elasticsearch configuration, as defined in the Creating an Elasticsearch Configuration topic.

  When an attribute is multi-valued, the first value determines where the object appears in the results. For example, consider the values 2011,1995, and 2015. Sort assumes that the values are in a particular order, so the first value ('2011') is used to sort the multi-valued attribute.

Clicking a table view column header or selecting a sort option from the menu automatically applies the default sort order to the search results. For the table view, the selected table header displays in bold text. The current sort order is also displayed in the status bar at the bottom of the screen regardless of view.

Note: The status bar at the bottom of the screen indicates the sort order even when search results are sorted on data that is not displayed in the view.

Changing current sort order

Opening the Sorting dialog shows a check for the current sort option. Clicking the checked option again changes the results to be ordered as indicated by the text displayed on the right side of the option. For example, in the image above, the current sort order is 'Last Updated' using the default order (newest at the top). Clicking 'Last Updated' again reverses the order and displays the oldest at the top. The same is true for table view sorting, clicking a column with a bold header (current sort order) reverses the order of the results.

Search Screen Static Facets

Static facets are determined by the 'Default Facet' data specification in the Elasticsearch configuration and should define the most likely needed filter groups for faceted searches (refer to the Creating an Elasticsearch Configuration topic).

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Consider a set of objects that are divided based on brand, color detail, segment, and category. As shown in the image below, using static facets for these 'divisions' allows the user to systematically refine the list of objects based on one or more of the available filters. In this image, two values have been selected for the Color Detail facet.

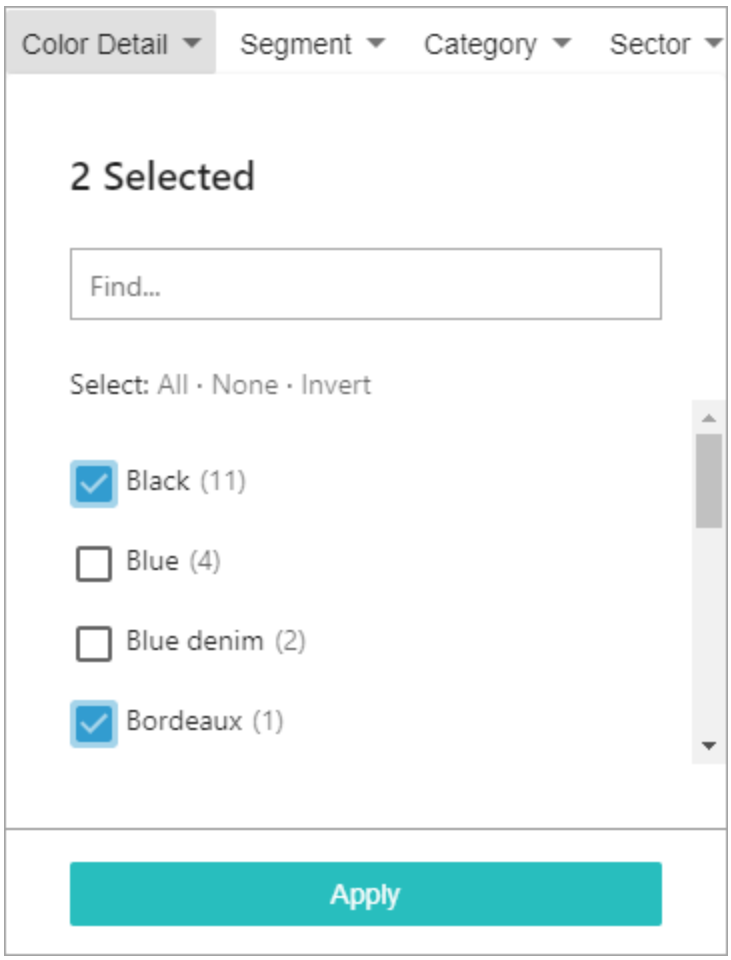


In addition to the default facets (or those limited by the screen size), the 'Show more...' button (shown above) allows the user to modify the facets displayed as defined by the Displayed Data option in the Elasticsearch configuration. The 'Clear' and 'Search' buttons are used to modify the search results. Each of these options is defined below.

Important: Facets are available only when they are valid for the data being displayed. This prevents users from searching for values that do not exist. For example, when none of the search results include a value for the Segment facet, the Segment facet is hidden. Additionally, even if the facet is valid for the data being displayed, if it does not include any values it will be hidden.

1. **Static Facets** - The options displayed the Search Bar enable you to filter the search results.

   Click a facet to display the available values, as shown in the image below for the 'Color Detail' facet.

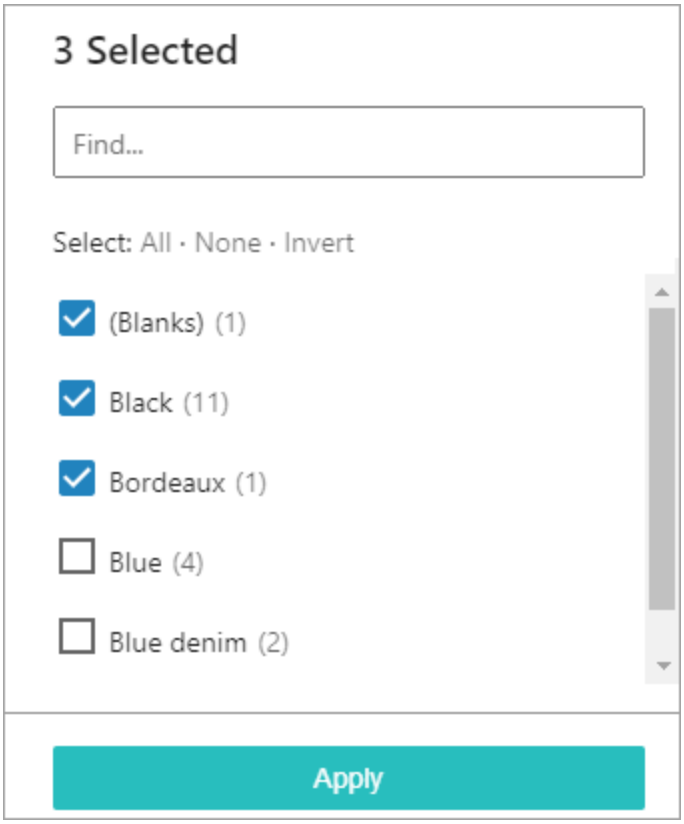


- **Selected** - A count of the number of items selected and that will be used to the filter the results.
- **Find ...** - Type the value you want to use to the filter the search results and update the list of value options. Click the checkbox for the desired value filter. The available values are limited to those that are set as a 'Full Text' data specification, as defined in the Creating an Elasticsearch Configuration topic.
- **Select** - Click the **All** option to check all available values, click the **None** option to remove all check marks, and click the **Invert** option to reverse the check marks for all options.
- **Values** - The unique values available in the searched data for the facet are displayed. The number of objects that contain the value is displayed in parentheses to the right of the value. This gives the user an idea of the impact that choosing the value will have on the search result set.

  The '**(Blanks)**' option is included at the bottom of a facet values list and allows you to include objects that have no value for the selected facet. The option is only available when at least one object has no value. In the result set, blank values are grouped together when the value column is sorted.

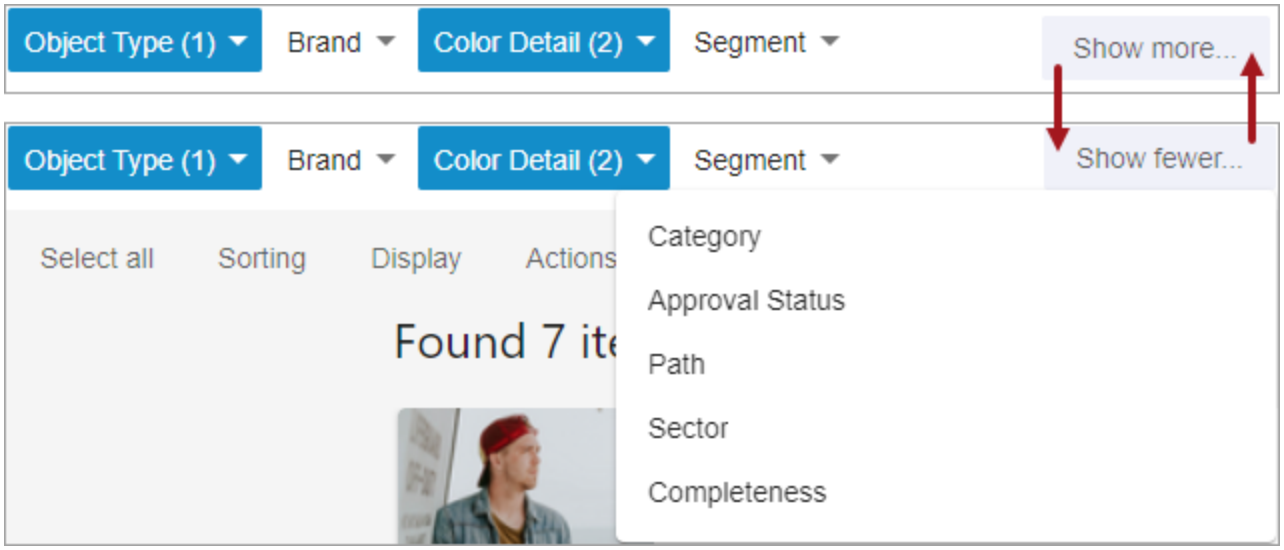
  Check individual values to include them in the search results. When a facet value has been applied, the selected value is moved to the top of the values list. This allows the user to easily view all of the selected values. For example, the two values from the image above ('Black' and 'Bordeaux') and the '(Blanks)'

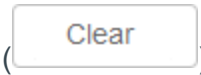
option have been selected. Click the **Apply** button and view the facet values again to display as shown below:



- **Apply** - Click the **Apply** button (Apply) to update the displayed search results. An applied static facet is displayed with a blue background and shows the facet name and the number of values selected (as shown below for the Object Type facet where one value is selected and the Color Detail facet, where two values are selected).

2. **Show more... / Show fewer...** - Indicates that more static facets are available or that the additional static facet list can be hidden. Click the button displayed to change the static facets, as shown below.



4. **Clear** - Click the **Clear** button (

) to remove all settings from static facets, remove any text in the search bar, and run a new unrestricted search.

5. **Search** - Click the **Search** button (

) to apply the static facet settings, apply the search bar text, and display the search results.

Publishing Only Sufficient Products to PDX

Identifying products that meet your data standards and then only publishing those sufficient products requires a sufficiency business condition and two business actions, as defined below. The process involves testing a product with a 'sufficiency condition' where the condition results determine the next action required.

For example, a product that meets the 'sufficiency condition' executes the 'sufficient business action' and is routed to a workflow that results in publication to PDX. An insufficient product executes the 'insufficient business action' and is routed to a different workflow that allows for additional enrichment.

For details on sufficiencies, refer to the Sufficiency Panel topic in the System Setup documentation.

This functionality requires the following add-on components:

- data-sufficiency
- productdatasyndication-integration
- ui-basket

For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

Note: This feature does not support publishing entity or data container attribute data.

Prerequisites

Changes to the properties file, outlined below, are implemented when the server is restarted.

1. The case-sensitive property **Sufficiency.CheckSufficiencyInCollectionConditionID** defines the sufficiency business condition ID. By default, the ID is set to the 'checkSufficiencyInCollectionCondition' value. To use a different ID, change the sharedconfig.properties file on the STEP application server as follows:

   ```
   Sufficiency.CheckSufficiencyInCollectionConditionID=checkProductSufficiencyCondition
   ```

   In this example, 'checkProductSufficiencyCondition' is the modified ID of the sufficiency business condition.

2. The case-sensitive property **Sufficiency.InsufficientProductInCollectionActionID** defines the business action to execute for an insufficient product. By default, the ID is set to the 'insufficientProductInCollectionAction' value. To use a different ID, change the sharedconfig.properties file on the STEP application server as follows:

   ```
   Sufficiency.InsufficientProductInCollectionActionID=insufficientProductAction
   ```

   In this example, 'insufficientProductAction is the modified ID of the insufficient business action.

3. The case-sensitive property **Sufficiency.SufficientProductInCollectionActionID** defines the business action to execute for a sufficient product. By default, the ID is set to the 'sufficientProductInCollectionAction'

value. To use a different ID, change the sharedconfig.properties file on the STEP application server as follows:

```
Sufficiency.SufficientProductInCollectionActionID=sufficientProductAction
```

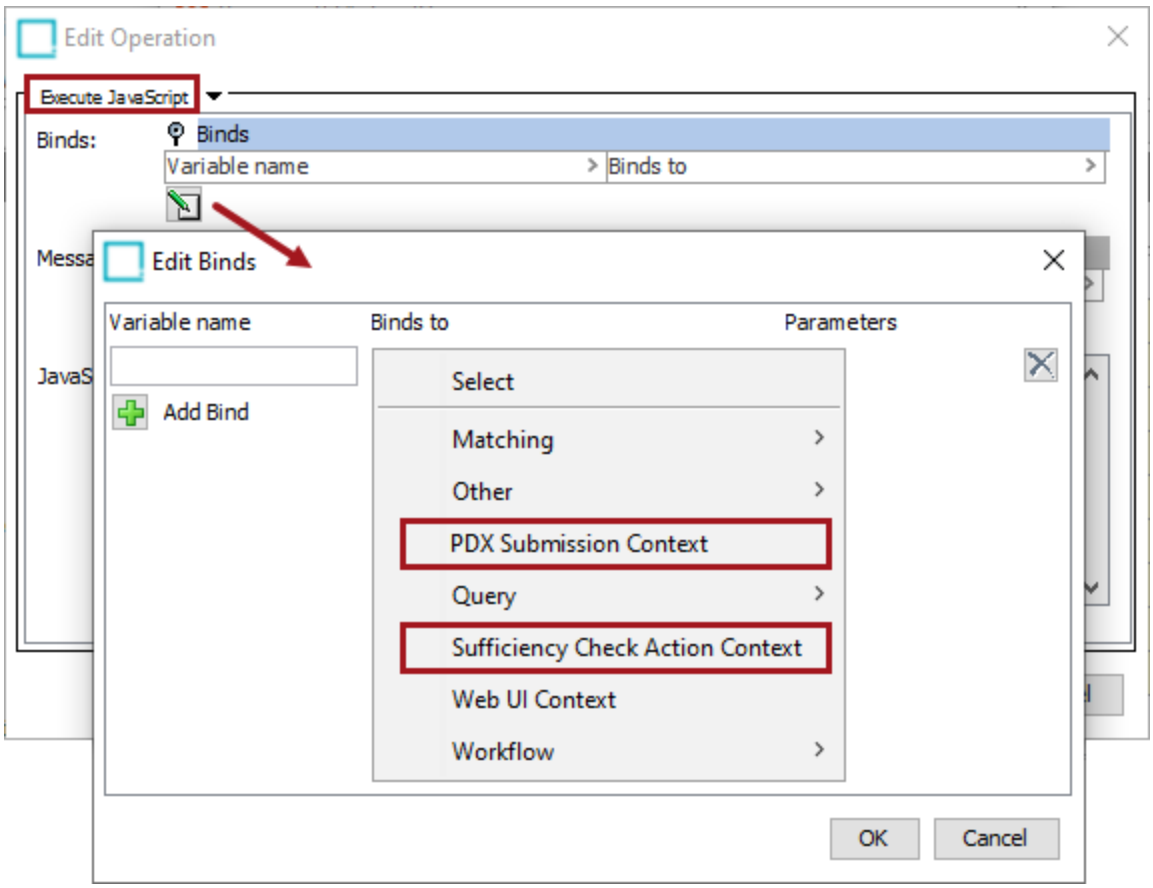
In this example, 'sufficientProductAction is the modified ID of the sufficient business action.

JavaScript Sufficiency Binds

Automatic publishing to PDX based on sufficiency metrics is possible using the following JavaScript binds. Within a JavaScript business action, which is then included in an event processor or workflow, for example, the binds allow you to manage objects that are not yet ready for publishing to PDX.

Note: For products to be successfully published to a channel via the Search Screen Basket, they must already exist in PDX as master data first. For instructions on how to publish to PDX, refer to the Setting Up the PDX OIEP topic in the Product Data Exchange section of the Data Integration documentation.

- **PDX Submission Context** - allows submission of objects to a PDX channel directly from a business action including nodes, recipient mails, and channel ID data. The additional parameter requires selection of an OIEP. For details, refer to the PDX Submission Context Bind topic in the Resource Materials online help.
- **Sufficiency Check Action Context** - captures nodes, recipient mails, and channel ID data from the PDX Export Wizard for use in a business action. No additional parameter is required. For details, refer to theSufficiency Check Action Context Bind topic in the Resource Materials online help.



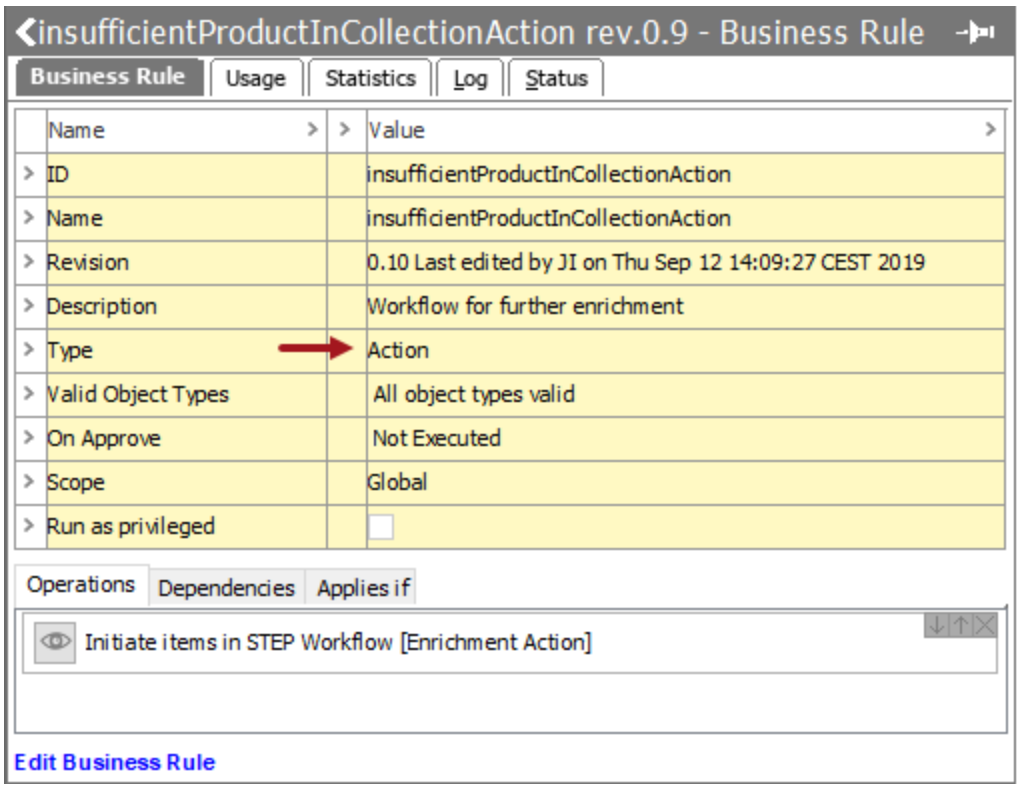
For details on using business actions, refer to the Using Business Rules in STEP topic within the Business Rules documentation.

Create Business Actions

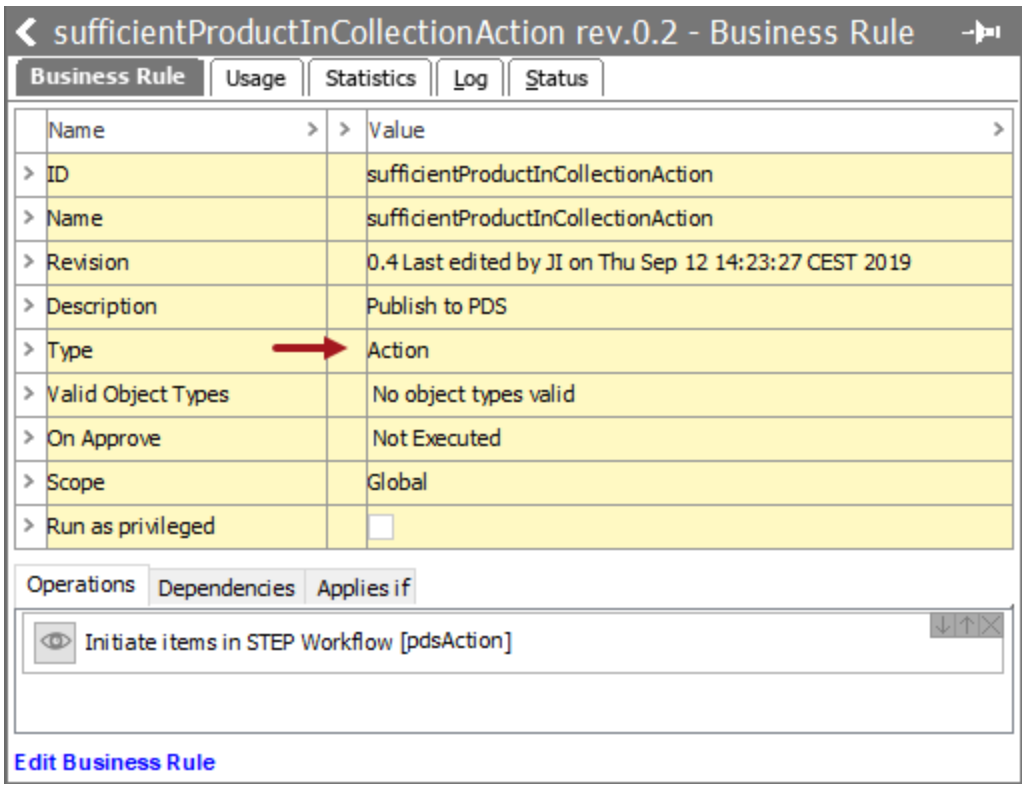
Create two actions, one for insufficient products and another for sufficient products.

For details on creating a business action, refer to the Creating a Business Rule, Function, or Library topic in the Business Rules documentation.

1. Create an insufficient business action, using the ID from the sharedconfig.properties **Sufficiency.InsufficientProductInCollectionActionID** file property (defined in the **Prerequisites** above).
2. Set the Valid Object Types parameter to include the object types that will ultimately be published to PDX.
3. Edit the action to include the operations required for insufficient products.



4. Create a sufficient business action, using the ID from the sharedconfig.properties **Sufficiency.SufficientProductInCollectionActionID** file property (defined in the **Prerequisites** above).
5. Set the Valid Object Types parameter to include the object types that will ultimately be published to PDX.
6. Edit the action to include the operations required for sufficient products.

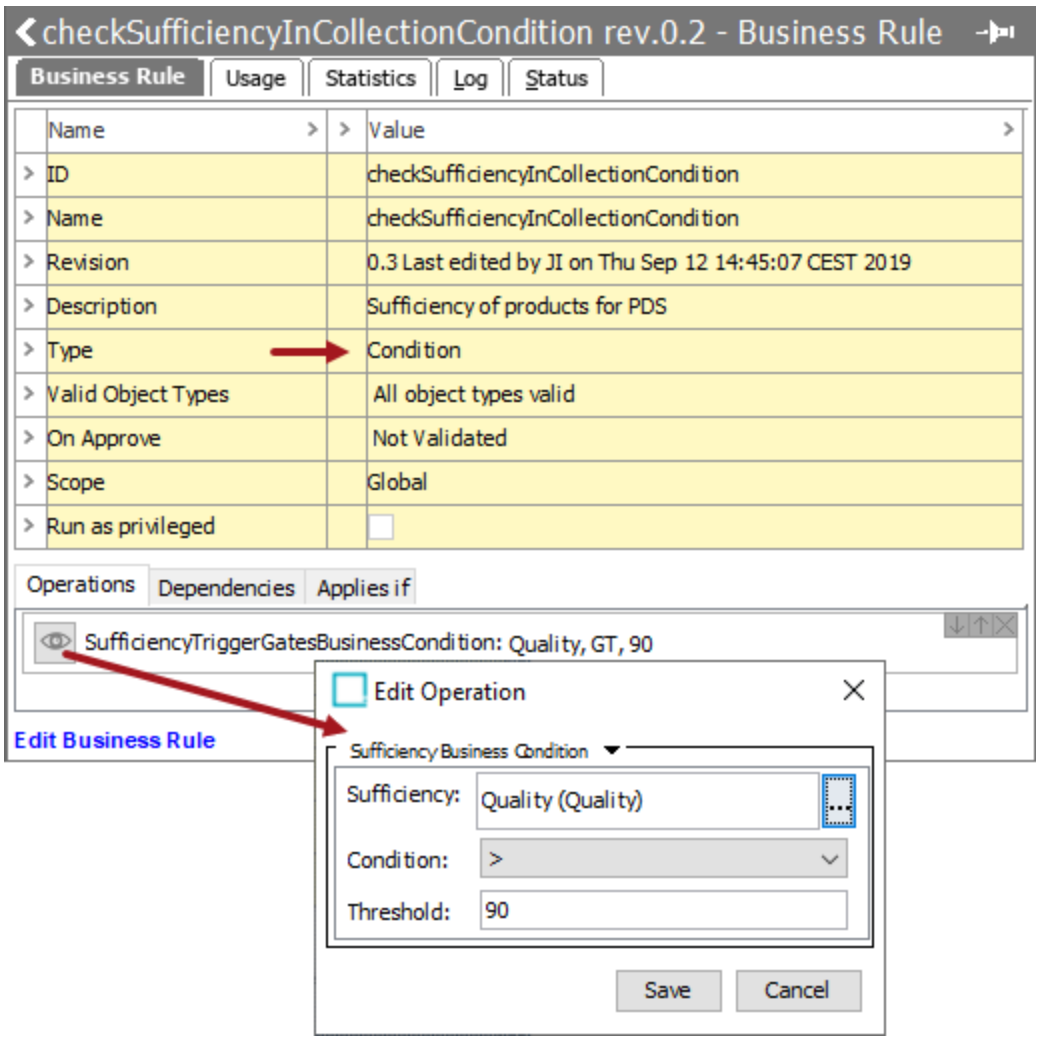


Create a Business Condition

Create a condition to test for the sufficiency of products.

For details on creating a business condition, refer to the Creating a Business Rule, Function, or Library topic in the Business Rules documentation.

1. Create a new business condition, using the ID from the sharedconfig.properties **Sufficiency.CheckSufficiencyInCollectionConditionID** file property (defined in the **Prerequisites** above).
2. Set the Valid Object Types parameter and select the object types that will be published to PDX.
3. Edit the condition to include the actions required for insufficient and sufficient products.


checkSufficiencyInCollectionCondition rev.0.2 - Business Rule
Business Rule
Usage
Statistics
Log
Status
Name
Value
ID
checkSufficiencyInCollectionCondition
Name
checkSufficiencyInCollectionCondition
Revision
0.3 Last edited by JI on Thu Sep 12 14:45:07 CEST 2019
Description
Sufficiency of products for PDS
Type
Condition
Valid Object Types
All object types valid
On Approve
Not Validated
Scope
Global
Run as privileged
Operations
Dependencies
Applies if
SufficiencyTriggerGatesBusinessCondition: Quality, GT, 90
Edit Business Rule
Edit Operation
Sufficiency Business Condition
Sufficiency:
Quality (Quality)
Condition:
>
Threshold:
90
Save
Cancel

Elasticsearch Setup

Setting up an Elasticsearch configuration determines the STEP data that is provided to the Elasticsearch database to provide a modern faceted search experience. The configuration defines how data can be searched using the Web UI Search Screen.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Important: To access and use faceted search powered by Elasticsearch, the ‘elasticsearch-integration’ add-on component must be activated on your system. To access and use the faceted Search screen, the 'ui-search' add-on component must be activated on your system. Contact your Stibo Systems representative for more information.

Creating an Elasticsearch configuration automatically creates or identifies the related event processor. The event processor collects the STEP data events indicated by the configuration and publishes it to the Elasticsearch database.

Note: The Search Screen only contains data for events that have been processed. Data for unread events on the event processor cannot be displayed in search results. For more information, refer to the Running an Event Processor topic in the System Setup documentation.

The Elasticsearch Configuration wizard adds a number of data specifications automatically, while attributes, attribute groups, link meta / source / target data, and child attributes can be added manually. Each item added manually can be configured for full text search, ID queries, and can be set to display as a default facet.

For example, attribute values that are often used to identify objects (such as manufacturer or country of origin) would be included as a search feature. While attributes that are not relevant for identifying an object (such as size or color) as are excluded. Additionally, attribute values important for data enrichment tasks should be included

For illustrations of search results using the faceted Search Screen, refer to the Search Screen Search Result Examples topic.

Important: Ideally, the configuration should include only the data necessary to allow users to easily scope and shape the desired search results. Excessive data in Elasticsearch can negatively impact the response time of searches on the faceted Search Screen. Carefully consider the attributes and references to configure initially and expand the configuration as you determine additional information is required.

To use Elasticsearch and the Web UI faceted Search Screen, complete the setup steps in the following topics:

1. Perform the one-time setup as defined in the Initial Setup for Elasticsearch topic and the Elasticsearch Searchable Data Setup Options topic.
2. Create an Elasticsearch object type as defined in the Creating an Elasticsearch Object Type topic.
3. Create an Elasticsearch configuration and the required event processor as defined in the Creating an Elasticsearch Configuration topic.

- For details on 'data specifications' used in the Elasticsearch configuration, refer to the Elasticsearch Data Specification Type Examples topic.
- To edit an existing configuration, refer to the Maintaining an Elasticsearch Configuration topic.

4. Add STEP data to the Elasticsearch database as defined in the Elasticsearch Publishing topic.

For more information on using Elasticsearch on the Web UI Search Screen, refer to the Search Screen topic.

Initial Setup for Elasticsearch

The following one-time set up is required to prepare STEP for using the Elasticsearch search engine to configure a modern faceted search experience.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Important: Before starting the configuration outlined in this topic, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration for the faceted Search screen, Elasticsearch, and corresponding components / functionality should not be done without the assistance of Stibo Systems.

Configuration

1. Using Elasticsearch with STEP requires an external installation process of Elasticsearch 8.8.2+, knowledge of JSON documents, and the API or other ingestion tool. For more information on Elasticsearch, search https://www.elastic.co/.

   Important: Stibo Systems exclusively supports the Elasticsearch cloud service distributed from Elastic.

2. Review the Important note above and contact your Stibo Systems account manager or partner manager to enable the 'X.Elasticsearch' license on your system.

3. Review the Important note above and activate the 'elasticsearch-integration' component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

   Important: SaaS systems should automatically upgrade when new Elasticsearch versions are made available. However, on-premise systems will need to be manually upgraded to the new Elasticsearch version.

4. Review the Important notes above and activate the 'ui-basket' component. For on-premise systems, instructions for installing components can be found in the **SPOT Program** topic in the **System Administration Guide** found in **Downloadable Documentation**. For SaaS systems, contact your Stibo Systems account manager.

5. Add the Elasticsearch cluster name and port, separated by a colon (:), in the sharedconfig.properties file on the STEP application server using the case-sensitive **Elasticsearch.Cluster.Nodes** property as shown below:

   ```
   Elasticsearch.Cluster.Nodes=http://elasticsearch:9200
   ```

In this example, 'http://elasticsearch' is the name of the cluster and '9200' is the port.

6. In the sharedconfig.properties file on the STEP application server, the case-sensitive **Elasticsearch.Query.CacheRetentionTime** property determines the number of seconds it takes for changes to the Elasticsearch Configuration to be reflected in the Web UI. The default setting is 600 seconds (10 minutes), which is optimized for performance. Modify this setting to change the frequency of updates.

```
Elasticsearch.Query.CacheRetentionTime=600
```

   In this example, the default has not been changed.

7. In the sharedconfig.properties file on the STEP application server, the case-sensitive **Elasticsearch.NumberOfReplicas** and **Elasticsearch.NumberOfShards** properties make it possible to configure the replicas (default 0) and shards (default 2) to be used for the indexes created by STEP. Work with your Stibo Systems account manager or partner manager to configure these properties to match the Elasticsearch setup. For troubleshooting an event processor 'maximum shards open' error, refer to the Elasticsearch Publishing topic.

8. If required, in the sharedconfig.properties file on the STEP application server, the case-sensitive **Elasticsearch.TotalFieldLimit** property allows you to increase the number of Elasticsearch facets above the 1,000 default. Prior to raising this value, consider and evaluate the performance and memory impact and contact your Stibo Systems account manager or partner manager for assistance. For existing solutions, to reflect the change in the Search Screen, Elasticsearch data must be republished (as defined in the Elasticsearch Publishing topic) or the database limit must be updated via a script in Kibana or REST.

9. If required, in the sharedconfig.properties file on the STEP application server, the case-sensitive **Elasticsearch.IncludeSearchScreen** property allows you to define the Web UIs that include a faceted search icon on the Global Navigation Panel. By default, when the ui-search component is installed, all Web UIs include two search buttons () on the Global Navigation Panel. The faceted search button is at the top and the standard search button is next (refer to the Global Navigation Panel topic for details). To specify which Web UIs include the faceted search button, add a comma-separated list of those Web UI IDs to the property. Do not include spaces between the IDs, as shown below:

```
Elasticsearch.IncludeSearchScreen=CustomerWebUI,BuySideSellSide_
Supplier,GDSNReceiver
```

   In this example, only the Web UIs listed will include both the faceted search button and the standard search button. The Web UIs not specified in the property include only the standard search button.

10. If required, in the sharedconfig.properties file on the STEP application server, the case-sensitive properties below will allow you to connect via proxy (the properties to the right of the equal sign are examples only):

```
Elasticsearch.Proxy.Host=sample.stibo.com
Elasticsearch.Proxy.Port=3248
Elasticsearch.Proxy.User=username
Elasticsearch.Proxy.Password=password
```

11. **For non-production systems**: When using one Elasticsearch server instance for multiple non-production systems, you can add the **Elasticsearch.IndexNameSuffix** property to the sharedconfig.properties file. By

default, it is empty. Because the users configuring the Elasticsearch instances must use different indexes, this property keeps users from overwriting indexes *and* production data by creating a specific index name for your environment.

```
Elasticsearch.IndexNameSuffix=staging
```

The index name is a combination of a prefix (defined in configuration), contextID, workspaceID and a suffix. The example above produces this index name: '{prefix}-{workspaceID}-{contextID}-staging'.

12. Kibana is a tool for troubleshooting unexpected Elasticsearch results on the Search Screen. The installed Kibana version must be the same as the installed version of Elasticsearch. The latest versions supported are included in release notes. For more information, search the web.

Changes to the properties file, outlined above, are implemented when the server is restarted.

Note: In instances where the STEP system is set up with both an internal and an external address (i.e., a load balancer or other network gateway between client and server), the **System.ClientName** property should be used to let the STEP system know that all external URLs, such as those used for image resources, need to be created with the external base URL.

Next, create an Elasticsearch object type as defined in the Creating an Elasticsearch Object Type topic.

Elasticsearch Searchable Data Setup Options

For STEP data to be displayed in the Web UI faceted Search Screen, it must meet the conditions for the searchable data setup type implemented for Elasticsearch during the initial set up:

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

- **Elasticsearch Permissions and STEP Privileges** - in this recommended option, data is included in Elasticsearch based on the STEP user privilege settings defined below. Faceted search result values are visible based on the User Group Permissions column of the Elasticsearch Configuration wizard. This option gives greater control of access to data in the Search Screen than the legacy option allows.
- **Legacy Products Linked to Classifications** - products are only included in Elasticsearch when linked to privileged classifications. This option gives poor support of STEP privileges, minimal control of access to products in the faceted Search Screen and is not recommended.

Use one of the following ways to verify that your system is using the recommended Elasticsearch Permissions and STEP Privileges option and not the legacy option:

- In workbench, open the active Elasticsearch Configuration object and ensure that the User Group Permissions column is displayed on the Data Specifications step.
- From the Start Page, click the STEP System Administration link, provide login information, and click the 'Fetch data' button on the Configuration tab. For more information, refer to the Configuration topic in the Administration Portal documentation.

Finish activation of the desired searchable data setup type by completing the steps defined in the Initial Setup for Elasticsearch topic.

Important: Before starting the configuration outlined in this topic, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration for the faceted Search screen, Elasticsearch, and corresponding components / functionality should not be done without the assistance of Stibo Systems.

Elasticsearch Permissions and STEP Privileges

With this option, the faceted Search Screen uses the STEP User Privilege settings defined below to filter out node data displayed on the Search Screen. Although privilege rules for attribute groups are ignored in Elasticsearch, attribute group access can be managed via the User Group Permissions column on the configuration. The User Group Permissions column on the configuration is an extension to user privileges and impacts visibility of individual data specifications.

Important: Once your system is updated from the legacy option to the preferred Elasticsearch Permissions and STEP Privileges option, reverting is not advised. Upgrading to the Elasticsearch Permissions and STEP

Privileges option may require additional configuration as defined in the **Upgrading the Searchable Data Setup Option** section below.

For the active Elasticsearch Configuration object:

- The faceted Search Screen respects user privileges applied for the following types of privilege rules: action sets, classification hierarchy nodes, object types, product hierarchy node, or dimension points. For more information, refer to the Privilege Rules topic in the System Setup documentation.
- Elasticsearch does not support privilege rules for structure nodes (displayed in the User Privileges 'Applies to' column) of collections, or eCatalogs, so privileges rules for these objects do not impact the objects displayed on the Search Screen.
- Elasticsearch does not support privilege rules for attribute groups. Instead, User Group Permissions set on the Elasticsearch Configuration allow control for each data specification.
- The faceted Search Screen limits access to any data specification to the user groups displayed in the User Group Permission column. If no groups are defined, all users have access.

  Note: Permissions set on the Elasticsearch configuration only impact facets. Search results only respect STEP default privileges.

Considerations

The Elasticsearch Permissions and STEP Privileges option includes the following functionality:

- Full-text search results on the faceted Search Screen will include values that may be hidden from the user's view. Consider a data specification with the Full Text option selected and User Group Permissions set in the Elasticsearch Configuration. The Search Screen results will include products that satisfy a full-text search using that data specification even if the attribute is not visible to the user. In other words, although an attribute with the value that meets the full-text search is not displayed in the result set (because the user is not part of the User Group Permissions group selected), the product that contains the attribute value is displayed.

  Note: Use caution when setting both Full Text and User Group Permissions on the Elasticsearch Configuration to avoid unexpected search results.

  For example, the attribute 'Country' data specification is set for Full Text and its visibility is limited to the 'Sales' user group via the User Group Permissions column.

  Two users perform the same search for 'Kingdom' with the following results:

  - Joe, who is not a member of the 'Sales' user group, accesses a product that does not show the value 'kingdom' for any visible attribute. Joe does not view the Country attribute since it is only visible for the 'Sales' user group.

- Sam, who is a member of the 'Sales' user group, accesses the same product, the 'Country' attribute, and the value of the Country attribute which is 'United Kingdom.'

Additionally, if the 'Country' data specification is also set as a Default Facet, the selections in the User Group Permissions column determine which Search Screen users view that default facet. Continuing with the example above:

- Joe, who is not a member of the 'Sales' user group, does not have access to the default facet.
- Sam, who is a member of the 'Sales' user group, does have access to the default facet.

This example shows that restricting access to data via user group permissions does not restrict the results of a search, but instead limits the visibility of the data specification in the result set.

For details on full-text searches, refer to the Creating an Elasticsearch Configuration topic and the Search Screen Search Bar topic.

- The faceted Search Screen uses the STEP User Privileges to filter out node data displayed on the Search Screen, while the User Group Permissions setting on the configuration impacts visibility of individual data specifications. Consider a data specification with Full Text selected and no entries for the User Group Permissions column. The Search Screen results will include products that satisfy the full-text search and that are allowed by the privilege rules.

  For example, the 'Outerwear' user group is privileged to view the primary product hierarchy 'Jackets' node but is not privileged to view the 'Swimwear' node. The 'Brand' attribute is valid for both the 'Jackets' node and the 'Swimwear' node. The value 'HiriKahaki' exists for both 'Jackets' and 'Swimwear' products.

  Two users perform the same search for 'HiriKahaki' with the following results:

  - Bob, who is a member of the only 'Outerwear' user group, accesses only products in the Jackets node.
  - Tom, who is privileged to view both the 'Jackets' and the 'Swimwear' hierarchies, accesses products from both the Jackets node and the Swimwear node.

Legacy Products Linked to Classifications

The original release of the Elasticsearch faceted Search Screen includes only products linked to privileged classifications.

For the active Elasticsearch Configuration object:

- The product must be linked into at least one classification that the user is privileged to view.
- The user must have the 'View product' and 'View classification' user action privileges applied to a particular classification or its parent.

For Elasticsearch results, only user privileges for classifications are respected and are additive. Attribute, object type, and other privileges are not available. For example, a user who has privileges only to Classification A can view the products in that classification. If the same product exists in Classification A and in Classification B, the user can view some of the products from Classification B because of the privileges to Classification A.

Upgrading the Searchable Data Setup Option

When Elasticsearch is configured and running in the Web UI faceted Search Screen, upgrading from the legacy setup option should include the following steps and considerations.

1. Reindex Elasticsearch to deploy the upgraded functionality. For details, refer to the **Reindex the Elasticsearch Database** section of the Elasticsearch Publishing topic.
2. Optionally, edit the active Elasticsearch Configuration and set the User Group Permissions column to give access to only the listed user groups. For backward compatibility, if no user groups are listed, all users have access to the data specification.

Note: A different number of objects may be available in the Search Screen after upgrading the searchable data setup option since products are no longer required to be linked into a classification. The backward compatibility for the Elasticsearch Permissions and STEP Privileges means that products previously excluded from the Search Screen due to not being linked to a privileged classification are now included in search results.

Once the Elasticsearch Permissions and STEP Privileges setup is enabled, reverting to the Legacy Products Linked to Classifications option is not advised due to the following issues:

- The legacy classification option does not adequately honor standard STEP privilege rules and requires additional setup not typically necessary to restrict access. The Elasticsearch Permissions and STEP Privileges option is the recommended choice.
- Assigned User Group Permissions settings are not automatically removed when reverting to the legacy classifications option. This means that the user group settings can continue to have an impact on data available to the Search Screen even after the User Group Permissions column is no longer available in the configuration wizard. To avoid this, all User Group Permissions settings should be removed manually if reverting.
- Search Screen results will differ drastically if reverting to the legacy classifications option after implementing the Elasticsearch Permissions and STEP Privileges option. To reduce the differences, additional classifications can be created manually prior to reverting to ensure the behavior remains consistent between the options.

Elasticsearch Quick Start

After completing the steps in the Initial Setup for Elasticsearch topic and the steps in the Creating an Elasticsearch Object Type topic , use these minimum viable configuration steps to understand how Elasticsearch works in Web UI to provide a faceted search experience. Then further configure the 'quick start' configuration to provide the full dataset necessary for end-user searches.

Refer to details and additional information in the Creating an Elasticsearch Configuration topic.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Prerequisites

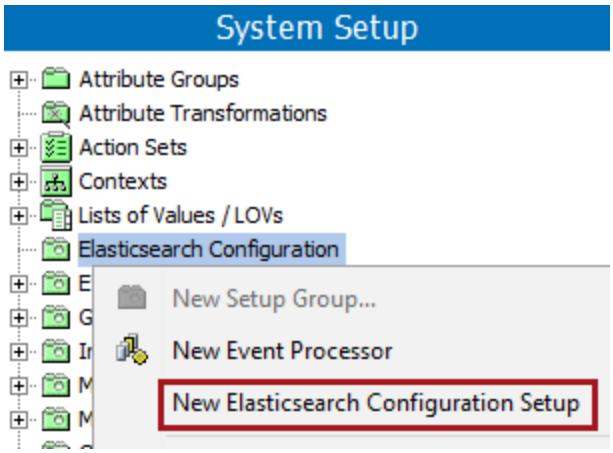
Ensure the STEP data you want to display in the Web UI faceted Search Screen meets the required conditions based on the Elasticsearch Searchable Data Setup Options topic in the Web User Interfaces documentation.

Note: The 'Revert to' a previous revision option on the Status tab of an Elasticsearch Configuration Type object is not allowed. Manual configuration is required to restore previous settings.

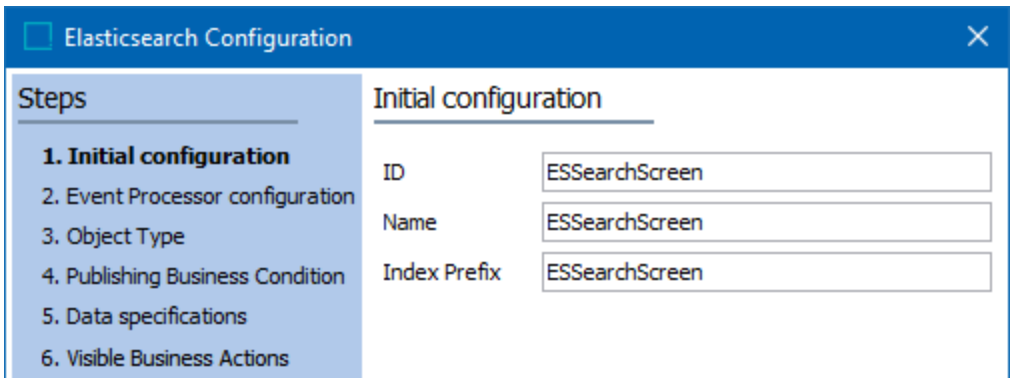
Configuration

Use the following steps to create a 'quick start' version of the Elasticsearch Configuration for faceted search:

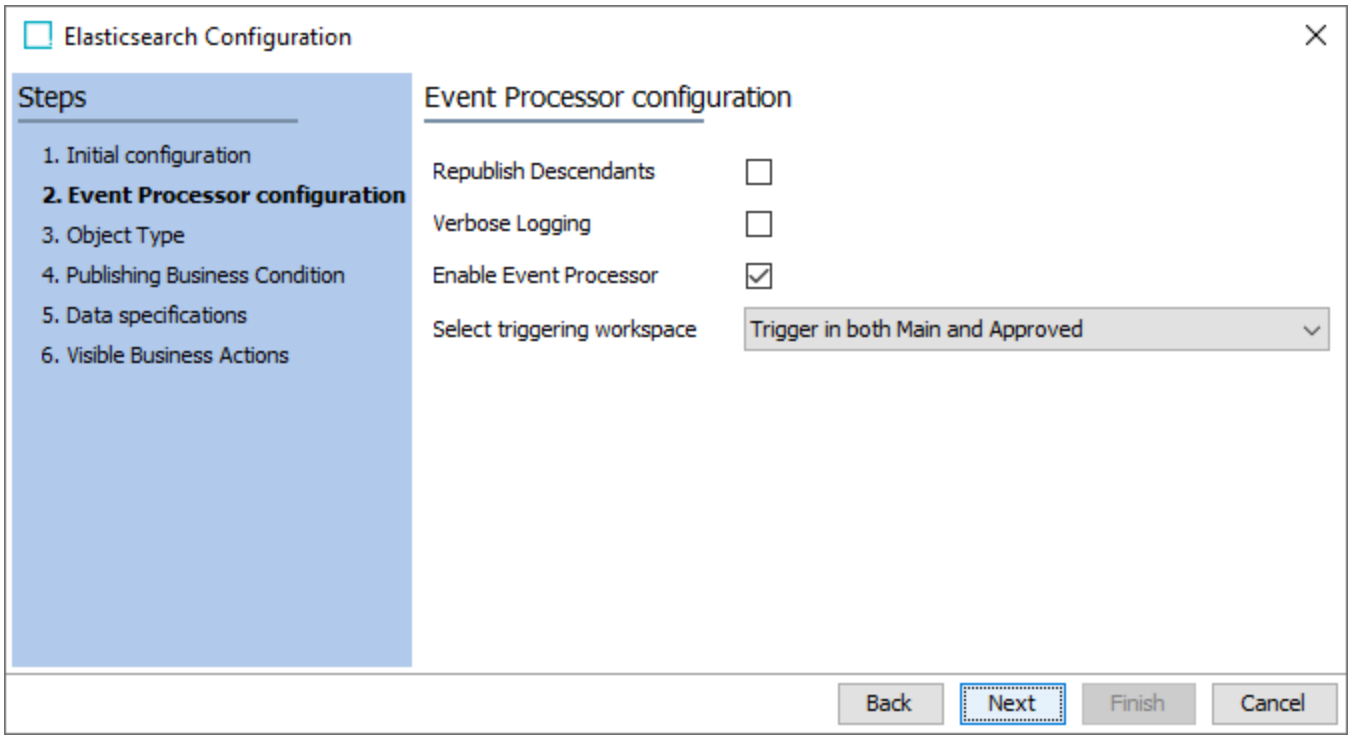
1. In workbench System Setup, right-click the Elasticsearch Configuration node and then click the **New Elasticsearch Configuration Setup** option.



2. On the Elasticsearch Configuration wizard 'Initial configuration' step, add an 'ID' and move to the next parameter to autofill the 'Name' and 'Index Prefix.'

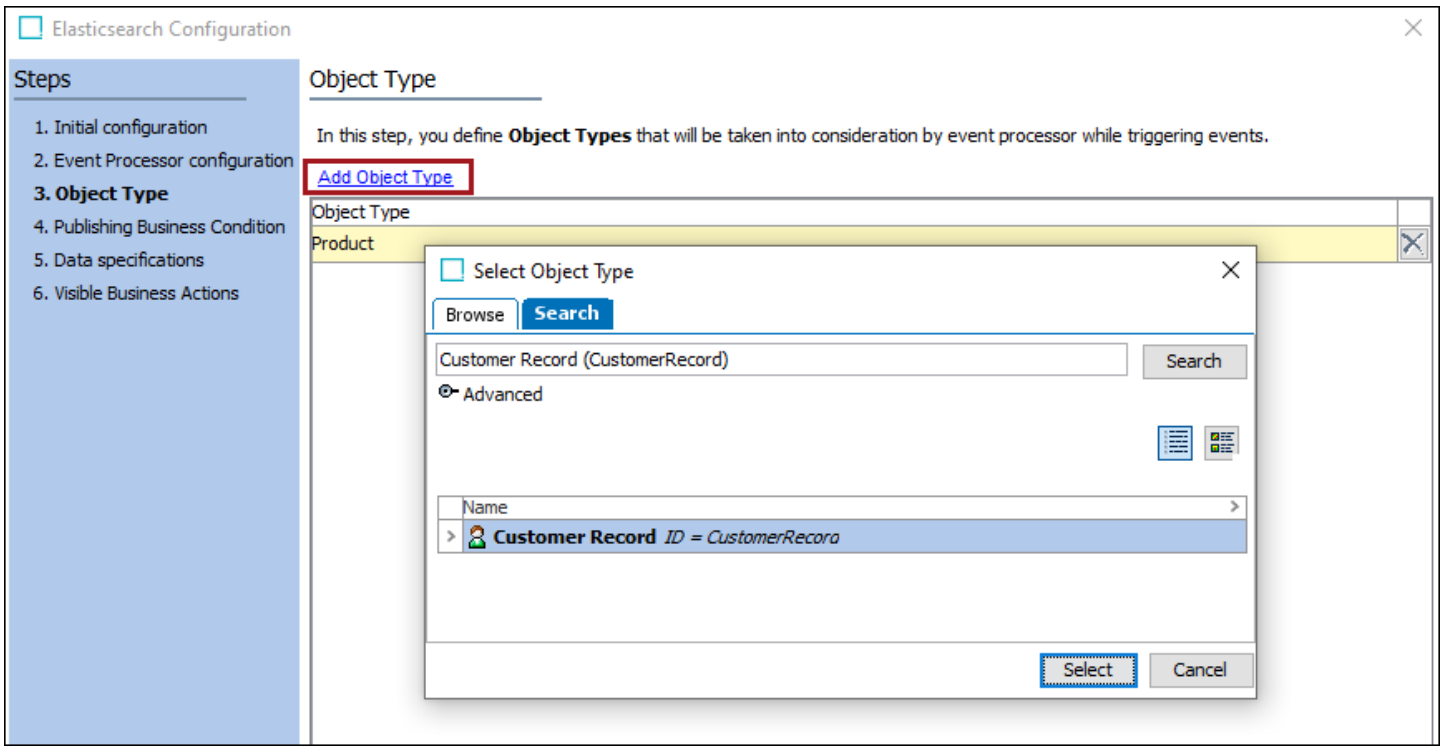


3. Click the **Next** button to display the 'Event Processor configuration' step and set:

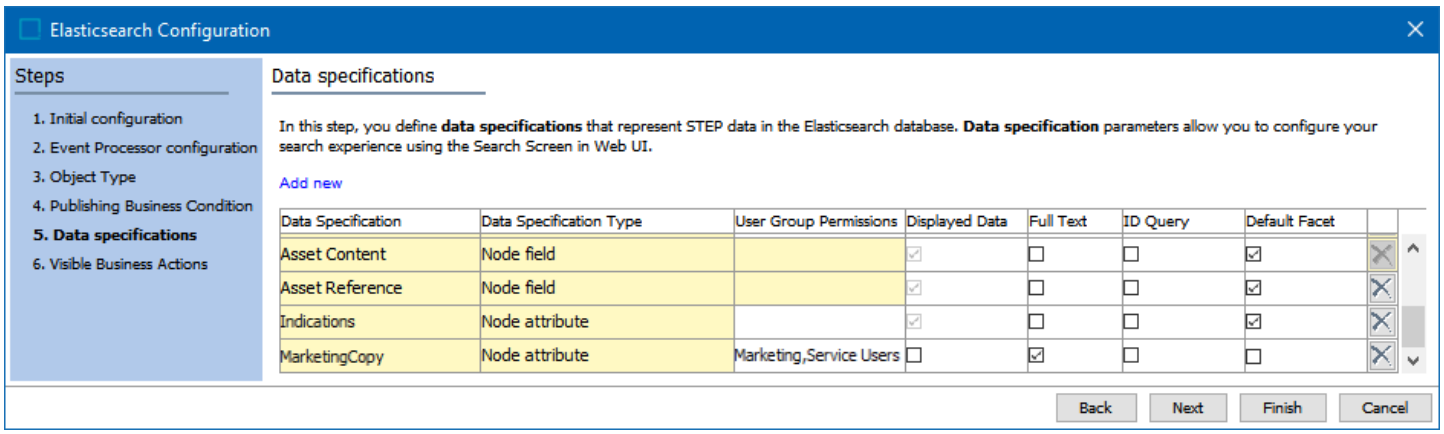


- **Republish Descendants** - unchecked.
- **Verbose Logging** - unchecked.
- **Enable Event Processor** - checked.
- **Select Triggering Workspace** - Trigger in both Main and Approved.

4. Click the **Next** button to display the 'Object Type' step:
   - Click the **Add Object Type** link
   - Select the object types that should be available for searching in Elasticsearch via the Web UI Search Screen.
   - Click the **Select** button



5. Click the **Next** button to display the 'Data specifications' step.



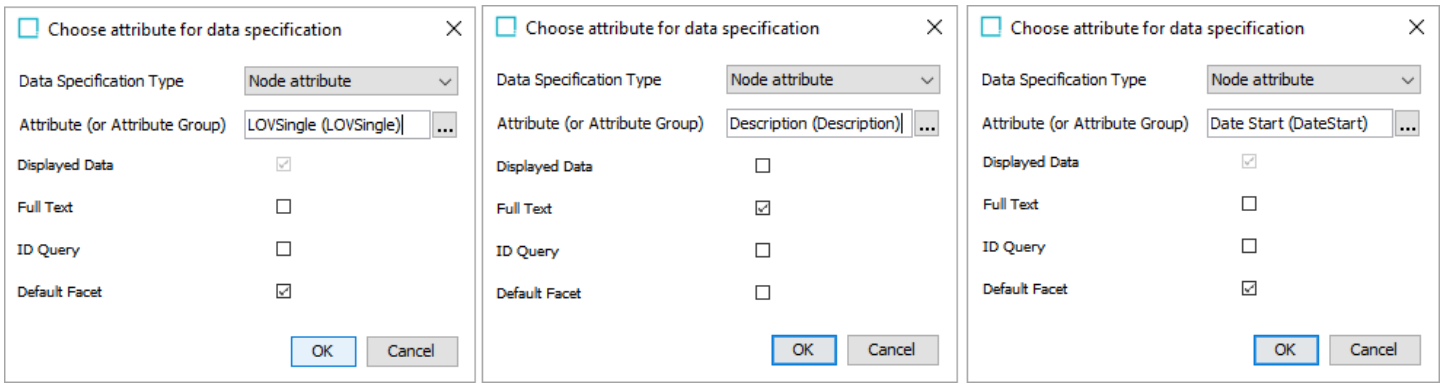
Definitions

- **Displayed Data** includes the data specification to use as facets (either by default or as needed) and can be included in the search results.
- **Full Text** includes the data specification value in full text searches via the search bar and is recommended for text-based attributes.
- **ID Query** includes the data specification value in ID searches via the search bar and is recommended only for attributes that hold values used as identification of an object.

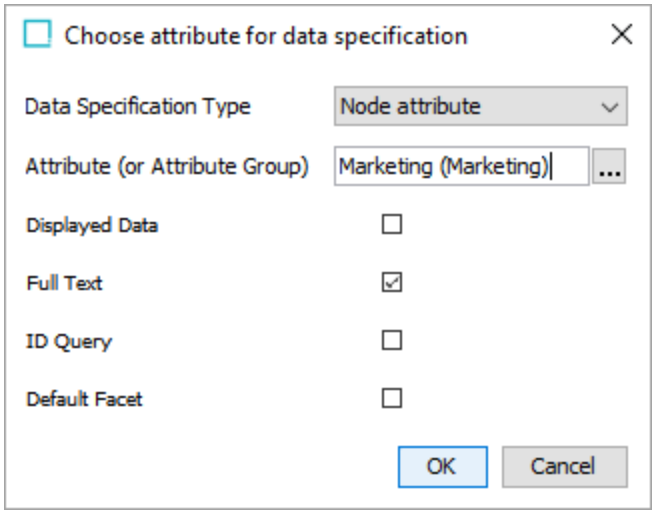
- **Default Facet** includes the data specification as a default facet for filtering and is recommended for attributes with values that are useful for narrowing down search results.

6. Optionally, add individual attributes or add an attribute group to the configuration as follows:

- For individual attributes: Repeat this step three (3) times to make a selected LOV, Text, and Date attribute available for searching. Click the **Add new** link to display the 'Choose attribute for data specification' dialog. Set the parameters shown below for your LOV, Text, and Date attribute and click the **OK** button.



- For an attribute group: Select a group to have all attributes in the group added as an individual data specification with the selected options, and make them available for searching. Click the **Add new** link to display the 'Choose attribute for data specification' dialog. Set the parameters shown below for an attribute group and click the **OK** button.



7. Update the default entry for the **Name - node field** data specification to be included as an **ID Query** so that text in the search bar returns exact matches for name or ID.

Data Specification ID	User Group Permissions	User Group Permissions	Displayed Data	Full Text	ID Query	Default Facet	
ID	Node field		☑	☑	☑	☐	✕
Name	Node field		☑	☑	☑	☐	✕
Object Type	Node field		☑	☐	☐	☑	✕

8. **User Group Permissions** is available only when the Elasticsearch Permissions and STEP Privileges searchable data setup option is employed. For details, refer to the Elasticsearch Searchable Data Setup Options topic.

   If necessary, limit availability to the data specification in the Search Screen based on user group. Permissions cannot be set for 'Node field' data specifications.

   - Select the data specification field to be modified (the cell turns blue), right-click, and select the **Edit** option.
   - On the 'User Group Selection' dialog, select the groups that require access to the data specification in the Search Screen and click the **Select** button.

   Important: If no User Group Permissions are set, all users of the Web UI Search Screen can use the data specification as defined in the Elasticsearch Configuration.

9. Click the **Finish** button to complete the wizard and activate the configuration.
10. Complete the steps to publish STEP data to the Elasticsearch database as defined in the Elasticsearch Publishing topic.
11. Add the Search Screen to your Web UI as defined in the **Configuration** section of the Search Screen topic.

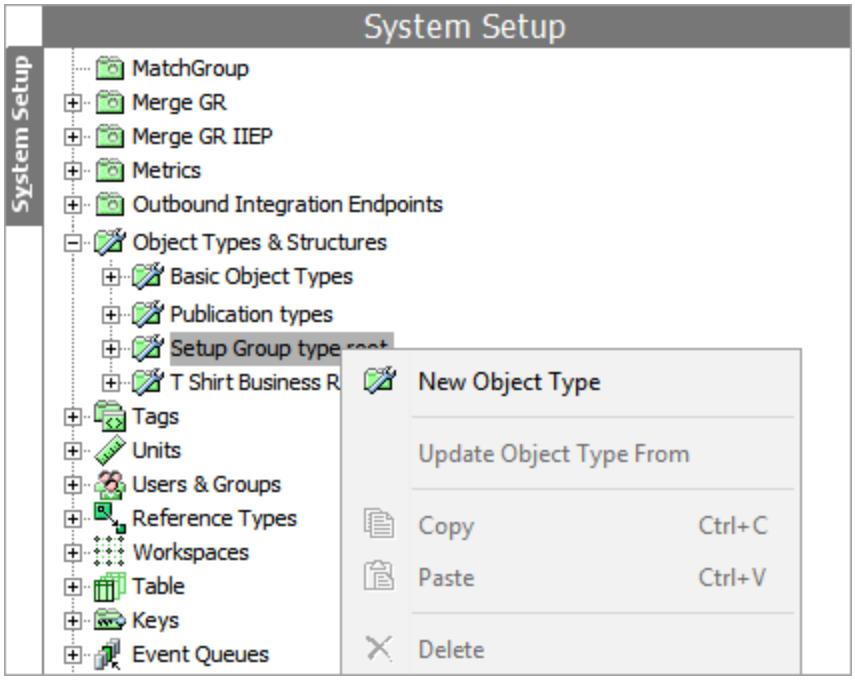
Creating an Elasticsearch Object Type

Before Elasticsearch can be set up and configured for a faceted search experience in Web UI, an Elasticsearch setup group root node and object type must be created. For more information about creating Setup Groups in general, refer to the **Setup Groups** section of the Setup Groups topic.

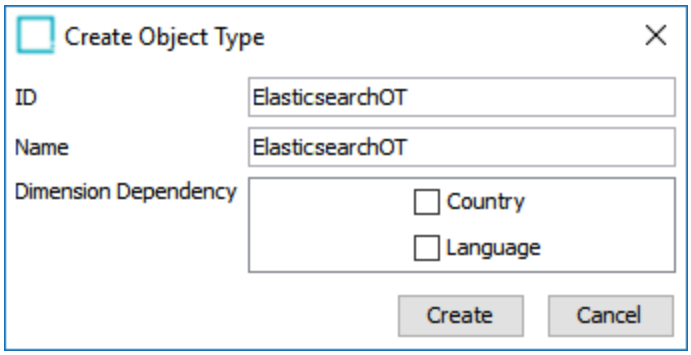
Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Use the following steps to create the Elasticsearch object type.

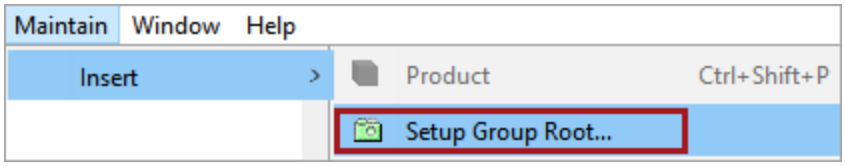
1. In the System Setup, right-click 'Setup Group Type Root' and select 'New Object Type.'



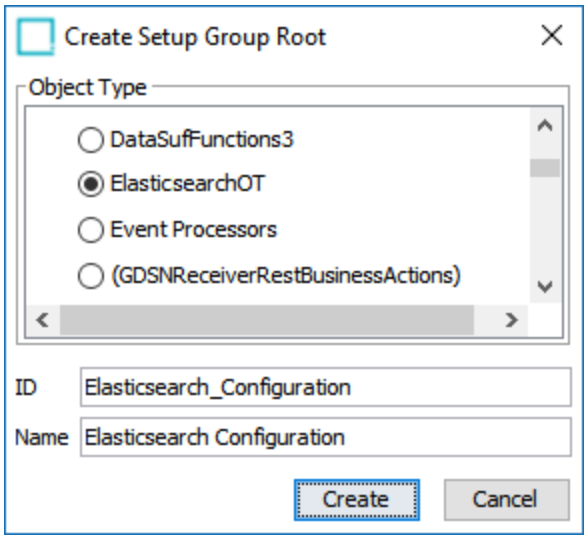
2. In the Create Object Type dialog box, enter a value for the ID and Name text field. In the example below, the user has created an object type with the ID 'ElasticsearchOT' and the Name 'ElasticsearchOT.'



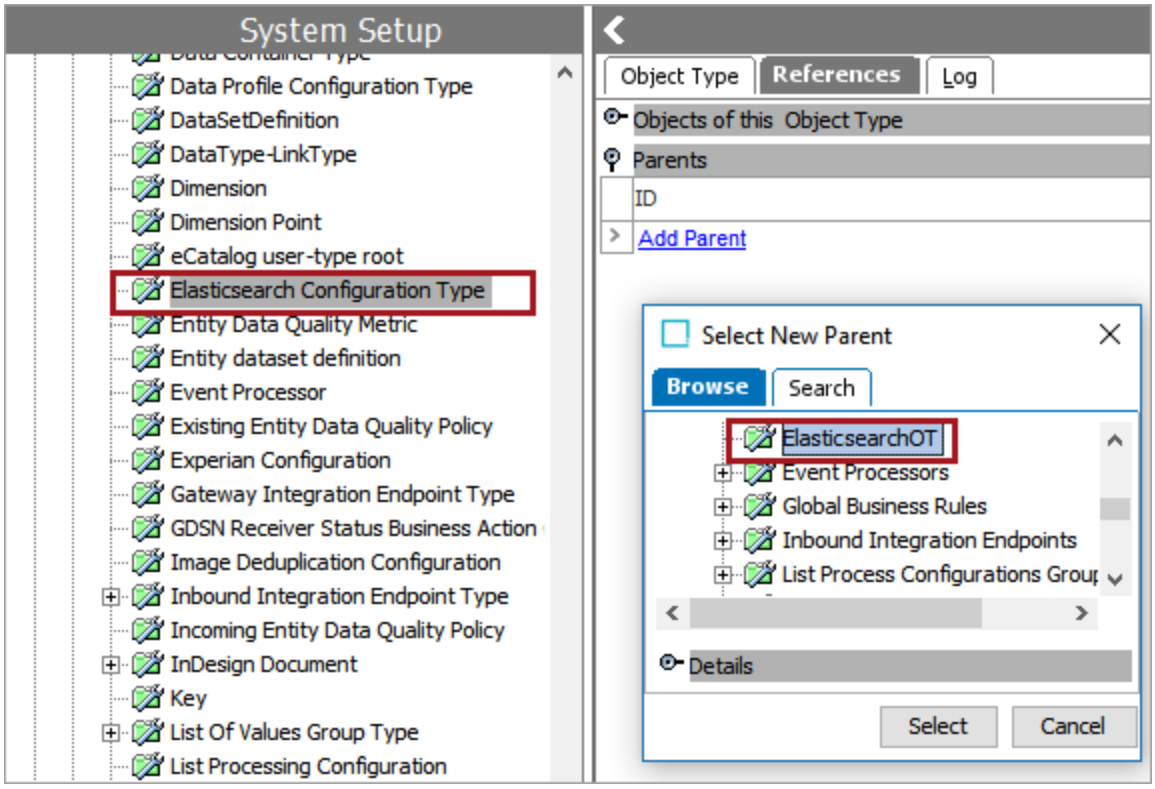
3. Click 'Create' to save the settings and close the dialog.
4. In the toolbar menu, click 'Maintain,' select 'Insert,' and click 'Setup Group Root....'



5. In the Create Setup Group Root dialog, select the object type created in the previous step (in this example, 'ElasticsearchOT') and enter a value for the ID and Name text field. In this example, the user created a setup group root with the ID 'Elasticsearch_Configuration' and the Name 'Elasticsearch Configuration'.



6. Click 'Create' to close the dialog.
7. Select 'Elasticsearch Configuration Type' from the Basic Objects menu in System Setup. In the References tab, select 'Add Parent,' and in the Select New Parent dialog, select the Setup Group (in this example, 'ElasticsearchOT') created in the previous step.



8. Click 'Select' to close the Select New Parent dialog.

Next, run the Elasticsearch Configuration wizard as defined in the Creating an Elasticsearch Configuration topic.

Creating an Elasticsearch Configuration

After completing the steps in the Creating an Elasticsearch Object Type topic, run the following configuration wizard and complete the Elasticsearch Configuration setup for a faceted search experience.

For general information, refer to the Elasticsearch Setup topic. For illustrations of searching results using the faceted Search Screen, refer to the Search Screen Search Result Examples topic.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Important: Ideally, the configuration should include only the data necessary to allow users to easily scope and shape the desired search results. Excessive data in Elasticsearch can negatively impact the response time of searches on the faceted Search Screen. Carefully consider the attributes and references to configure initially and expand the configuration as you determine additional information is required.

Prerequisites

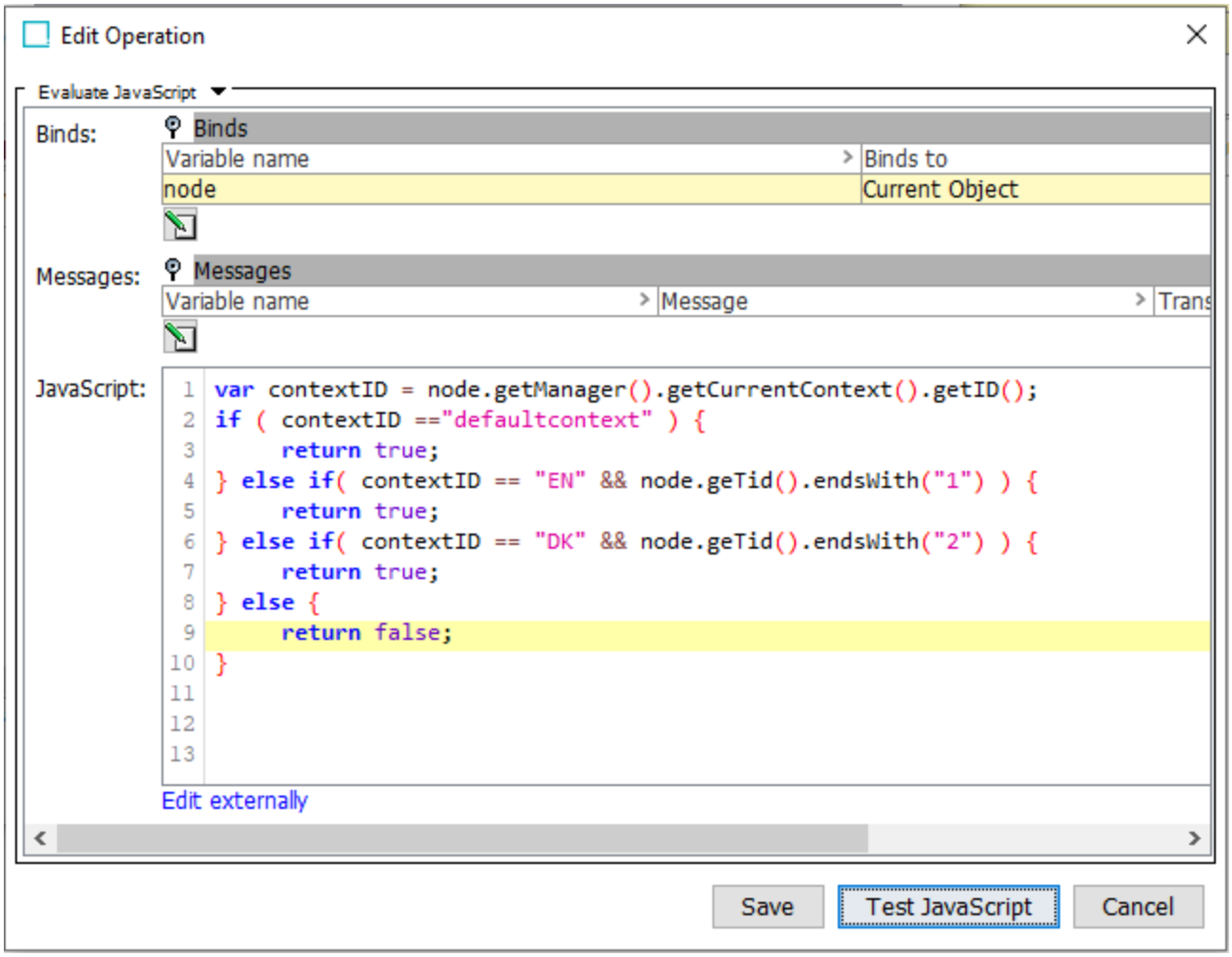
Complete the required one-time setup items included in the Initial Setup for Elasticsearch topic to use the Elasticsearch search engine with STEP.

When the case-sensitive property `Elasticsearch.FeatureToggle.PublishingBusinessCondition=true` is in the sharedconfig.properties file, a business condition can be selected to restrict the contexts being published to Elasticsearch. When creating the business condition, set the Valid Object Types parameter for the object types being published to the Elasticsearch database. The business condition must return 'true' for contexts to be published and return 'false' for contexts that should be rejected. The business condition can be selected in the Elasticsearch Configuration.

In the following example, these contexts return 'true' and are published:

- The context ID is ‘defaultcontext’. This line will ensure that any object that has been deleted, approved, and is in the recycling bin, will be picked up by the search processor and removed from the search index.
- ID of 'EN' and object IDs that end with the number 1
- ID of 'DK' and object IDs that end with the number 2

All other context-object combinations which return 'false' are rejected during publishing.



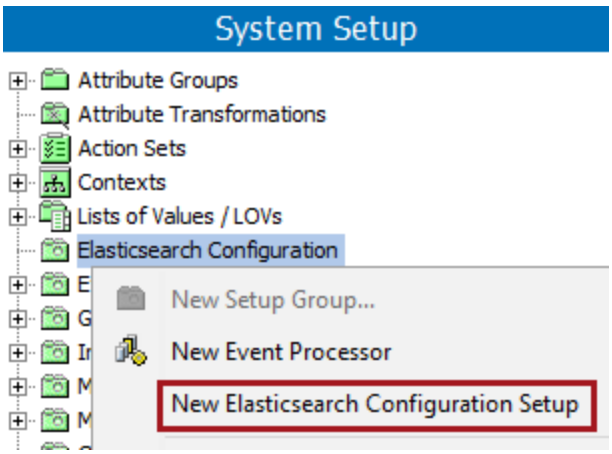
Create an Elasticsearch Configuration

Use the following steps to create the required Elasticsearch configuration.

Note: The 'Revert to' a previous revision option on the Status tab of an Elasticsearch Configuration Type object is not allowed. Manual configuration is required to restore previous settings.

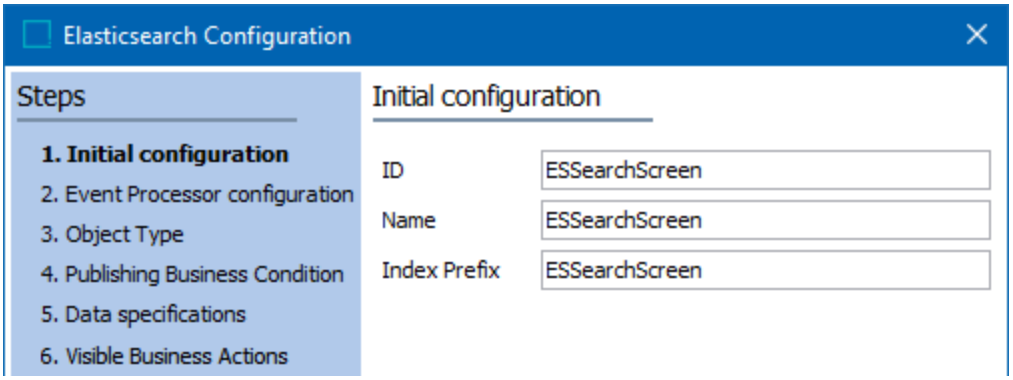
Important: You cannot create more Elasticsearch configurations if three or more are already present.

1. In workbench, on System Setup, right-click the Elasticsearch Configuration node and then click the **New Elasticsearch Configuration Setup** option.

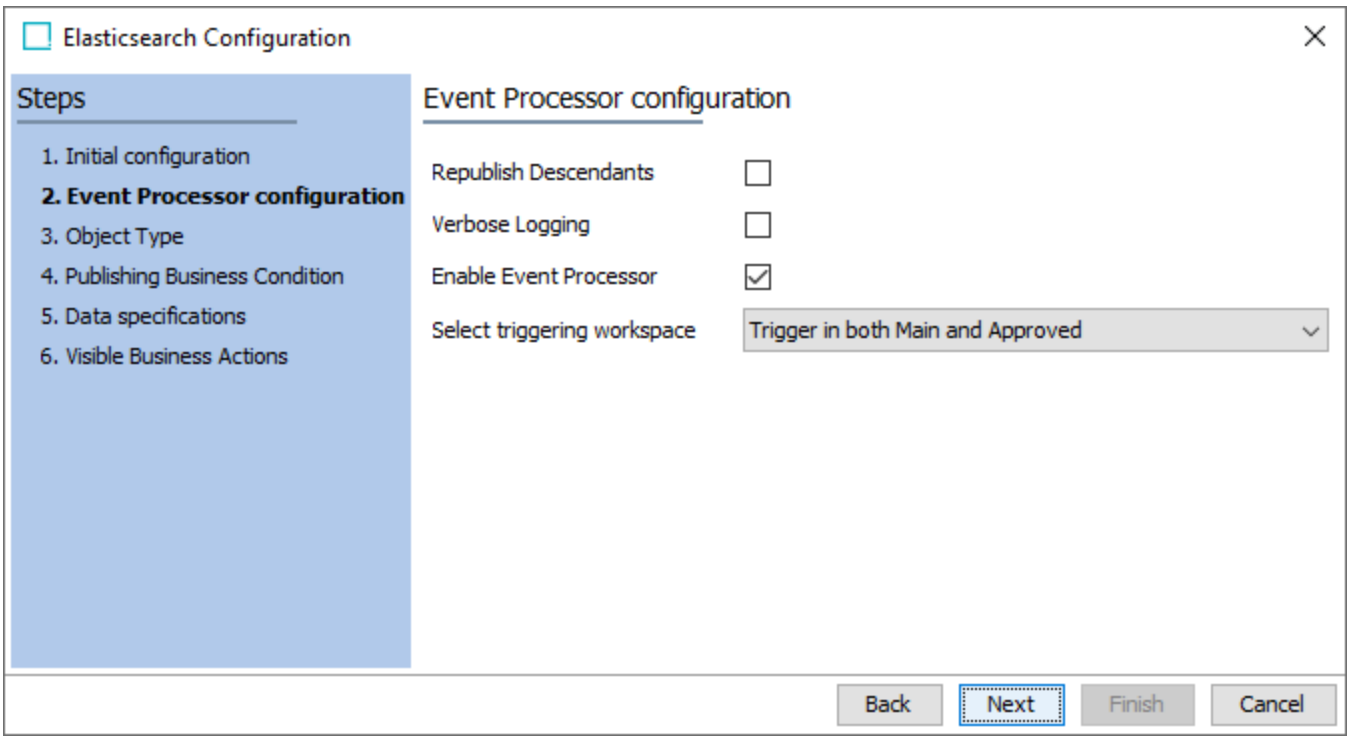


2. On the Elasticsearch Configuration wizard 'Initial configuration' step:
   - Add an ID and move to the next parameter to duplicate the ID in the 'Name' and 'Index Prefix' parameters.

     Note: Using duplicated text for these parameters eliminates confusion when identifying the index associated with this configuration. For example, 'ESSearchScreen' is the text for all parameters in the image below.

     When editing the configuration, only the 'Name' and 'Index Prefix' can be modified. Refer to the Maintaining an Elasticsearch Configuration topic for more information.
   - Click the **Next** button.
3. On the 'Event Processor configuration' step:



- **Republish Descendants** - Check the box to include children of the selected nodes when reindexing.
- **Verbose Logging** - Check the box to include excessive logging for troubleshooting.

> **Important:** This option should be enabled only when necessary as it negatively impacts performance.

- **Enable Event Processor** - Check the box to activate the event processor created by this wizard. Changing this parameter displays a confirmation dialog. Enabling the event process means publishing of events to Elasticsearch begins immediately upon clicking the wizard Finish button. Disabling the event processor means the Elasticsearch data may not match the STEP data, making search results unreliable.
- **Select triggering workspace** - Select the workspace(s) to update the Elasticsearch database.

> **Important:** Use 'Triggering in Main only' or 'Triggering in both Main and Approved' option if data in the main workspace should be reflected in faceted search or to find objects that have never been approved. This can lead to poor performance particularly if you are publishing the maximum number of data points with a high volume of data changes to Elasticsearch. Since the benefits of triggering from 'Main' can outweigh the performance risk, thoroughly test in lower environments before running in production. Alternatively, derived events can be used to trigger events prior to approval, as defined in the **Derived Events** topic of the **System Setup** documentation.

  - The 'Triggering in Main only' creates an event when a change is made in the Main (maintenance) workspace, prior to approval.

- The 'Triggering in Approved only' creates events when an action causes an update to the Approved workspace, generally as a result of approving an object.
- The 'Triggering in both Main and Approved' option results in events both before and after approval.

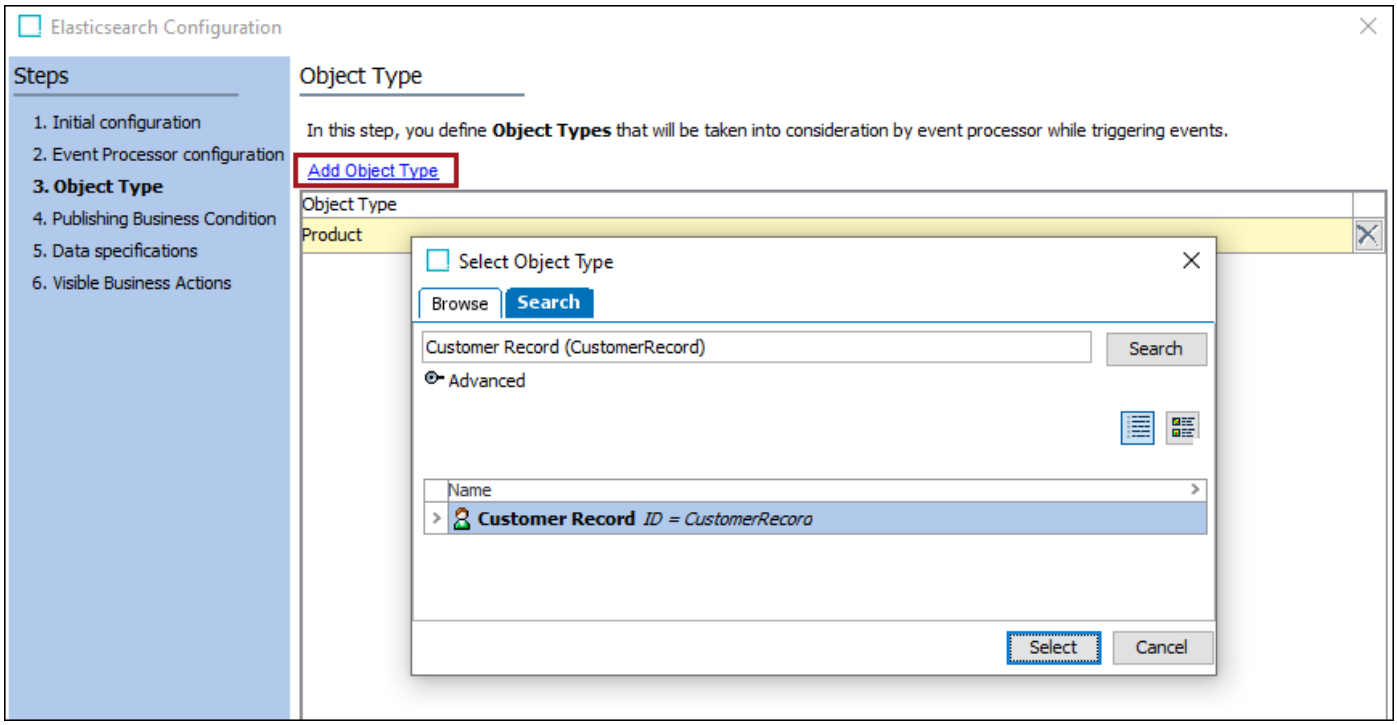
> **Note:** To activate a change to the Triggering Workspace parameter, you must invoke the event processor with at least one event on the queue.

- Click the **Next** button.

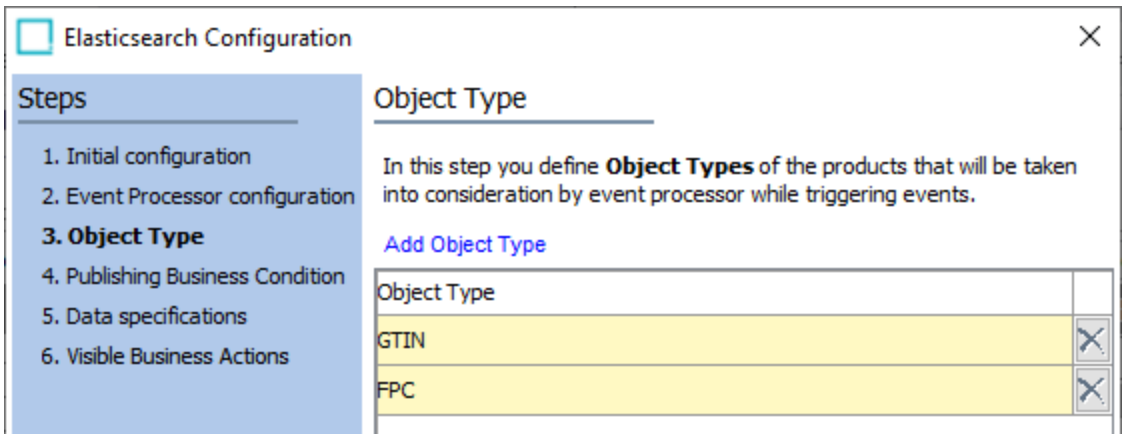
4. On the 'Object Type' step:

- Click the **Add Object Type** link and select the objects that should trigger the event processor and be available for searching in Elasticsearch via the Web UI Search Screen. Object types selected are displayed as values within the Search Screen's object type facet.

> **Note:** The selected object types are added as Event Triggering Definitions in the event processor that is automatically created by this wizard.

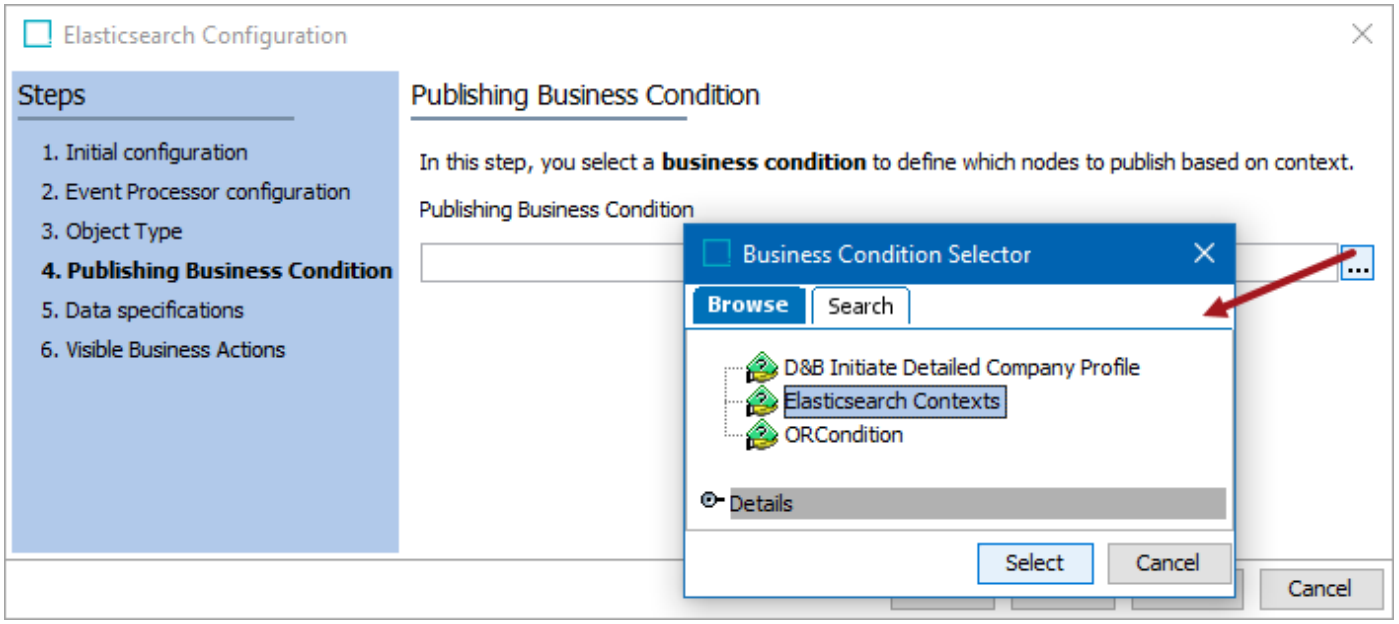


- Click the **Select** button to add the selections to the Object Type list.



- Click the **Next** button.

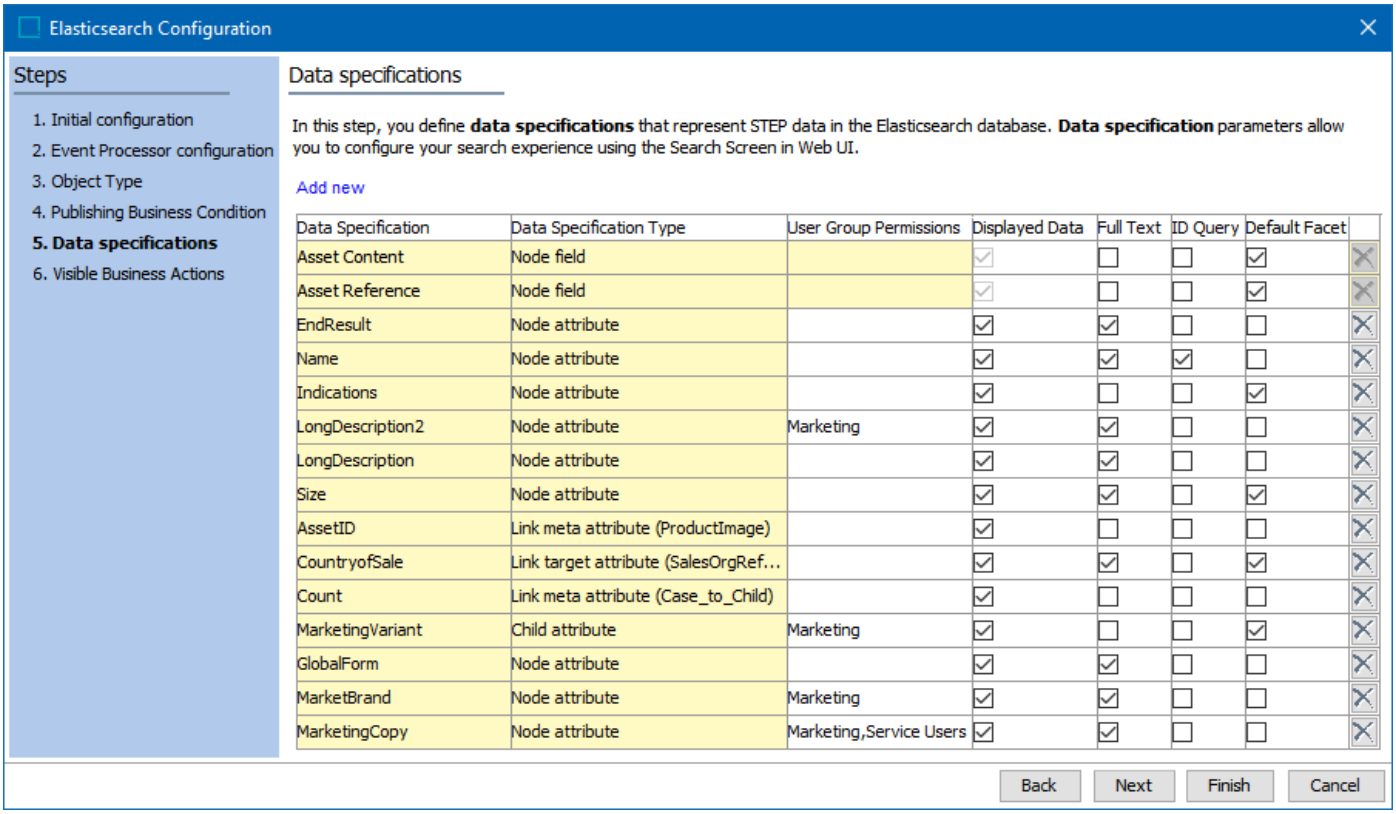
5. On the 'Publishing Business Condition' step:
   - Click the ellipsis button (...) to open the Business Condition Selector and choose the business condition that restricts contexts being published to Elasticsearch. The number of nodes published and rejected based on the business condition are reported in the event processor execution report.
   - Click the **Select** button.



   - Click the **Next** button.

6. On the 'Data specifications' step:

Note: Hover over a column heading for a definition. Hover over a Data Specification row to view the ID used in the JSON document.



Data Specification	Data Specification Type	User Group Permissions	Displayed Data	Full Text	ID Query	Default Facet
Asset Content	Node field		☑	☐	☐	☑
Asset Reference	Node field		☑	☐	☐	☑
EndResult	Node attribute		☑	☑	☐	☐
Name	Node attribute		☑	☑	☑	☐
Indications	Node attribute		☑	☐	☐	☑
LongDescription2	Node attribute	Marketing	☑	☑	☐	☐
LongDescription	Node attribute		☑	☑	☐	☐
Size	Node attribute		☑	☑	☐	☑
AssetID	Link meta attribute (ProductImage)		☑	☐	☐	☐
CountryofSale	Link target attribute (SalesOrgRef...		☑	☑	☐	☑
Count	Link meta attribute (Case_to_Child)		☑	☐	☐	☐
MarketingVariant	Child attribute	Marketing	☑	☐	☐	☑
GlobalForm	Node attribute		☑	☑	☐	☐
MarketBrand	Node attribute	Marketing	☑	☑	☐	☐
MarketingCopy	Node attribute	Marketing,Service Users	☑	☑	☐	☐

Important: Exceeding the data specifications limit displays an error. Reduce the number of selections to continue with the configuration. Additionally, to avoid negatively impacting performance, it is not recommended to configure more than 20 static facets at a time.

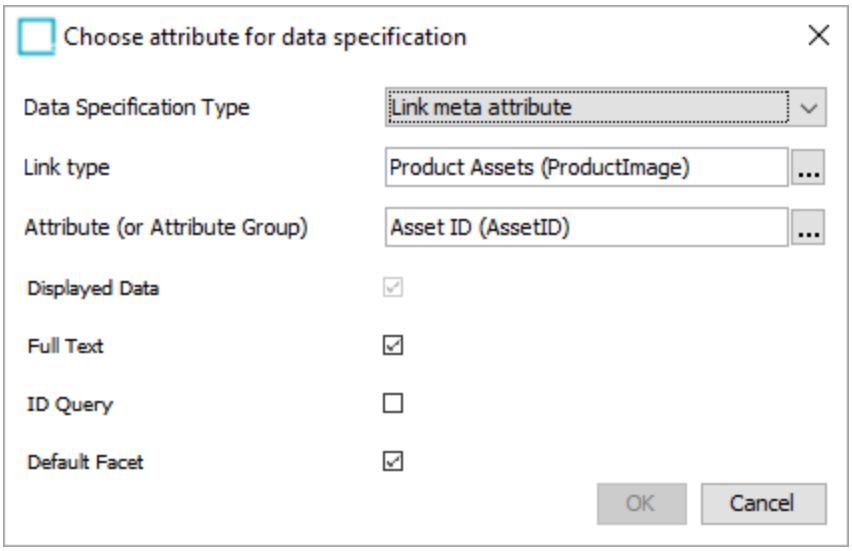
- Node fields are default items and cannot be deleted, as indicated by the yellow background and the disabled delete button ( ). User group permissions cannot be set for these default data specifications.

Data Specification	Data Specification Type	User Group Permissions	Displayed Data	Full Text	ID Query	Default Facet	
Super Type	Node field		☑	☐	☐	☑	✕
ID	Node field		☑	☑	☑	☐	✕
Name	Node field		☑	☑	☐	☐	✕
Object Type	Node field		☑	☐	☐	☑	✕
Path	Node field		☑	☐	☐	☑	✕
Approval Status	Node field		☑	☐	☐	☑	✕
Last Revision Created Date	Node field		☑	☐	☐	☑	✕
First Revision Created Date	Node field		☑	☐	☐	☑	✕
Asset Content	Node field		☑	☐	☐	☑	✕
Asset Reference	Node field		☑	☐	☐	☑	✕

- Click the **Add new** link to modify the data specifications required for the Elasticsearch database and to set the items for full text searches, ID searches, and the default facets. Manually added items can also be manually deleted using the enabled delete button (✕).

7. After clicking the **Add new** link, on the 'Choose attribute for data specification' dialog, use the following options to complete the Elasticsearch configuration.

Note: The selected attributes are added as Event Triggering Definitions in the event processor that is automatically created by this wizard. Adding event triggers for inherited attribute changes or reference node attribute changes cannot be handled in this wizard and must be set up directly on the event processor.



- **Data Specification Type** - Select one of the following options from the dropdown:
  - **Node field** - Default elements (not included in the dropdown, automatically displayed in the wizard) on the object being searched. Default elements cannot be added or deleted, nor can permissions be set, but the search functions can be changed. ID and Name are used in Full Text searches, ID is used for ID searches, and the object type, path, approval status, and revision information items are set as default facets. An event triggering definition is automatically added to the event processor.
  - **Node attribute** - Attribute on objects being searched. An attribute event triggering definition is automatically added to the event processor.
  - **Link meta attribute** - Meta attribute on an object linked to the object being searched. An attribute trigger and a reference type event trigger are added automatically. However, to track changes on the referenced attribute, add an object type event triggering definition manually, as defined in the **Triggering for Referenced Data** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.

    While you can designate one attribute for both incoming (References) and outgoing (Referenced By) references, it is recommended to use separate attributes for each of these types of references. Separate attributes result in a cleaner setup and display of data.
  - **Link source attribute** - Attribute on the source object linked to the object being searched. An attribute trigger and a reference type event trigger are added automatically. However, to track changes on the referenced attribute, add an object type event triggering definition manually, as defined in the **Triggering for Referenced Data** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.
  - **Link target attribute** - Attribute on the target object linked to the object being searched. An attribute trigger and a reference type event trigger are added automatically. However, to track changes on the referenced attribute, add an object type event triggering definition manually, as defined in the **Triggering for Referenced Data** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.
  - **Child attribute** - Attribute on objects that are children to those being searched. An attribute event trigger is added automatically. However, to track changes on the child attribute, add an object type event triggering definition manually, as defined in the **Triggering for Referenced Data** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.
  - **Data container attribute** - Attribute that belongs to a data container on the objects being searched. The data container type must be specified. A data container attribute triggering definition is automatically added to the event processor.
  - **Data container reference attribute** - Attribute referenced by a data container attribute on the objects being searched. The data container type and link type must be specified. A data container attribute trigger and a reference type event trigger are added automatically. However, to track changes on the referenced attribute, add an object type event triggering definition manually, as defined in the **Triggering for Referenced Data** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.
- **Link type** - This parameter only displays for link data specification types. Type a reference or link name or click the ellipsis button (...) to open the 'Choose link type' dialog. Browse or search for a link type and click

the **Select** button.

- **Attribute (or Attribute Group)** - Type an attribute or group name or click the ellipsis button (...) to open the 'Choose attribute for data specification' dialog. Browse or search for an attribute or attribute group and click the **Select** button.

  Note: Adding a group updates the data specifications list with the individual attributes in the group. Each attribute can be set for the appropriate search types defined below.

  If you created attributes specifically for use in Elasticsearch, refer to the **Attribute ID Considerations** section below in this topic.

- **User Group Permissions** - This option determines which group(s) can view the data as an available facet. Permissions do not apply to full text search fields, which means that data and facets are not visible for users without permission, but results can include this data if the search complies with any text searchable field. If necessary, limit availability to the data specification in the Search Screen based on user group.

  - Select the data specification field to be modified (the cell turns blue), right-click, and select the **Edit** option.
  - On the User Group Selection dialog, select the groups that require access to the data specification in the Search Screen and click the **Select** button.

  Important: If no User Group Permissions are set, all users of the Web UI Search Screen can use the data specification as defined in the Elasticsearch Configuration.

  Note: Privileges set in an Elasticsearch configuration only impact facets.

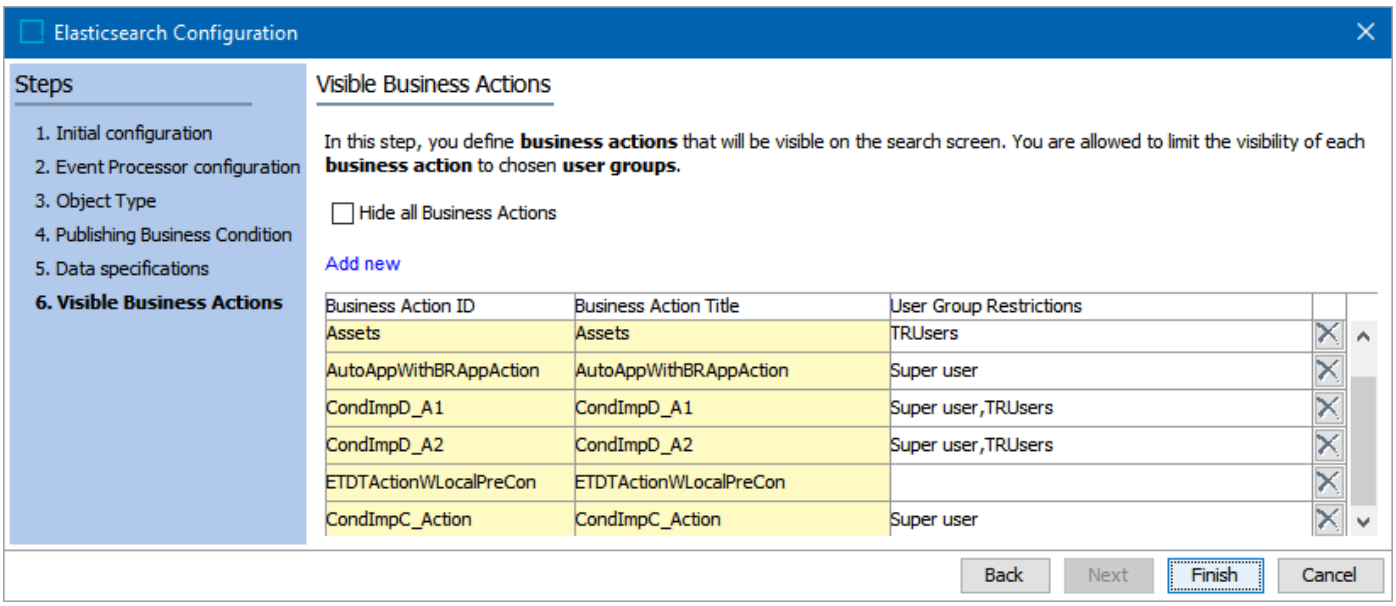
- **Displayed Data** - Check the box to have the data specification visible in the Search Screen as a facet and in the result set to be used for sorting and filtering for all users with permissions to view it. When checked, this setting is counted towards the limit of publishable fields and may count for more than one depending on the data type. Checks in other columns impact the Displayed Data setting, as defined in this section.
- **Full Text** - Check the box to include the data specification value in full text searches. Full Text selections do not impact the limit of publishable fields. While available for any data specification type, full text is recommended for text-based attributes; LOV attributes are better represented as a default facet.
- **ID Query** - Check the box to include the data specification value in ID searches. When ID Query is checked, the Displayed Data is also automatically checked for the data specification and impacts the limit of publishable fields. While available for any data specification type, ID Query is recommended only for attributes that hold values used as identification of an object. For example, a GTIN attribute or manufacturer ID might be appropriate; an LOV attribute would not typically be used as an ID query.
- **Default Facet** - Check the box to include the data specification as a default static facet for filtering. When Default Facet is checked, the Displayed Data is also automatically checked for the data specification and

impacts the limit of publishable fields. While available for any data specification type, default facet is recommended for attributes with values that are useful for narrowing down search results. For example, values for sizes or colors could be valuable as a default facet; long text values are not typical for default facets.

- Click the **OK** button on the dialog.

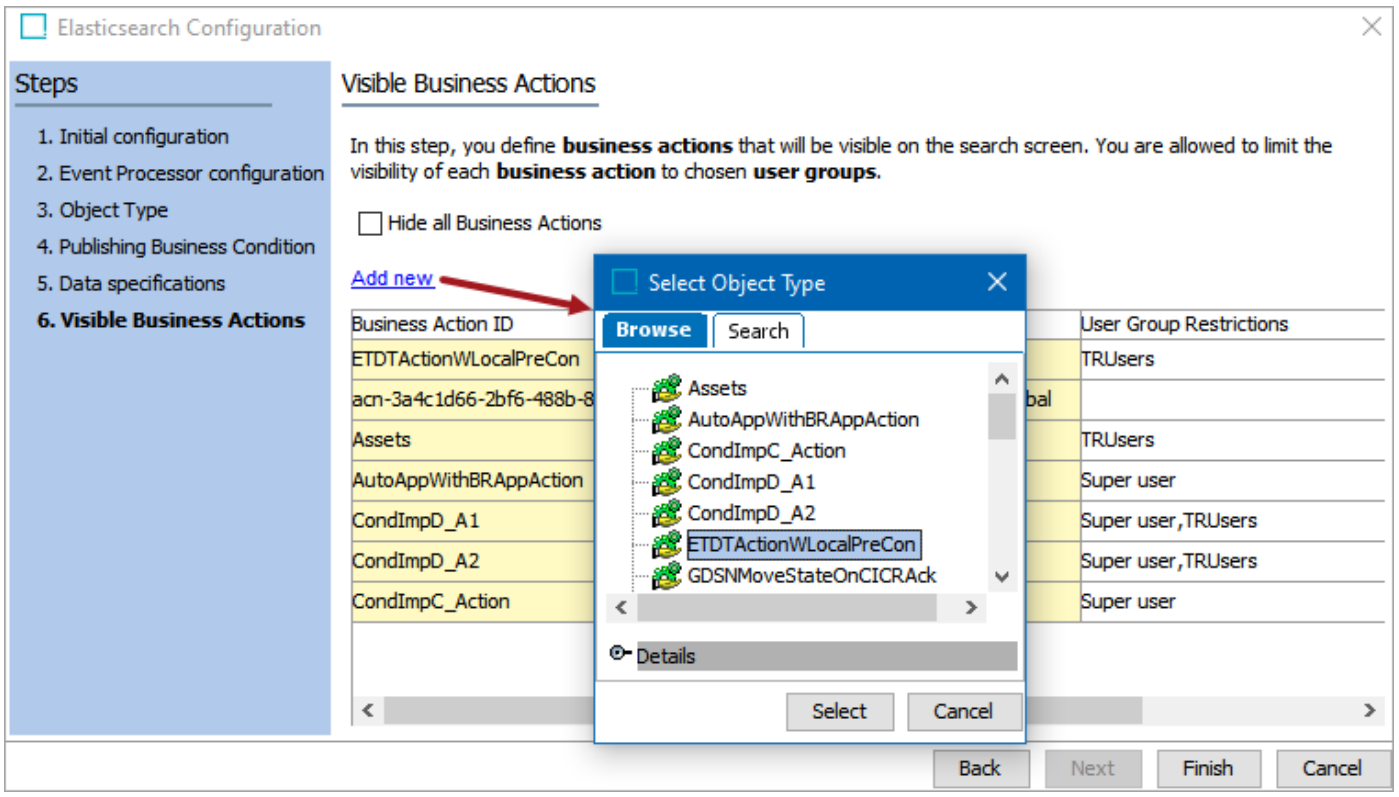
  For more information, refer to the Elasticsearch Data Specification Type Examples topic.

8. On the 'Visible Business Actions' step:

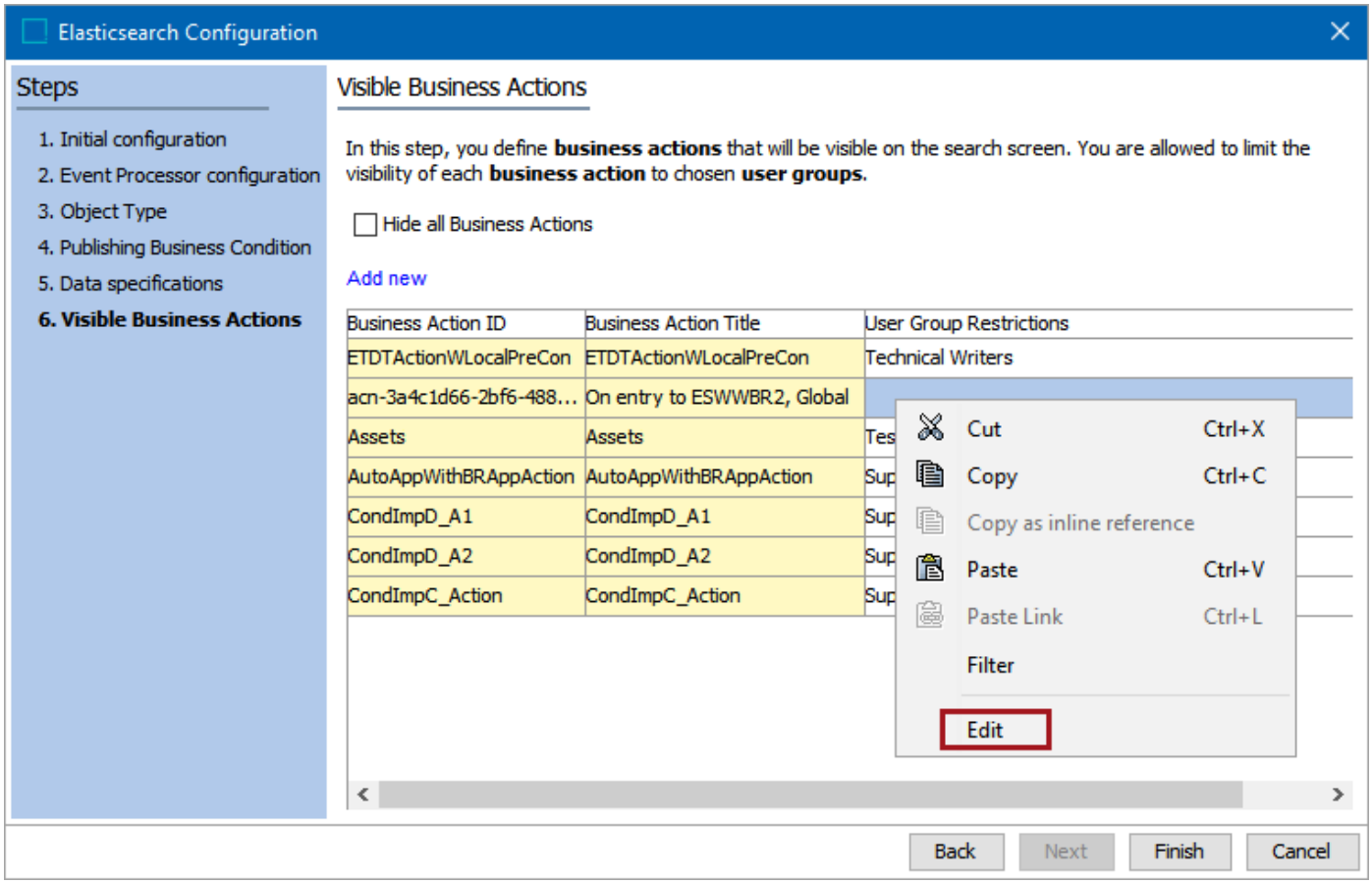


- **Hide all Business Actions** - Check to prevent users from viewing any business actions when clicking the Action button on the Web UI Search screen. This allows an override for any business actions configured on this step. The 'Add To Basket' option on the Actions menu is not impacted by this setting.
- Click the **Add new** link to select the business actions that are viewable from the 'Actions' dropdown on the Web UI Search screen.
- Select the desired business actions from the 'Select Object Type' dialog (shown below) and click the **Select** button.

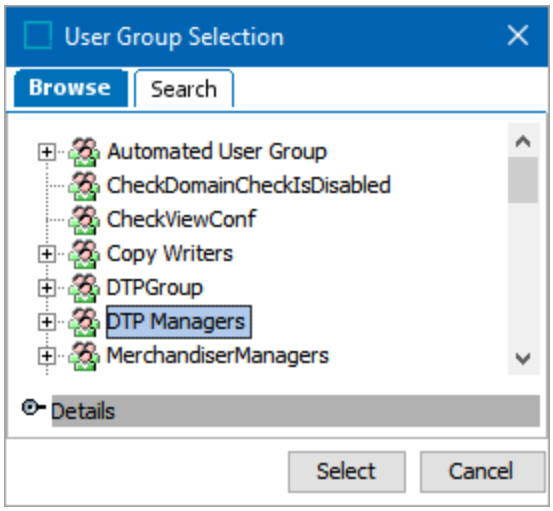
> **Note:** If no business actions are configured on the Visible Business Actions step, all business actions are visible to users. A business action is enabled to run if it is valid for the selected items and the user is privileged to run it.



- To specify which user groups can view and execute specific business actions (and restrict access to those business actions for other user groups), right-click the cell within the 'User Group Restrictions' column that correlates with the business action you want to limit access to and click **Edit**.



- Select the desired user group(s) and click the **Select** button.



For more information regarding the Actions dropdown option on the Search screen, refer to the Search Screen Actions topic.

9. Complete the wizard:

   - Click the **Cancel** button to exit without saving any changes.
   - Click the **Finish** button to apply the changes made.

> **Note:** The 'Revert to' a previous revision option on the Status tab of an Elasticsearch Configuration Type object is not allowed. Manual configuration is required to restore previous settings.

The first configuration created is automatically activated. Additional configurations must be activated manually and will automatically deactivate previous configurations.

Icon	Description
	Active - Only one Elasticsearch configuration can be active at a time.
	Inactive - Activating an Elasticsearch configuration automatically disables the previously active configuration.

> **Note:** If replacing an existing configuration the system will prompt the user to reindex Elasticsearch. For more information, refer to the Elasticsearch Publishing topic.

Next, complete the steps to publish STEP data to the Elasticsearch database as defined in the Elasticsearch Publishing topic.

> **Important:** The number of fields that can be published is limited based on the **Elasticsearch.TotalFieldLimit** property (default 1,000) as defined in the Initial Setup for Elasticsearch topic.

Attribute ID Considerations

Take the following information into consideration when creating attribute IDs for attributes that are used for Elasticsearch searches. Refer to the Search Screen topic for information about this functionality.

IDs cannot start and/or end with a period / dot (i.e., '.').

The following words are currently forbidden to be used as part of the ID:

- simpleValue
- lowerCaseValue

- unitId
- numeric
- dateTime

Examples of forbidden attribute IDs:

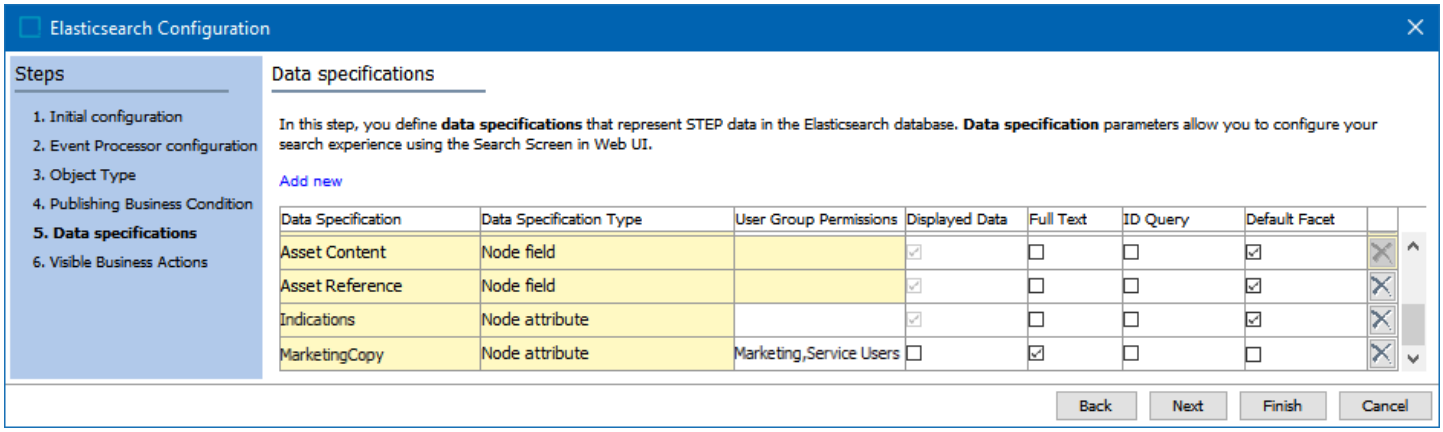
- [forbidden word], e.g., 'numeric'
- abc.[forbidden word], e.g., 'abc.numeric'
- abc.[forbidden word].abc, e.g., 'abc.numeric.abc'
- end with a dot, e.g., 'abc.'
- start with a dot, e.g., '.abc'
- dot or dots by itself / themselves, e.g., '.', '....'
- etc.

For faceted search, mappings cannot be made for these in Elasticsearch, and the attributes cannot be shown as facets.

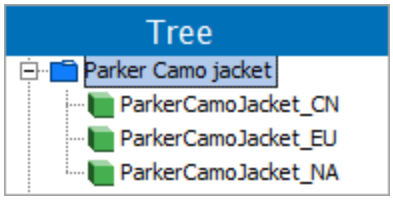
Elasticsearch Data Specification Type Examples

The faceted search Elasticsearch configuration (defined in the Creating an Elasticsearch Configuration topic) provides set up for data specification types. Data specification types are used by faceted search to access attribute values held either on an object, on a link, or on a child object.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

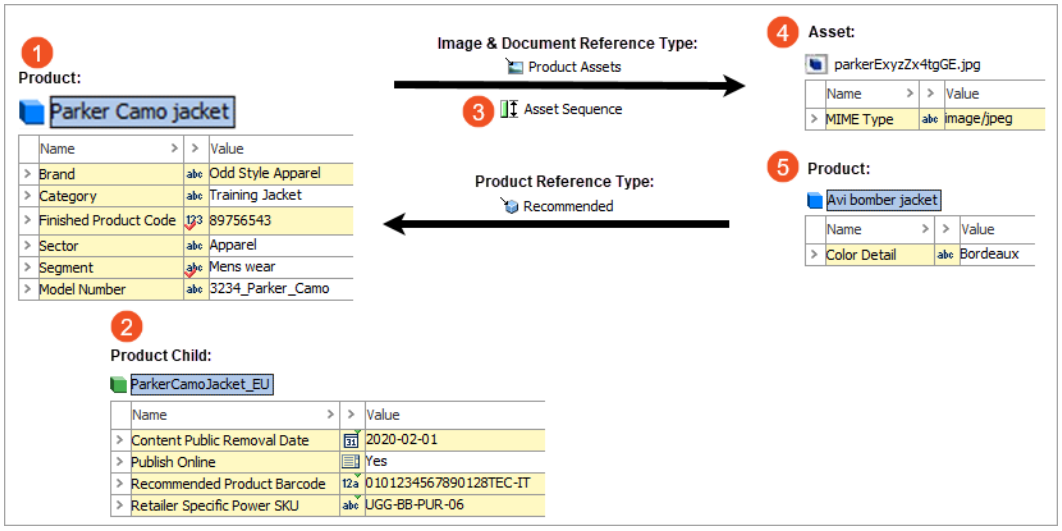


Data specification configuration determines how Elasticsearch data can be searched. Consider the following sample data node and children. The examples show how to access the objects' attributes, referenced objects, and metadata.



In this data, the 'Parker Camo jacket' product object type (blue folder icon) is included in the Elasticsearch configuration and can be found using search. The searched jacket includes a reference to an image asset and that reference has a metadata attribute and a different jacket references the searched jacket. The searched jacket has a child object (green cube icon) that holds its own attribute values.

Specific data on each of these same objects is illustrated below.



Data specifications for these objects give Elasticsearch the following access:

1. **Node attribute** provides searching for any of the attribute values on the Product 'Parker Camo jacket' object.
2. **Child attribute** provides searching for attribute values on the Product Child 'ParkerCamoJacket_EU' object.
3. **Link meta attribute** provides searching for the metadata on the 'Product Assets' reference's 'Asset Sequence' metadata attribute value.
4. **Link target attribute** provides searching for attribute values on the Asset 'parkerExyzZx4tgGe.jpg' object.
5. **Link source attribute** provides searching for attribute values on the 'Recommended' reference's 'Avi bomber jacket' object.

The data specification options are further defined in the sections below using this same data and individual sections of this same illustration.

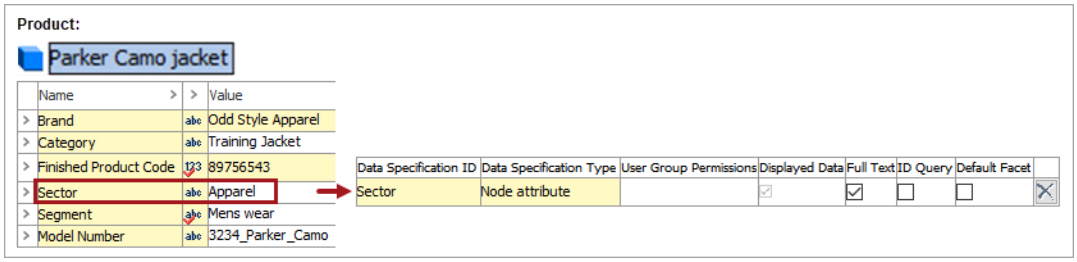
Node and Child Data Specifications

These data specifications give access to attribute values on the objects being searched and their children.

Node Attribute

The 'node attribute' data specification type gives access to attribute values on the node for which an event is being handled.

For example, including a 'node attribute' data specification for the 'Sector' attribute and setting it to 'Full Text' allows the user to find the product by searching for the 'Apparel' value of the Sector attribute using the search bar.

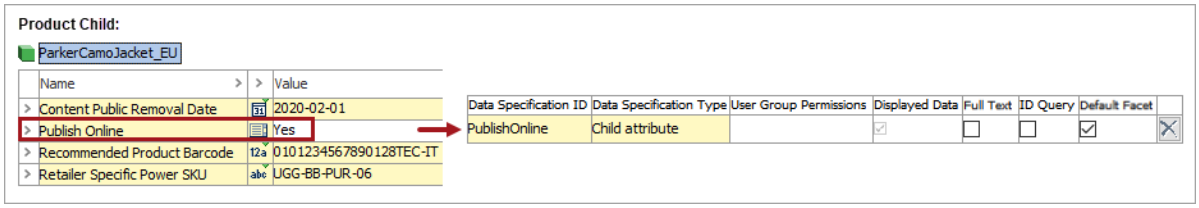


To publish values for attributes on the node for which an event is being handled, attribute IDs can be added to the configuration. The inherited data is automatically included which means that it may be relevant to configure the event processor event triggering definitions to ensure that nodes are republished when the ancestor nodes owning the data are modified. For more information, refer to the **Event Triggers** section of the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.

Child Attribute

The 'child attribute' data specification type gives access to attribute values on children nodes. The parent object is not republished when values on children change, new children are added, or children are removed.

For example, including a 'child attribute' data specification for the 'Publish Online' attribute and setting it to 'Displayed Data' and 'Default Facet' allows the user to find the product by searching for the Publish Online's Yes or No value using a facet. Additionally, if 'Default Facet' is not checked but 'Displayed Data' is checked, the facet is not included by default, but the user can add the facet as needed in Web UI.



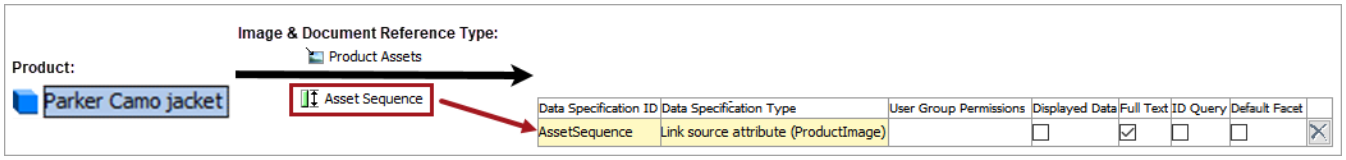
Link Data Specifications

Link data specification types are supported for references / classification product links for a single level. Use these options for stable reference data where it is assumed that the values on reference targets / classifications do not change. The node for which the Elasticsearch document includes aggregated data will not automatically be republished if the values on the reference targets / classifications change.

Link Meta Attribute

The link meta attribute data specification type gives access to attribute values on references / links.

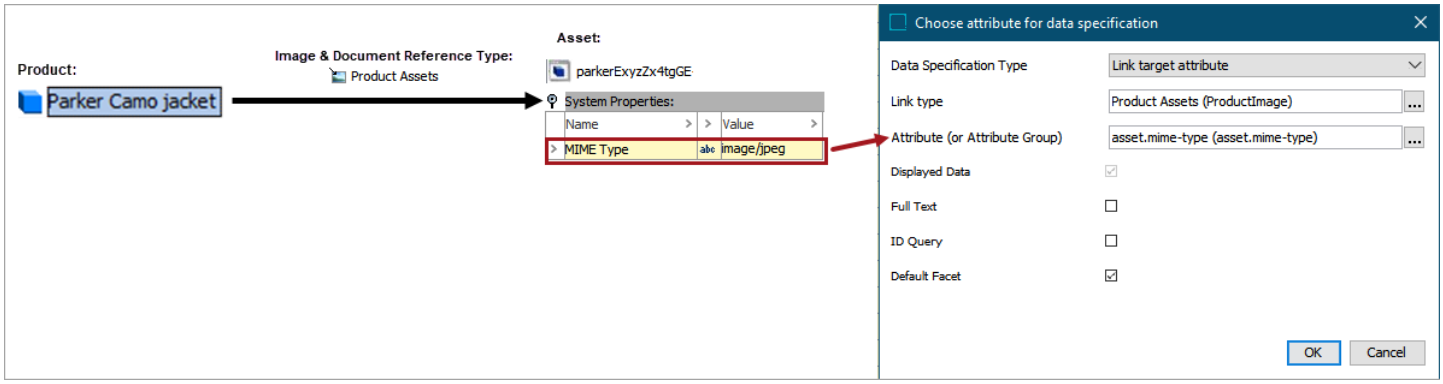
Assume that the 'Asset Sequence' attribute in the sample data includes the value 'Primary' to indicate that the asset should have precedence over the other assets. In this case, including a 'link source attribute' data specification for the 'ProductImage' reference type and setting it to 'Full Text' allows the user to find the product by searching for the Primary value in the search bar.



Link Target Attribute

The link target attribute data specification type gives access to attribute values on reference / link targets.

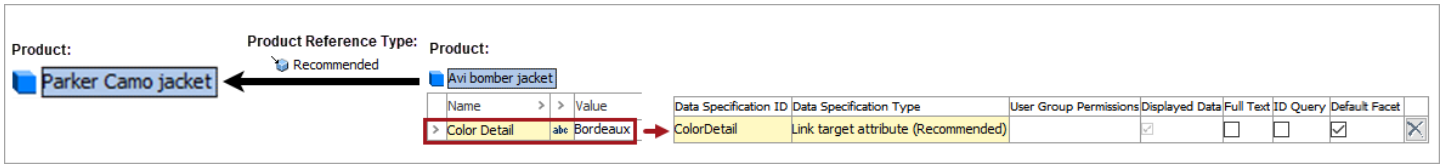
For example, including a 'link target attribute' data specification for the 'Product Assets' reference type and setting it to 'Displayed Data' and 'Default Facet' allows the user to find the product by searching for the MIME Type value in a facet.



Link Source Attribute

The 'link source attribute' data specification gives access to attribute values on incoming references / links.

For example, including a 'link source attribute' data specification for the 'Recommended' reference type and setting it to 'Displayed Data' and 'Default Facet' allows the user to find the product by searching for the Color Detail value in a facet.



Elasticsearch Publishing

The Web UI Search Screen offers a modern faceted search experience. This requires STEP data to be published to an Elasticsearch cluster that is accessible from the STEP application servers. For the end user, the Search Screen provides search results that can be refined and modified on-the-fly.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Important: Before starting the configuration outlined in this topic, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration for the faceted Search screen, Elasticsearch, and corresponding components / functionality should not be done without the assistance of Stibo Systems.

Important:

- To ensure current STEP data is displayed on the Web UI faceted Search Screen, verify that the event processor indicated by the active Elasticsearch configuration is enabled, is set to Read Events, and is running on a reasonable schedule.
- If reindexing is still in progress, you will find data related to the previously existing index.
- The amount of data being published directly impacts the amount of time required for the events to be processed. When publishing large amounts of data, it is recommended to schedule the process during user down time, such as overnight or on the weekend.
- Calculated attributes have a noticeable negative effect on publishing performance. It is recommended to avoid publishing calculated attributes and to instead use a business action to set the values prior to publishing. When it is not possible to avoid calculated attributes completely, publish no more than five (5) calculated attributes to reduce the performance impact.

Elasticsearch Indexes and Shards

Before you begin publishing to Elasticsearch, it is important to understand what comprises an Elasticsearch index. At the highest level, an Elasticsearch cluster is a group of one or more node instances that are connected together. Data in Elasticsearch is organized into indexes, each of which is divided into shards (at least one). Shards are required in order to distribute tasks, search, and index data across nodes in the cluster. Adding more nodes and shards allows for efficient management of larger amounts of data.

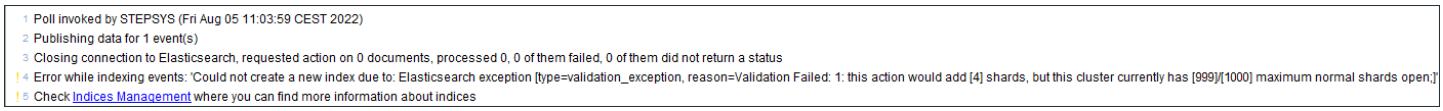
Shards come in two varieties: primary and replica. Primary shards represent Elasticsearch data itself, and in the event that you start another Elasticsearch instance in the same cluster, having a greater number of primary shards allows for more coverage across that cluster. Replica shards represent a copy of their primary shard counterparts, and are used to increase search performance and for fail-over. A replica shard is never allocated to the same node as their primary shard counterpart.

Note: By default, a cluster has one node, and each index consist of two primary shards. Replicas are disabled.

Important: There is a limit of 1000 shards per node.

Elasticsearch Event Processor Troubleshooting

It is possible the user will encounter a **Maximum shards open** error. In this scenario, the execution log on the event processor includes an error message similar to:



Each index in Elasticsearch represents STEP data for a specific context and workspace combination, and is divided into one or more shards to protect against hardware failures. A single Elasticsearch configuration in workbench creates at least one for each workspace / context pair in the Elasticsearch database. For example, if you wish to search in both the Main and Approved workspaces, and have a system with 20 contexts, each time an Elasticsearch configuration is published or reindexed 40 indexes are created. If you set 2 primary shards and 1 replica per primary shard, 4 shards will represent a single index, resulting in 160 shards.

For easy identification and management of indexes in the Index Management tab, each index is named with the same prefix as defined in the Elasticsearch configuration.

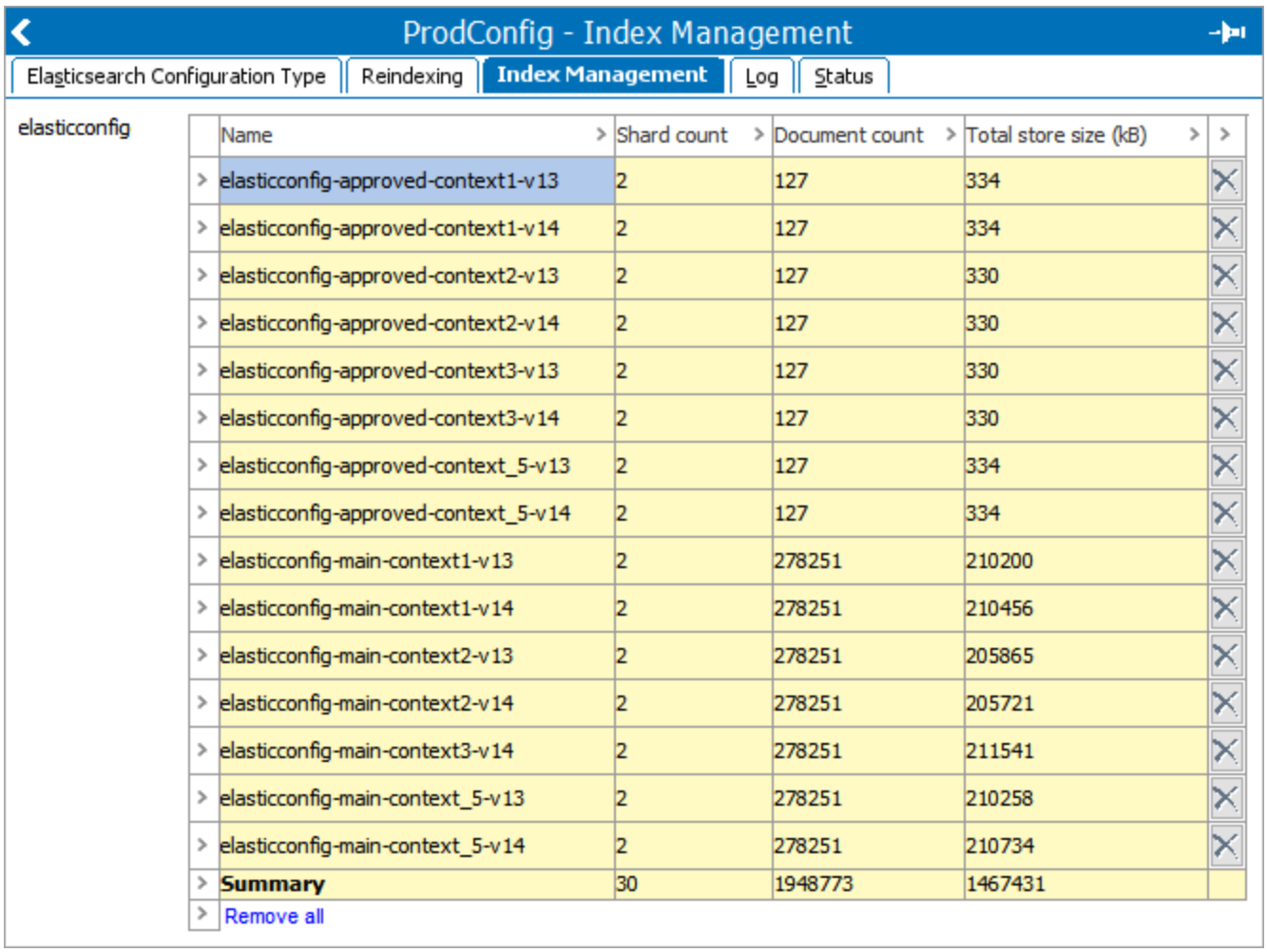
Creating a new Elasticsearch configuration and then publishing to Elasticsearch creates 2 indexes for each context (one for the main workspace and one for the approved workspace). For example, on a system with 20 contexts, each time an Elasticsearch configuration is published or reindexed, 40 indexes are created.

All indexes consume shards and removing the unused indexes can increase the number of available shards. To manage the number of shards in the system, it is recommended that you follow the below actions in the order listed:

1. Use the Index Management tab to delete unneeded indexes.
2. Add additional nodes to the cluster.
3. Consider optimizing the number of shards via sharedconfig.properties "NumberOfReplicas" and "NumberOfShards". The data must be reindexed after changing these properties.

Monitoring and Managing Shards

A list of all indexes for a particular Elasticsearch configuration can be found in the Index Management tab of the configuration. Every time a configuration is indexed, the table in this tab will update, which provides the shard count, document count, and total storage space usage of each index.

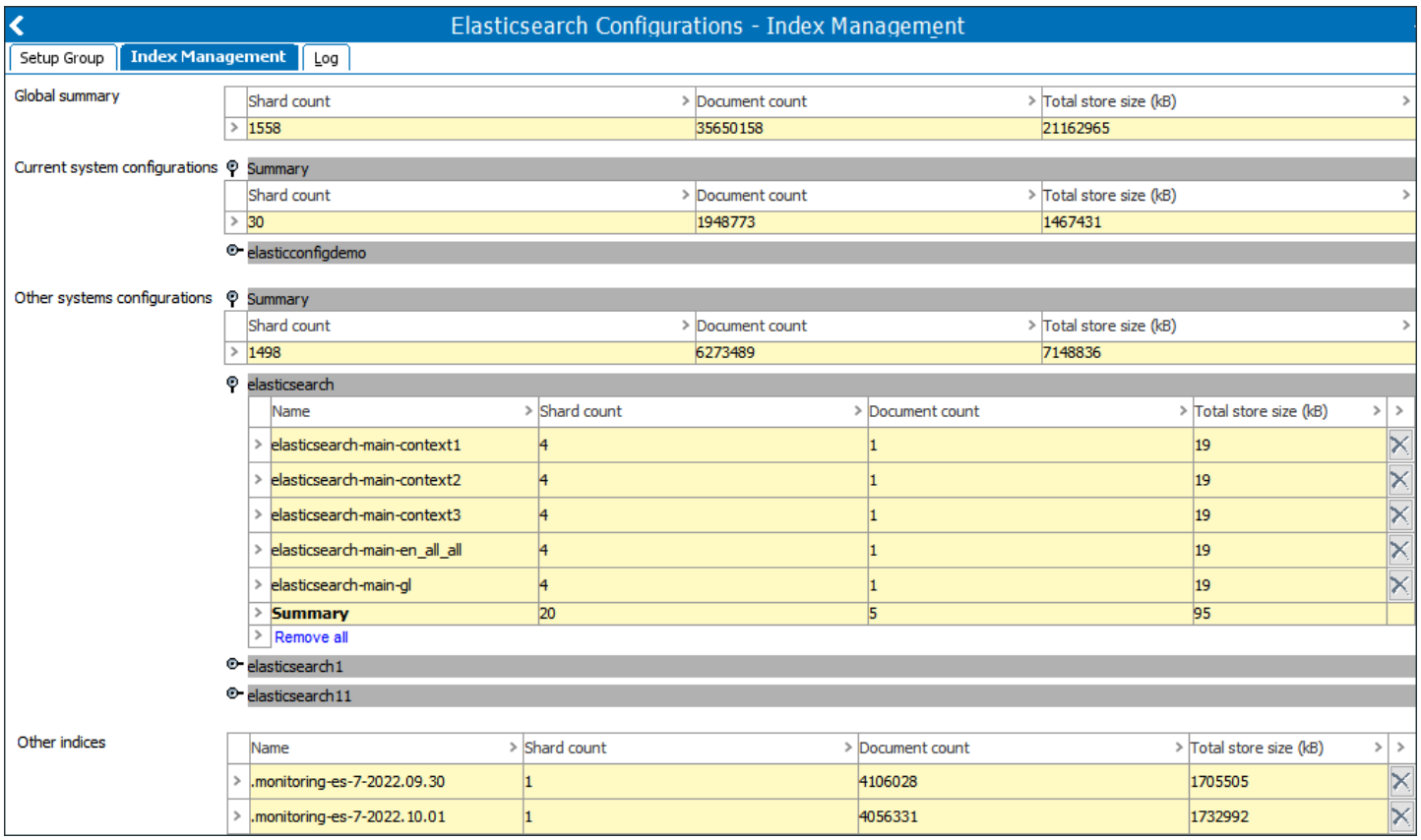


Name	Shard count	Document count	Total store size (kB)
elasticconfig-approved-context1-v13	2	127	334
elasticconfig-approved-context1-v14	2	127	334
elasticconfig-approved-context2-v13	2	127	330
elasticconfig-approved-context2-v14	2	127	330
elasticconfig-approved-context3-v13	2	127	330
elasticconfig-approved-context3-v14	2	127	330
elasticconfig-approved-context_5-v13	2	127	334
elasticconfig-approved-context_5-v14	2	127	334
elasticconfig-main-context1-v13	2	278251	210200
elasticconfig-main-context1-v14	2	278251	210456
elasticconfig-main-context2-v13	2	278251	205865
elasticconfig-main-context2-v14	2	278251	205721
elasticconfig-main-context3-v14	2	278251	211541
elasticconfig-main-context_5-v13	2	278251	210258
elasticconfig-main-context_5-v14	2	278251	210734
Summary	30	1948773	1467431

Remove all

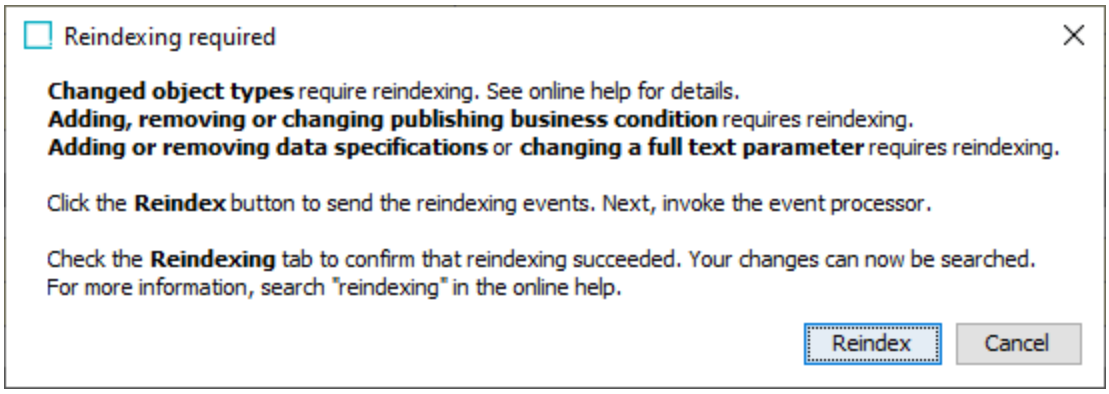
Individual indexes can be deleted by clicking the 'X' at the end of the row or you can click 'Remove All' to delete every index in the configuration.

This tab is also available on the setup group level, allowing the user to manage the indexes of all Elasticsearch configurations from one screen.



Reindex the Elasticsearch Database

It may be necessary to periodically update indexes. Whenever a change is made to the configuration, the system will prompt you to reindex the data.

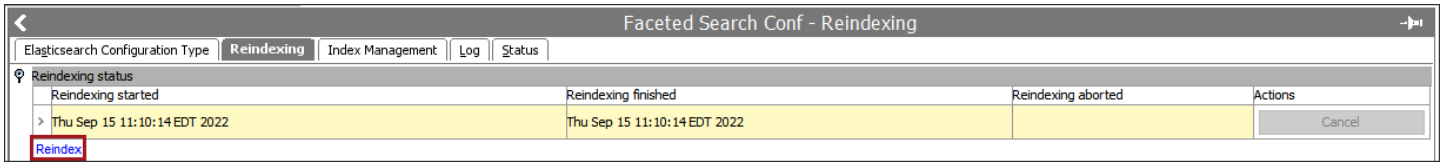


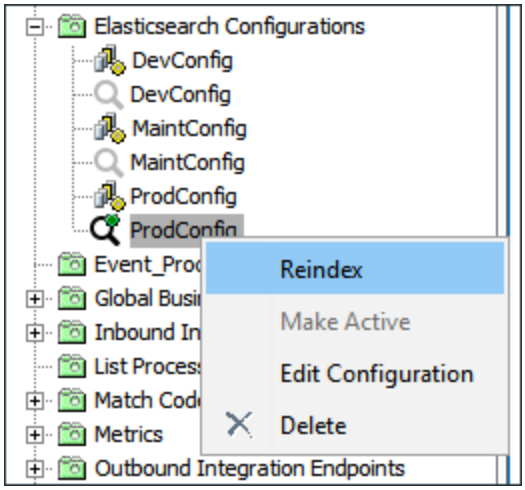
Additionally, if you create an entirely new Elasticsearch configuration when one or more already exist on the system, or make any other kind of change to the data that would require reindexing (e.g. add / remove a business condition or change object types), you will be prompted to reindex after finishing the wizard.

While reindexing the database, Elasticsearch is still available to the end user. Any searches made during this time will use the previous index until the reindexing process is complete.

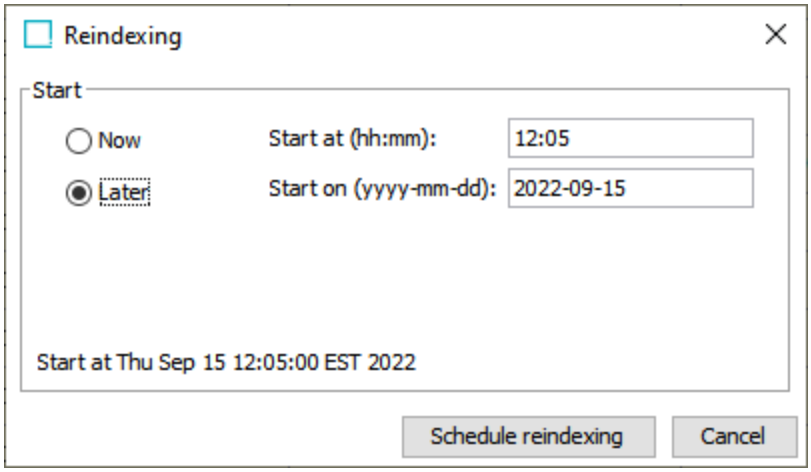
Reindex with Existing Configuration

1. If reindexing is required for an existing Elasticsearch Configuration, navigate to the **Reindexing tab** on the configuration and under the Reindexing status flipper, click 'Reindex'. You can also right-click the configuration node from System Setup and select 'Reindex' from the context menu.



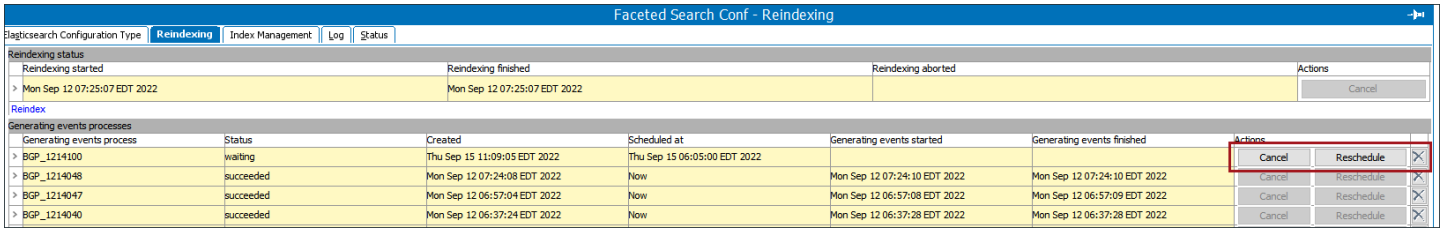


2. In the Reindexing window that appears, select 'Now' and then click 'Reindex now' if you want to begin the process immediately. If you want to schedule the reindexing for later, select 'Later' and set a time for the process to initiate, then click 'Schedule reindexing'.



3. Once reindexing has been initiated, a process generating events begins. You can cancel or reschedule the event process any time by navigating to the process beneath the 'Generating events processes' flipper and

clicking either **Cancel** or **Reschedule**.

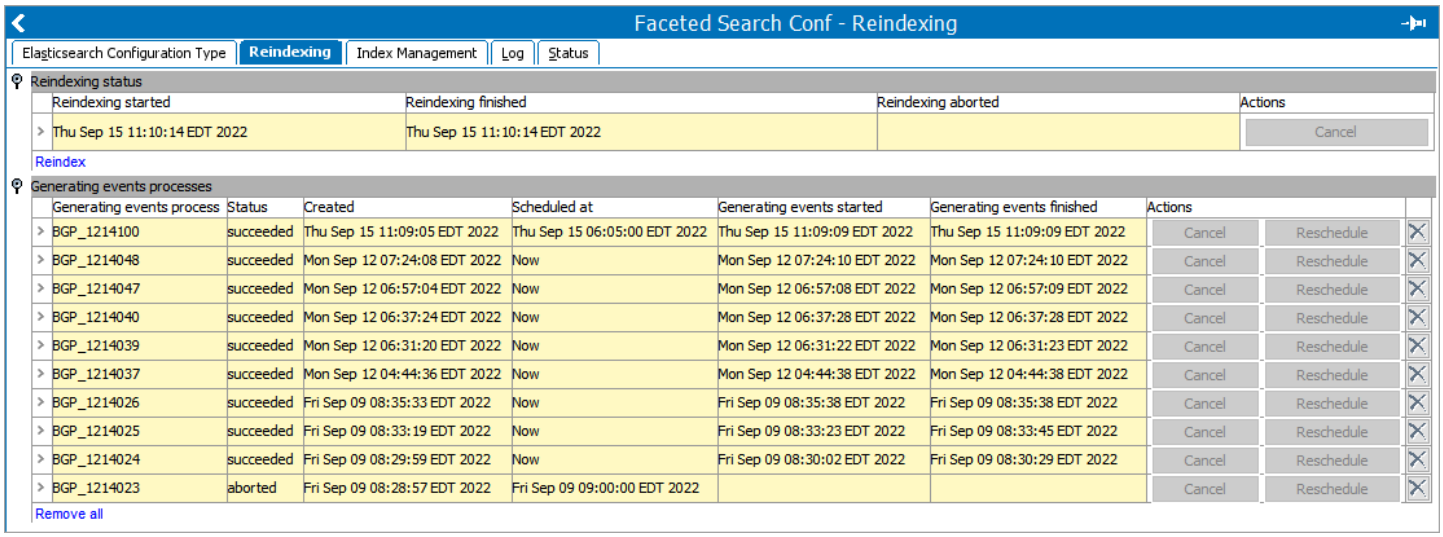


The actual reindexing of the data begins once the first event is read by the event processor, which can be monitored by navigating to the process beneath the 'Reindexing status' flipper. Click 'Cancel' if you want to stop the reindex process.

Note: If an additional Elasticsearch configuration has been newly created and you did not reindex upon completing the wizard, reindexing can be manually initiated by following the above steps.

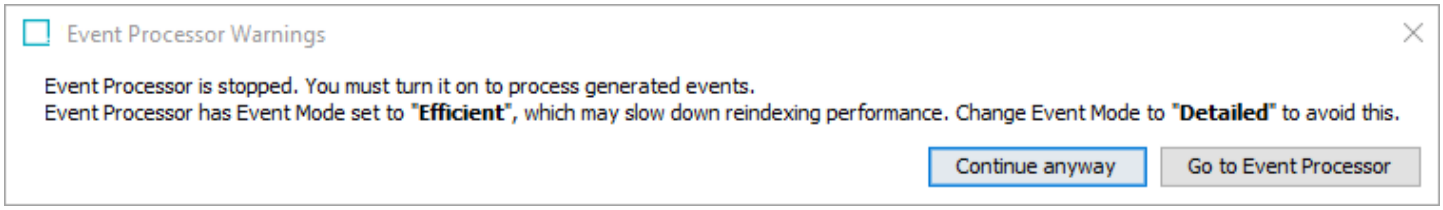
Monitoring Reindex Processes

As described above, you can initiate a reindex process from the **Reindexing** tab on an Elasticsearch configuration. Additionally, this screen also provides a list of current and previous reindex events.



Reindex Process Performance

If the Event Processor configured on the Elasticsearch configuration is disabled, or its Event Mode is set as 'Efficient' in the event processor, a warning will appear.



To address this potential issue, click 'Go to Event Processor' and follow the warning's suggestion.

Republish to the Elasticsearch Database

An alternative solution to publish data to Elasticsearch is to use the event processor republish option:

1. Generate events for the STEP data required in the Search Screen using the **republish** action as defined in the Event-Based OIEP Event Actions topic in the Data Exchange documentation. The republish background process generates events for the configured products, classifications, and/or assets.
2. Publish STEP data to the Elasticsearch database by invoking the event processor running the Elasticsearch Configuration as defined in the Running an Event Processor topic in the System Setup documentation. The event processor background process creates indexes and publishes products, classifications, and/or assets to the Elasticsearch database.

Important: It is highly recommended to use the reindex solution rather than republishing.

Maintaining an Elasticsearch Configuration

After following the steps outlined in the Creating an Elasticsearch Configuration topic, use the following options to modify the configuration:

- Edit an Elasticsearch Configuration
- Delete and Recreate an Elasticsearch Event Processor

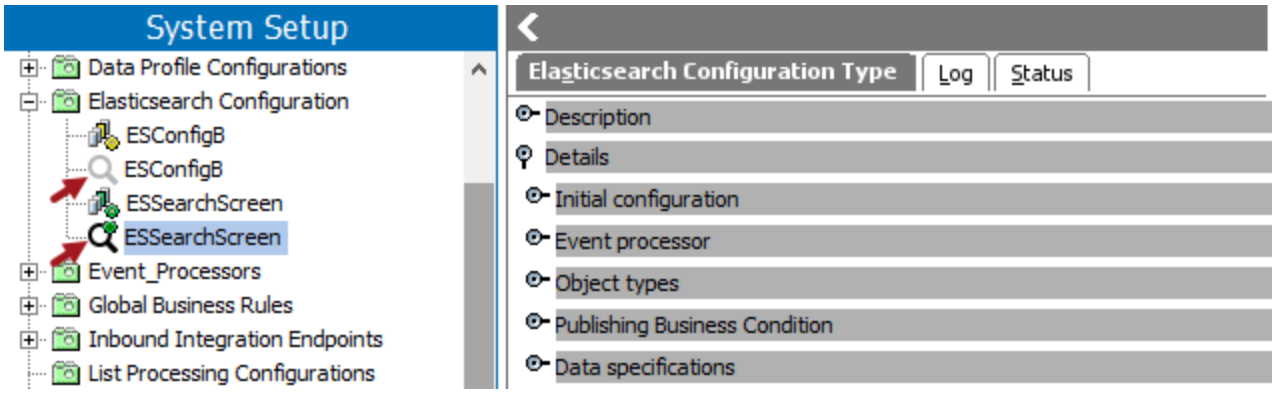
Steps for each of these options are outlined below.

Note: Elasticsearch can display product, entity, classification, and/or asset data only, based on configuration.

Important: Saving edits to the Elasticsearch configuration causes the Elasticsearch database to no longer be in sync with STEP data, requiring the data to be reindexed. For more information, refer to the Elasticsearch Publishing topic in the Web User Interfaces documentation.

Before this topic describes the various configuration modification methods, find below a description of the Elasticsearch Configuration editor.

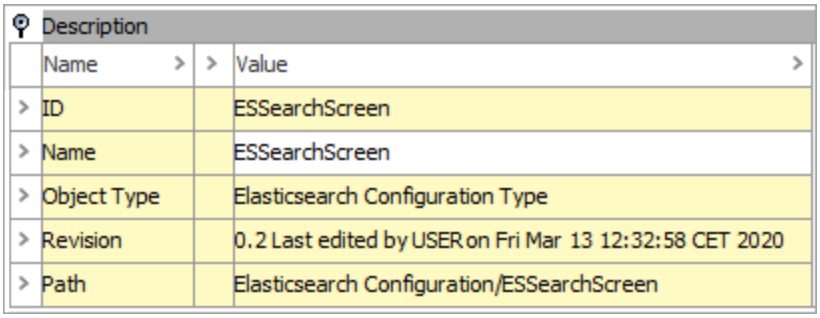
Opening an Elasticsearch Configuration editor includes the following information arranged under flippers.



Note: In the image above, the highlighted 'ESSearchScreen' Elasticsearch configuration is active, while the 'ESConfigB' Elasticsearch configuration is inactive, as indicated the grayed out icon. To activate 'ESConfigB' (and in turn deactivate 'ESSearchScreen', as only one Elasticsearch configuration can be active at a time), right-click 'ESConfigB' and select 'Make Active.'

The Details flippers correspond to the steps in the Elasticsearch Configuration wizard and include links to open the wizard for the selected step.

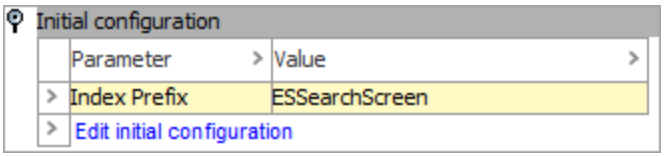
- Description - displays the ID and Name of the configuration as well as other general information.



Description

Name	Value
ID	ESSearchScreen
Name	ESSearchScreen
Object Type	Elasticsearch Configuration Type
Revision	0.2 Last edited by USER on Fri Mar 13 12:32:58 CET 2020
Path	Elasticsearch Configuration/ESSearchScreen

- Edit initial configuration - displays the Index Prefix.

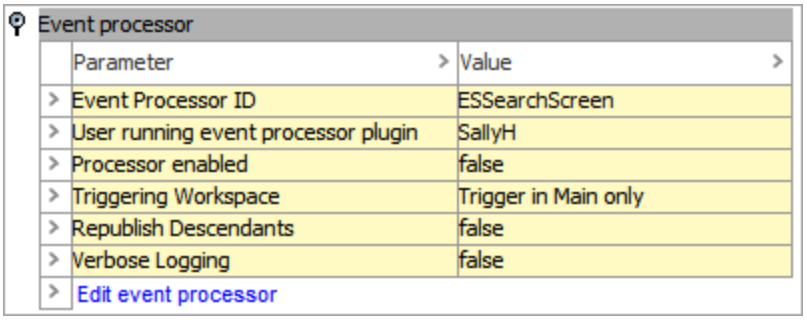


Initial configuration

Parameter	Value
Index Prefix	ESSearchScreen

Edit initial configuration

- Edit event processor - displays the settings on the event processor.

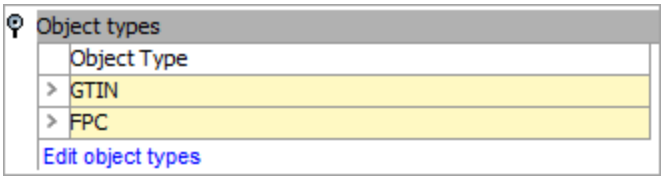


Event processor

Parameter	Value
Event Processor ID	ESSearchScreen
User running event processor plugin	SallyH
Processor enabled	false
Triggering Workspace	Trigger in Main only
Republish Descendants	false
Verbose Logging	false

Edit event processor

- Edit object types - displays all object types selected for the configuration.

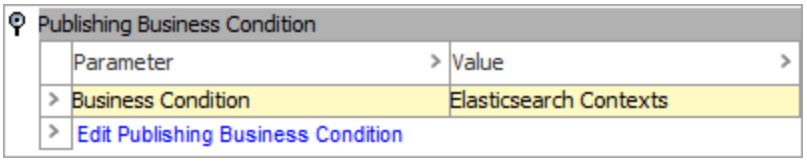


Object types

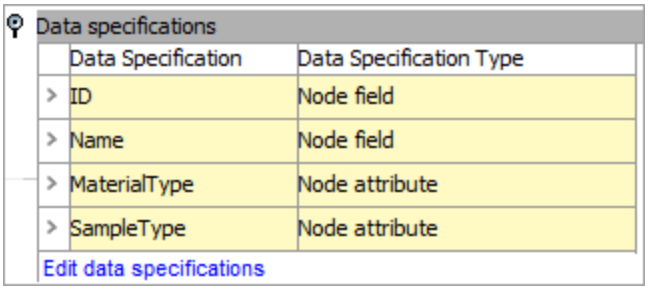
Object Type
GTIN
FPC

Edit object types

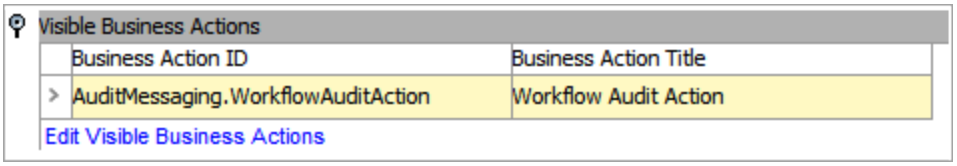
- Edit Publishing Business Condition - displays the selected business condition that defines which contexts will be published. Contexts that return 'true' are published and contexts that return 'false' are rejected. The number of nodes published and rejected based on the business condition are reported in the event processor execution report. Refer to the Creating an Elasticsearch Configuration topic for details about creating the required business condition.



- Edit data specifications - displays all data specifications selected for the configuration.



- Edit Visible Business Actions - displays any business actions to be restricted for the configuration.

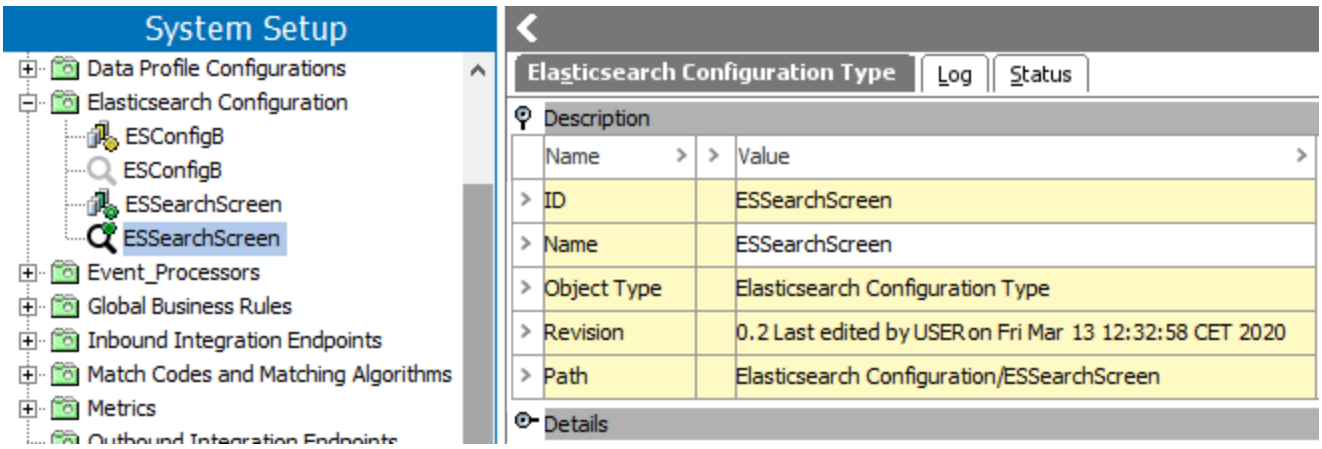


Note: The 'Revert to' a previous revision option on the Status tab of an Elasticsearch Configuration Type object is not allowed. Manual configuration is required to restore previous settings.

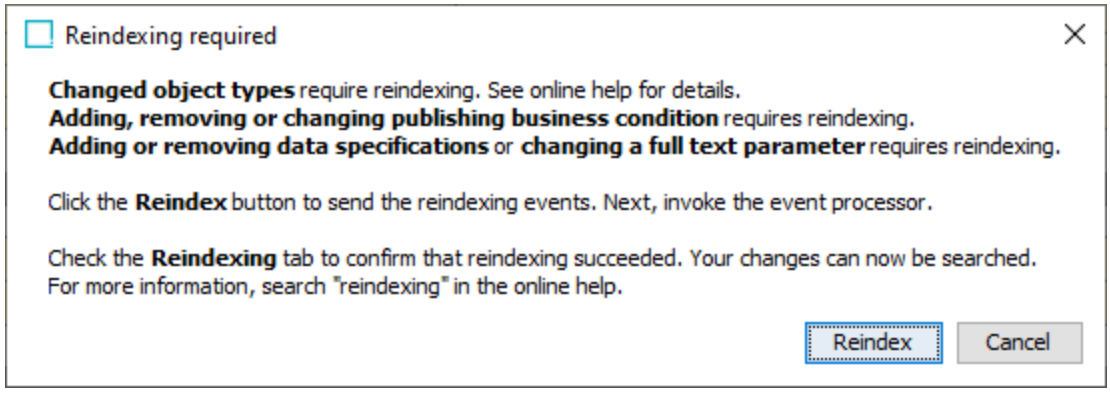
Edit an Elasticsearch Configuration

Use the following steps to edit the Elasticsearch configuration for a faceted search experience in the Web UI:

1. On System Setup, select the Elasticsearch Configuration object to display the editor. You can also right-click the node and select "Edit Configuration" from the context menu.



2. On the Elasticsearch Configuration Type tab, open the Details flipper to display additional flippers for the properties to view or edit.
3. Open a flipper and click the link to open the wizard.
4. On the Elasticsearch Configuration wizard, edit the available parameters as needed. Use the **Next** or **Back** buttons to review or edit any of the available properties. Each of the parameters on the wizard steps are defined in the sections below.
5. Click the wizard's **Finish** button to save the changes.
6. If the changes require that the data be reindexed, the following message displays. Reindexing ensures the intended data is available for searching with Elasticsearch.

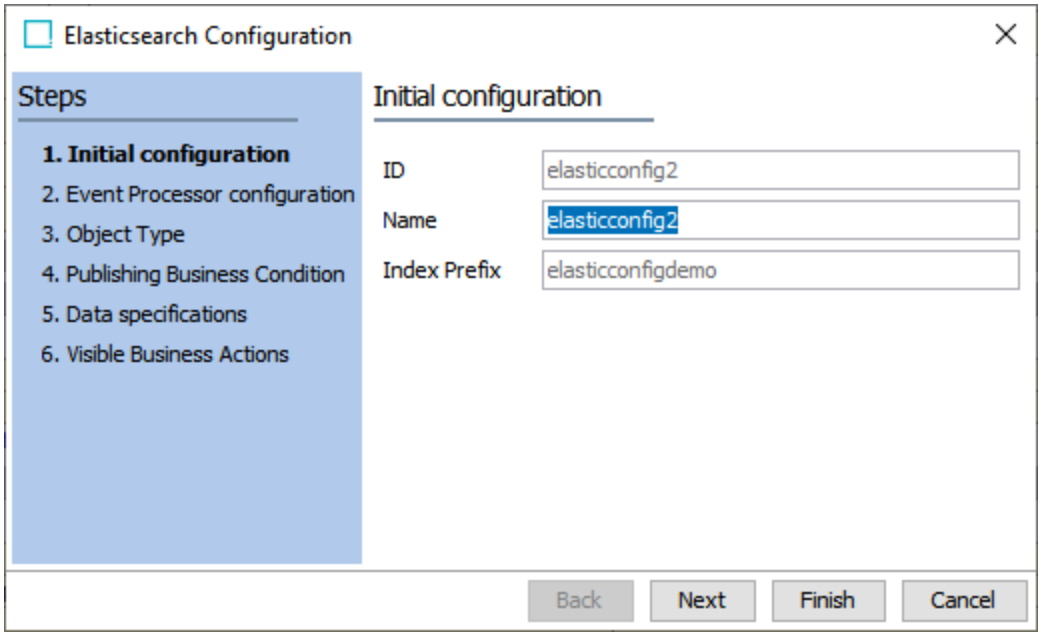


Click the **Reindex** button to open the Reindex dialog and begin the reindexing process. For more information, refer to the Elasticsearch Publishing topic in the Web User Interfaces documentation.

Note: You can edit the configuration via the creation wizard at any time by right-clicking the node in the tree and selected **Edit Configuration**.

Initial configuration editing

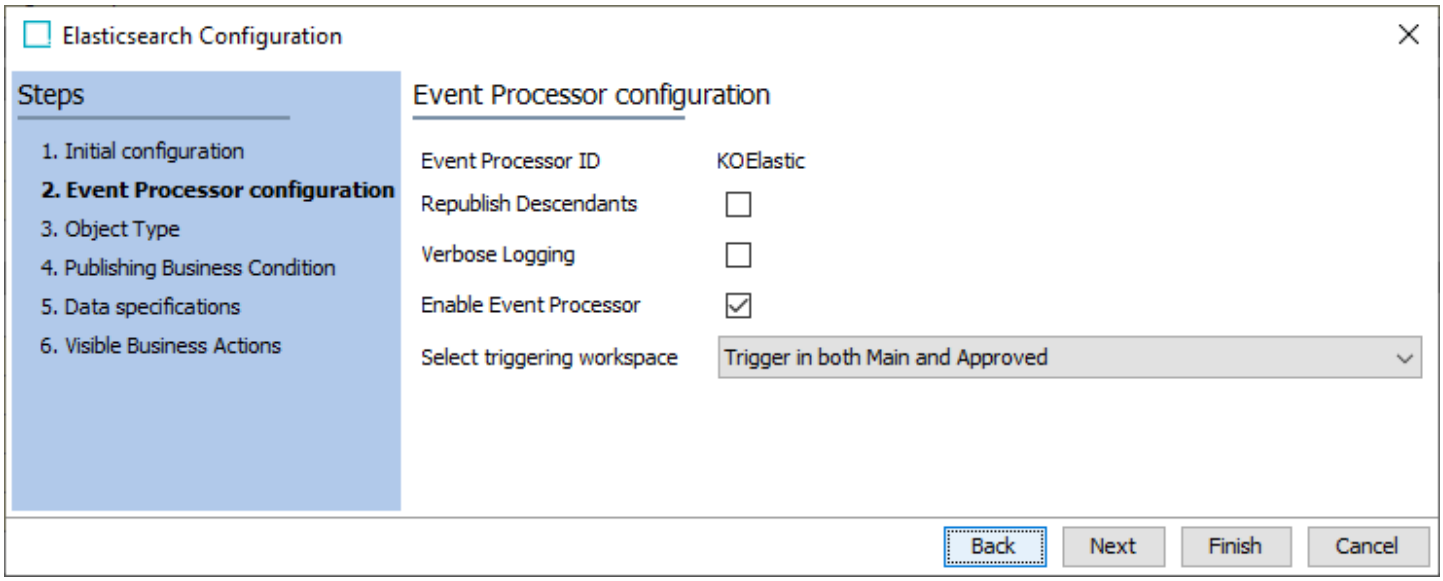
Neither the ID nor the Index Prefix can be edited. Updates to the name can be made by editing the configuration.



Event Processor configuration editing

An event processor is required to publish STEP data to the Elasticsearch database.

Important: Removing the event processor from the Elasticsearch configuration invalidates the configuration. A configuration cannot be activated until an event processor is selected.



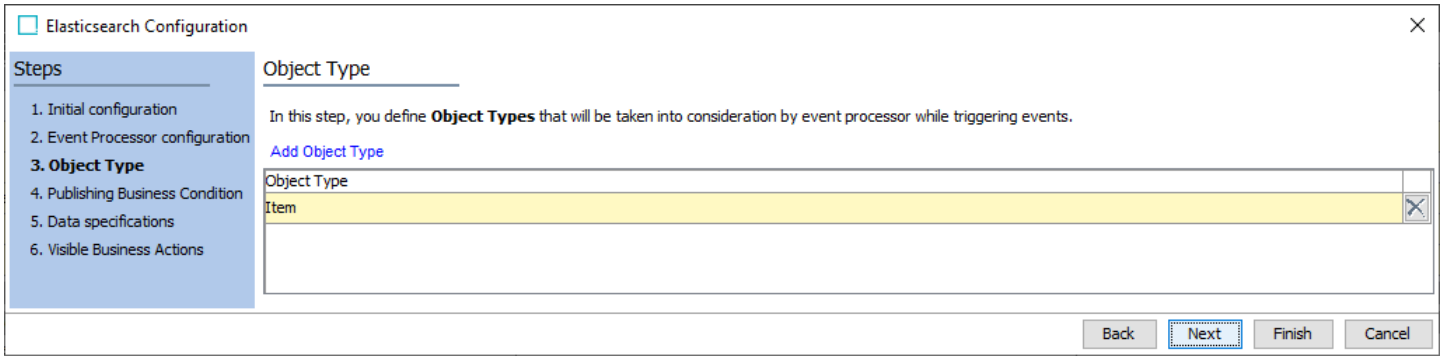
The following updates can be made as necessary: 'Republish Descendants,' 'Verbose Logging,' and 'Enable Event Processor' - edit within the Elasticsearch Configuration object. For more information, refer to the details in the 'Event Processor configuration' section of the Creating an Elasticsearch Configuration topic.

For more advanced configuration of event triggering definitions on the event processor, refer to the Elasticsearch Indexer Processing Plugin Parameters and Triggers topic.

Object Type editing

The object types available on the faceted Search Screen can be modified on the 'Object Type' step of the Elasticsearch Configuration. Adding object types in the wizard also adds them to the related Elasticsearch event processor.

Important: When modifying object types, you must reindex the Elasticsearch database.

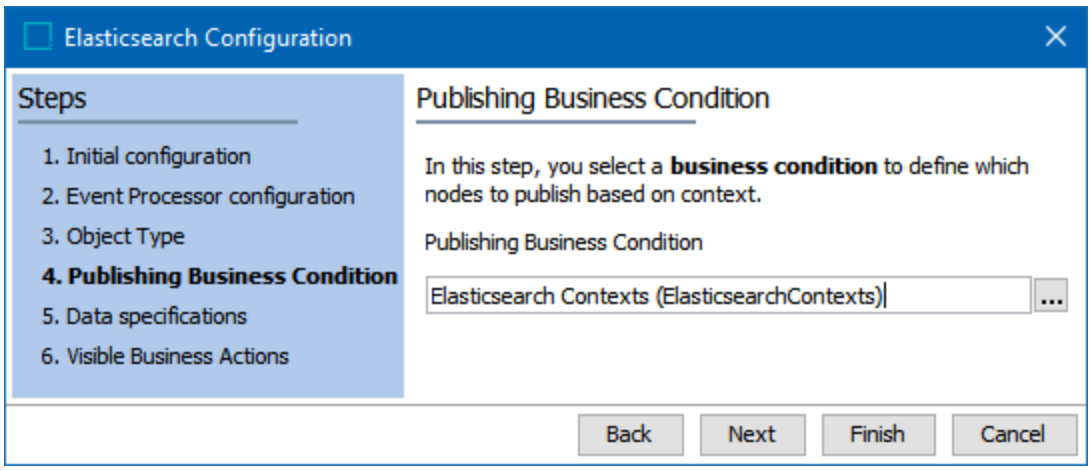


Publishing Business Condition editing

An existing business condition can be selected to define which contexts will be published and which will be rejected. The number of nodes published and rejected based on the business condition are reported in the event processor execution report.

This option is only available when the sharedconfig.properties file includes the property: '`Elasticsearch.FeatureToggle.PublishingBusinessCondition=true`' , with 'true' being the default value. If after configuration, the FeatureToggle property is set to 'false' or is removed from the sharedconfig.properties file, the selected business condition on this step is no longer associated with the Elasticsearch Configuration. Restoring the FeatureToggle property requires that the business condition be selected again in the Elasticsearch Configuration.

For a sample business condition, refer to the **Prerequisites** section of the Creating an Elasticsearch Configuration topic.



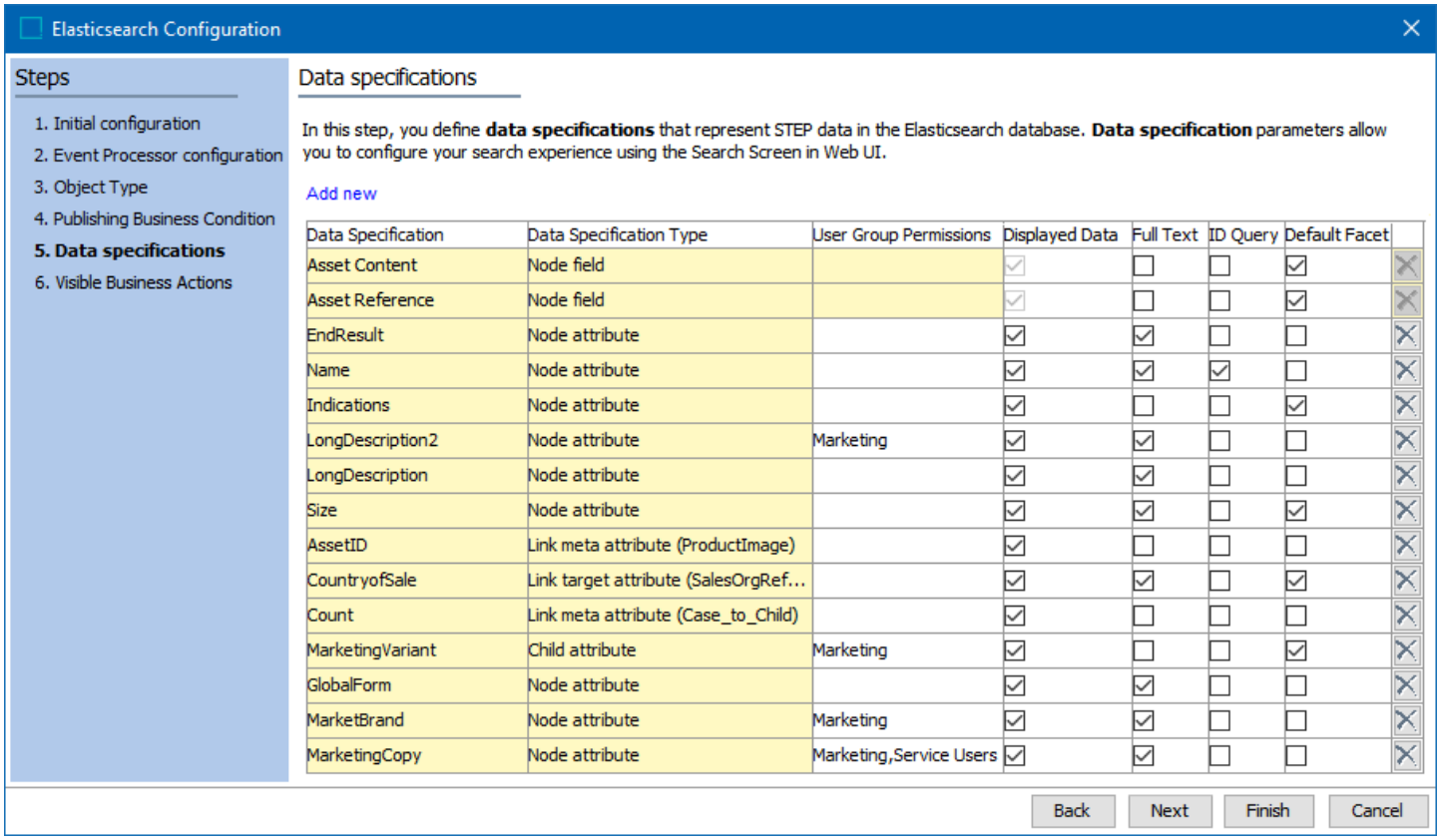
Data specifications editing

The data specification settings can be modified to change the data that can be searched and displayed on the faceted Search Screen. Data specifications can be added, edited, or removed (with the exception of 'Node fields') as defined in the **Data Specification** step of the Creating an Elasticsearch Configuration topic.

Important: When adding node attributes, removing node attributes, or changing the 'Full Text' setting, you must reindex the Elasticsearch database.

Changes to the data specifications automatically update the Event Triggering Definitions in the associated event processor on the Event Processor Configuration step.

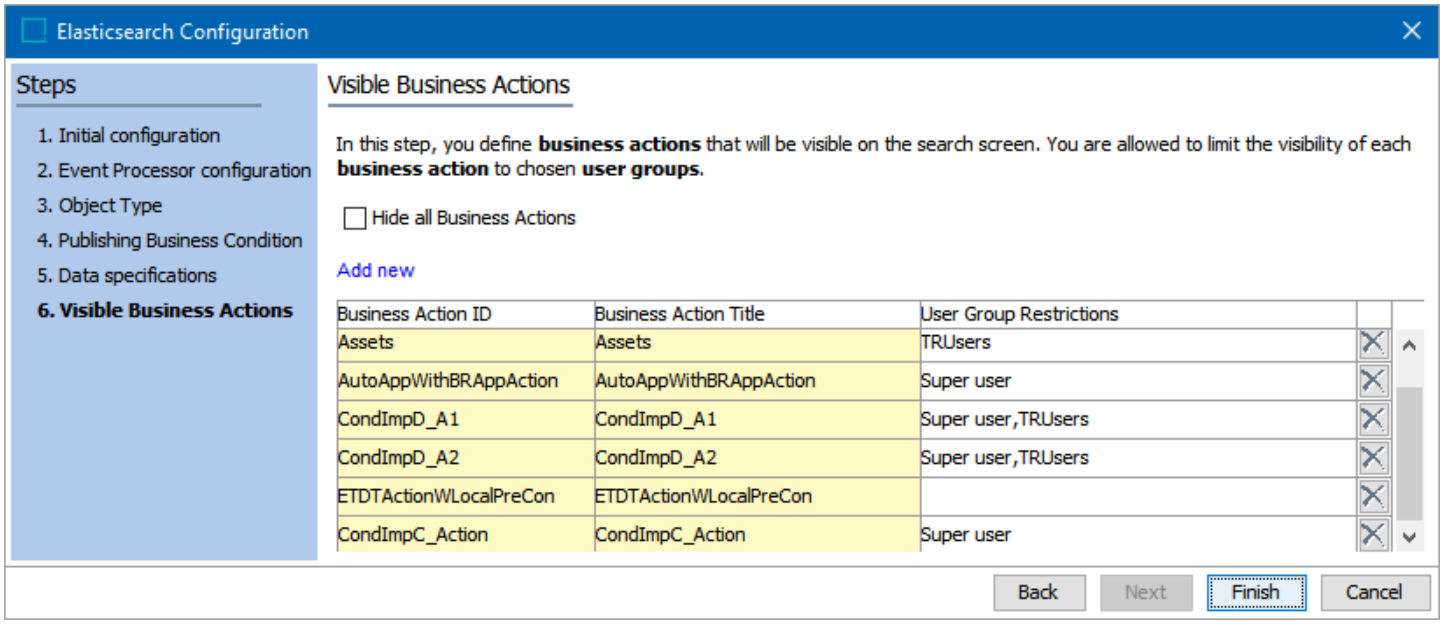
Note: Hover over a column heading for a definition. Hover over a Data Specification row to view the ID used in the JSON document.



Visible Business Actions editing

The visible business actions settings can be modified to change the business action that can be viewed on the faceted Search Screen via the Actions menu. Business Actions can be added, edited, removed, or completely hidden as defined in the **Visible Business Actions** step of the Creating an Elasticsearch Configuration topic.

Note: If no business actions are configured on the Visible Business Actions step, all business actions are visible to users. A business action is enabled to run if it is valid for the selected items and the user is privileged to run it.



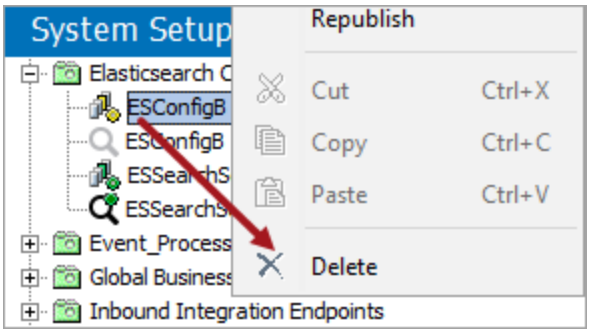
Delete and Recreate an Elasticsearch Event Processor

Deleting an event processor that is linked to the active Elasticsearch configuration stops the updates to the Elasticsearch database. This stoppage causes data to be out of sync between workbench and the Web UI faceted Search Screen. To keep data aligned, when you delete the Elasticsearch event processor, a new event processor should be created as shown below.

Important: Removing the event processor from the Elasticsearch configuration invalidates the configuration. A configuration cannot be activated until an event processor is selected.

Use the following steps to remove the event processor and create another one:

1. In System Setup, select the Elasticsearch event processor, right-click the event processor, and click the **Delete** option.

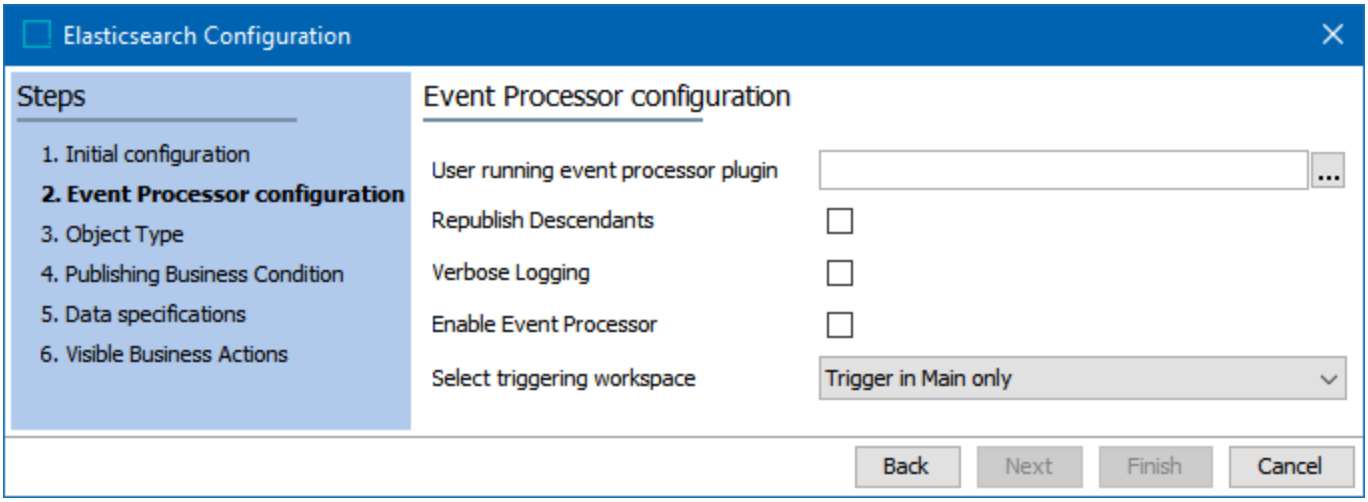


2. Click the **Delete** button to confirm the delete action, and then, click the **Close** button for the 'Delete report' dialog.

> **Note:** Deleting an event processor that is linked to a Elasticsearch Configuration also deletes information in the Elasticsearch Configuration, namely the Event Processor configuration, Object Type, and Data Specifications.



3. Select the Elasticsearch configuration for the deleted event processor, click the **Edit event processor** link to view and supply the details for the Event Processor configuration step. For details, refer to the Creating an Elasticsearch Configuration topic.



4. Click the **Next** button and supply the additional necessary information for the wizard.
5. Click the **Finish** button to complete the wizard and save the changes.

Shared Data Handling

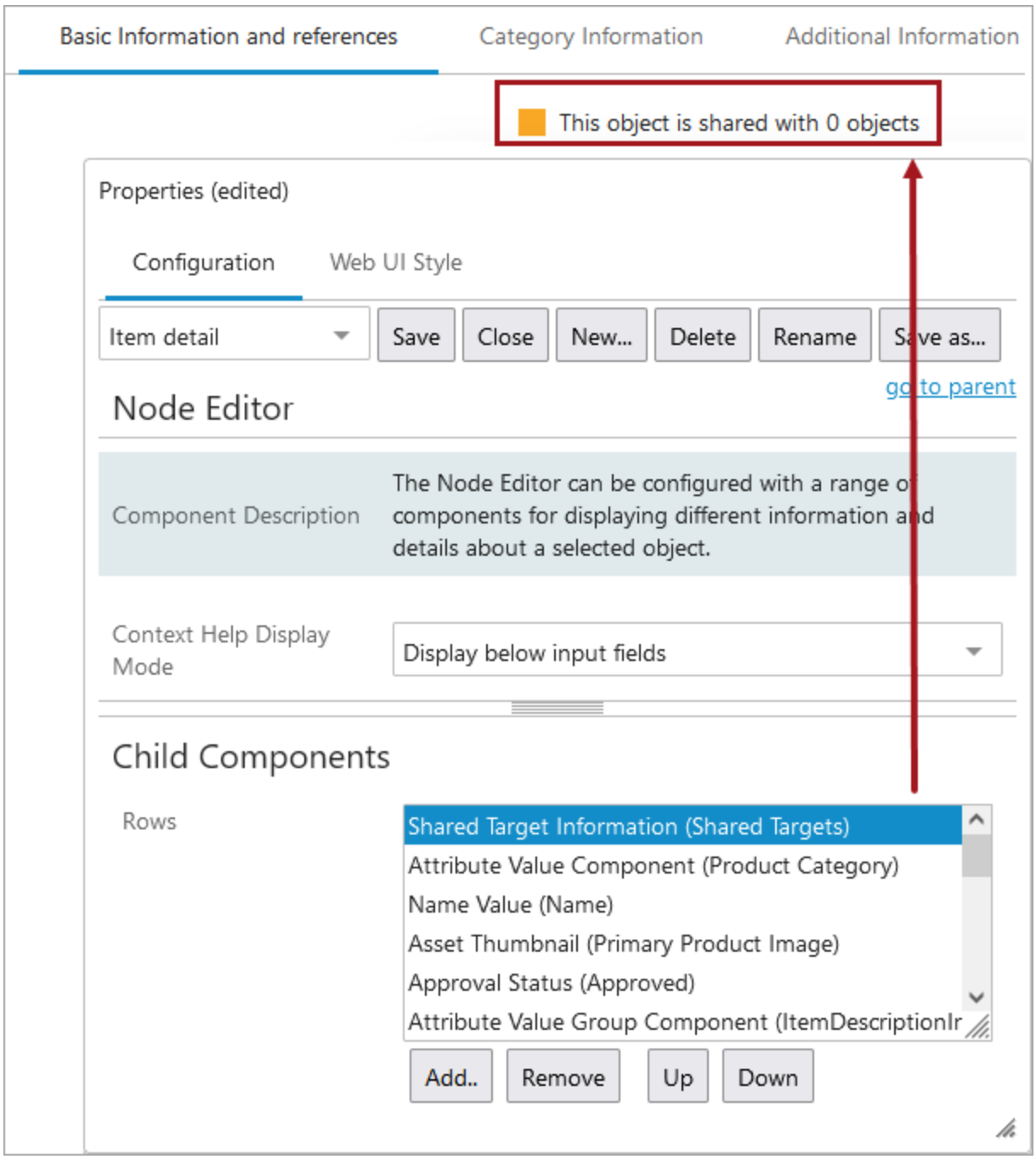
Users must be careful when working with shared data in order to maintain data integrity and safeguard data from inadvertent changes. This becomes particularly relevant when objects are referenced by more than one other object. In this case, changes to that target object have the potential to impact every source object referencing it. In order to better assist users in working with shared data, there are various Web UI features to improve the way shared data is identified and handled.

These features include, but are not limited to, a visual indicator that can be configured to display for shared objects shown on a Node Editor screen, a warning that can be presented to users when attempting to save changes to a shared object, and the ability to clone a reference target.

Shared Target Information on Node Editor

The Shared Target Information component can be added to a Node Editor to provide a visual indicator that an object is referenced by two or more objects. The total number of those referencing (source) objects is also displayed. These all combine to serve as a notice to the user that updating data, if allowed, will impact more than the selected object.

The Shared Target Information component is available to add as a child component within Node Editors (Child Components > Rows), following the same process that is used to add other components like Name Value, ID Value, Attribute Value, and Attribute Value Group.

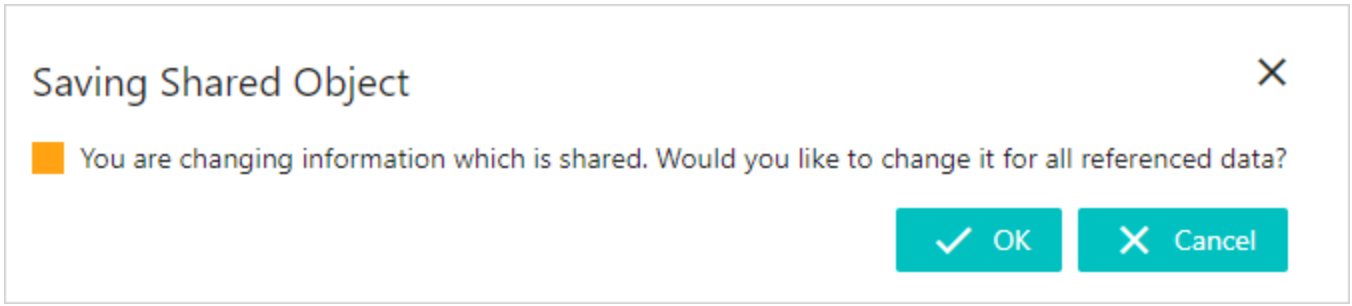


Similar visual indicators for shared objects are the ID Shared Target Header component (**Multi-Reference Editor**) and the Follow Single Reference component (**Node Editor Component**) in this documentation.

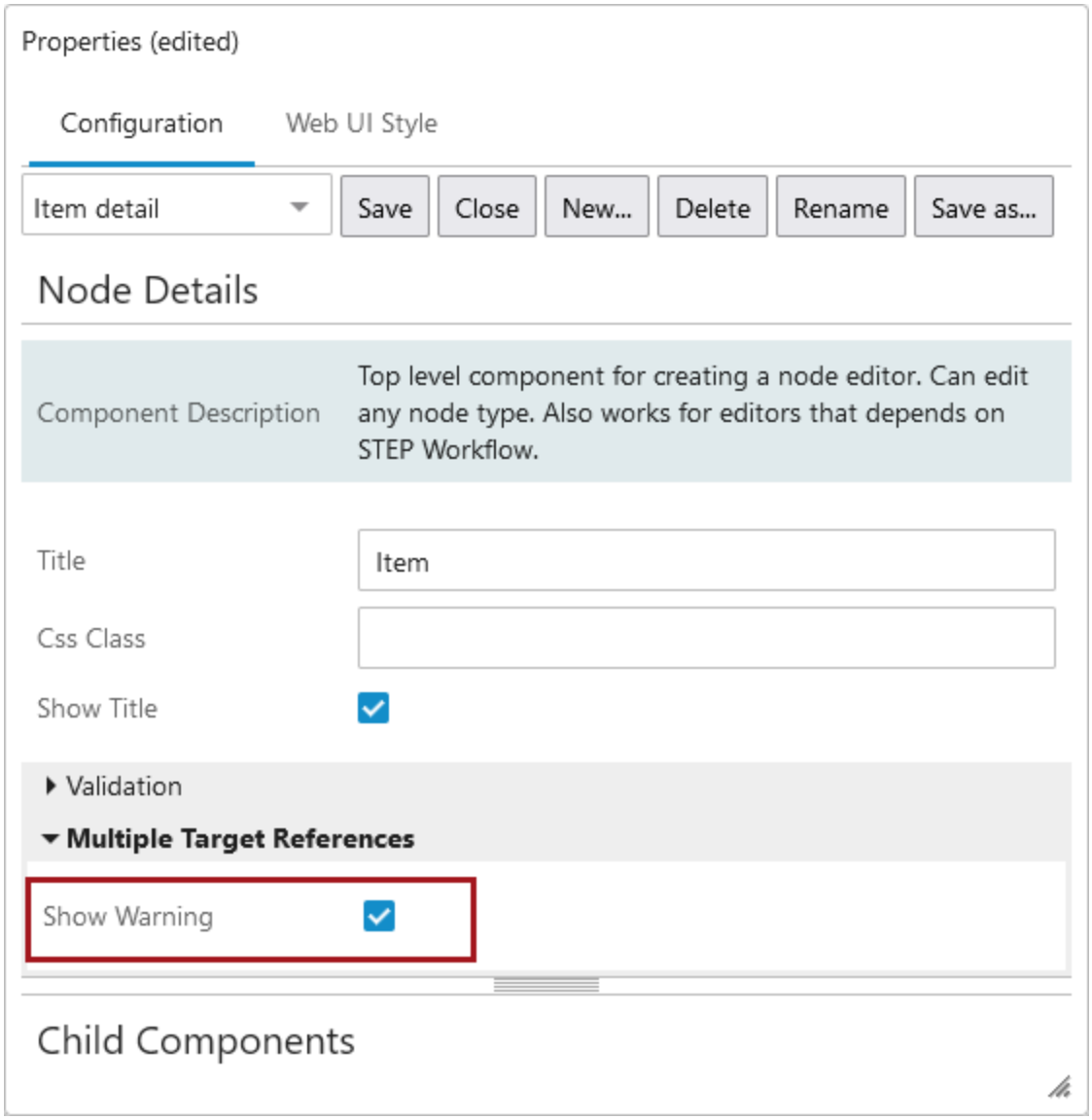
Shared Object Save Warning

When a shared object is edited and then saved, either through an actual Save action or implied save (e.g., Submit Action or Approve Action), an additional layer of protection (a warning message) can be added by an admin user. An end user will be presented with a 'Are you sure?' dialog letting them know that the object that

they have edited and are saving is a shared object and any changes could have implications for other objects. The user must actively confirm that this is acceptable before the object can be saved successfully. The user may also choose to cancel out of the warning and decide not to save the changes.



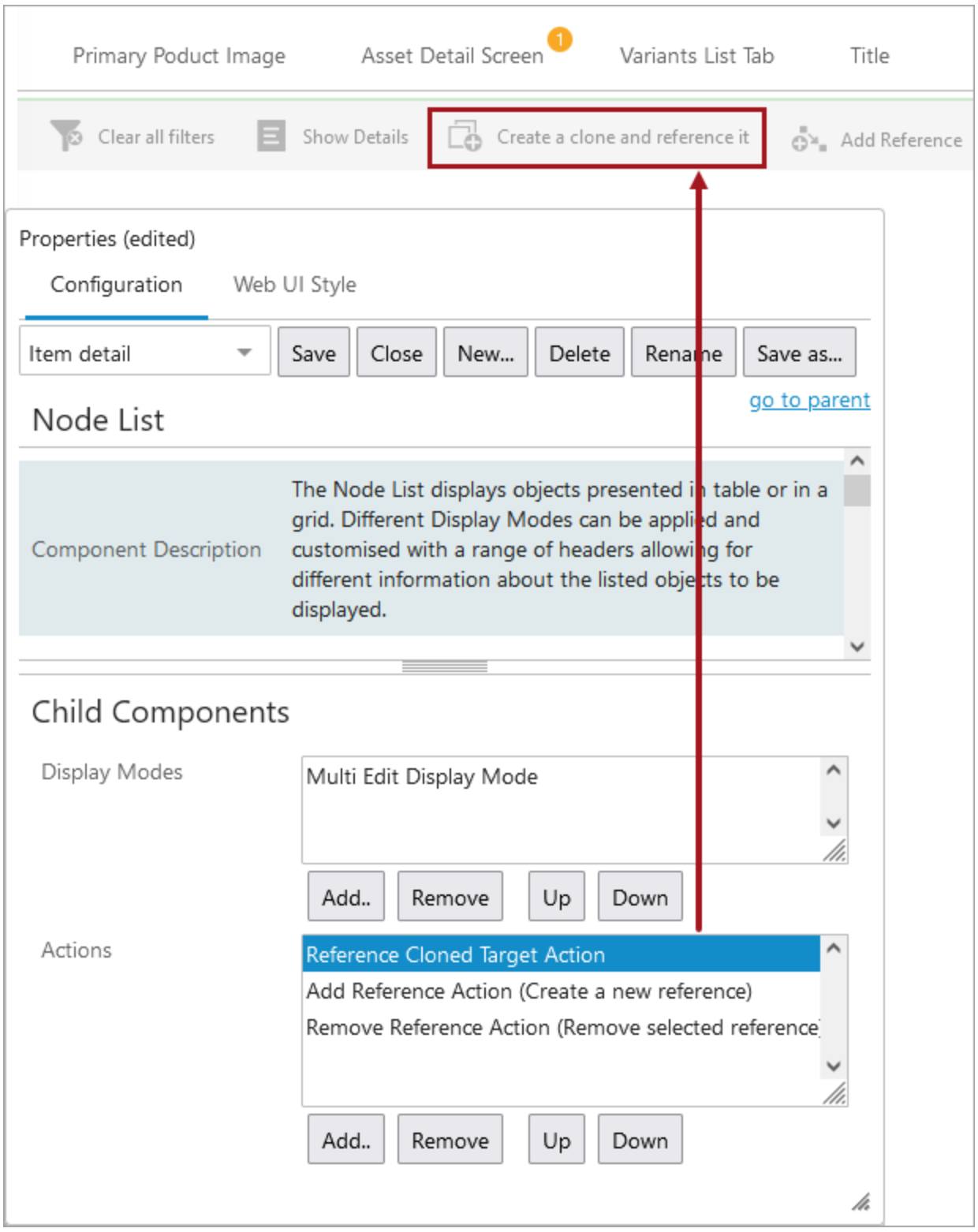
To activate the warning, it must be enabled on the Node Details configuration. The Show Warning parameter is accessed under the Multiple Target References parameter group. When Show Warning is enabled (checked), the warning will display to end users upon save. If disabled (which is the default), no warning will be shown and changes will save as they have previously.



Reference Cloned Target Action

The Reference Cloned Target Action allows a user to select an existing reference target and duplicate / clone it, creating a new object that includes the original attribute values and references. This is particularly useful in making sure a user does not inadvertently edit shared data that could have implications to other objects with the same reference. When a user needs to make changes to data that is shared (e.g., the object is referenced by multiple objects), they can clone the existing object and freely edit the data on the clone, without fear of impacting the other objects with references to the original object.

Note that users can only clone one object at a time, and objects being cloned must use auto-generated IDs.



The Reference Cloned Target Action is exclusive to the Multi-Reference Editor. Information about how to add action buttons and an example of what it looks like to clone a reference is shown in the **Multi-Reference Editor** section of the **Web User Interfaces** documentation.

Simple Importer Widget

A Simple Importer Widget allows Web UI users of all skill levels to reliably initiate an import on demand from the Homepage screen. Administrators have many options to allow their users to easily and accurately create and/or update products, entities, and classifications; and their attribute values, reference types, and object type by dragging and dropping a CSV or Excel valid import file onto the respective Web UI Homepage widget.

More than one Simple Importer Widget can be added to the Homepage, allowing users easy access to many on-demand imports.

Who can create / update what

The user's ability to create or update objects is limited to only the attribute values, and reference types valid for the object type(s) they have permission to access. Unique keys can also be implemented to ensure a user has uniquely identified an object before being allowed to start an import. Additionally, the Simple Importer Widget does not allow a user to map to an attribute that is not valid for the specified object type. In other words, attributes may appear as mapping selections, but when selected, if they are not valid for the object type being handled by the import, then the user will not be able to start the import. This restriction makes this widget ideal when a user with limited STEP access needs to create or update data for only those objects they have permission to access.

Auto Map or Pre-configure

Administrators can configure the Simple Importer Widget to allow users to map data on the fly or to use preexisting import configurations as a starter template. If both options are desired, then a separate widget must be configured for each.

When an administrator chooses to allow users to map data on the fly, the user is assisted with the STEP Auto Map feature that compares data in the input file's header row with the IDs / names of the attributes in STEP. When a match is found, the column is automatically mapped to the corresponding object attributes. For more information about Auto Map, refer to the **Inbound Map Data - Auto Map** topic within the **Data Mapping** documentation.

When an administrator chooses to use pre-configured import configurations, they allow for more advanced on demand import functionality (i.e., business rules). This is useful for frequently-used imports where the parameters and options are always (or nearly always) the same. However, when a Simple Importer Widget is configured to use a saved import configuration, the Auto Map feature is disabled.

Topics in this guide

- Valid File Types
- Import File Considerations
- Using Simple Importer Widget
- Create Objects Using Simple Importer Widget
- Update Objects Using Simple Importer Widget
- Import Preview and Mapping

- Configuring Simple Importer
- Unique Keys and the Simple Importer Widget

Valid File Types

The valid file types are Excel Workbook (.xlsx), Excel 2010 to higher versions, and CSV. It is recommended that users use the newest, supportable version of Excel.

For more information, refer to the **CSV Format** topic and/or the **Excel Format** topic within the **Data Exchange** documentation. Also, for more information on supported versions of Excel, refer to the current **Platform and Software Support** documentation in the **System Release and Patch Notes**.

Import File Considerations

If the import file contains:

- data that does not need to be imported into STEP, then the mapping field column needs to be blank, or unmapped, so that STEP will ignore the data.
- column header labels '<ID>' or '<Name>', then the preview will display with the ID and/or object Name as auto mapped. For more information, refer to the **Predefined Header Text** section of the **Inbound Map Data - Auto Map** topic within the **Inbound Map Data Options** documentation.
- column header labels that should be used as the new object ID, either because the import file does not contain an '<ID>' column or because the column labeled as '<ID>' is not ideal to be used as the STEP ID, then the user can manually map new object IDs to a preferred import file column. For more information, refer to the **Mapping ID** topic of the **Import Preview and Mapping** section of this guide.
- column header labels that match STEP attribute IDs / names, then the import preview will display with those columns auto mapped. For more information, refer to the **Mapping Attribute** topic of the **Import Preview and Mapping** section of this guide.
- column header labels that do not match the STEP attribute ID / name, but the data needs to be imported, then the user can manually map those columns. For more information, refer to the **Mapping Attribute** topic of the **Import Preview and Mapping** section of this guide.
- reference types, then the user will need to manually map the reference types to the import file column, because auto mapping of reference types is not supported. However, once manually mapped, the standard parent/child inheritance will automatically occur. For more information refer to the **Mapping Reference Type** topic of the **Import Preview and Mapping** section of this guide.
- data not valid for the attribute type (for example, a text value in a numeric attribute, or an invalid LOV value), then the user will be visually warned and can choose to edit the data prior to importing, or ignore. For more information, refer to the **Check Attribute Data Validity** topic of the **Import Preview and Mapping** section of this guide.
- column(s) with attribute values required for a unique key, then the 'Unique key - mapped by Attribute' feature can be used to properly create and/or update objects. For more information, refer to the **Using Unique Key Mapped by Attribute** topic within the **Unique Keys and the Simple Importer Widget** section of this guide.
- a column with each object's unique key, then the objects can be updated using the mapping to 'Unique key' feature. For more information, refer to the **Using Unique Key to Update Objects in Web UI** topic within the **Unique Keys and the Simple Importer Widget** section of this guide.

Smartsheets in Web UI

Smartsheets can be imported and exported directly from the Supplier Web UI. Before the required Web UI components can be configured, however, a Smartsheet template must have already been created, as well as data export and import configurations.

For more information, refer to the **Smartsheet Data and Template Configurations** and **Smartsheet Import Configurations** sections of the documentation.

Note: In order to configure Smartsheet components in the Supplier Web UI, the user must be a member of a supplier item Web UI user group.

Three components are available for handling Smartsheets in the Supplier Web UI:

- **Smartsheet Export Widget -** Used to download Smartsheet template files. For more information, refer to the **Smartsheet Export Widget** section of the **Web User Interfaces** documentation.
- **Smartsheet Export Action -** Used to export data from products in a workflow so that it can be edited in a Smartsheet. For more information, refer to the **Smartsheet Export Action** section of the **Web User Interfaces** documentation.
- **Smartsheet Import Action -** Used to import modified or newly created product data into STEP. For more information, refer to the **Smartsheet Import Action** section of the **Web User Interfaces** documentation.

Note: It is recommended that importing and exporting Smartsheets be done in the Web UI as needed; storing previously exported Smartsheets for repeated use can cause unexpected and undesirable results, including overwriting data. Further, if the server upon which the Web UI is hosted changes, the stored Smartsheets will no longer function.

Smartsheet Export Action

The Smartsheet Export Action is used alongside the Smartsheet Import Action to maintain product data. Specifically, this action allows users to download Smartsheet maintenance files from products in a workflow. Once the product data has been updated in the sheet, you can import the changes into STEP via the Smartsheet Import Action.

For more information, refer to the **Smartsheet Import Action** section of the **Web User Interfaces** documentation.



This action can be configured on a Task List screen, and is available for products moving through a workflow.

Prerequisites

It is expected that anyone configuring the Smartsheet Export Action is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section.

To access the Smartsheet Export action, the user must be a member of a supplier group. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** topic of the **Web User Interfaces** documentation.

Note: Specification attributes valid by object type will only be included for the products exported in a Smartsheet if the attribute is linked to a direct ancestor of the exported product. This means that attributes linked to the product or classification is included in a Smartsheet export.

Additionally:

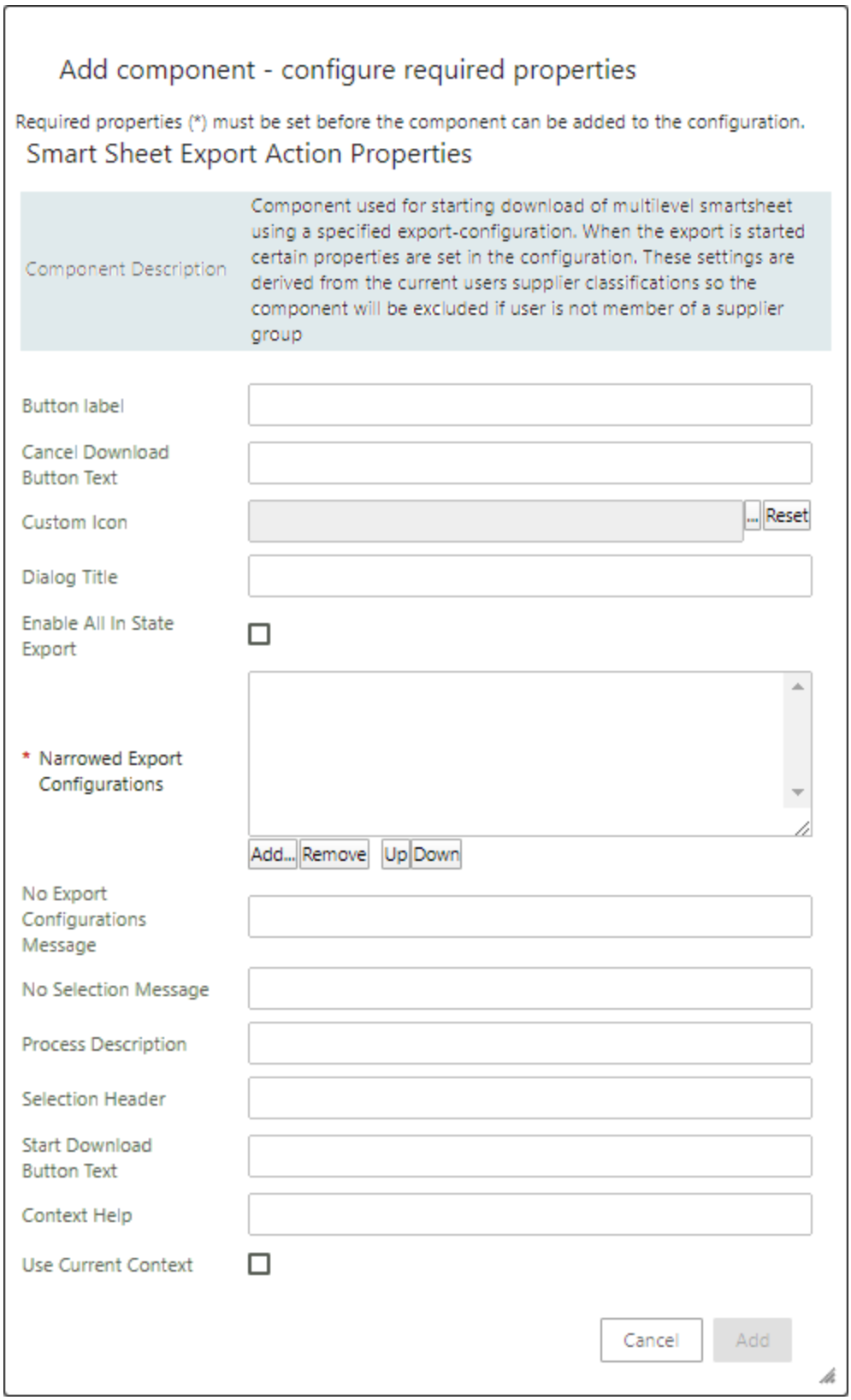
- attributes must be linked to product or classification categories
- attributes must be valid for the object types being exported

Configuration

The only mandatory parameter for this action button is **Narrowed Export Configurations**, which determines which Smartsheet export configurations are available for selection.



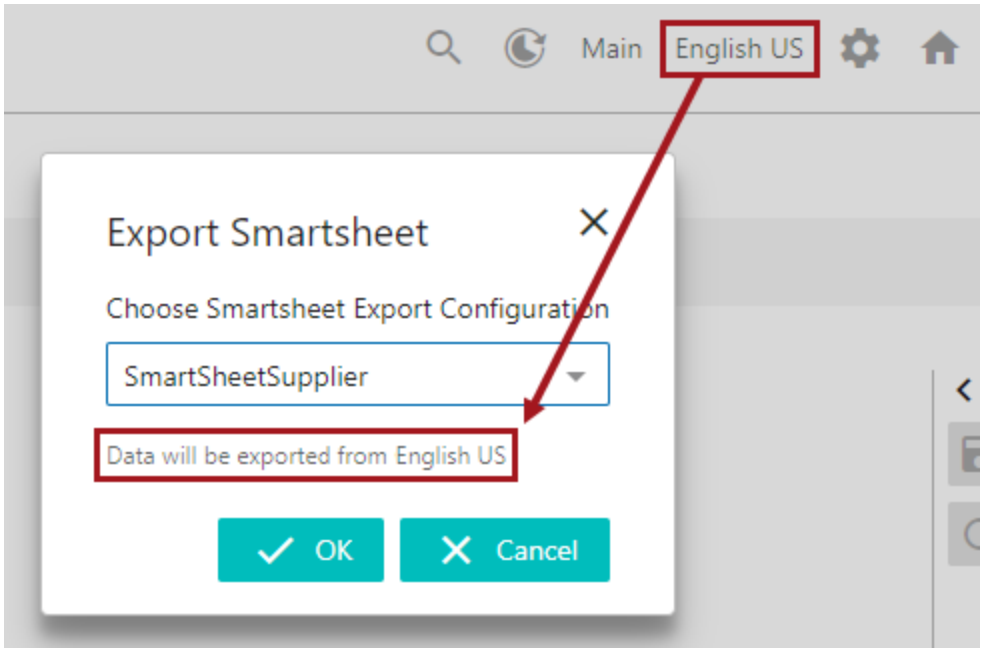
Note: All messages, titles, or labels in this configuration are displayed from the translation i18n keys which resides on the server.


Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Smart Sheet Export Action Properties
Component Description
Component used for starting download of multilevel smartsheet using a specified export-configuration. When the export is started certain properties are set in the configuration. These settings are derived from the current users supplier classifications so the component will be excluded if user is not member of a supplier group
Button label
Cancel Download Button Text
Custom Icon
...
Reset
Dialog Title
Enable All In State Export
* Narrowed Export Configurations
Add...
Remove
Up
Down
No Export Configurations Message
No Selection Message
Process Description
Selection Header
Start Download Button Text
Context Help
Use Current Context
Cancel
Add

1. In the **Button label** parameter, enter a label for the action button.
2. In the **Cancel Download Button Text** parameter, enter the displayed text for the cancel button.
3. In the **Custom Icon** parameter, click the ellipsis button (...) and select an icon to use for the action button.
4. In the **Dialog Title** parameter, enter a title for the export dialog.
5. In the **Enable All In State Export** parameter, check the box to add a radio button to the export dialog, allowing for the export of all products in the current workflow state.
6. In the **Narrowed Export Configurations** parameter, click **Add...** and select which export configurations should be made available to the end user.

> **Note:** This must be a data export configuration, not a template configuration.

7. In the **No Export Configuration Message** parameter, enter a message to display when no configurations can be found.
8. In the **No Selection Message** parameter, enter a message to display when no configuration has been selected.
9. In the **Process Description** parameter, enter a template for the process description.
10. In the **Selection Header** parameter, enter a header for the export dialog.
11. In the **Start Download Button Text** parameter, enter text that should be displayed for the download button.
12. In the **Context Help** parameter, enter text to display for the action button tooltip.
13. Select the **Use Current Context** parameter to export data from the context in which the user is currently working. When the export process is initiated, the 'Export Smartsheet' dialog will display a message that the data will be exported from the current context (e.g., 'Data will be exported from English US').



Note: This feature is not compatible with cross-context exports. If an export is attempted using a Smartsheet export configuration that has been configured to use a cross-context export, an error message will display, and the export will not occur.

Smartsheet Export Widget

The Smartsheet Export widget is used alongside the Smartsheet Import Action to initiate new products into STEP. Specifically, this widget allows users to download Smartsheet template files. Template files are empty Smartsheets that can be used to on-board new products. Once products have been added to the sheet, you can import them into STEP via the Smartsheet Import Action.

For more information, refer to the **Smartsheet Import Action** topic in the **Web User Interfaces** documentation.



To use this widget, a Smartsheet template must be specified in the export configuration.

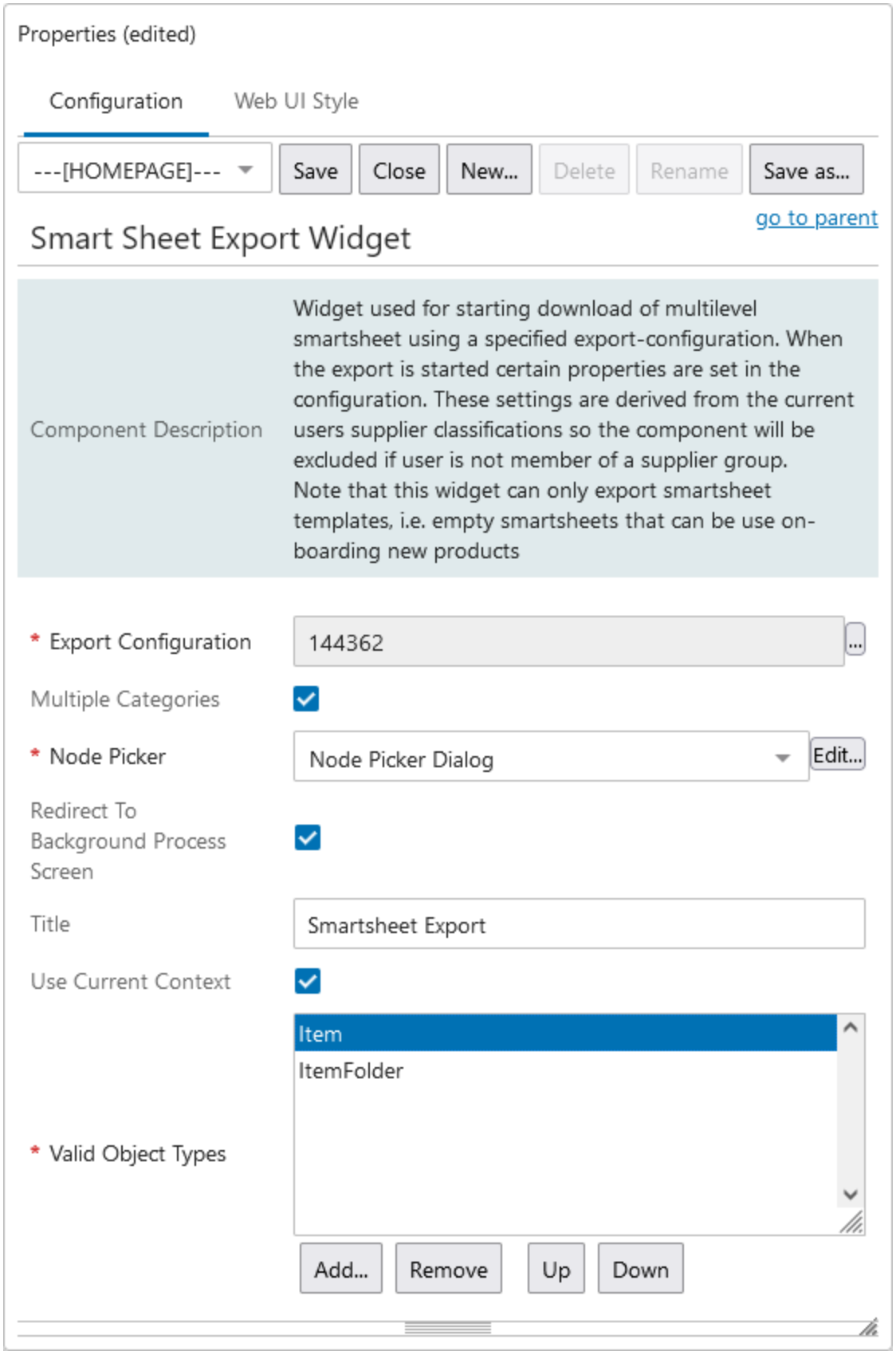
Prerequisites

It is expected that anyone configuring the Smartsheet Export Widget is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section.

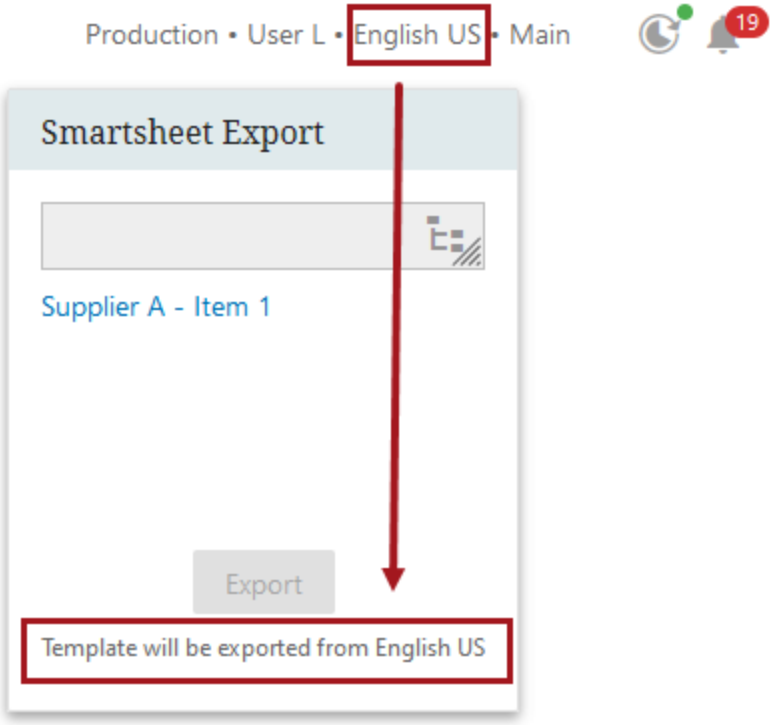
To access the Smartsheet Export widget, the user must be a member of a supplier group. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** topic of the **Web User Interfaces** documentation.

Configuration

A number of configuration options are available for this widget, including options to redirect the end-user to a Background Process screen, export a template with multiple categories, configure the node picker, etc. It also has two mandatory parameters: **Export Configuration** and **Valid Object Type**.


Properties (edited)
Configuration
Web UI Style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Smart Sheet Export Widget
Component Description
Widget used for starting download of multilevel smartsheet using a specified export-configuration. When the export is started certain properties are set in the configuration. These settings are derived from the current users supplier classifications so the component will be excluded if user is not member of a supplier group. Note that this widget can only export smartsheet templates, i.e. empty smartsheets that can be use on-boarding new products
* Export Configuration
144362
Multiple Categories
* Node Picker
Node Picker Dialog
Edit...
Redirect To Background Process Screen
Title
Smartsheet Export
Use Current Context
Item
ItemFolder
* Valid Object Types
Add...
Remove
Up
Down

1. In the **Export Configuration** parameter, click the ellipsis button (...) to **Browse** or **Search** for the relevant export template configuration. This is a required property and must have a value.
2. In the **Multiple Categories** parameter, check the box to allow users to export template Smartsheets with multiple product categories. When browsing via the node selector, use CTRL+click to select multiple categories for export.
3. In the **Node Picker** parameter, configure the node selections available to the user.
4. In the **Redirect to Background Process Screen** parameter, check the box to direct the user to a background process screen upon export.
5. Select the **Use Current Context** parameter to export the Smartsheet template from the context in which the user is currently working. Dimension-dependent headers (e.g., language-specific attribute names) will display in the sheet, and the widget itself will display a message that the template will be exported from the current context (e.g., 'Template will be exported from English US').



Note: This feature is not compatible with cross-context exports. If an export is attempted using a Smartsheet export configuration that has been configured to use a cross-context export, an error message will display, and the export will not occur.

6. In the **Valid Object Types** parameter, click **Add**, select the object types that should be valid for the template, then click **OK**. Users can only select objects that match one of these object types for the export. This is a required property and must have a value.

Exporting the Smartsheet Template

To export the template Smartsheet using the Smartsheet Export Widget, follow these steps.

Note: The process may be slightly different depending on factors such as the configuration of the widget and whether the user is in more than one Supplier user group.

1. Click on the Node Picker icon in the upper right corner of the widget, then browse to or search for the product that you would like to use for the template in the **Select Node(s)** dialog.
2. If you are a user who belongs to more than one supplier group, select the relevant supplier group from the dropdown list on the widget.
3. Click **Export** to export the sheet.
4. A 'download started' message displays that includes a hyperlink to the background process (BGP), e.g., BGP-273532.
5. Click this link to monitor the BGP and retrieve the exported template Smartsheet.

Note: Specification attributes valid by object type will only be included for the products exported in a Smartsheet if the attribute is linked to a direct ancestor of the exported product. This means that attributes linked to the product or classification is included in a Smartsheet export.

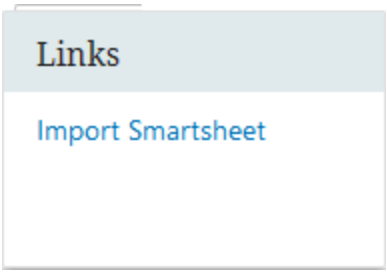
Additionally:

- attributes must be linked to product or classification categories
- attributes must be valid for the object types being exported

Smartsheet Import Action

The Smartsheet Import Action can be used to import data into STEP via the Links Widget. Smartsheet Import Action shows a dialog and does not require the user to select a import configuration. To use this import action, the Excel Smartsheet Format functionality must be enabled as defined in the **Excel Smartsheet Format** topic of the **Data Exchange** documentation.

For exporting data from STEP, refer to the **Smartsheet Export Widget** and **Smartsheet Export Action** sections of the documentation.



This component can be configured on the Links Widget.

Prerequisites

It is expected that anyone configuring the Smartsheet Import Action has appropriate privileges to access the designer and is familiar with the Web UI Designer. As basic concepts for working with the designer are not covered in this section, information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

To access the Smartsheet Export widget, Smartsheets must be activated as defined in the **Excel Smartsheet Format** topic of the **Data Exchange** documentation.

Configuration

As the bulk of the import logic is tied to the Smartsheet itself, there is only one truly relevant parameter, **Fallback Import Configuration**.

Note: All messages, titles, or labels in this configuration are displayed from the translation i18n keys that reside on the server. For more information about i18n keys, refer to the **Localization** topic in the **Administration Portal** documentation.

1. In the **Action Title** parameter, enter a name for the action.
2. In the **Cancel Import Button Text** parameter, enter the displayed text for the cancel button.
3. In the **Dialog Title** parameter, enter a title for the import dialog.

4. In the **Fallback Import Configuration** parameter, click the ellipsis button (...) and select an existing import configuration to apply to all Smartsheet imports where no import configuration was specified in the export configuration.
5. In the **Process Description** parameter, enter a template for the process description.
6. In the **Solution Header** parameter, enter a label for the select file prompt.
7. In the **Start Import Button Text** parameter, enter the text that should appear for the start import button.

Smartsheet import errors

Errors generated from Smartsheet imports using the Smartsheet Import Action can be viewed in the 'Recent warning notifications' panel, located in the upper right corner of Web UI. Each error is accompanied, when applicable, by a link that navigates the user directly to the affected product.

Additionally, the Data Issues Report bind can be configured on the business rule managing the Smartsheet import. This bind enables users to create more meaningful error and warning messages to address import issues that may arise. Custom messages created using this bind will overwrite system-generated messages that may be less meaningful to end users.

If an object with an error is imported into the system via a Smartsheet import and resides in a workflow, the link to that object will navigate the user to the Task List screen assigned to the workflow state in which that object exists. This allows users to quickly identify where in a workflow an object sits and quickly take corrective action to move that object through the workflow.

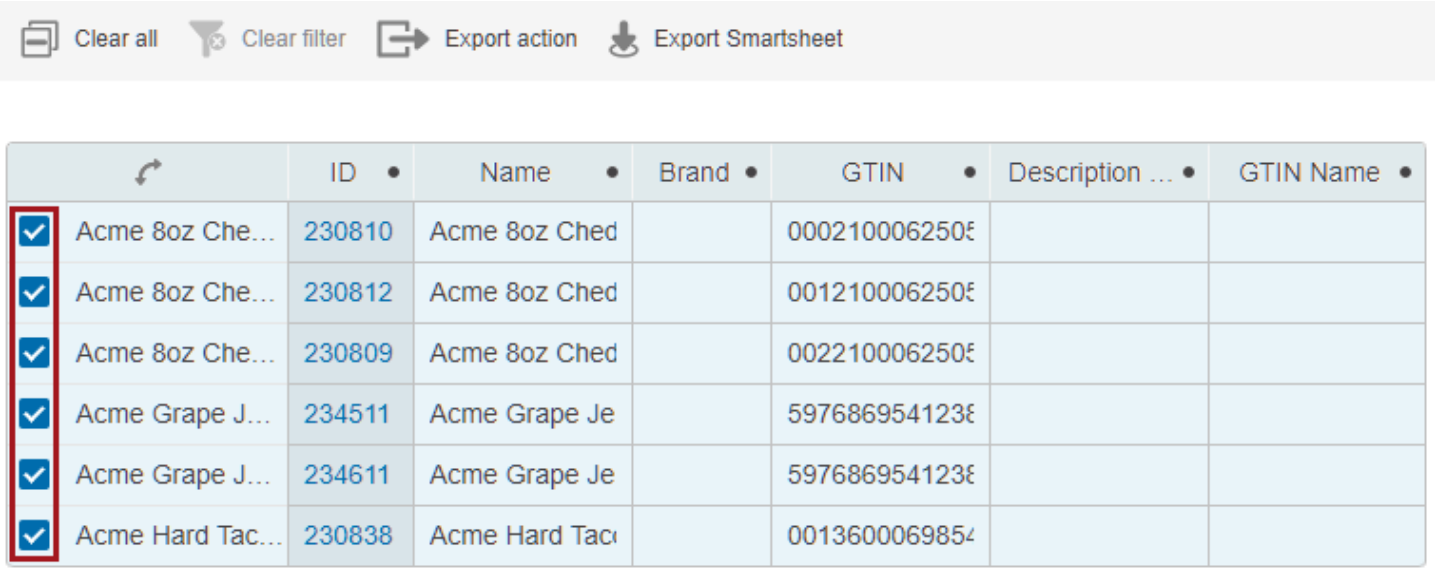
If a configured business rule is automatically moving the product from one workflow state to the other upon import, the workflow link will not navigate the user to the state in which the object currently resides.

Sorting Smartsheets in Web UI

Because Smartsheets are used to import data into STEP, they are very restrictive in the way that they can be maintained and formatted outside of STEP. These restrictions are done to maintain the integrity of the Smartsheet so that it can be imported back into STEP correctly. One of the restrictions of a Smartsheet is the inability to sort data from within the Smartsheet. Sorting by columns for a Smartsheet must be done from within the Web UI and exported by the column sorted on the on below compatible sortable headers.

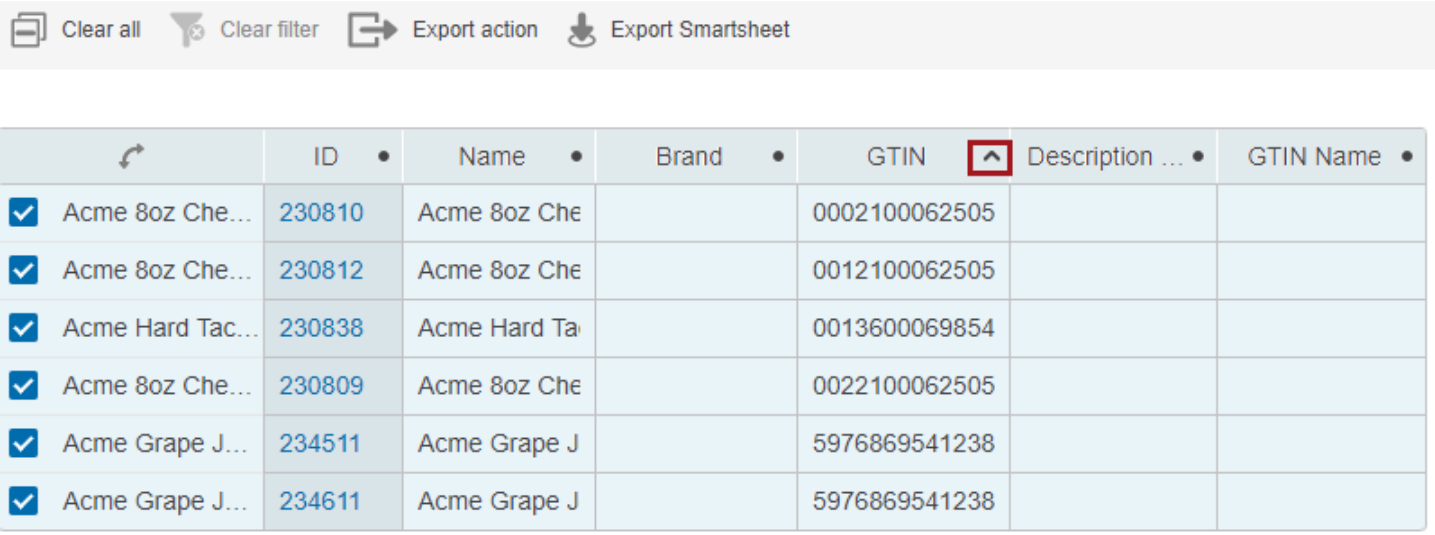
This section explains how to sort and export a Smartsheet from the Web UI.

In the Web UI, select the objects that are to be exported. This is usually done from the Tree or in a Workflow from a tasklist.

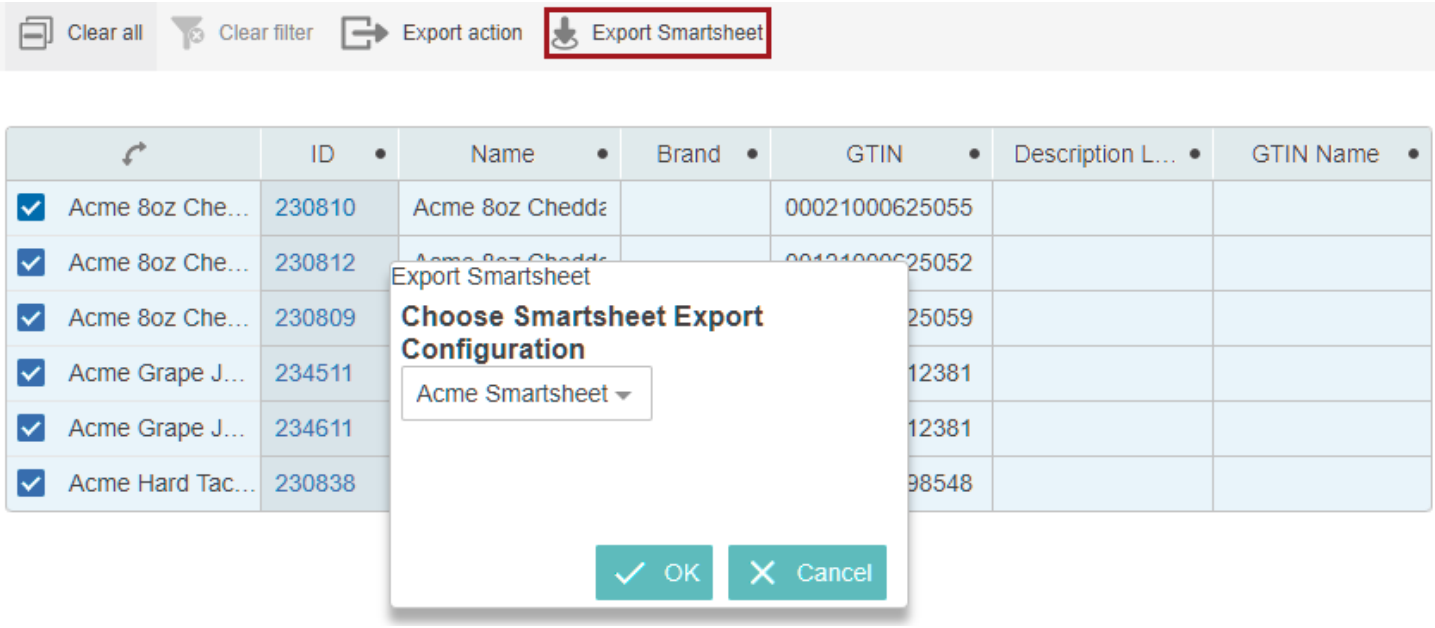


Select the sorting function at the top of the column that you want the Smartsheet data sorted in as shown in the image below. Sorting can go in ascending or descending order. Smartsheets can be sorted on IDs, titles, attribute group headers, attributes, and references. The four reference types supported are Product-to-Product, Product-to-Asset, Product-to-Classification, and Product-to-Entity.

Note: If a multi-level Smartsheet is exported, only the top level nodes will reflect the sorting order, and the lower level nodes will be sorted by the object IDs.



Export the Smartsheet using the 'Export Smartsheet' action. A dialog box will appear for the user to select the Smartsheet configuration.



Once exported, the Smartsheet will be sorted by the column that was selected in the Web UI. Sorting a Smartsheet will not affect the user's ability to use the filter feature if 'Allow Auto-Filter in Workbook' was enabled in the Smartsheet configuration.

10	* <Name>	<ID>	Brand	GTIN	GTIN Name	Description Long
11	Acme 8oz Cheddar Che	230809		00221000625059		
12	Acme 8oz Cheddar Che	230810		00021000625055		
13	Acme 8oz Cheddar Che	230812		00121000625052		
14	Acme Hard Taco Shells	230838		00136000698548		
15	Acme Grape Jelly cs	234511		59768695412381		
16	Acme Grape Jelly pl	234611		59768695412381		

To restore legacy Smartsheet export functionality, add the following property to the sharedconfig.properties file:

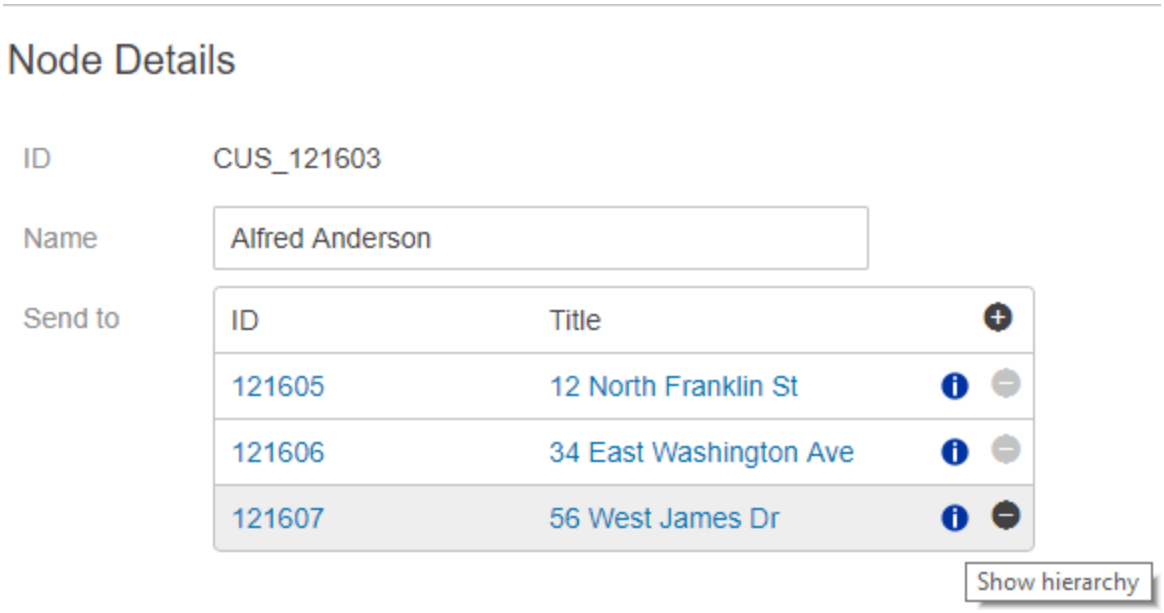
```
SmartsheetConverter.SmartSheetWebUISortOrder=false
```

For additional information about using a Smartsheet, refer to the **Using A Smartsheet** section of the **Excel Smartsheet Format**.

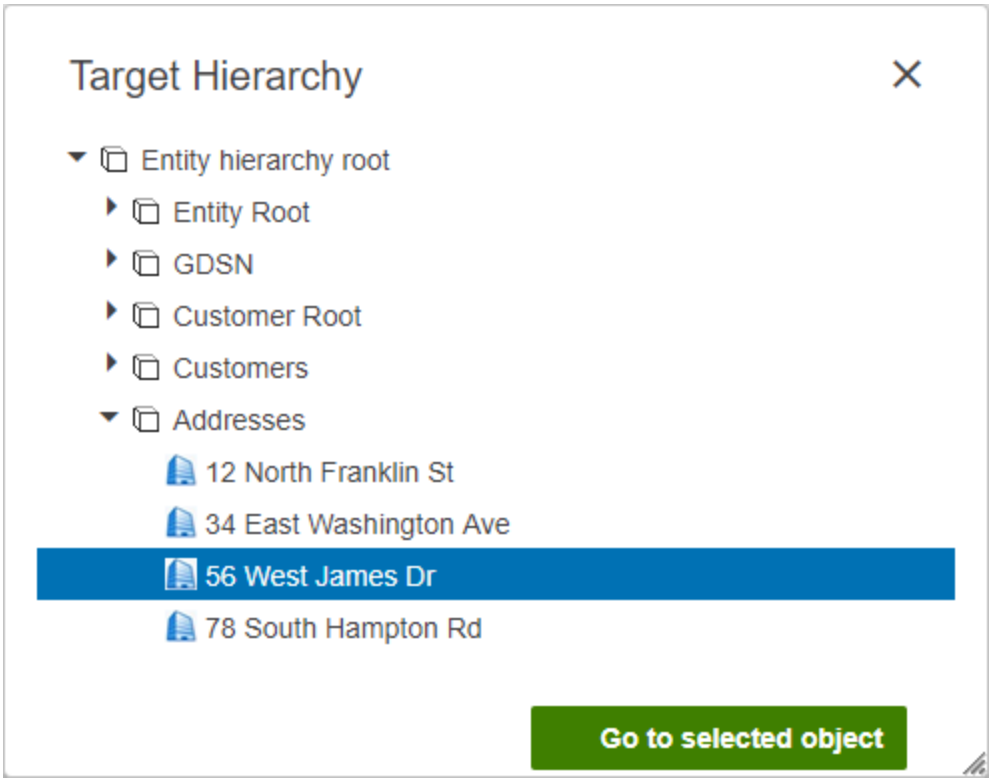
Target Hierarchy Column

Objects' references to hierarchies can be shown in tree views in the STEP Web UI, thereby allowing users to view the position in the hierarchy and expand their view upwards and downwards to get an overview of alternative relationships of the objects in question.

This functionality is especially useful when a user must, for example, model and view customer data in which an organization is, or can be, related to multiple organizational hierarchies. This feature is also deployed to display a product's position in various web hierarchies.



The screenshot above shows an example in which the Target Hierarchy Column component is used to display references in a dialog (included below) to a hierarchy:



Users may also go directly to the object selected in the dialog by first highlighting the object and clicking the 'Goto Selected Object' button.

User Configurable Views

User configurable views allow users to work more efficiently with less on-page navigation to find relevant data. Views can be named according to their intended purpose and saved for reuse across Web UI components and screens, as applicable, so users can quickly and easily switch between different views tailored to help accomplish different tasks.

If an existing view does not display the needed data, creating and configuring a more relevant view can easily be done without the Web UI designer.

This topic addresses:

- Prerequisites
- Applying a View
- Creating a New View
- Editing an Existing View
- Copying a View
- Deleting a View
- Renaming a View
- Sharing a View
- Enabling User Configurable Views

Prerequisites

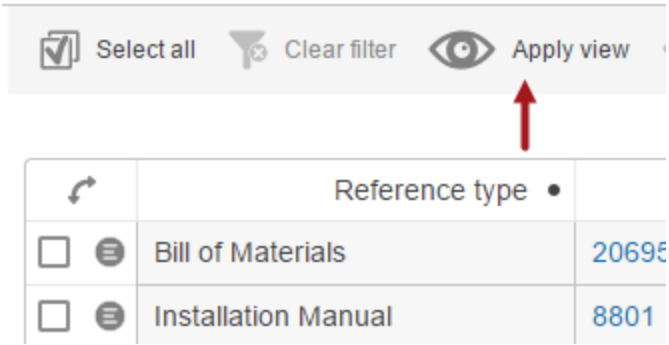
The user configurable view action can be used with the following components / screens: Multi Edit Display Mode (Node List) and the Multi Context Screen. Before a user can view and access the 'Apply view' icon, the admin user will need to have enabled the Enable User Configurable View parameter within the applicable Properties. For more information, refer to the **Enabling User Configurable Views** documentation.

Applying a View

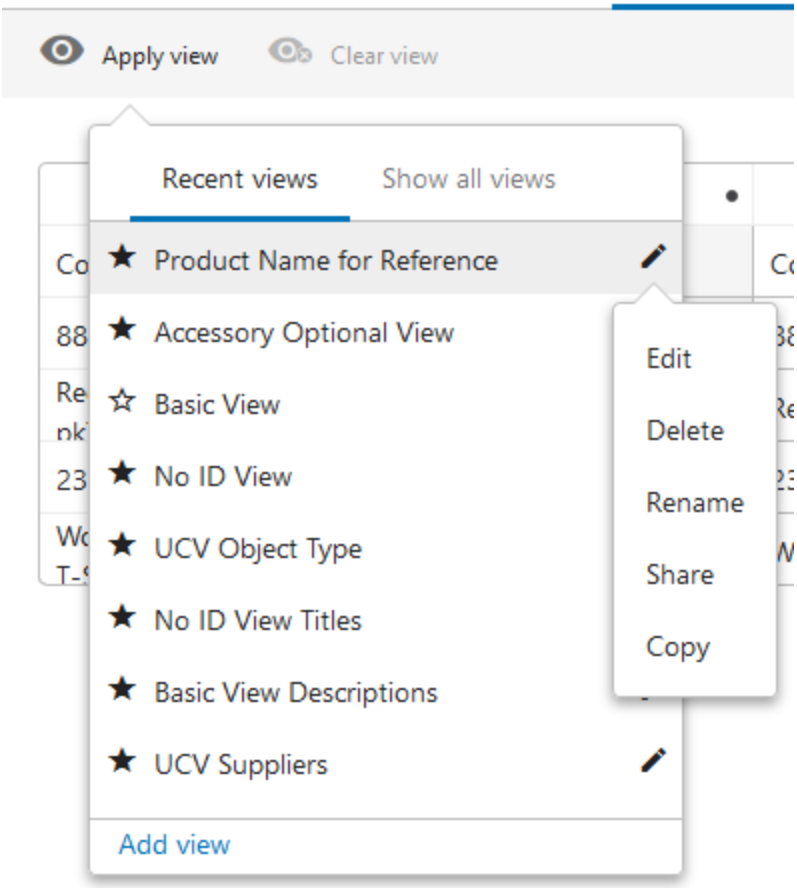
A user can choose to apply a view either created and shared by another user (Shared views) or created by the user (My views).

To apply a view:

1. Locate the **Apply view** icon in the action toolbar.



2. Click the **Apply view** button, and a dialog will display with the option to apply a recent view, show all views, or create a new view. Users can also click the **edit icon** ( ) to the right of a view's title, and options specific to the view display.



Recent Views

The 'Recent views' tab in the 'Apply view' dialog lists the last eight views the user has used. The list changes dynamically as the user applies different views. The last used or created view is placed at the top.

After clicking the **Apply view** icon, a user can then click on a specific recent view, and the 'Apply view' dialog will automatically close and the screen will render the selected view settings.

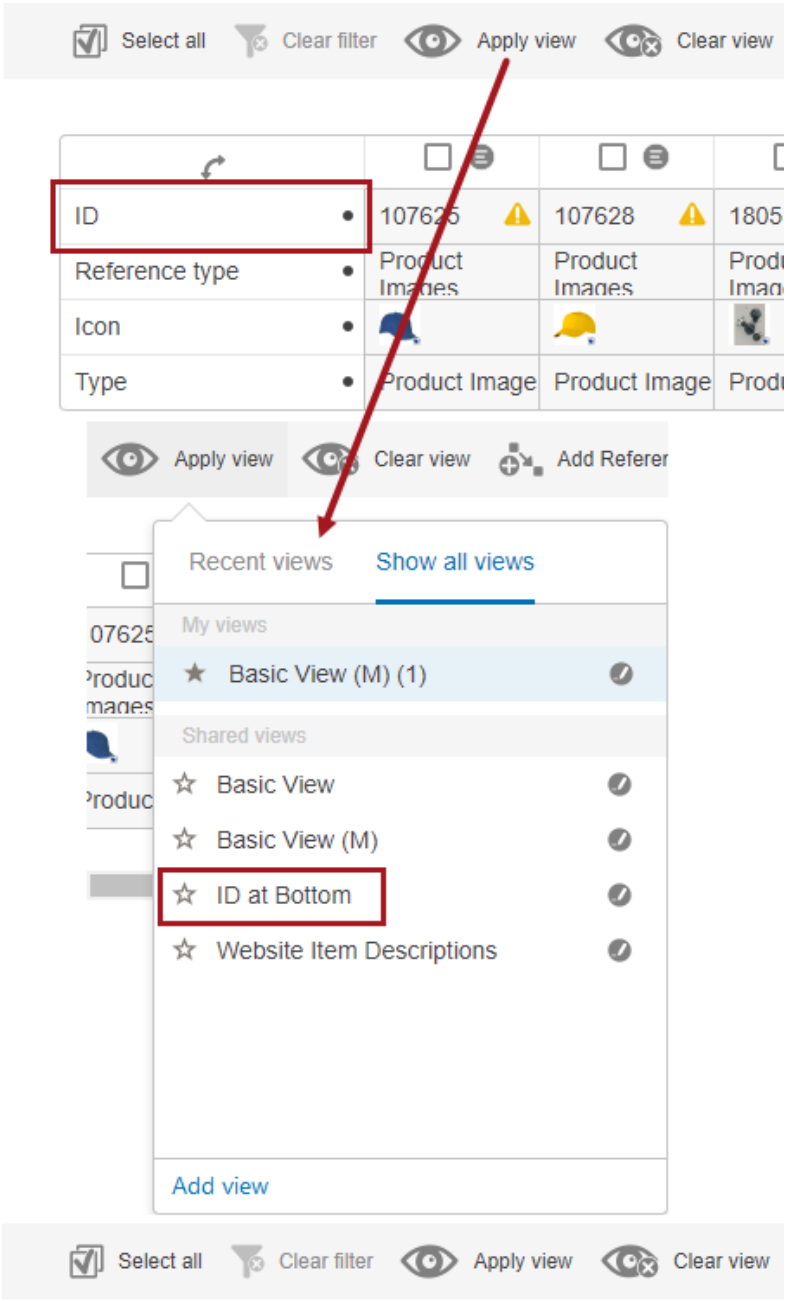
Show all views

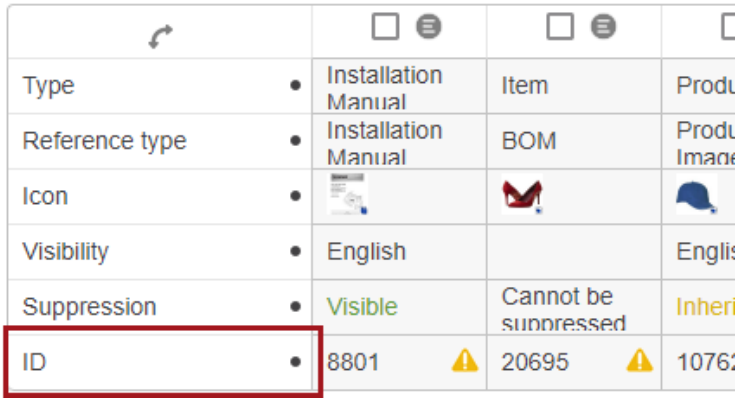
If the list of recent views does not include the view a user needs to apply, then the user can click **Show all views** and the dialog will render the full list of 'My views.'

If the user has access to views that have been created and shared by other users, then those shared views will display in the 'Shared views' tab in the 'My views' section.

Once the desired view is located, click the view name to apply the view settings to the component / screen.

In the screenshot example below, a Node List displays five columns. When the **Apply view** icon is selected, a list of recent views displays. When the 'ID at Bottom' view is selected the Node List displays the ID row in the last position.


Select all
Clear filter
Apply view
Clear view
ID
Reference type
Icon
Type
Product Image
Product Image
Apply view
Clear view
Add Referer
Recent views
Show all views
My views
Basic View (M) (1)
Shared views
Basic View
Basic View (M)
ID at Bottom
Website Item Descriptions
Add view
Select all
Clear filter
Apply view
Clear view

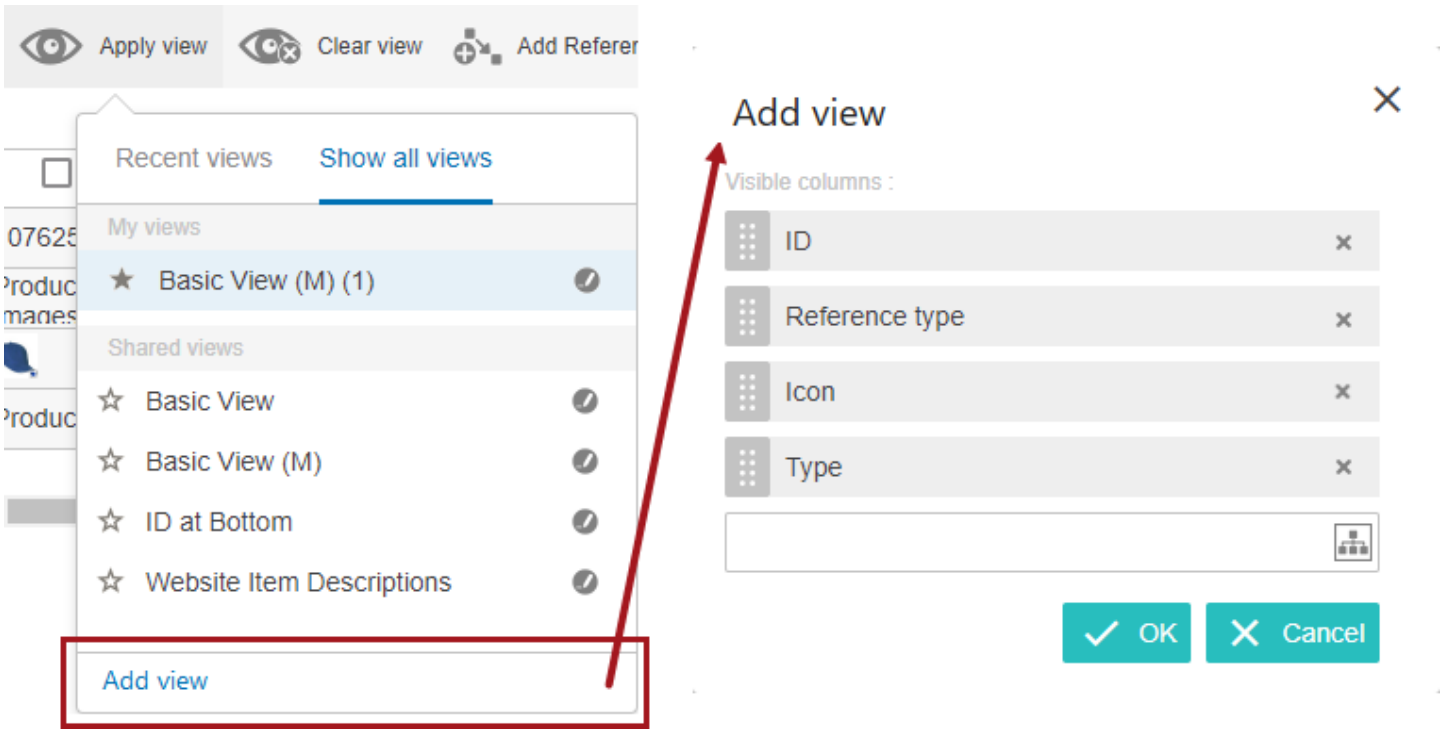

Type
Installation Manual
Item
Reference type
Installation Manual
BOM
Icon
Visibility
English
Suppression
Visible
Cannot be suppressed
ID
8801
20695

Creating a New View

A user can create new views by clicking the 'Add View' text or by copying an existing view and then editing it.

Steps to create a new view using ' Add View':

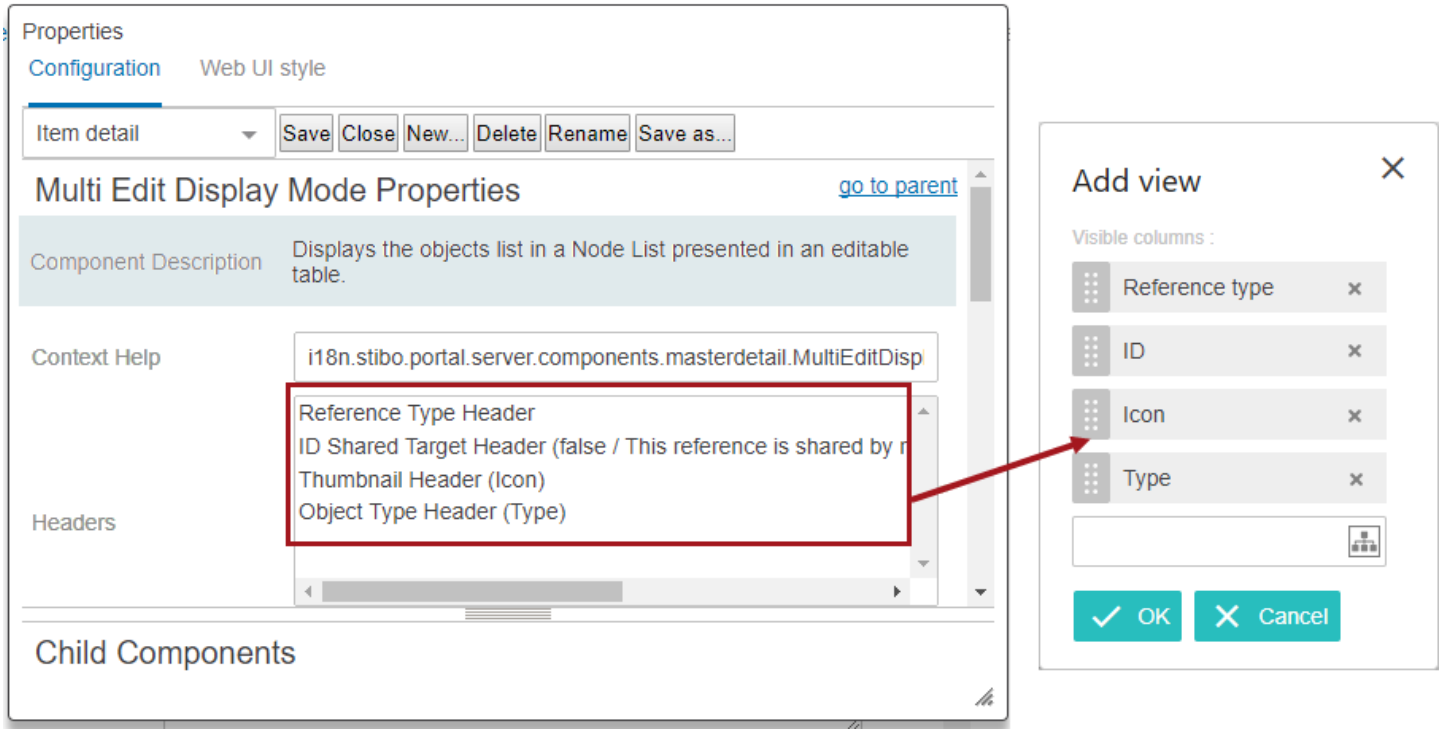
1. From the 'Apply view' dialog, click 'Add View' and the 'Add view' dialog will display.



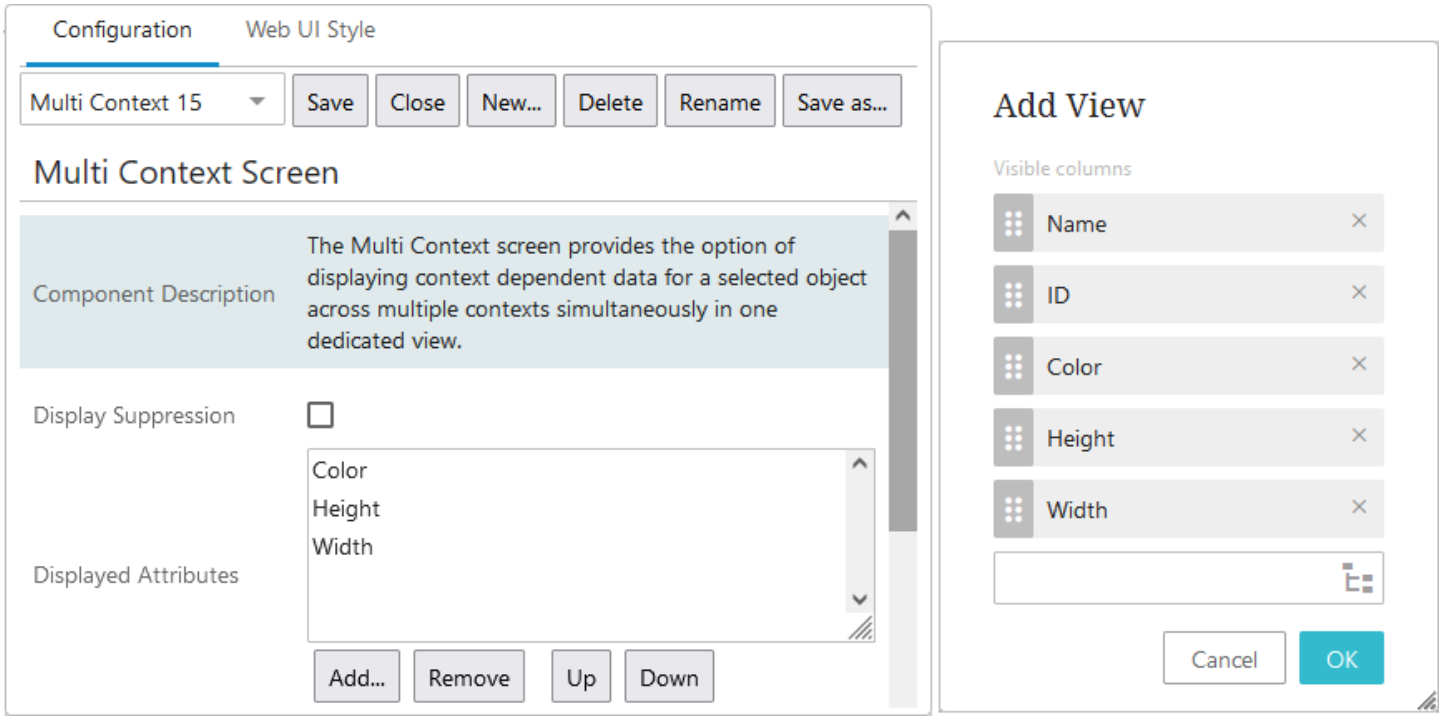
When a user creates a new view using the 'Add View' link, the 'Add view' dialog will list different Visible columns based upon different component settings.

When creating a view while working in a Node List (Multi Edit Display Mode) and selecting the 'Add View' link, the visible columns are ID, Reference type, Icon, and Type. Whereas, creating a view on a Multi Context screen, only ID and Name are listed.

The screenshot below shows how the Node List (Multi Edit Display Mode) headers added by the admin will display when the 'Add view' dialog displays for the user.



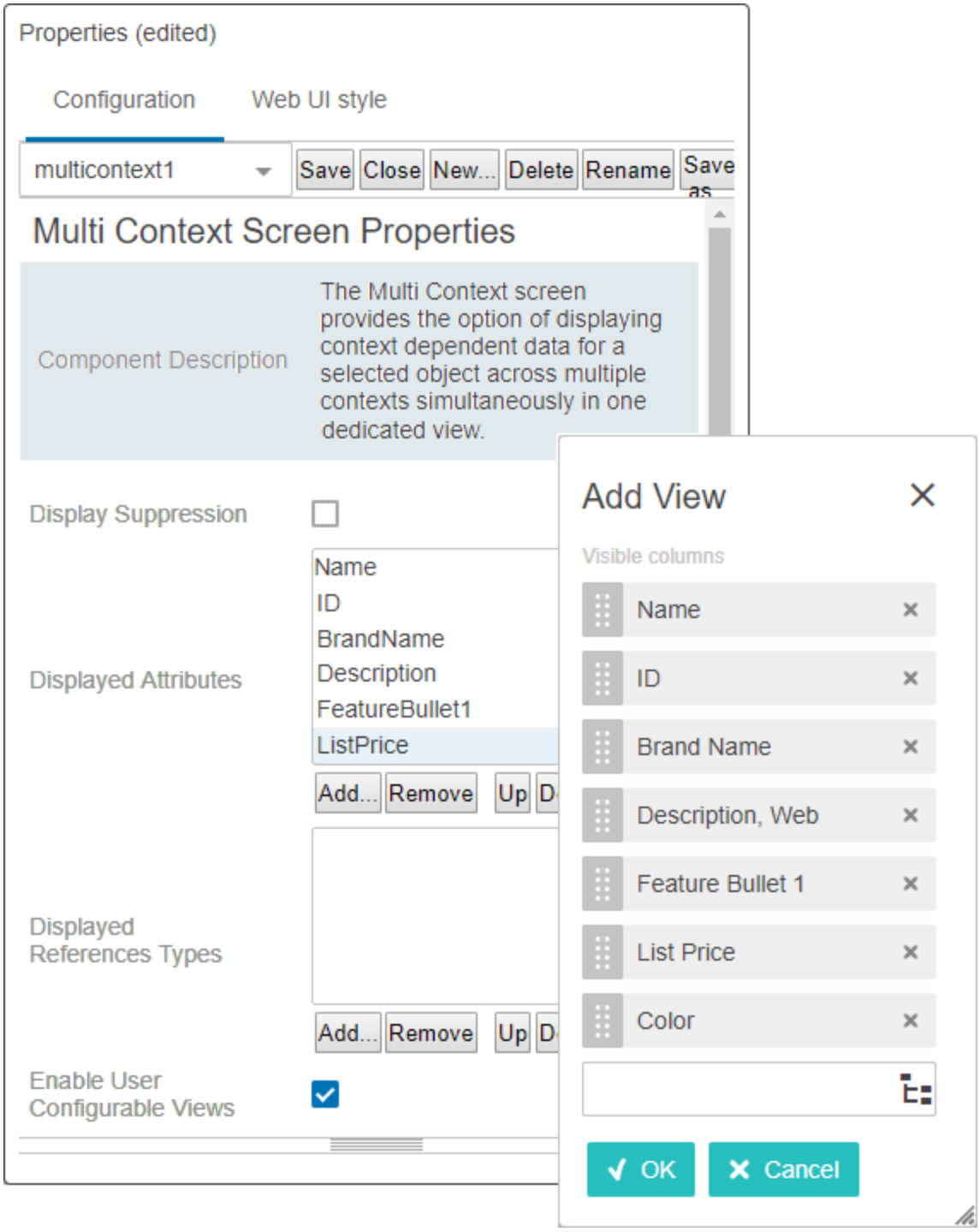
The screenshot below shows how the Multi Context Screen (Displayed Attributes) added by the admin will display when the 'Add view' dialog displays for the user.



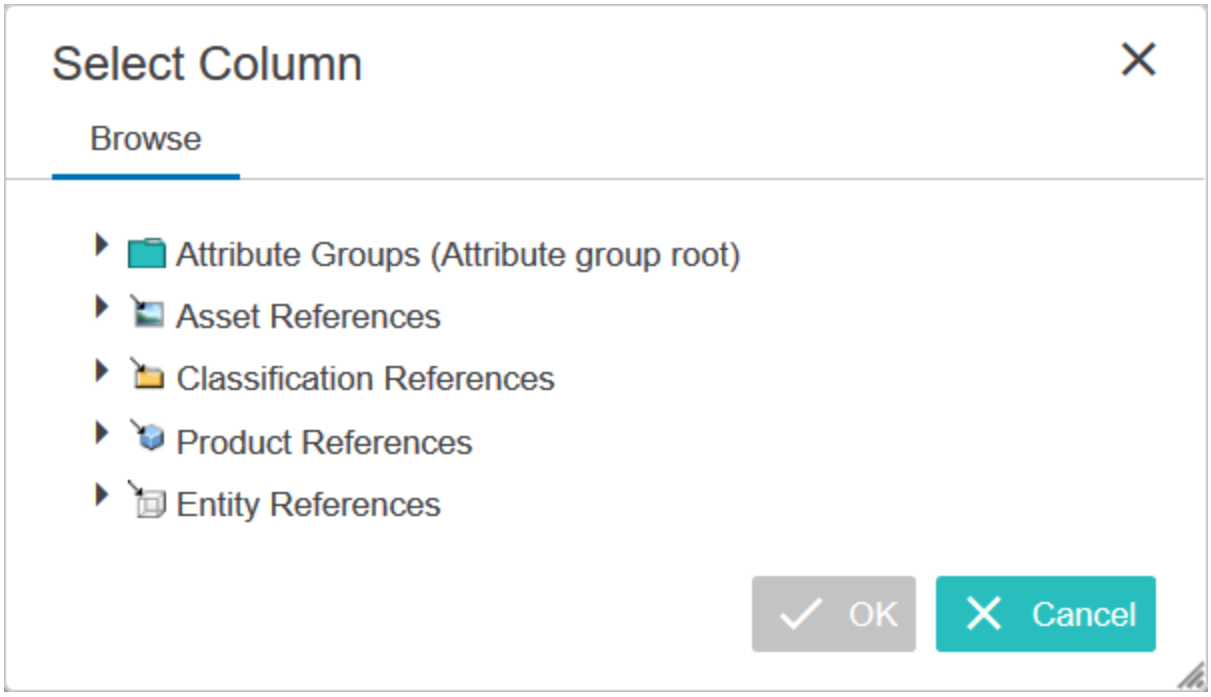
2. With the 'Add view' dialog displayed, a user can edit the new view by adding and/or removing attributes, and/or editing the display sequence.

   Add Attributes / Attribute Groups as Columns

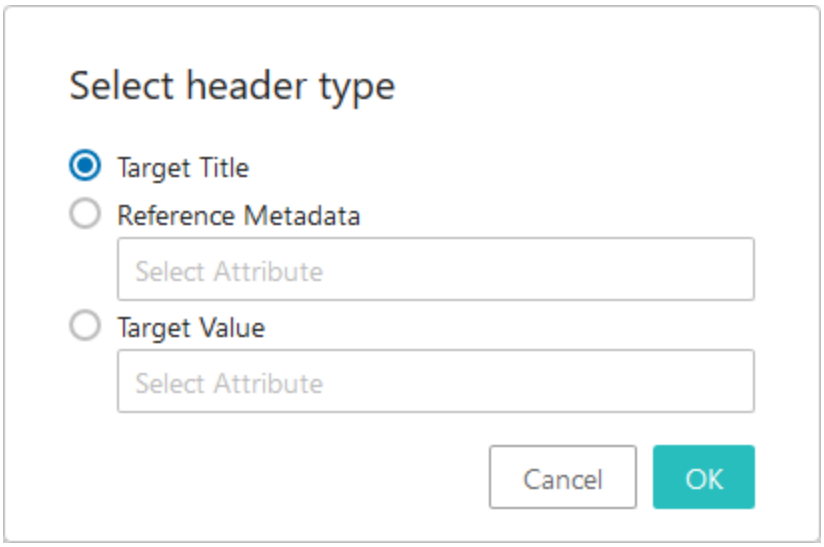
   A user can add columns by using the node picker or typing the attribute / attribute group name or ID into the typeahead.



If the node picker is selected, the 'Select Column' dialog will display, allowing the user to browse for the desired attribute, attribute group, or reference. There is no 'Search' tab on the 'Select Column' dialog as this functionality is located at the bottom of the 'Add View' window.



If a single-reference reference type is added to a view, an additional dialog displays that gives users a series of options that determines which value displays in the header and which in the column's cells.



- **Target Title**. This radio button is pre-selected when the 'Select header type' dialog displays. By selecting this option, the title of the selected single-reference reference type will display in the header. In the column's cells, the ID of the referenced target object will display.

- **Reference Metadata**. When this radio button is selected, users can display reference metadata in the column's cells. Select the metadata attribute whose values should display in the column. The reference metadata attribute name will display in the column header, and the value will display in the column's cells.
- **Target Value**. When this radio button is selected, users can display values on the referenced target object. Select a valid attribute on the target object for which values should display. The attribute name will display in the header, and the value for that attribute will display in the column cells.

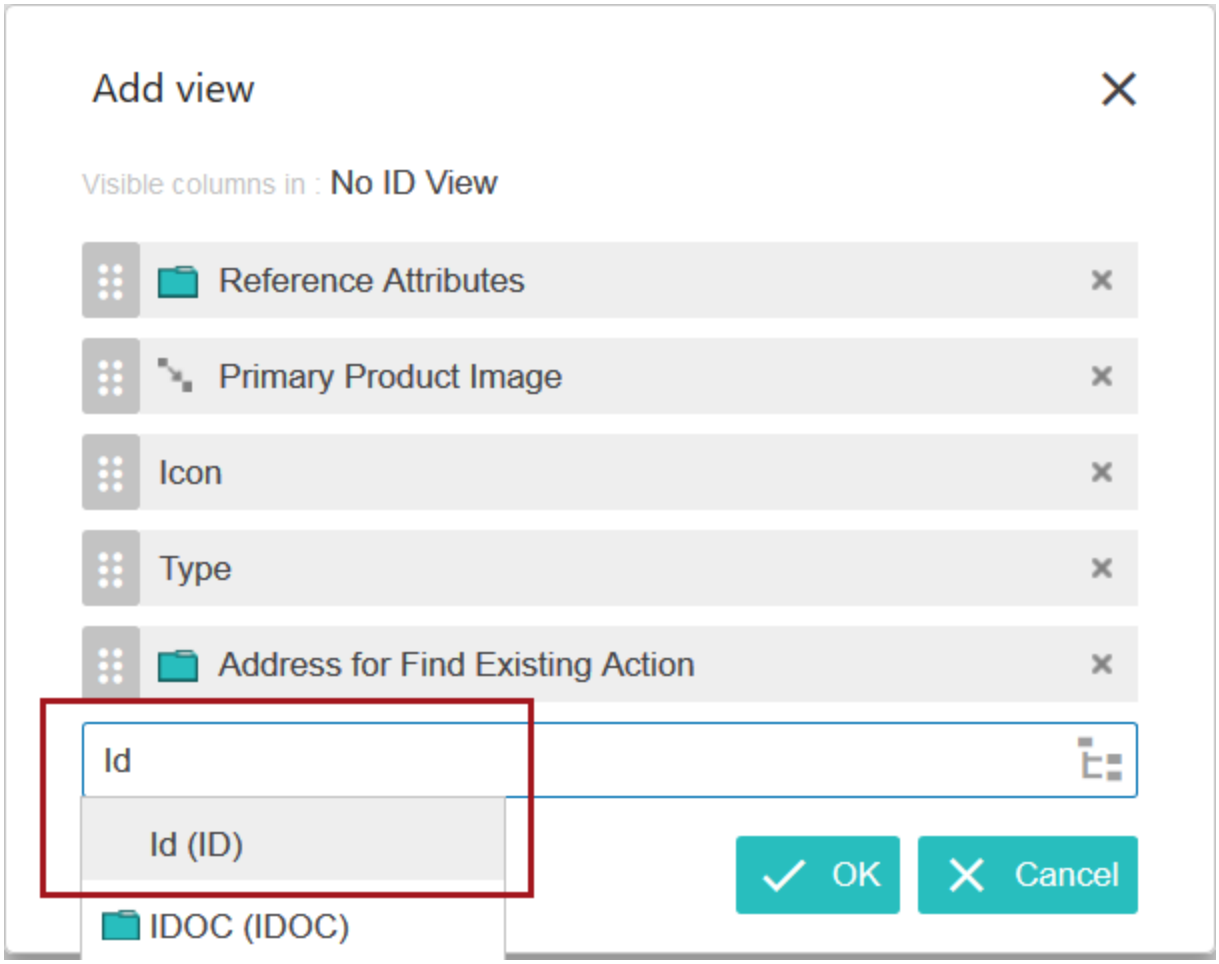
It should be noted that no node selection option is available for the 'Select Attribute' fields for the 'Reference Metadata' and 'Target Value' options. An attribute can only be selected using typeahead.

After adding columns, be sure to click **OK** for the changes to take effect.

Removing Attributes / Attribute Group Columns

Remove a column by clicking the '**x**' icon on the column. When the '**x**' icon is selected the column immediately disappears from the Edit View, however the changes will not take effect until the user clicks **OK**.

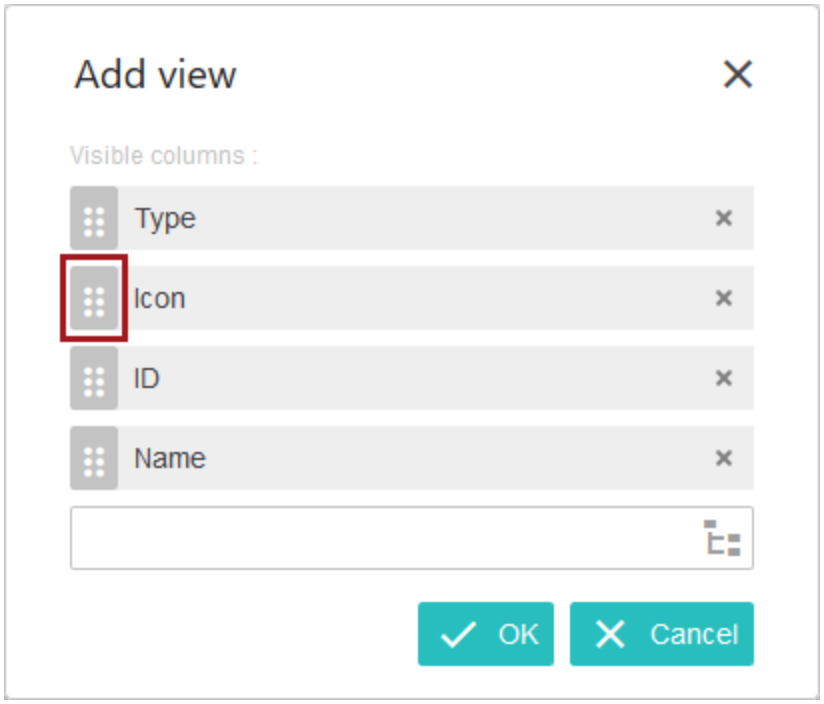
All columns can be removed using the Edit view in the Multi Edit Display Mode, including aspects like ID, Icon, Reference Type, and Type. It is important to note, however, that ID, Icon, Reference Type, and Type can only be added back in by using the typeahead feature in the 'Add view' dialog.



All columns can also be removed from the 'Add view' in the Multi Context screen, including ID and Name. As with the Multi Edit Display Mode, ID and Name can only be added back using the typeahead functionality accessible on either the 'Edit view' or 'Select Column' dialogs.

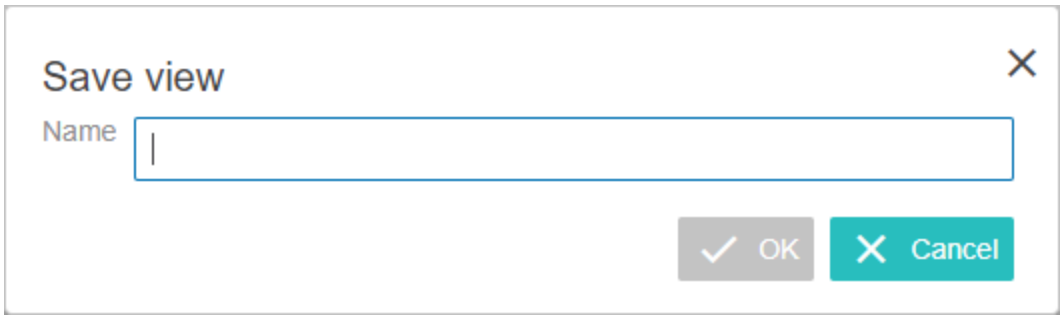
Editing Display Sequence

From the 'Add view' dialog, a user can change the sequence of visible columns by clicking and holding the dark gray drag handles to the left of each column name and dragging the column to its place in the desired order.

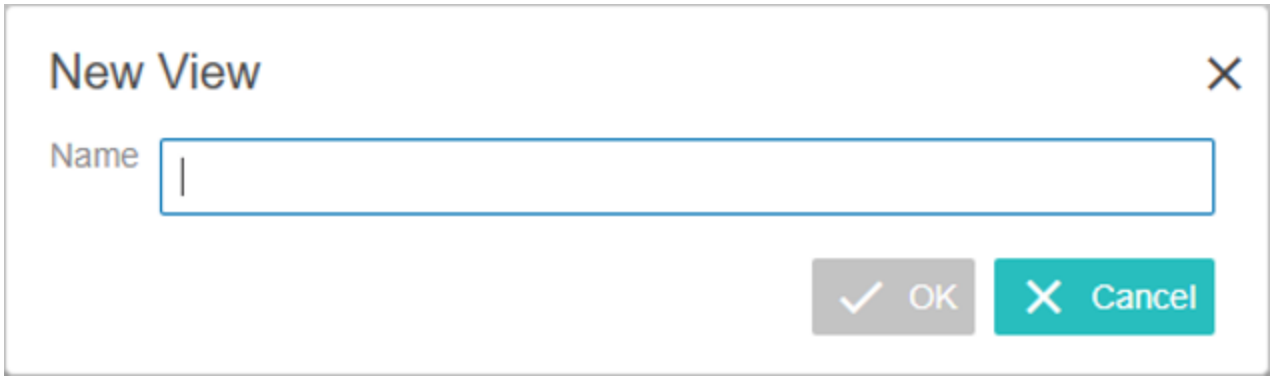


3. Once the newly created view has the necessary columns displayed as desired, click the **OK** button, and the 'Save view' (Node List) / 'New View' (Multi Context) dialog will display, prompting the user to enter the name of the new view.

   The 'Save view' window will display for Node Lists (Multi edit display mode).



   The 'New view' window will display for Multi Context screens.



4. Populate the new view **Name** and the 'OK' button will activate.

Note: The view name should clearly identify the view's intended use. The 'My views' list is *not* screen-specific; the same view names will appear across *all* Node Lists with the user configurable view parameter enabled. The same is true for Multi Context screens; the same view names appear across all Multi Context screens.

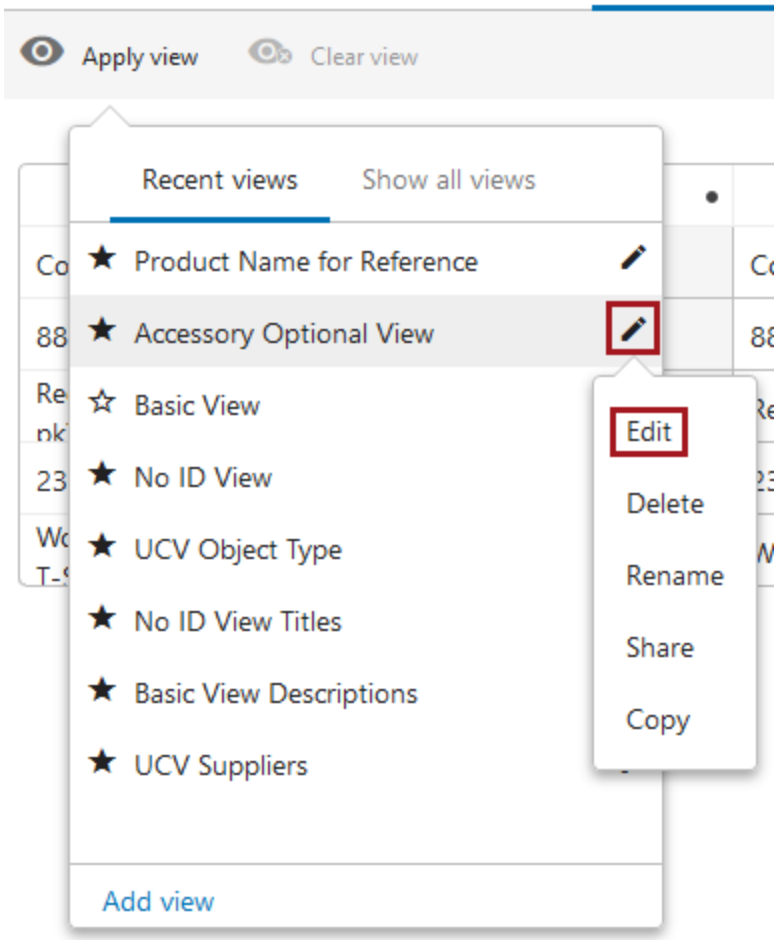
5. Click **OK** and the new view settings will be applied.

Editing an Existing View

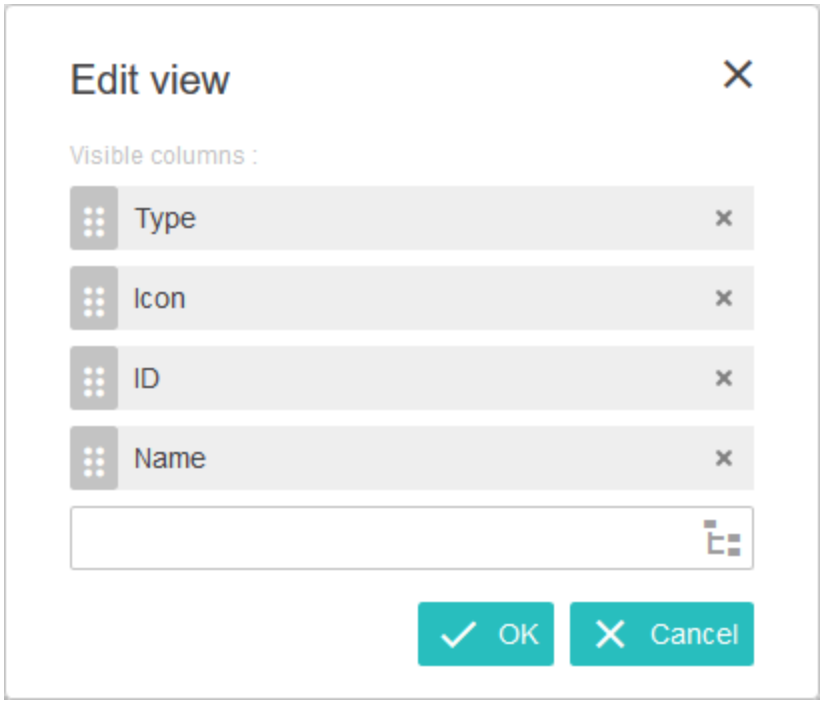
When a user edits an existing view, they can determine which attributes, references, and aspects display, as well as the order in which they display. A view can only be edited by the user who created it. Shared Views can be edited by copying shared views.

Steps to edit a view:

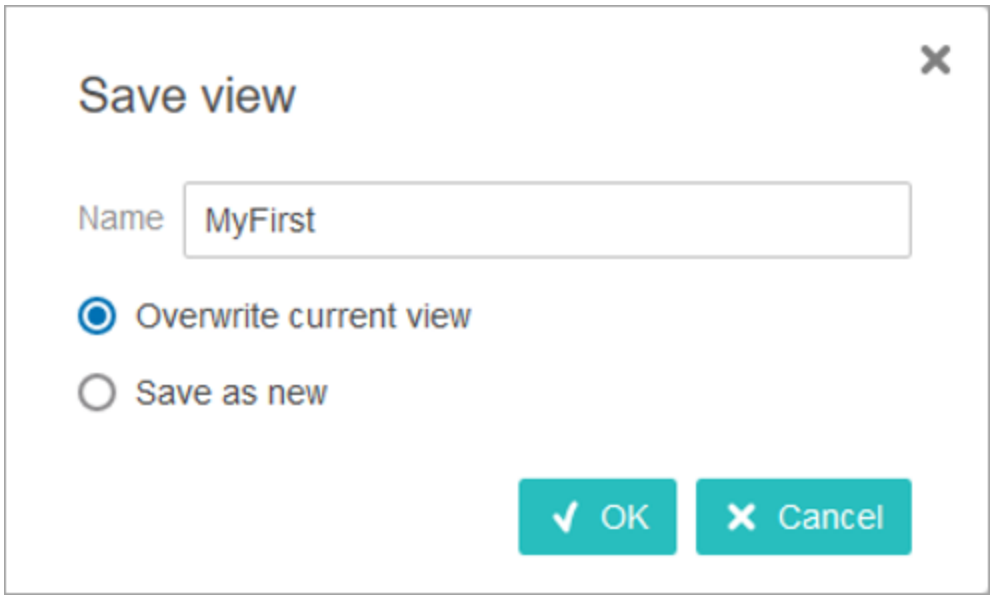
1. From the Apply view dialog, click the **edit icon** ( ) next to the title of the view to be edited, and the dialog will display a list of applicable options.



2. Click **Edit** and an 'Edit view' dialog will display with the visible columns per the selected view configuration.



3. Edit the view by adding and/or removing attributes, and/or editing the display sequence. Details on these are in the **Creating a new view** section above.
4. Click **Save** and the 'Save view' dialog will appear.
5. Edit the **Name**.
6. Select to either **Overwrite current view** or **Save as new**. Change the name, if applicable.



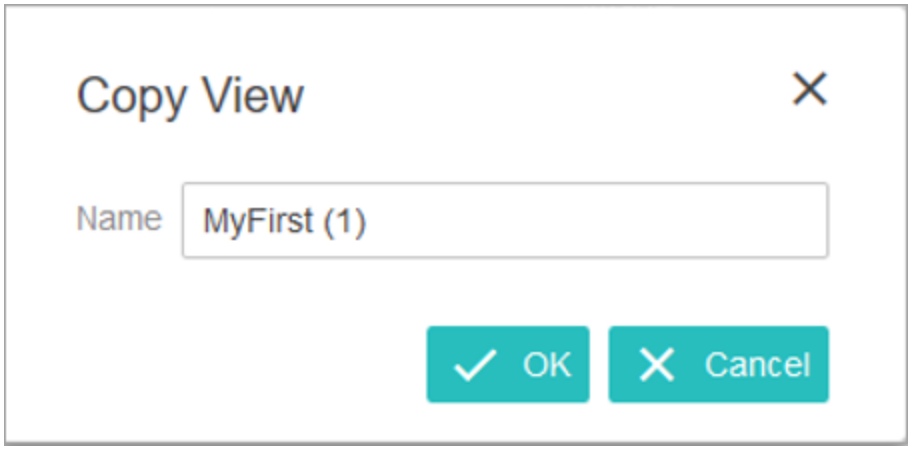
7. Click **OK**.

Copying a View

A user can copy any view. This is useful when an existing or shared view needs changes, because once the view is copied, the user can edit it.

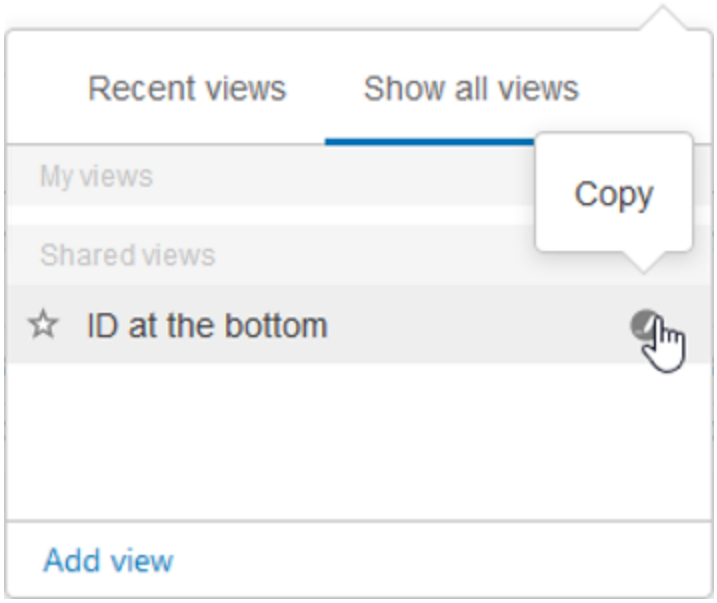
Steps to copy a view:

1. From the 'Apply view' dialog, click the **edit icon** ( ) next to the title of the view to be copied and the dialog will display a list of possible options.
2. Click **Copy** and a 'Copy View' dialog will appear.



3. Enter the desired **Name**.
4. Click **OK**.

These steps can also be used to copy shared views.

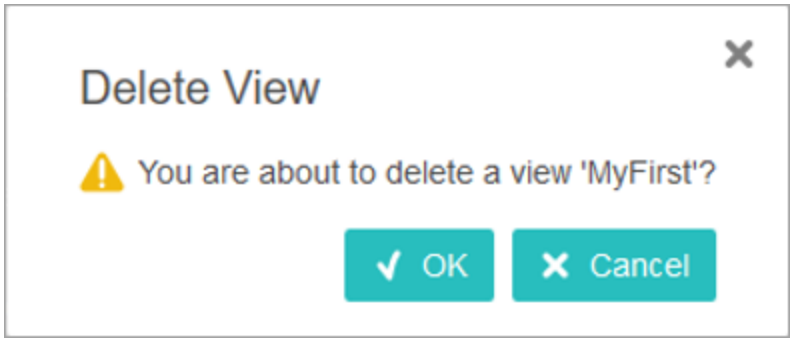


Deleting a View

A view can only be deleted by the user who created it.

Steps to delete a view:

1. From the 'Apply view' dialog, click the **edit icon** ( ) next to the title of the view to be deleted and the dialog will display a list of possible options.
2. Click **Delete**, and the 'Delete View' warning dialog will display.



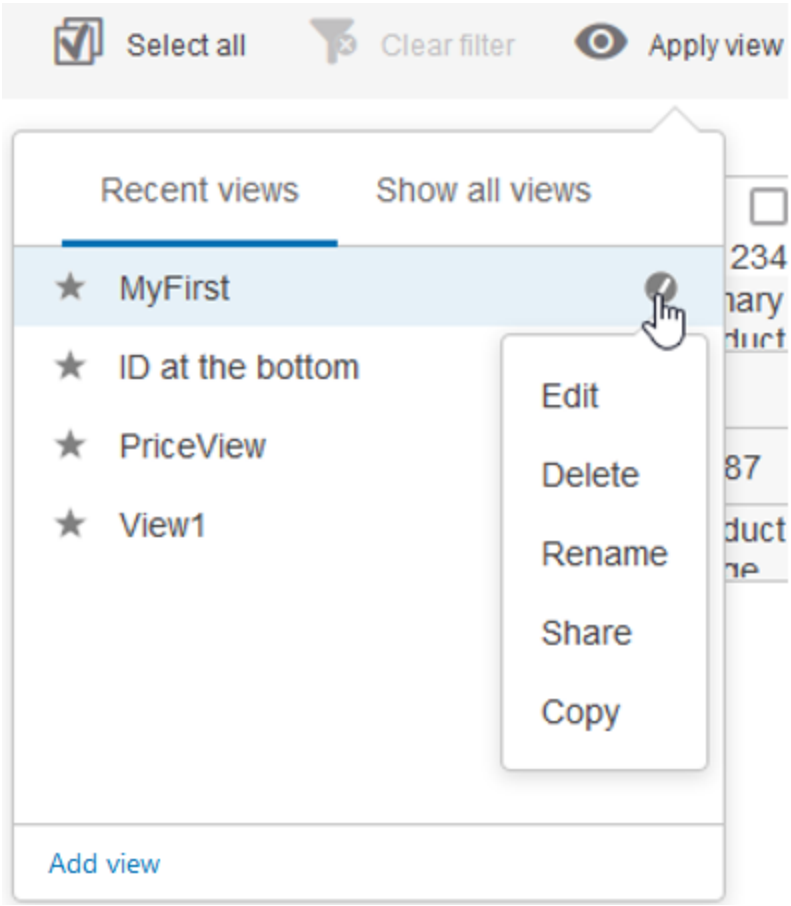
3. Click **OK**.

Renaming a View

A view can only be renamed by the user who created it.

Steps to rename a view:

1. From the 'Apply view' dialog, click the **edit icon** ( ) next to the view to be renamed and the dialog will display a list of possible options.

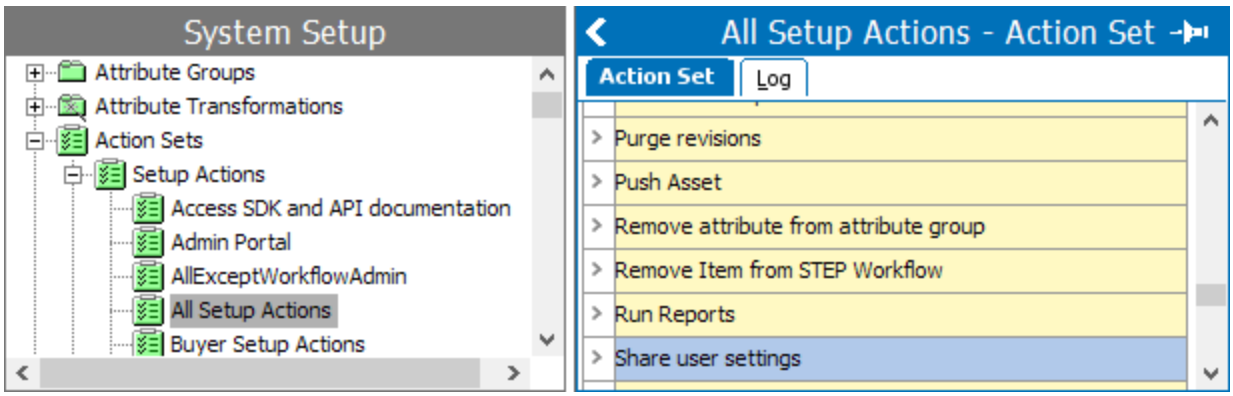


2. Click **Rename** and a 'Rename View' dialog will appear.
3. Enter the desired **Name**.
4. Click **OK**.

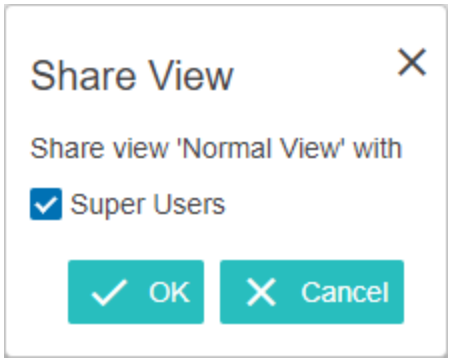
Sharing a View

Users with a Share User Settings privilege (set in the Workbench) can share views to the groups that the user is a member of. Shared views cannot be edited or shared by others users. Only the user who created the shared view can edit / share. Once a user has access to a shared view, they can copy and then edit their copy of the view.

Steps to share a view:

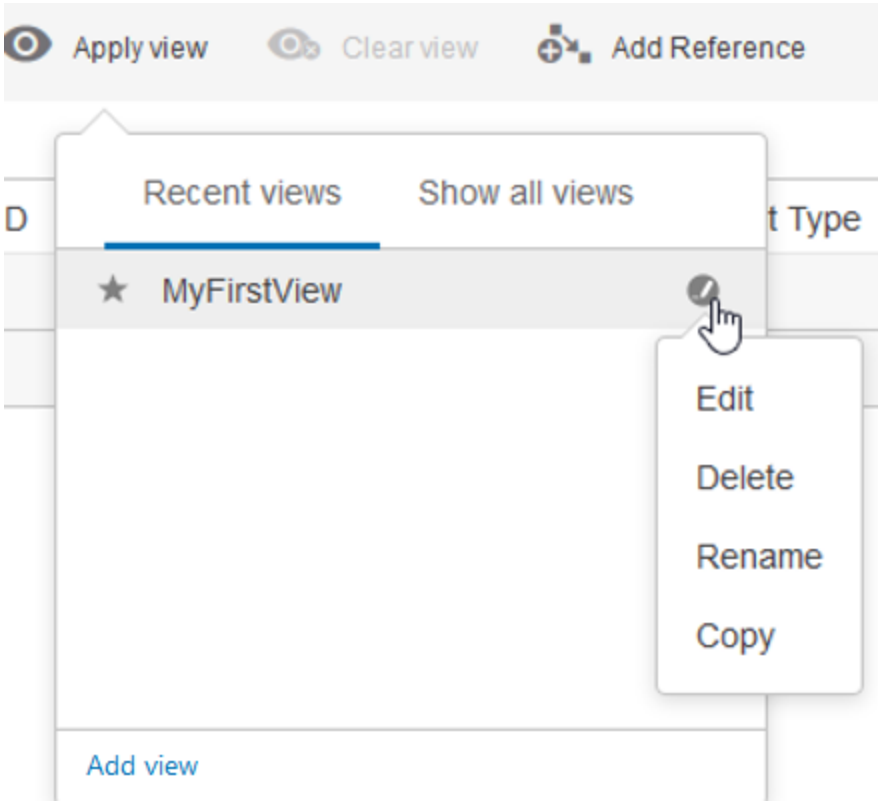


1. From the 'Apply view' dialog, click the **edit icon** ( ) next to the view to be shared, and the dialog will display a list of possible options.
2. Click **Share**, and the 'Share view' dialog will display.



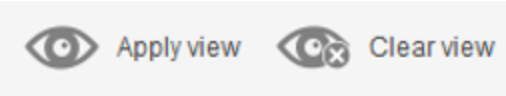
3. Select the appropriate user group(s).
4. Click **OK**.

Users with no ‘Share user settings’ privilege will not have the 'Share' option, as illustrated in the image below:



Clear View

User can clear the applied views by using the option 'Clear View.' Clicking this will clear the applied view and revert to display of the headers as configured for the screen in the designer. 'Clear view' does not delete a view.



Information regarding enabling a user configurable view can be found in the **Enabling User Configurable View** topic.

Enabling User Configurable Views

For a user to be able to access user configurable views, an admin user will need to have enabled the applicable parameter within Multi Edit Display Mode Properties (on a Node List) and/or the Multi Context Screen Properties.

This section addresses:

- Prerequisites
- Steps to Enable a User Configurable View

Prerequisites

It is expected that anyone enabling a user configurable view is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

It may also be helpful to understand the Node List component and where it can be added. Refer to the **Node List Component** topic within the **Using a Web UI** documentation,and the **Multi Context Screen** topic.

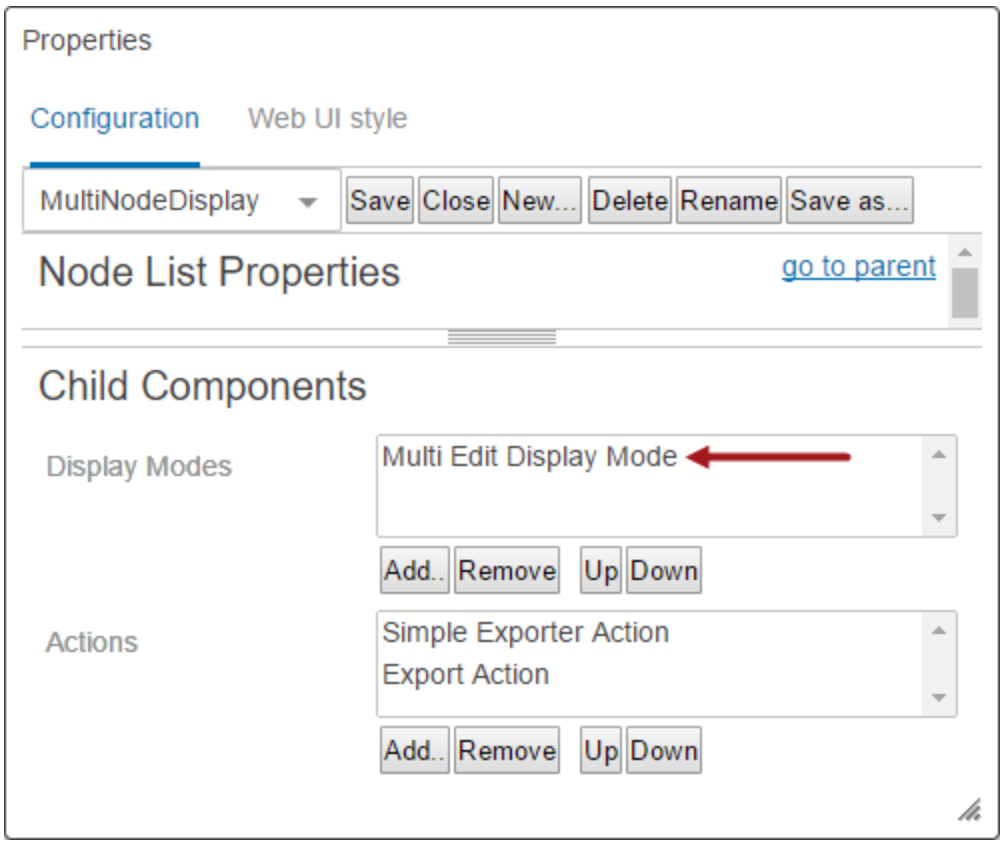
Steps to Enable a User Configurable View

Below are steps to enable a user configurable view on a Multi Edit Display Mode Properties (on a Node List) and a Multi Context Screen.

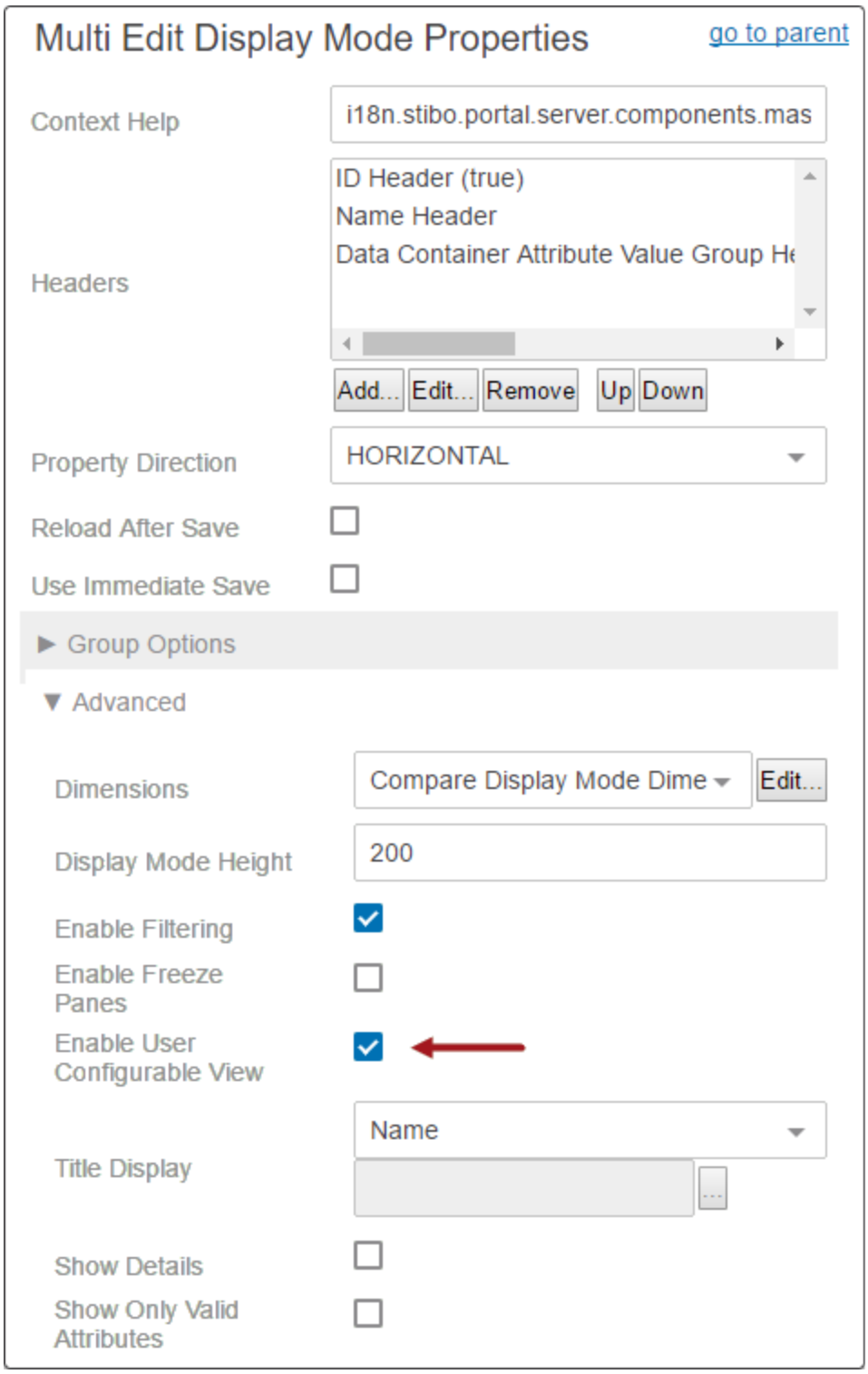
Multi Edit Display Mode

Once a Node List is configured to use Multi Edit Display Mode, an admin can easily add the user configurable view action / icon to the screen.

1. Navigate to the Node List Properties > Child Components > Display Modes parameter

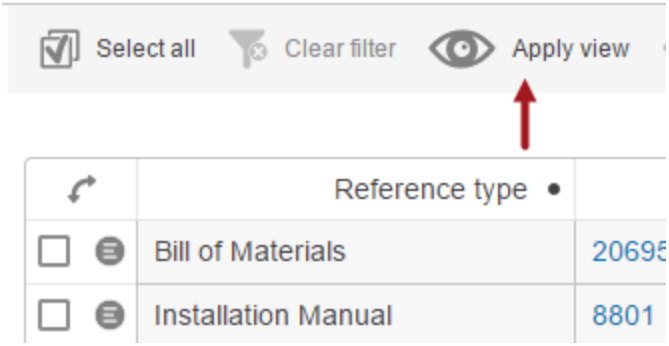


2. Double click the **Multi Edit Display Mode** and the Multi Edit Display Mode Properties will display.



3. Expand the **Advanced** parameters.
4. Enable the **Enable User Configurable View** parameter by clicking the checkbox.
5. Click **Save** and **Close**.

When a user navigates to the Node List and uses Multi Edit display mode, the Apply view icon will now be visible.



Multi Context Screen

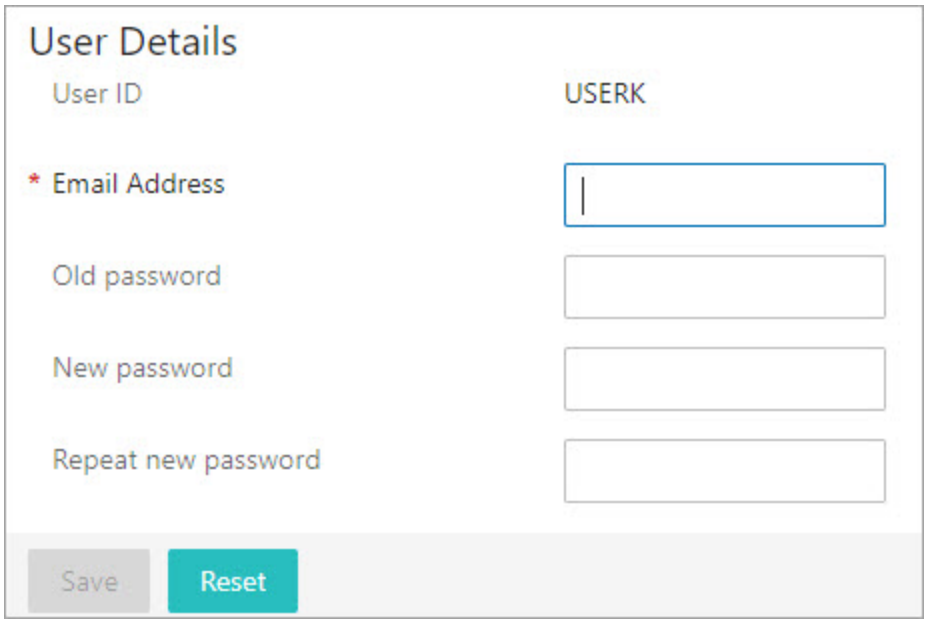
Once a Multi Context screen is configured, an admin can easily enable the Enable User Configurable Views parameter for the screen, so that the Apply view icon displays.

For more information, refer to the Configuring a Multi Context Screen section within the Multi Context Screen documentation.

For information regarding how to use and work with user configurable views, refer to the **User Configurable Views** topic.

User Details Screen

The User Details screen provides access to information specific to the logged-in user. A User Details screen can display the logged-in user's User ID, email address, username, and password. Depending on a user's privileges, these fields can be configured according to individual needs.



Prerequisites

Because basic concepts for working with the Web UI designer are not covered in this section, it is expected that anyone configuring the User Details screen is familiar with the Web UI designer. In addition, the user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** topic in the **Web User Interfaces** documentation.

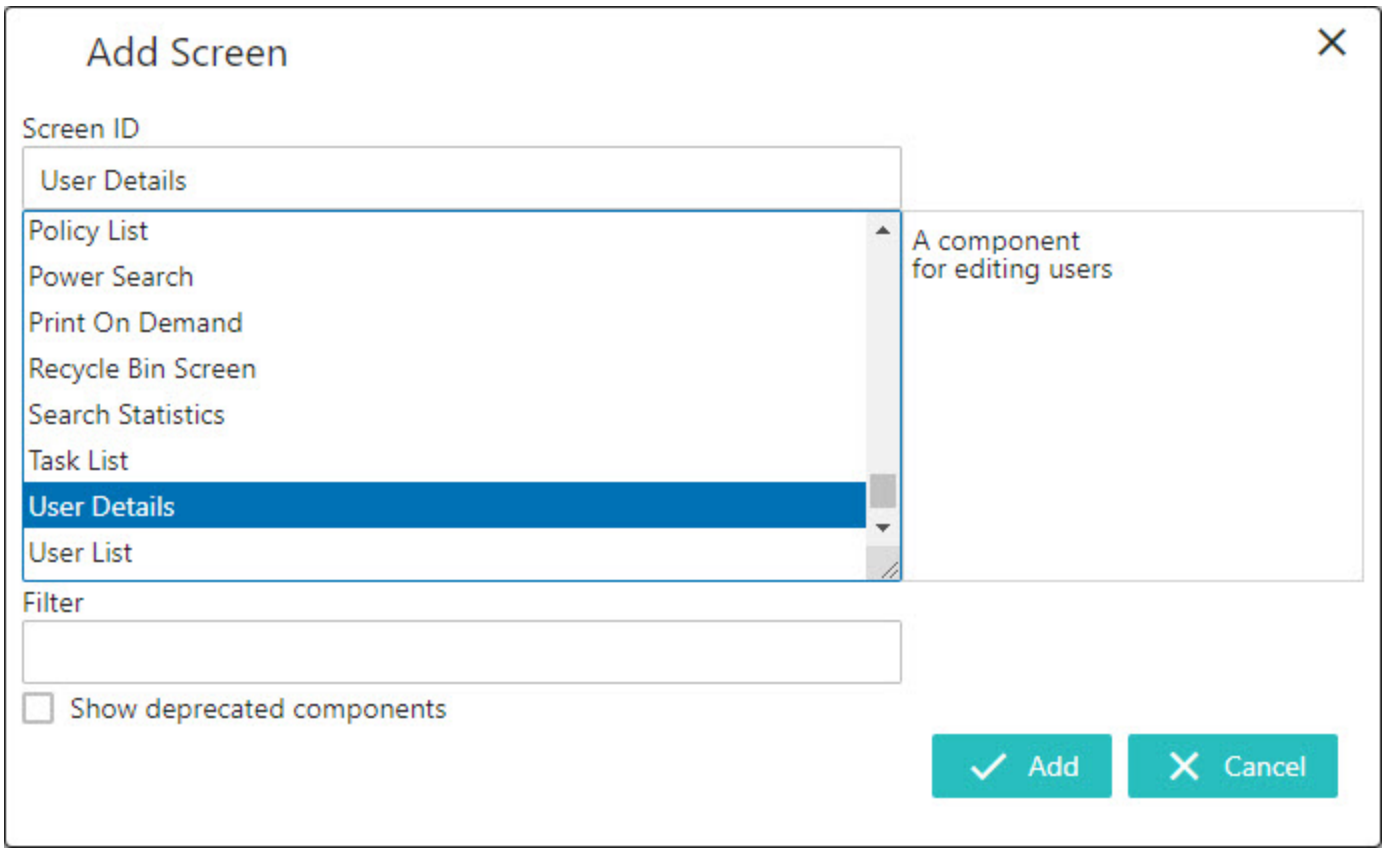
Pre-Configured User Details Screen

When creating a brand new Web UI, a User Details screen named 'userdetails' comes pre-configured. This default screen can be used, or a new one can be created (as described below).

Adding a New User Details Screen

To add a User Details screen to a Web UI, follow the steps described below.

For full details on how to create and add a new screen to a Web UI, refer to the **Design Mode Basics** topic in the **Web User Interfaces** documentation. Users should be familiar with the process of creating new screens before attempting the steps listed below.



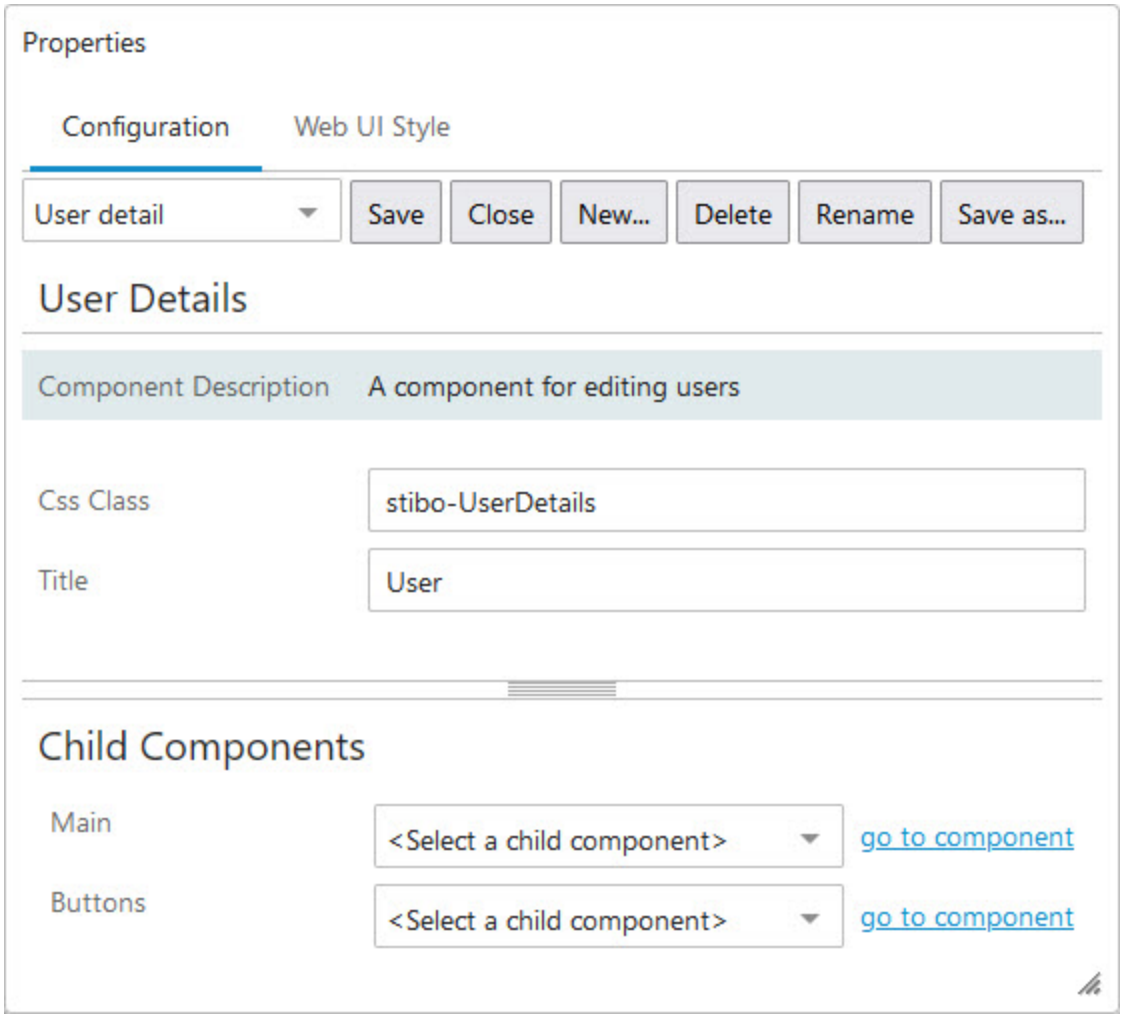
1. In the 'Add Screen' window, select 'User Details' as the screen type, as shown in the screenshot above.
2. In the 'Screen ID' text field, create a name for the User Details screen. In this example, the Screen ID is 'User Details.'
3. Click 'Add.'

The User Details screen is now ready to be configured.

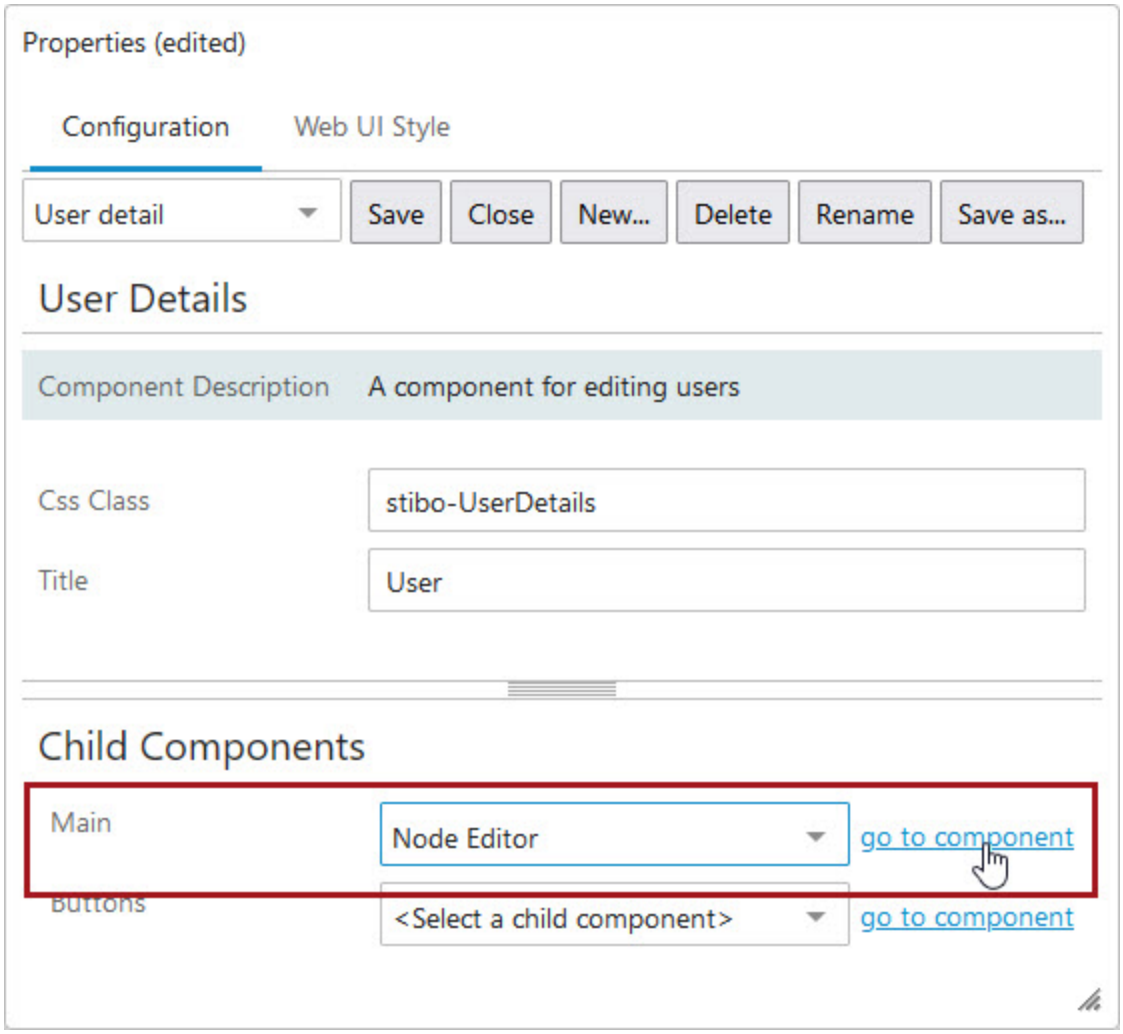
Configuring a User Details Screen

Steps for configuring the User Details Screen Properties are below.

1. To access the User Details screen, open the designer and select 'User Details' from the screen dropdown. This will open the User Details Properties in the design mode.

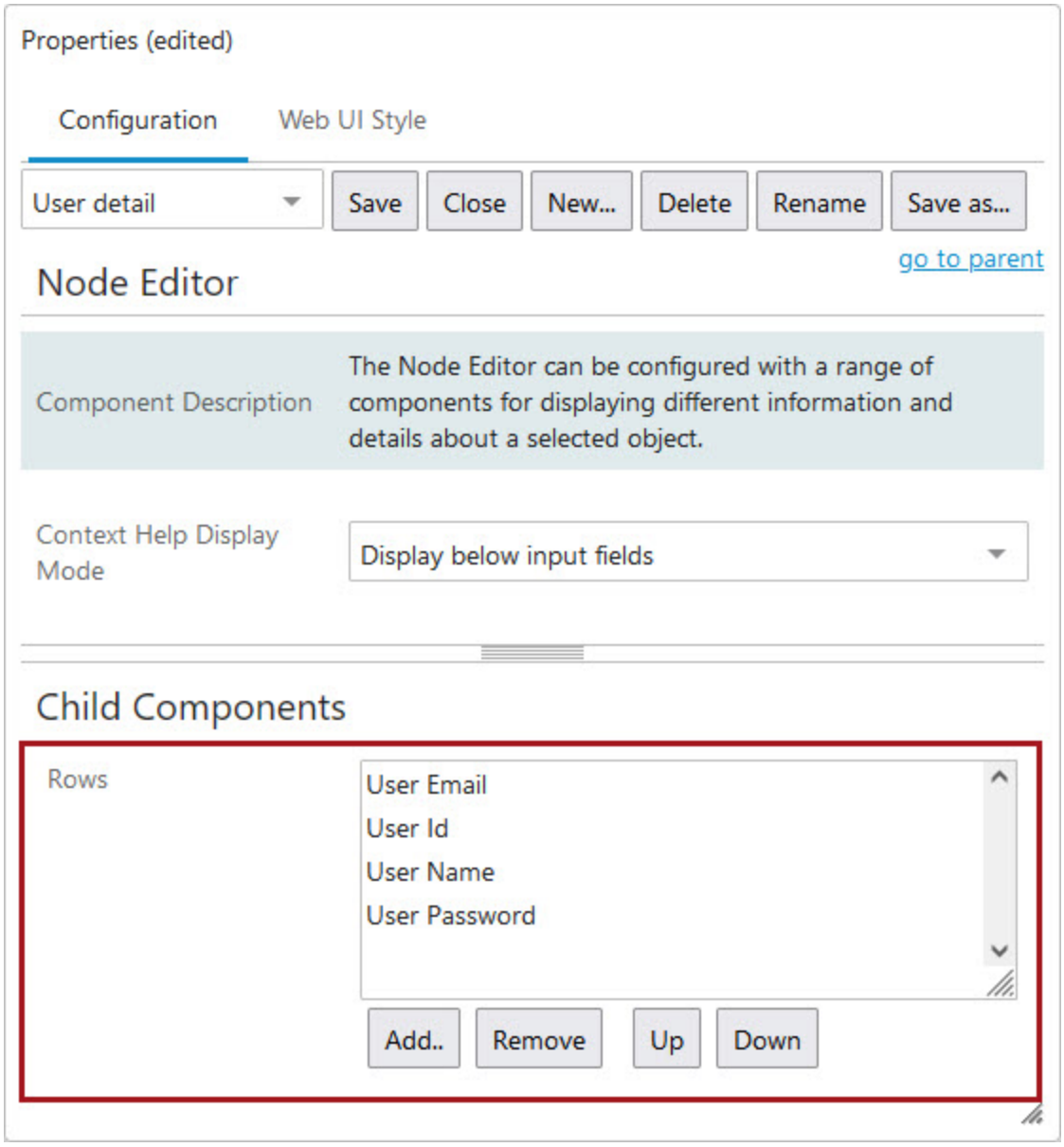


2. On the 'Main' parameter in the Child Components section, select 'Node Editor' from the dropdown menu and then click 'go to component'.'



3. Click the 'Add..' button and select the desired components. In the example below User Email, User Id, User Name, and User Password components have been added. Once you have selected a component click 'Add..' and repeat the process until all desired components are added.

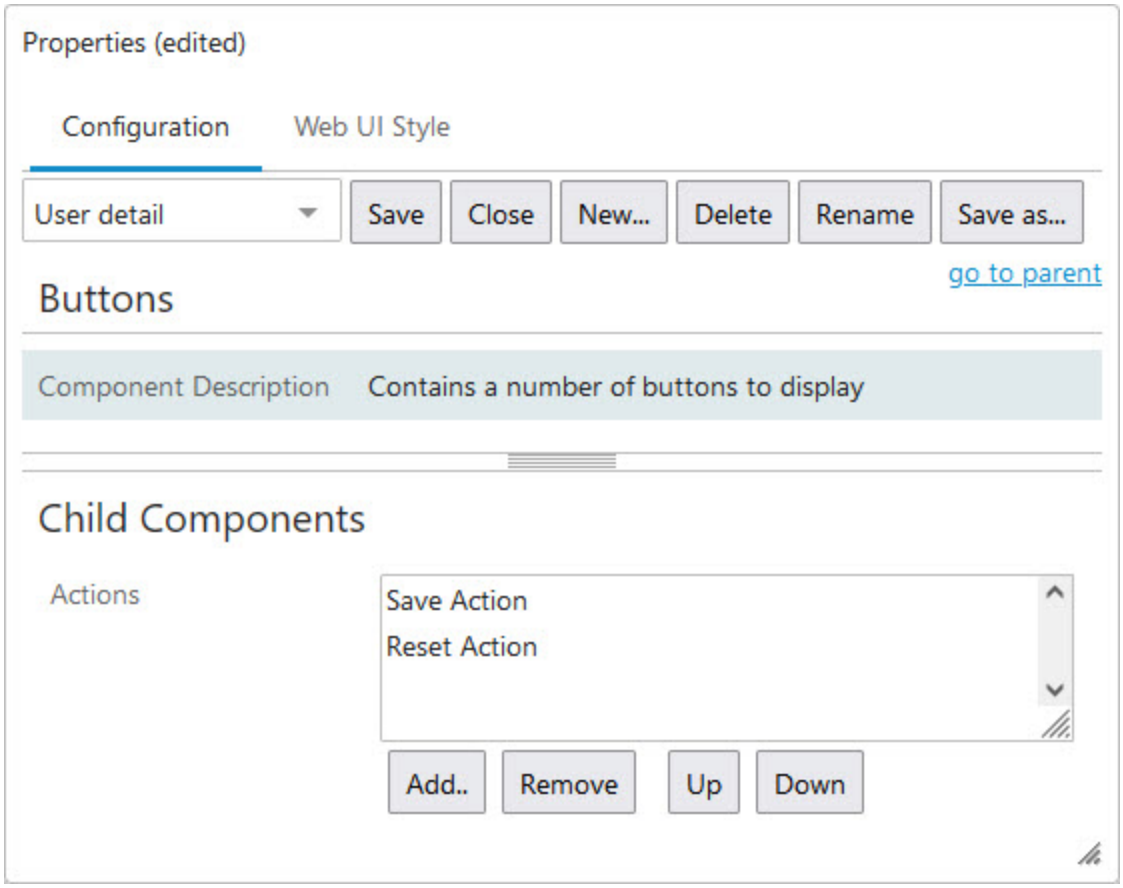
Note: Multiple components cannot be selected and added at one time. Rather, each component must be added individually.



4. To configure the Child Components, double-click on the component and make any desired changes.
5. Click 'Save'.

Adding the 'Save' and 'Reset' Buttons

1. Click 'go to parent' to return to the User Details properties.
2. On the 'Buttons' parameter in the Child Components section, select 'Buttons' from the dropdown menu, and then click 'go to component'.
3. Click the 'Add..' button, and using the same process as adding the components above, select the desired components. In this example, the Save Action and Reset Action are added.



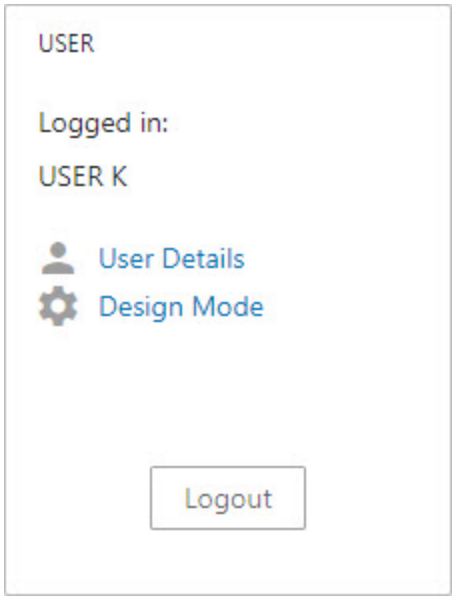
4. Once the desired components are added, click 'Save,' and then 'Close' to exit design mode.

The User Details screen is now configured and will display as shown at the beginning of this section.

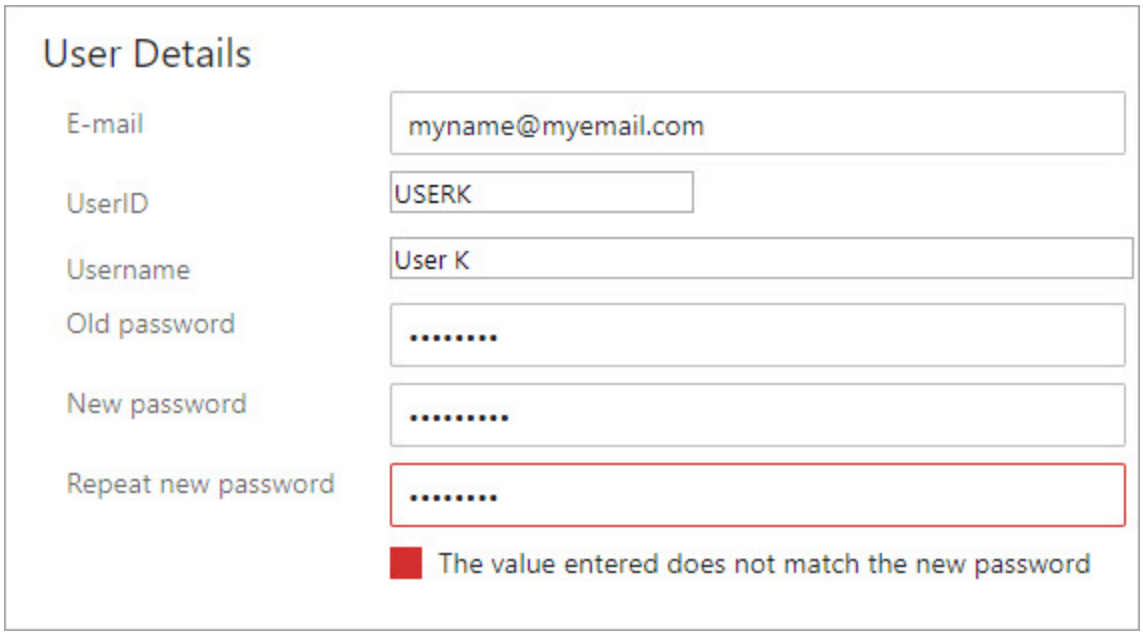
For this screen to appear on the homepage, it will need to be configured as the User Details screen within the User Widget properties, or it can be added to a Links Widget for easy homepage access. For more information about widgets, refer to the **Homepage Widgets** topic in the **Homepage Widgets** documentation.

Using a User Details Screen

In this example, if the screen is configured as described above and accessed via a User Widget, users can add / change their email, username, and password.

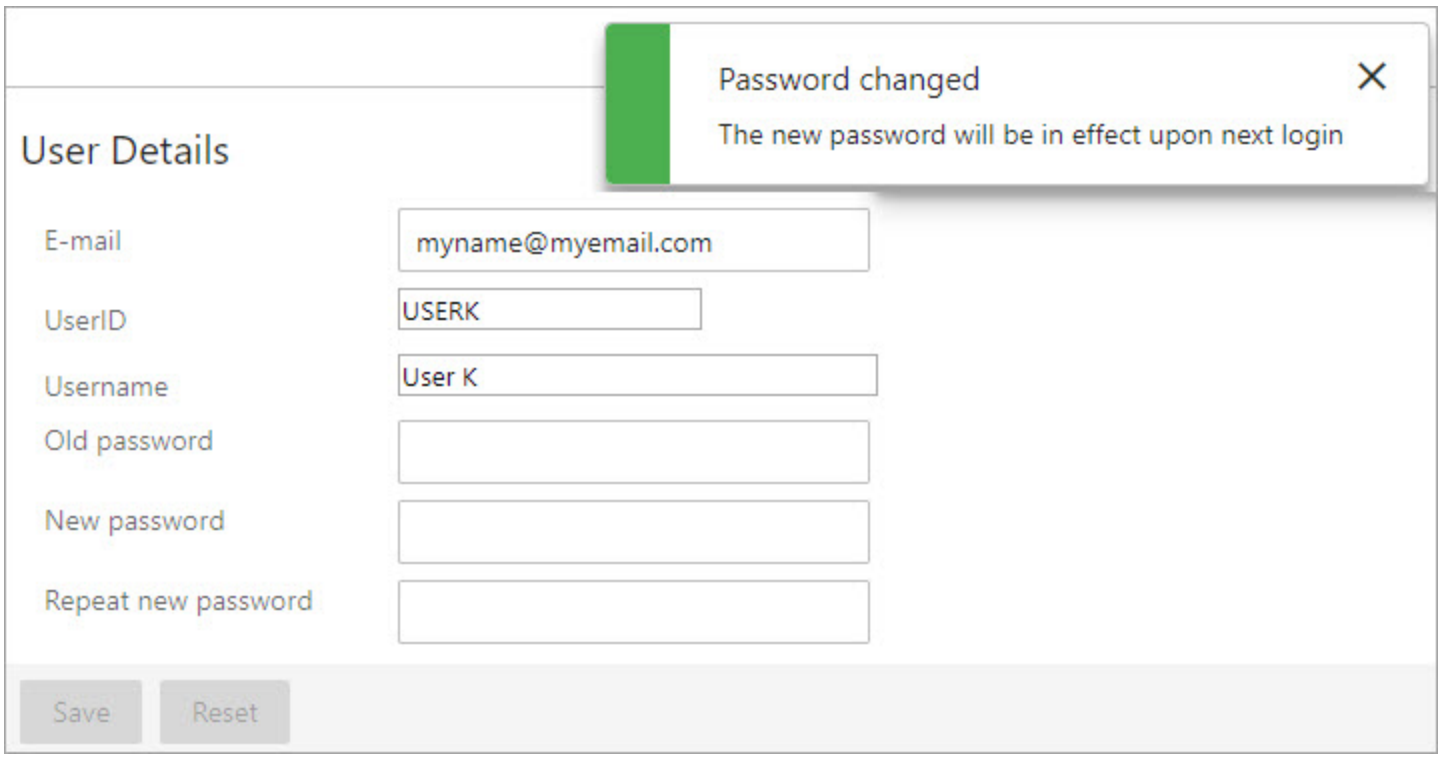


In the example below, the user has received an error message due to an incorrect password entry.



To successfully save a fully updated User Detail screen and avoid an error message, the current password must be correctly entered into the 'Old password' text field and information entered into the 'New password' and 'Repeat new password' text fields must match each other.

The example below shows a correctly filled out and saved User Details screen. The user has entered the correct current password(also known as the old password), both the new password and the repeated password match, the 'Save' button has been enabled, and the 'Saved' message is displayed, telling the user the new password will be in effect upon next login.



For more information on how to change your password in workbench, refer to the **Changing a User Password** topic in the **System Setup** documentation.

User Impersonation

In support and other situations, it is often relevant to be able to observe exactly what another user accesses, including error messages. Impersonation allows a privileged user (impersonator) to log in with their own authentication credentials and impersonate another user (target) to view these issues.

To set up the privileges for impersonation and learn about how impersonation changes and actions are recorded, refer to the **Web UI User Impersonation Setup and Reporting** topic in the **System Setup** documentation.

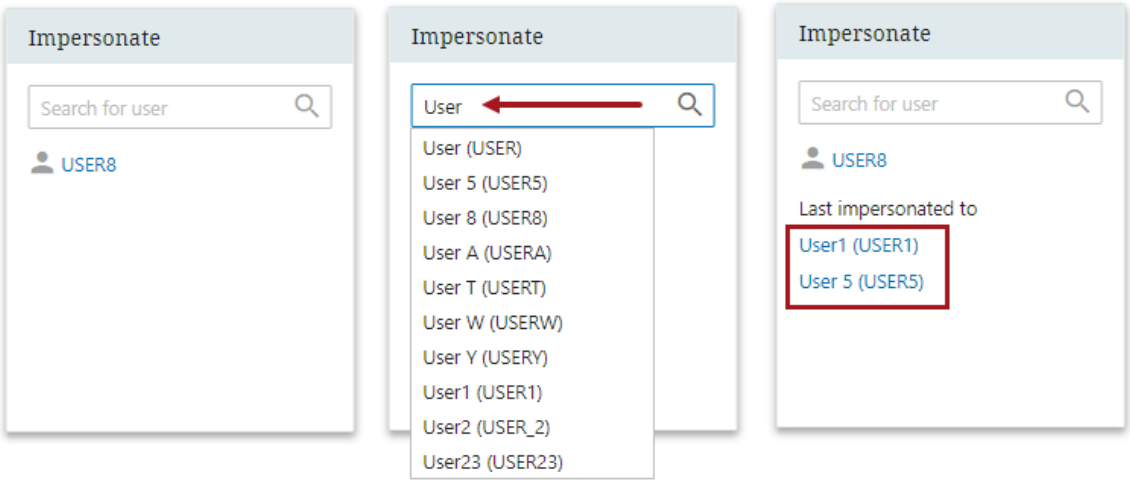
The impersonator impersonates another user by selecting the user in one of the user impersonation components (shown below). Upon login to the Web UI, the impersonator will be taken to the homepage and can begin acting as the impersonated. The impersonator can continue switching between impersonated users and return to act as the impersonator user as needed.

Impersonating via the Impersonate User Widget

Information regarding how to add widgets to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Homepage Widgets** topic.

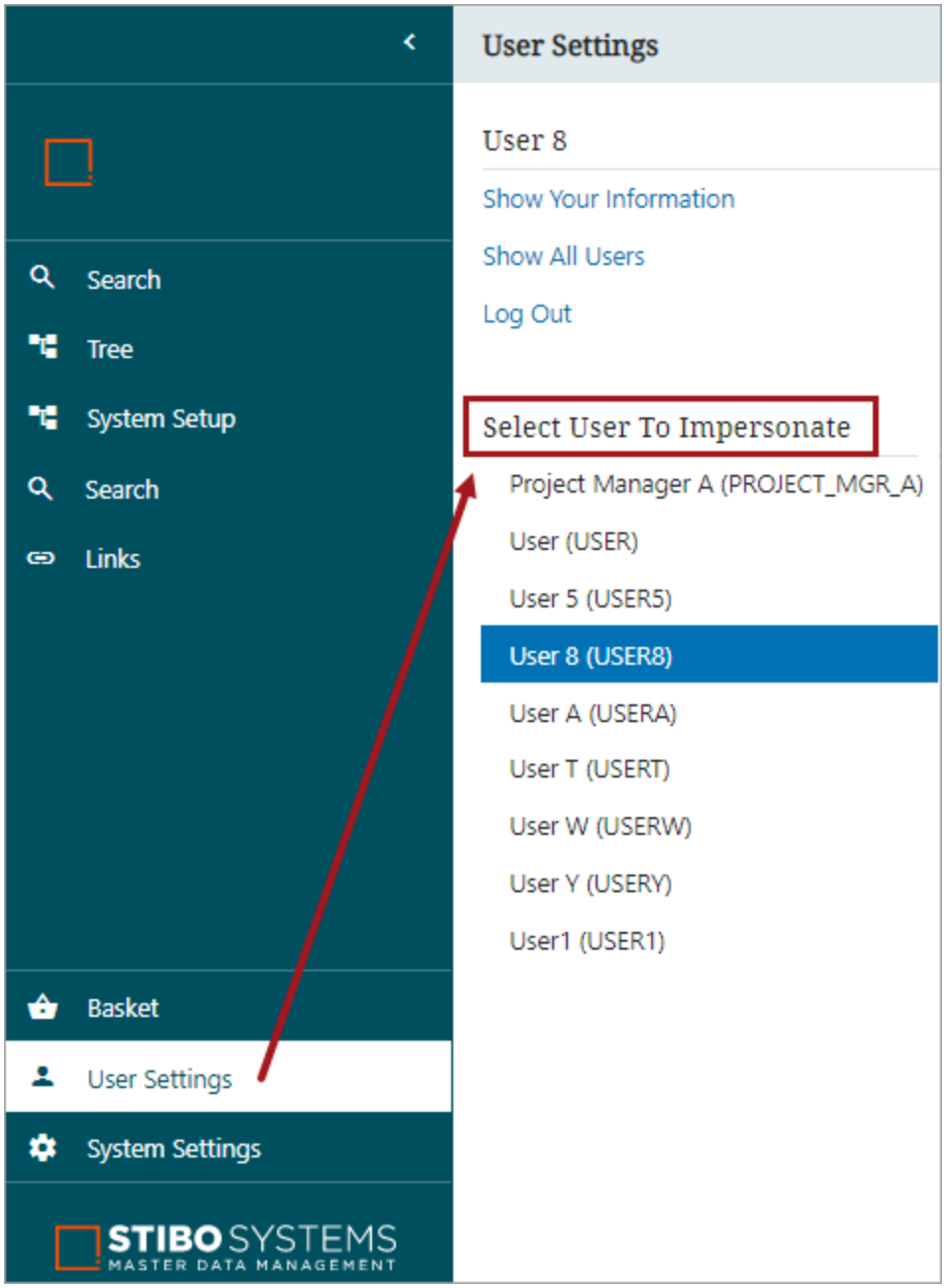
If an Impersonate User Widget is configured to display on a Web UI homepage, then you will type the user name into the typeahead 'Search for user' field. Selecting a user and then clicking the search icon ( ) will start the impersonation. If you want to impersonate a user you have previously impersonated, then click a user under 'Last impersonated to' in the widget.

Below is the same widget shown three times in the order described above.

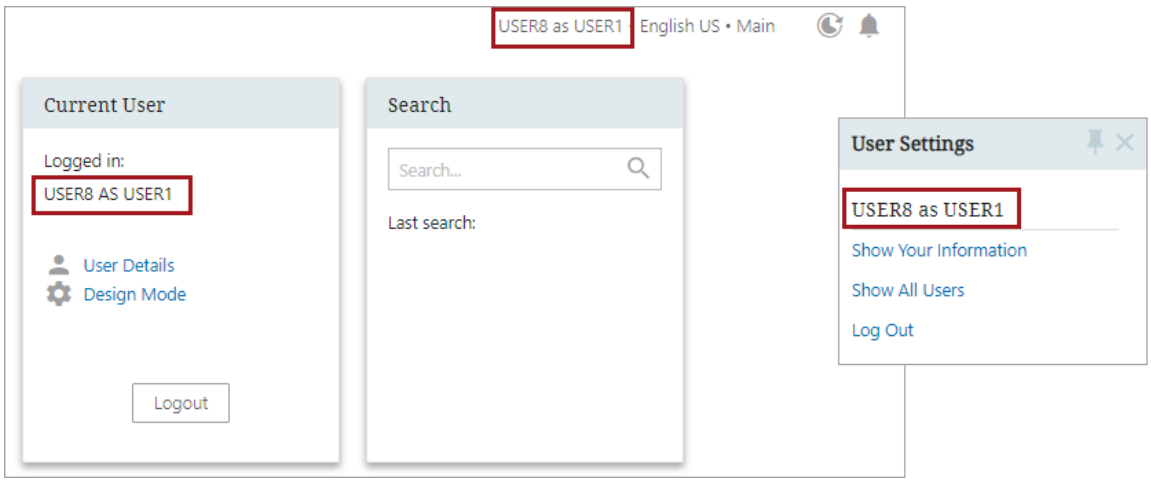


Impersonating via the Global Navigation Panel

If using the Global Navigation Panel, click on User Settings to access the 'Select User to Impersonate' section. Click on the user you wish to impersonate.

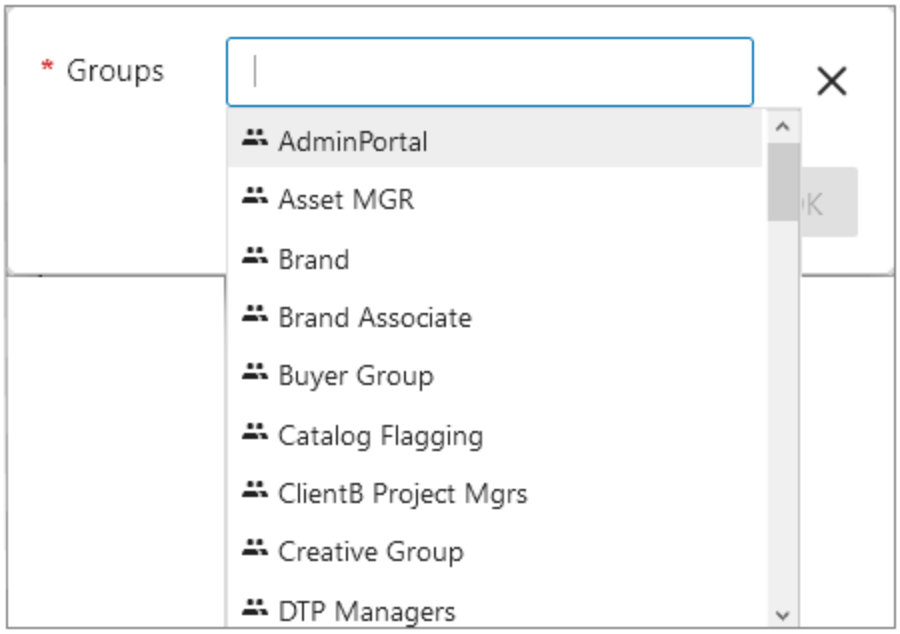


Regardless of the method you use, you will know when impersonation begins by confirming the new system user name in the top right of the screen or, if using, within the User Widget. If using the Global Navigation Panel, the user names displays under User Settings.


USER8 as USER1
English US • Main
Current User
Logged in:
USER8 AS USER1
User Details
Design Mode
Logout
Search
Search...
Last search:
User Settings
USER8 as USER1
Show Your Information
Show All Users
Log Out

User List Screen

The User List screen enables administrative users with the relevant privileges to view all users configured on a given system, as well as related metadata about those users based on how the screen is configured.



Prerequisites

It is expected that anyone configuring the User List screen component is familiar with the Web UI designer as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer. Additional information regarding these privileges can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Adding a User List screen

There are a number of ways to enable access to the User List screen, depending on the level of configuration your requirements demand.

If no steps are taken, a default User List screen will be available using the standard method, via the 'Show All Users' button under 'User Settings.'

Important: The default User List screen does not allow for management of metadata attributes or toolbar actions.

If users require that a User List screen be accessible on the Web UI homepage via a 'Links' widget, or via a 'Links' component on the Global Navigation Panel, then a 'User List Link' component can be used. Available in both the 'Links' widget and the 'Links' component in the Global Navigation Panel, the 'User List Link' provides quick access to a default User List screen, or a User List screen configured via the 'User List Global Representation' component.

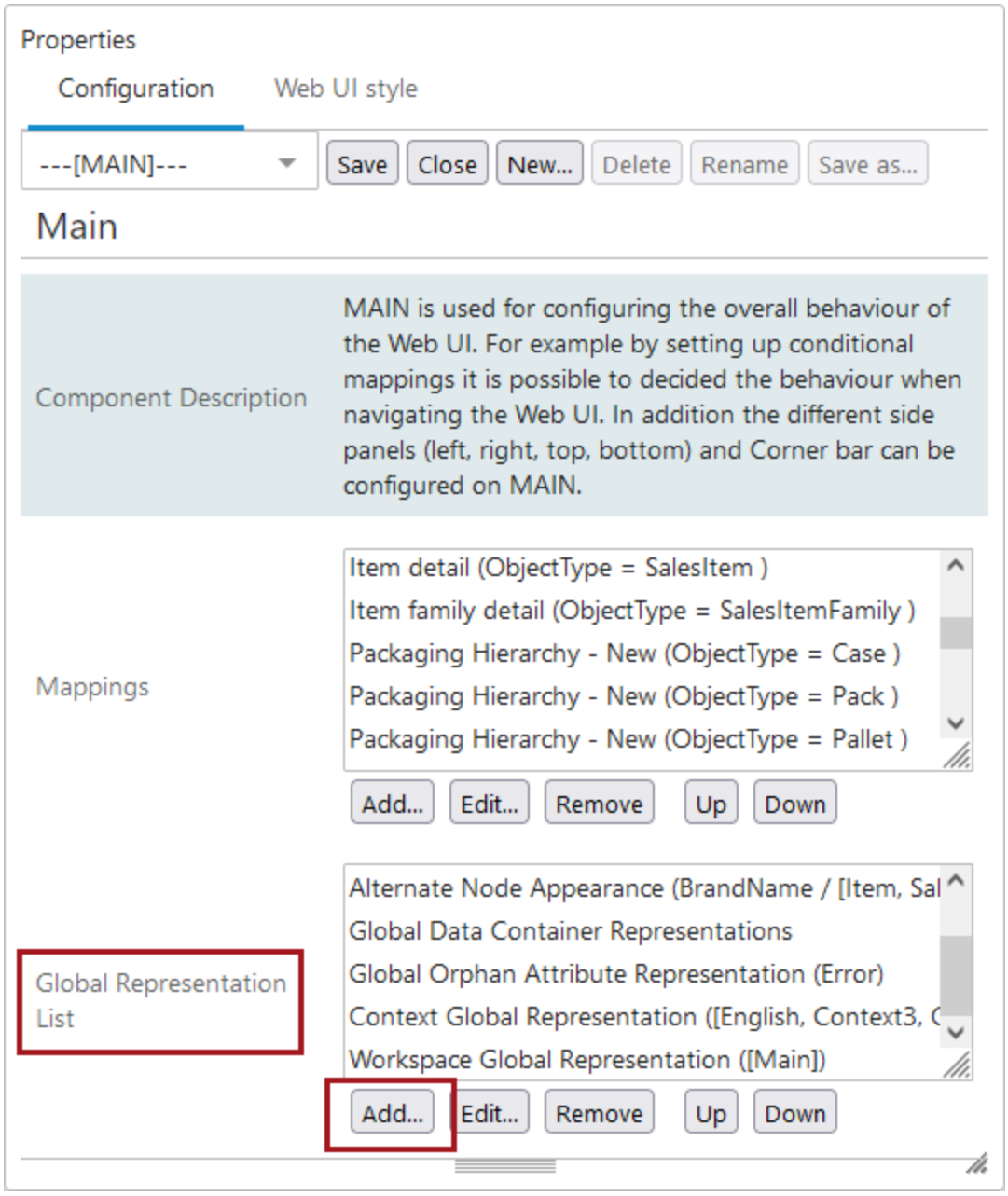
Note: The User List screen available when creating a new screen does not allow for configuration beyond the defaults (described below) aside from naming the screen.

For more information on creating screens, refer to the **Designer Configuration Tab** topic in the **Web User Interfaces** documentation.

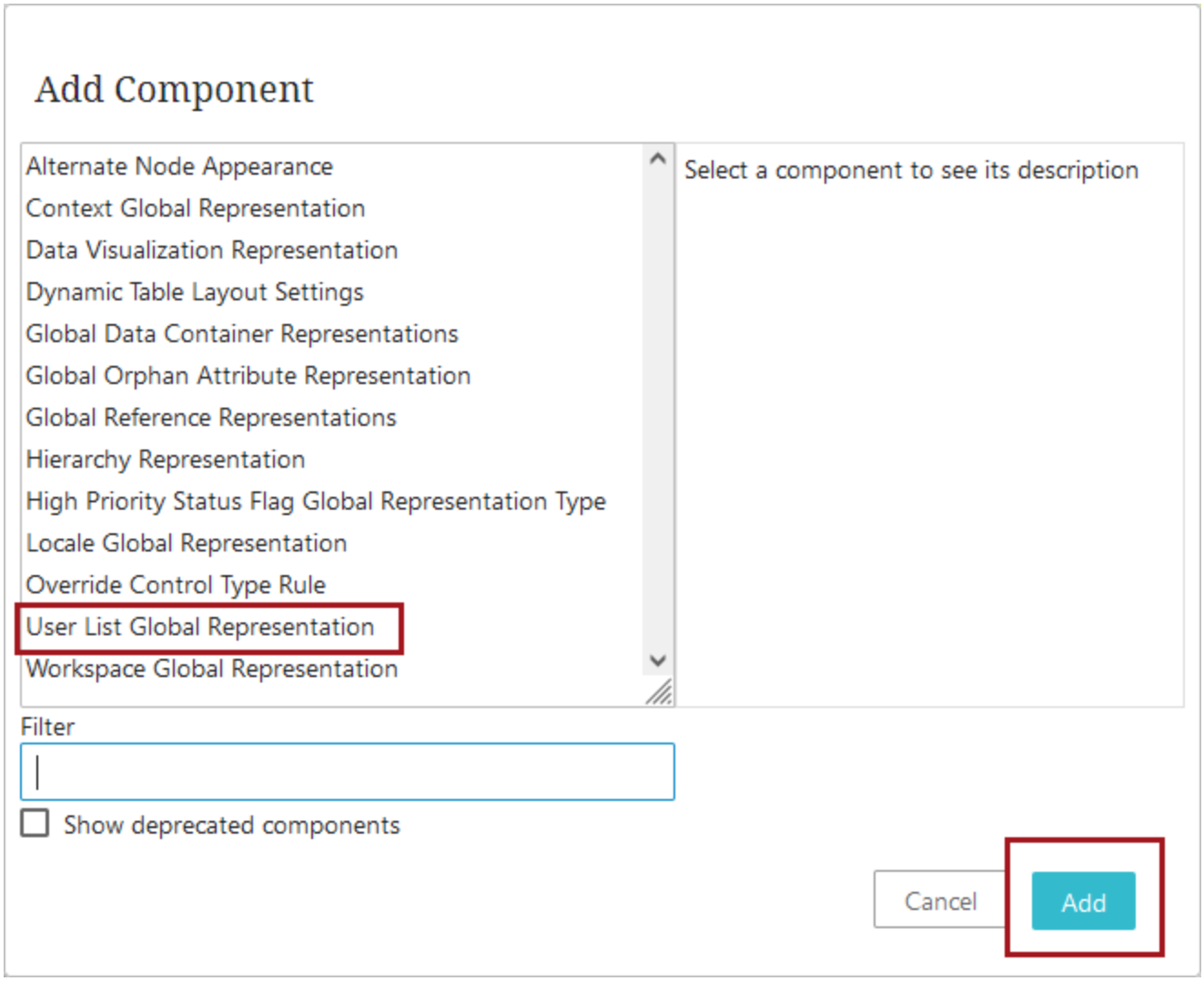
For more information on configuring a Links widget, refer to the **Links Widget** topic in the **Web User Interfaces** documentation.

If users require a configured User List screen with additional toolbar action buttons and attribute columns beyond what is provided by default, then a third method must be used. The steps for this method are described below:

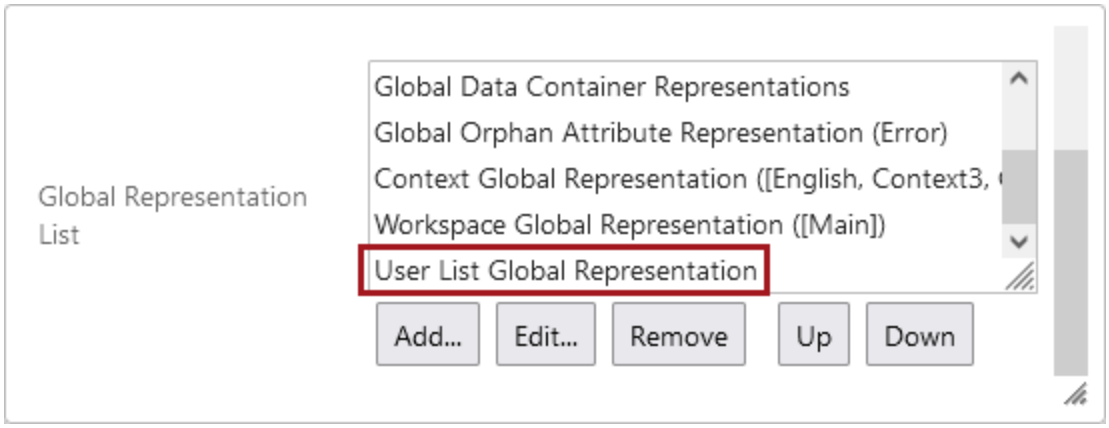
1. In the designer, on --[MAIN]--, scroll down to the 'Global Representation List' parameter. Click the 'Add...' button.



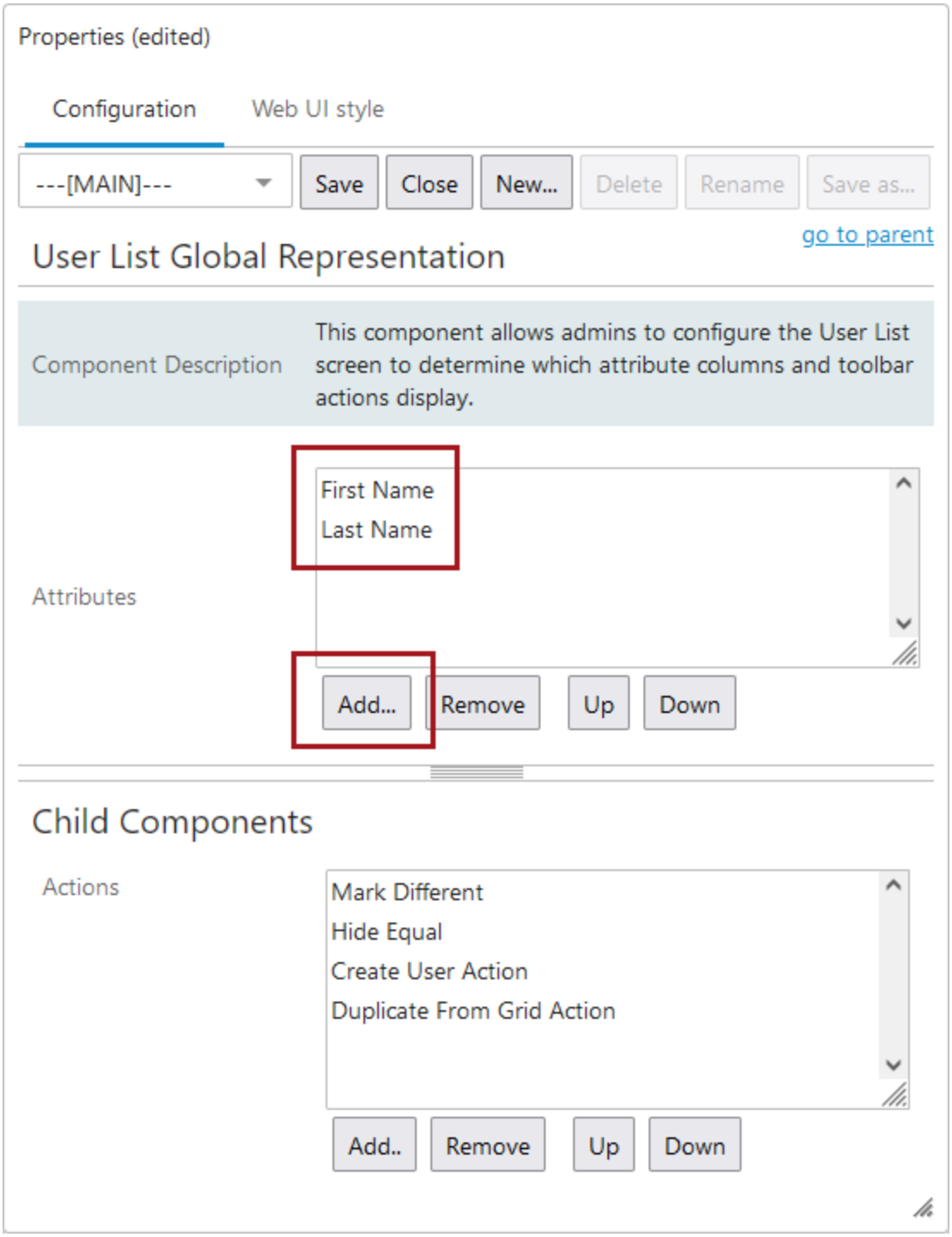
2. From the list that displays in the 'Add Component' dialog, select 'User List Global Representation' and click the 'Add' button.



3. To configure the screen, double-click the new component, which can be found at the bottom of the 'Global Representation List' field. Or simply select the component, and click 'Edit...'.



4. In the 'Attributes' field, add any additional attributes that should display as columns in the User List table. For example, if users' first and last names are important to how your user list is ordered, you can add those columns to the table.

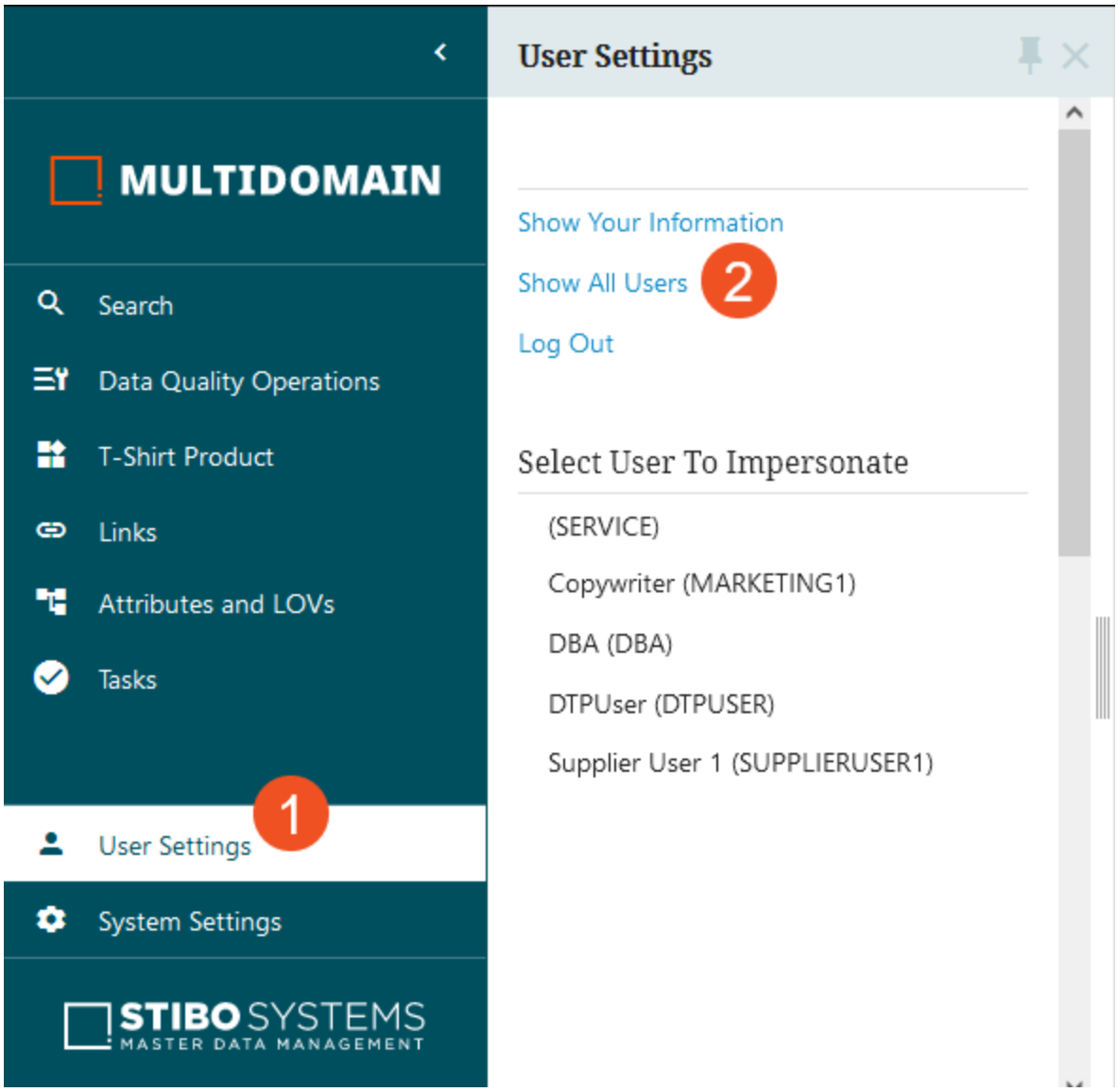


5. In the 'Actions' field, four buttons are configured by default: 'Mark Different,' 'Hide Equal,' 'Create User Action,' and 'Duplicate from Grid Action.' In addition, users can also add two additional buttons—'Delete User Action' and 'Run Business Action.'

Because system users cannot be stored as individual objects, User List screens are not mapped in the same way object-supporting screens are. For that reason, rather than clicking on an object and being directed to a screen the admin user has mapped, the User List screen is accessed via a direct link in the Web UI. Configuring a User List screen as a direct link in a Links homepage widget, for example, is a typical use case for this screen.

Using the User List screen

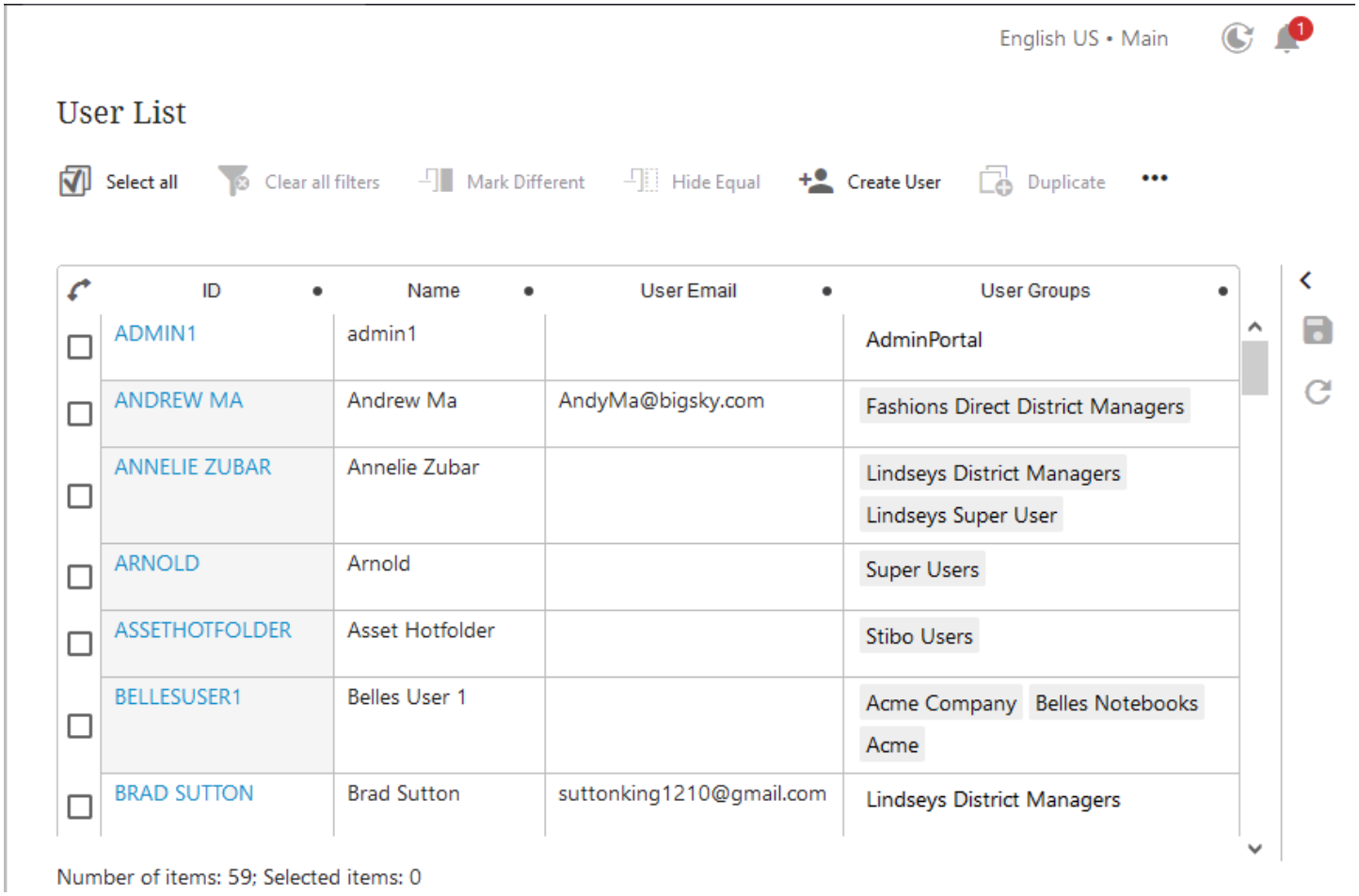
Whether the User List screen is configured or displays in its default configuration, it is always accessible by first clicking 'User Settings' near the bottom of the Global Navigation Panel, and then 'Show All Users' near the top of the 'User Settings' column.



The User List screen displays a list of all users configured on a given system, dependent on the logged-in user's privileges. If the list is longer than can be accommodated in the browser window, a scroll bar on the right allows users to access the full list.

The list of system users are shown with four columns of data:

- **ID**: Displays the user ID
- **Name**: Displays the user name
- **User Email**: Displays the email address configured for that user
- **User Groups**: Displays the user groups to which the user belongs

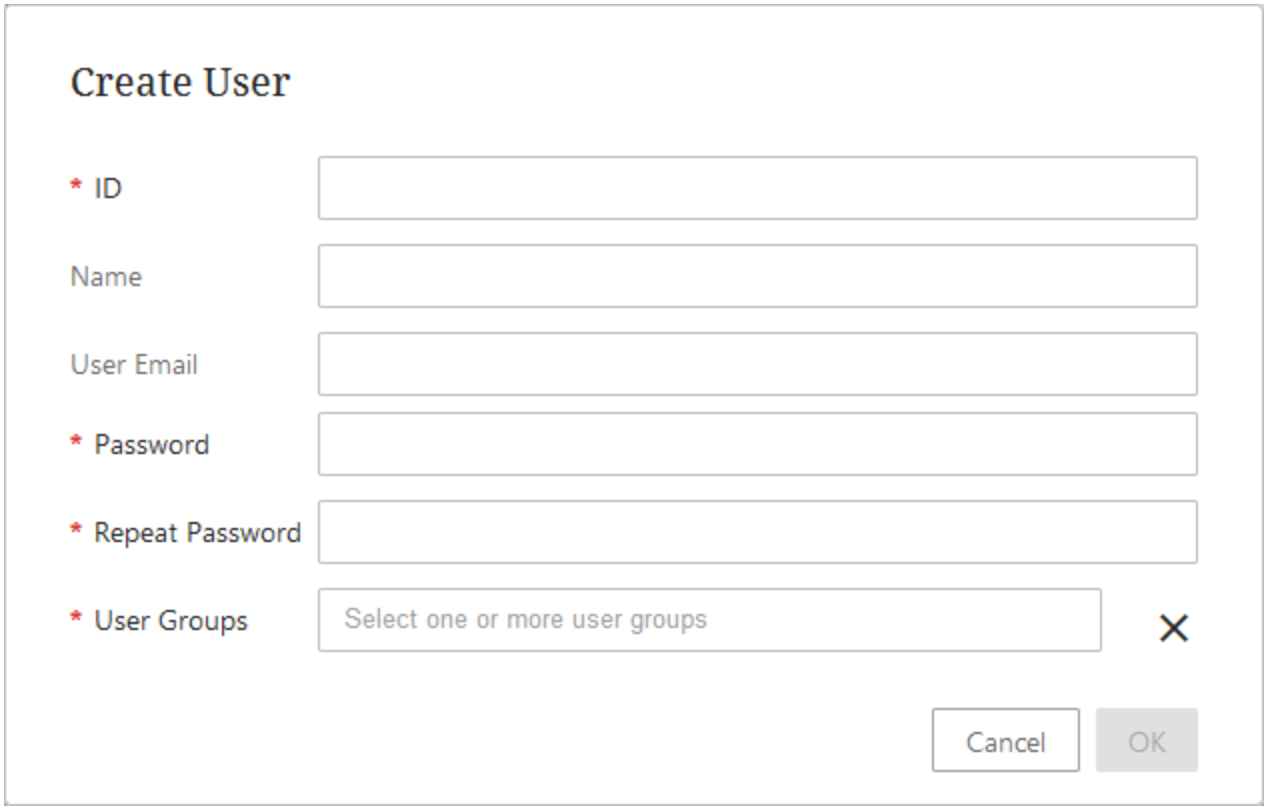


Note: To prevent memory and performance issues, the maximum number of users displayed in the User List screen is 10,000. This maximum can be amended to be less than 10,000 via the `Portal.MaxResultCount` config property; this property can be set on the server by advanced users or by Stibo Systems technical support. Once the number of users exceeds the configured maximum (though the maximum cannot be set to a number above 10,000), the sorting and filtering functionality in the User List Screen is disabled. To search for users when the maximum has been exceeded, users should access the Advanced Search screen and apply search criteria that narrows the returned list of users to a number less than 10,000. As an example of how to accomplish this, users can deploy the 'Search from List' criterion and paste in a list of user IDs or Names to search. Or users can deploy the 'Object type' search criterion, set the value to 'User', and add the 'Name, ID and Attribute value search' criterion to narrow down the list. For more information on the Advanced Search screen, refer to the **Advanced Search** topic, also in the **Web User Interfaces** documentation.

The columns in this table can be sorted or filtered by clicking anywhere in the column header.

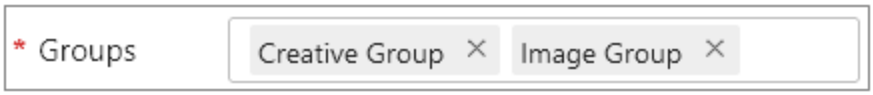
For more on sorting and filtering in Web UI tables, refer to the 'Enable Filtering' section of the **Node List Component** topic.

At the top of the screen, as shown in the screenshot above, is a 'Create User' button. Display of this button is dependent on the privileges assigned to the logged-in user. If appropriately privileged, clicking the 'Create User' button brings up a 'Create User' window (shown below) that enables the logged-in user to create a new user profile with access to the system.



The 'Create User' window contains six parameters, four of which are mandatory, to create a new user profile.

- **ID** - Enter the ID for the new user.
- **Name** - The ID will automatically populate the 'Name' field once the ID has been entered and the cursor is placed outside of the ID field. If the user name must be different than the ID, add a unique name value in this field.
- **User Email** - Enter the email address for the new user. This email address will be used by the user when initiating the 'Forgot password?' functionality on the login page.
- **Password** - Enter a password for the new user.
- **Repeat Password** - Enter the same password in this field as was entered in the 'Password' field. This lessens the chance that a password contains mistyped characters.
- **Groups** - Click into this field to view a list of all available user groups to which the new user can be assigned. Admins may select as many user groups for the new user as needed. Users must select at least one user group for this field.



Once all mandatory fields are filled out, click 'OK.' The new user profile is added to the system and will display in the User List screen. The newly created user will possess the privileges of the most privileged user group to which they are added.

Note: If the logged-in user creating a new user is a supplier- or vendor-user, they will only be able to add newly created users to the supplier / vendor-designated user groups to which they belong. When viewing the users on a system in the User List screen, they will view only the users belonging to the supplier / vendor user groups to which they belong; when they click into the 'Groups' field in the 'Create User' window, only the supplier / vendor user groups of which they are a part will display as selectable options.

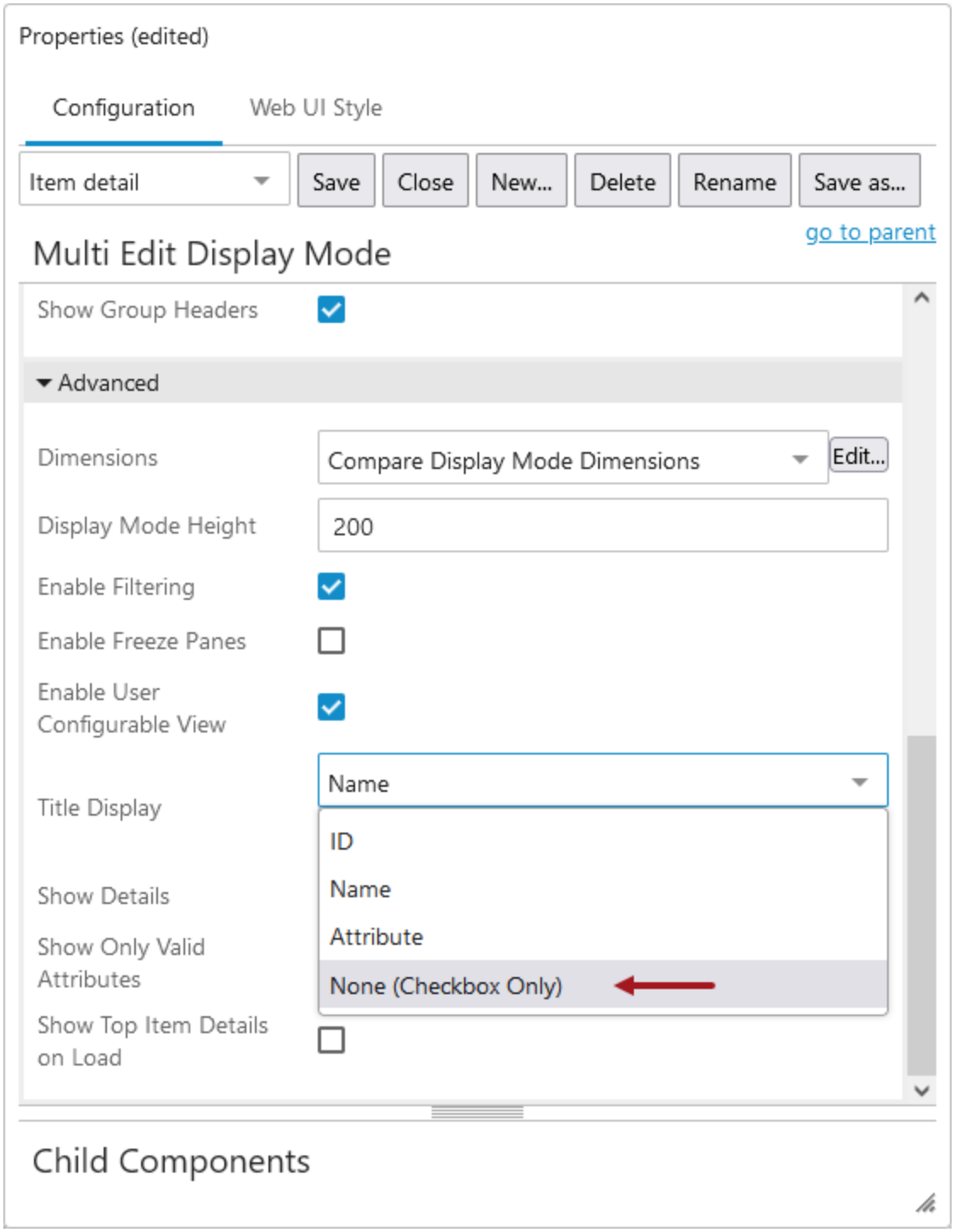
Using Checkbox Selection and Details Icons

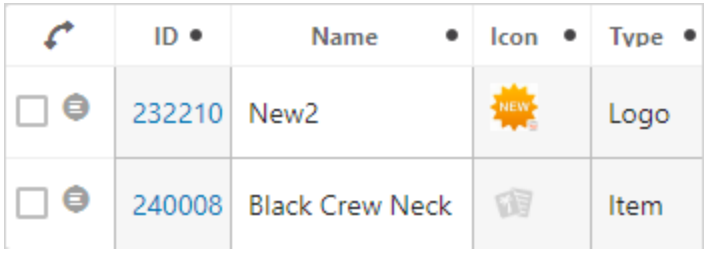
Users select objects within Web UI tables by using checkbox selection. Clicking a checkbox is a straightforward way for users to select items, and also makes deselection much easier and more obvious to the user. The checkboxes are applicable to most tables within Web UI (including Node List component, Mass Creation screen, and Attribute Link Editor screen) with the main exception being those tables in which no toolbar actions are available.

Checkboxes and Selection Dependent Actions

When working with objects in Web UI, some objects shown in tables and different Node List views (as described in this topic) require a checkbox selection before an action can be taken on that object. Some toolbar action buttons are inactive, or grayed out, until a checkbox selection is made. These are user actions that are dependent on a selection being made before the action can be performed. Any action not dependent on a selection will show as active (black text) in the toolbar. If objects are not able to be selected (no user actions available), then checkboxes are hidden from view.

Additionally, the Title Display parameter, specific to Multi Edit Display Mode and Compare Display Mode, allows designers to make a 'None (Checkbox Only) selection,' which means that a checkbox, if applicable, will display in front of each row or on top of each column and no other identifying information (object name, ID, or attribute value) will display.

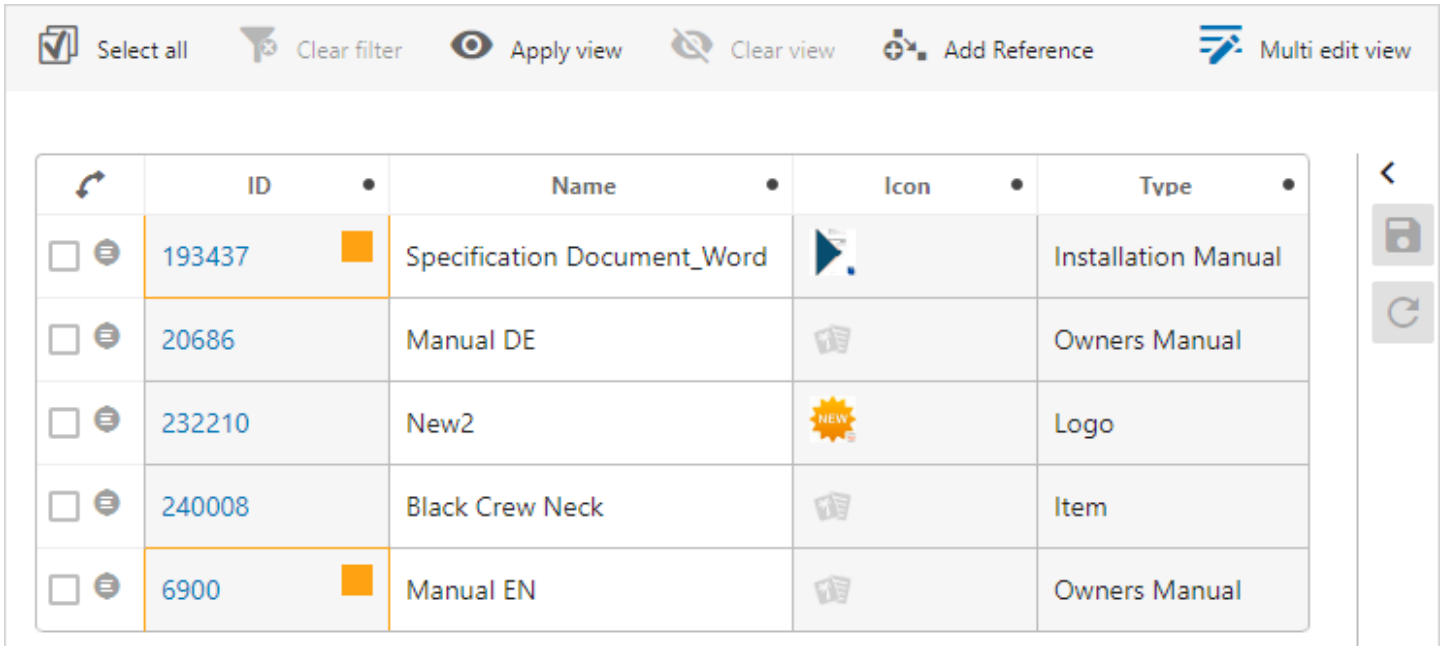

Properties (edited)
Configuration
Web UI Style
Item detail
Save
Close
New...
Delete
Rename
Save as...
go to parent
Multi Edit Display Mode
Show Group Headers
Advanced
Dimensions
Compare Display Mode Dimensions
Edit...
Display Mode Height
200
Enable Filtering
Enable Freeze Panes
Enable User Configurable View
Title Display
Name
ID
Name
Attribute
None (Checkbox Only)
Show Details
Show Only Valid Attributes
Show Top Item Details on Load
Child Components


ID
Name
Icon
Type
232210
New2
Logo
240008
Black Crew Neck
Item

This is the same table with the orientation transposed.

ID	232210	240008
Name	New2	Black Crew Neck
Icon		
Type	Logo	Item

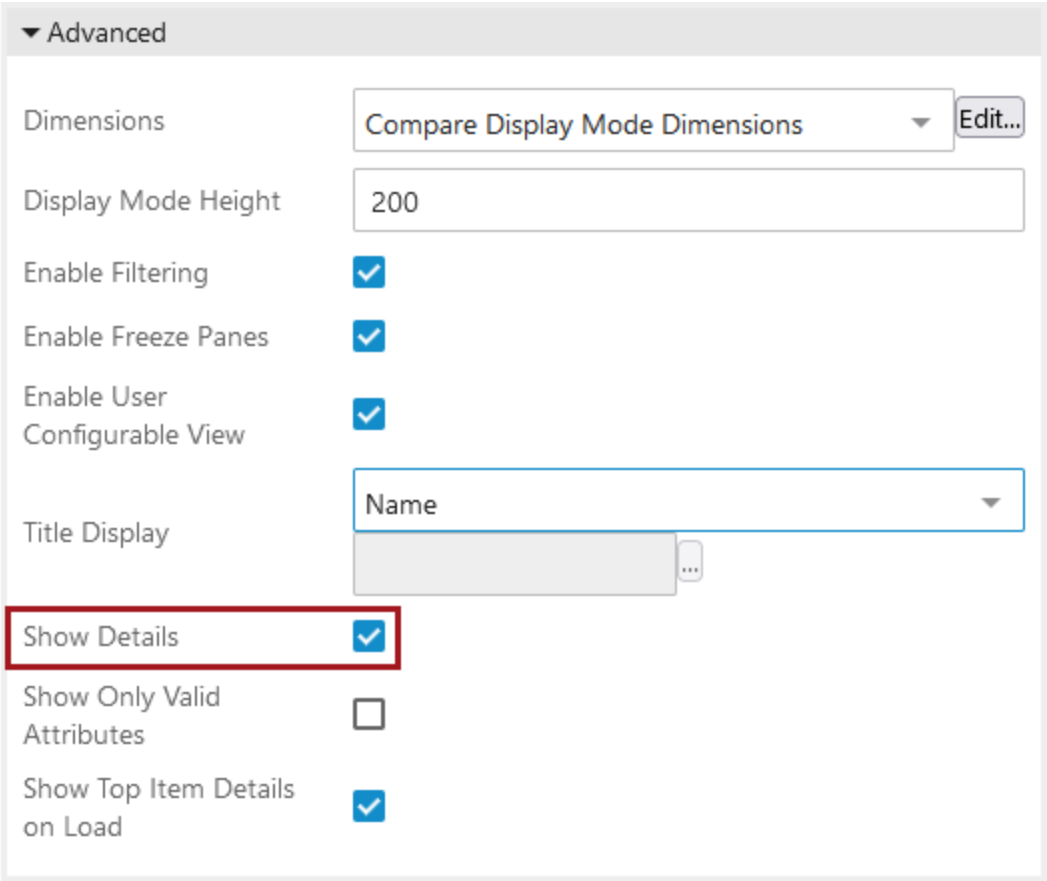
The following example shows a Multi Reference Editor with a Node List in Multi Edit Display Mode. Within the display mode properties, the Title Display parameter is set to None (Checkbox Only), and the Show Details parameter is enabled. By default, the toolbar includes standard actions plus the user-added Add Reference action. No checkbox selection is required to add a reference, so the button displays as active without a checkbox selection.



Details Icon

Along with checkboxes, many of the Node List display modes can be configured to display a details icon so that users can manually choose to display a details panel for that object instead of having the panel open automatically upon checkbox selection. This gives more control to the end user in determining what should display on-screen to help them complete their work. This icon is activated by enabling the Show Details parameter within the display mode properties. It is not advisable to use a multi selection screen as a mapping choice / selection screen when opening the details panel with the details icon.

The Show Details parameter is found under the Advanced header within the properties.

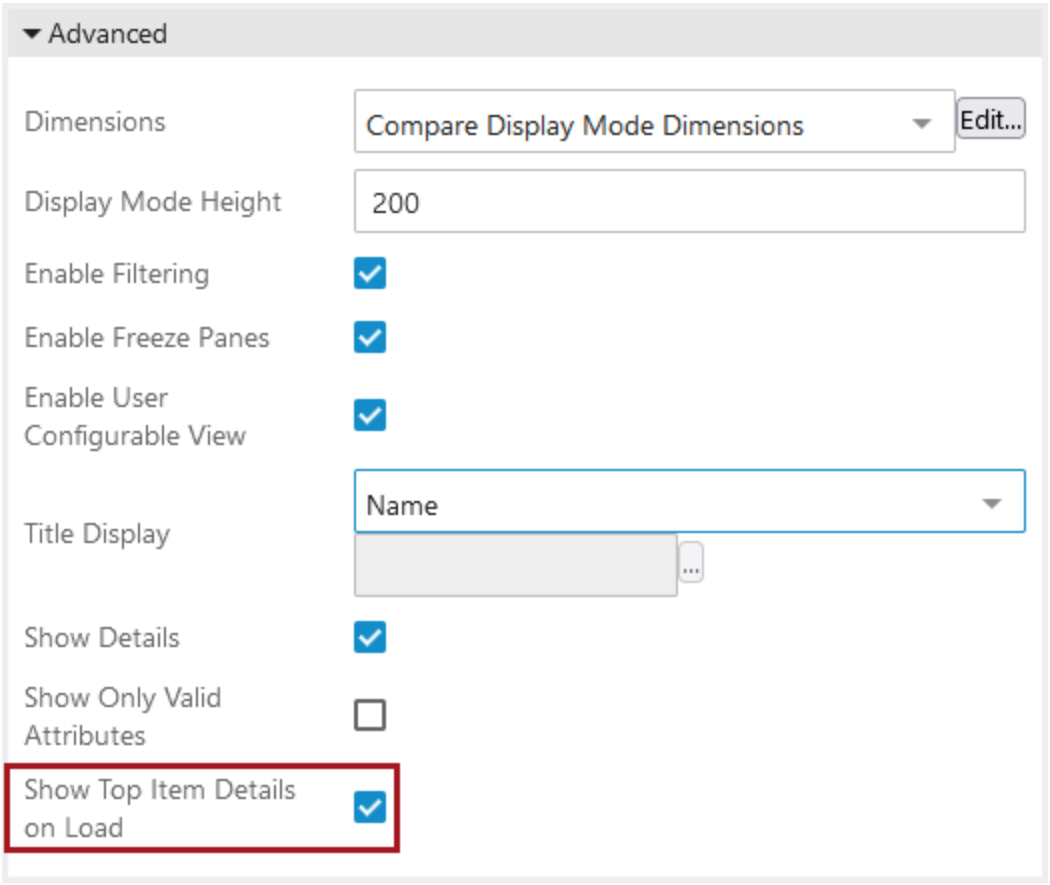


Important: The details icon works independently of the checkboxes and can be configured to display even when checkboxes are not applicable.

The details icon displays for table rows within the Workflow Profile screen. No configuration is required as the icons are displayed, where applicable, by default.

The icon is shown directly to the right of the label (if a label is shown).

To configure automatic display of a Node List's topmost item's details when a Node List screen first loads, users can activate the setting for 'Show Top Item Details on Load'. This removes the requirement that a user must first click an object's details icon to display an object's details in the details panel.



This parameter is available on the Multi Edit, Compare, and Table Display Modes. Automatic display of the top item's details upon load also requires the 'Show Details' setting be turned on, and that either a mapping be created for display of objects in the Web UI, or the relevant Node List has a screen configured under the 'Selection Screens' dropdown, dependent on the object type displayed in the Node List.

Examples

Example 1: Multi Reference Editor > Node List in Multi edit view; the Show Details parameter is enabled within the Multi Edit Display Mode Properties, and the details icon is selected for object 555-2033_M.

Node Details

Primary Product Hierarchy > Products > Electrical and Electronics > Computer Products > ThickPad X1 Carb

Clear all | Clear filter | Add Reference | Remove Reference

	ID	Thumbnail	Object Type	Reference type
☑ 555-2033_M	8801		Installation Manual	Installation Manual
☑ HYD543	6901		Product Image	Primary Product Image
☐ Manual EN	6900		Owners Manual	Owners Manual
☐ Manual DE	20686		Owners Manual	Owners Manual
☐ Manual ES	20685		Owners Manual	Owners Manual
☑ Manual FR	20684		Owners Manual	Owners Manual

Number of items: 6; Selected items: 3

Asset Detail

* Image

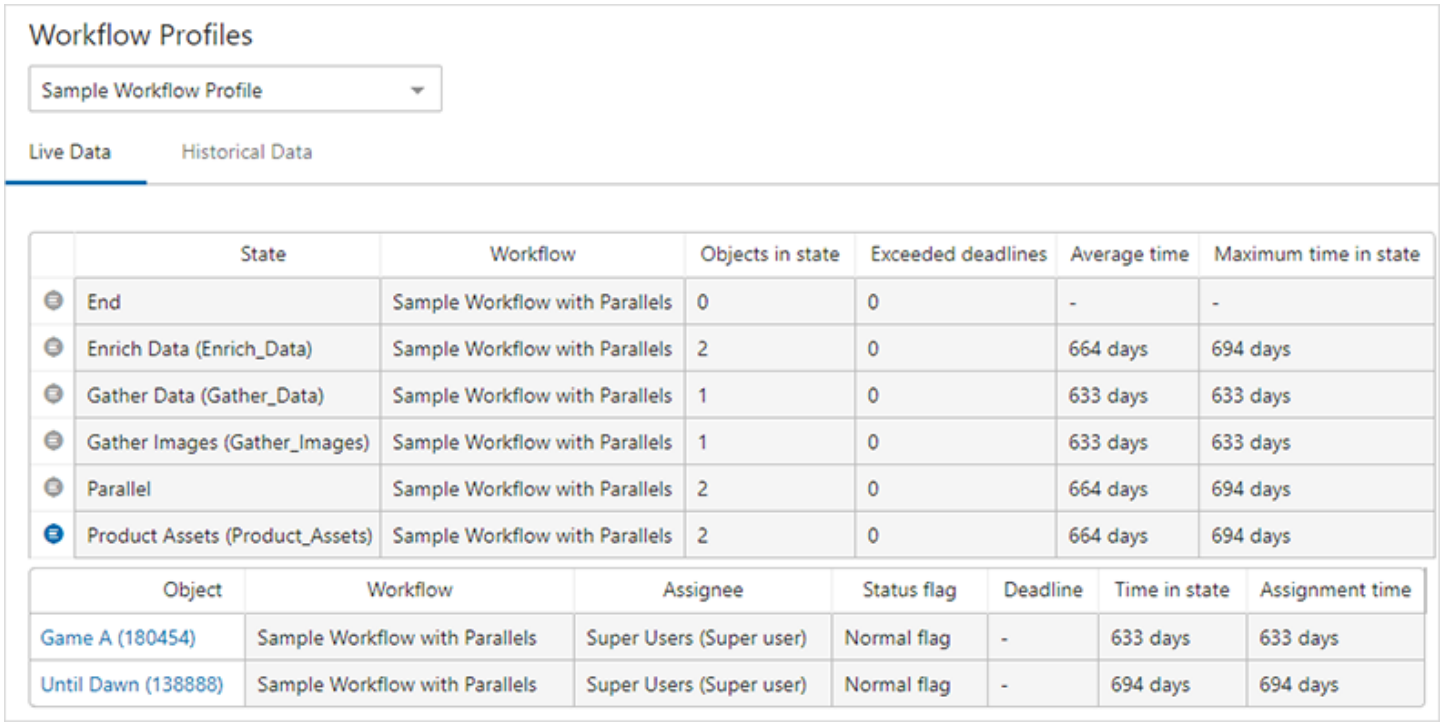


555-2033_M

Graphical representation of image

ID	8801
Asset Type	Installation Manual
Name	555-2033_M
Asset Object Type fx	Installation Manual
Calculated Asset File Name fx	8801-555-2033_M
Format	PDF (Portable Document Format application)

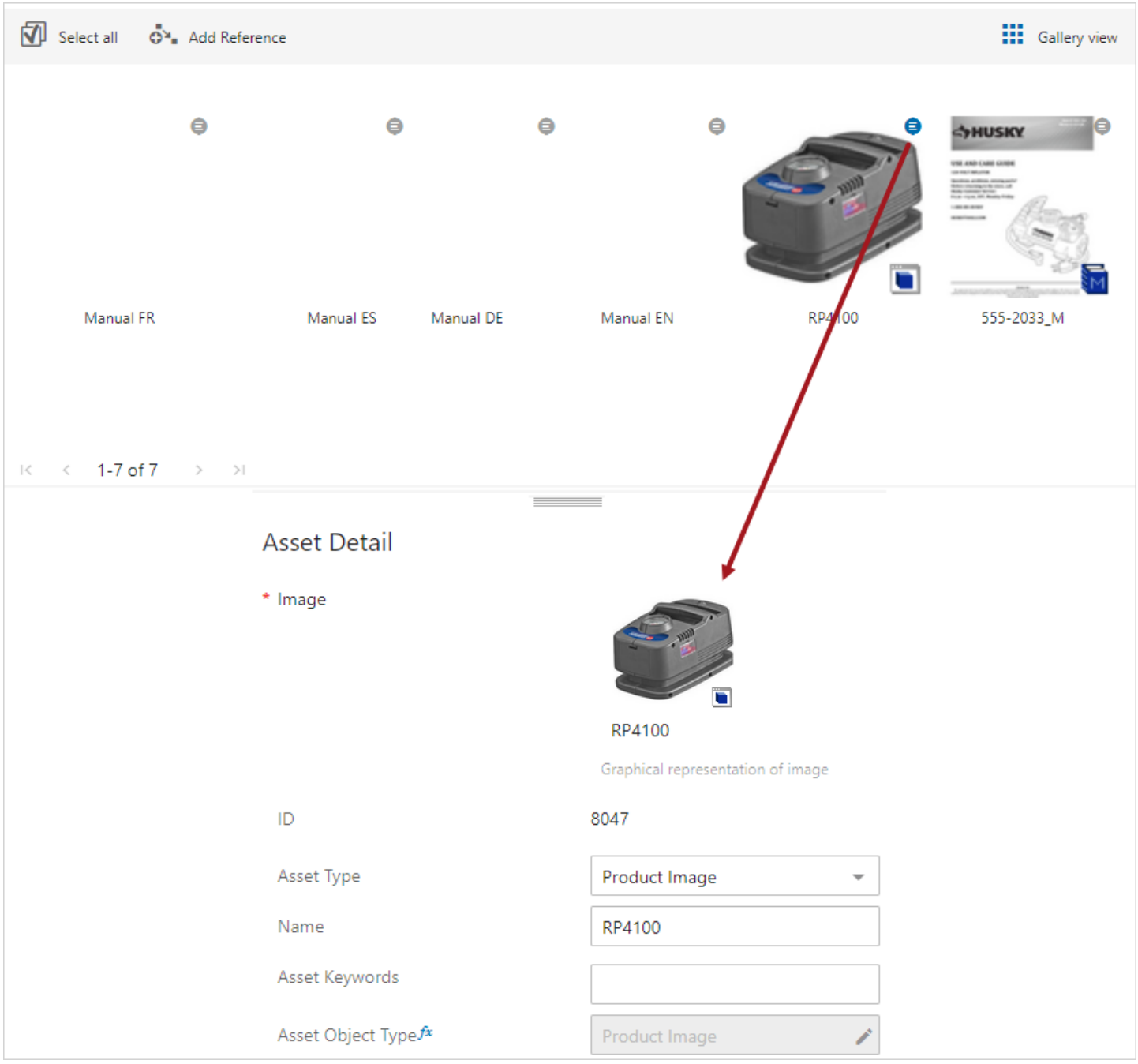
Example 2: Workflow Profile screen; the details icon displays when applicable to the selected profile. There is no additional configuration required to display the icon. The details icon is selected for the Start task.



State	Workflow	Objects in state	Exceeded deadlines	Average time	Maximum time in state
End	Sample Workflow with Parallels	0	0	-	-
Enrich Data (Enrich_Data)	Sample Workflow with Parallels	2	0	664 days	694 days
Gather Data (Gather_Data)	Sample Workflow with Parallels	1	0	633 days	633 days
Gather Images (Gather_Images)	Sample Workflow with Parallels	1	0	633 days	633 days
Parallel	Sample Workflow with Parallels	2	0	664 days	694 days
Product Assets (Product_Assets)	Sample Workflow with Parallels	2	0	664 days	694 days

Object	Workflow	Assignee	Status flag	Deadline	Time in state	Assignment time
Game A (180454)	Sample Workflow with Parallels	Super Users (Super user)	Normal flag	-	633 days	633 days
Until Dawn (138888)	Sample Workflow with Parallels	Super Users (Super user)	Normal flag	-	694 days	694 days

Example 3: Multi Reference Editor > Node List in Gallery view; the Show Details parameter is enabled within the Gallery Display Mode Properties, and the details icon is selected for object RP-4100.


Select all
Add Reference
Gallery view
Manual FR
Manual ES
Manual DE
Manual EN
RP4100
555-2033_M
1-7 of 7
Asset Detail
* Image
RP4100
Graphical representation of image
ID
8047
Asset Type
Product Image
Name
RP4100
Asset Keywords
Asset Object Type
Product Image

Workflows in Web UI

While workflow setup is done in workbench, working with workflow tasks can easily be done within Web UI. The Web UI workflow documentation is divided up into two main sections.

- **Getting Started with Workflows in Web UI** is for both administrators and end users. The **Screen / Component Configuration and Mappings for Workflows** section outlines information needed for those who will be configuring the Web UI screen properties and components. And, **Working with Tasks in Workflows in Web UI** provides information for end users.
- **Advanced Web UI Workflow Topics** covers advanced topics that may not be used with every workflow. It is great information to read through and know once you have a solid grasp of workflows and interacting with them in Web UI.

Important: It is recommended that before you start working with workflows that you are familiar with all of the **Workflows** documentation and read the **Getting Started with STEP Workflows** material in the order it appears, as topics build upon one another. Of particular interest to all users, regardless of your role (setup vs. end user) and whether or not you are using Web UI, is the **Workflow Terminology** topic and **Workflow Privileges** topic.

Getting Started with Workflows in Web UI

This portion of the material is a combination of screen and component configurations required for end users to effectively work with workflows within the Web UI, and steps the end user should follow to initiate objects into workflows as well as instructions for working with tasks.

Administrators will find setup information in the **Screen / Component Configuration and Mappings for Workflows** section.

If you are concerned only with the end user functionality, as opposed to designing and configuring components and screens, you may wish to skip directly to the **Working with Tasks in Workflows** section. The material is shown in the left-side navigation menu in the suggested reading order, as topics build upon each other.

Screen / Component Configuration and Mappings for Workflows

The details for configuring views and mappings are covered in the topics in this section. If users are going to work with workflows in Web UI, all the screens and components have to be configured for use with workflows. Any screen and workflow state mappings will also need to be created. This all ensures that users have access to the right information to complete their tasks and streamlines the work process.

The screen / component configuration determines what displays to the user and determines how a user is able to work with tasks. This is similar to the 'views' concept explained for viewing workflow information in workbench. When configuring a workflow it is important to decide what data is visible for objects (views), and define which states to display (mappings). Without views and mappings configured, all the information for a workflow will be limited to what displays within a Status Selector, leaving it impossible to work with workflows effectively within Web UI.

This section provides details regarding the components and screens that can be configured. Your setup will be dependent on your business needs, so examples and information may not match exactly with what you will create. However, it does provide a guidance and examples on what can be done.

Before configuring screens and components, or mappings, it is important to be aware of the following points:

- The views and mappings configured in Web UI only apply to Web UI. If users will not be interacting with workflows in the Web UI, it is not necessary to configure components / screens or set up Web UI mappings. Instead, set up views and mappings in workbench using the STEP Workflow Designer. Details can be found in the **Getting Started with STEP Workflows** section of the **Workflows** documentation.
- A screen can contain both object and workflow-specific data. This means that a view can contain attributes, attribute groups, and aspects information specific to the object (such as name, ID, approval status, etc) as well as elements like workflow assignee, deadline, workflow variables, and workflow attachments.

Status Selector Homepage Widget

The Status Selector Homepage widget is the starting point for users who want to work with a workflow in Web UI. As its name implies, the **Status Selector Homepage Widget** displays on the Web UI homepage, and its main purpose is to show states and the number of tasks in each state in a particular workflow. Upon clicking one of the displayed states, users will be navigated to a screen in which they can work with an individual task or multiple tasks. The screen that a user accesses to work with the tasks depends on how the widget is configured. There are a number of possibilities, including the Task List screen, a Workflow Screen, or an Advanced Search screen.

Since each widget is configured for a single workflow, multiple widgets can be set up and used as needed. Each Status Selector Homepage Widget is highly configurable and, when configured properly, a user can initiate tasks into a workflow, track tasks, and view what status flags they have (if applicable).

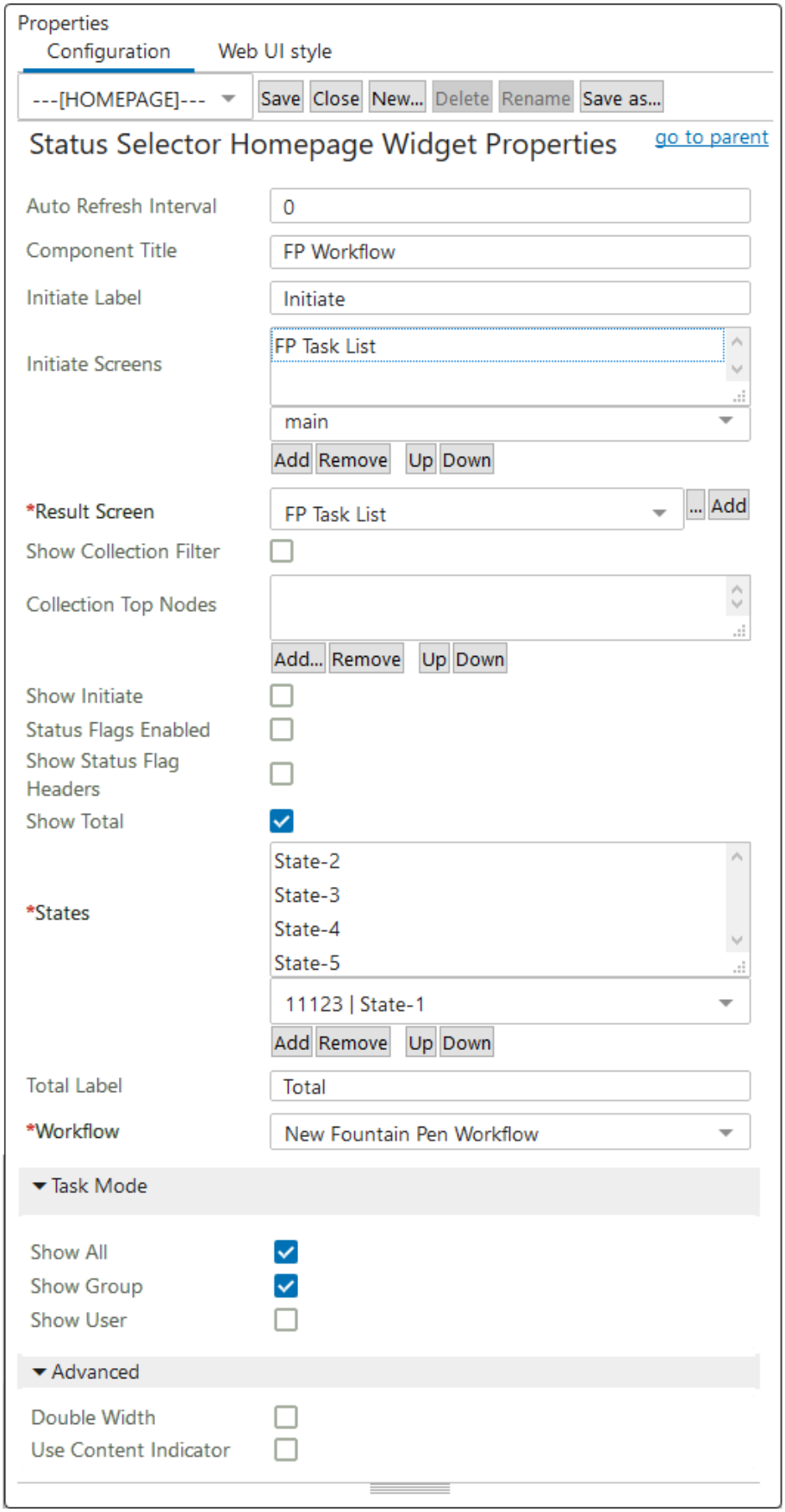
Note: From this point on, it is assumed that the workflow the widget will interact with is already set up in workbench.

Add a Status Selector Homepage Widget

The Status Selector Homepage Widget must be added to the homepage prior to configuration. Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

Set Up the Status Selector Homepage Widget Properties

The Status Selector Homepage Widget Properties designer screen is shown below.

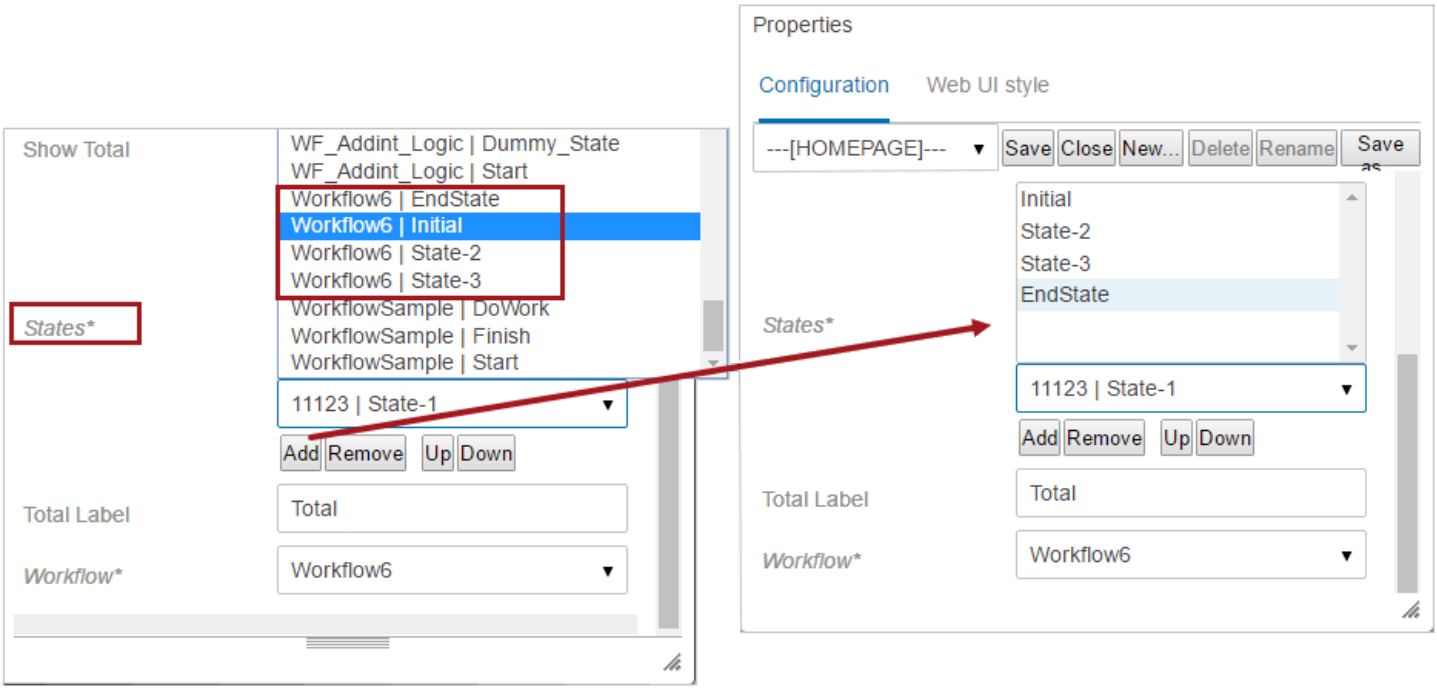

Properties
Configuration
Web UI style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
Status Selector Homepage Widget Properties
go to parent
Auto Refresh Interval
0
Component Title
FP Workflow
Initiate Label
Initiate
Initiate Screens
FP Task List
main
Add
Remove
Up
Down
*Result Screen
FP Task List
...
Add
Show Collection Filter
Collection Top Nodes
Add...
Remove
Up
Down
Show Initiate
Status Flags Enabled
Show Status Flag Headers
Show Total
*States
State-2
State-3
State-4
State-5
11123 | State-1
Add
Remove
Up
Down
Total Label
Total
*Workflow
New Fountain Pen Workflow
Task Mode
Show All
Show Group
Show User
Advanced
Double Width
Use Content Indicator

Status Selector Homepage Widget Properties can be saved as long as the workflow, the results screen, and at least one workflow state are configured. The steps required to set up these required parameters are listed below, followed by the remaining optional parameters. These parameters are listed in the same order from top to bottom as listed within the properties.

Required Parameters

1. **Workflow*** - click the dropdown and select the ID of the workflow to be used by the Status Selector.
2. **States*** - click the dropdown to view all the states within all workflows, which are listed by workflow ID and then the state ID. Look for the states that are in the workflow you selected in Step 1. Once you have selected a state, click the **Add** button. Continue this process until all the states you need are added. Use the Up and Down buttons to reorganize the states as they will display within the Status Selector in the order they are listed in the Properties (top to bottom).

   In the screenshot below, the workflow ID is Workflow6 and the four applicable states are 'Initial,' 'State-2,' 'State-3,' and 'EndState.'



3. **Results Screen*** - click the dropdown to select the Task List or Advanced Search screen that users will be navigated to upon clicking a workflow state.

   If the desired screen has not been created yet, click the Add button to the right of the field and follow the typical steps for creating a new screen. The screen ID of the newly created screen will be selected once the process is complete.

   If using an Advanced Search screen and wanting to further filter the task list, you can designate a specific (previously saved) search to use when navigating to the Advanced Search screen upon state selection. Click the ellipsis button (...) and select a search from the Saved Search dropdown. Save the selection.

Click **Save** in the designer window to save the changes you have made up to this point.

Additional Parameters

4. Set an **Auto Refresh Interval**, if desired. Enter, in seconds, how much time should pass before the Status Selector is automatically updated. Enter 0 to disable automatic updates. If you leave the field blank, it defaults to 0 upon saving the Properties.

   Disabling the functionality means that you will only view updates to the number of tasks in each state when the Web UI screen is refreshed (logging in and out; navigating to another page and then back to the homepage) versus automatic updates to the info displayed on the Status Selector without user intervention.

5. If you want to give the Status Selector a specific title, enter the text in the **Component Title** field. The workflow name automatically populates as the title when this field is blank.
6. If you want an initiate object link to display in the Status Selector as a way for user to create / initiate objects into the designated workflow, then enable the **Show Initiate** parameter. Also, insert text to be used for the link in **Initiate Label**. If you leave the label field blank, then 'Initiate' will automatically populate the field after saving the Properties.

   If the **Show Initiate** option is enabled (checked), a selection needs to be made for **Initiate Screens** using the dropdown. Make a selection, and then click Add. Repeat the process to add additional screens. The screen links will appear in order (top to bottom). Use Up and Down to reorganize as needed.

7. Click the **Status Flags Enabled** checkbox if you use Status Flags and want to the task count within the Status Selector to be grouped by Status Flag (columns) in addition to states (rows). While workflow state names are clickable and show all tasks within that particular state, clicking on a number under a Status Flag header gives you just the tasks within that state row that have that status.

   Additionally, if you want the headers to display above the columns, enable **Show Status Flag Headers**.

8. Enable the **Show Total** checkbox to add a row below all the workflow states that totals all the tasks. Also, the **Total Label** defaults to 'Total' upon save and can be kept as-is or alternate text can be entered into the parameter field.
9. Click the **Task Mode** heading bar to display three checkbox parameters that pertain to which of the three task mode icons -- User, Group, and All  -- can be accessed by the user in the Status Selector Homepage Widget. The three parameters that display in this section are 'Show All', 'Show Group', and 'Show User'. How these three fields are checked determine which task modes are accessible by the user in the Status Selector Homepage Widget. All three parameters default to checked when accessed in the designer. When all are checked, all three task modes () are enabled for display, depending on the user's privileges. If the user unchecks all options, no icons display and only the tasks for the user and the group to which the user belongs will show.

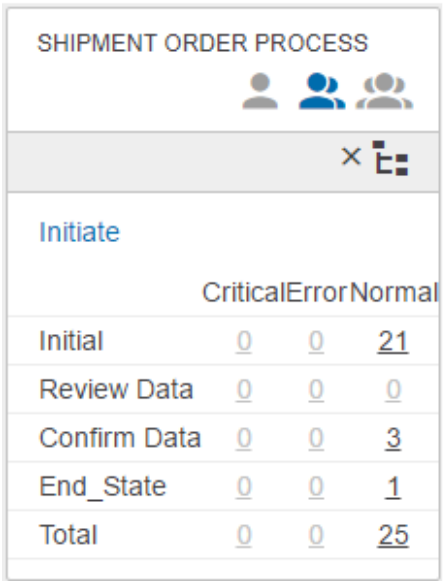
   When configuring the 'Task Mode' parameters for users without admin privileges, it is important to note that the 'All' task mode icon may not display in the Status Selector, regardless of configuration. As a result, if all three parameters are checked, only the 'Group' and 'User' icons will display. If 'All' and one of the other two task modes are checked, no icon will display and the tasks specific to the other checked task mode ('User' or 'Group') will be shown. If only 'Group' is checked, no icon will display and the tasks for the user and the

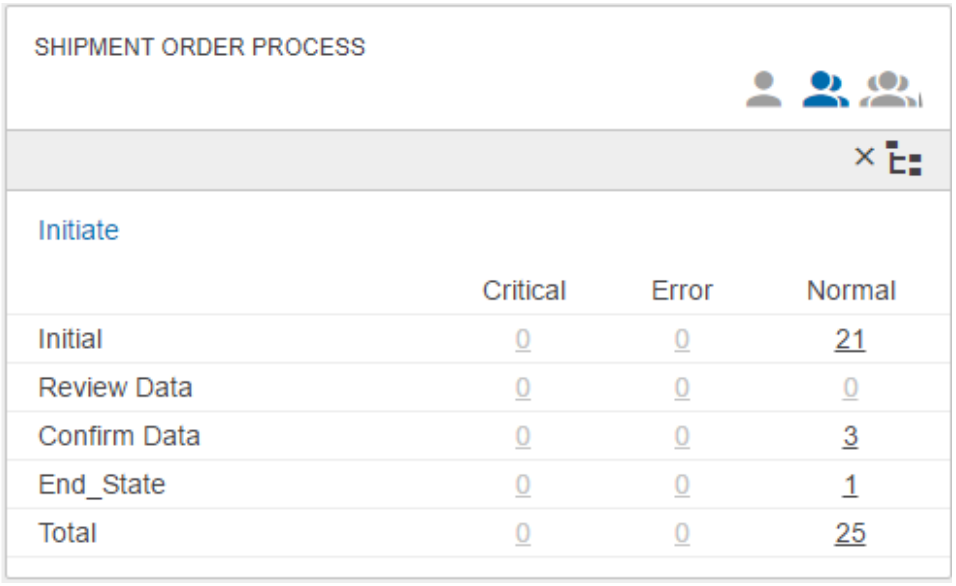
configured group to which the user belongs will show. If only 'User' is checked, no icon will display and the tasks for the logged-in user will display.

Note: By selecting the Group icon, users that have the 'View task assigned to other users in my group(s)' privilege are able to view their assigned tasks, as well as any tasks assigned to others and any unclaimed tasks within any group in which they are a member. For more information about workflow privileges, refer to the Workflows section of the **Setup Actions and Error Descriptions** topic in the **System Setup** documentation.

10. Click the **Advanced** heading bar to display the **Double Width** parameter. By clicking the checkbox, you double the display width of the Status Selector Homepage widget. You may wish to enable this parameter if you are using multiple status flags and want to view all the columns at one time, or you desire a bit more space between the columns.

    In the example below, standard size is shown on the left and double width is shown on the right.





11. Click the **Advanced Heading** to display the **Use Content Indicator** parameter if desired. When checked, the component displays a content indicator instead of the exact task count.

Again, click **Save** in the designer window to save the changes you have made up to this point

Setting up Collections Viewing

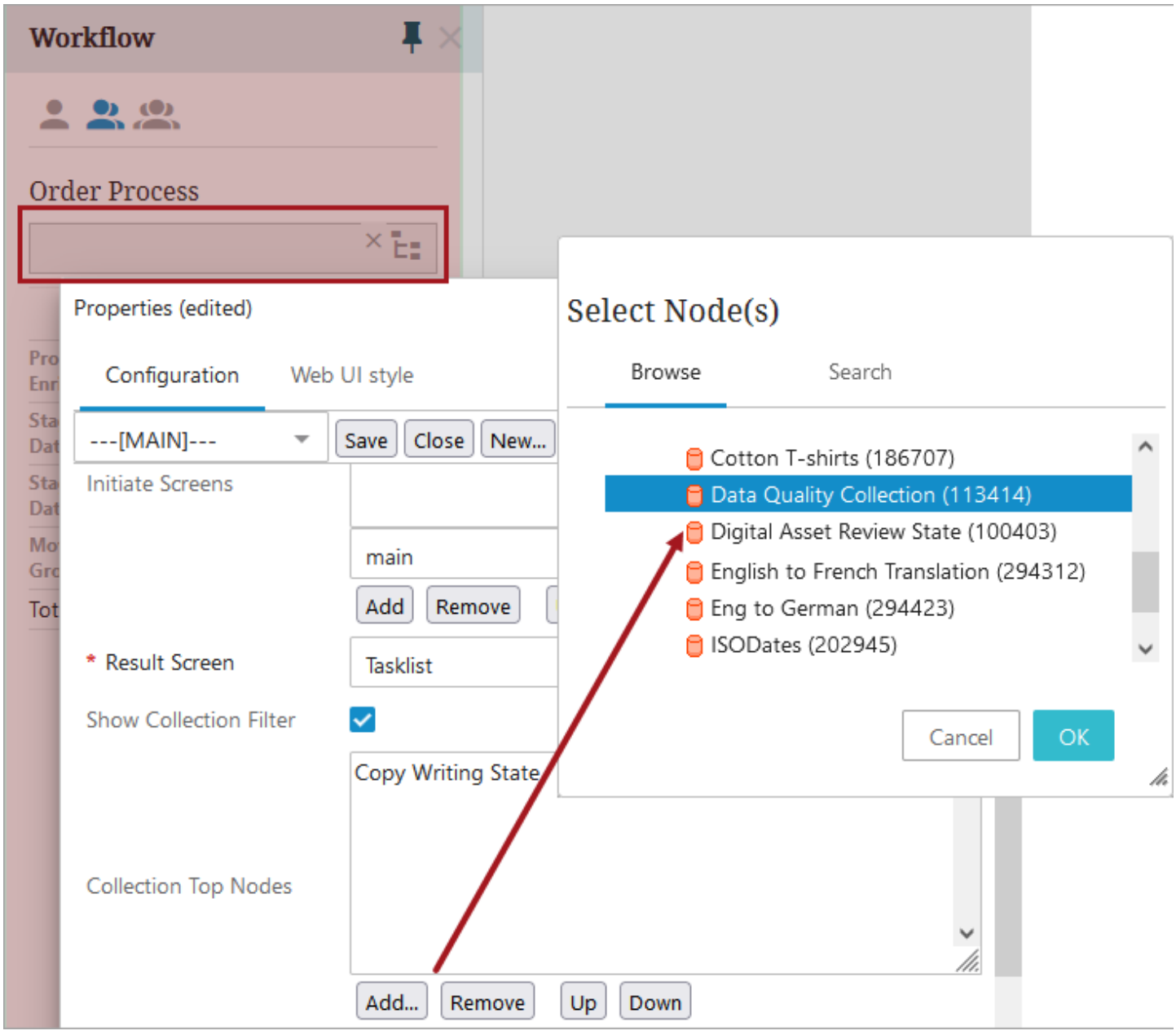
Collections are containers for storing sets of objects, and collection groups are containers that can hold collections or other collection groups. A collection can be applied as a filter limiting the available objects to the ones present in the chosen collection. Collections are typically used in relation to Bulk Update functionality.

To make use of Collections Filtering in Web UI, initial setup needs to take in place in STEP Workbench and be in place before starting the next steps. Permissions for viewing and working with collections are also configured in workbench.

For more on collections, refer to **Collections** in the **System Setup** documentation.

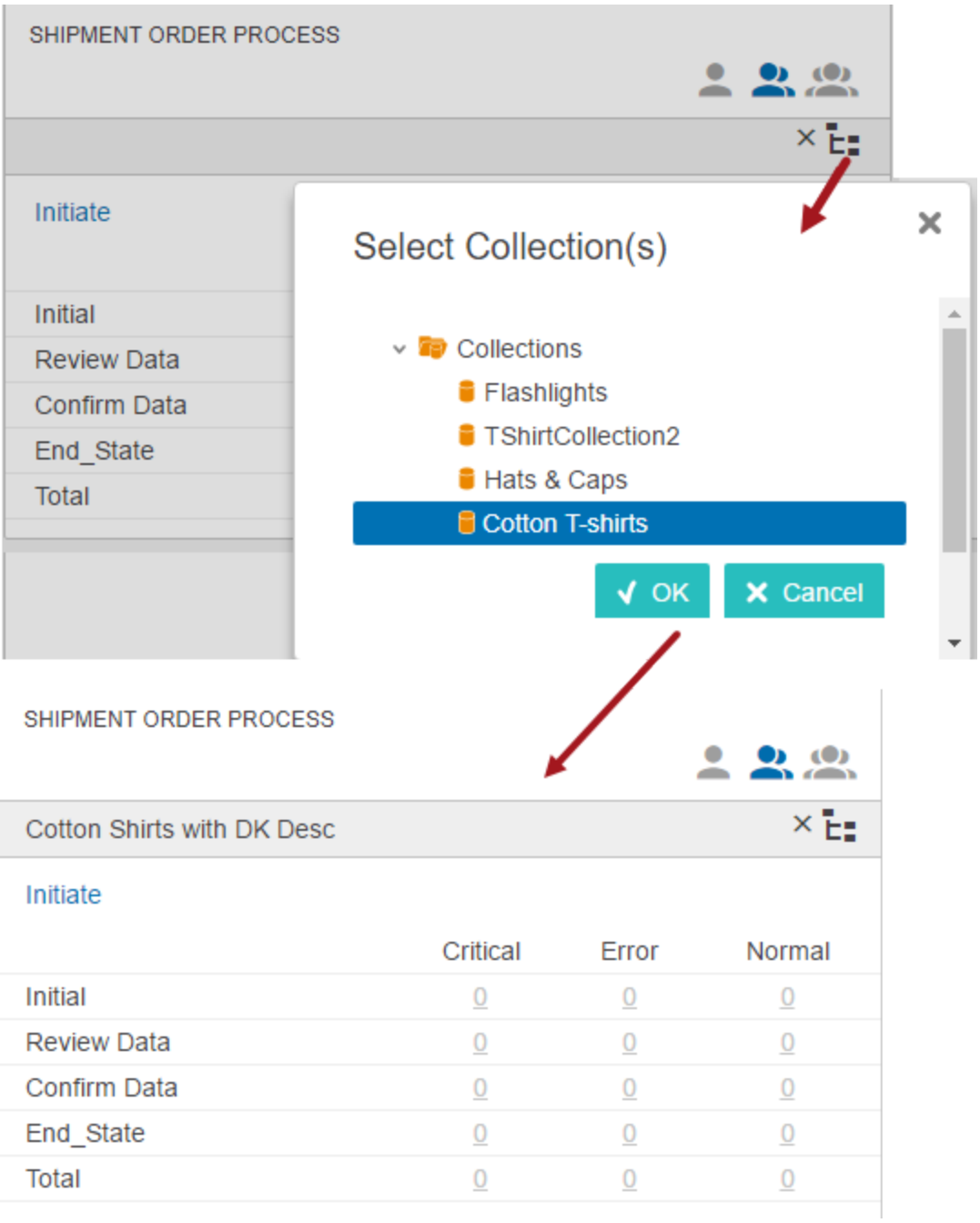
Note: For information on how to schedule bulk updates for collections in Web UI, refer to the **Scheduling a Collection Refresh in Web UI** topic in the **Bulk Updates** documentation.

1. Select **Show Collections Filter** to show collections.
2. Add any **Collections Top Node Filters** to further narrow down the collection or collections accessible to users. Click Add, and make a selection or selections, and then click OK. The selections can be reorganized as needed.



Save the changes and **Close** the designer window.

Only collections available to the user or user group will be shown when configured properly. The user can then filter the states based on the collection or collection group selected.



For more information on end-users tasks such as initiating objects into a workflow and working with states and tasks within the Status Selector Homepage Widget, refer to the **Working with Tasks in Workflows** section of the **Workflows in Web UI** documentation.

Status Selector in the Global Navigation Panel

The Status Selector child component in the Global Navigation Panel is for users who want to work with a workflow in Web UI. The Status Selector child component displays within the Global Navigation Panel, and its main purpose is to show states and the number of tasks in each state in a particular workflow. Upon clicking one of the displayed states, users will be navigated to a screen in which they can work with an individual task or multiple tasks. The screen that a user accesses to work with the tasks depends on how the Status Selector child component in the Global Navigation Panel was configured. There are a number of possibilities, including the Task List screen, a Workflow Screen, or an Advanced Search screen.

Since each Status Selector Child Component is configured for a single workflow, multiple Status Selectors can be set up and used as needed. Each Status Selector Child Component in the Global Navigation Panel is highly configurable. If configured properly, a user can initiate tasks into a workflow, track tasks, and view what status flags they have (if applicable).

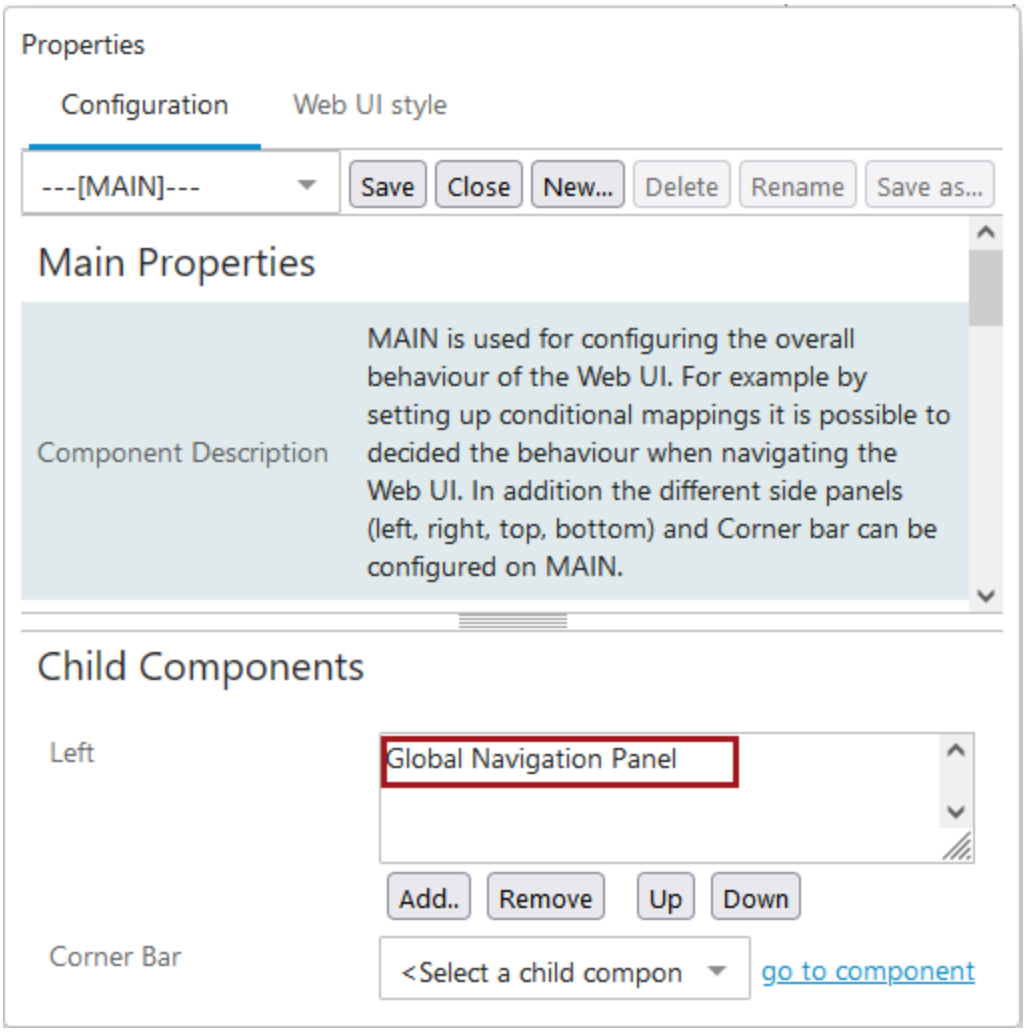
If interested in using a widget that has the same functionality but is displayed on the homepage, refer to the **Status Selector Homepage Widget** topic.

Note: From this point on, it is assumed that the workflow the Status Selector child component will interact with is already set up in workbench.

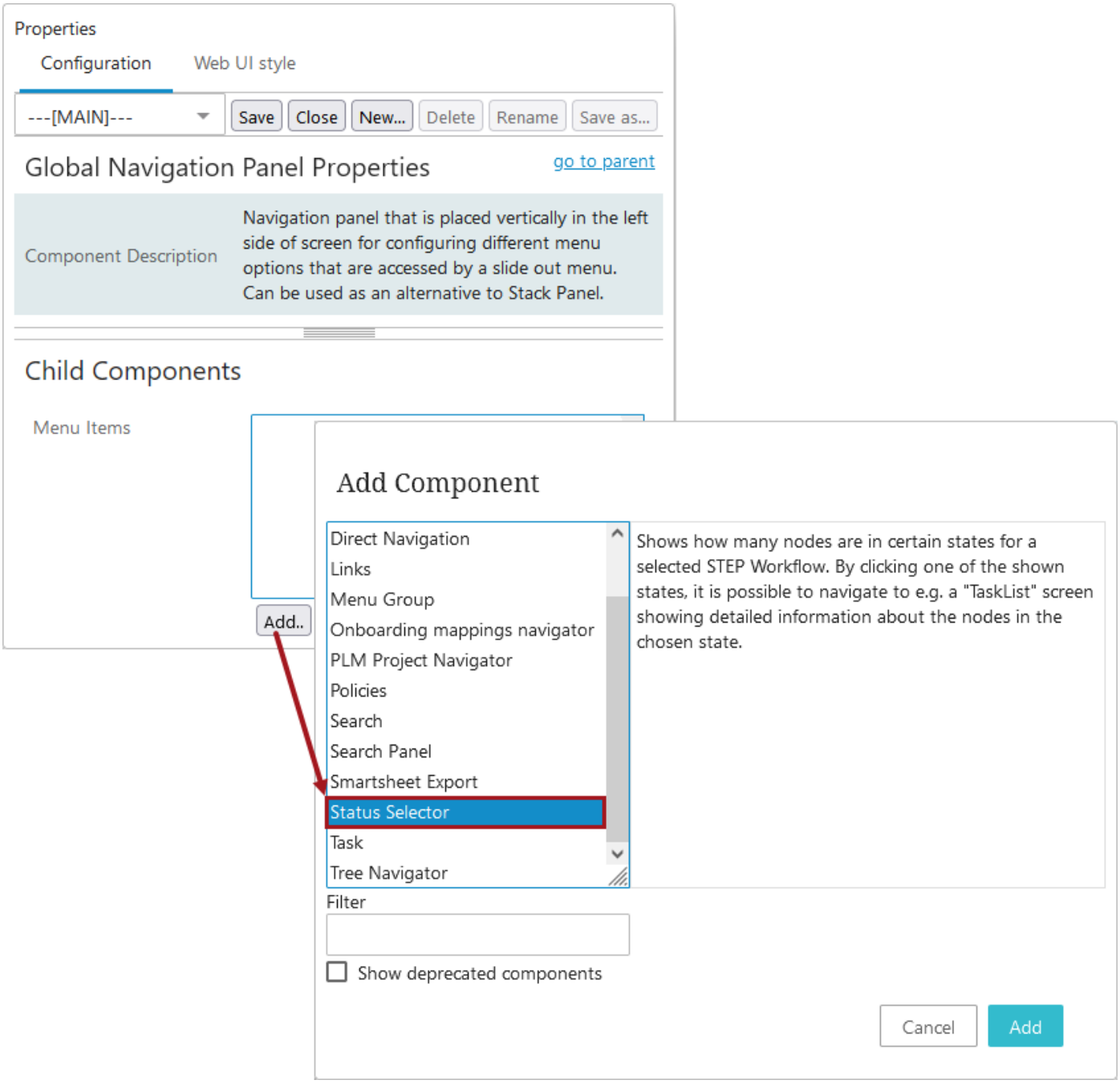
Adding a Status Selector Child Component

To add the Status Selector child component:

1. Go to --[MAIN]-- > Child Components > Left > add the **Global Navigation Panel** child component.

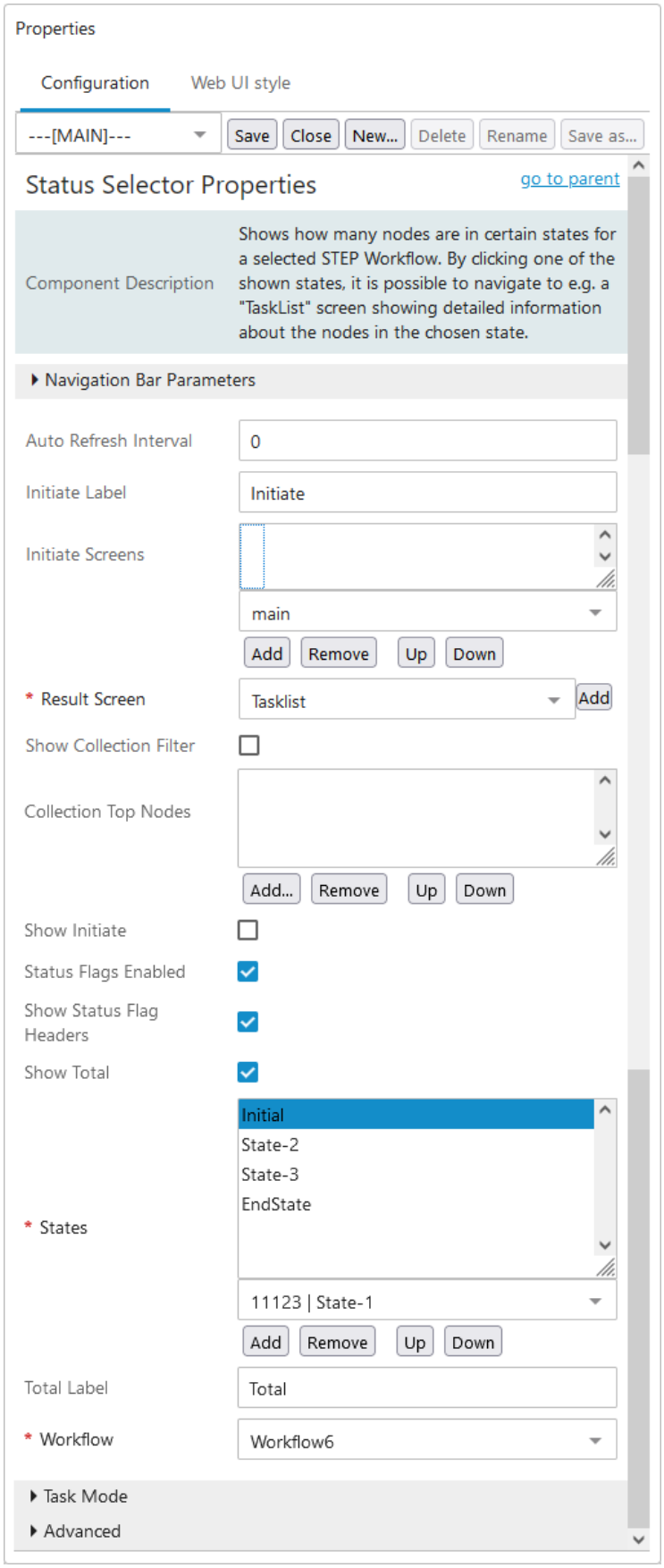


2. Double click on the Global Navigation Panel to be brought to the Global Navigation Panel Properties.
3. Go to > Child Components > Menu Item > add a Status Selector.



Setting up the Status Selector Properties

The Status Selector Properties screen is shown below:

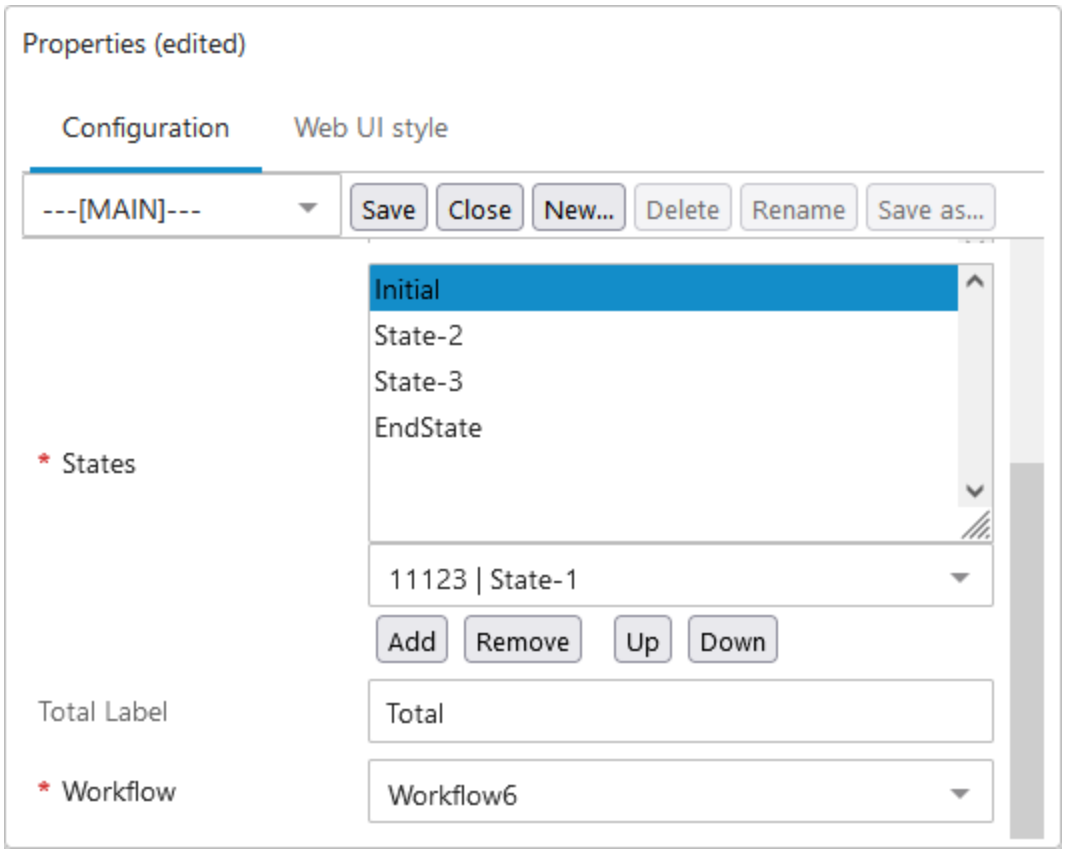

Properties
Configuration
Web UI style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
Status Selector Properties
go to parent
Component Description
Shows how many nodes are in certain states for a selected STEP Workflow. By clicking one of the shown states, it is possible to navigate to e.g. a "TaskList" screen showing detailed information about the nodes in the chosen state.
Navigation Bar Parameters
Auto Refresh Interval
0
Initiate Label
Initiate
Initiate Screens
main
Add
Remove
Up
Down
* Result Screen
Tasklist
Add
Show Collection Filter
Collection Top Nodes
Add...
Remove
Up
Down
Show Initiate
Status Flags Enabled
Show Status Flag Headers
Show Total
* States
Initial
State-2
State-3
EndState
11123 | State-1
Add
Remove
Up
Down
Total Label
Total
* Workflow
Workflow6
Task Mode
Advanced

Status Selector Properties can be saved as long as the workflow, the results screen, and at least one workflow state is configured. Below, the steps to set up these required parameters are listed first and then the remaining parameters go in order from top to bottom as listed within the properties.

Required Parameters

1. Towards the bottom of the properties, you will find the **Workflow*** parameter. Using the dropdown select the ID of the workflow you will be working with using the Status Selector.
2. Next, for **States***, click the dropdown to view all the states within all workflows, which are listed by workflow ID and then the state ID. Look for the states that are in the workflow you selected in Step 1. Once you have selected a state, click the **Add** button. Continue this process until all the states you need are added. Use the Up and Down buttons to reorganize the states as they will display within the Status Selector in the order they are listed in the Properties (top to bottom).

   In the screenshot below, the workflow ID is Workflow6 and the applicable states are 'Initial,' 'State-2,' 'State-3,' and 'EndState.'



3. Use the **Results Screen*** dropdown to select the screen, Task List, or Advanced Search that users will be navigated to upon clicking a workflow state.

   If the desired screen has not been created yet, click the **Add** button to the right of the field and follow the typical steps for creating a new screen. The screen ID of the newly created screen will be selected once the process is complete.

If using an Advanced Search screen and wanting to further filter the task list, you can designate a specific (previously saved) search to use when navigated to the Advanced Search screen upon state selection. Click the ellipsis button (...) and select a search from the saved search dropdown. Save the selection.

Click **Save** in the designer window to save the changes you have made up to this point

Additional Parameters

4. Set an **Auto Refresh Interval**, if desired. Enter, in seconds, how much time should pass before the Status Selector is automatically updated. Enter 0 to disable automatic updates. If you leave the field blank, it defaults to 0 upon saving the Properties.

   Disabling the functionality means that you will only view updates to the number of tasks in each state when the Web UI screen is refreshed (logging in and out; navigating to another page and then back) versus automatic updates to the info displayed on the Status Selector without user intervention.

5. If you want an initiate object link to display in the Status Selector as a way for user to create / initiate objects into the designated workflow, then enable the **Show Initiate** parameter. Also, insert text to be used for the link in **Initiate Label**. If you leave the label field blank, then 'Initiate' will automatically populate the field after saving the Properties.

   If the **Show Initiate** option is enabled (checked), a selection needs to be made for **Initiate Screens** using the dropdown. Make a selection, and then click Add. Repeat the process to add additional screens. The screen links will appear in order (top to bottom). Use Up and Down to reorganize as needed.

6. Click the **Status Flags Enabled** checkbox if you use Status Flags and want to the task count within the Status Selector to be grouped by Status Flag (columns) in addition to states (rows).

   Additionally, if you want the headers to display above the columns, enable **Show Status Flag Headers**.

7. Enable the **Show Total** checkbox to add a row below all the workflow states that totals all the tasks. Also, the **Total Label** defaults to 'Total' upon save and can be kept as-is or alternate text can be entered into the parameter field.
8. Click the **Task Mode** heading bar to display three checkbox parameters that pertain to which of the three task mode icons -- User, Group, and All  -- can be accessed by the user in the Status Selector child component in the Global Navigation Panel. The three parameters that display in this section are 'Show All', 'Show Group', and 'Show User'. How these three fields are checked determine which task modes are accessible by the user. All three parameters default to checked when accessed in the designer. When all are checked, all three task modes () are enabled for display, depending on the user's privileges. If the user unchecks all options, no icons display and only the tasks for the user and the group to which the user belongs will show.

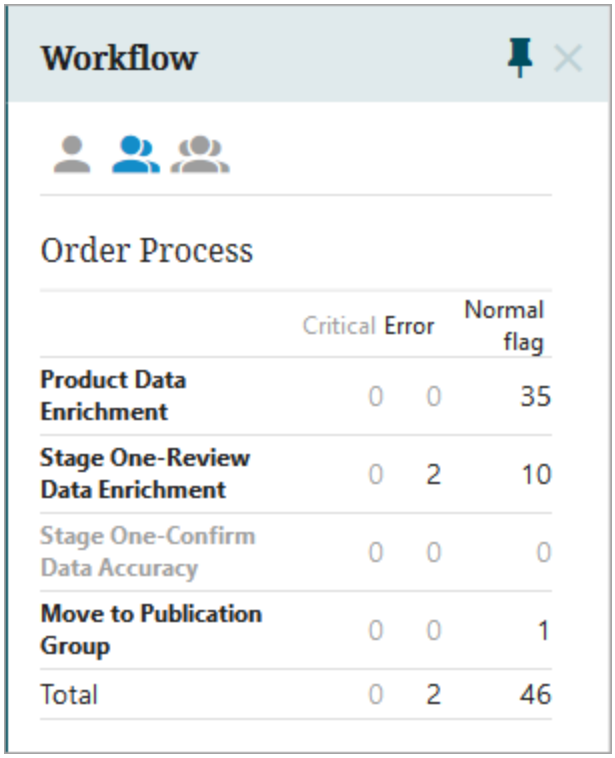
   When configuring the 'Task Mode' parameters for users without admin privileges, it is important to note that the 'All' task mode icon may not display in the Status Selector for non-admin users, regardless of configuration. As a result, if all three parameters are checked, only the 'Group' and 'User' icons will display. If 'All' and one of the other two task modes are checked, no icon will display and the tasks specific to the other checked task mode ('User' or 'Group') will be shown. If only 'Group' is checked, no icon will display and the

tasks for the user and the configured group to which the user belongs will show. If only 'User' is checked, no icon will display and the tasks for the logged-in user will display.

Note: By selecting the Group icon, users that have the 'View task assigned to other users in my group(s)' privilege are able to view their assigned tasks, as well as any tasks assigned to others and any unclaimed tasks within any group in which they are a member. For more information about workflow privileges, refer to the Workflows section of the **Setup Actions and Error Descriptions** topic in the **System Setup** documentation.

9. Click the **Advanced** heading bar to display the **Use Content Indicator** parameter. Clicking the checkbox, will cause the component to show a clickable content indicator instead of the exact task count.

Again, click **Save** in the designer window to save the changes you have made up to this point



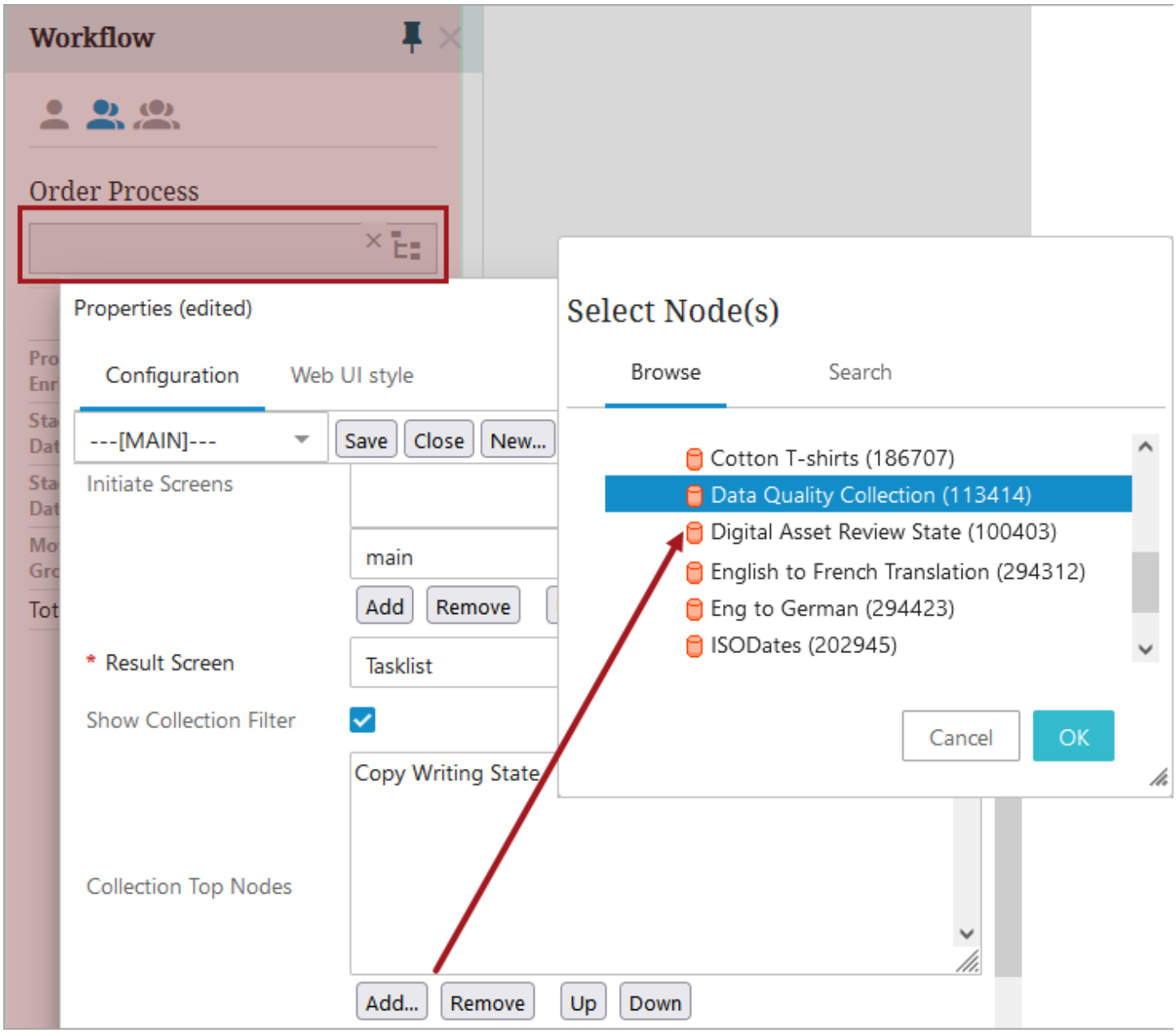
Setting up Collections Viewing

Collections are containers for storing sets of objects, and collection groups are containers that can hold collections or other collection groups. A collection can be applied as a filter limiting the available objects to the ones present in the chosen collection. Collections are typically used in relation to Bulk Update functionality.

To make use of Collections Filtering in Web UI, initial setup needs to take place in STEP Workbench and be in place before starting the next steps. Permissions for viewing and working with collections are also configured in workbench. For more on collections, refer to **Collections** in the **System Setup** documentation.

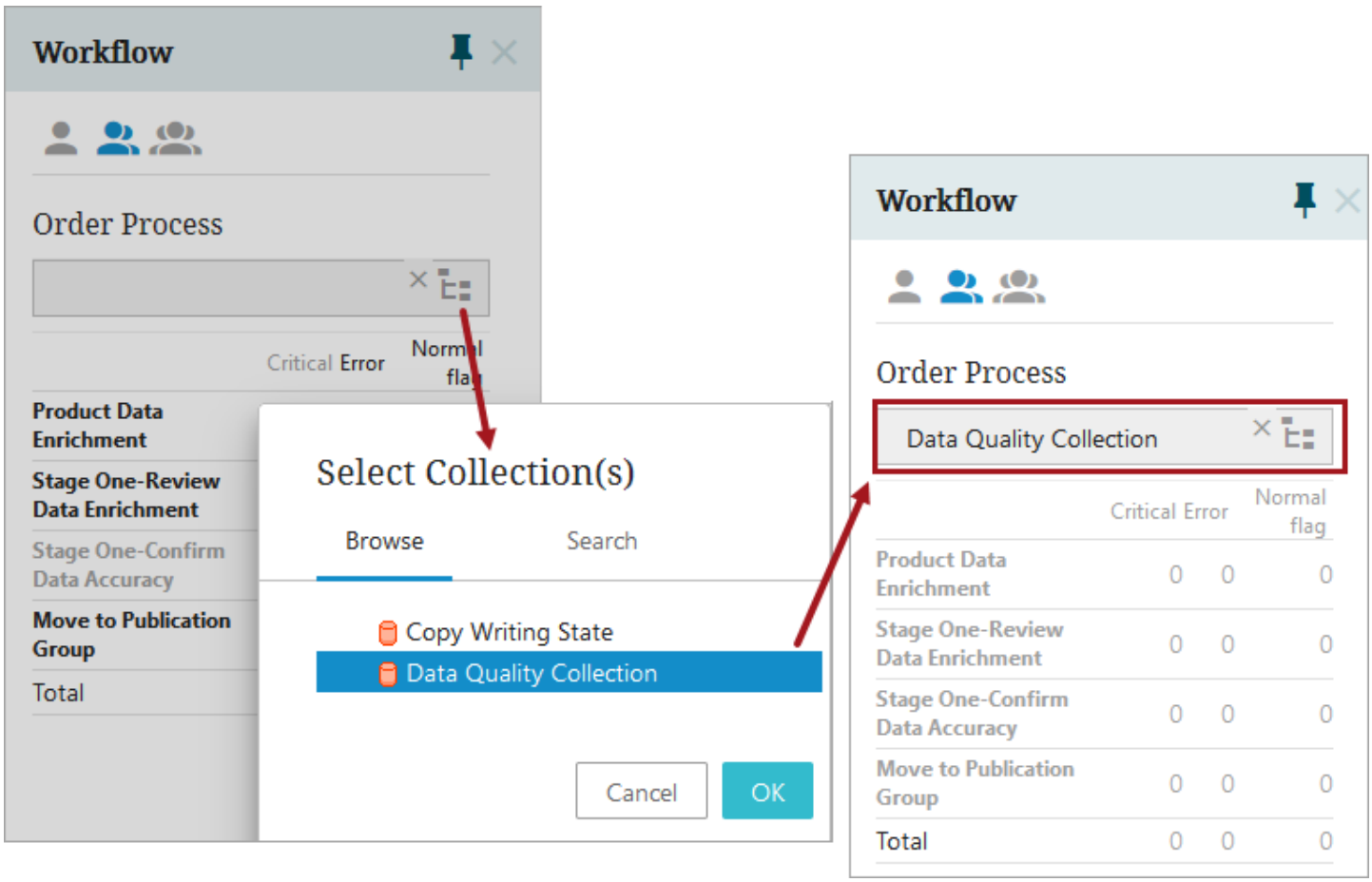
1. Select **Show Collections Filter** to show collections.

2. Add any **Collections Top Node Filters** to further narrow down the collection or collections accessible to users. Click Add, and make a selection or selections, and then click OK. The selections can be reorganized as needed.



Save the changes and **Close** the designer window.

Only collections available to the user or user group will be shown when configured properly. The user can then filter the states based on the collection or collection group selected.



For more information on end-users tasks such as initiating objects into a workflow and working with states and tasks within the Status Selector child component in the Global Navigation Panel, refer to the **Working with Tasks in Workflows** section of the **Workflows in Web UI** documentation.

Initiate Item Screen

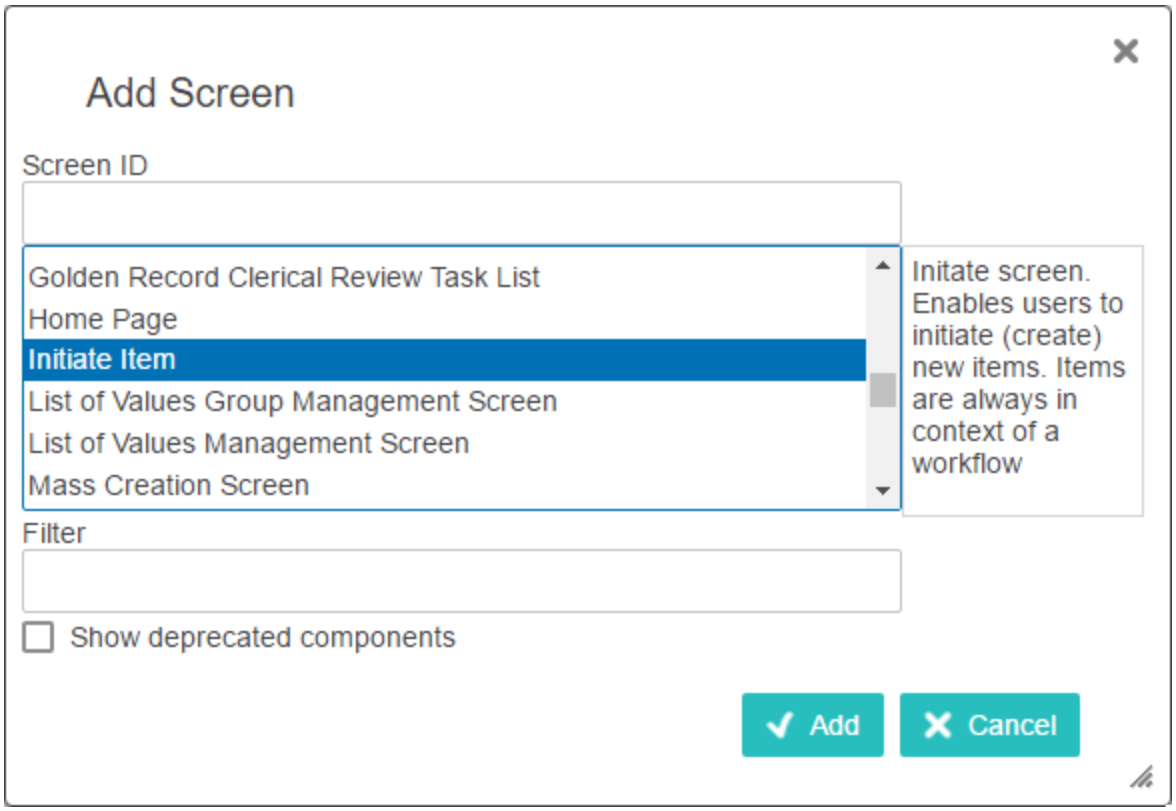
The **Initiate Item** screen is used to create new objects using Web UI and initiate those objects into a workflow. Once configured, an Initiate Item screen is accessible using a Status Selector Homepage Widget and/or Status Selector child component in the Global Navigation Panel.

Steps provided in this topic assume the Web UI designer is in design mode prior to starting the configuration process. For more information about getting started using a Web UI and details about design mode access / usage, refer to the **Web User Interfaces** documentation.

Adding a New Initiate Item Screen

Steps for creating a new screen using the Initiate Item screen type are below.

1. In the designer window, click the **New** button in the action icon row.
2. Choose **Initiate Item** from the screen list and type in a Screen ID. The screen ID should be something easily identifiable when it is time to configure the screen and/or set up screen mapping.

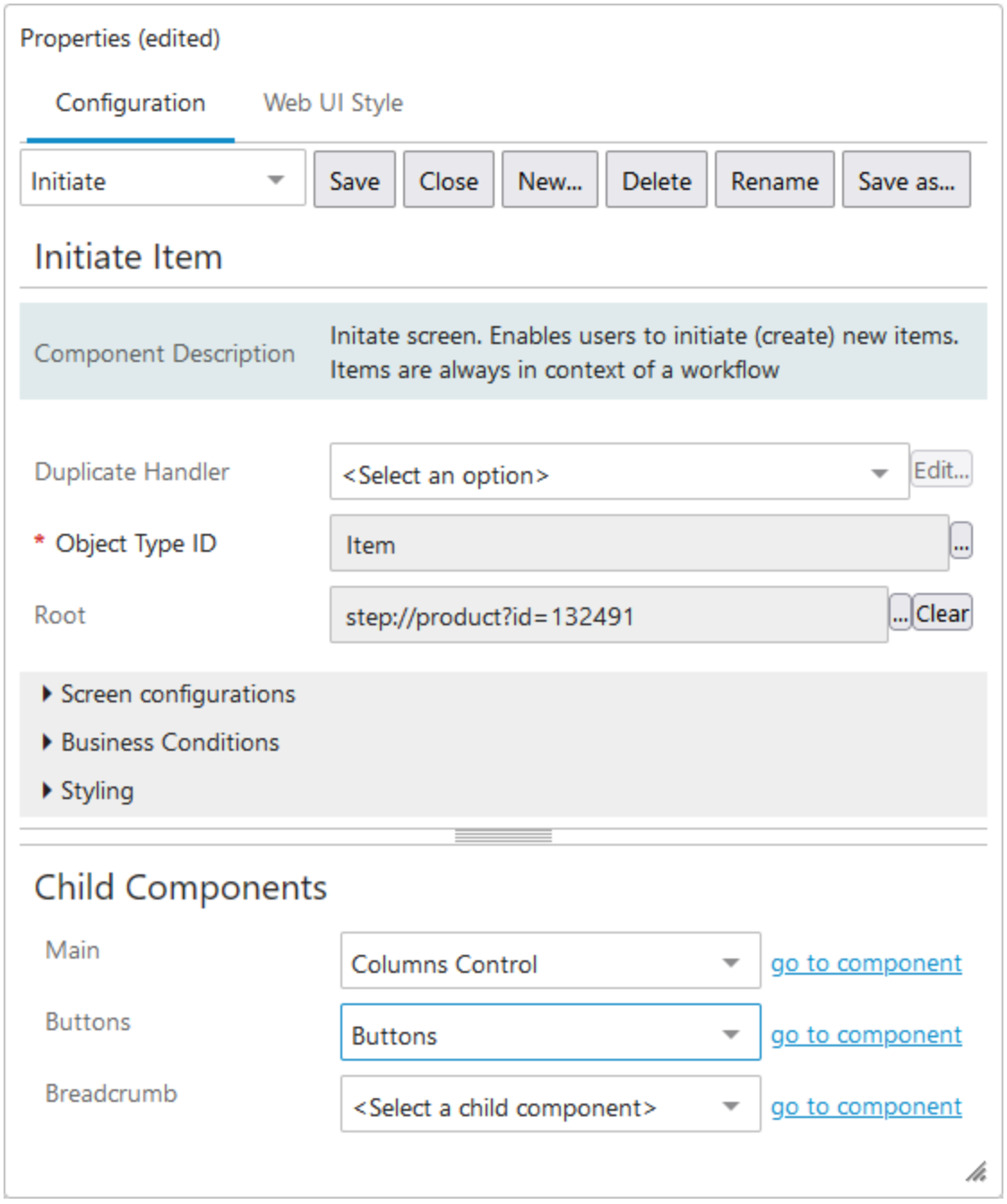


3. Click **Add**.
4. At this point, either close the designer and configure the screen at a later time, or continue on with the **Initiate Item** configuration. You must do Step 1 of the next section before you can successfully save Initiate Item Properties.

Configuring Initiate Item Properties

Some Web UI templates include a pre-configured Initiate Item screen type with a screen ID 'initiate.' If using the existing 'initiate' screen, there may be modifications required to the default settings. These are addressed later in this topic under the **Editing Pre-configured Initiate Item Properties** section.

The steps in this topic outline how to create a new screen and configure the parameters to your data structure and can be adapted to edit an existing screen.

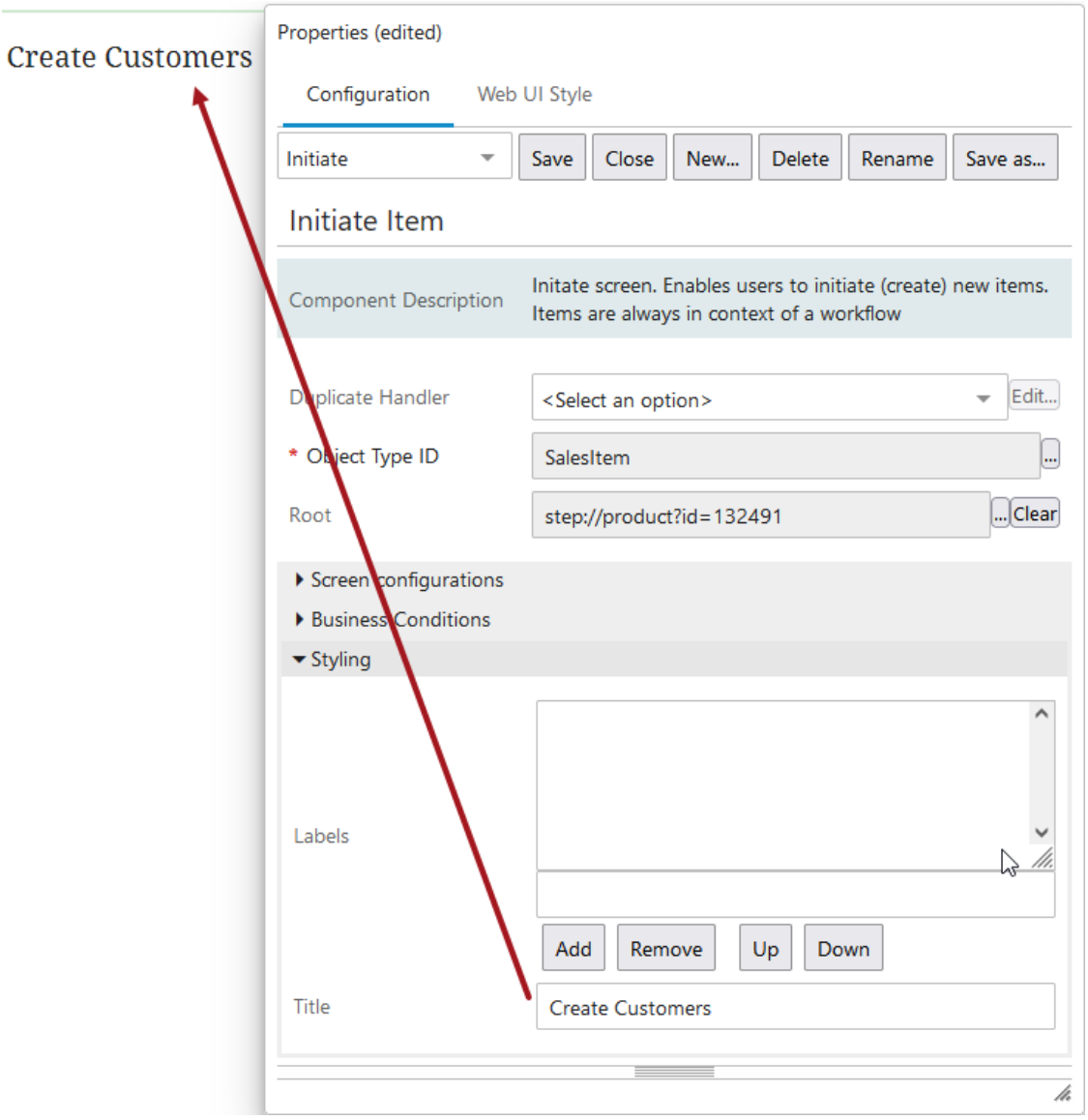


Initiate Item Master Components

1. For the **Object Type ID** parameter, click the ellipsis button (...) to make a single selection from the 'Select Node(s)' dialog. When new objects are created using this screen, they will be created as the object type selected. In the example below, the Object Type is set to 'SalesItem.'

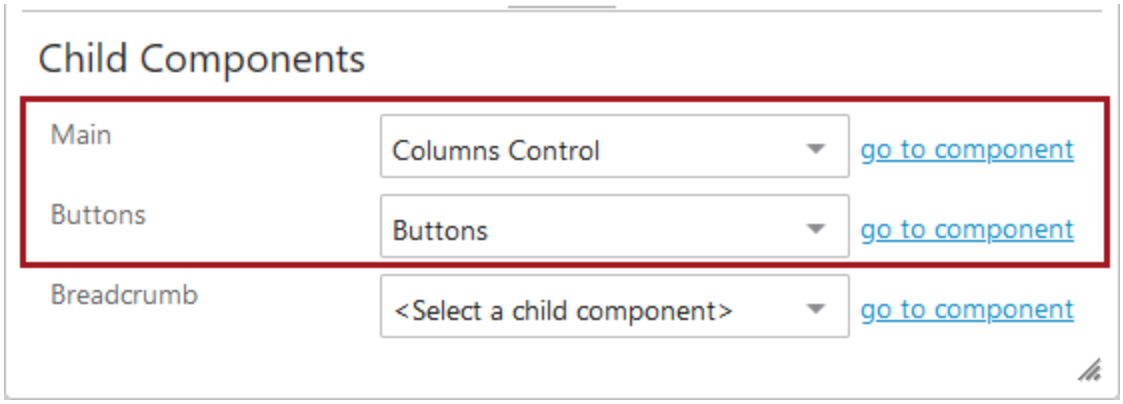


2. If all new items will be created below a specific root node, click the ellipsis button (...) to make a **Root** parameter selection. If not, all new items should be created in the same location, skip this step and instead use a component on the screen that allows the user to pick the parent (refer to Step 4 of the **Initiate Item Child Components** section).
3. Click **Screen configurations** to access the **Forwarding Screen** parameter. Using the dropdown, you can choose a screen (by screen ID) to forward the user to once they have initiated an item successfully. If the desired screen does not exist, one can be added and configured at a later time.
4. Click **Business Conditions** to display additional parameters:
    - **Business Conditions**: Click **Add...** to select an existing business condition to be executed to validate attribute values on the node being edited. Multiple business conditions can be added, but all must succeed for the process to continue. For more information about Business Conditions, refer to **Business Conditions** in the **Business Rules** documentation.
    - **Disable Auto Vendor**: Click the checkbox to disable automatic linking to the supplier (vendor classification), if desired and applicable to your Web UI usage / setup.
6. Click **Styling** to display additional parameters.
    - **Title**: The default title (Initiate Item) can be used as-is or a more descriptive title can be typed into the value field. Titles are displayed at the top left of the screen. In the example screenshot below, the default value is overwritten with 'Create Customers.'



Initiate Item Child Components

The options you pick may not exactly match the steps below. These components are configurable based on your setup needs and preferences. As an example, in Step 1 below, you are instructed to select Columns Control. Some Web UI setups may use Tab Control in place of Columns Control. The steps to configure a Tab Control component (or any other selection) will differ slightly than outlined below. Follow the Properties dialogs presented to you on the screen.



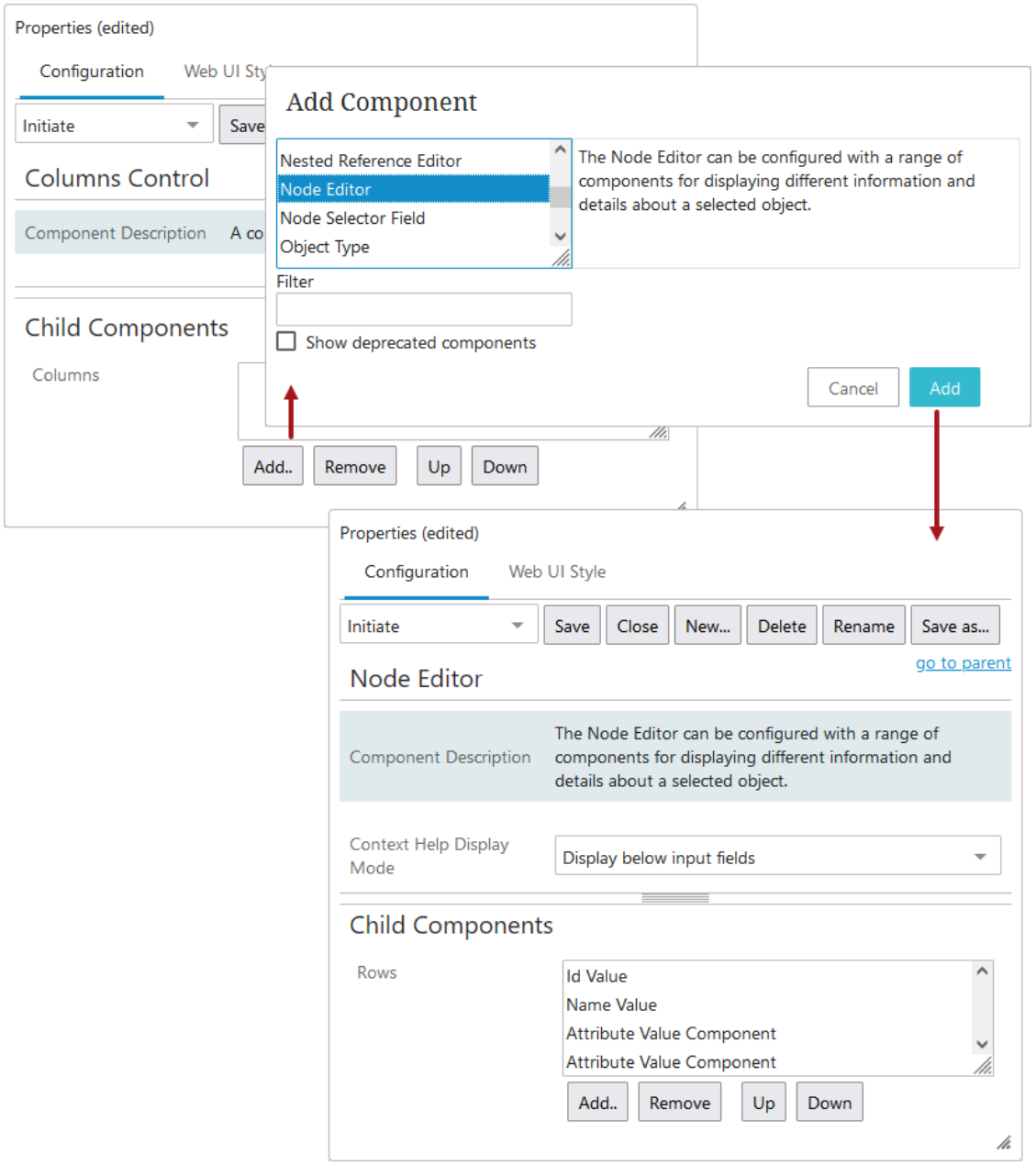
1. For **Child Components** > **Main**, choose **Columns Control** from the dropdown. Then click on **go to component**.
2. In Columns Control Properties, click the **Add** button below the Child Components > Columns field and select **Node Editor**. Click **Add**.
3. Back on Columns Control Properties, double click the **Node Editor** title in the Columns value field.
4. Click **Add** to make selections under Node Editor Properties > Child Components > Rows. These selections are the fields that will display on the Initiate Item screen as users create and initiate objects. Examples include ID Value, Name Value, Attribute Value Component, Attribute Value Group Component—anything that should have a populated value during the initial creation of an object.

Note: If any of the fields added in this step are mandatory, a warning will display under the field reminding the user that a value must be added to proceed. However, only mandatory multivalued LOV-type attributes and ISO date and time attributes added for this screen will display with the warning message. To ensure all selected mandatory attributes display the warning message, contact Stibo Systems Support to enable.

- If initiating items into different root nodes within the object structure, a component such as 'Parent Selector' can be added so that the user can select the root node for each object created. As explained earlier in this topic, if all objects should be created under one static root node, then that selection can be made in the Initiate Item Properties > Root parameter.

Important: The Parent Selector component should only be used with the Initiate Item Screen. While the component can be added to other screens, it is recommended that the Run Business Action be used instead. For more information, refer to the **Run Business Action** topic in the **Web User Interfaces** documentation.

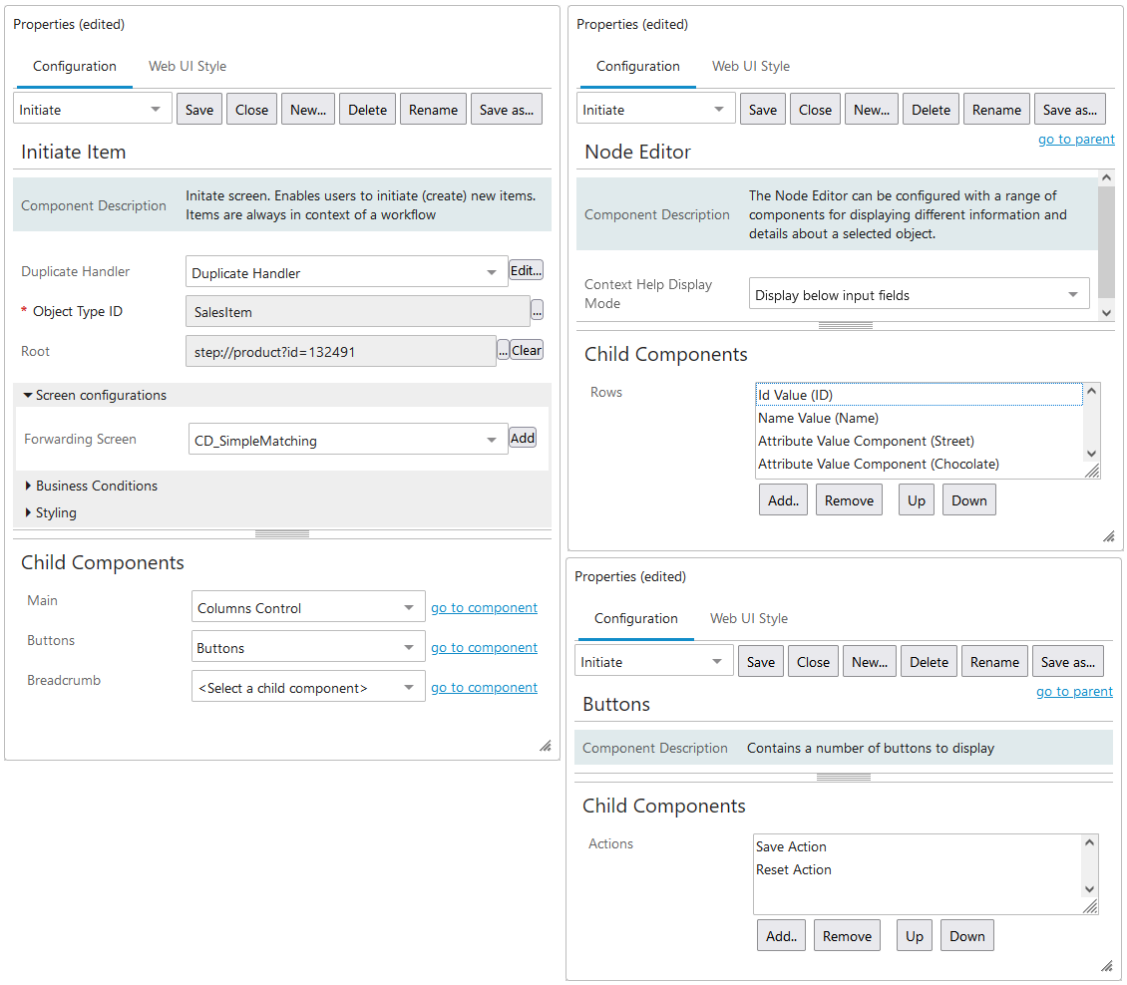
5. Click **go to parent** on Columns Control Properties to return to Initiate Item Properties.



6. Back on the Initiate Item Properties screen, go to **Child Component** > **Buttons** and select **Buttons** from the dropdown. Then, click on **go to component**.
7. On **Buttons Properties**, click the **Add** button below the Actions field, then select a component from the 'Add component' list and click **Add**. Additional configuration may be required depending on which action is selected. This is a small sample of available Actions with brief descriptions:
    - The **Save Action** is necessary to save / create objects.
    - The **Reset Action** erases unsaved data if the user needs to clear the screen for any reason.
    - The **Find Similar Action** is used to identify similar objects prior to initiating new ones, to avoid duplicate data.

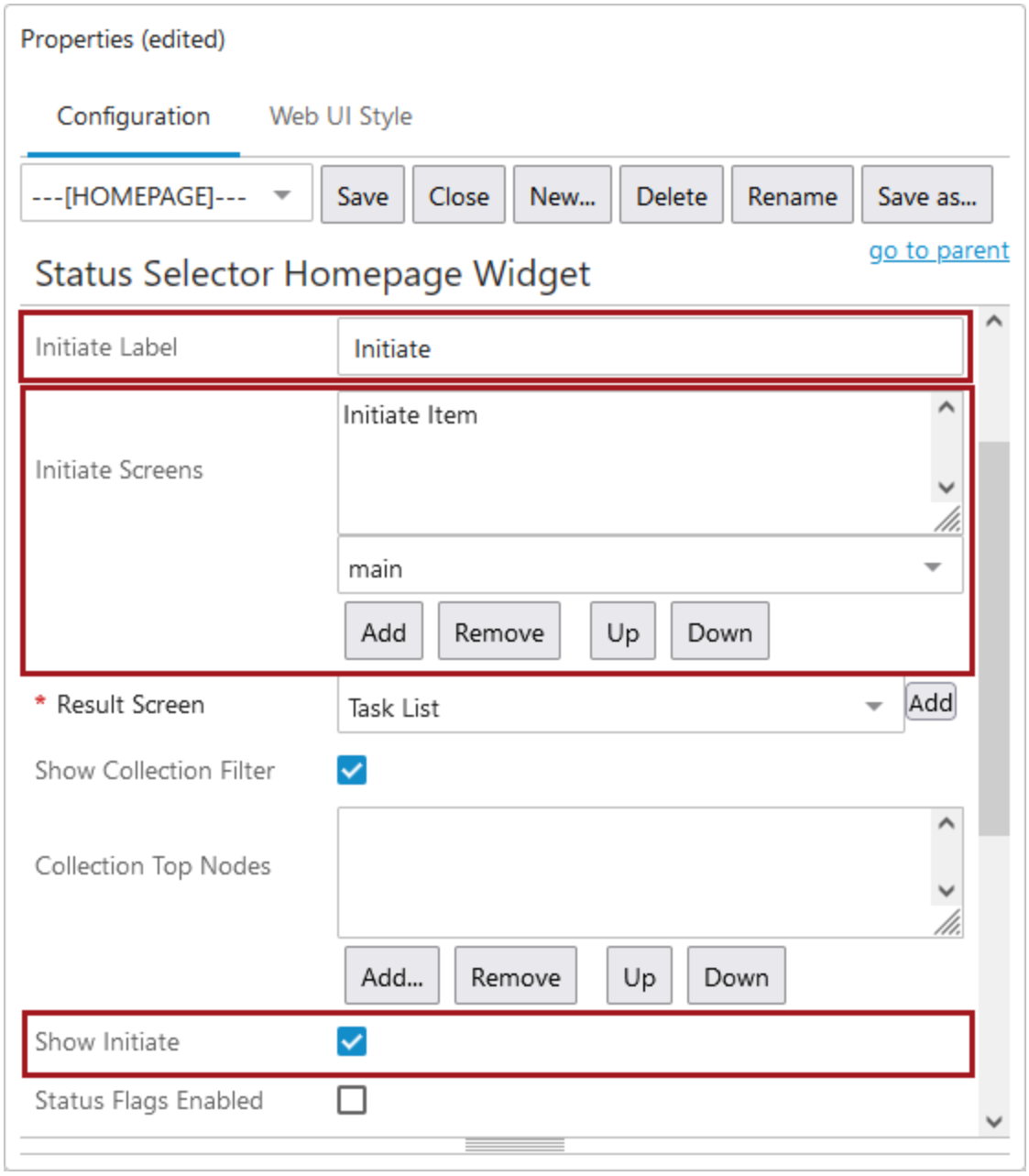
Note: The Initiate Item Properties > Duplicate Handler parameter is used with the Find Similar action button that is mentioned above. The specific setup required to use Find Similar functionality and the Duplicate Handler parameter is explained in the **Find Similar in Web UI** section of the **Using a Web UI** documentation.

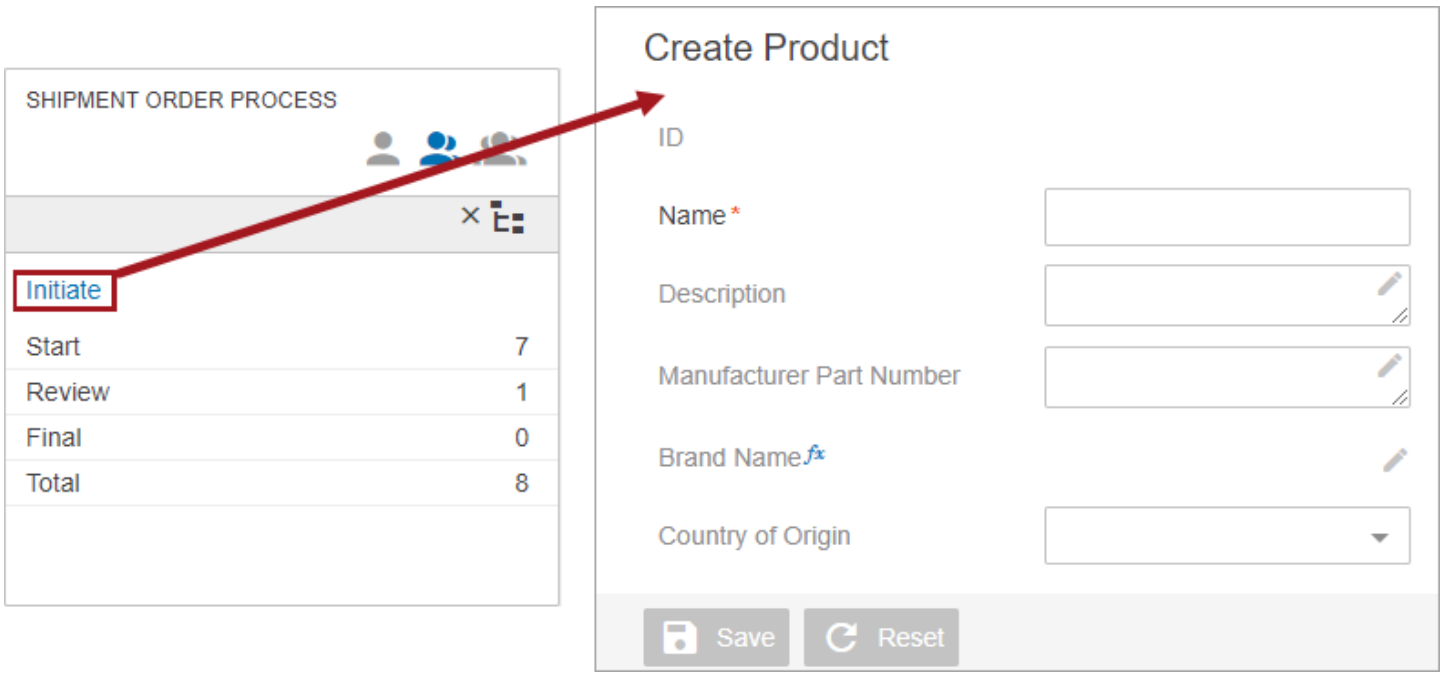
8. Repeat the previous step as needed to add additional actions. The action buttons will display in the order they are listed in the Actions value field. Reorganize by using the Up and Down buttons.
9. Click the **Save** button in the designer.



10. Click **Close** to exit design mode or use the dropdown to switch screen IDs and configure other properties.

Important: Initiate Item screens are accessed via status selector widgets. The appropriate screen ID must be configured as the value for the Initiate Screens parameter within Status Selector Homepage Widget Properties and/or Status Selector child component in the Global Navigation Panel (example screenshots below). For more information about the widgets, refer to the **Status Selector Homepage Widget** section in the **Web User Interfaces** / **Using a Web UI** documentation.


Properties (edited)
Configuration
Web UI Style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
go to parent
Status Selector Homepage Widget
Initiate Label
Initiate
Initiate Screens
Initiate Item
main
Add
Remove
Up
Down
* Result Screen
Task List
Add
Show Collection Filter
Collection Top Nodes
Add...
Remove
Up
Down
Show Initiate
Status Flags Enabled

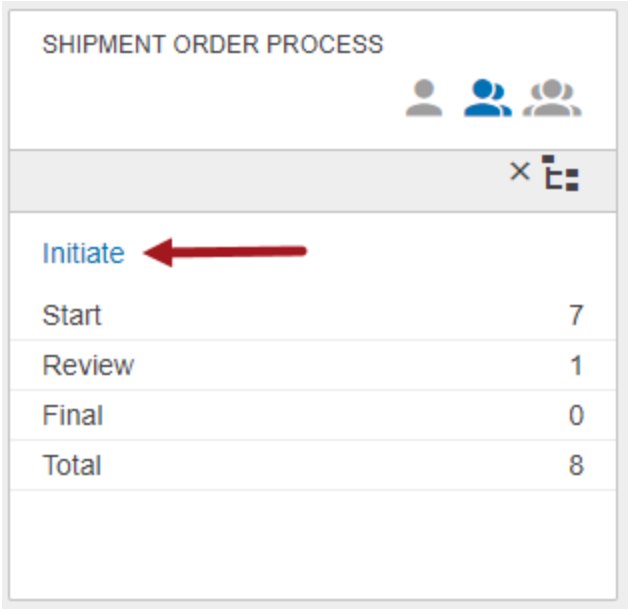


Note: To reduce duplicate records, learn about Find Existing functionality that can be used with the Store Single Referenced Target component and in conjunction with the Find Similar action in the **Find Existing** section of the **Using a Web UI** documentation.

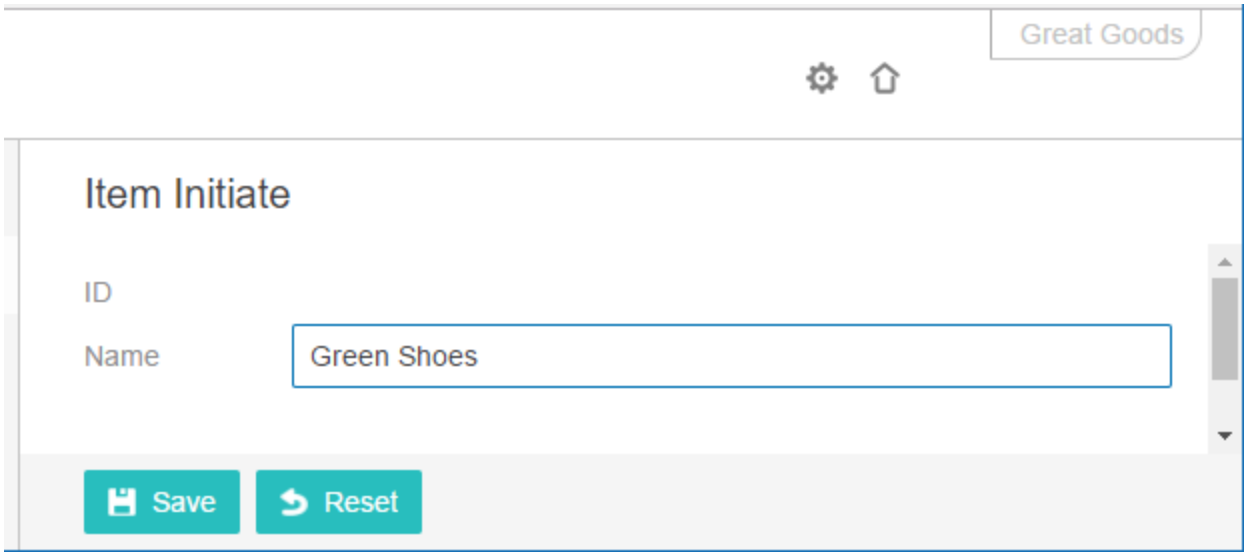
Using an Initiate Screen

A simple usage example follows:

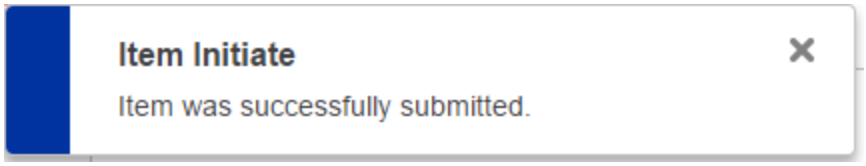
A user clicks on the Initiate link on a Status Selector Homepage Widget.



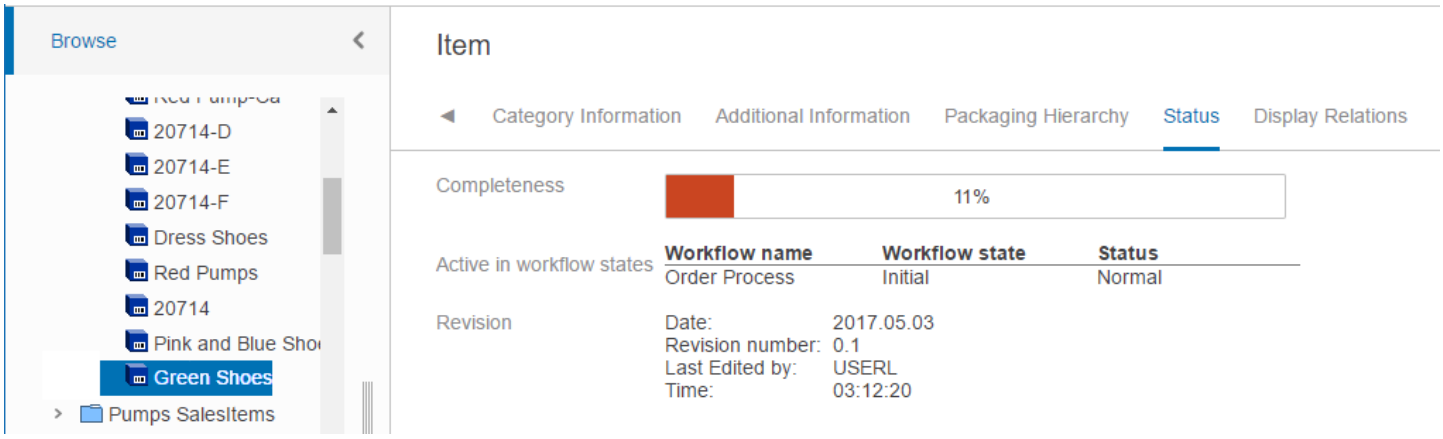
The Initiate Item screen displays.



Once the object information is entered, the user clicks the Save button (above) and a success confirmation message displays (below).



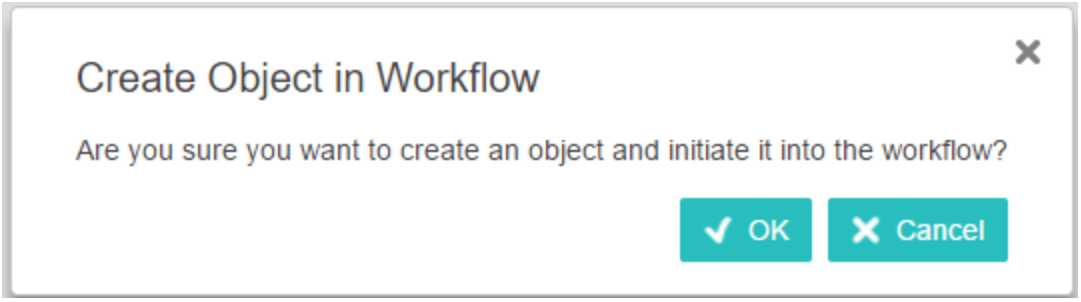
Below is verification that the newly created object was automatically initiated into the workflow that is configured within the Status Selector Homepage Widget Properties.



Create Object in Workflow Screen

When creating new objects from a Status Selector component, users can create and initiate objects into a workflow in a single step if the object type utilizes an auto-generated ID. This allows for a more streamlined object creation by giving the option to bypass the Initiate Item screen.

By using the **Create Object in Workflow** screen type, fields for entering object data are not presented to the user since the object is created with the simple click of a button. Users can seamlessly go in post-creation to work with the object and edit data since they are auto-navigated to an editing screen (determined by the overall Web UI mappings).



Users also have the option to create objects on a Node Details screen. It is the recommended method when initiating new objects, as it enforces validation before enrichment and prevents the creation of potential duplicates. To use the Node Details screen, the user has to configure the Find Similar flow in the Web UI. For more information, refer to the **Find Similar in Workflows** topic.

Preconditions

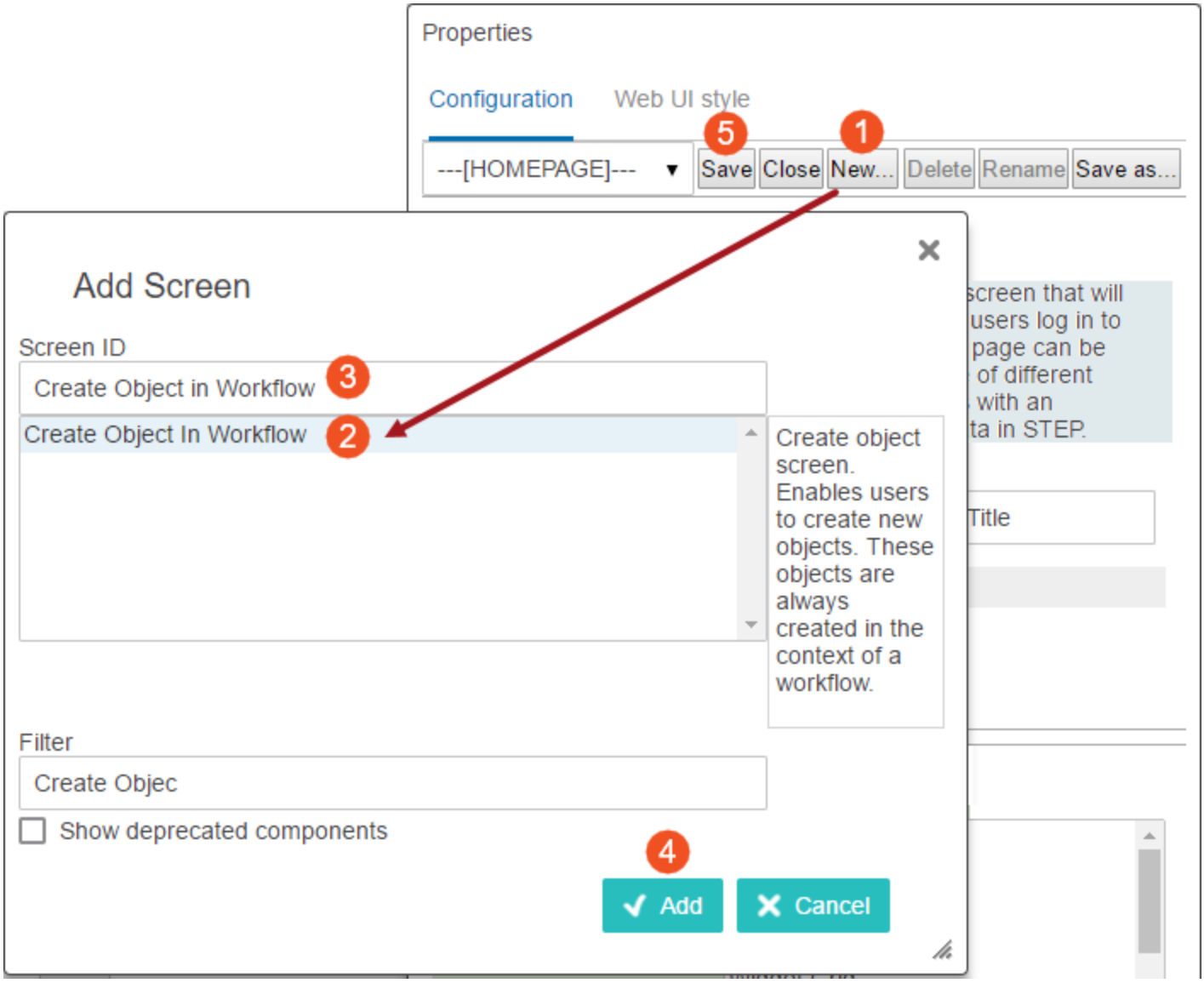
Before configuring a Create Object in Workflow screen, it is important to ensure that the data model supports the functionality and that the desired end result can be achieved. Specifically, users should be aware of the following:

1. Underlying privileges are not applied to the Create Object in Workflow screen. Therefore, only users who should be allowed to create and initiate objects into the relevant workflow should be given access to this functionality.
2. Objects created using this functionality are all created under a single common parent. It is therefore recommended that a subsequent workflow state require reparenting of the newly created objects, unless a flat hierarchy structure is desired.
3. Objects created using this functionality must use autogenerated IDs.
4. This functionality should only be used for workflows that have a single initial state. If used within a workflow that has initial parallel states, it is not possible to specify which state they will be directed to upon creation of the object.

Required Configuration to use the Create Object in Workflow Screen

Step 1: Create a new screen of type 'Create Object In Workflow'

1. Click **New** in the Web UI Designer.
2. In the Add screen dialog, select the **Create Object in Workflow** screen type.
3. Populate an appropriate ID for the new screen.
4. Click **Add** in the bottom of the dialog.
5. Click **Save** in the main screen of the Web UI Designer.

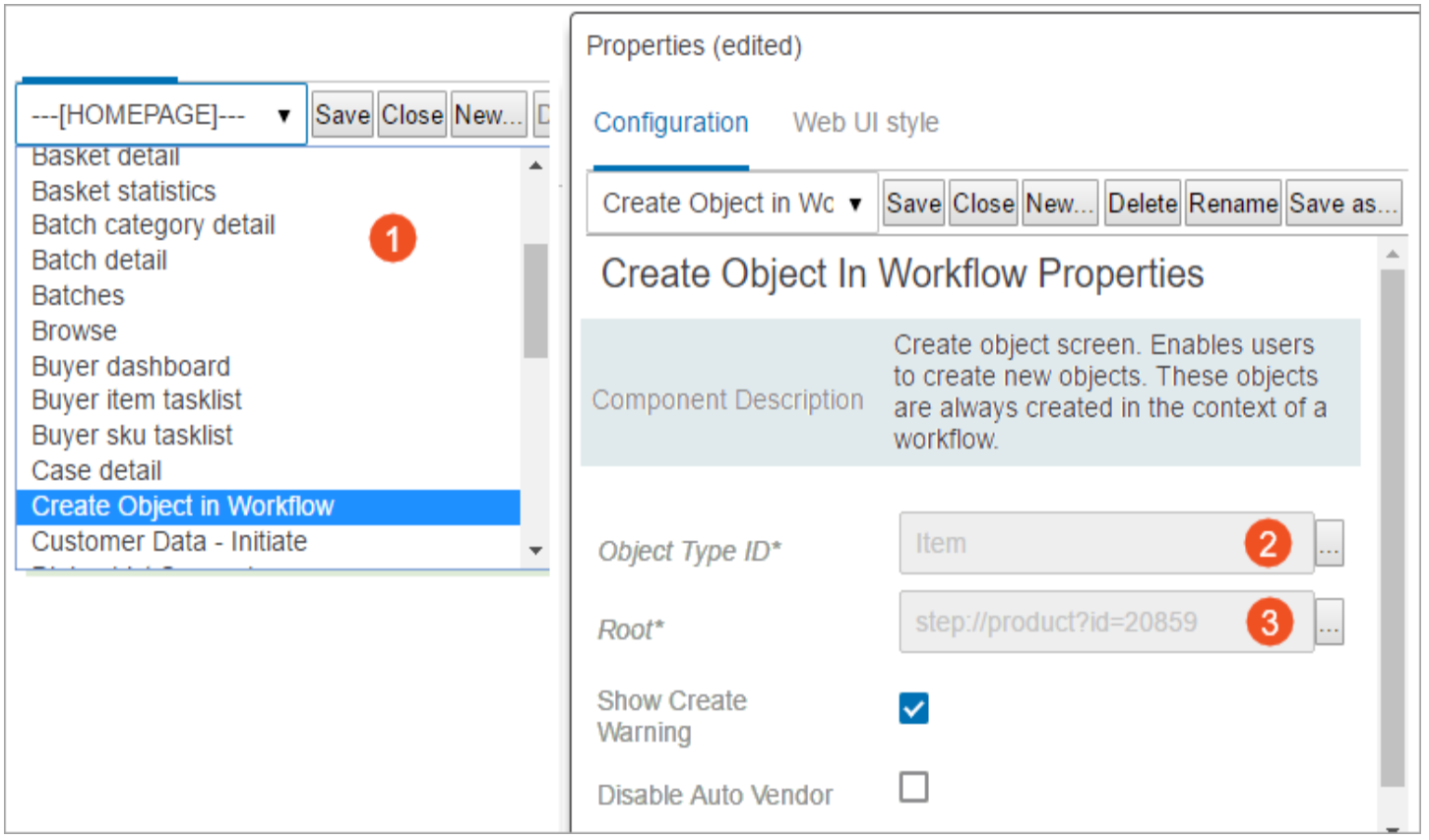


Step 2: Configure the 'Create Object in Workflow' screen

Once created, you must configure the Create Object in Workflow screen. Save the changes once complete.

1. Access the screen by selecting it from the dropdown in the Web UI Designer. Find the screen that matches the ID you populated in the previous steps.
2. Select an **Object Type ID**. This selection specifies the object type that will be applied to all new objects created via the 'Create Object in Workflow' screen. Note that the object type selected must use an autogenerated ID.
3. Select a **Root**. This selection specifies the common parent under which all new objects created via the 'Create Object in Workflow' screen will be placed.
4. Enabled by default, **Show Create Warning** means that end users will be presented with a dialog that requires them to confirm the creation and initiation of an object upon clicking the Create Object in Workflow designated link within the Status Selector. Disable if no message should display to the user.
5. **Disable Auto Vendor** can be used to prevent automatic object linking to a vendor classification. This parameter is unchecked by default.
6. At this point, if you want to utilize the Create From Template functionality, click on the Create From Template Tab header, enable **Show Create From Template**, and select a **Template Root**. Additionally the List Dialog properties, found under **Child Components** > **Create From Template List**, need to be configured.

   Refer to **Using a Template to Create and Initiate an Object in a Workflow** for more information.



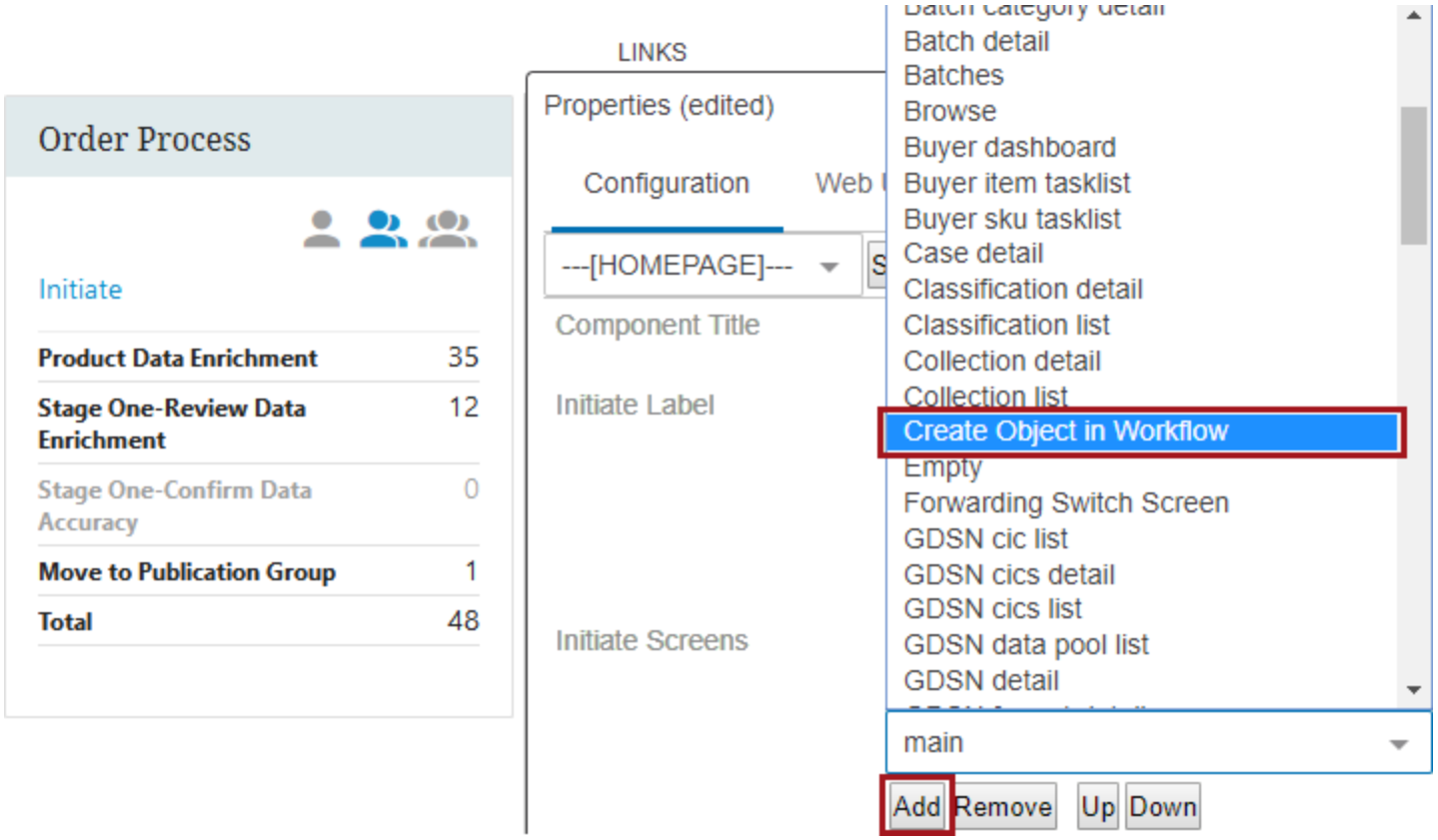
Note: All objects created using the Create Object in Workflow screen type are initially created under the same parent. It is therefore recommended that a subsequent workflow state require reparenting of the newly created objects, unless a flat hierarchy structure is desired. In addition, care should be taken in configuration to ensure that the selected object type and parent root are compatible (and valid for the workflow), else the end user will receive an error when attempting to create / initiate.

Step 3: Configure the Status Selector Initiate Screen

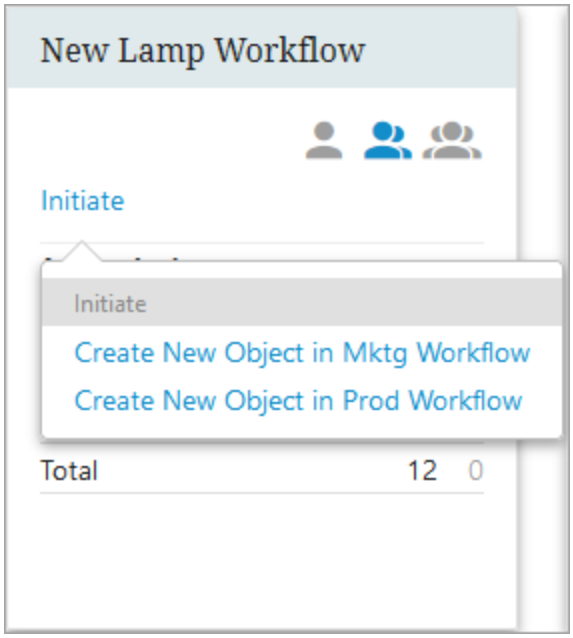
The **Create Object in Workflow** screen must be mapped as the Initiate Screen in a Status Selector Homepage Widget.

Important: Underlying user privileges are not applied to the Create Object in Workflow screen. Therefore, only users who should be allowed to create and initiate objects into the relevant workflow should be given access to the screen.

1. Open the Web UI Designer for the selected widget.
2. In the Initiate Screens parameter, find the newly created screen in the dropdown and click **Add**.

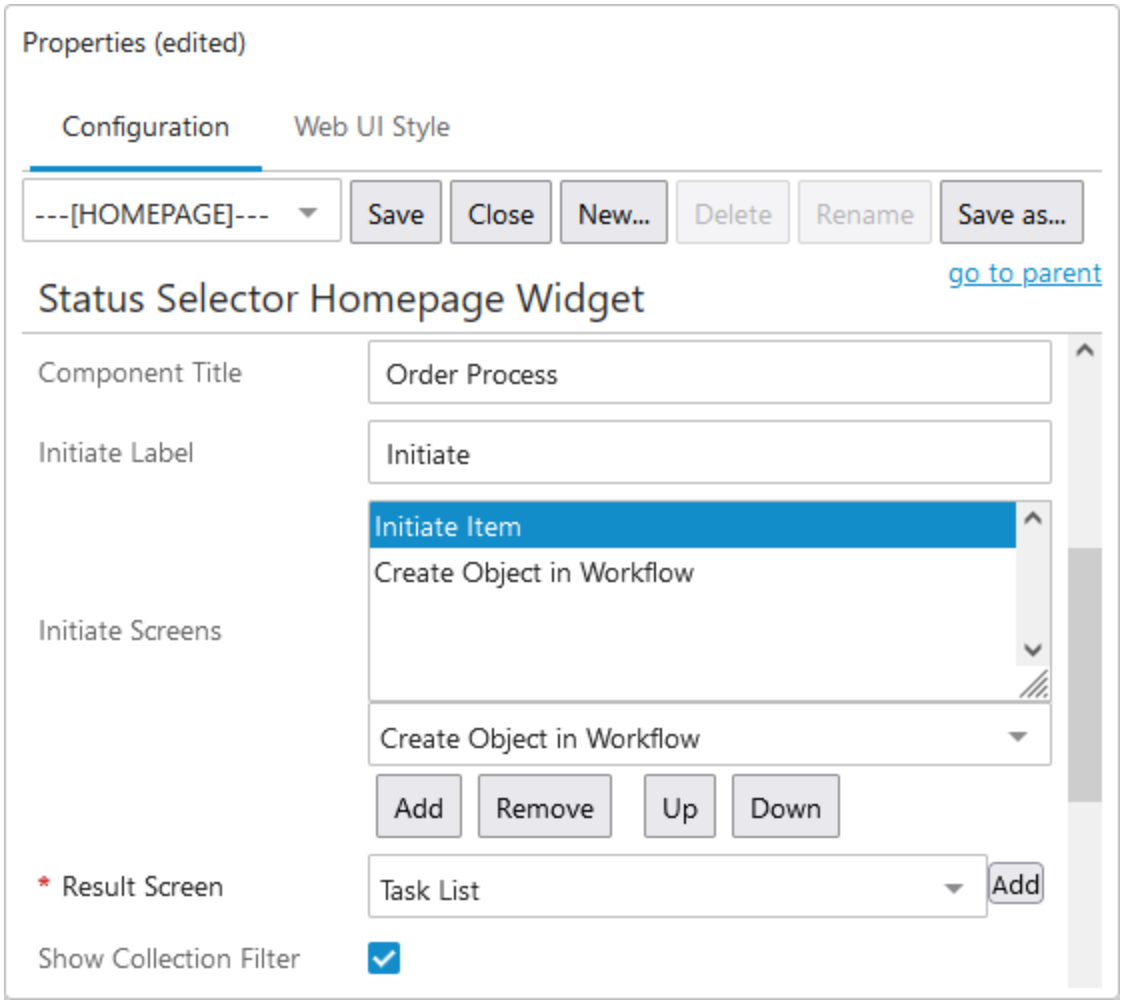


If using the superseded Status Selector Widget (rather than the Status Selector Homepage Widget), only a single Initiate Screen can be selected. If the Status Selector Homepage Widget is used, multiple screens can be mapped. In this case, users will view a selection option for each available screen when clicking the 'Initiate' link in the widget:



Step 4: Complete Status Selector Configuration

Complete configuration of the Status Selector, including selection of the relevant workflow and states. Ensure that the **Show Initiate** parameter is checked. A sample configuration of the Status Selector is shown below.



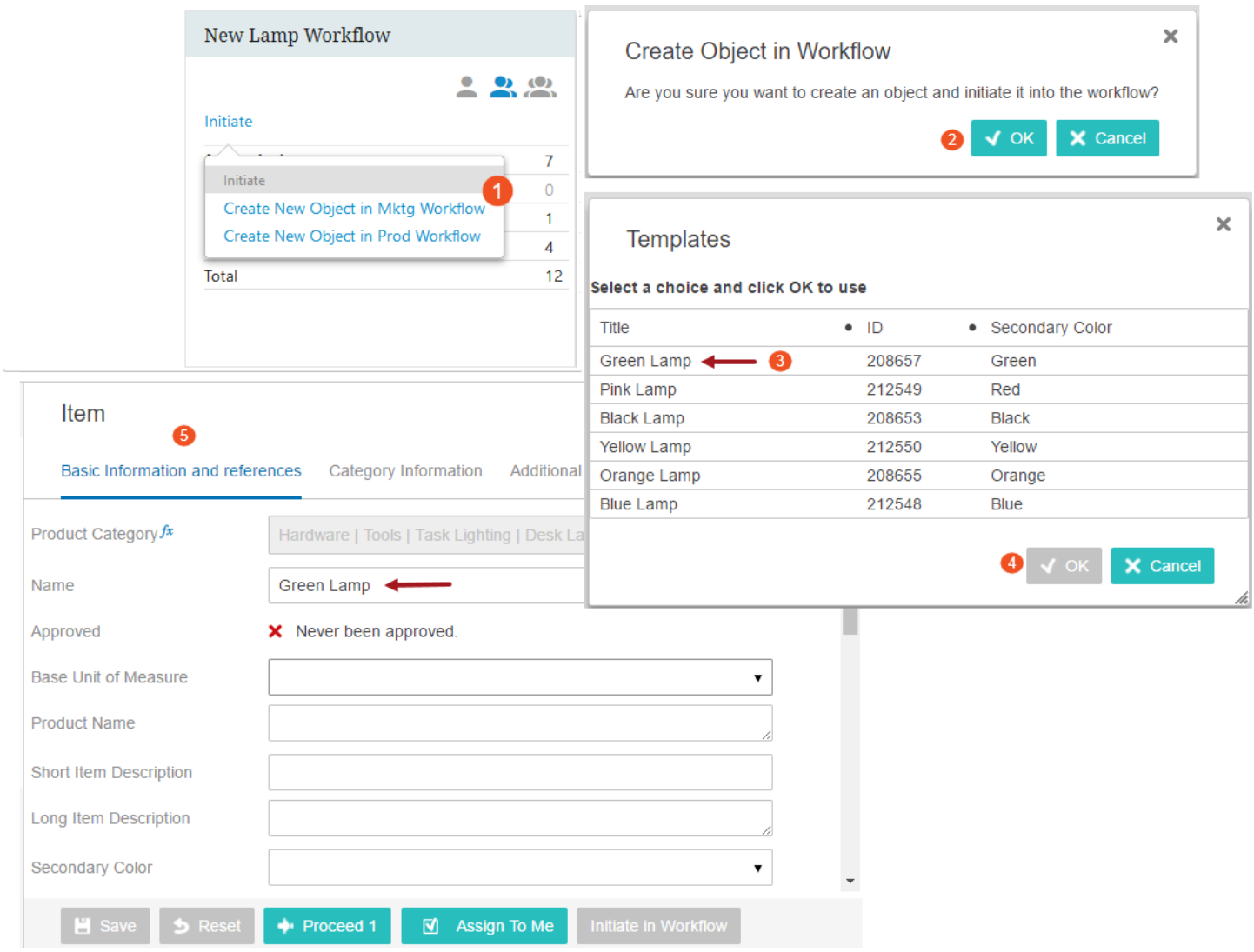
Using the Create Object in Workflow Screen

If configured properly, end users can click on the Initiate option in the Status Selector Homepage Widget to create a new object. The object will be created with an autogenerated ID, under the parent specified by the configuration, and of the object type specified by the configuration. If the warning is enabled, users will view the confirmation 'Create Object in Workflow' dialog (as shown).

If Create From Template has been enabled and set up, then the end user will be presented with a templates list after the warning message, or in place of it (if the warning is disabled).

Upon creation, users are taken directly to the first screen mapping that meets the conditions applicable to the object created. Users can begin work on the object, without having to have entered an Initiate Item screen to create the object.

An example of the process is shown below:



Note: It is recommended that the Create Object in Workflow screen only be used for workflows that have a single start state. If, for example, business rules pass an object into parallel states upon entry to the workflow, users cannot be routed to a specific state and have the potential to view the object in either of the states in which a current task exists.

Using a Template to Create and Initiate an Object in a Workflow

When bypassing the Initiate Item screen and using Create Object in Workflow, users are able to create and initiate new objects without having to enter attribute values prior to creation. By enabling the Create From Template functionality, users can further simplify the object-creation process by selecting a template to use when creating a new object. Creating an object from a template can be useful to the end user tasked with updating the object data because the template's attribute values are copied into the new object automatically. The end user only needs to populate the subset of data that must differ between the template and the new object.

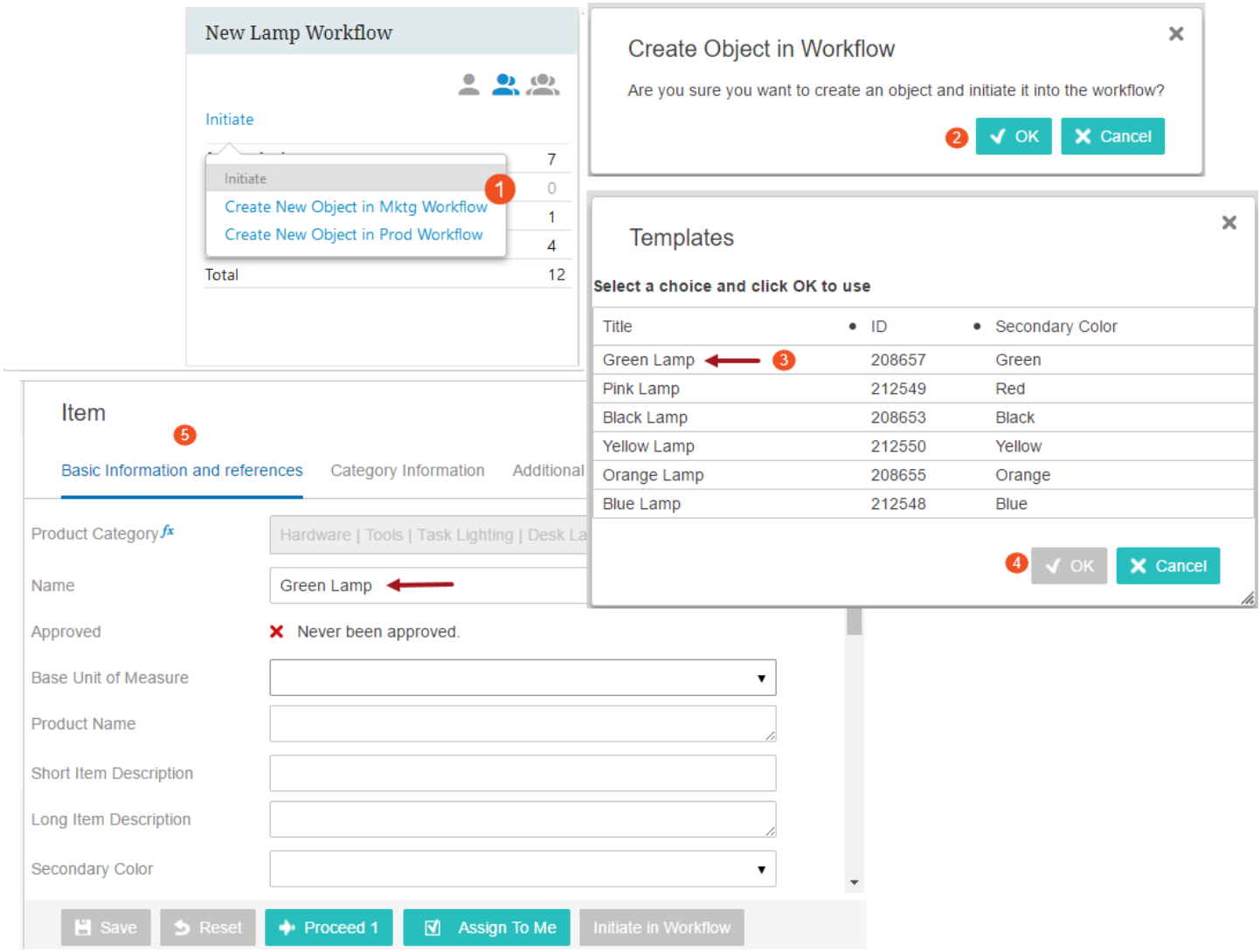
Using Templates with Create Object in Workflow

If configured properly, end users can click on the Initiate option in a Status Selector Homepage / Sidebar widget to create a new object using a Create Object in Workflow screen type. The object will be created with an auto-generated ID under the parent specified by the configuration, and of the object type specified by the configuration. If 'Show Create Warning' is enabled, end users will view the confirmation 'Create Object in Workflow' dialog (as shown) and must click OK to move ahead. Clicking Cancel will navigate the user back to the home page.

If using the Create From Template functionality, the 'Templates' Dialog List will display with available templates once the warning is shown and creation is confirmed (if applicable). The display shown below is configured to show Title (Name), ID, and Secondary Color attributes. The end user selects a template by clicking on a row within the list, then selects OK. A new object is created and initiated into the applicable workflow.

Upon creation, users are taken directly to the first screen mapping that meets the conditions applicable to the object created. Users can begin work on the object, using the attribute values and reference targets from the template that now populate the empty attributes that apply to the new object, and changing any attribute values that should differ from the template (i.e., Name).

An example of the process is shown below:

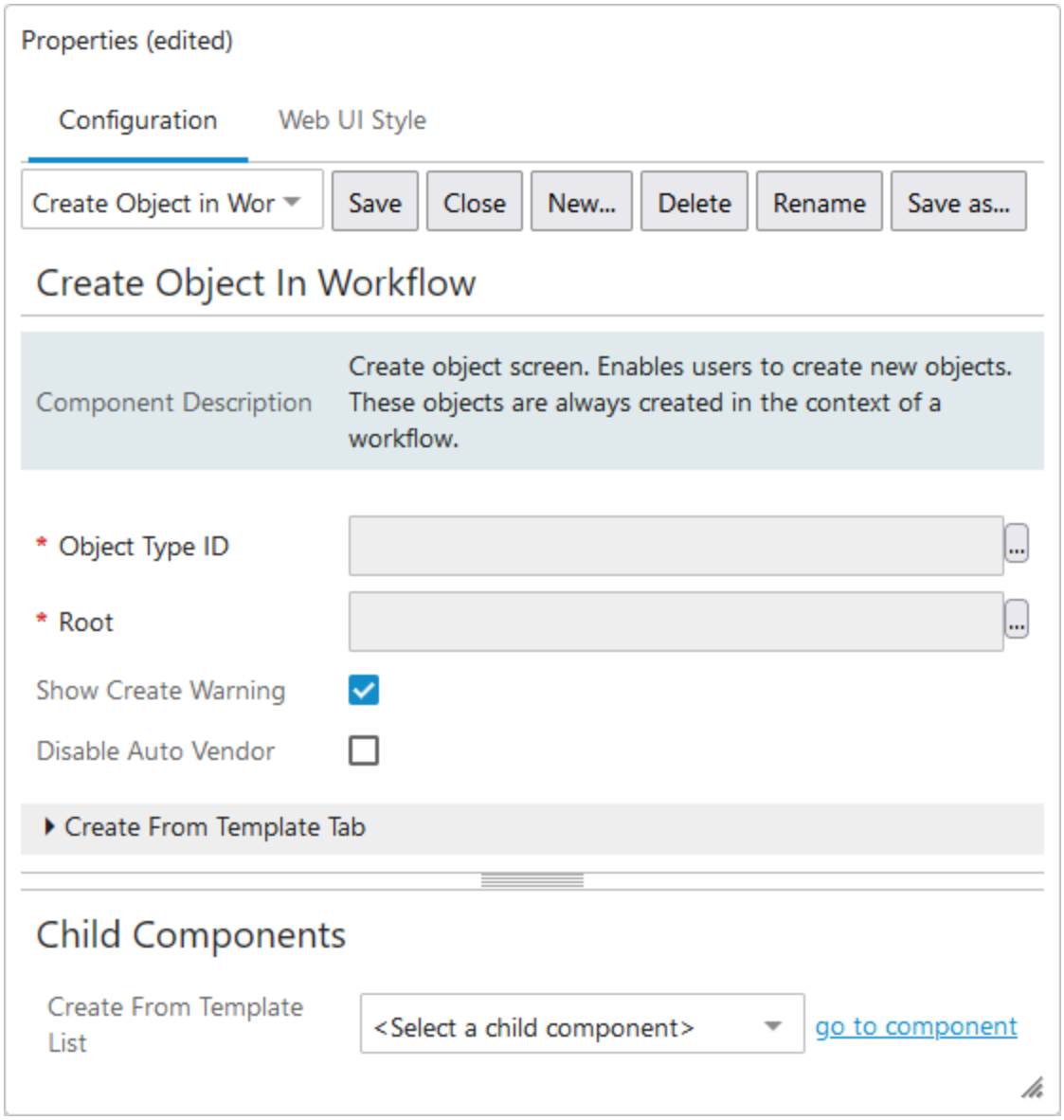


Configuring the Create Object in Workflow Properties

Refer to the **Create Object in Workflow Screen** topic for information regarding the preconditions that must be met to use a Create Object in Workflow screen and how to configure its use.

The first five steps are repeat steps outlined in the Create Object in Workflow Screen topic. If you have previously set up the Create Object in Workflow Properties and just want to enable the Create From Template functionality, skip to Step 6.

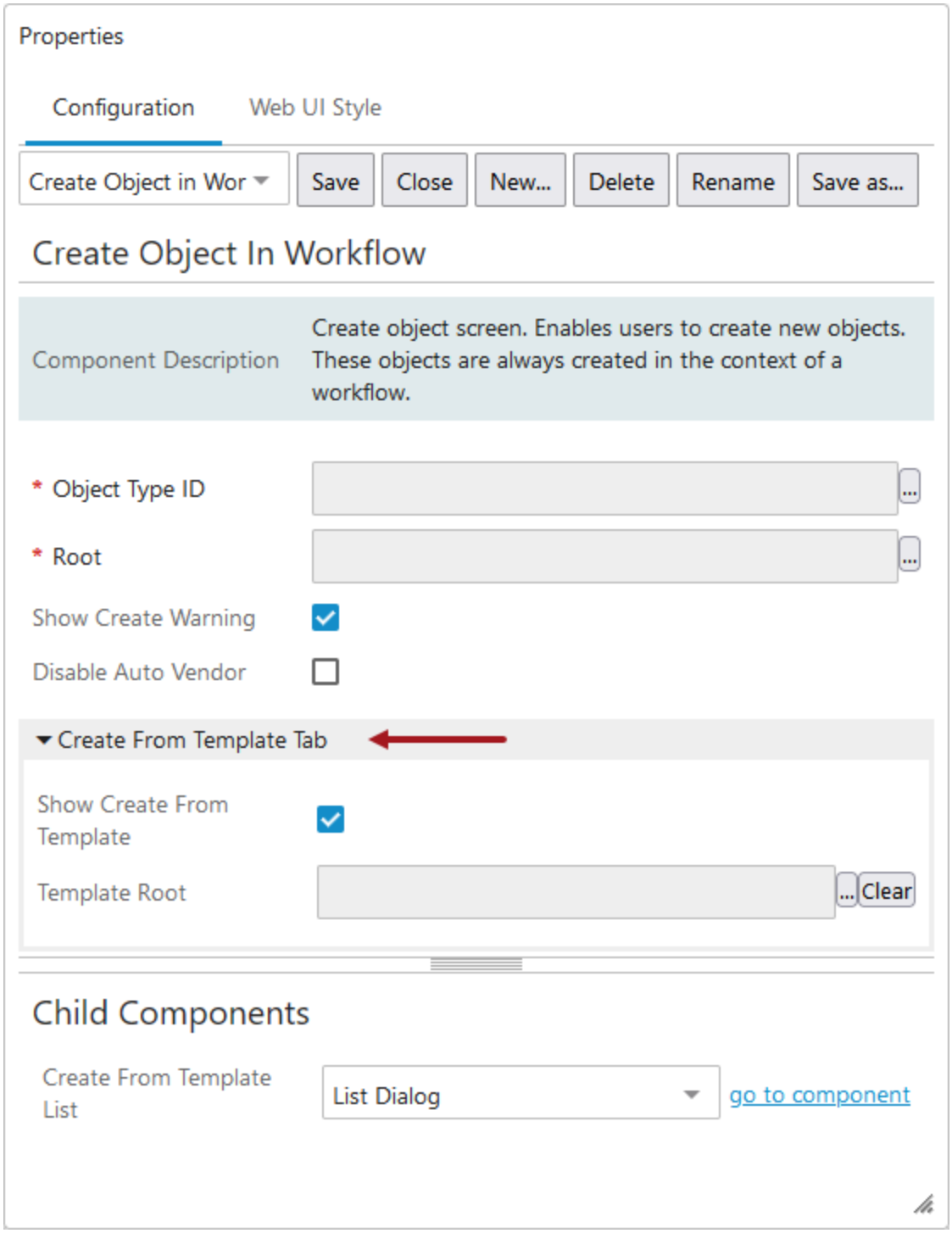
Steps 1 and 2 must be completed before the Create Object in Workflow Properties can be saved.



1. Enter design mode and access the Create Object in Workflow screen ID via the dropdown. The **Create Object in Workflow Properties** will display.
2. Select an **Object Type ID**. This selection specifies the object type that will be applied to all new objects created via the Create Object in Workflow screen. Note that the object type selected must use an autogenerated ID.
3. Select a **Root**. This selection specifies the common parent under which all new objects created via the Create Object in Workflow screen will be placed.
4. Enabled by default, **Show Create Warning** means that end users will be presented with a dialog that requires them to confirm the creation and initiation of an object upon clicking the Create Object in Workflow designated link within the Status Selector. Disable if no message should display to the user.
5. **Disable Auto Vendor** can be used to prevent automatic object linking to a vendor classification. This parameter is unchecked by default.

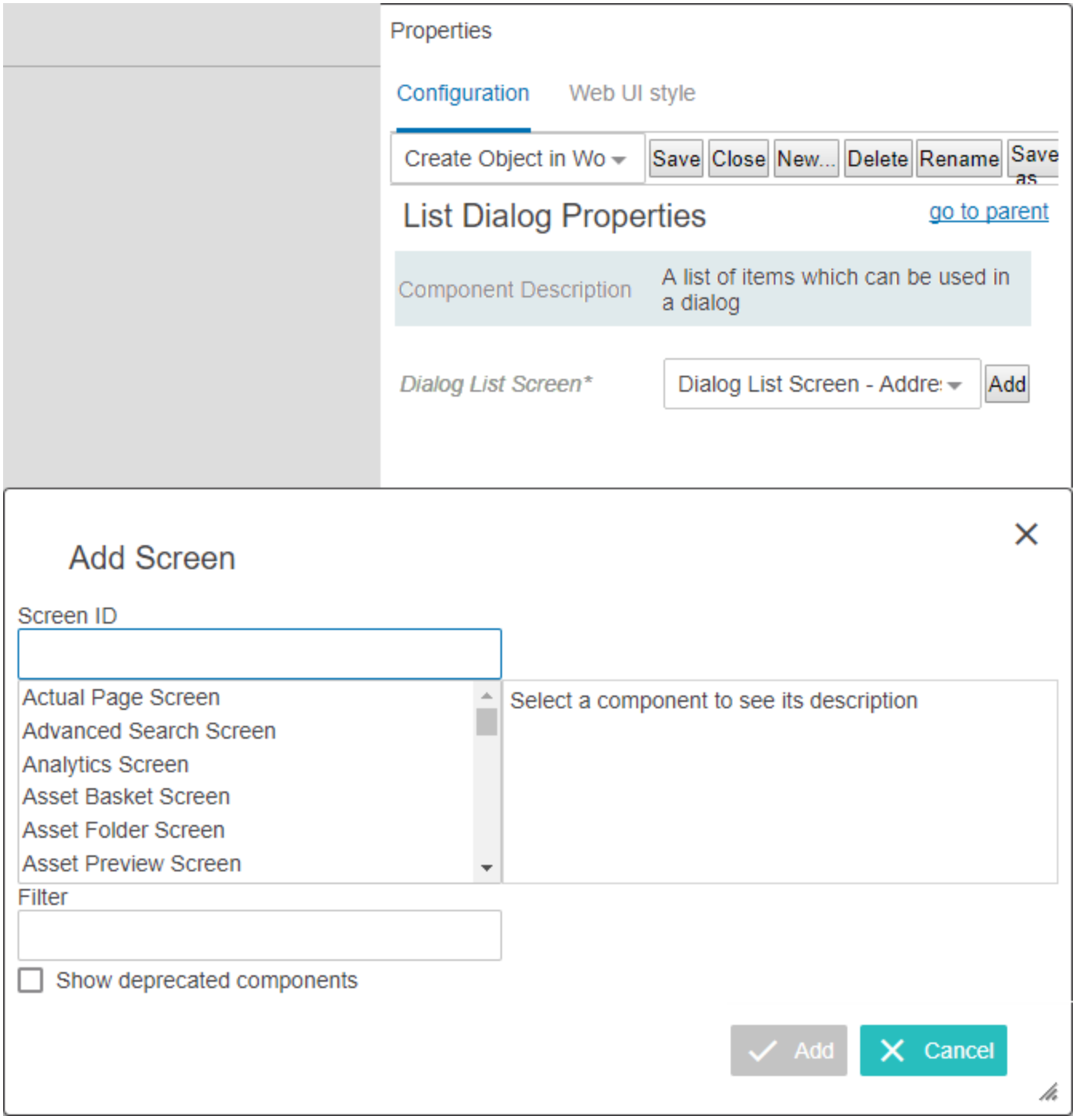
Note: All objects created using the Create Object in Workflow screen type are initially created under the same parent. It is therefore recommended that a subsequent workflow state require reparenting of the newly created objects, unless a flat hierarchy structure is desired. In addition, care should be taken in configuration to ensure that the selected object type and parent root are compatible and valid for the workflow, otherwise, the end user will receive an error when attempting to create / initiate.

6. Click the **Create From Template Tab** heading to display additional parameters.



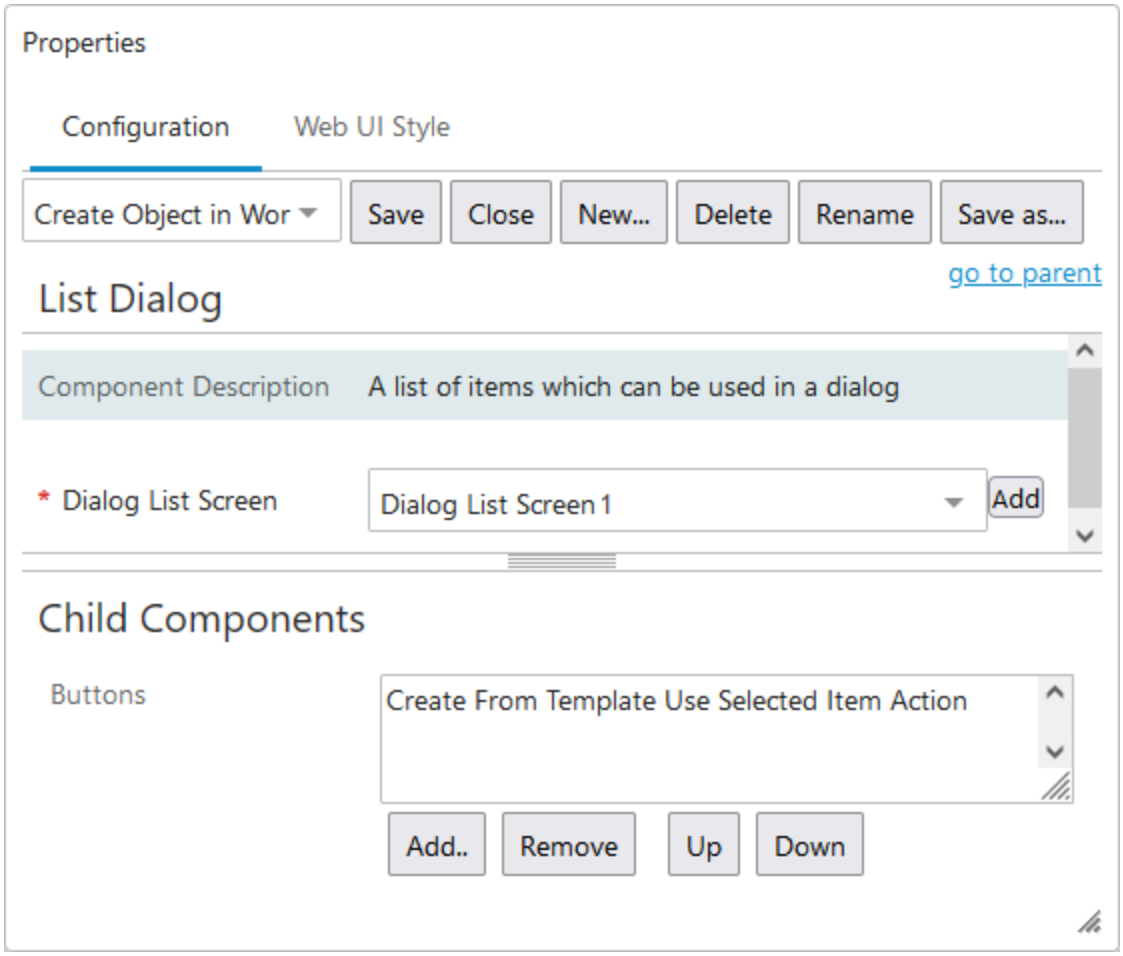
7. Enable **Show Create From Template**.
8. Click the ellipsis button (...) for **Template Root** to select the node from which child objects can be used as templates. It is recommended that the template set remain fairly small for manageability and to limit the templates that the end user has to choose from.

9. Under **Child Components** > **Create From Template List**, select **List Dialog** from the dropdown menu.
10. When presented with the **List Dialog Properties**, click the **Add** button to the right of the **Dialog List Screen** field.

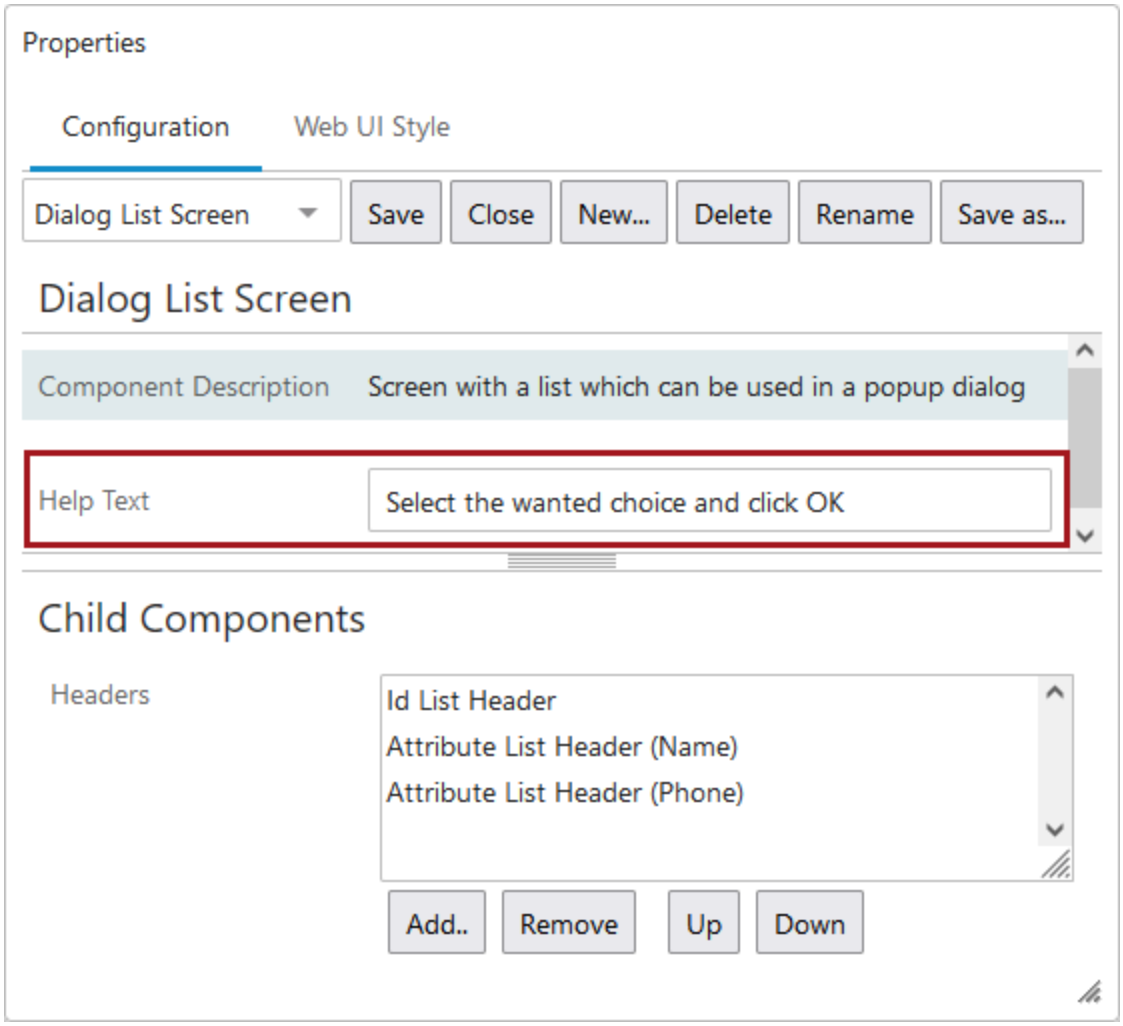


11. Create a new screen by selecting **Dialog List Screen** from the list of available screen types / components. Enter an easily identifiable Screen ID, click **Add**. The screen ID will automatically populate in the Dialog List Screen value field.

12. If a **Dialog List Screen** already exists, skip the previous two steps and select the screen using the dropdown.
13. Back on the **List Dialog Properties** screen, in the **Child Components** > **Buttons** field, click **Add** and select **Create From Template Use Selected Item Action**. Click **Add**, and then click **Save** in the designer window.



14. Before exiting design mode, select the Dialog List Screen ID of the screen you just created from the dropdown menu. In the example above, the screen ID is 'Dialog List Screen - Address.'
15. Configure the **Child Components** > **Headers** section of the **Dialog List Screen Properties**. Click **Add** under the value field to select the attributes, attribute groups, IDs, and/or Titles that will display within columns in the 'Templates' dialog for the results list.
16. Make a component selection and fill in any required parameters (e.g., attribute / attribute group, where applicable). For each component, edit the **Label** text if the column headers should read something different than the object Title (name), ID, or the applicable attribute name / group name.
17. Edit **Help Text**, if desired. This text displays at the top of the 'Templates' results list.



18. Click **Save** and **Close** design mode to return to normal Web UI mode.

Considerations and Limitations

- Create From Template functionality is available for Product and Entity object types only.
- Care must be taken in the configuration of the Create From Template option to ensure that end users are provided with valid selection options. The selections for object type of the template (if used), object type of the object being created, and parent must all align to yield valid results based on the data model and configurations.
- It is recommended that the Create Object in Workflow screen only be used for workflows that have a single start state. If, for example, business rules pass an object into parallel states upon entry to the workflow, users cannot be routed to a specific state and have the potential to view the object in either of the states in which a current task exists.

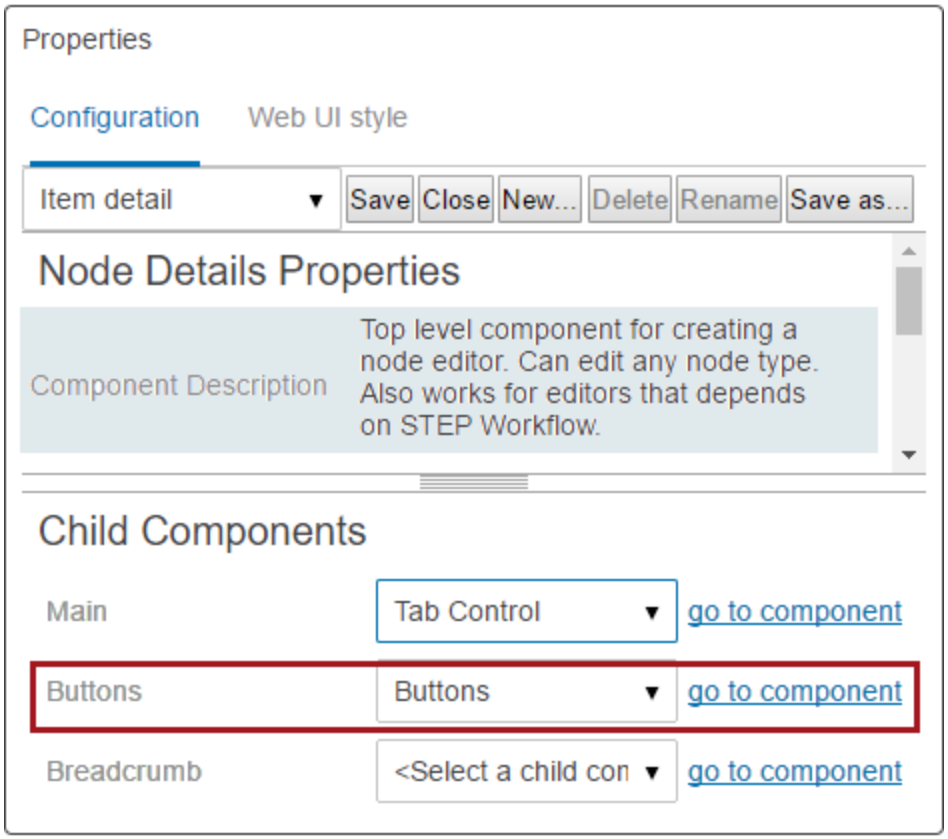
Start Workflow Action

When working with objects in Web UI, a **Start Workflow Action** button can be added to any Node Details screen. This allows users to work with object data and then initiate the object into a workflow with a click of a button.

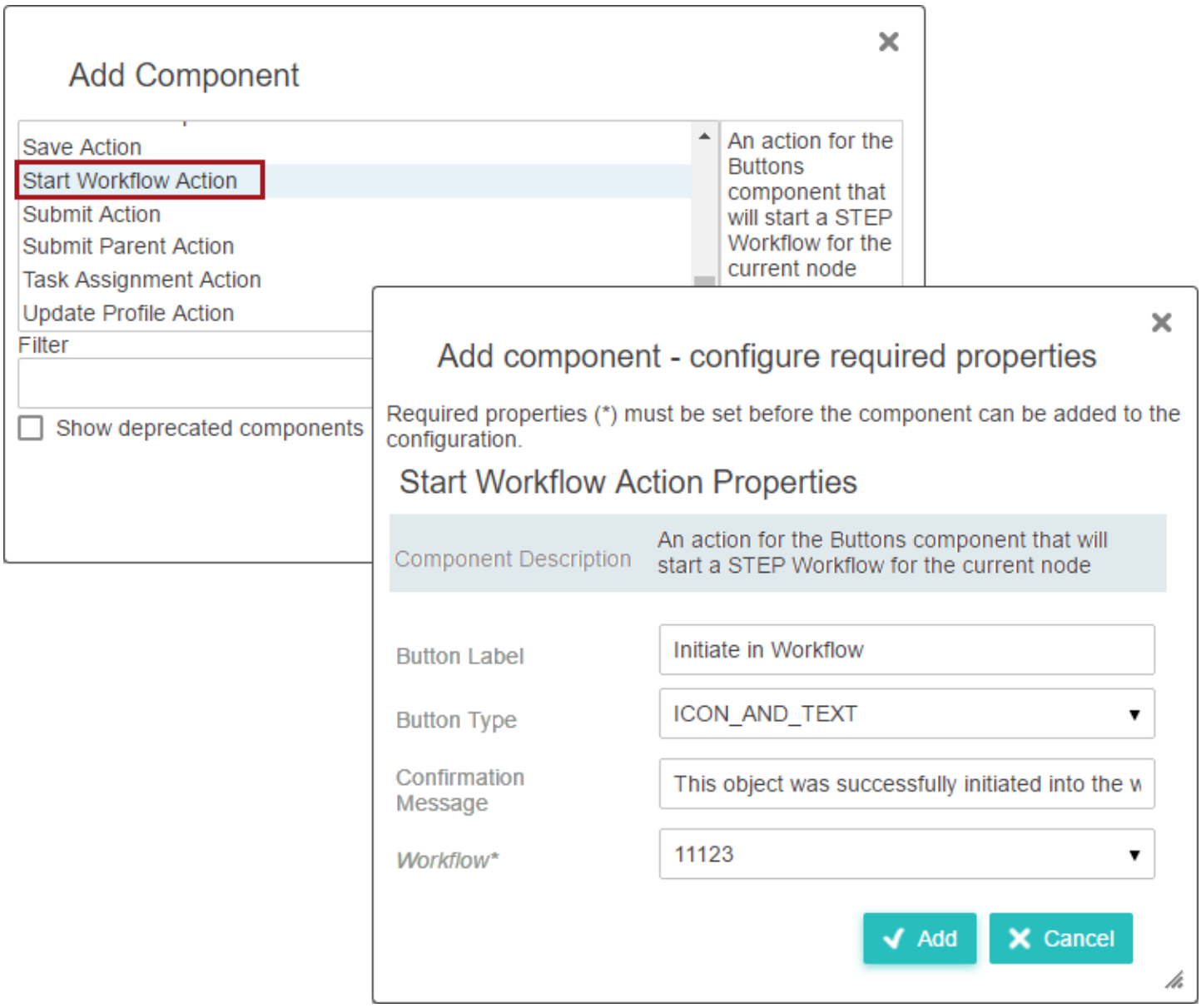
Detailed information about how to set up a Node Details screen is outlined in the **Node Details Screen** topic.

These are the steps to add / configure the button:

1. Enter the Web UI designer and selected the screen ID for the applicable Node Details screen.
2. Within Node Details Properties, select **Buttons** from the Buttons parameter dropdown, then click **go to component**.



3. On **Buttons Properties**, click the Add button below the **Actions** field, then select **Start Workflow Action** from the 'Add component' list and click **Add**.



4. Within the **Start Workflow Action Properties**, all parameters are initially blank except for Workflow (defaults to first existing workflow in STEP). Make your selections and click **Add**.
   - **Workflow*** is the only required setting. This is the workflow that you want to initiate items into.
   - The **Button Label** is the text you want to appear in the button displayed on screen.
   - Select from ICON_AND_TEXT, ICON, and TEXT using the **Button Type** dropdown. If you select TEXT or ICON_AND_TEXT and the Button Label parameter is empty, the default text 'Start STEP Workflow' will display.

Button Types	Button Displayed As
ICON	
TEXT	
ICON_AND_TEXT	

- The **Confirmation Message** will display to the user once a successful initiation of the object is complete. If the parameter is left blank, a 'STEP Workflow "Sample Workflow (3 states) with Variables" has been started' message will display, with the name of the workflow displaying within the quotation marks.

5. Click the **Save** button in the designer and **Close**.

Refer to **Initiating Objects in a Workflow using Web UI** for information regarding how to use initiate an object in to a workflow using the Start Workflow Action.

Task List

A **Task List** is used for displaying total objects in a selected workflow, objects within a specific workflow state, and if applicable, tasks by Status Flag. To use a Task List, it must be configured as a results screen for a **Status Selector (Homepage / Sidebar) Widget** and be configured with a **Node List**.

This topic gives you information regarding how to set up a Task List. Information regarding how to use a Task List is included in the **Moving Tasks Through a Workflow in Web UI** topic.

If your system is using In-Memory technology, there is additional configuration that can be done to support the filtering and sorting of large Task Lists. Refer to the **In-Memory Large Task List Management** topic in the **Resource Materials** online help.

Note: If you are using an Advanced Search Screen as a task list, then setup is similar when it comes to the Node List component (starting with Step 7 under Configuring Task List Properties). The only major difference is the absence of the Status Flag Header and Workflow Variable Header as options available within the Multi Edit Display Mode Properties. For more information about Advanced Search Screen setup, so the **Advanced Search** section in the **Web User Interfaces** documentation.

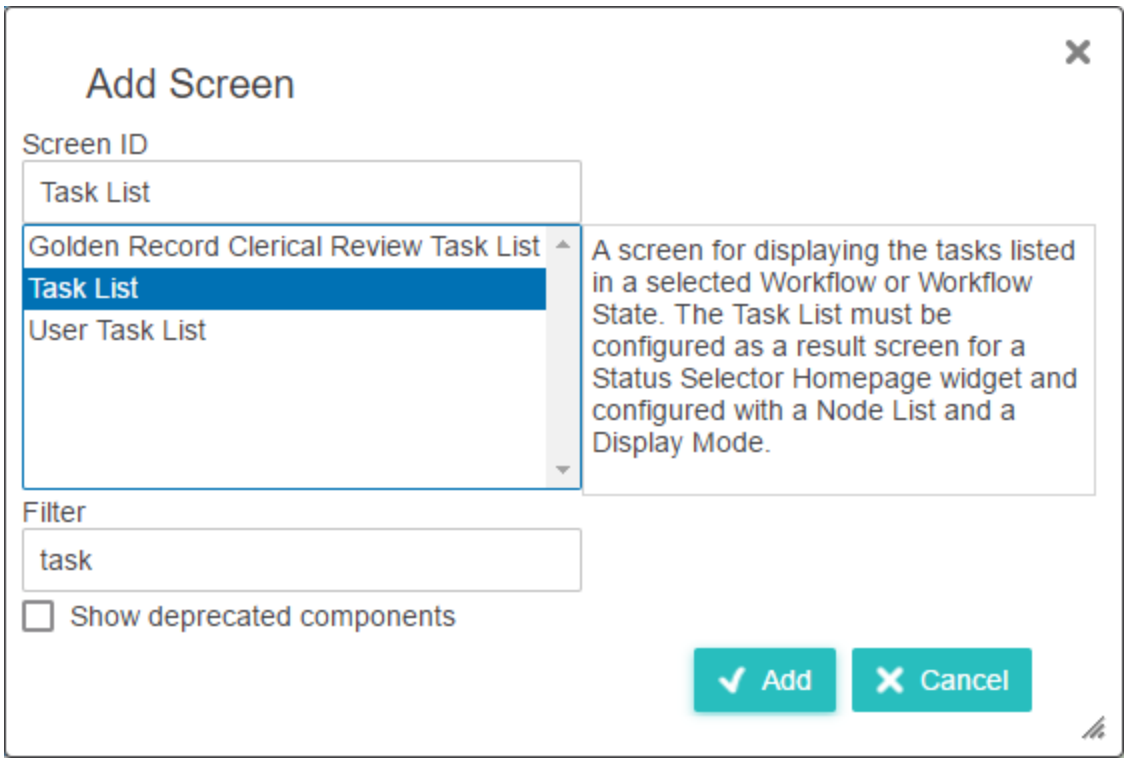
Prerequisites

It is expected that anyone configuring the Task List screen is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. The user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Additionally, to follow the use-case examples in any of the workflow topics, the STEP user should have all workflow related privileges.

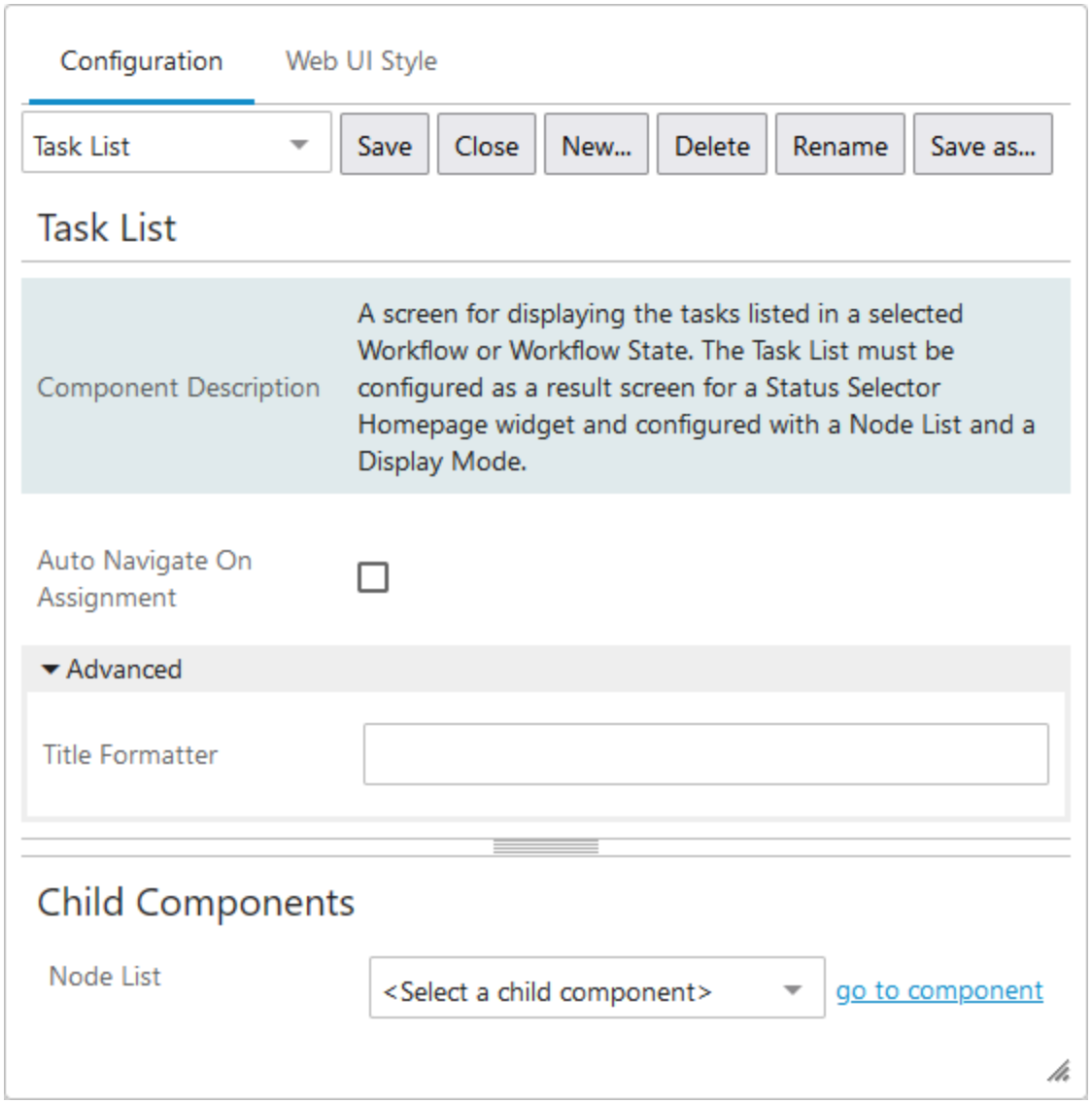
Adding a New Task List Screen

Steps for creating a new screen are outlined in the **Creating a New Screen** section of the **Design Mode Basics** topic. Select 'Task List' as the screen type (shown in the screenshot below).



Configuring Task List Properties

Once a new screen is created, you can configure it. If the properties for the screen you just created are not displayed, select the screen ID from the designer dropdown list. In the example below, the screen ID is 'Task List.'

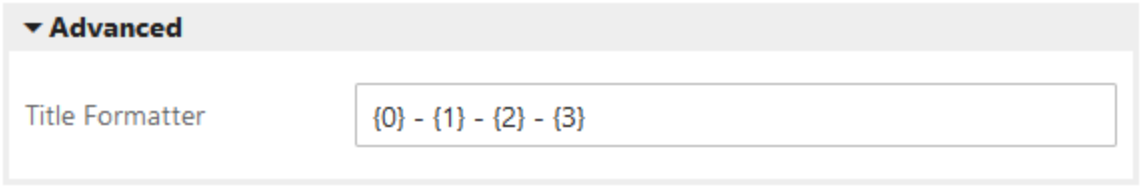


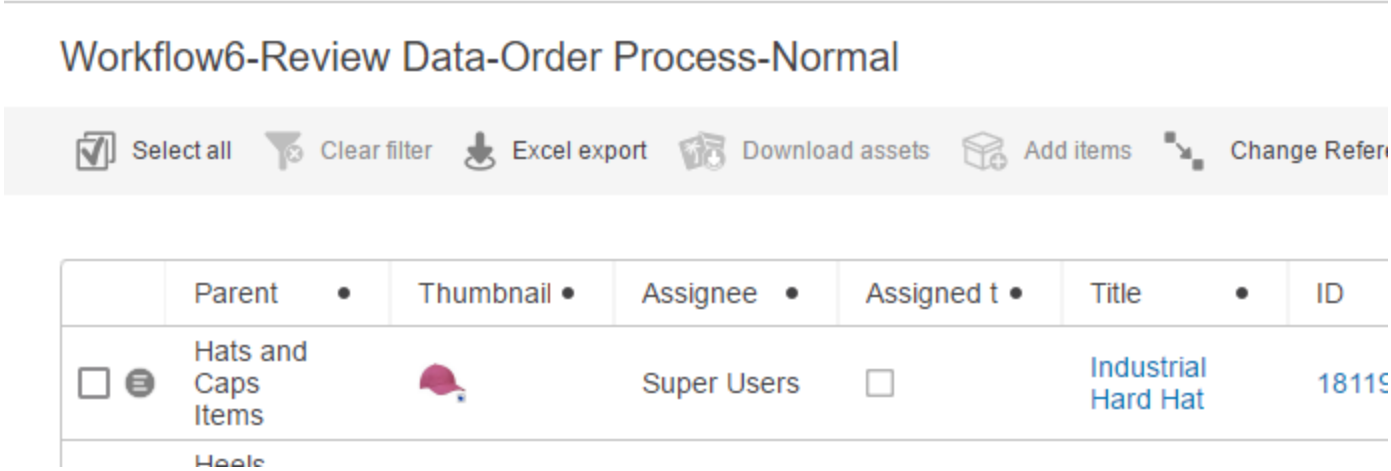
1. The **Auto Navigate On Assignment** parameter is disabled by default. If enabled, when a task is claimed by a user in the Task List (e.g., when a user makes an 'Assign to Me' selection), the user is automatically navigated to the editor screen at the time of assignment so that they can continue working with the task.
2. Click the **Advanced** heading to display the **Title Formatter** parameter.
3. **Title Formatter** can be left as-is to display the default 'Task List' title on the screen, or placeholders can be used in conjunction with (or in place of) static text to automatically insert workflow information within the screen title. These placeholders can be used individually or together. These placeholders are useful, for example, when mapping screens based on status flag or workflow state since this information is dynamically reflected in the screen title.
   - {0} displays the Workflow ID
   - {1} displays the Workflow State

- {2} displays the Workflow Name
- {3} displays the Status Flag Name

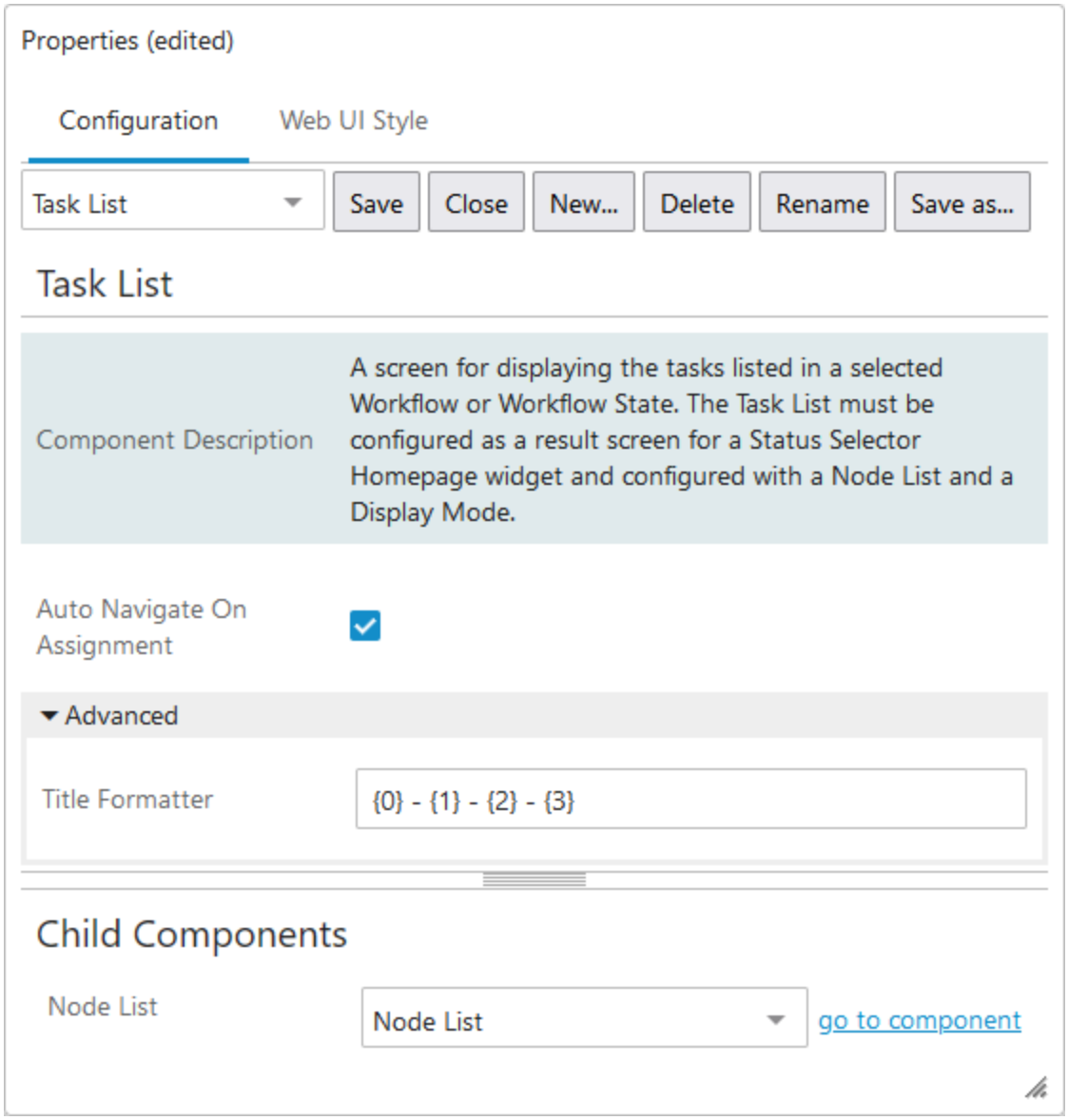
The Status Flag displays within the title only if applicable. If the user clicks on a link in the Status Selector that takes them to a results set that includes objects with a mix of different Status Flags, then the {3} placeholder will not populate within the screen title.

A screenshot showing the default title is displayed at the beginning of this section. A screenshot showing the placeholders within the Title Formatter parameter field is shown below along with a screenshot showing an example of an auto-populated Task List screen title (workflow ID, workflow state, workflow name, and the status flag name).





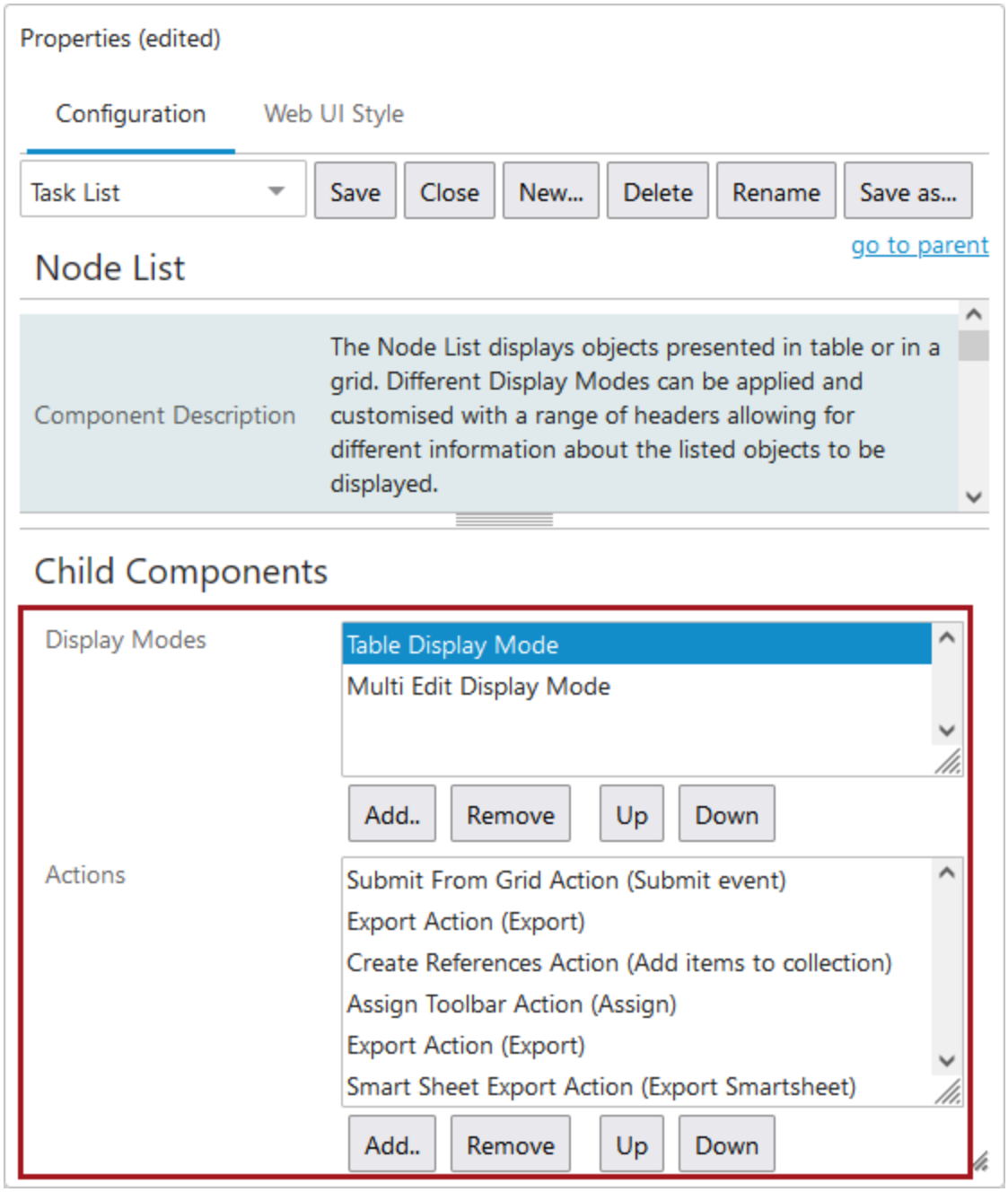
4. Under **Child Components** > **Node List**, select **Node List** from the dropdown.
5. Click **Save** in the designer window to save all changes made up to this point.



6. After saving, click **go to component** to the right of the **Child Components** > **Node List** dropdown. This opens the Node List Properties.
7. Under **Child Components** > **Display Modes**, you must add at least one display mode. Typically, **Multi Edit Display Mode** is used with workflows / Task List screens so that bulk updates can be made and submitted.

   While other display modes (e.g., Table) may be used and any number of them can be added, it is recommended practice to add only those truly needed to work with objects on a Task List screen. If multiple modes are configured, users are able to toggle between the different views. The name of each display mode must then be double-clicked to be configured for use.

   Refer to the next section, **Configuring Multi Edit Display Mode for a Task List Screen**, for more information.



8. For **Child Components** > **Actions**, any applicable actions can be added. On a Task List, it is common to add the **Export Action** or **Submit From Grid Action**. These action buttons will be used by end users to work with and submit tasks. Again, these Actions can be double-clicked and configured / customized (e.g., button titles, process description templates) according to user needs.

   The Submit From Grid Action is highly customizable. This is true for the Submit Action that can be added to a Node Details screen, when working with single tasks. If any business rules logic is configured and applied, those will run when a user submits the task.

9. Click **Save** in the designer window to save all changes made up to this point.

Configuring a Multi Edit Display Mode for a Task List Screen

To work with objects in a workflow, **Multi Edit Display Mode** offers users the opportunity to bulk edit / update objects in the workflow. While this topic does not go into great detail on how to configure the Multi Edit Display Mode Properties in its entirety, it does touch on the parameters and components you will mostly likely use when working from a Task List screen.

These are the basic steps to configure Multi Edit Display Mode within a Task List. If a particular parameter is not explained below, or you want more details, you can access help text by hovering the mouse pointer over the area to the right of a parameter name within the properties dialog, and then clicking on the icon that appears.

1. Double-click on 'Multi Edit Display Mode ' within the Node List > Child Components > Display Modes field. The **Multi Edit Display Mode Properties** will open.
2. Click on the **Add** button under the **Headers** value field and click on each header shown in the 'Add Component' dialog to view details about that particular header. Make a selection and then click Add. Continue this process to add all the desired Headers. They can then be edited, removed, and reordered as needed.

   The following list is not an all-inclusive list of the headers you may use to populate the Node List table, but these give you an idea of what workflow-related headers you can use. These are in addition to standard headers like ID Header / ID Shared Target Header, Name Header, Attribute Value Header, and the Attribute Value Group Header.

   - Assign to Me Header
   - Assignee
   - Status Flag Header
   - Workflow Deadline Header
   - Workflow Navigation Header
   - Workflow Status Header
   - Workflow Variable Header

   Note: If the Title or ID headers have been configured to display in a Task List, users can press Control and left-click the hyperlinks (Mac users press Command and left-click the hyperlinks) to open the object in a new tab on the web browser. This enables users to keep the Task List open in one tab while viewing or editing an object in a separate tab.

   While configuring the headers in display mode properties, a user can choose to set up the table sort order based on a specific header. By editing a particular header's properties, sorting order (ascending or - descending) can be designated using the dropdown next to **Table Sorting**.

   Also, if editability of workflow variables or status flags is not desired, it can be disabled by checking the 'Read Only' option in the component configuration.

3. When adding a header, the header properties all have some sort of optional configuration that can be done. Workflow Navigation and Workflow Variable will automatically display their own properties when selected, requiring you to populate required parameters before being able to use the header. Fill in any required information (indicated by an asterisk next to the parameter name), and then click the Save button.

Important: While ID is the only parameter that indicates it is required within the Workflow Navigation Header Properties, you need to enter text into the Label parameter field. If you do not, then the header will show as 'Not Configured' within the Node List.

4. Back on Multi Edit Display Mode Properties, select the **Property Direction** of the table using the dropdown.
5. Enable **Use Immediate Save** if you prefer that any edits made within the table be saved immediately without user intervention. This lessens the risk of losing unsaved data when navigating away from the Task List screen. If disabled, the user must manually click the save button after making any object edits. For details, refer to the **Auto-Save in the Web UI** topic.
6. Click the **Group Options** and **Advanced** headings to display additional parameters that determine the behavior of the data in the table.

If using another display mode, the configuration will be similar to the steps above. Auto-save functionality is only available as an option within Multi Edit Display Mode since this is the only mode available to use when editing data.

Information regarding how to use a Task List is included in the **Moving Tasks through a Workflow in Web UI** topic.

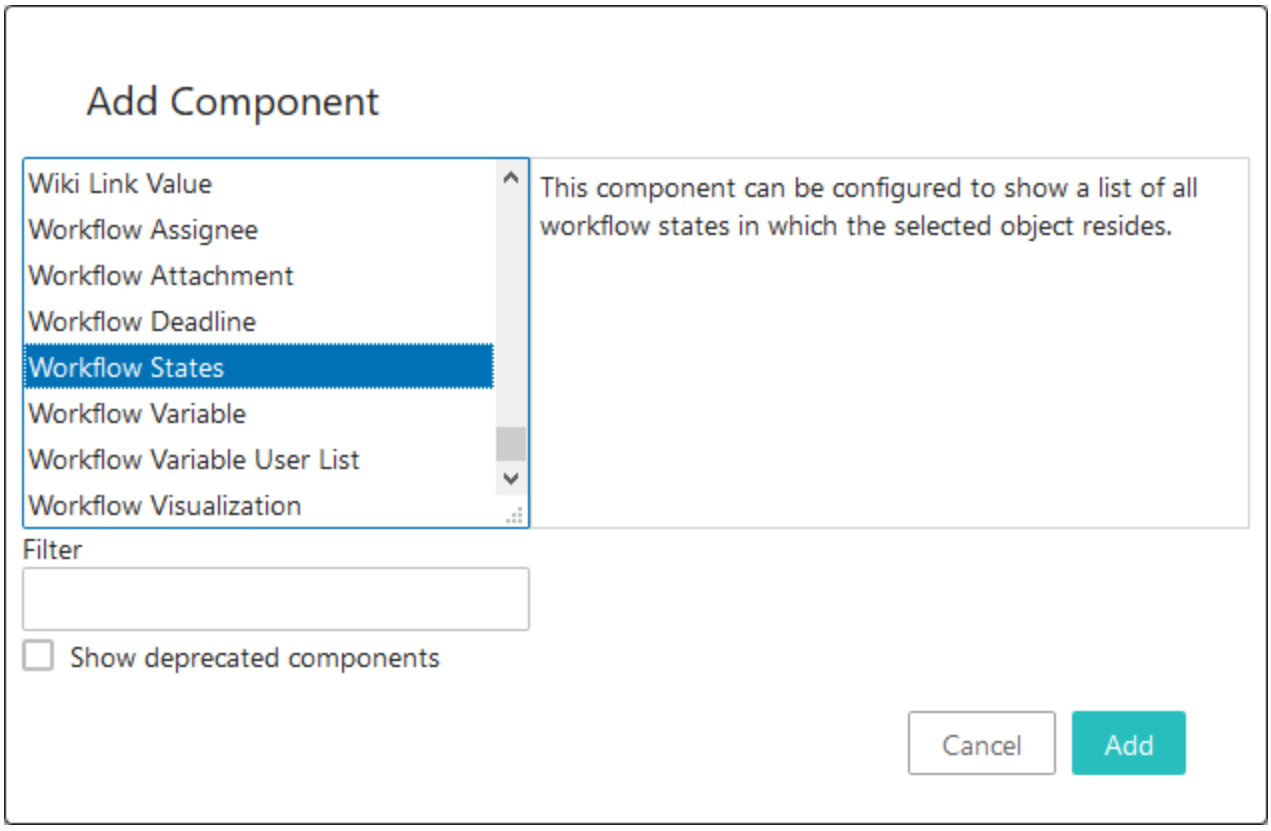
Workflow States Component

The Workflow States component allows users to view which workflow states an object currently resides in, even if the object resides in multiple states in different workflows. If, for example, an object is moving through a single workflow and enters a parallel state that puts the object in both the Photo Enrichment state and Text Enrichment state simultaneously, this component can list the object in both states. This component is enabled by pre-selecting all valid states that can display should the object reside in any of those states. This allows users to fine-tune display of this component to exclude display of cluster or parallel states, for example, that may give the user irrelevant information.

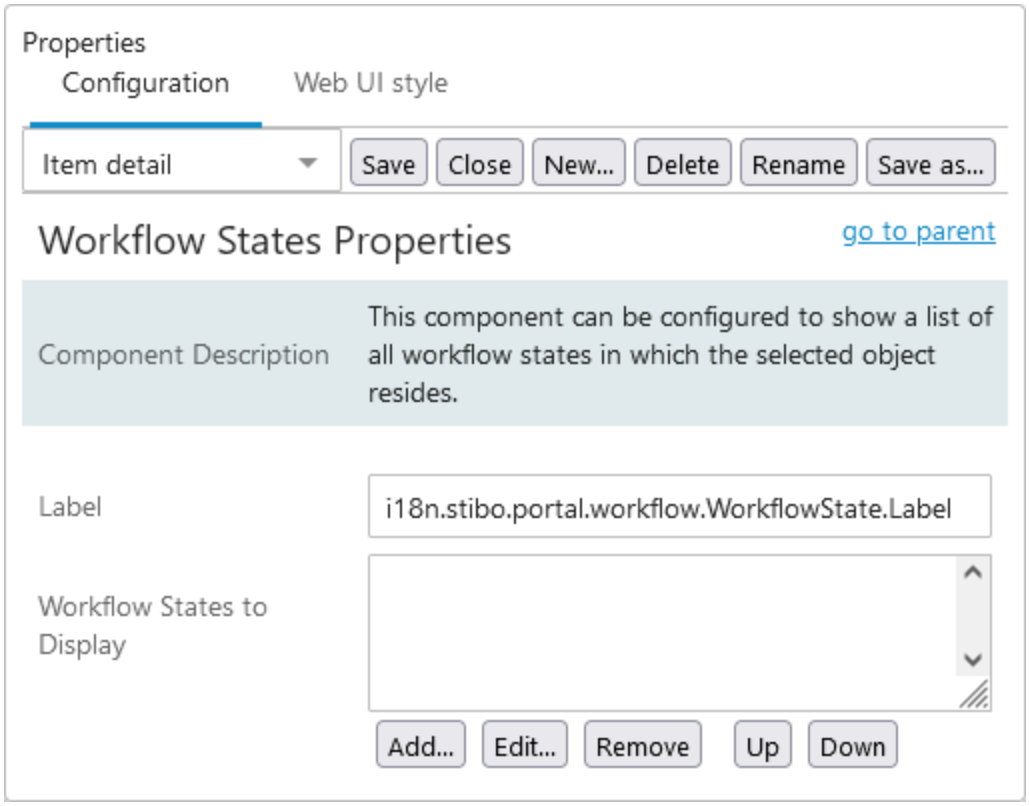
Configuring the Workflow States component

The Workflow States component can be added to a screen with a Node Editor. It can be added to a screen that is configured with other components or on a tab by itself.

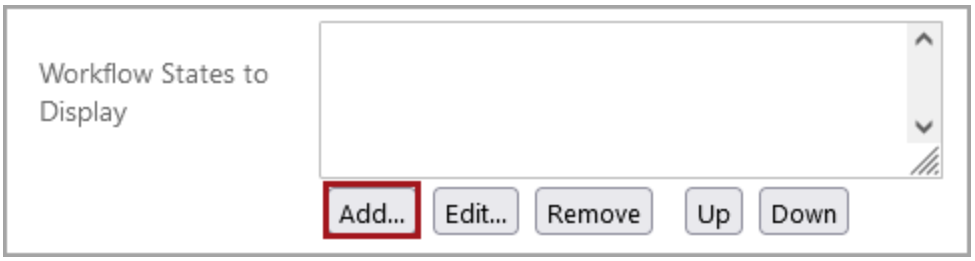
1. Enter the Web UI designer and navigate to the Node Details screen to be configured. Select Node Editor from the 'Main' dropdown under 'Child Components'.
2. On the Node Editor, navigate to Node Editor Properties > Child Components > Rows. Click 'Add' and select **Workflow States** from the 'Add component' dialog.



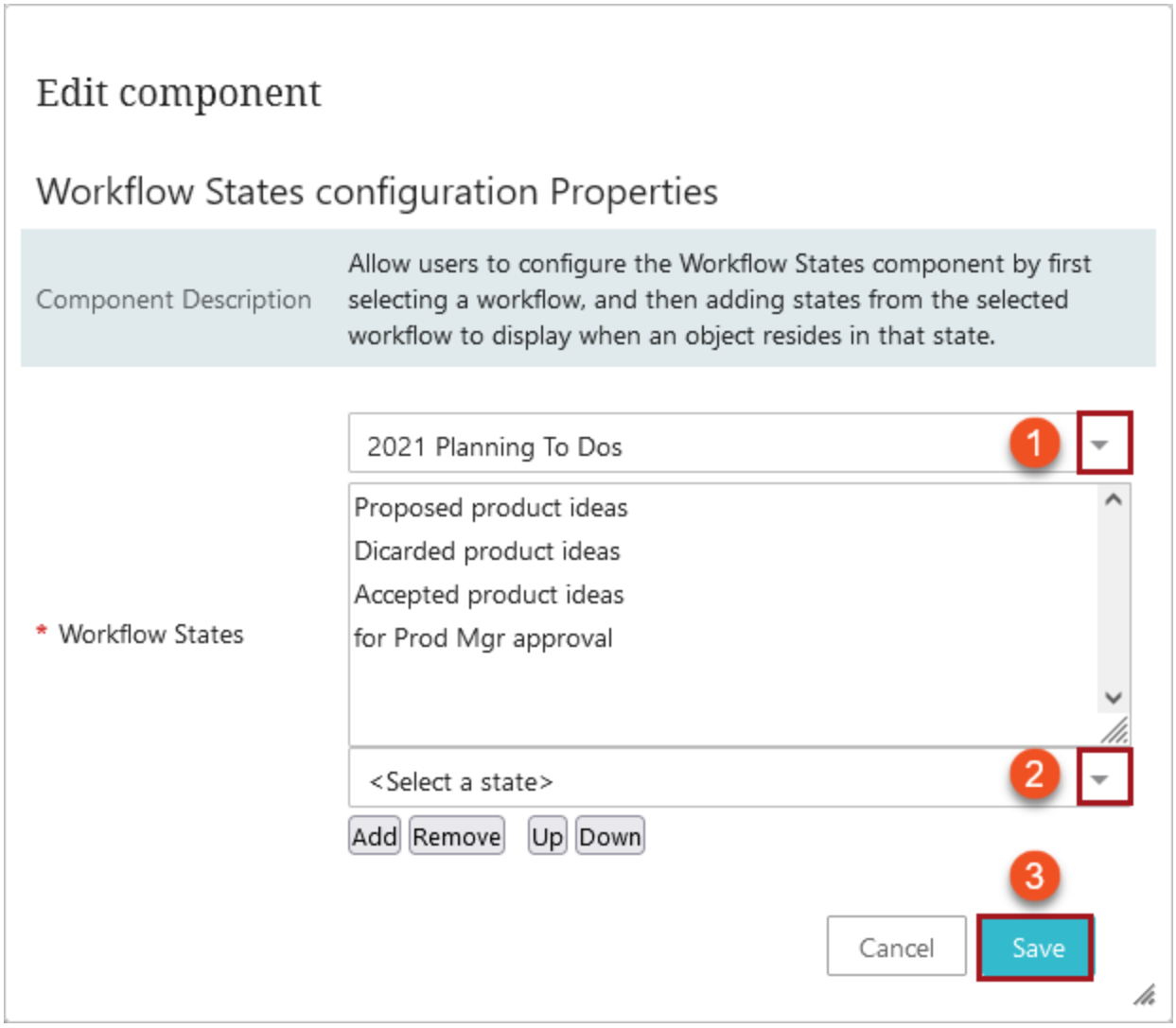
3. Double-click on the component name where it appears in the 'Rows' field to open the **Workflow States Properties**.



4. In the Workflow State Properties screen in the designer, two parameters are available: 'Label' and 'Workflow States to Display'. If a custom label for this parameter must display in the Web UI, add the custom text to the 'Label' field. If no text is added, the label defaults to 'Workflow States'. In the 'Workflow States to Display' field, add the eligible workflow states that will display if and when the object resides in it. To do this, click the 'Add' button beneath the field.



5. In the 'Workflow States configuration Properties' window that displays, users can do the work of workflow state selection. First, select the workflow of which the desired state is a part by clicking the dropdown arrow at the far right of the first field. Once clicked, a list of all workflows configured in the system will display. Second, select the workflow state to add to the Workflow States component. Only those states that are configured for the selected workflow will display. Third, click the 'Add' button to complete the process. Repeat steps two and three for all desired workflow states from the selected workflow. Each entry added to the 'Workflow States to Display' field contains workflow states from a single workflow. To add a workflow state or states from a different workflow, a new entry must be added in the 'Workflow States to Display' field.



6. No additional configuration is required. To edit an existing workflow state element in the 'Workflow States to Display' field, select the element in question and click 'Edit'. To change the ordering of how workflow states will display when an object is simultaneously in two or more workflow states that are added to the Workflow States component, select the element in question and position as desired using the 'Up' and 'Down' buttons.

Below is a screenshot of a Workflow States component as it displays on a tab page.

Basic Information and references 2 | Asset Preview | Category Informations | Additional Information

Workflow states	Bulb Specification Workflow State: Bulb Discard/Delete State Shade Specification Workflow State: Shade Suitability Review State
Primary Product Image	

Mapping Workflow States in Web UI

When creating a screen in Web UI and configuring the components on that screen (the view), you need to tell the system how users access that view. Some screens are accessed through widgets; however, access is usually set up using Web UI mapping.

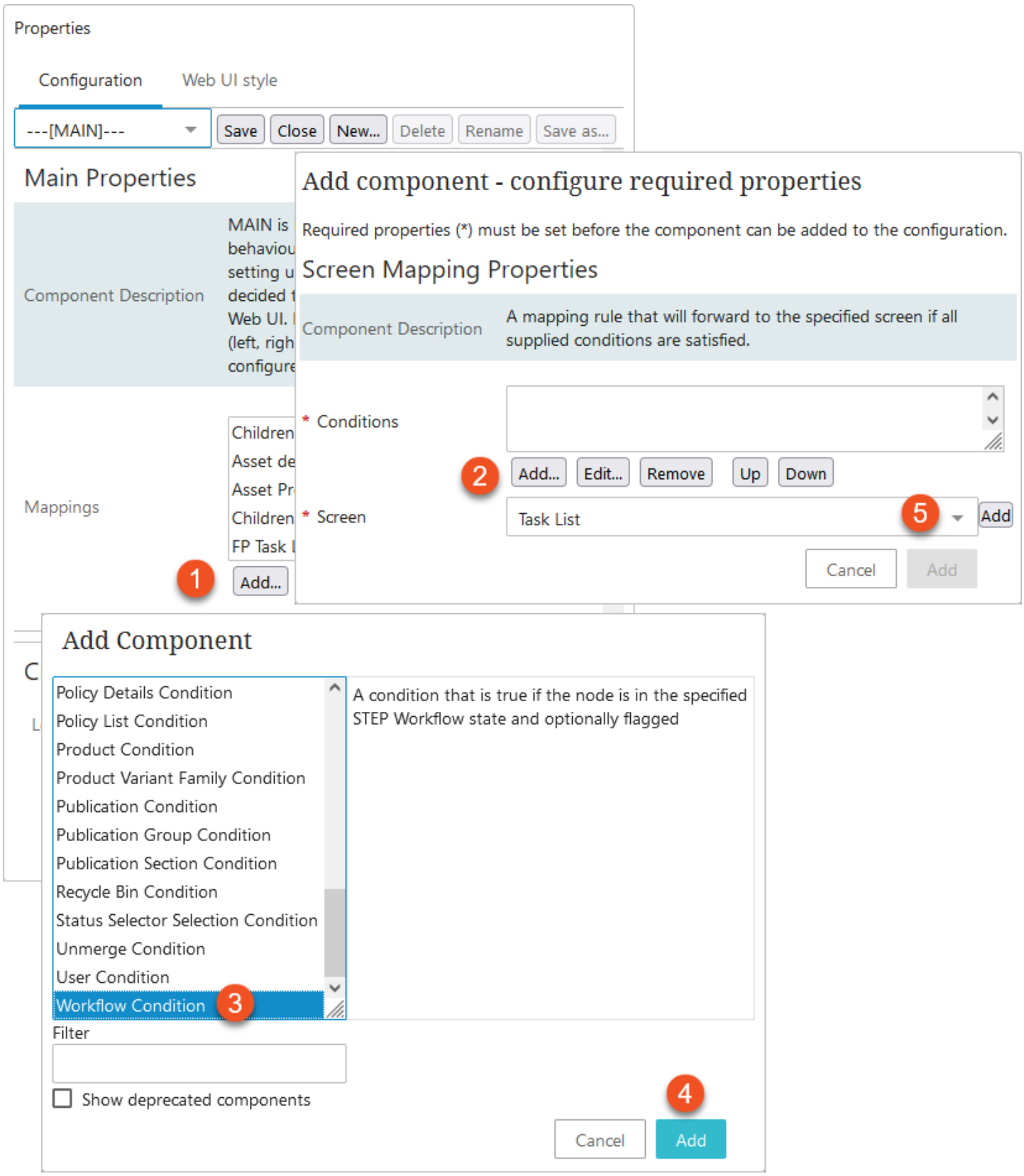
Through mapping configurations, a user can click on a task within a Node List (one configured within a Task List and/or an Advanced Search Screen), and be taken to a specific screen designated for display of objects in the particular workflow and state that the object is currently in.

As a very basic example:

1. You have a workflow with three states.
2. You click on the 'State A' name within the Status Selector child component in the Global Navigation Panel.
3. A Task List displays.
4. You click on one of the tasks in that Task List, and you are taken to 'Screen A.'
5. Begin again, clicking on 'State B' within the Status Selector.
6. The same Task List displays.
7. You click on one of the tasks and are taken to 'Screen B.'

Continuing on, you could conceivably set up a different destination screen for tasks that you click on for 'State C' when displayed within a Task List (or Advanced Search Screen used as a task list).

The screenshot below gives you a simplified look at the steps to take to add a mapping for a Workflow Condition. To get a thorough understanding of how mapping works and how you might use this feature, refer to the **Main Properties** topic in the **Using a Web UI** documentation.


Properties
Configuration
Web UI style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
Main Properties
Component Description
MAIN is
behaviou
setting u
decided t
Web UI.
(left, righ
configure
Mappings
Children
Asset de
Asset Pr
Children
FP Task
Add...
1
Add component - configure required properties
Required properties (*) must be set before the component can be added to the configuration.
Screen Mapping Properties
Component Description
A mapping rule that will forward to the specified screen if all supplied conditions are satisfied.
* Conditions
2
Add...
Edit...
Remove
Up
Down
* Screen
Task List
5
Add
Cancel
Add
Add Component
Policy Details Condition
Policy List Condition
Product Condition
Product Variant Family Condition
Publication Condition
Publication Group Condition
Publication Section Condition
Recycle Bin Condition
Status Selector Selection Condition
Unmerge Condition
User Condition
Workflow Condition
3
A condition that is true if the node is in the specified STEP Workflow state and optionally flagged
Filter
Show deprecated components
4
Cancel
Add

Adding the Workflow Condition component, displays the Workflow Condition dialog, which allows selection of the Workflow, Workflow State, and the Status Flag. For details on setting these parameters, refer to the **Status Flags in Web UI** topic.

For a step-by-step example that can be used as a starting point to complete your own mappings configuration when using Advanced Search as a task list (instead of a standard Task List screen type), refer to the **Mapping Task List to Workflow State** topic in the **Web UI Advanced Search** documentation.

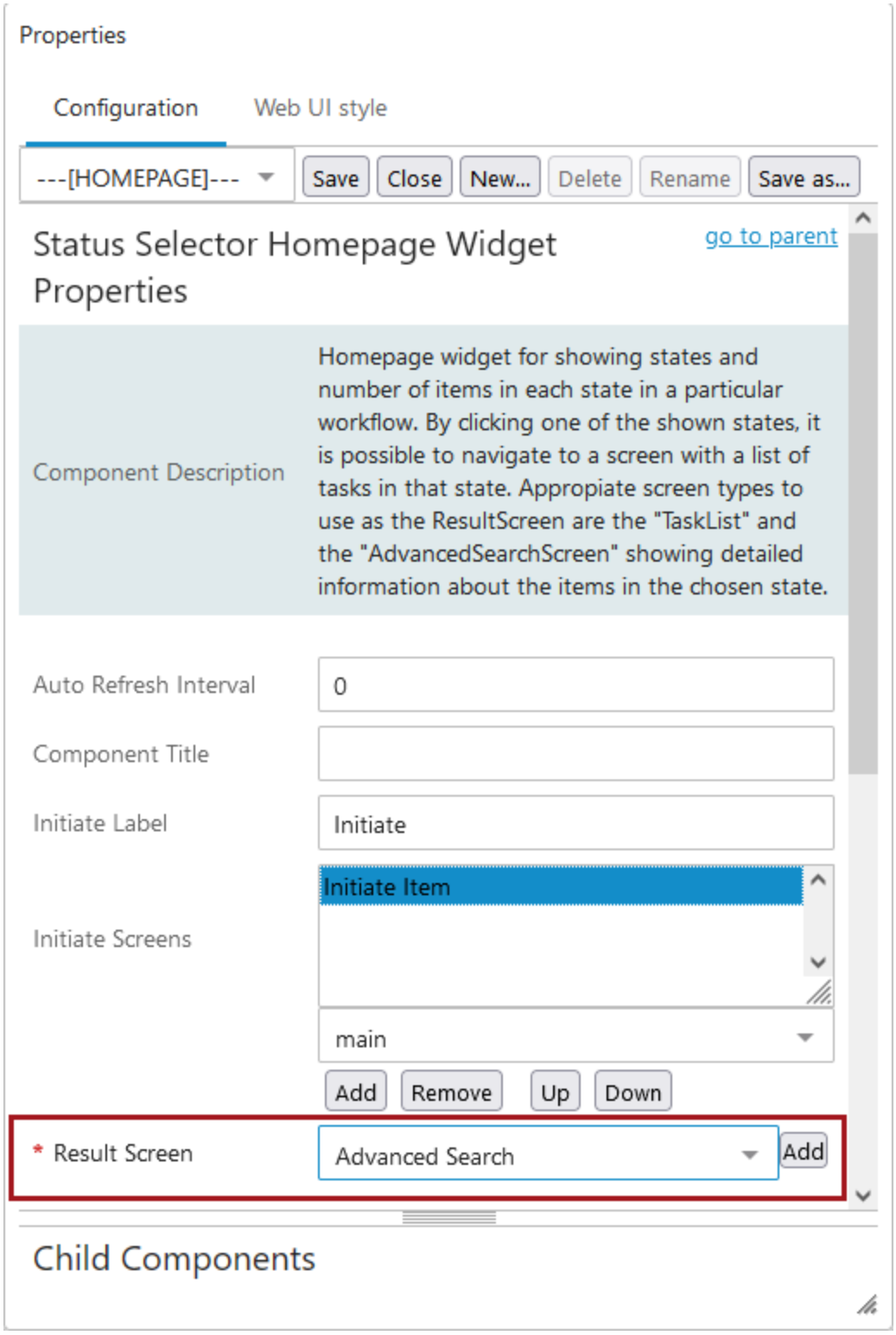
Important: When using Workflow Condition mapping with Advanced Search, regardless of the mapping method, ensure that the Enable Workflow Selection parameter is enabled within Advanced Screen Properties.

Using Advanced Search with Workflow Tasks

When clicking on a workflow task within a Status Selector Homepage / Sidebar Widget, most Web UI s are set up to take a user to a Task List screen, which is used for displaying the tasks listed in a selected workflow or workflow state.

Alternatively, the Status Selector Homepage Widget can be configured so that the Advanced Search screen is used as the results screen. Both the Advanced Search screen and Task List use a Node List component to display information.

Configuration of the **Status Selector Homepage Widget** and the **Status Selector in the Global Navigation Panel** are also described in separate topics found within the **Getting Started with Workflows in Web UI** section of the documentation.



If using a saved search, click the ellipsis button (...) go the right of the Results Screen value field to make a selection.

Note: If the State Names are lengthy and need additional space to align properly in the widget, use the Advanced > Double Width option to increase the width of the widget.

When Show Collection Filter is enabled, it causes only the products that are part of the selected collection to display. This can be used to efficiently track the products in various states based on the collection created with various search criteria. For example, if there are some prime products that have a strict release dates and the enrichment process should be completed on priority, you can create a collection of these products and on the Web UI, monitor the enrichment progress in various states by filtering these products in collections.

Advanced Search as a Results Screen

When accessing the Advanced Search screen via a workflow task selection, the default screen behavior varies depending on whether or not the Workflow search criterion has been added to the Search Criteria tab / panel.

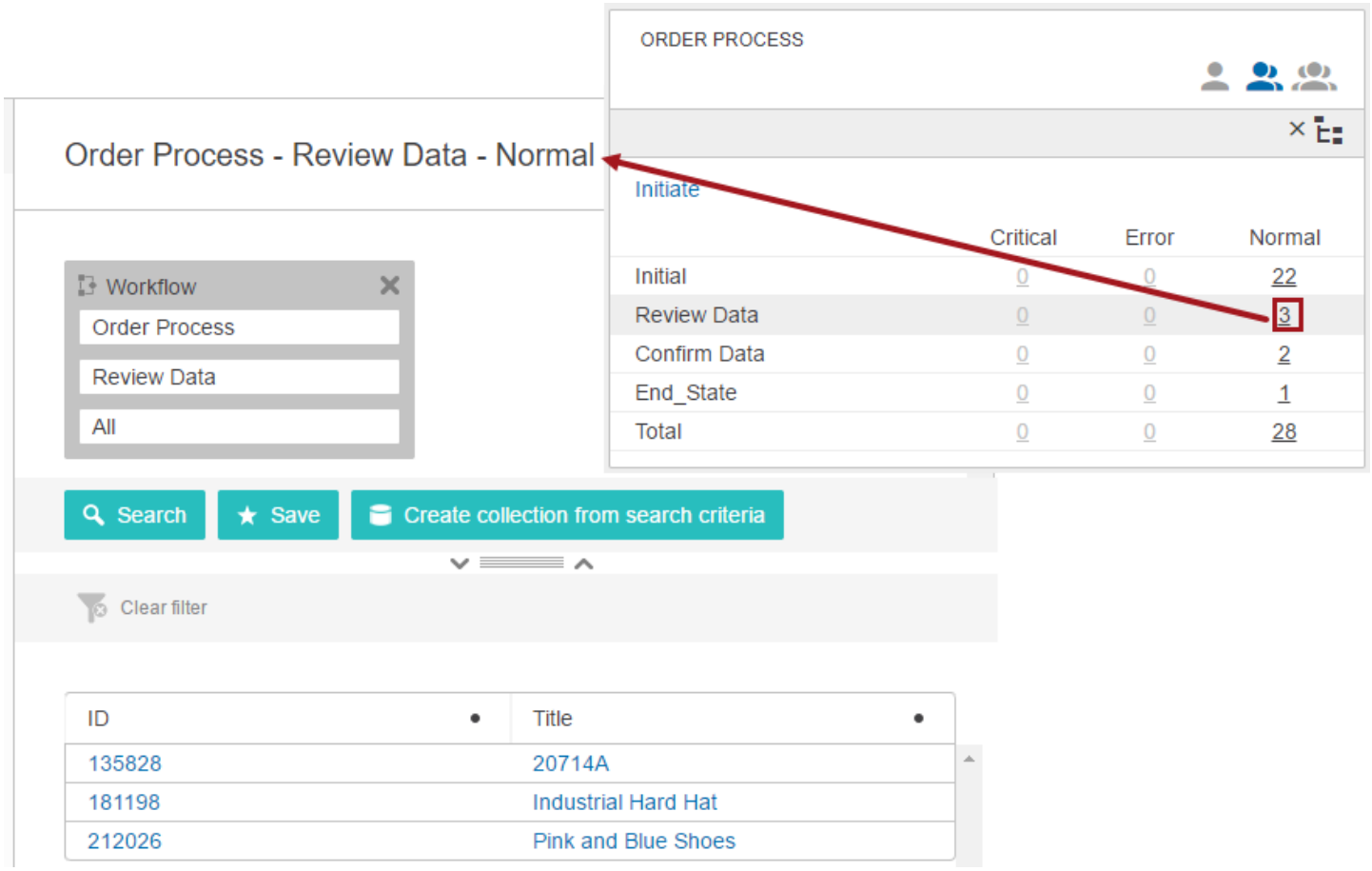
Other factors also impact the behavior depending on all the other Advanced Search screen configurations (e.g., collapsed search canvas, title configuration). Before working with either scenario below, users should be familiar with how to set up and use Advanced Search. Information can be found in the **Advanced Search** section of the **Using a Web UI** documentation.

Example Scenarios

Scenario #1 (with the third bullet below being *key* to this functionality):

- The Advanced Search screen is configured as the result screen for a Status Selector (Homepage / Sidebar) widget
- A Status Selector task selection has been made
- The Workflow criteria is removed from, or not initially configured as one of, the valid Search Criteria selections through the Advanced Search Screen Properties

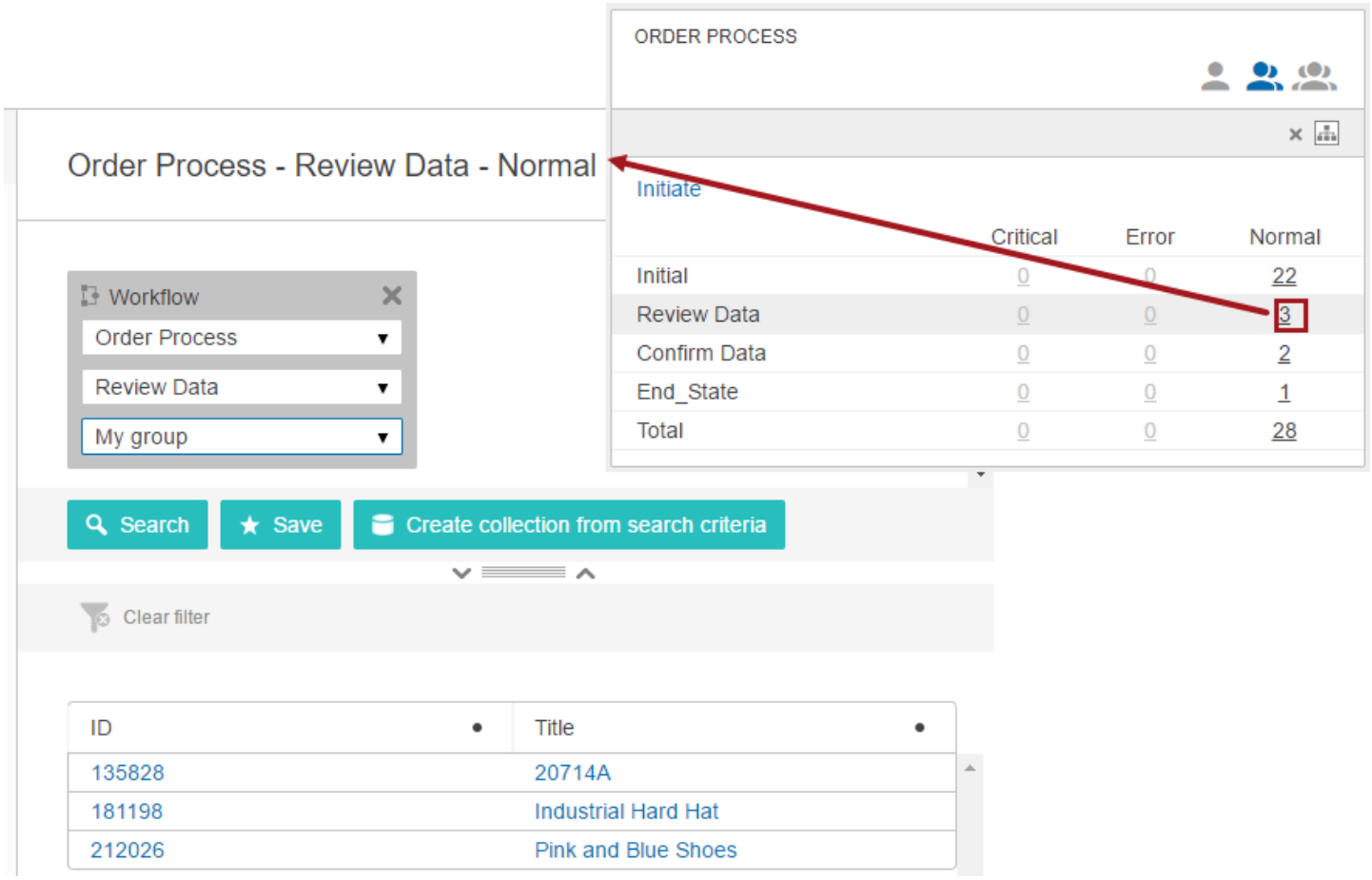
When users make a task selection in the widget operating under this scenario, the workflow criteria fields display on the screen (as long as the search canvas is not collapsed). The search criteria values are read-only, and the workflow criteria cannot be removed from the search area. Privileged users can add / remove additional criteria to do more focused searches, but the user is always left with the original workflow search criteria that they began with. This allows for end users to focus on their tasks without any concern that they may inadvertently take action on tasks that they do not own.



Scenario #2 (with the third bullet below being *key* to this functionality):

- The Advanced Search screen is configured as the result screen for a Status Selector (Homepage / Sidebar) widget
- A Status Selector task selection has been made
- The Workflow criteria is configured as one of the valid Search Criteria selections within Advanced Search Screen Properties

When users make a task selection in the widget operating under this scenario, the workflow criteria fields display on the screen (as long as the search canvas is not collapsed). The search criteria values are NOT read-only so the workflow criteria can be removed from the search area. Privileged users can add / remove additional criteria to do more focused searches, and it is possible for the user to remove the original workflow search criteria that they began with. This presents the possibility for end users to inadvertently take action on tasks that they do not own.



Additional Settings Applicable to Workflows

Users will find more information on how to further customize the Advanced Search screen when it is to be used as a results screen for workflow task selections in the **Advanced Search Initial Configuration** topic within the **Advanced Search** section of the **Using a Web UI** documentation.

A few options to be aware of:

- The Advanced Search Screen Properties > **Title** parameter can be customized to display information specific to a workflow by using placeholders, which can be used in conjunction with, or in place of, that text to automatically insert workflow-specific information into the screen title. These placeholders ({WorkflowID}, {WorkflowState}, {WorkflowName}, and {StatusFlag}) can be used individually or together and display exactly what the name implies.
- The Advanced Flipper > optional **Enable Workflow Selection** parameter. If enabled, when a search contains one or more workflow criteria, clicking on a single node in the search results will take the user to a Node In State selection. The selection can then be matched by a Workflow Condition in a Screen Mapping configuration, either on the Main screen or on a Forwarding Switch Screen.
- The **Unrestricted User Groups** parameter, if enabled, listed user groups will be able to create, maintain, and save searches in Advanced Search. Users in groups not listed will be restricted to perform only searches on the basis of pre-configured searches that have been shared with the group.

Important: If no user groups are listed, all users will have full access to functionality in Advanced Search.

Working with Tasks in Workflows

This set of topics focuses on the end user, e.g., the user working with tasks in a workflow in the Web UI, rather than the screen / component configuring and/or designing a workflow. They are written under the assumption that the configurations described in the **Getting Started with Workflows in Web UI** section of the **Workflows in Web UI** documentation have been completed and all options described are available to the end user.

After reading these topics, a user should be able to access workflow tasks, edit data on objects in a workflow, and submit tasks through the assigned states in a workflow.

Topics covered in this section are:

- Initiating Objects in a Workflow using Web UI
- Moving Tasks through a Workflow in Web UI
- Assigning Workflow Tasks in Web UI

While concepts remain the same across workbench and Web UI, the interfaces differ. For general workflow information that also includes some materials specific to workbench, refer to the **Workflows** guide. Furthermore, to follow the examples, the STEP user should have all workflow related privileges.

Initiating Objects in a Workflow using Web UI

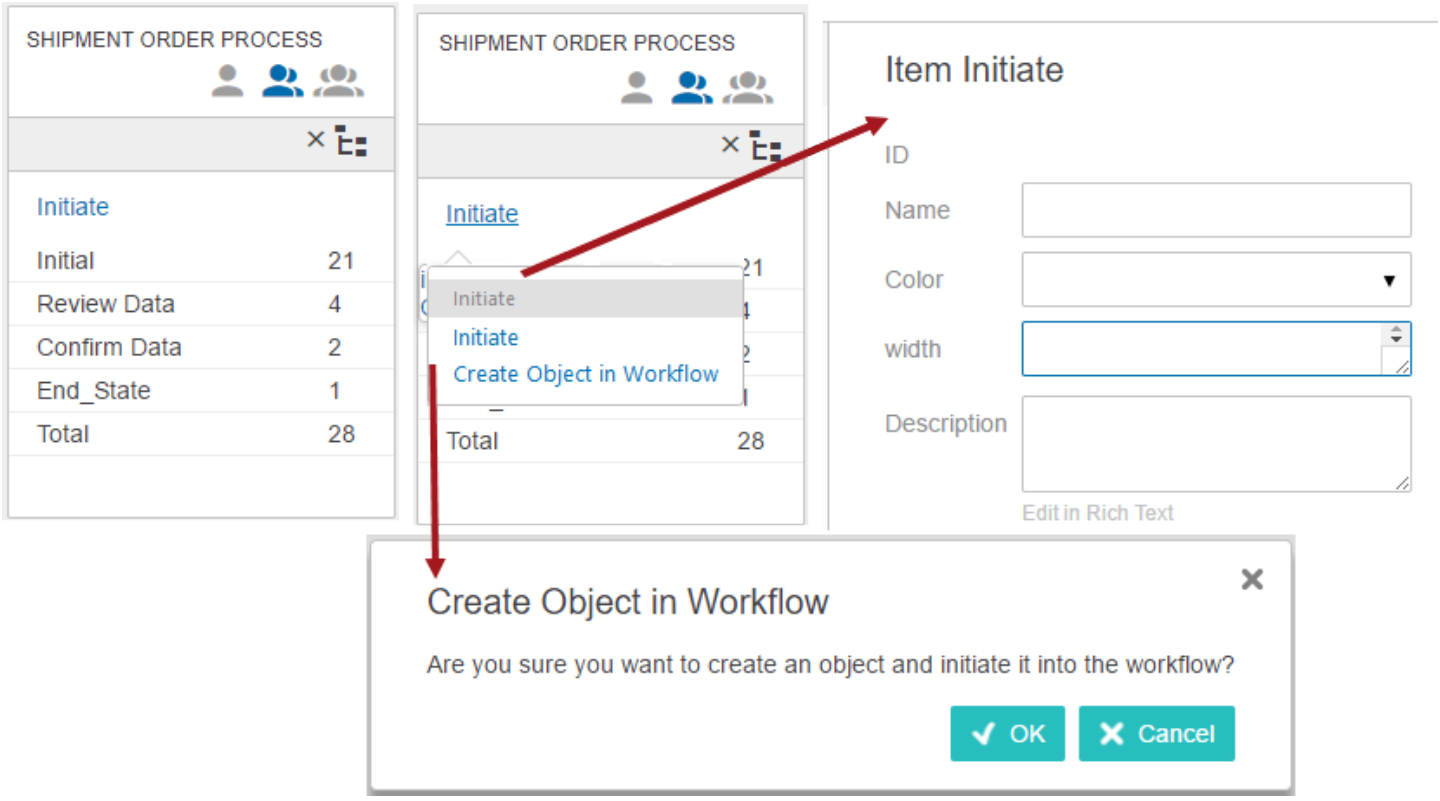
The below process describes two ways to initiate an object into a workflow using Web UI. However, it is important to note that oftentimes workflows will be configured to automatically initiate objects of a certain type or types into the workflow upon creation of the object. In addition, workflows can be initiated by a variety of other actions or processes (both automated and manually initiated), such as business rules, imports, and bulk updates.

Note: It is important to be aware that link names, screen names, and button text referred to in the examples / steps in this topic may differ from what is shown on your own system.

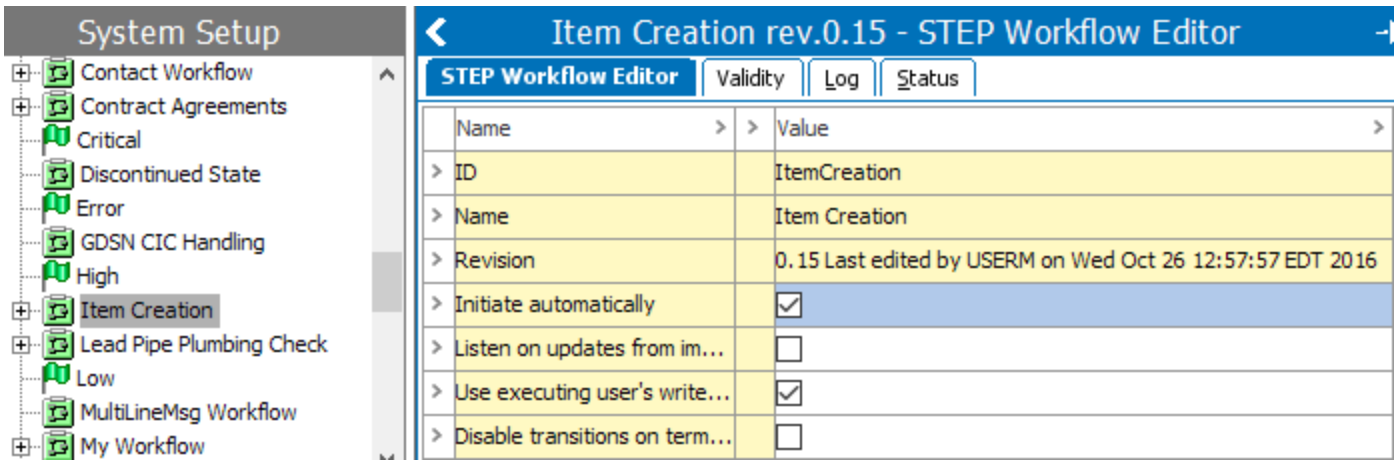
Initiating New Objects

Users can initiate objects into a workflow using a Status Selector Homepage Widget or a Status Selector child component in the Global Navigation Panel configured to display a link or links to screens used to create and initiate objects into a designated workflow. This functionality uses Initiate Item and/or Create Object in Workflow screen types. Each option is described in greater detail below.

Once created using either method, the objects are automatically initiated into the workflow designated by the Status Selector.



Note: Option 'Initiate automatically' must be checked in STEP Workbench for respective workflow. If a user wants to initiate a product automatically on the creation of products / items, then **Initiate automatically** needs to be check.



Create Object in Workflow

When creating new objects that use auto-generated IDs, users can create and initiate objects into a workflow in a single step using a Create Object in Workflow screen type as the Status Selector initiate screen. This allows for a more streamlined object creation process since the user is able to bypass the Initiate Item screen, which means that attribute values do not need to be filled in prior to object creation, and users are automatically taken to an editor screen (determined by the overall Web UI mappings) where they can easily start working with the object data.

1. Click on the initiate link, which is the top link within the Status Selector. This link is shown as 'Initiate' in the example above.
2. Select the 'Create Object in Workflow' link.
3. Choose OK when presented with the 'Create Object in Workflow' dialog.
4. Work with the object to fill in attribute value and/or progress the task through the workflow.

Initiate Item

Using an **Initiate Item** screen, users fill in attribute values then submit to create and initiate an object. Upon a successful submission, the end user will be navigated to a designated screen configured as part of the Initiate Item Properties setup.

1. Click on the initiate link, which is the top link within the Status Selector. This link is shown as 'Initiate' in the example above.
2. Select the 'Initiate Item' link.
3. On the object details screen, fill in the attribute values and then click Save at the bottom of the screen to create and initiate the object.
4. Your next step will depend on the screen you are taken to after clicking Save. You can continue working with the object to fill in attribute value and/or progress the task through the workflow.

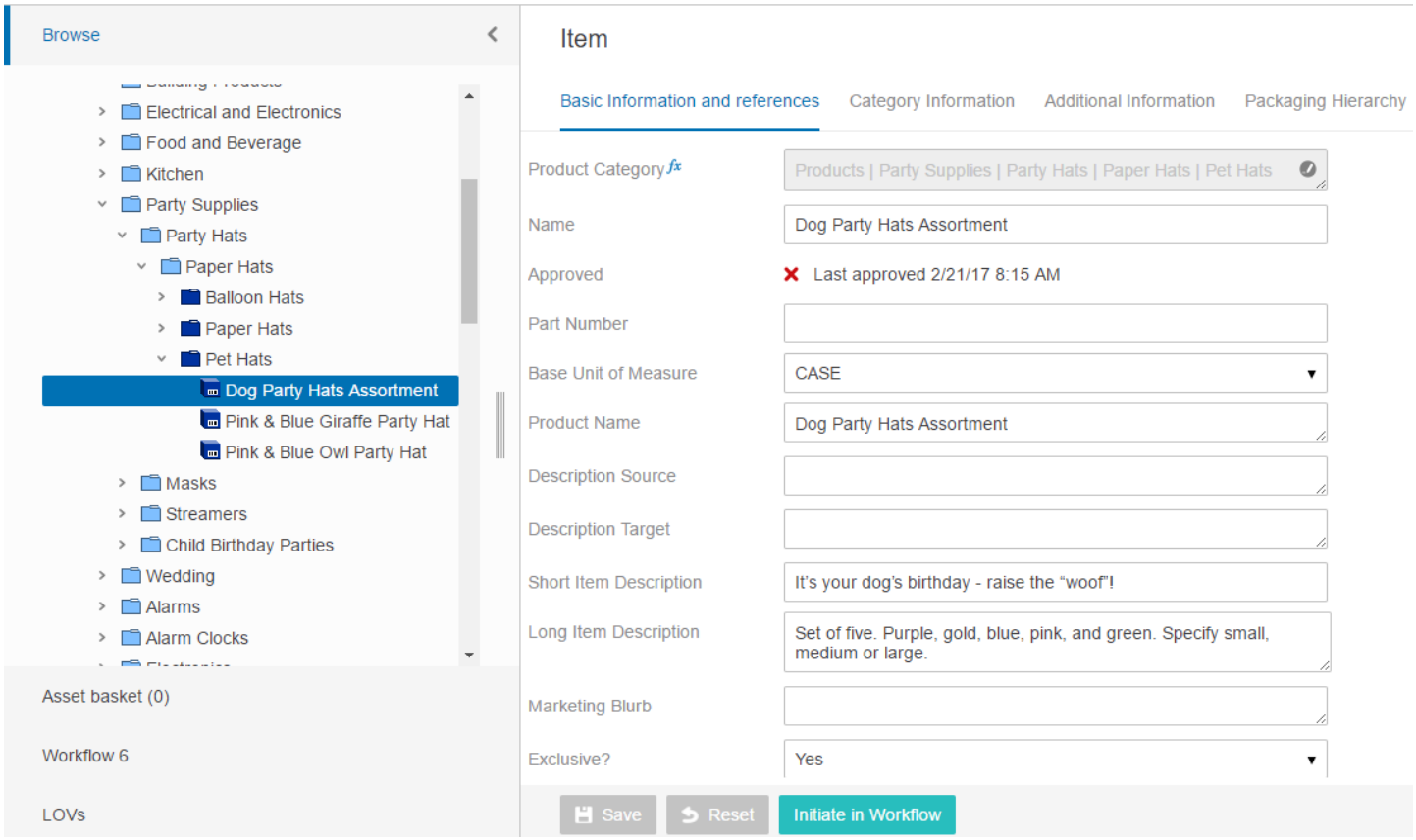
Initiating Existing Objects

When working with objects in Web UI, a **Start Workflow Action** button can be added to any Node Details screen. This allows users to work with object data and then initiate the object into a workflow by clicking the 'Start STEP Workflow' button at the bottom of the screen.

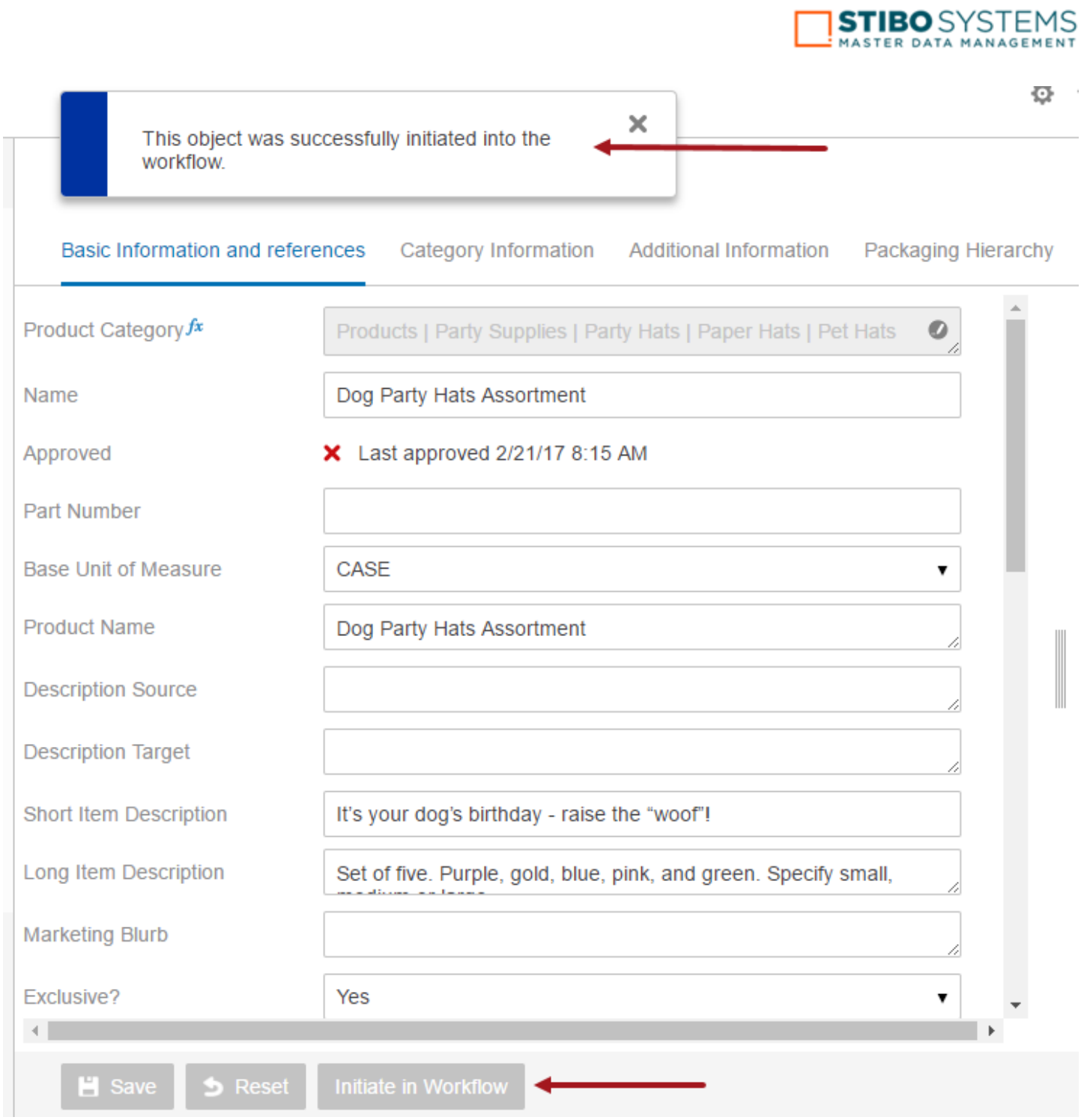
Note: The button label for 'Start STEP Workflow' can be configured in the designer.

The button will only activate when initiation is possible. If deactivated, the object may already exist as a task in the designated workflow.

In the picture below, the 'Start STEP Workflow' button was added, and the button label was changed to read 'Initiate in Workflow.'



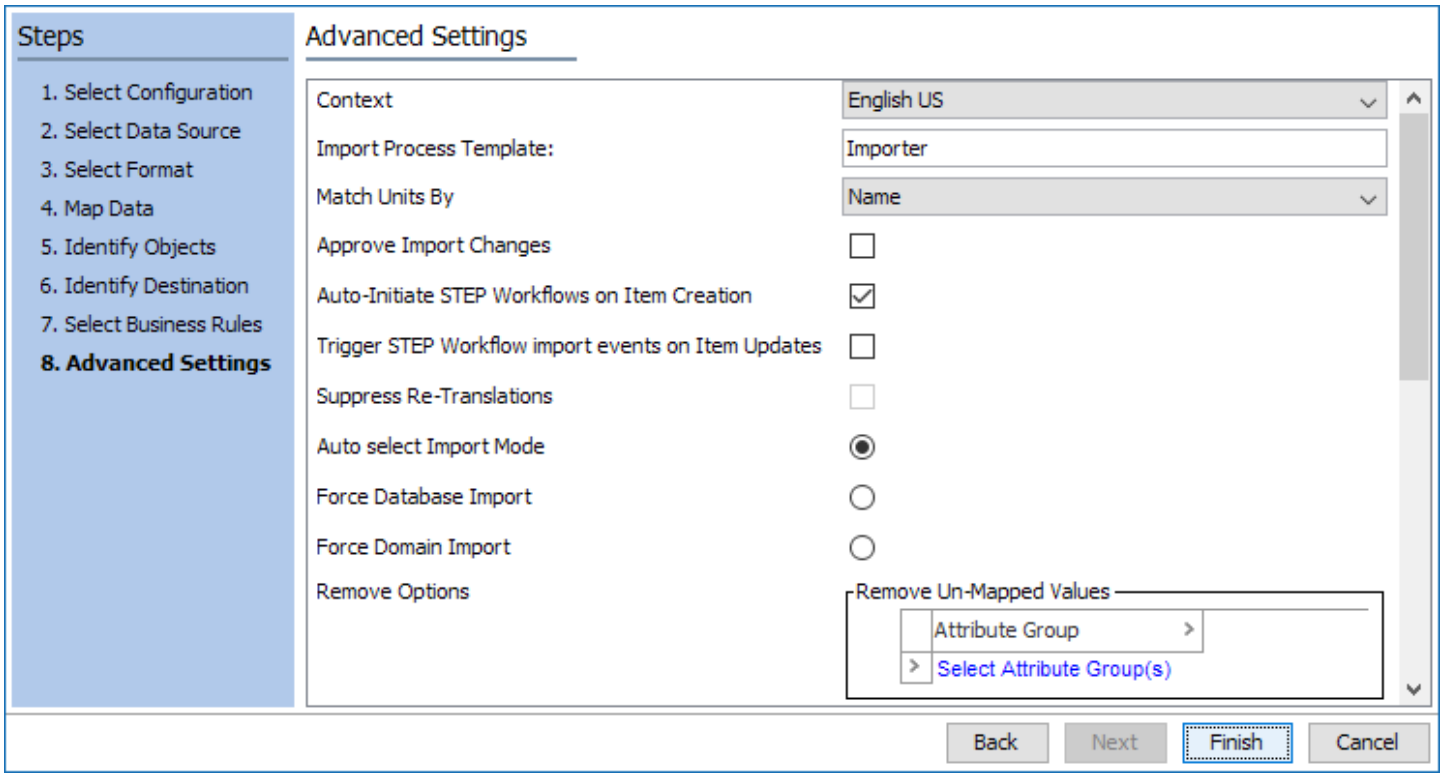
Once initiated, a confirmation message is displayed at the top of the screen, and the 'Start STEP Workflow' button will deactivate for that particular workflow.



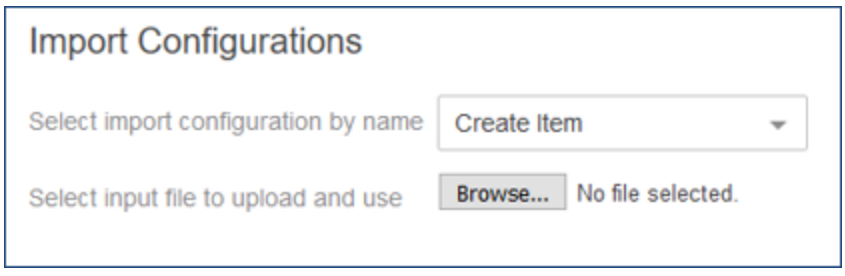
Note: One product / item can be initiated into only one workflow through Web UI. For the configuration of a workflow action button, refer to **Screen / Component Configuration and Mappings for Workflows** topic in the Web User Interface documentation.

Initiating by Import

In Web UI, to initiate the products / items to workflow on creation through import, an import configuration needs to be used, and the 'Auto-Initiate STEP Workflows on Item Creation' option needs to be enabled when creating the Data Import screen.



In the example below, the 'Create Item' configuring, which was created in STEP Workbench by enabling the option 'Auto-Initiate STEP Workflows on Item Creation,' is used.

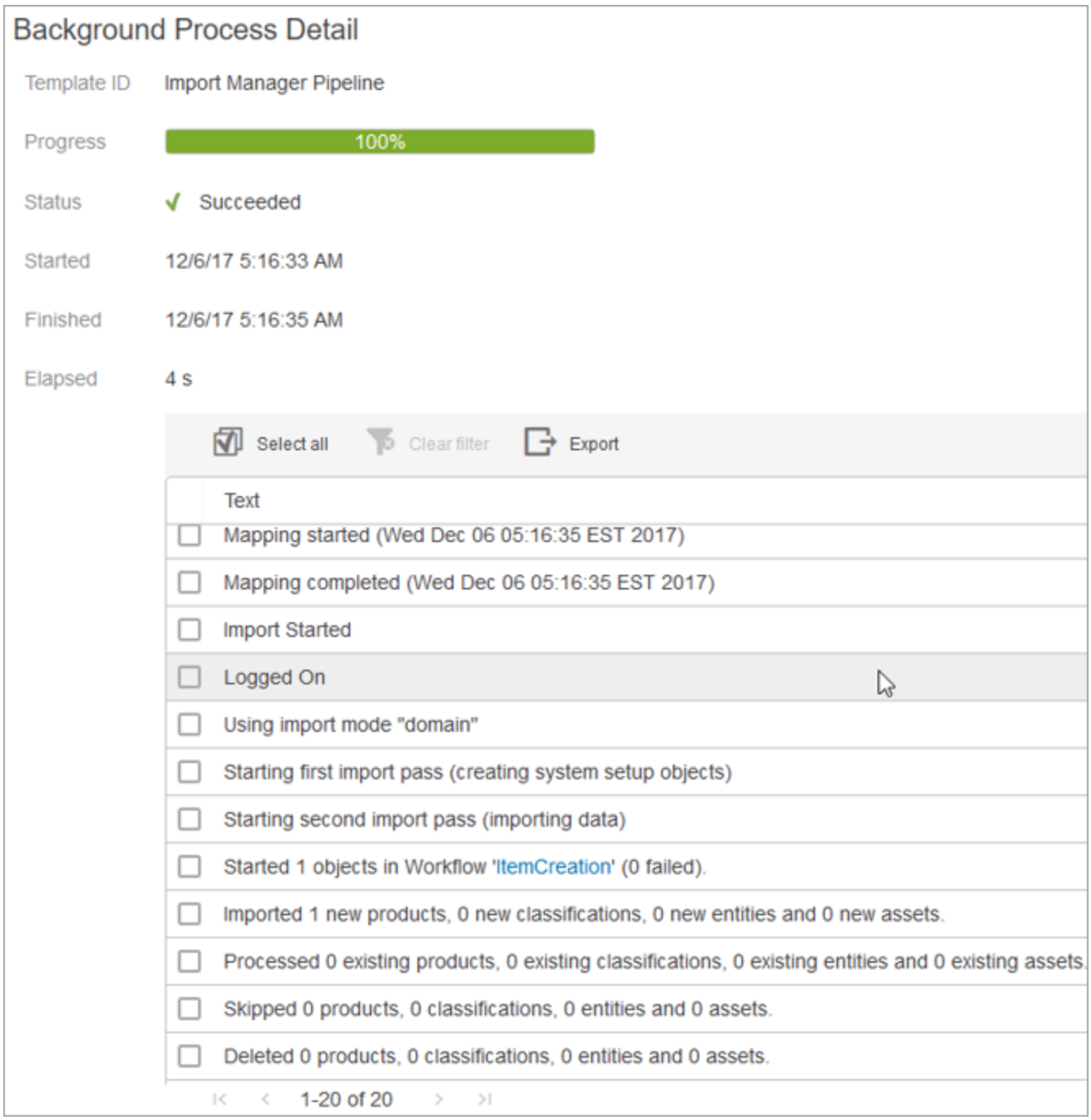


The sample input file field is below:

	A	B	C	D
1	<ID>	<Name>	<Parent ID>	<Object Type ID>
2		CreatingItem	18209	Item
3				

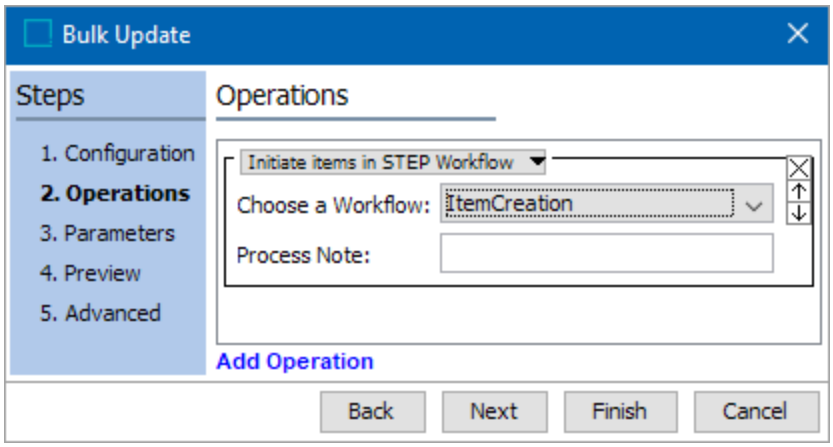
To initiate a product or item into this workflow:

1. Click on the Browse button in the Import Configuration.
2. The select File window will be displayed.
3. Select the sample import file.
4. Click on the OK button.
5. The background process will be started.
6. In the background process, the initiated Item is visible.



Initiating by Bulk Update

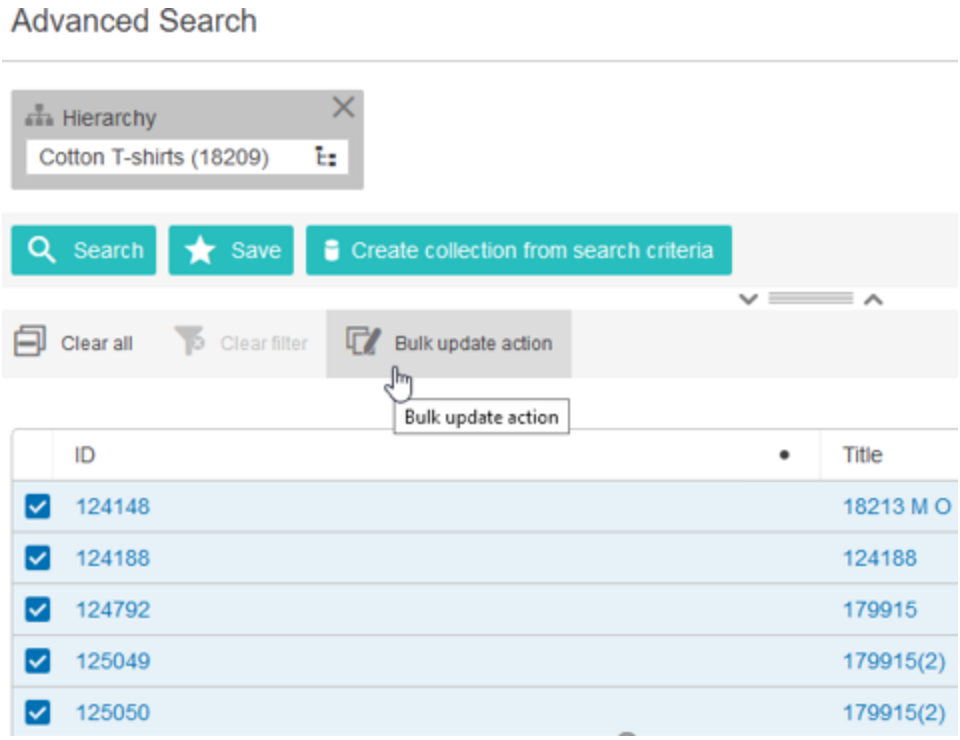
In Web UI, to initiate the products / items to a workflow through a bulk update, a Bulk Update Configuration needs to be used. This is created using the 'Initiate items in STEP Workflow.'



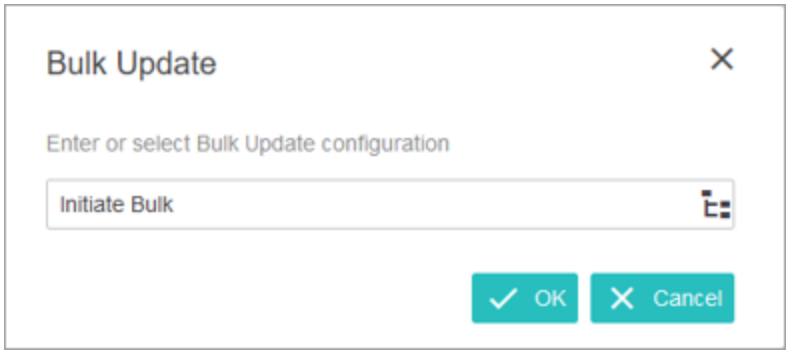
In this example, the 'Initiate Bulk' configuration is used, which was created in STEP Workbench.

Steps:

1. In Advanced Search, search for the products that need to be initiated into the workflow.
2. Select the products from the list.
3. Click on the 'Bulk update action' button.



4. The 'Bulk Update' window will display.
5. Select the required Bulk Update configuration.
6. Click on the OK button.



7. The background process will start.
8. The selected items will be initiated into the workflow.

Note: The Bulk Update action button is available on an Advanced Search screen on a Node List. Additionally, items can be initiated into a workflow from a Node List by adding the 'Start Workflow from Grid' action.

To work with the object(s) that were just placed in the workflow, continue on with the topics found in the **Working with Tasks in Workflows** section.

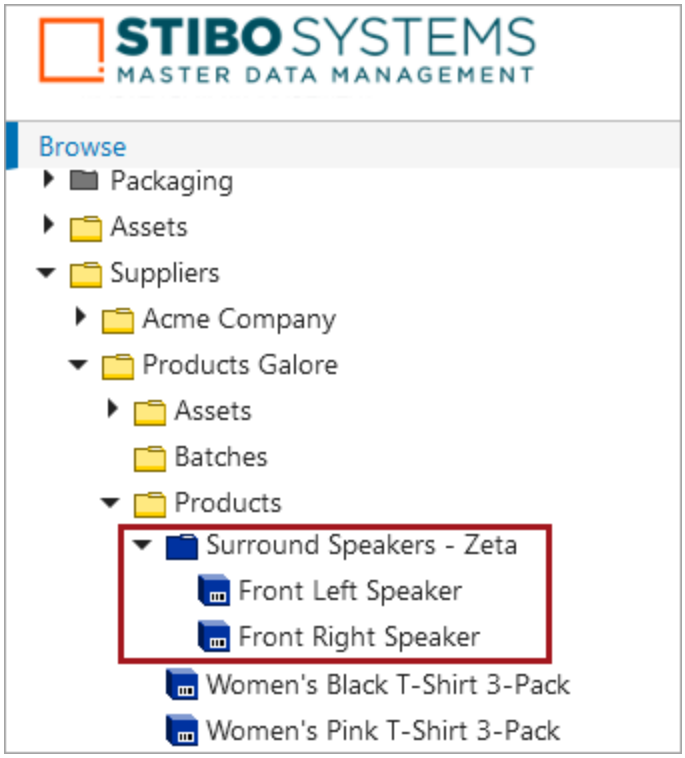
Note: In STEP Workbench, the workflow must have validity for objects being initiated.

Moving Tasks through a Workflow in Web UI

Once an object is initiated in a workflow, it is available in one or more states of the workflow. Each instance of an object in a state represents a task to be completed. Each state is assigned to a particular user or group who has the responsibility of completing the tasks in that state. Because of this, tasks are most often accessed via the states themselves, rather than via the objects in the states. Using a Status Selector Homepage Widget, users can click on a state within a specific workflow to view a Task List. Using a Task List allows users to view and then work with tasks in the states to which they have privilege to access. For more information on the Task List screen, refer to the **Task List** topic.

Supplier Users

In a workflow, supplier users can only view objects that are **directly** linked to their supplier classification. Objects that are children to blue folders within a classification folder are not available to supplier user workflow tasks. For example, in the following image, the speaker products are not available for workflow tasks because they are child objects to the 'Surround Speakers - Zeta' product folder. The 't-shirt' objects can be worked as tasks because they have a direct link to a classification folder.

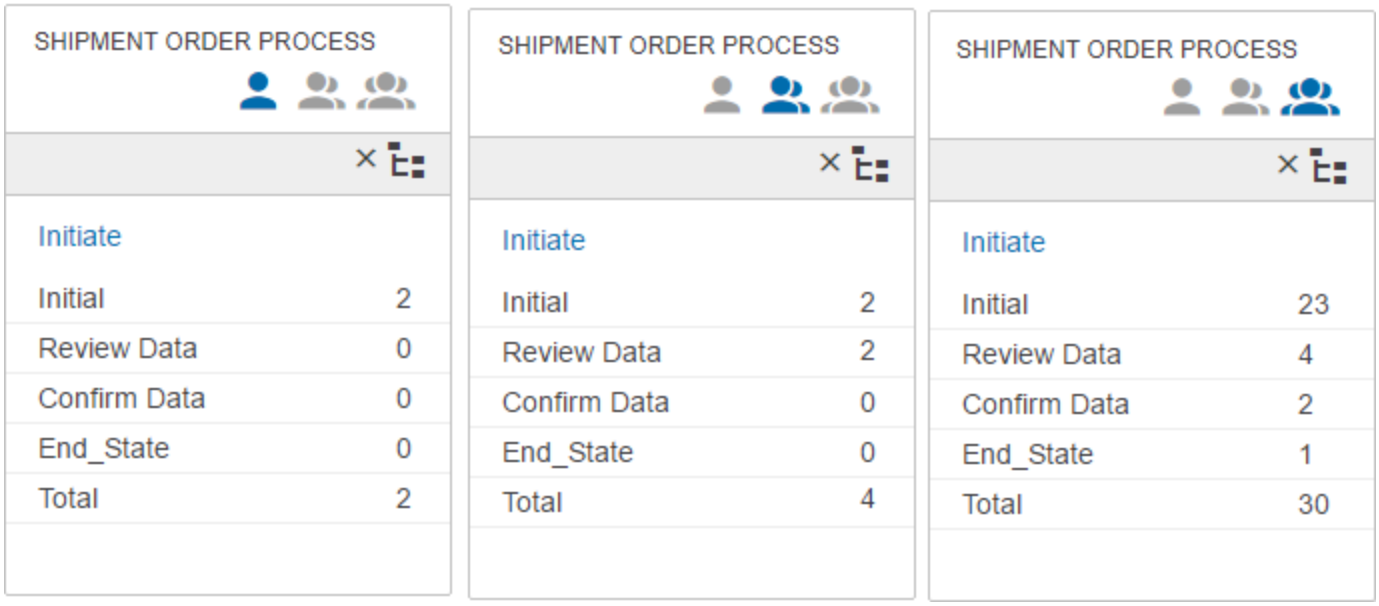


For more information about a supplier item Web UI, refer to the **Supplier Web UI** topic and the **Supplier Web UI Setup Guide** topic, both in the **Web User Interfaces** documentation.

Processing Tasks in a Workflow

The Status Selector is the primary interface for working with tasks in the Web UI. A Status Selector shows all tasks assigned to the current user (either directly to the user or to a group of which the user is a member). A list of the configured states is displayed, with an object count displaying the number of tasks in the state that the user has access to. Additionally, depending on a user's privileges and the selected task mode icon, a user may view tasks assigned to any user. Click the task mode icons shown at the top right of a Status Selector Homepage / Status Selector child component in the Global Navigation Panel to change the view.

In the example below, there are two (2) tasks assigned directly to the user. There are four (4) tasks assigned to a group in which the user is a member (including the current user's tasks), and thirty (30) tasks total within the states showing the specific workflow.



To work with tasks via the Status Selector (Homepage / Status Selector child component in the Global Navigation Panel) Widget:

1. Navigate to the widget applicable to the workflow and select the appropriate task mode to determine the view. There are three options to choose from (as shown in the screenshots above):
   - **User** : Only tasks assigned directly to the current user are displayed.
   - **Group** : Tasks assigned directly to the current user and to the User Group of which they are a member are displayed.
   - **All** : All tasks are displayed. This button is only available if the user has 'STEP Workflow Administrator' privileges for the workflow.

   Additionally, a user can further refine the task view by using the 'Filter by Collection' option. If a collection has been previously set up, selecting that collection using the Node Picker button ( ) will filter the task list to display only tasks for objects contained in the collection.

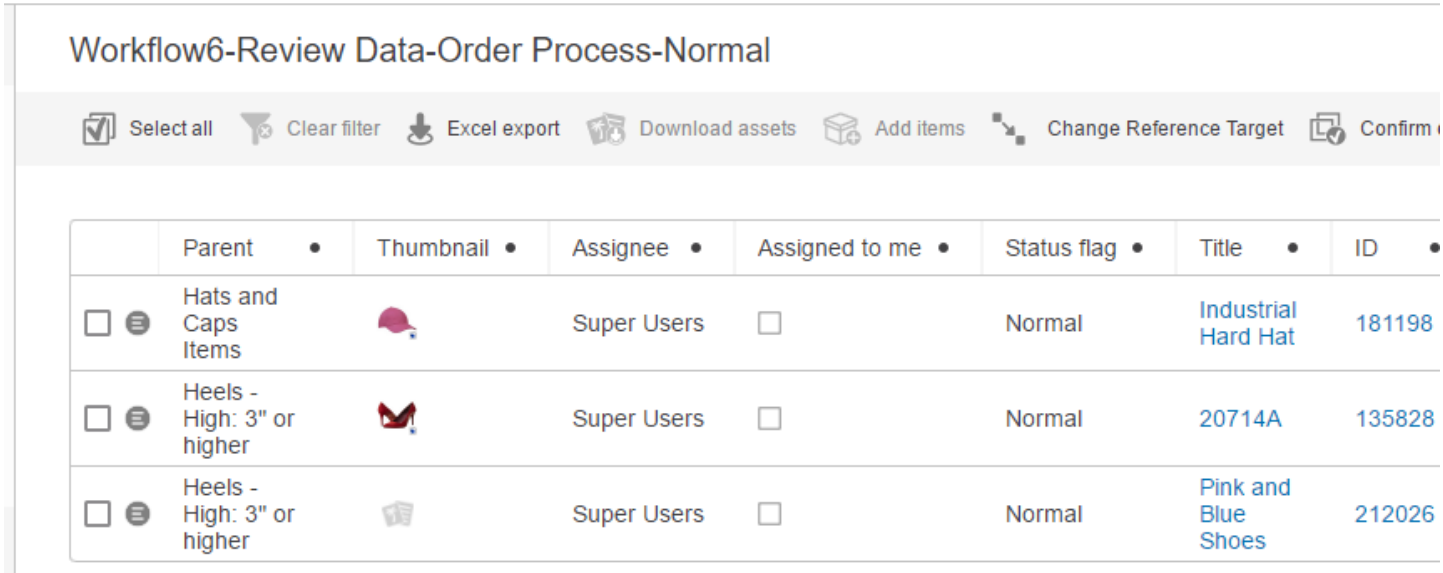
It is useful to note that the display of task mode icons in the Status Selector components is also configurable. Using the 'Task Mode' parameter in the designer, admin users may select which of the three task modes will be available to end users, so users may view different task mode icons based on those settings, and on their user group's privileges. For more information on configuring task mode display, refer to the **Status Selector Homepage Widget** documentation and the **Status Selector in the Global Navigation Panel** documentation.

To enable the node picker button, check the 'Show Filter' parameter in the Status Selector Homepage Widget properties.

For more on creating collections, refer to the **Collections** documentation.

2. With the appropriate view selected, click the link for the state in which tasks should be accessed or, if shown, click the number of the tasks displayed in the Status Flag columns for a specific state. This will display the tasks according to the view configured by the workflow administrator, allowing users to review and/or edit data as needed. The Task List is typically configured to use to work with tasks. However, the Advanced Search Screen may also be used since both screens use a Node List component when working with the task sets. In the examples in this topic, the **Task List** will be used.

   Note: If the Title or ID columns have been configured in a Task List, pressing Control and left-clicking the hyperlinks (Mac users press Command and left-click the hyperlinks) will open the object in a new tab on the web browser. This enables the Task List to be open in one tab while viewing or editing an object in a separate tab.

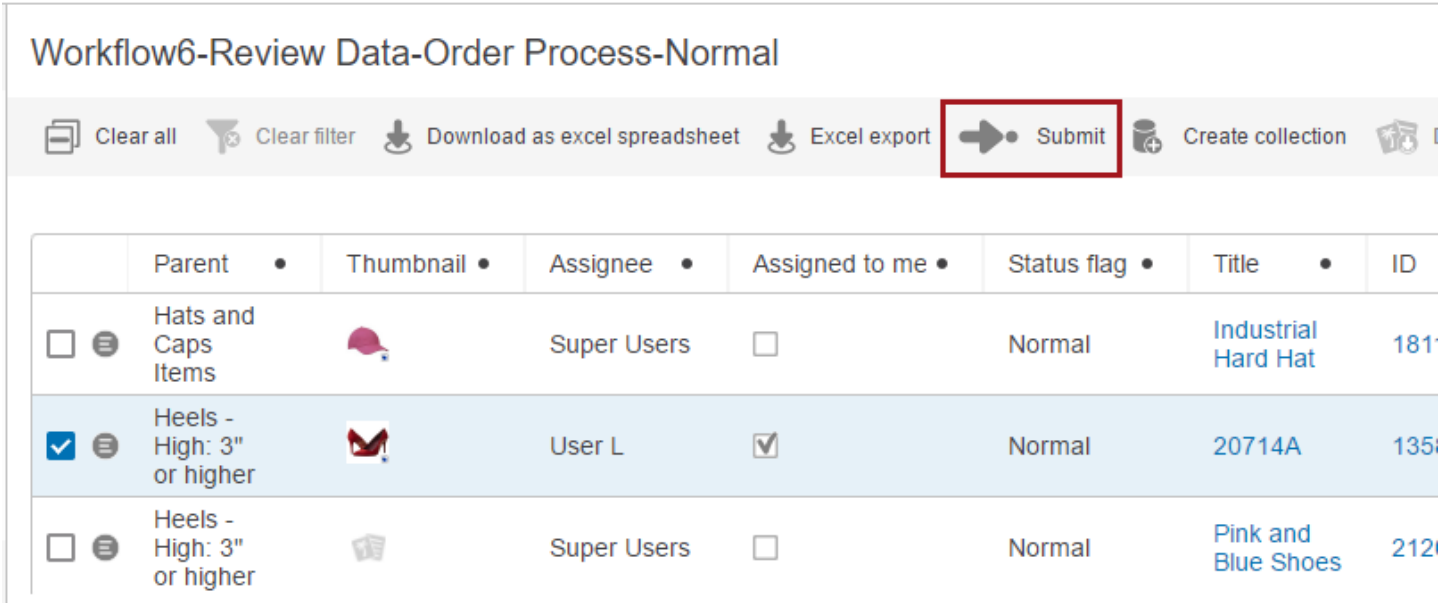


   Gray cells are read-only, while white cells can be edited. Cells that have a column header with an asterisk after it (e.g., UPC*) are considered mandatory and should be populated prior to submission, though the system may or may not prevent transition of the task if they are not populated (based on how the designer has configured the workflow).

3. Submitting a task to a subsequent state indicates that work on the task is complete. Unless the user has access to a subsequent task for that object, it will no longer be accessible for them in the workflow. To submit

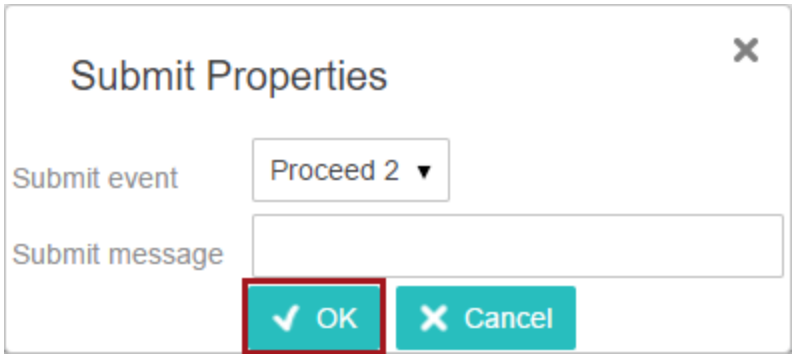
a task, select the task (multi-select is enabled using Ctrl + click), choose the appropriate row or column (depending on the table orientation), and then click Submit. The available options for selection are configurable based on the design of the workflow. In some cases only a single selection will be present and therefore it is not required for the user to select a specific transition.

If applicable, any business rules applied to the Submit action will run.

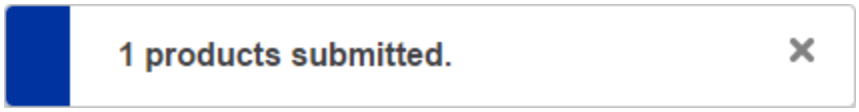


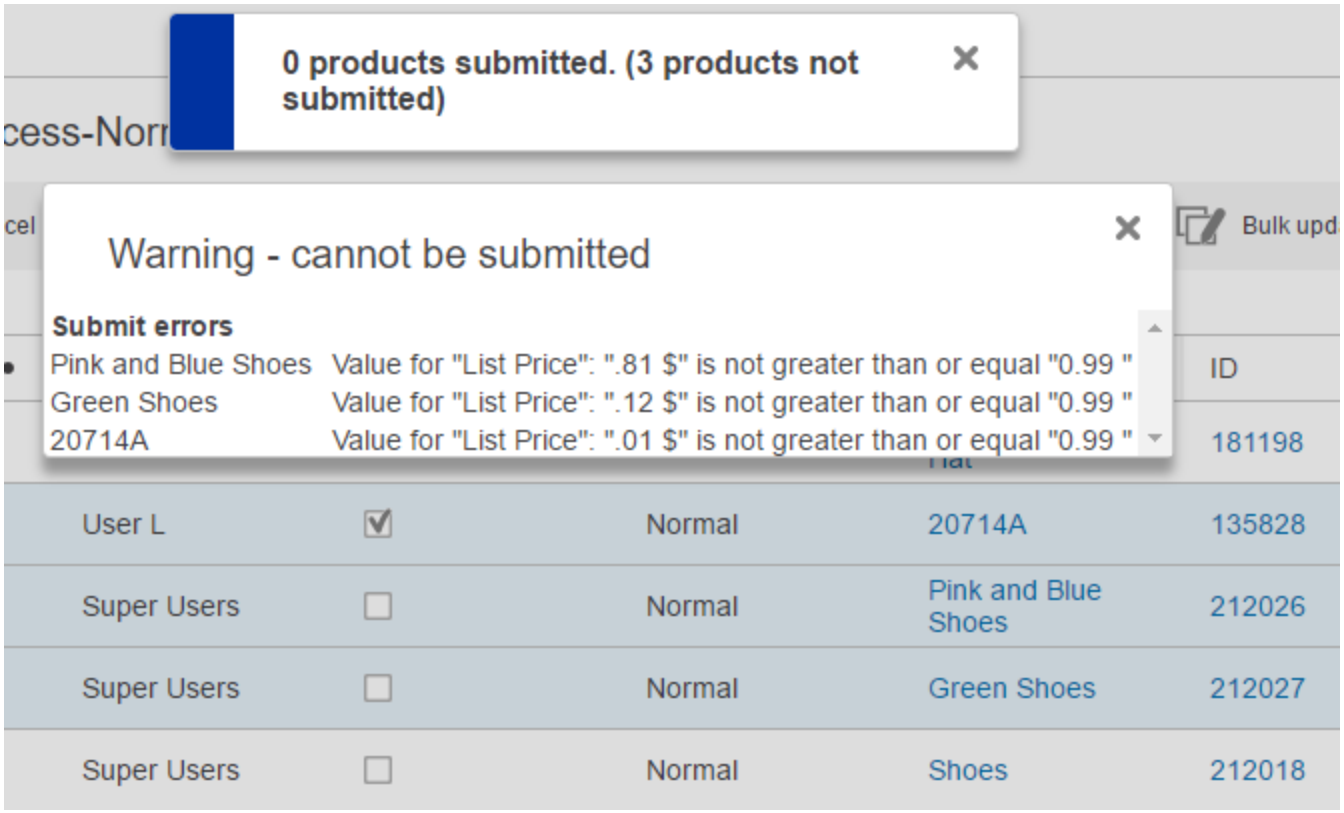
In the Task List, the Submit From Grid Action button can be added within the Child Component 'Actions' parameter. Then state transition ID events can be added.

4. A dialog will appear, allowing the user to input a comment, which will be recorded within the background processes details. Note that if multiple objects were selected, the same comment will be applied to all. From the dialog, click the **OK** button to complete the task, or click **Cancel** to return to the Task List.

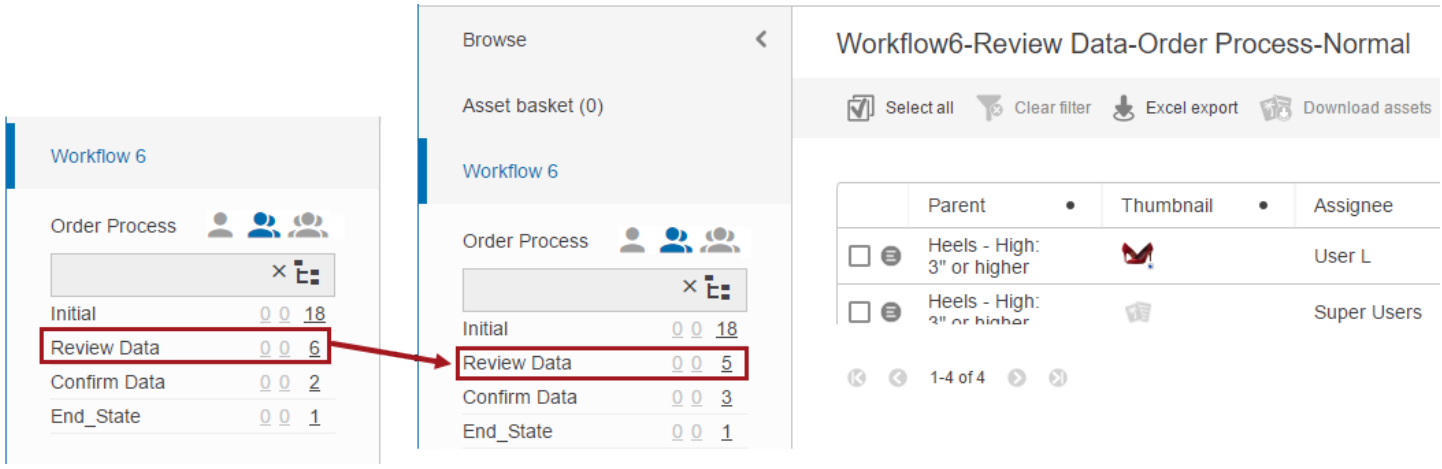


5. Review submission message at the top of the screen. This message will tell you if the workflow submission was successful or not. And, if not, additional details should be provided. Examples follow:

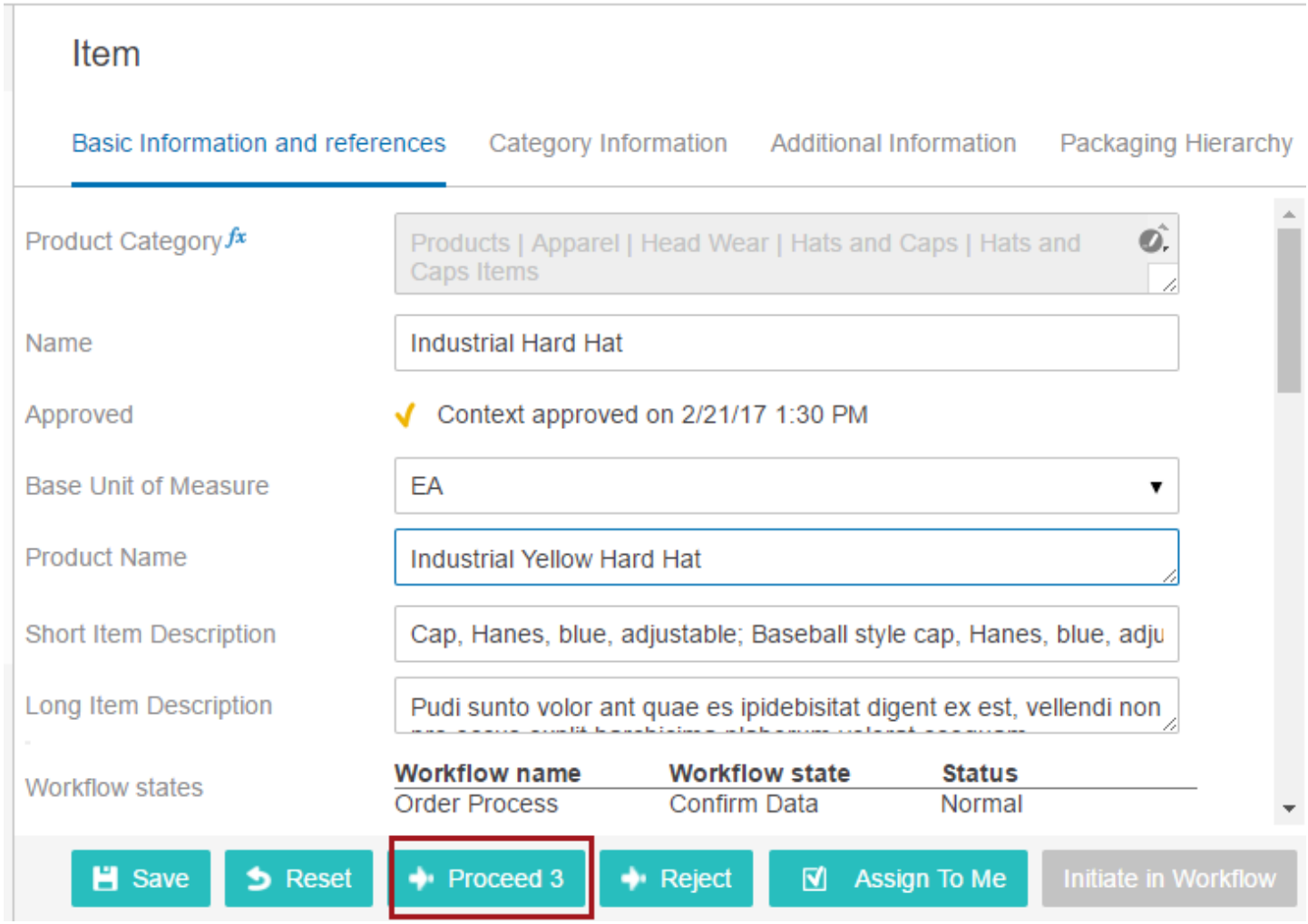




6. Refreshing your browser screen will update the Status Selector. However, if the admin configured the Auto Refresh Internal, the Status Selector will update automatically after a set number of seconds.



Note: An alternate way to submit tasks is by clicking on the object ID link (if enabled) within the task list. If an object details (Node Details) screen has been configured to display upon object selection and a Submit button has been configured to display within that screen, then the user can go directly to the object and submit it. The submit button is only active when coming directly from a Task List. It is important to note that this functionality is only available if the admin has allowed for this scenario.



In the Node Details screen of the workflow, add the Submit Action button, including state transition ID events.

It is possible to configure the 'Workflow Navigation Handler' on the 'Submit Action' screen to follow a task through the workflow. When the component is enabled, it navigates the user to the next screen for that task. For more information, refer to the **Workflow Navigation Handler** topic.

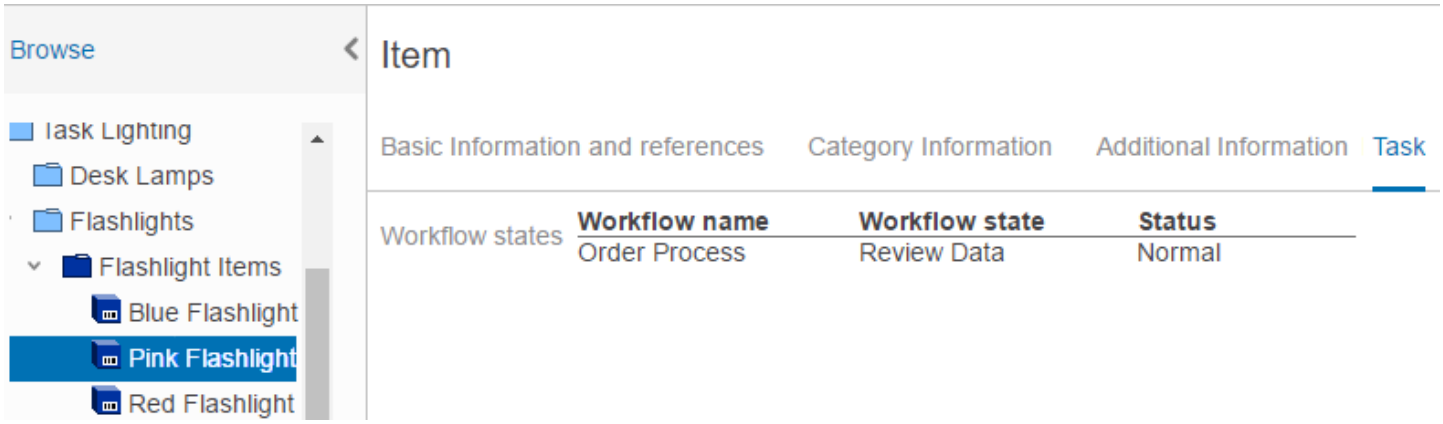
For more information about the Submit Action button, refer to the **Submit Action** topic.

Tasks Tab on an Object

When viewing an object in Workbench via the Tree, a Tasks tab displays all tasks across all workflows for that object, subject to the user's privileges. Only tasks that the user has rights to address are visible.

There is not a pre-configured Tasks tab in Web UI; however, it is easy to set one up or add the task info to an existing screen / tab. Consult with your admin how best to do this.

An example / way to view the workflow states for an object is provided in the preceding screenshot. The information is configured to display within a Node Editor on a Node Details > Tab Page. Another example is provided below in the form of a Tasks tab dedicated to show workflow states.



Note that the tasks displaying in Web UI are active tasks. The Web UI does not display historic task information. You may access that information through the workbench. To configure the Task tab, add the Workflow State Component in Node Editor properties on a separate tab.

For more information on the Workflow State Component, refer to the **Screen Component Configuration and Mappings for Workflows** topic.

Submit Action

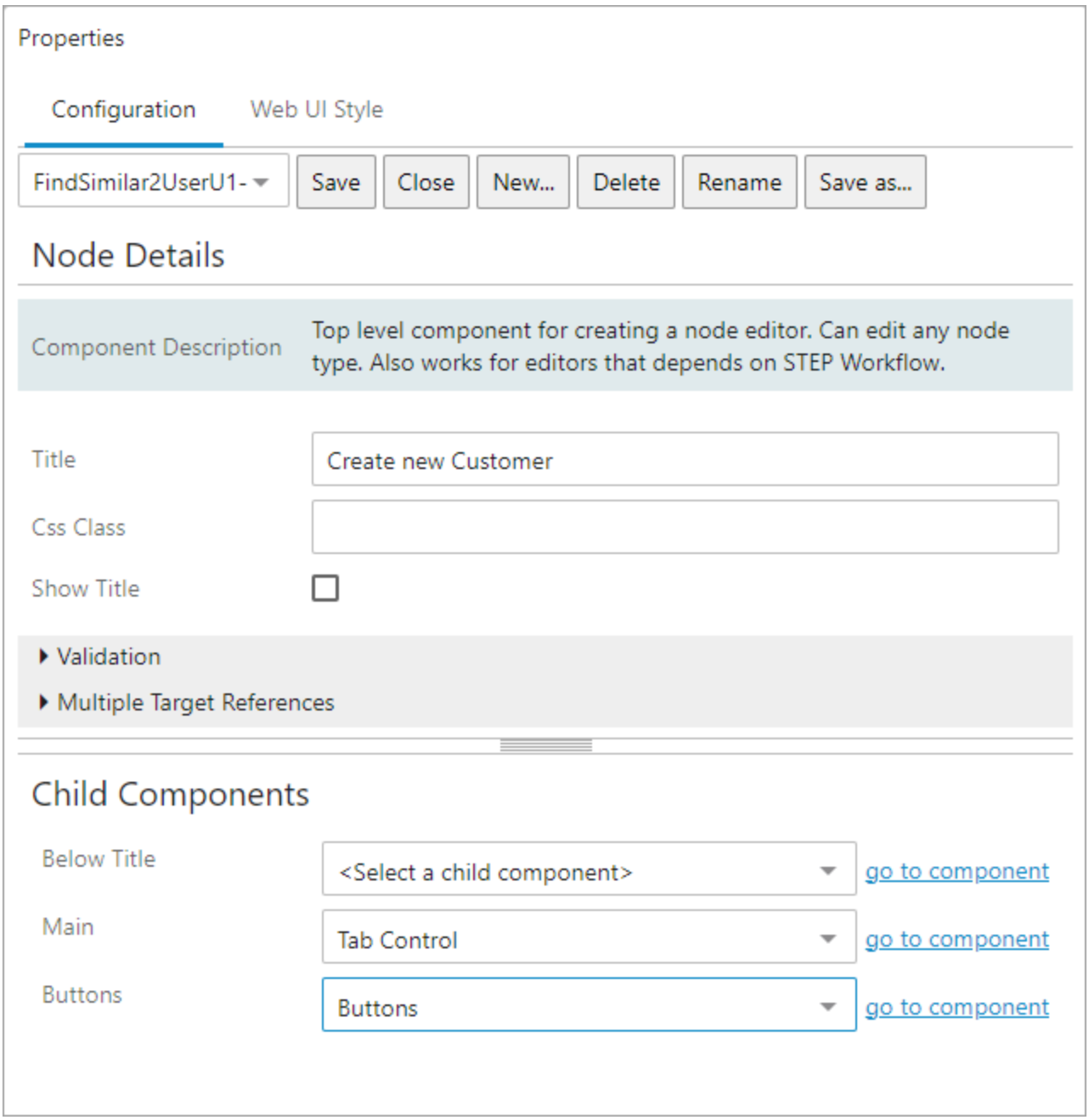
The ‘Submit Action’ button is used to move an object from one workflow state to another. When the button is activated, it submits events to the next task in the workflow.

The action button can only be used when working with a task. For more information about how to navigate to a given task, refer to the **Moving Tasks through a Workflow in Web UI** topic.

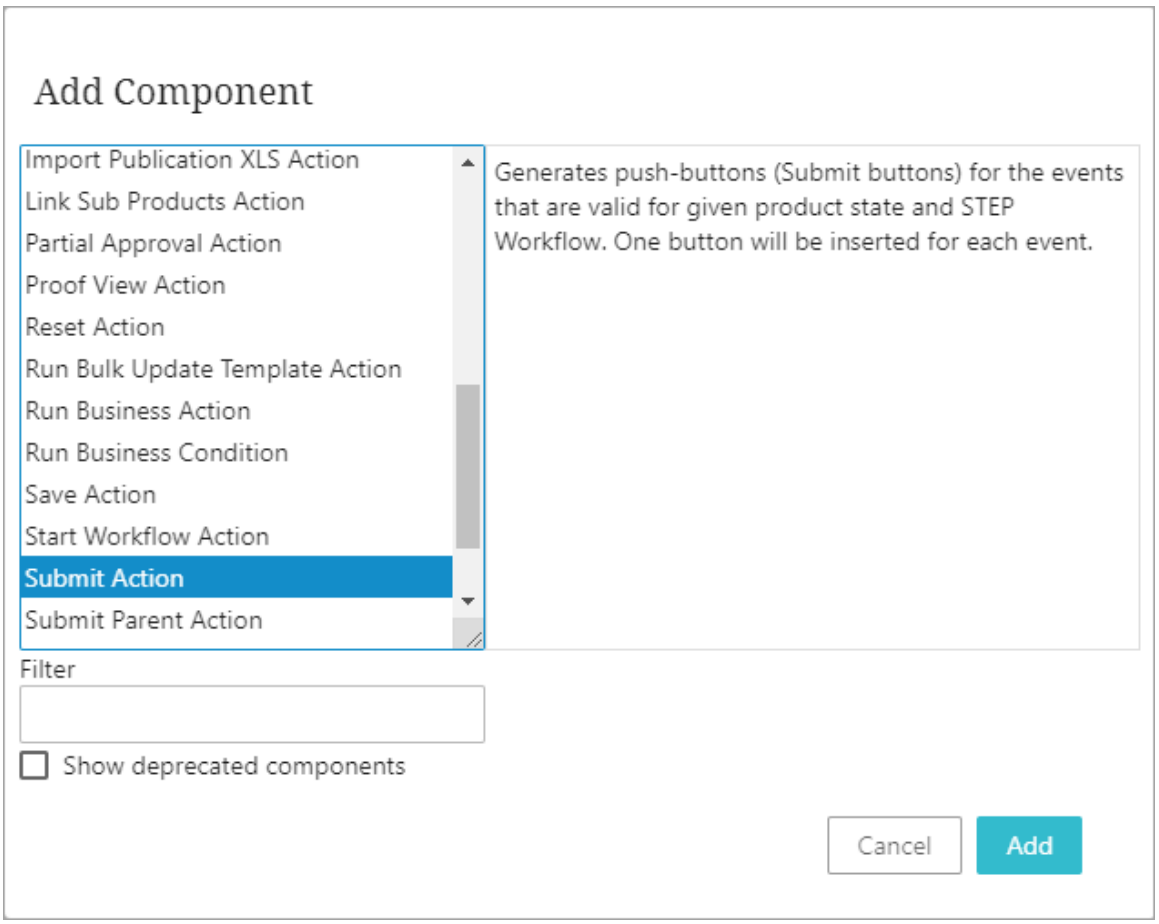
Add Submit Action Button

To add the Submit Action button component, log in to the Web UI and enter Design Mode.

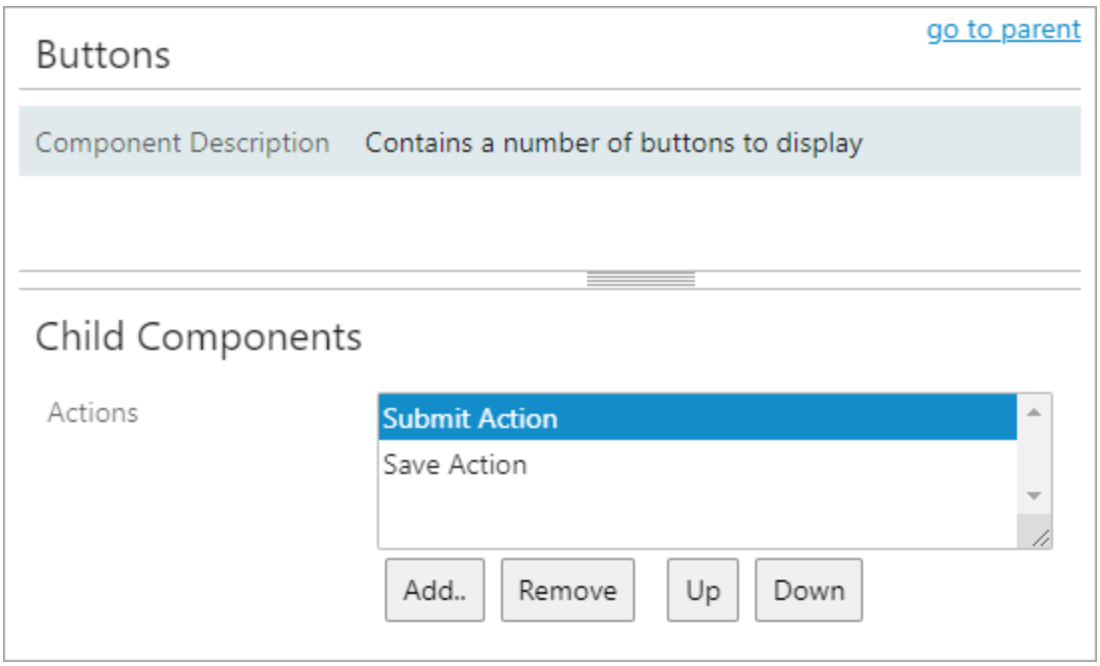
1. On the ‘Node Details’ screen type, in the ‘Child Components’ area, select ‘Buttons’ in the ‘Buttons’ dropdown and click the ‘go to component’ link.



2. In the 'Add Component' dropdown, select 'Submit Action' and then click the **Add** button.



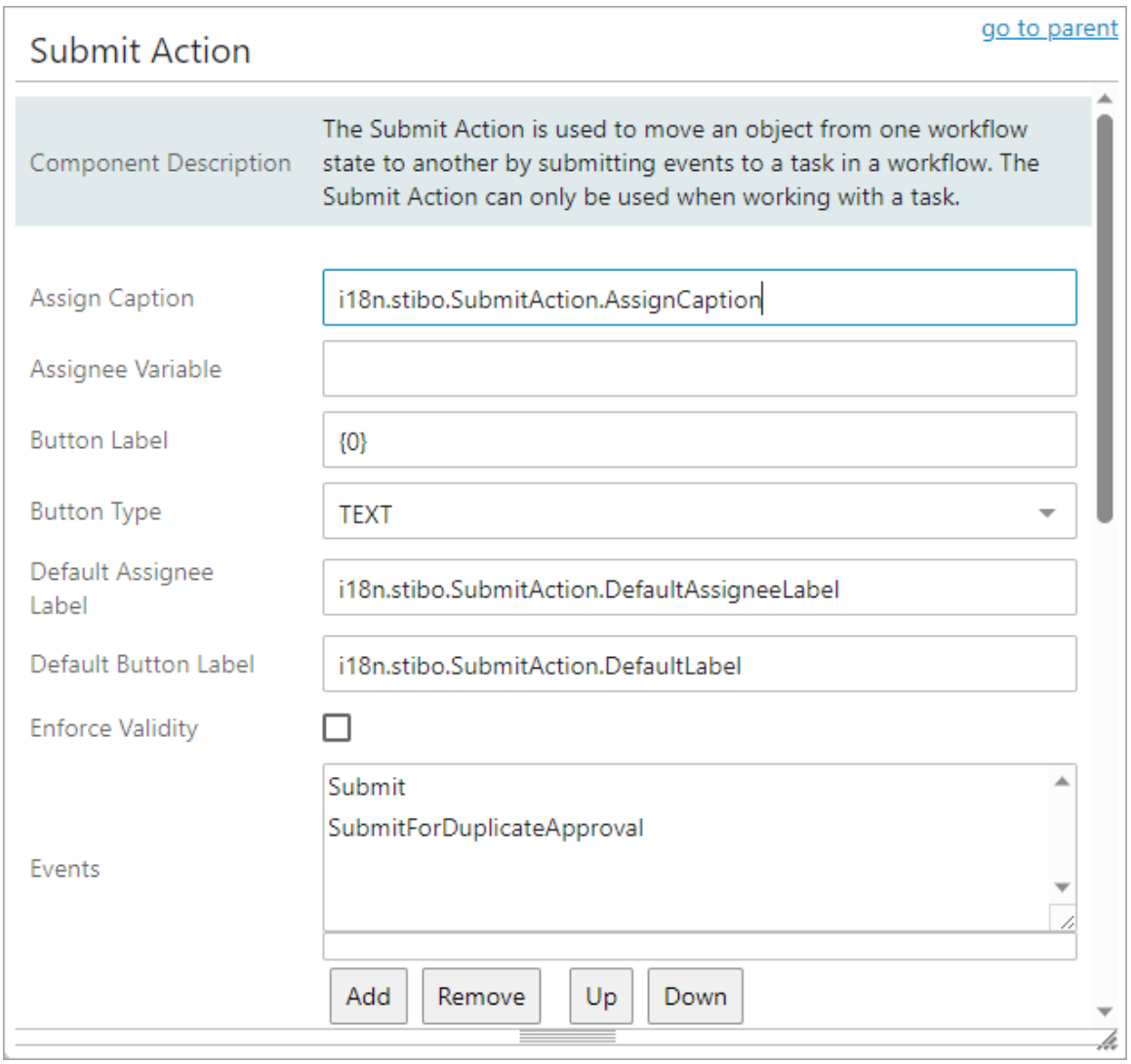
3. Double-click on 'Submit Action', in the 'Child Components' area, to configure the component.



Configure Submit Action Button

The Submit Action button allows users to configure a number of parameters that are listed on the left side of the screen as shown in the image below. Each parameter features help text that is accessible by hovering over the header and clicking the info icon that appears to the right of the parameter name.

The configurable parameters are listed below the following images.



- **Assign Caption** - Caption for part of submit dialog where the assignee is chosen.
- **Assignee Variable** - Optional parameter to specify a workflow variable as a target for the selected assignee. Ignored if 'Show Submit Dialog' is 'false' or the 'Group IDS' and 'User IDS' fields are empty.

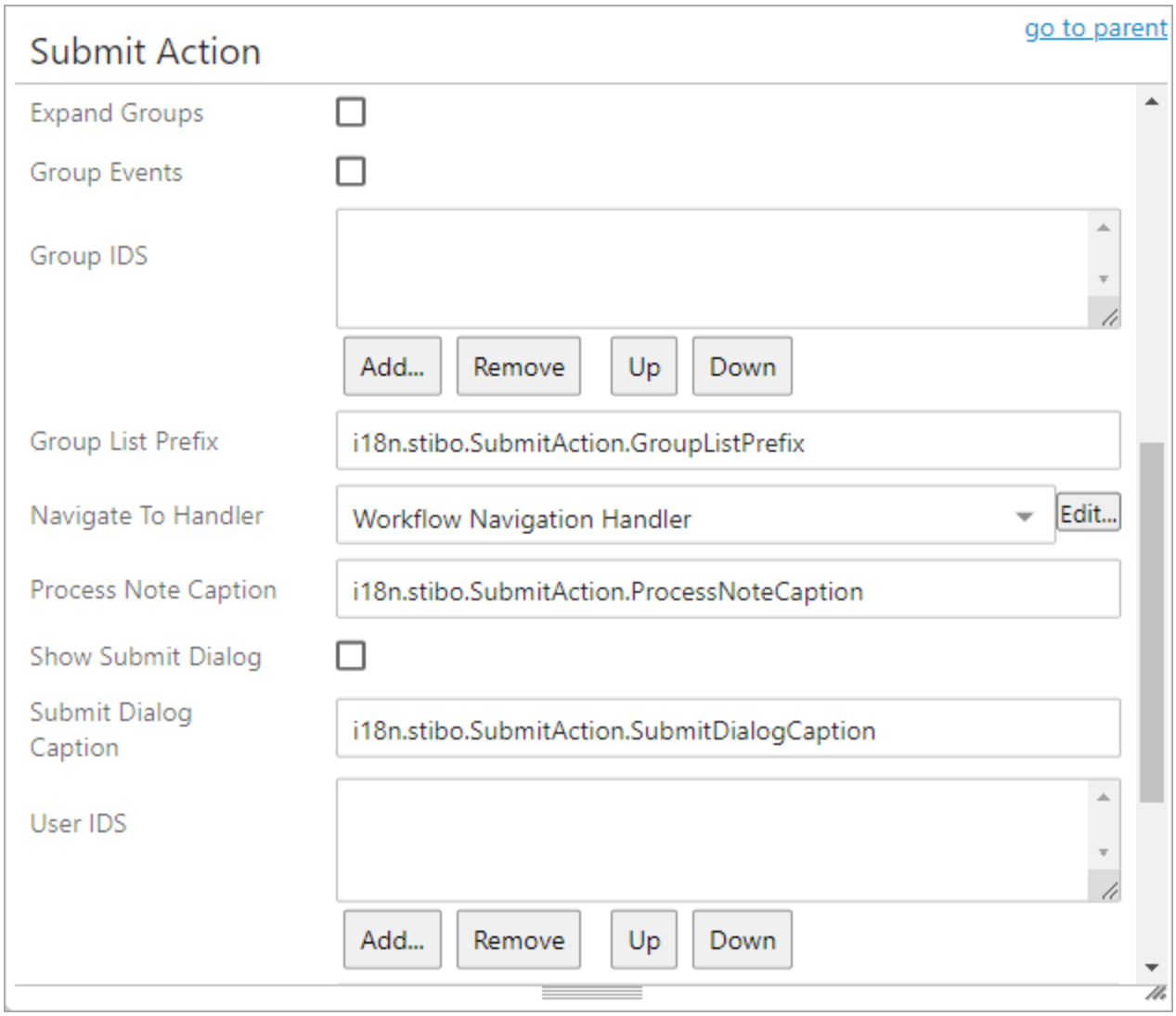
  If this parameter is set, a reference (STEP URL) to the selected assignee is stored in the variable BEFORE the actual submit, i.e., it can be used in business rule conditions for the workflow transitions. It is the responsibility of the on-entry script to make the actual assignment.

  Note that if configured, the workflow variable will be cleared if no assignee is selected.

  If this parameter is not set, the actual assignment will be made AFTER transition has been performed and all business rule actions have been executed.
- **Button Label** - The label to be used for the submit button. The text '{0}' will be replaced with the event value.

  Button Type - Indicates if the button should have an icon, a text, or both.

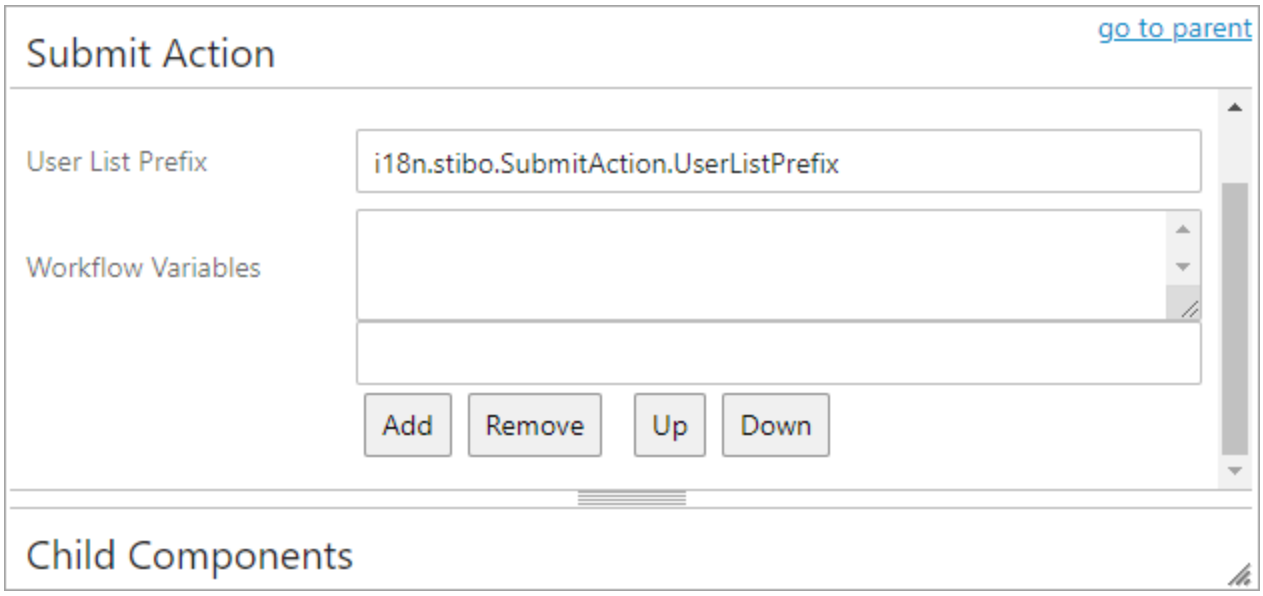
- **Default Assignee Label** - A label that is added to the top of the list for setting the default assignee as defined in the workflow.
- **Default Button Label** - The label to be used for the default submit button if no events are configured.
- **Enforce Validity** - (Optional) Set to 'true' if the submit button should not be enabled unless all components are valid.
- **Events** - List of events available for a given workflow and product state. Validated against workflow configuration. If no events are supplied, then default action on current state is applied on submit.



- **Expand Groups** - Indicates if all users and groups from the configured user groups should be added individually to the list.
- **Group Events** - Set this to 'true' to have a single expand button for the submit buttons group. If set, only one button with the option to expand upwards on demand will display. If not set, buttons will expand into one button per event with all displayed.

- **Group IDs** - List of IDs of user groups that should be shown in the list of possible assignees for the next state. Refer to the description for 'Assignee Variable'.
- **Group List Prefix** - A label that will be used as prefix when displaying user groups in the list.
- **Navigate to Handler** - A plugin for handling which screen to navigate to after submitting.

  For information about the Workflow Navigation Handler, refer to the **Workflow Navigation Handler** topic.
- **Process Note Caption** - Caption for part of submit dialog where the submit message is added.
- **Show Submit Dialog** - Indicates if the submit dialog should be shown when the submit button is clicked.
- **Submit Dialog Caption** - Caption of pop-up submit dialog.
- **User IDs** - List of IDs of individual users that should be shown in the list of possible assignees for the next state. Refer to the description for 'Assignee Variable'.



- **User List Prefix** - A label that will be used as prefix when displaying users on the list.
- **Workflow Variables** - List of workflow variables to be shown on the Submit Dialog. Be sure to enter exact Workflow Variable ID.

For information about the use of the Submit Action button, refer to the topics:

- **Configuring a Deduplication Clerical Review**
- **Match and Merge Clerical Review - Merge**
- **Moving Tasks through a Workflow in Web UI**
- **Run Business Action Use Case - Auto-Navigation Through Workflow**

Workflow Navigation Handler

The navigation handler 'Workflow Navigation Handler' allows users to follow a task through a workflow. Once the Workflow Navigation Handler has been enabled, and the user submits a task successfully in the workflow, the component navigates the user to the next screen for that task.

If the user does not have the required permissions to follow the task to the next state in the workflow, the component will navigate the user to the configured screen ID.

Prerequisites

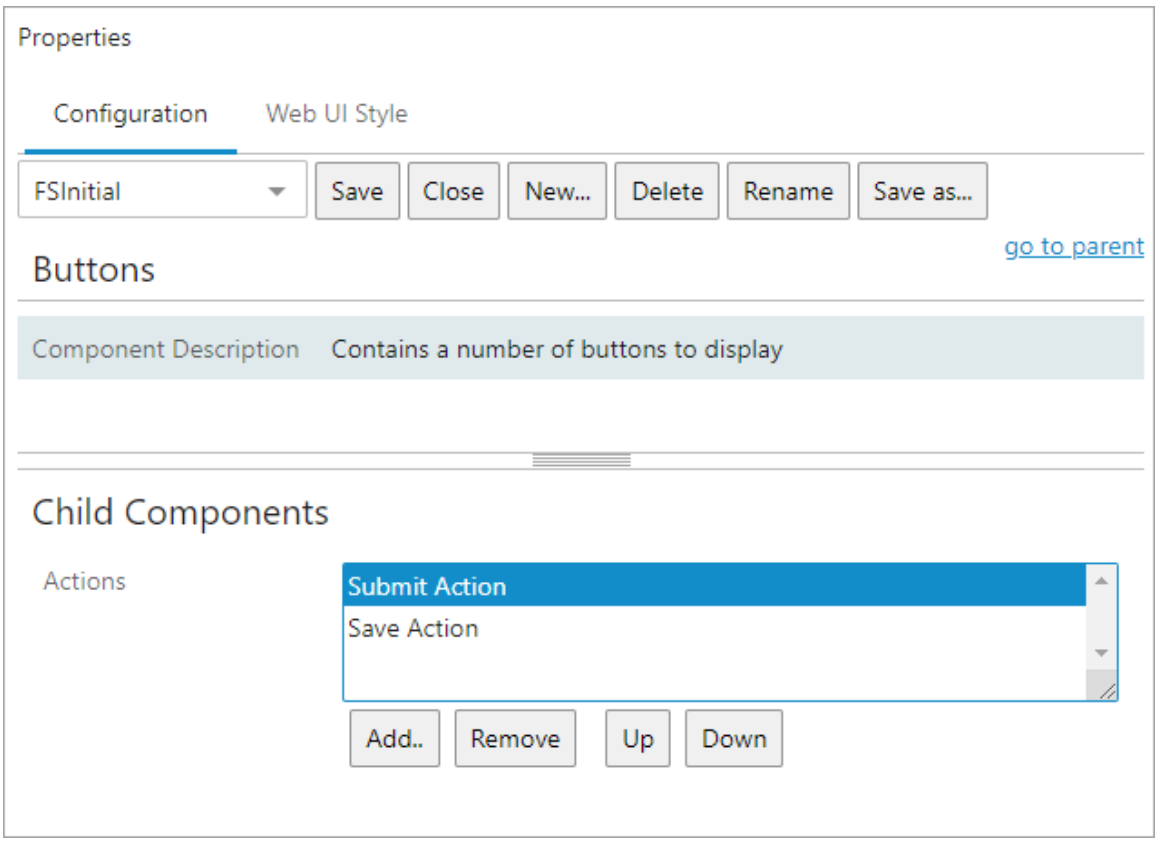
The Workflow Navigation Handler is configured in the Web UI. For more information about configuring workflows in Web UI, refer to the **Workflows in Web UI** topic in the **Web User Interfaces** documentation.

Configuring the Workflow Navigation Handler in the Web UI

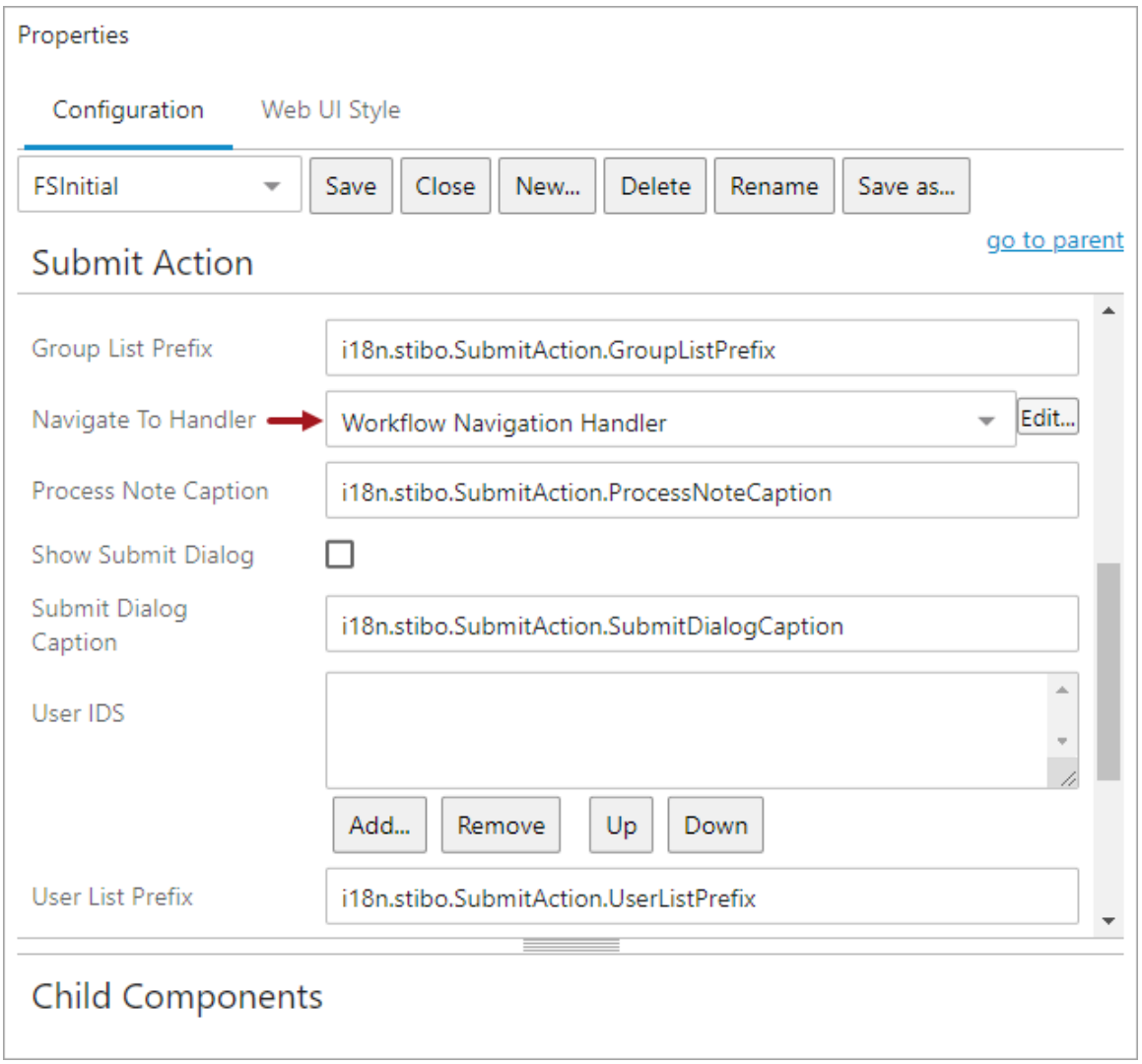
Using the Workflow Navigation Handler requires that mappings for workflow and state have been configured on the 'MAIN' screen in the Web UI, and the screen navigation will adhere to the task mode configuration. For more information about mappings, refer to the **Mappings** topic in the **Web User Interfaces** documentation.

The following example shows how to configure a Workflow Navigation Handler for a 'Find Similar in Workflows' process:

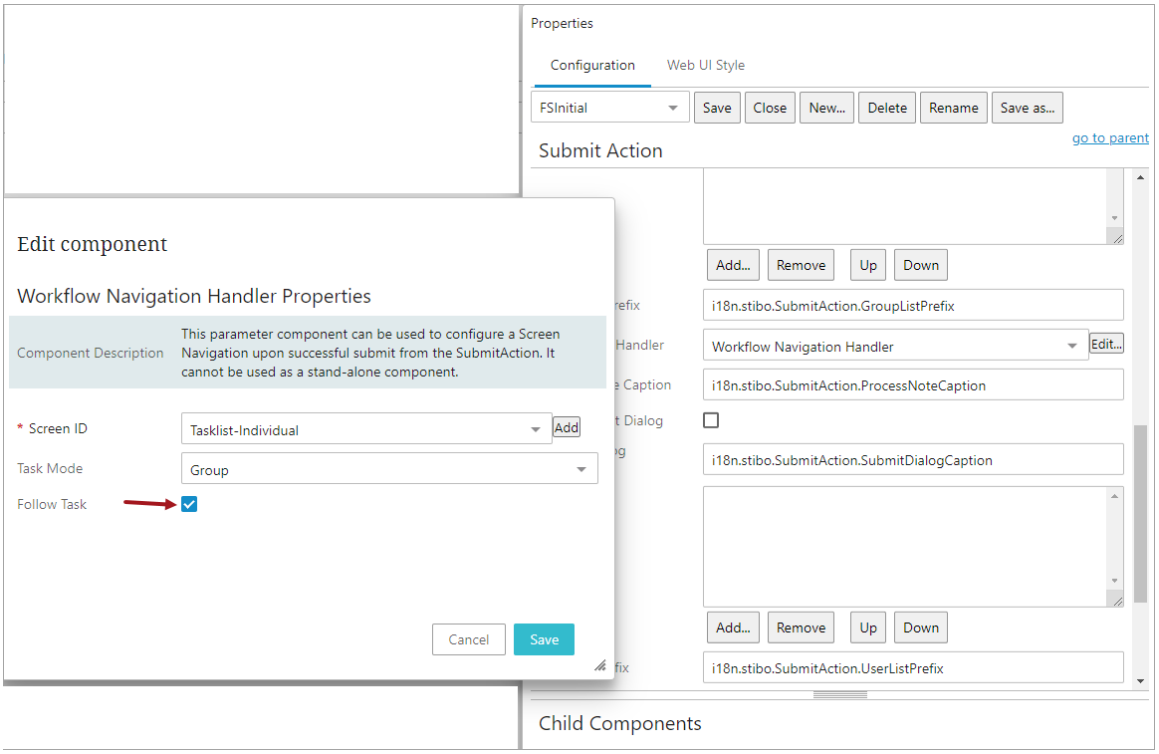
1. In the Web UI, enter Design Mode, and on the Node Details screen, in the 'Child Components' area, select 'Buttons' from the 'Buttons' dropdown and click the ‘go to components’ link.
2. On the 'Buttons' screen, in the 'Child Components' area, double-click on 'Submit Action'.



3. On the 'Submit Action' screen, select 'Workflow Navigation Handler' from the ‘Navigate to Handler’ dropdown. To enable the component, click the **Edit** button to the right of the dropdown menu.



4. Check the 'Follow Task' checkbox, and then click the **Save** button.



The Workflow Navigation Handler has now been enabled and allows the user to follow the task in the workflow. If the user is not allowed to navigate to the next screen, the user will be taken to the configured 'Screen ID'.

For information about creating workflows in the workbench, refer to **Creating a Workflow** topic in the **Workflows** documentation.

Assigning Workflow Tasks in Web UI

Workflow tasks viewed and actioned in the Web UI can be claimed, released, or assigned, depending on the privileges of the users involved.

The following is a list of methods that can be used to assign tasks, whether to one's self or to other users, in a workflow task list:

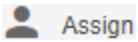
- the 'Assign Toolbar Action'
- the 'Assigned to Me' workflow component
- the 'Task Assignment Action' button

The 'Assign Toolbar Action' provides users with the most flexibility in that users may not only claim and release tasks, but also assign them to other users, whereas the other methods, the 'Assigned' to Me' workflow component and the 'Task Assignment Action' button, are limited to claiming and releasing tasks for the logged in user.

Assign Toolbar Action

To enable the 'Assign' toolbar action to a task list, users must add the 'Assign Toolbar Action' action to the Node List on a Task List.

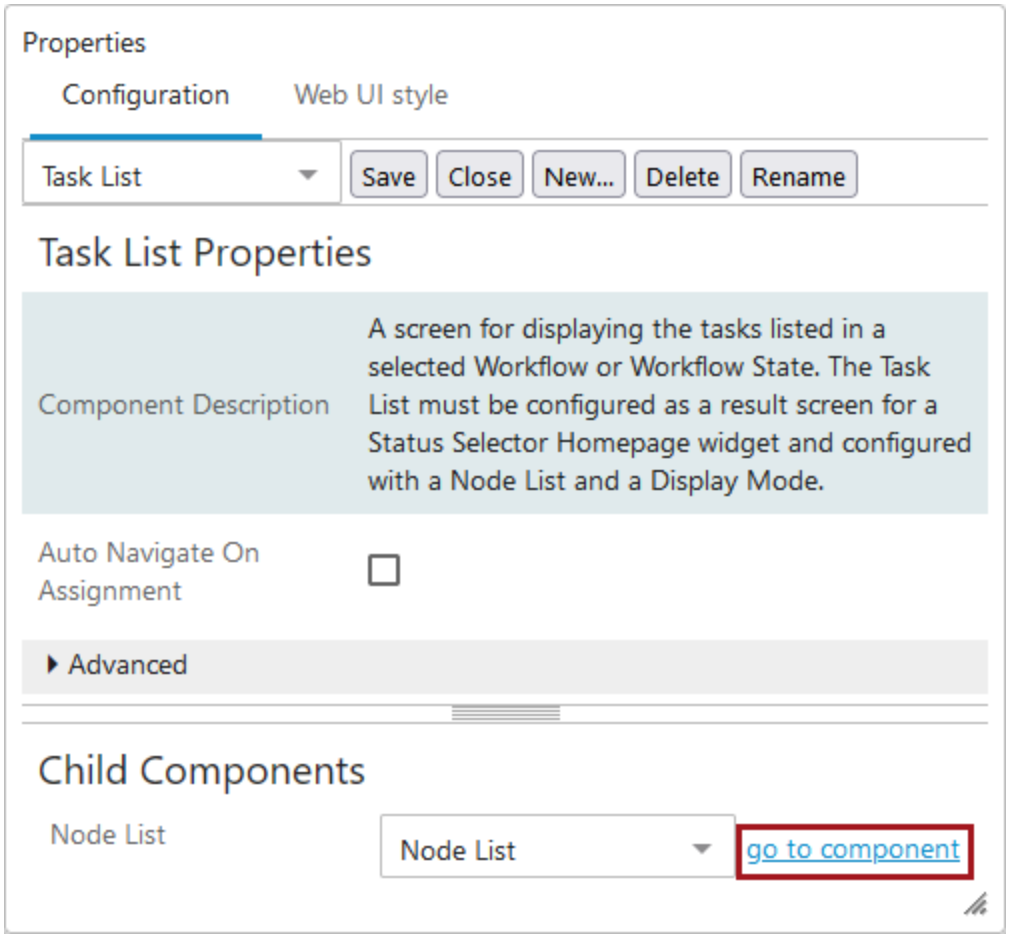
Below is how the 'Assign Toolbar Action' button will appear in the Web UI with the default icon and label:



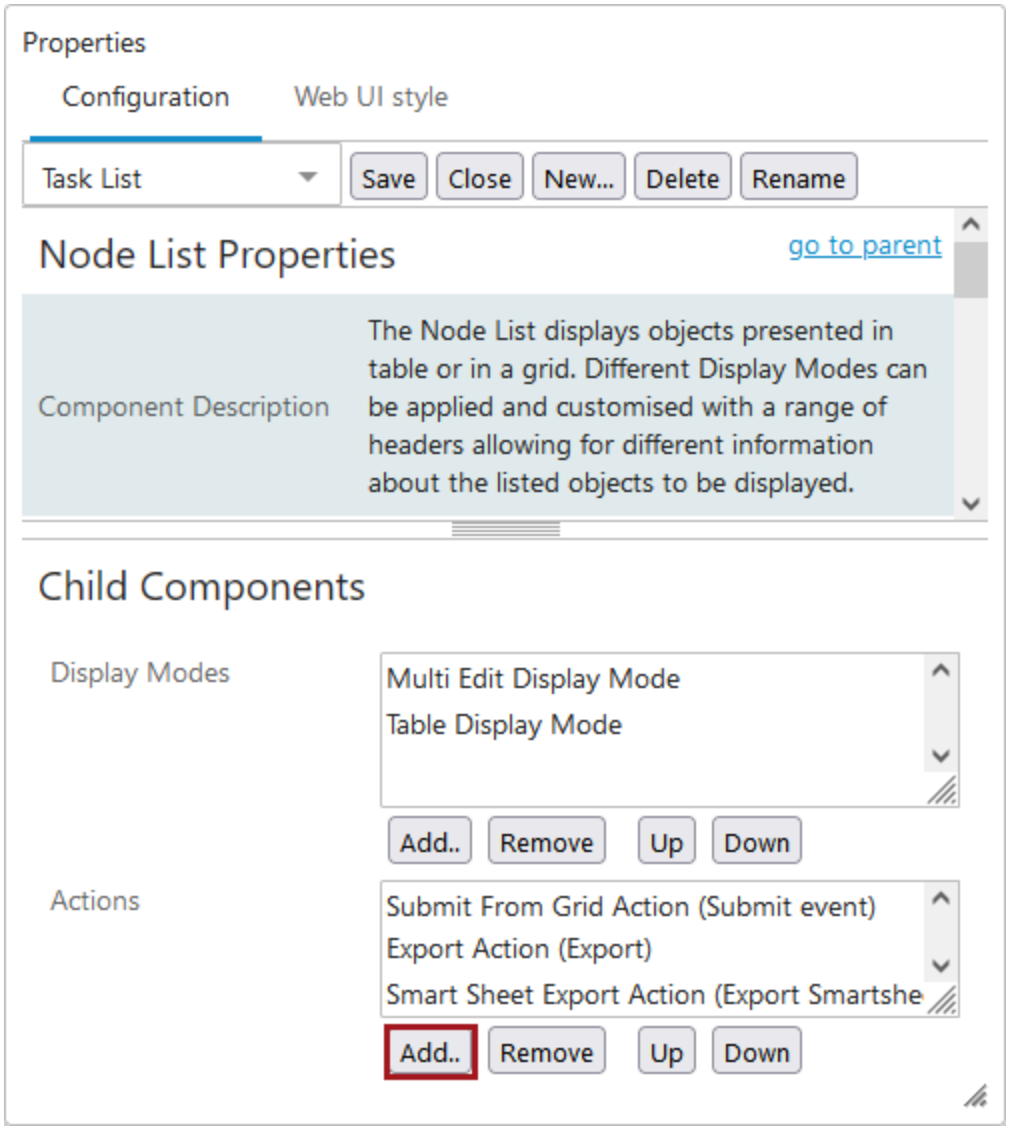
Adding the Assign Toolbar Action

To add the 'Assign Toolbar Action' to a Task List screen, follow these steps:

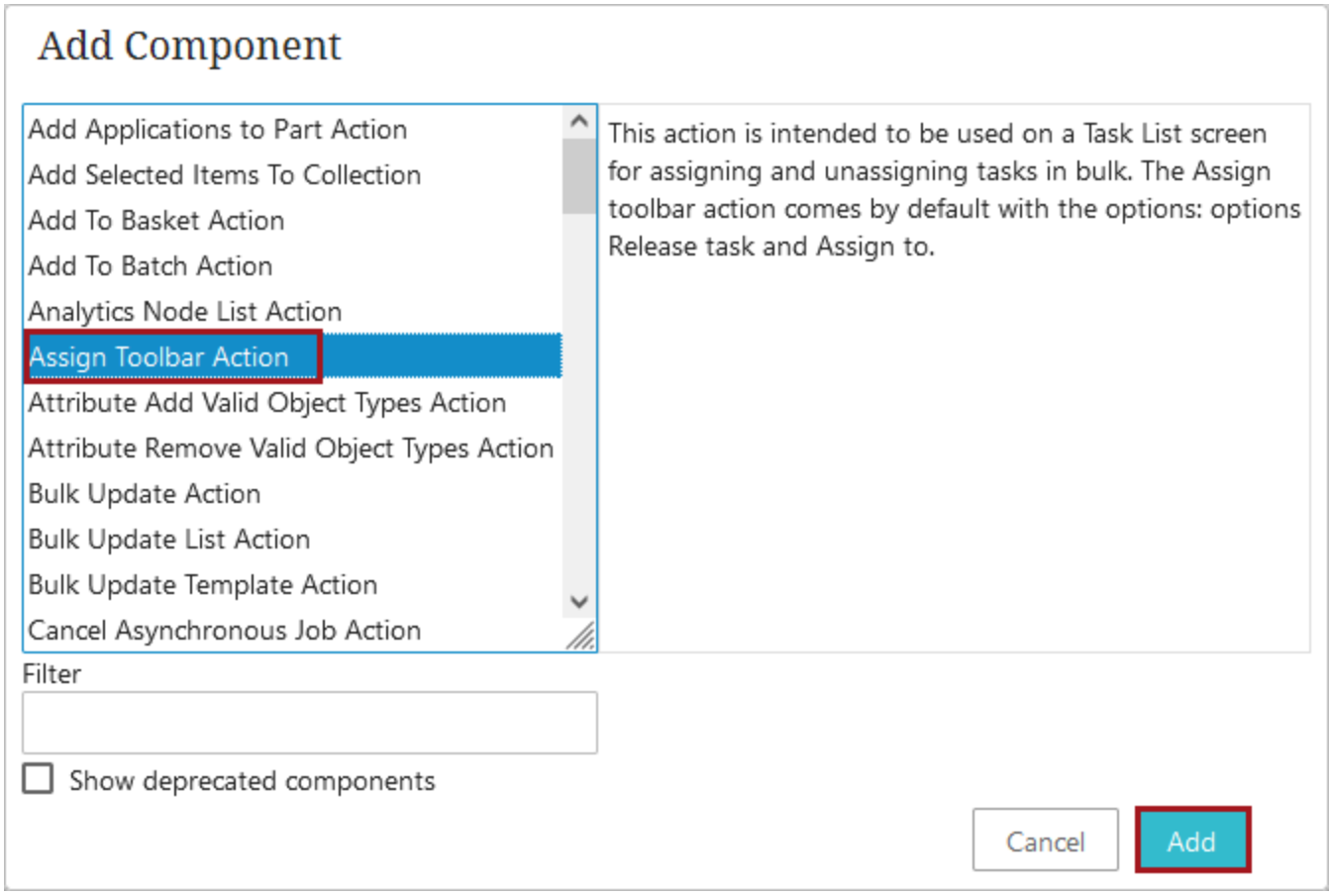
1. Under 'Child Components' on 'Task List Properties' in the designer, click **go to component** link on the 'Node List' component.



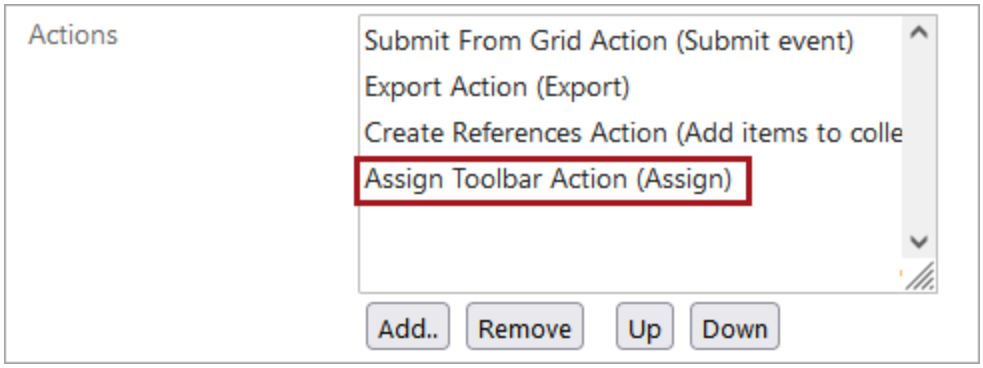
2. Under 'Child Components' on 'Node List Properties', click **Add..** under the 'Actions' field.



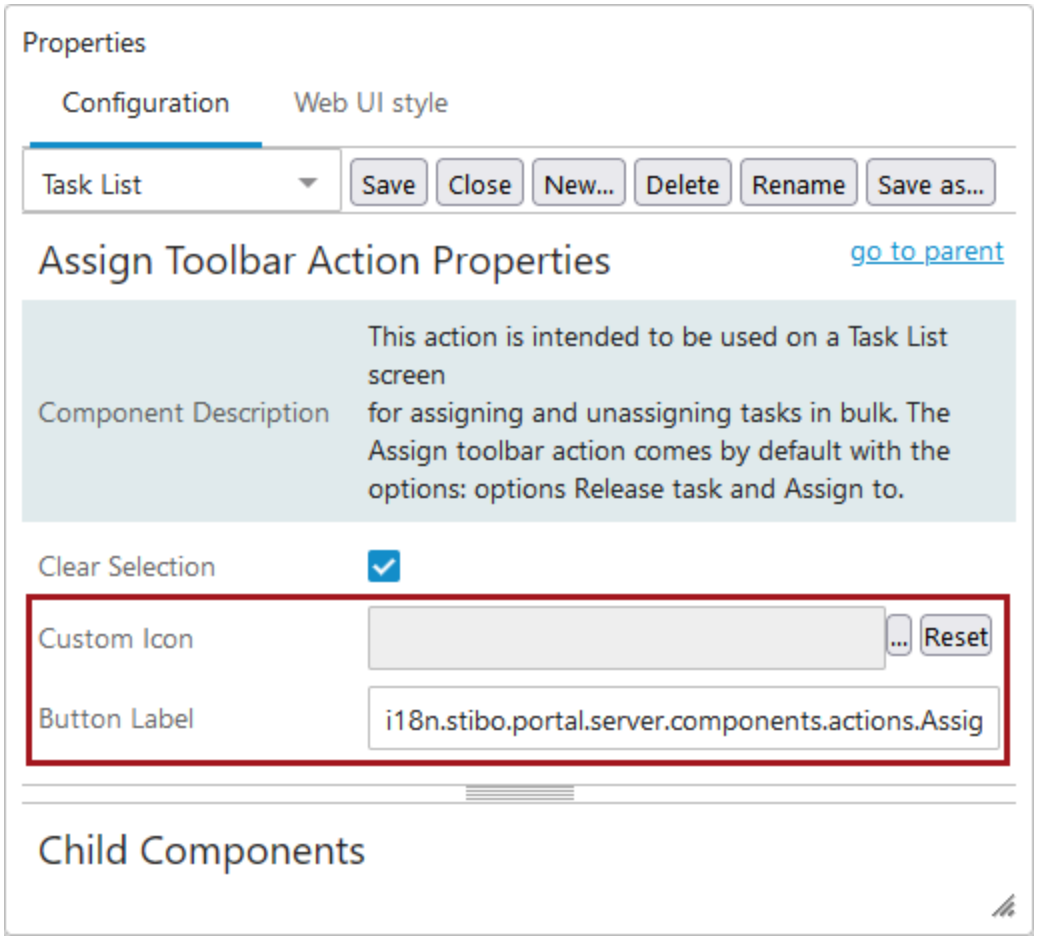
3. In the 'Add Component' dialog, select 'Assign Toolbar Action' and click the 'Add' button.



4. In the 'Actions' field, double click the newly added 'Assign Toolbar Action.'



5. In the 'Assign Toolbar Action Properties' window, users may upload a custom icon for the toolbar action, and also provide a custom label for the toolbar action button.

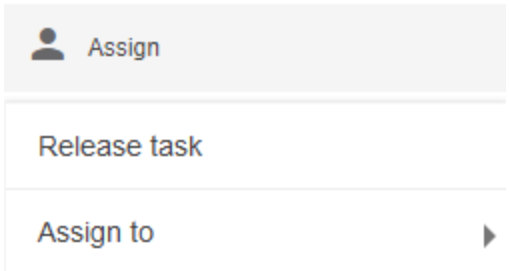


The default icon for the 'Assign Toolbar Action' is , and the default label is 'Assign.'

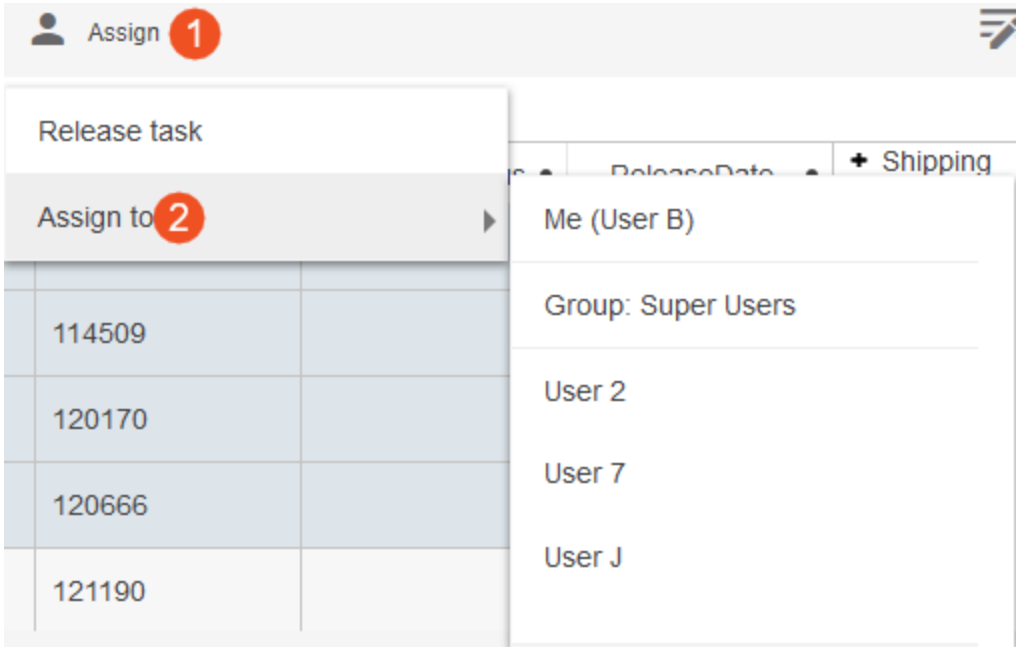
Using the Assign Toolbar Action

Properly privileged users will be able to view and access the 'Assign' toolbar action button on a Task List when one or more items in that Task List have been selected. If no list item is selected, the 'Assign' toolbar action button will not display.

When the 'Assign' toolbar action button is clicked, a dropdown displays that provides two options:



- **Release task:** Selecting this option will release the task to the user group to which the workflow is assigned. If, for instance, five list items are multi-selected and four of the five are already assigned to the default user group, only one list item will be assigned to the group; the other four will have no assignment action applied to them.
- **Assign to:** When clicked, this option results in a second dropdown that first lists the logged-in user and the default user group to which the workflow has been assigned first, followed by all users to which the task item can be assigned. All potential assignees listed after the current user and default user group display in alphabetical order.



When the selecting user selects themselves (listed in the secondary dropdown as 'Me' followed by their Web UI username), the task list item's assignee switches to the selecting user.

When the selecting user selects the default user group, the task list item's assignee changes to the default group. This is the same result as when the user selects the 'Release task' option in the primary dropdown.

The other listed options under 'Assign to' are the other users that are privileged members of the user group to which the workflow is assigned.

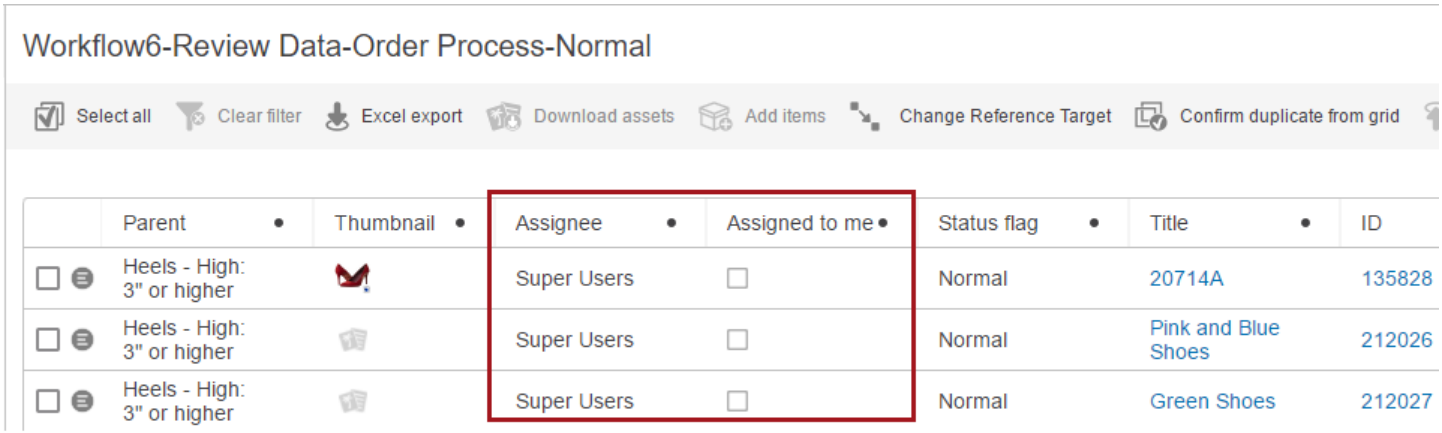
Users may multi-select task list items by selecting a single item and then holding down the SHIFT key while clicking on the final item in the desired list of selected items. It should be noted that, if the user clicks 'Select all' and the task list contains more than the maximum number of items defined in the Node List's 'Page Size' parameter in the designer (the default is 25), the 'Assign' toolbar action will be disabled and inactive. This restriction was put in place to reduce errors that stem from the potential visual discrepancy between the small number of tasks visible in the browser versus the potentially large number of tasks that might be present in the task list. On task lists in which the number of tasks are within the configured page maximum, the 'Select all' button can be clicked and the 'Assign' button will be active.

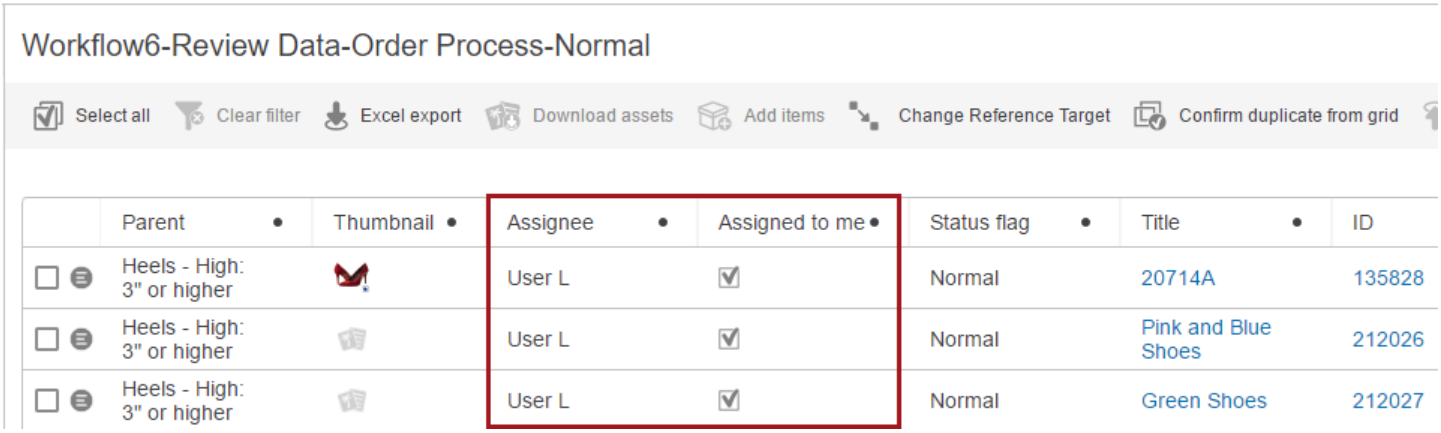
Important: To use the 'Assign Toolbar Action,' a user must be part of a setup group that has either the 'Re-Assign STEP Workflow Tasks' or the 'STEP Workflow Administrator' setup actions enabled. If the 'Re-Assign STEP Workflow Tasks' setup action is not present in the 'All Setup Actions', click 'Add Action' at the bottom of the list and then add the setup action.

Claiming and Releasing tasks using an Assign to Me Header

The Assigned to Me header can be added to a Node List on a Task List or an Advanced Search Screen. This header allows users to quickly assign task list items to themselves. By clicking the Assigned to Me checkbox, the user claims the task for (assigns the task to) the current user logged in to Web UI. Upon clicking the checkbox, depending on the settings that the admin has set, a user may be auto-navigated to an object details screen so that they can work with the object that they just claimed.

Below is an example of a Task List that originally displayed 'Super Users' as the Assignee for all five tasks. After clicking 'Assigned to Me' and reloading the Task List screen, the Assignee changed to User L. User L is the user currently logged in to the Web UI.





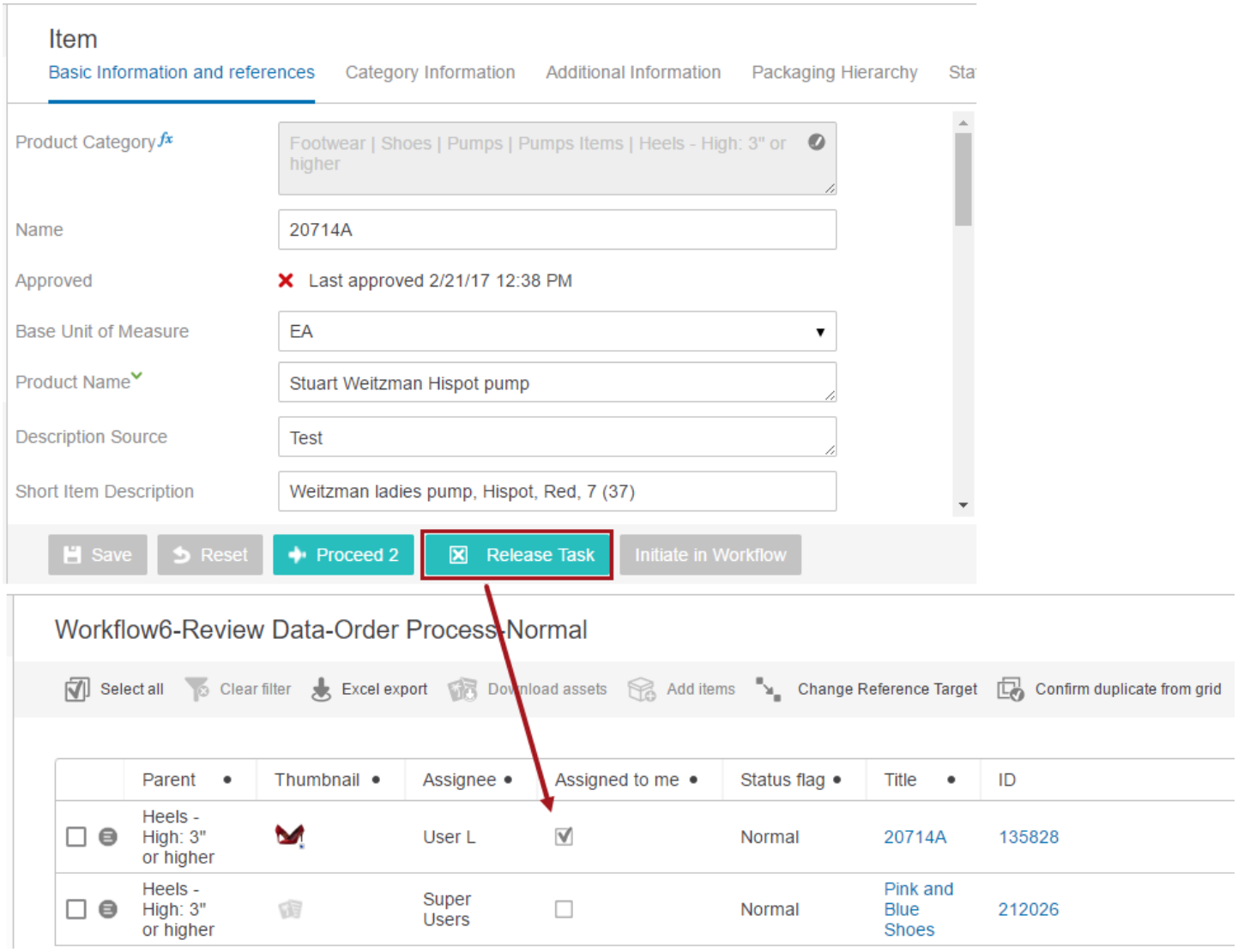
Similarly, to release a task, uncheck the 'Assigned to me' box and the Assignee column changes back to the user group the user is a part of, and another individual in the same user group can now view the task and claim it, if needed.

For full details regarding the benefits of claiming a task and information on how this works in workbench, refer to the **Claiming and Releasing Tasks in Workflows** section of the **Workflows** documentation.

Claiming and Releasing Workflow Tasks in Node Details

While it is very convenient to have the Assign To Me header on Task Lists and Advance Search screens, sometimes it is necessary for a user to click on a task in a Task List to view if it is something they should claim. If the user decides it is something they should claim, instead of going back out to the Task List or Advance Search screen, finding the task again, and claiming it, they may claim it directly from the Node Details screen using the 'Task Assignment Action' button. This option will only appear if the Node Details was accessed through a Task List.

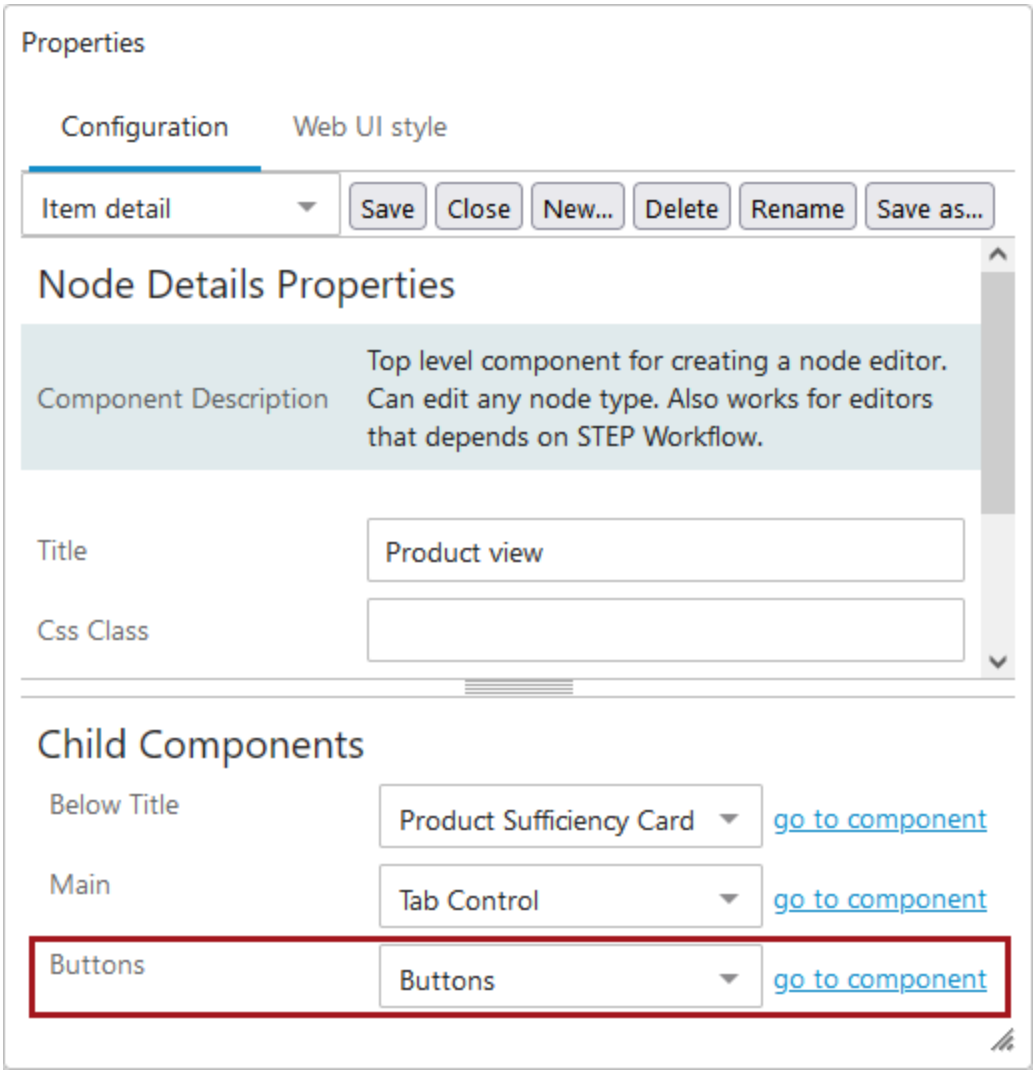
Similar to the Assign To Me header component, when a user selects the 'Task Assignment Action' button on the Node Details screen, the task will be assigned to the current user who is signed into the system. When the button is clicked, it not only reflects on that view of Node Details, but it also reflects on the Task List under the 'Assign To Me Header' component, if configured.



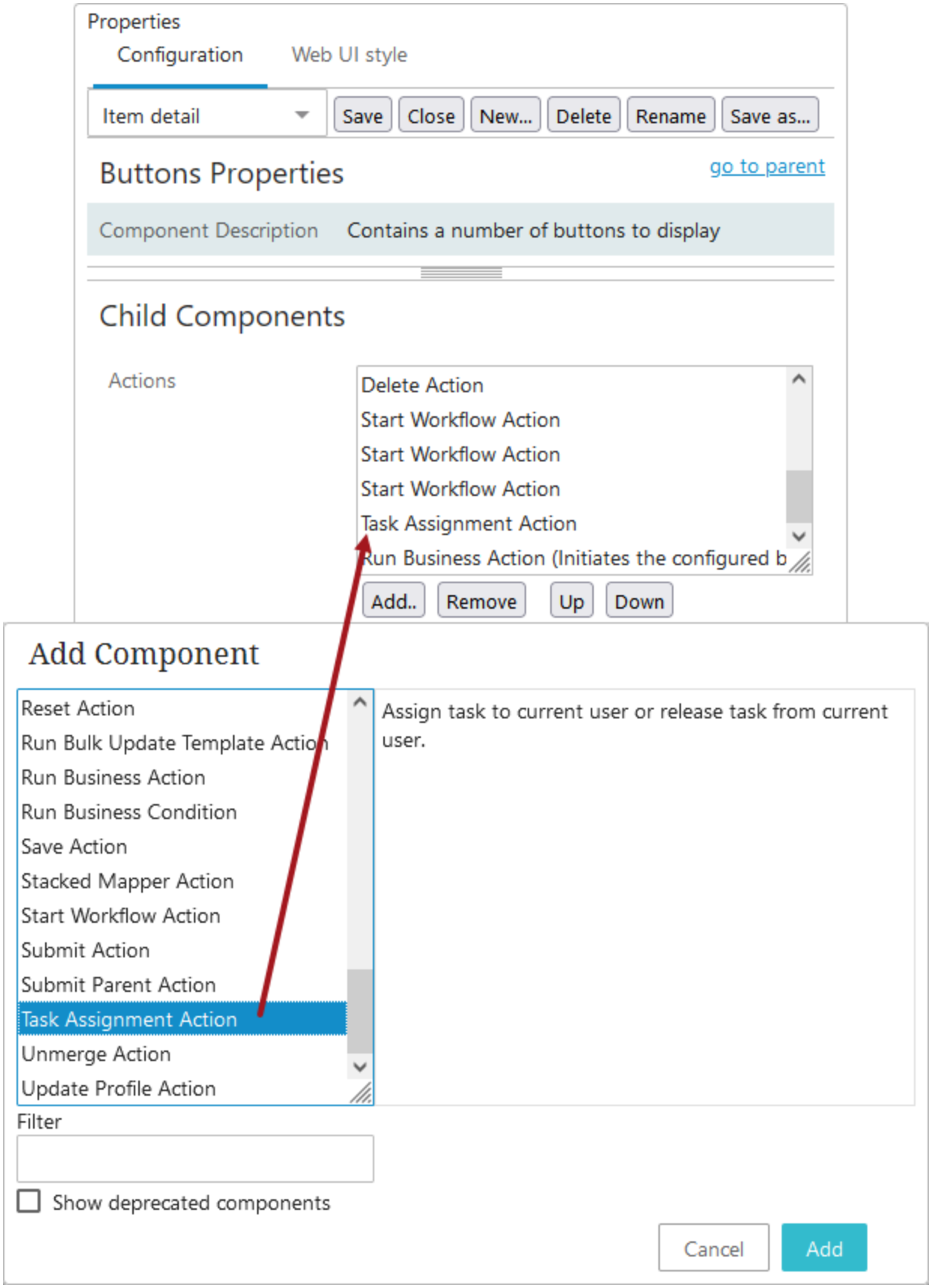
The 'Task Assignment Action' button is customizable with two labels, one for claiming the task and the other for releasing the task. A user can also choose to show just the button, just the icon, or the button and the icon.

Configuring the 'Task Assignment Action' Button

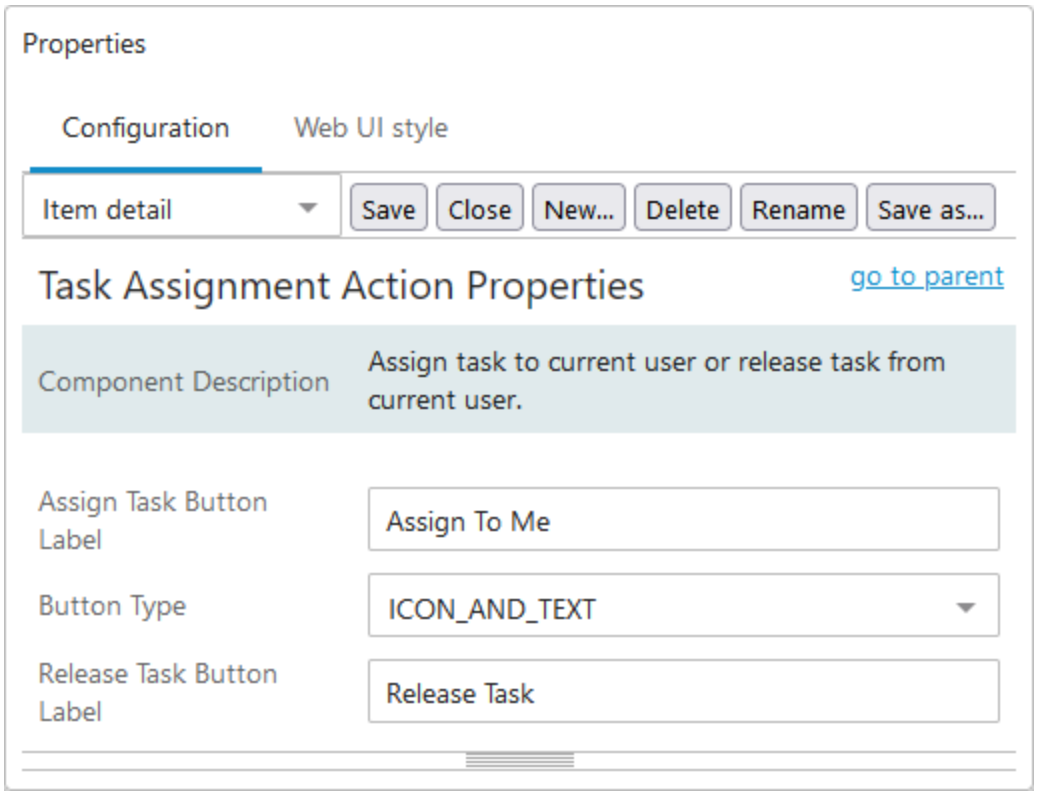
1. Navigate to a Node Details. Once on the Node Details, navigate to Child Components > Buttons field > select 'Button' from dropdown > click **'go to component'**.



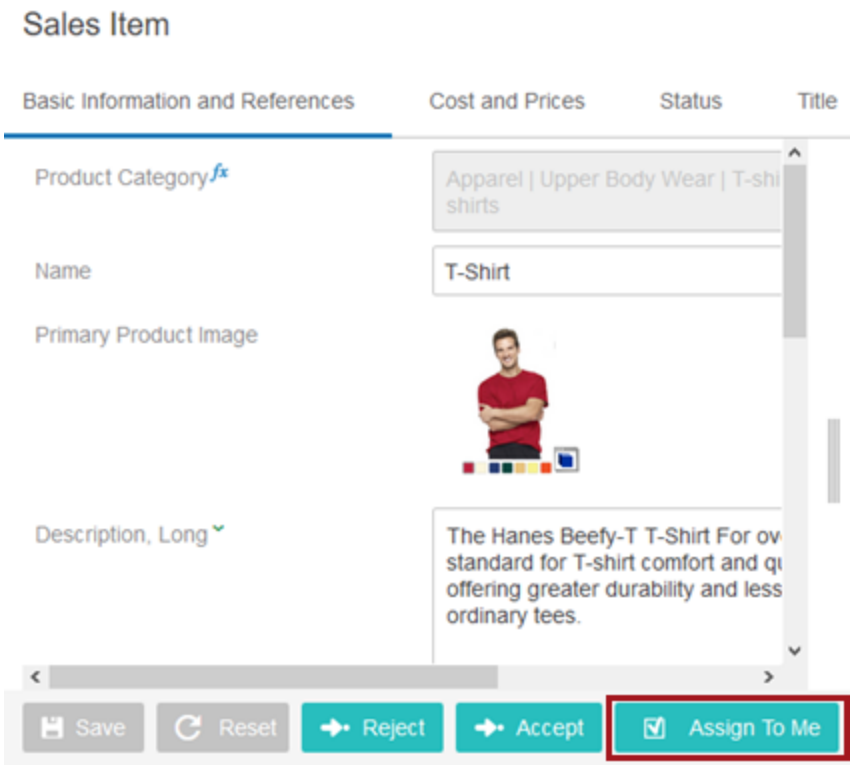
2. On Button Components under Child Components, add the 'Task Assignment Action' button.


Properties
Configuration
Web UI style
Item detail
Save
Close
New...
Delete
Rename
Save as...
Buttons Properties
go to parent
Component Description
Contains a number of buttons to display
Child Components
Actions
Delete Action
Start Workflow Action
Start Workflow Action
Start Workflow Action
Task Assignment Action
Run Business Action (Initiates the configured b
Add..
Remove
Up
Down
Add Component
Reset Action
Run Bulk Update Template Action
Run Business Action
Run Business Condition
Save Action
Stacked Mapper Action
Start Workflow Action
Submit Action
Submit Parent Action
Task Assignment Action
Unmerge Action
Update Profile Action
Assign task to current user or release task from current user.
Filter
Show deprecated components
Cancel
Add

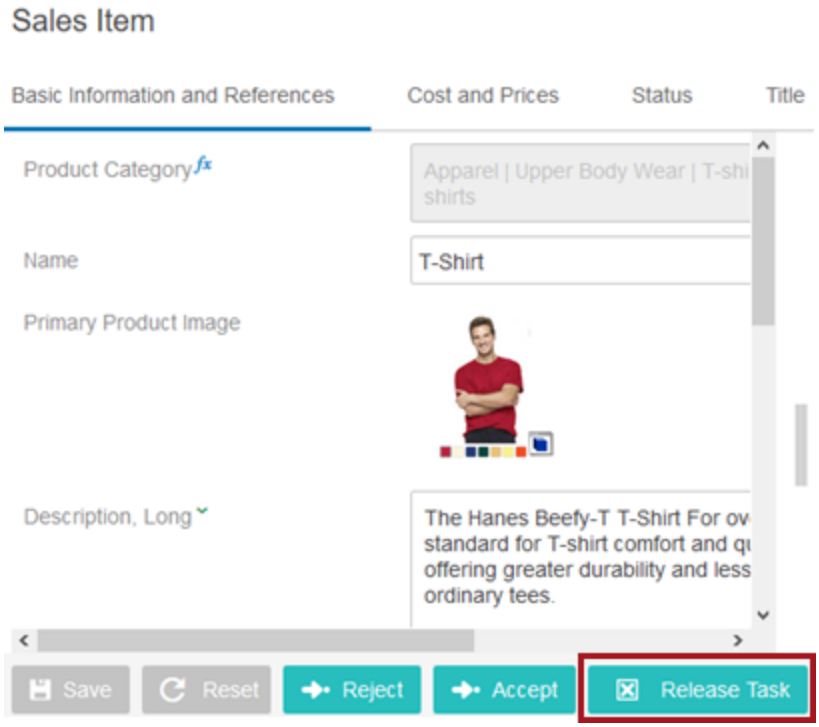
3. Double click on the Task Assignment Action button and configure the Assign Task Button Label and the Release Task Button Label as desired, or leave the default labels. In the Button Type dropdown field, select to show the icon, text, or icon and text. Once all fields are configured as desired, save and close the designer.



The 'Task Assignment Action' button now appears on Node Details when accessed through a Task List.



When the task is claimed, the button label changes to 'Release Task'.



Advanced Web UI Workflow Configurations

This portion of the material covers more advanced workflow configurations, going beyond the basic setups described in the introductory material. Users should be familiar with all material in the **Getting Started with Workflows in Web UI** documentation before attempting to configure and/or utilize more advanced workflow functionality.

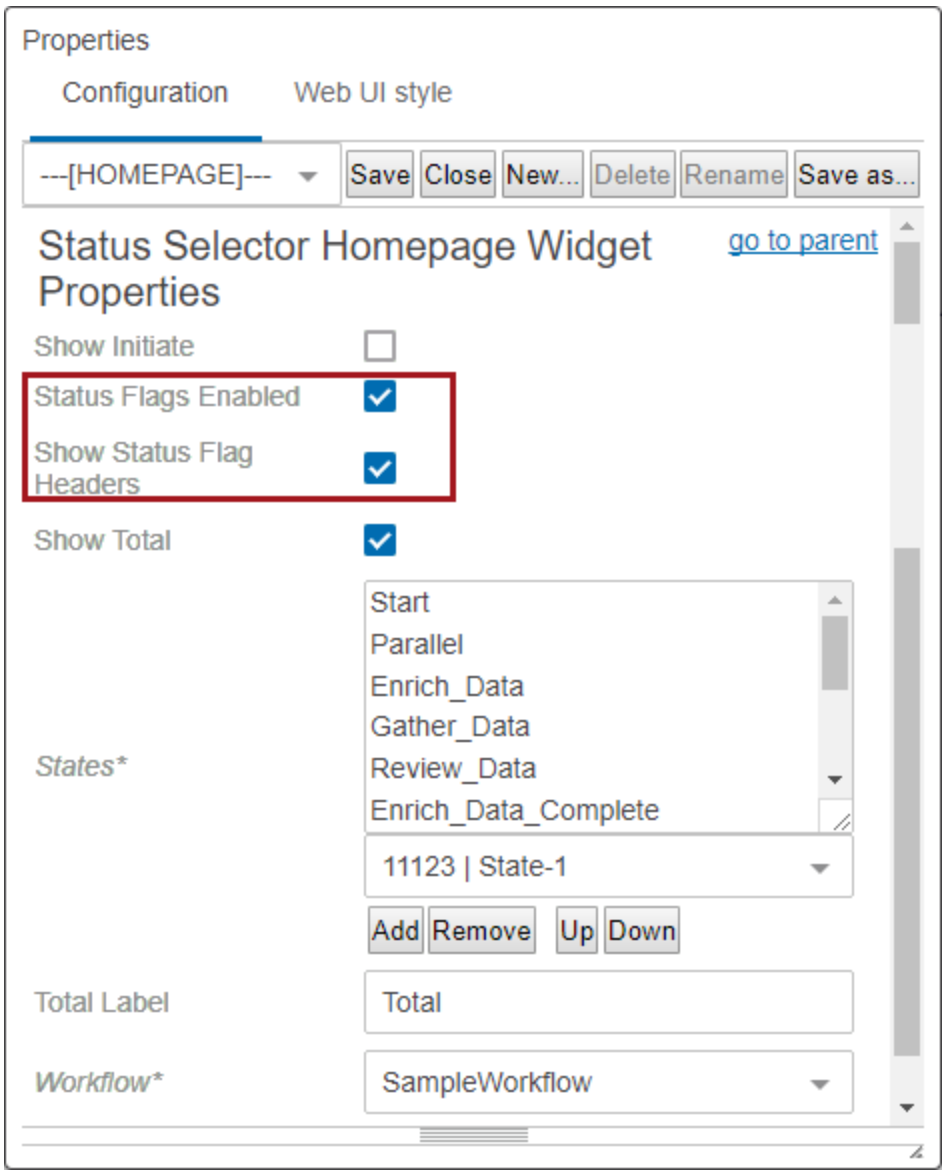
Most real-world workflows will utilize the functions described in the advanced topics, but none are required in any particular workflow. The topics generally do not build on one another and completing one configuration typically does not require knowledge of any other, outside of the basic workflow setup and how Web UI screens and components work together. In other words, the advanced workflow documentation is function and topic based, meaning that each topic describes a particular function a user may wish to carry out or a particular topic a user may wish to read about. Therefore, there is no suggested reading order and users should approach the material in the order that seems most relevant for their workflow.

Status Flags in Web UI

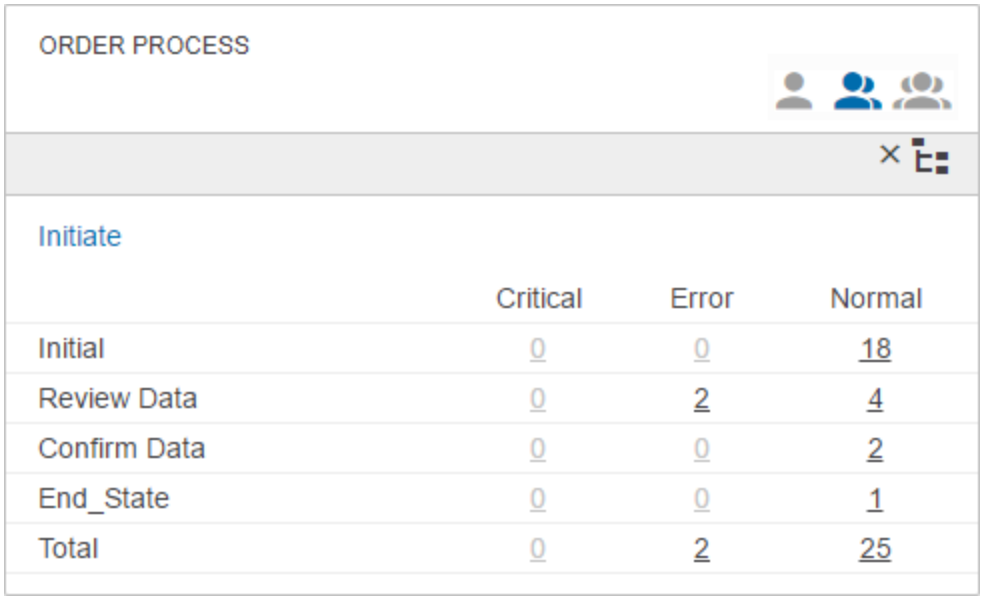
When working with workflows in Web UI, it is important to be able to view status flags should there be any. By configuring the **Status Selector Homepage Widget** and/or the **Status Selector** child component in the Global Navigation Panel, users can view the task count for selected states in workflows, as well as any status flags defined in the workflow.

Important: If only one flag is configured, STEP considers it the default and assigns it to all items in a workflow. It does not display in a Web UI, and you are unable to filter by that flag. To circumvent this, configure a default flag in workbench in addition to the specified flag. For more information, refer to the **Configuring Status Flags in Workflows** topic in the **Workflows** documentation.

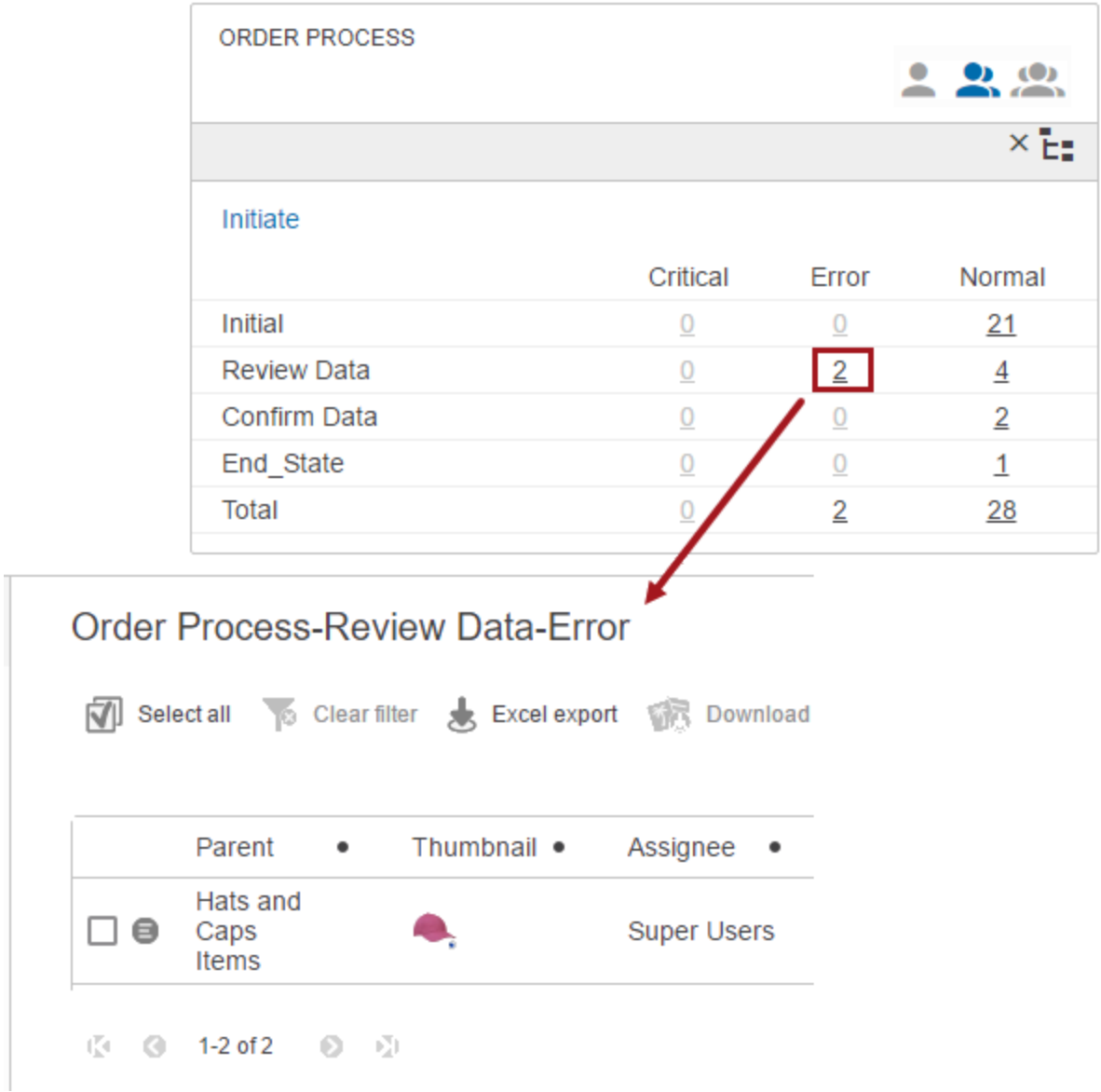
In Web UI designer, enable check boxes 'Status Flags Enabled' and 'Show status Flag Header' to display the status flag and its header on 'Status Selector Homepage widget properties' component as illustrated below image.



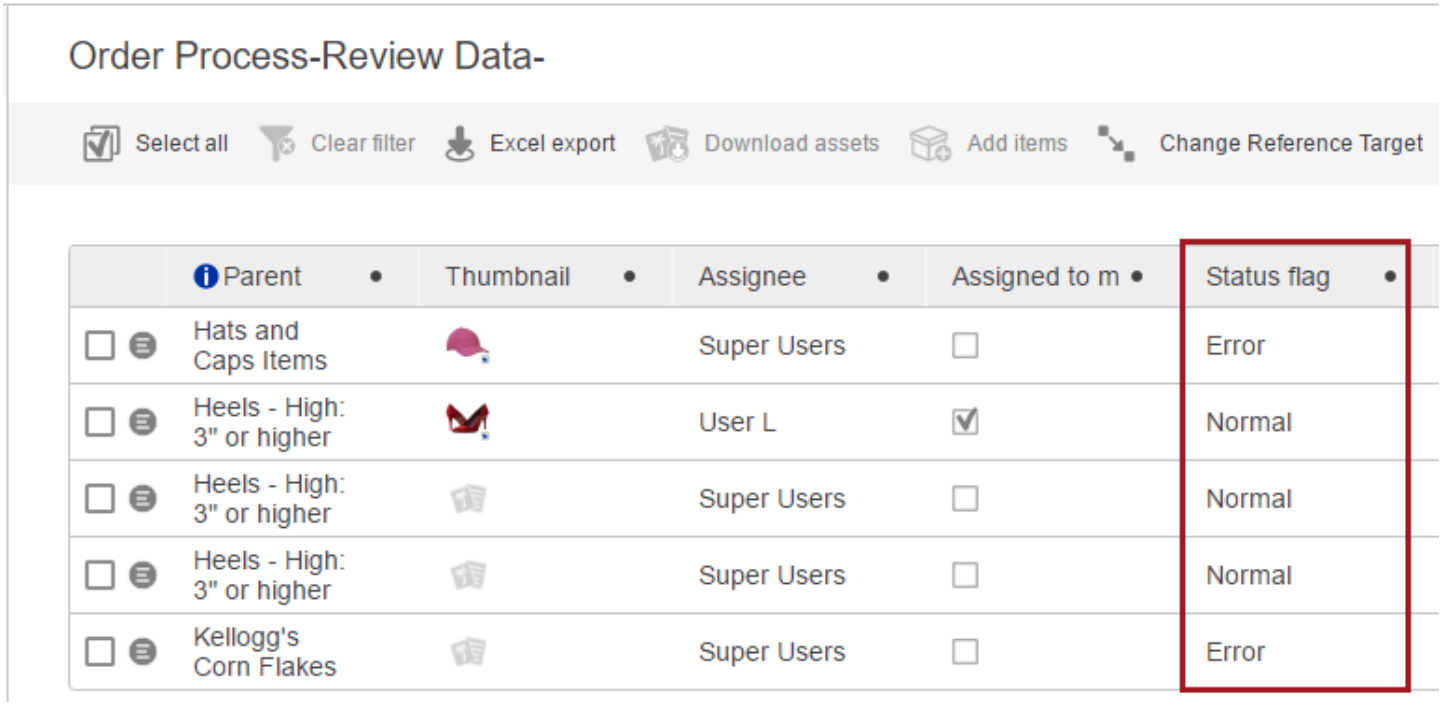
Example below, after enabling status flag



Additionally, it allows the user to navigate to a **Task List** showing just the tasks having the chosen status flag.

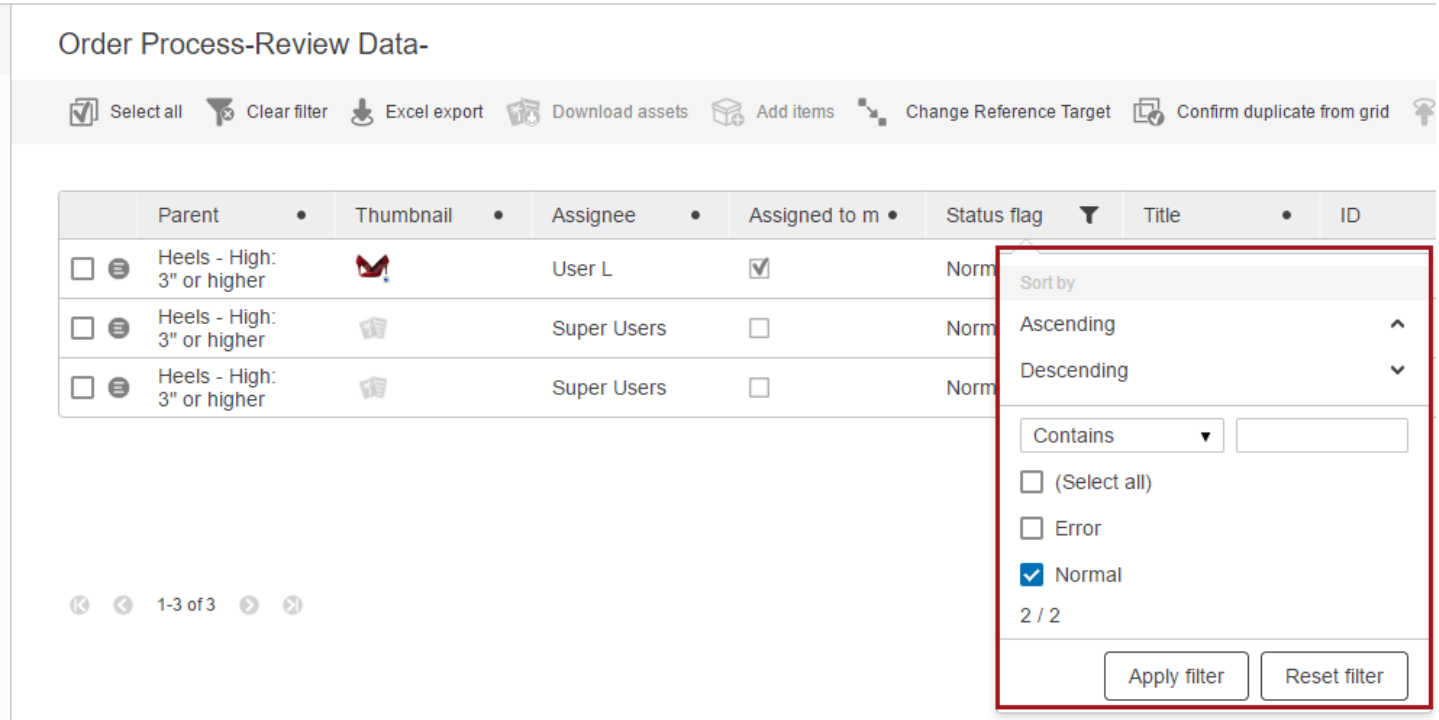


In a **Task List** in **Table Display Mode** or **Multi Edit Display Mode**, a user can add a **Status Flag Header**, which enables viewing of status flags.

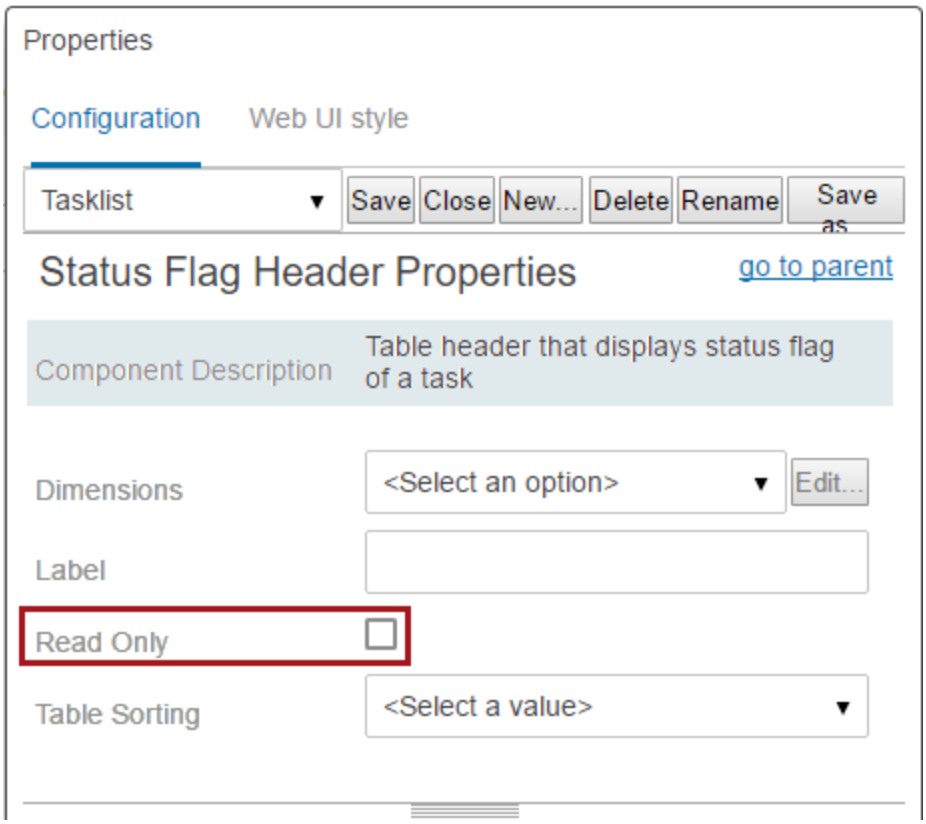


This header, like other column headers in the **Table Display Mode** or **Multi Edit Display Mode**, can have a filter applied to it to show only the status flags of interest.

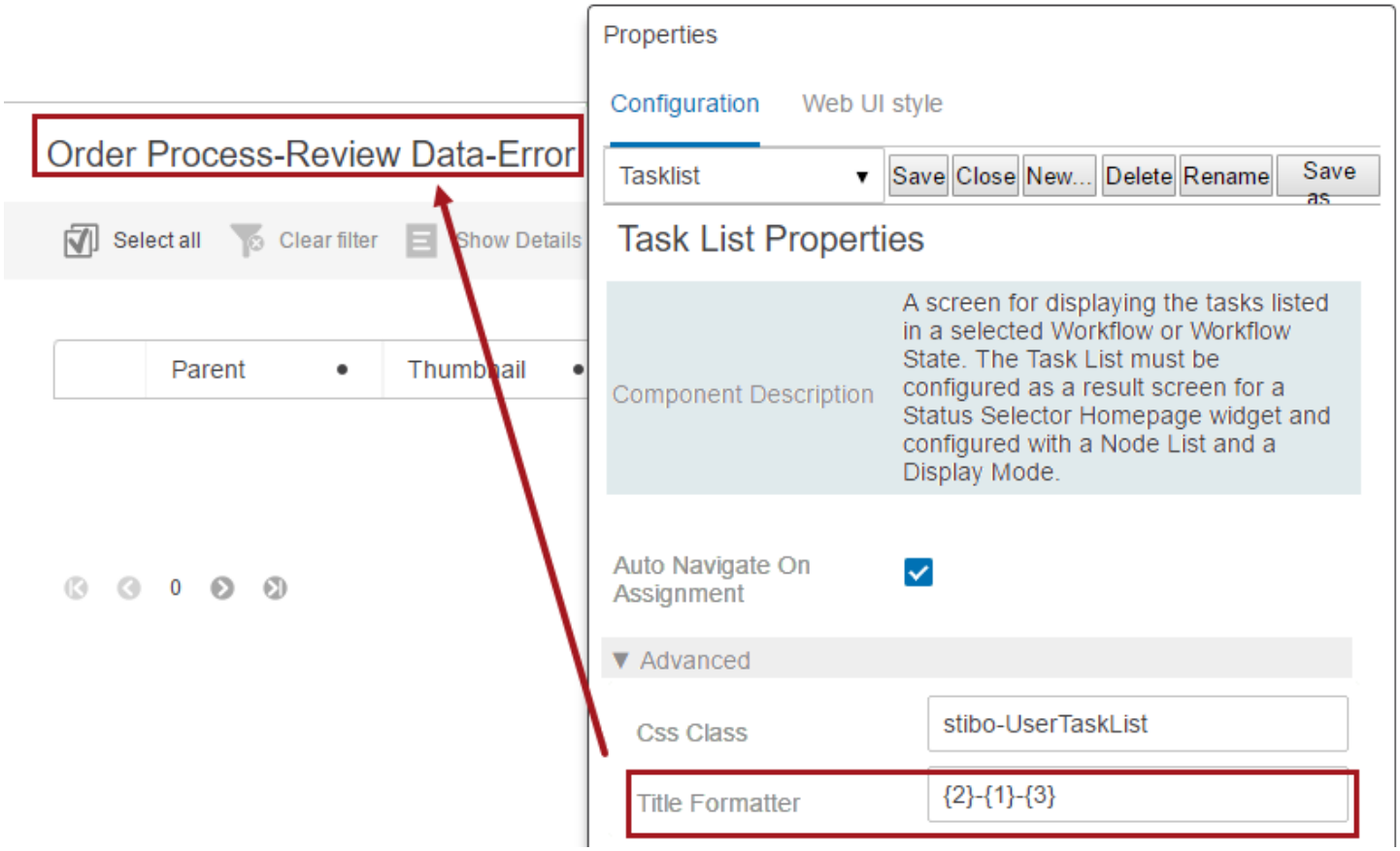
The **Status Flag Header** values are also editable when utilizing the **Multi Edit Display Mode**.



Users can double-click on a table cell and use the dropdown to select between the different status flags that have been configured for the Workflow. If editability of status flags is not desired, it can be disabled by checking the 'Read Only' option in the component configuration.



Additionally on a **Task List**, under **Advanced**, a user can enter expressions in the **Title Formatter** parameter to return the name of the status flag object associated with the workflow / state selection. This is especially useful when mapping screens based on status flags, as the status flag can also be dynamically reflected in the screen title.



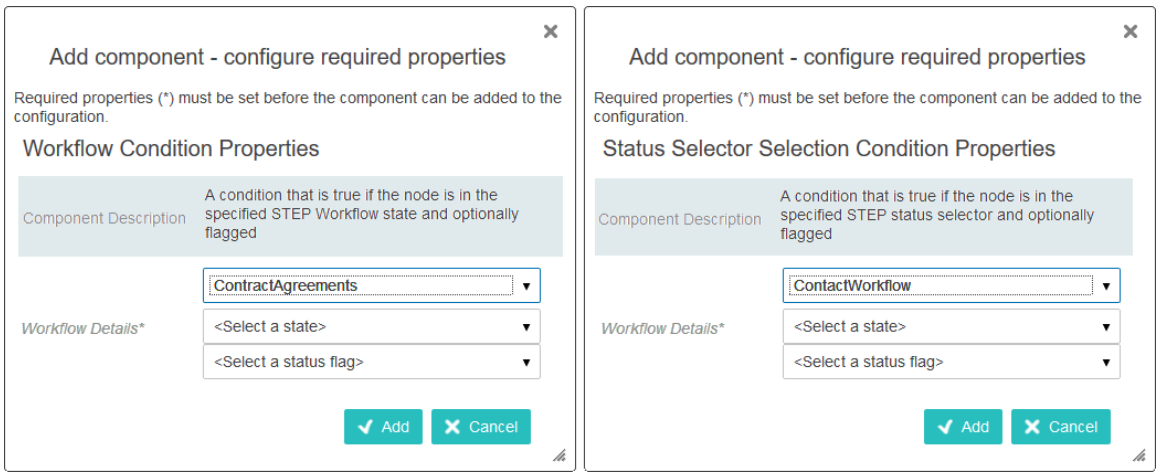
A complete list of expressions available for use is below:

- {0} – Workflow ID
- {1} – State Name
- {2} – Workflow Name

For more on how to configure the Status Selector Homepage Widget, refer to **Status Selector Homepage Widget** in the **Getting Started with Workflows in Web UI** section. For more on a Task Lists screen, refer to **Task List**.

Status Flags in Screen Mapping Conditions

Adding status flag values is also available for screen mapping conditions on the **Workflow Condition** and **Status Selector Condition**. This makes it possible for tasks that have a status flag of one type, such as 'Normal', to bring the user to one screen when selected, while tasks that have a status flag of a different type, such as 'Error', to bring the user to a different screen. This helps users to isolate and address high priority tasks in the appropriate way, as Web UI designers have the option to present different data and/or instructions to the end user based on task status.

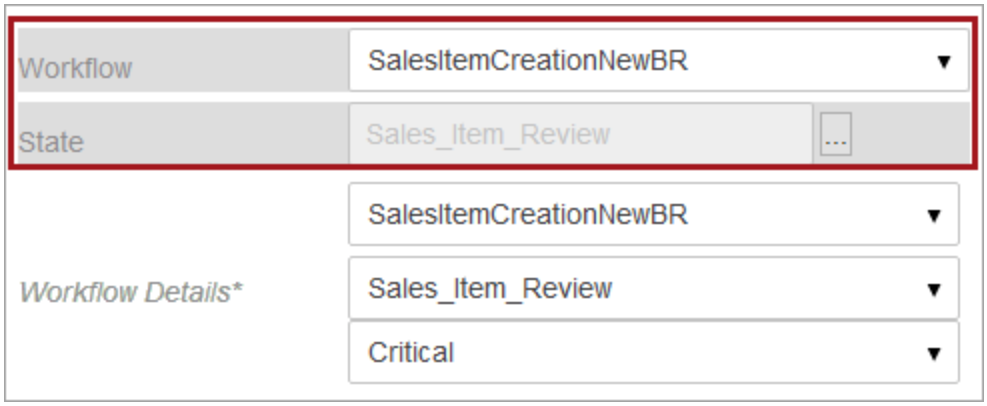


The selections available in the **State** and **Status Flag** parameters are only those relevant to the selected workflow. This interdependency prevents you from selecting an invalid option.

For more on Screen Mapping, refer to **Mapping Workflow States in Web UI** in the **Getting Started with Workflows in Web UI**.

Legacy Parameters

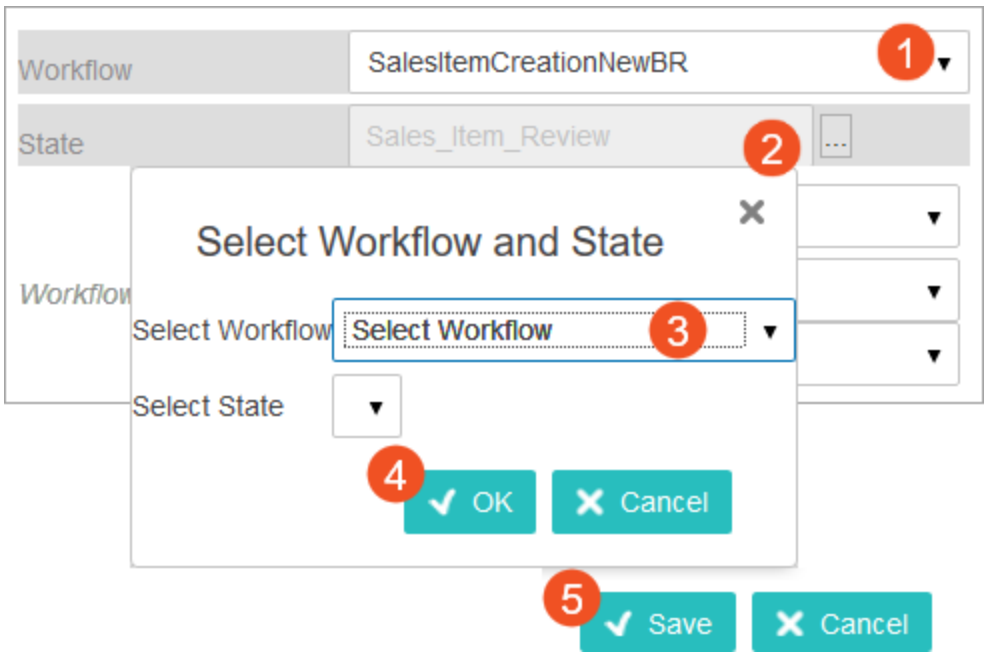
Legacy parameters are displayed with a gray background, as shown in the image below, and can be safely removed once selections are made in the Workflow Details fields.



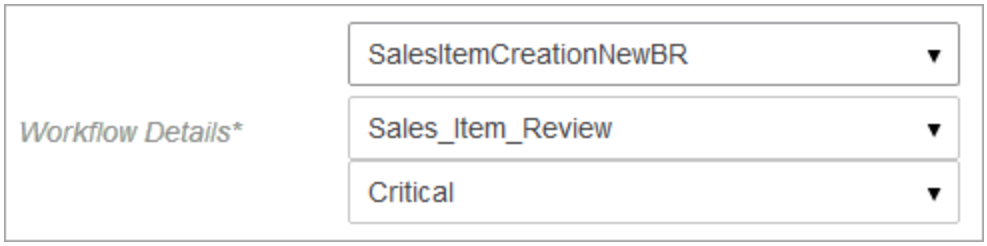
To remove legacy parameters:

1. Open the **Workflow Condition** or **Status Selector Condition** dialog.
2. Make all required selections for the three (3) Workflow Details parameters.
3. Update the legacy parameters, choosing the first option to indicate 'no selection,' and click the Save button.

> **Note:** If no selection was previously made for a legacy parameter being displayed, first make a selection and click Save, then select the first option to indicate 'no selection,' and click Save again.



The next time the Workflow Condition or Status Selector Selection Condition dialog is displayed, only the Workflow Details parameter are shown.



Monitoring Workflows Using Web UI

Workflows can be monitored in Web UI via the Workflow Profile Screen. Profiles can be viewed with the 'View STEP Workflow Profile' privilege.

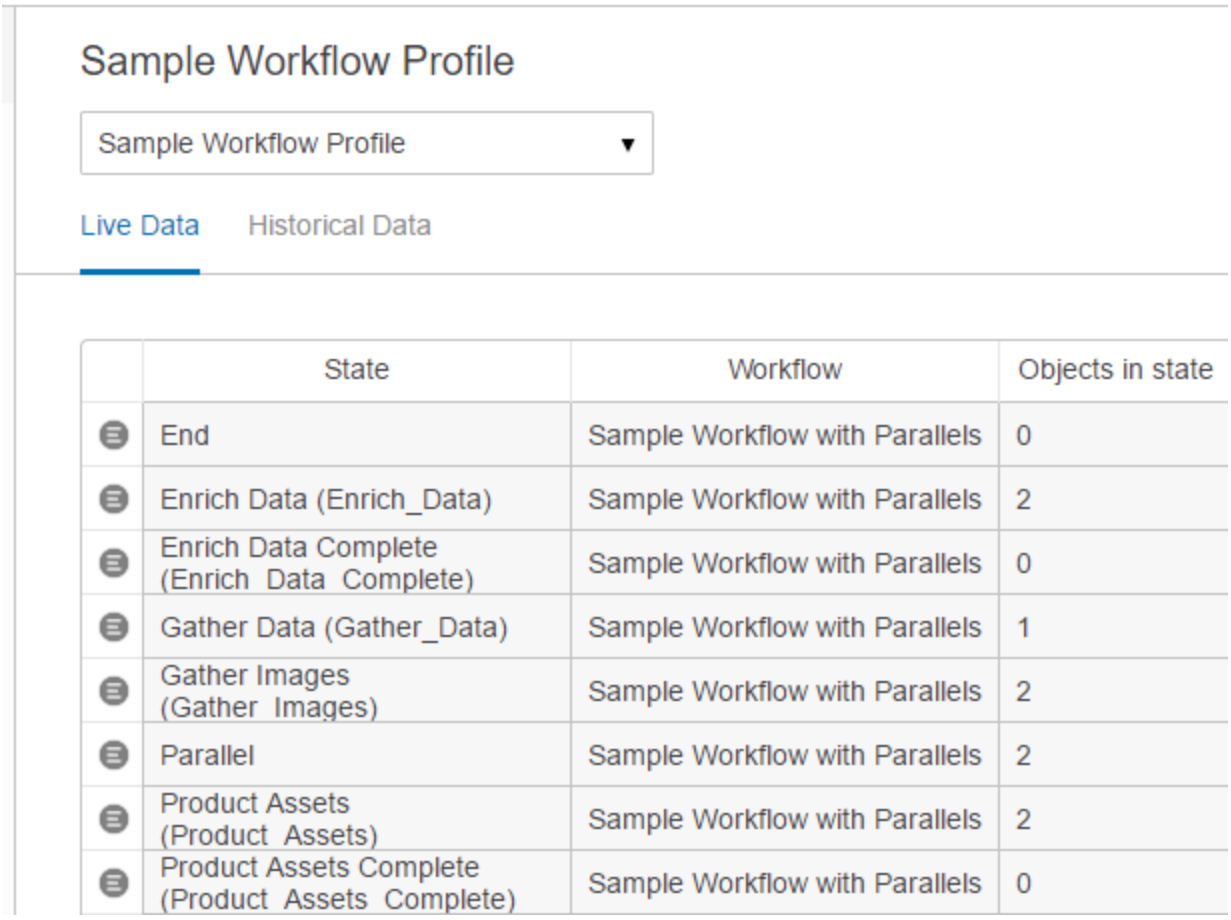
A profile can contain a wealth of information about workflows, such as number of exceeded deadlines, how long the tasks have been assigned to the assignees, what is the workflow throughput this month versus the last six months, and much more. Initial configuration is done through the STEP Workflow Profile Wizard, and detailed instructions can be found in the **Monitoring Workflows** section of the **Workflows** > **Advanced Workflow Topics** documentation.

Workflow Profiles can be monitored via Web UI in a number of ways:

- Workflow Profile Screen
- Workflow Profile Chart Dashboard
- Workflow Historical Line Dashboard

Workflow Profile Screen

Workflows can be monitored in Web UI via the Workflow Profile screen. A profile can contain a wealth of information about workflows, such as number of exceeded deadlines, how long the tasks have been assigned to the assignees, what is the workflow throughput this month versus the last six months, and much more.



State	Workflow	Objects in state
End	Sample Workflow with Parallels	0
Enrich Data (Enrich_Data)	Sample Workflow with Parallels	2
Enrich Data Complete (Enrich_Data_Complete)	Sample Workflow with Parallels	0
Gather Data (Gather_Data)	Sample Workflow with Parallels	1
Gather Images (Gather_Images)	Sample Workflow with Parallels	2
Parallel	Sample Workflow with Parallels	2
Product Assets (Product_Assets)	Sample Workflow with Parallels	2
Product Assets Complete (Product_Assets_Complete)	Sample Workflow with Parallels	0

Prerequisites

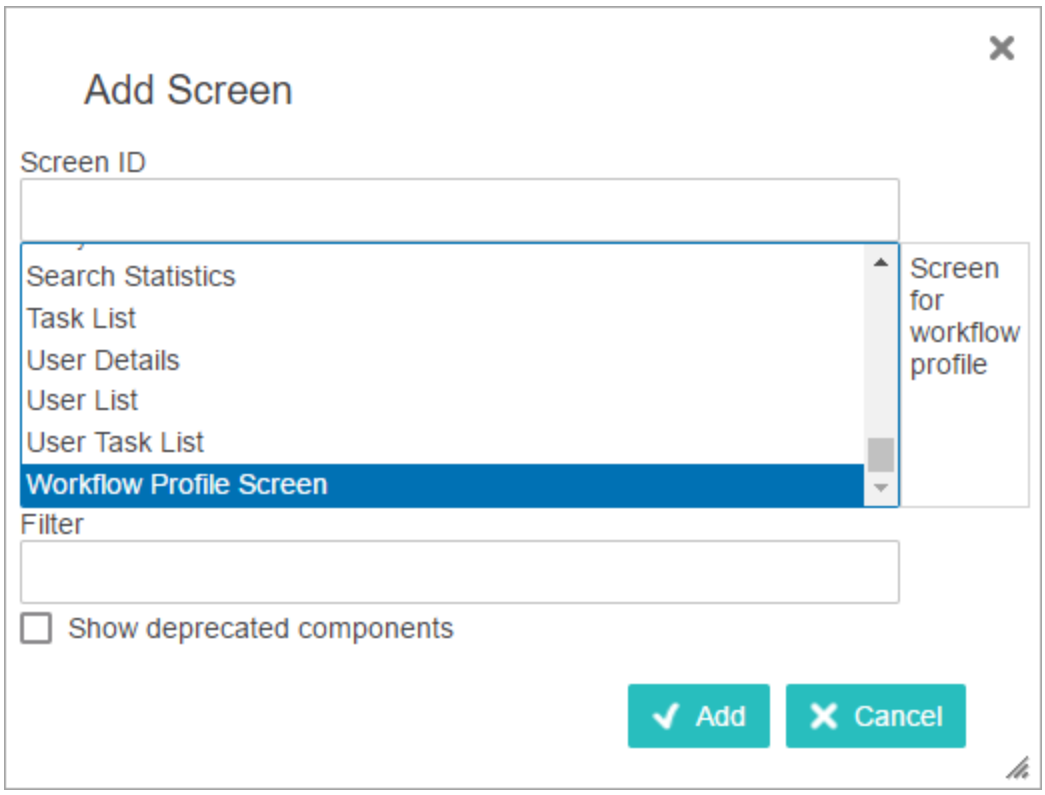
It is expected that anyone configuring the Workflow Profile Screen is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. The user must have appropriate privileges to access the designer. Additional information can be found in the **Designer Access** section of the **Web User Interfaces** documentation.

Profiles are maintained in workbench on the STEP Workflow tab within the Profile sub-tab. Profiles are available to users with the 'View STEP Workflow Profile' and/or 'Maintain STEP Workflow Profile' privileges. Initial configuration is done through the STEP Workflow Profile Wizard, and detailed instructions can be found in the **Monitoring Workflows** section of the **Workflows** > **Advanced Workflow Topics** documentation.

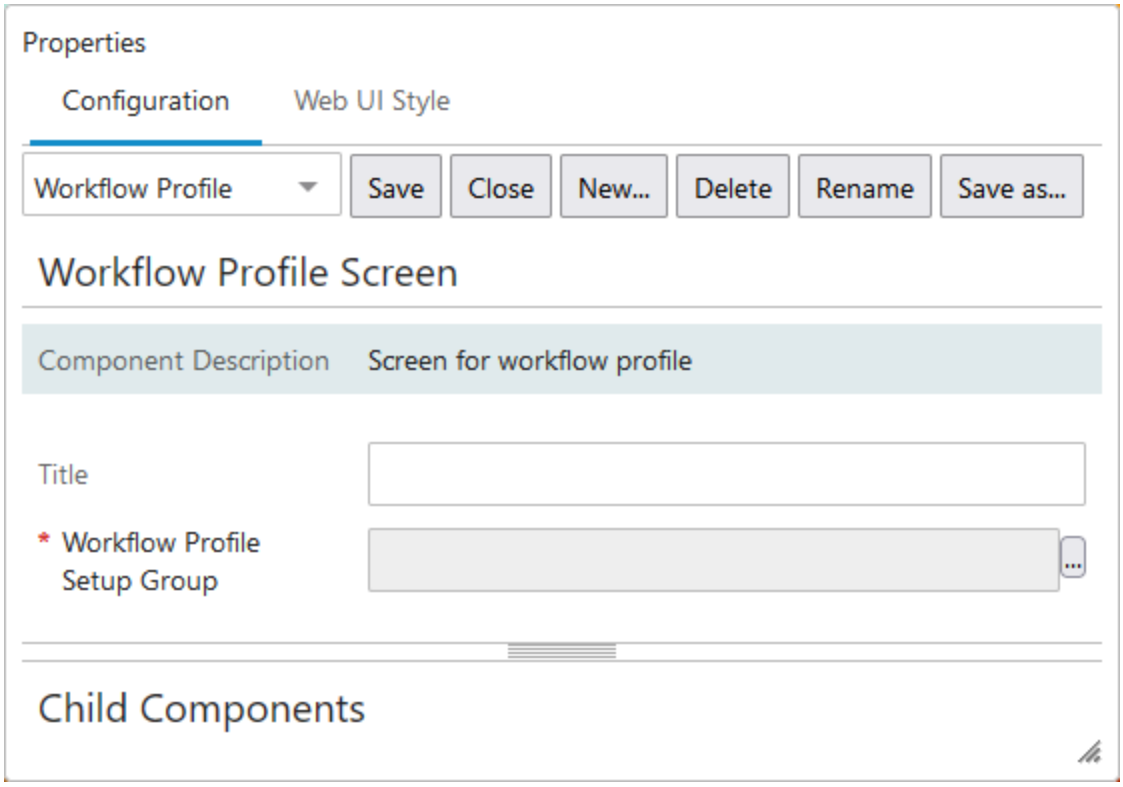
Adding a New Workflow Profile Screen

Steps for creating a new screen using the Workflow Profile screen type are below.

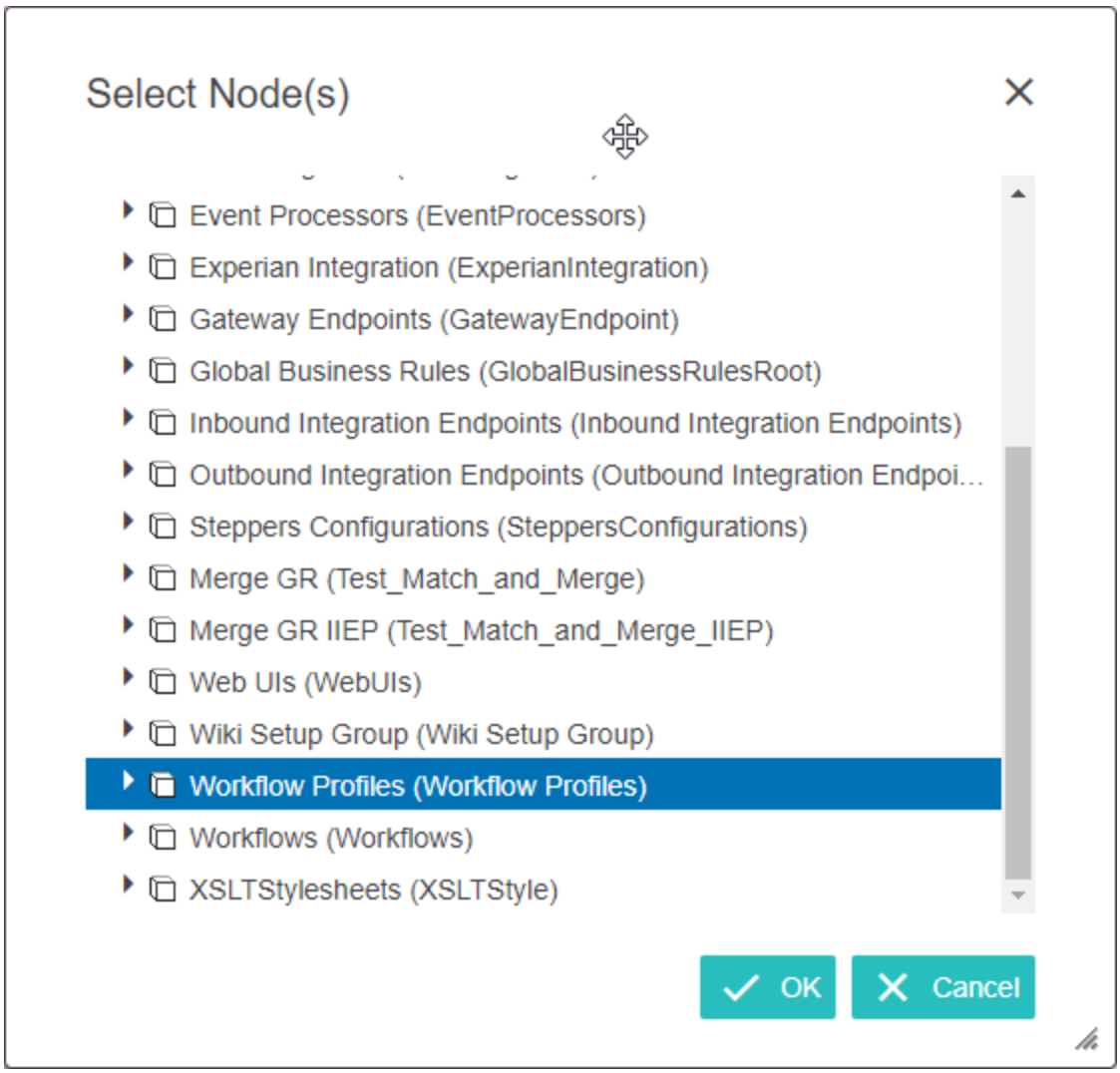
1. Enter design mode.
2. In the designer window, click the **New** button in the action icon row.
3. Choose **Workflow Profile Screen** from the screen list and type in a Screen ID. The screen ID should be something easily identifiable when it is time to configure the screen and/or set up screen mapping.



4. Click **Add**. A new dialog, **Workflow Profile Screen Properties**, displays with fields that are mandatory for configuration.



5. The **Title** parameter is blank by default, and can be populated with the desired name.
6. In the **Workflow Profile Setup Group** parameter, click the ellipsis button (...) next to the field.
7. Select **Workflow Profiles** from the 'Select Node(s)' dialog and click OK.



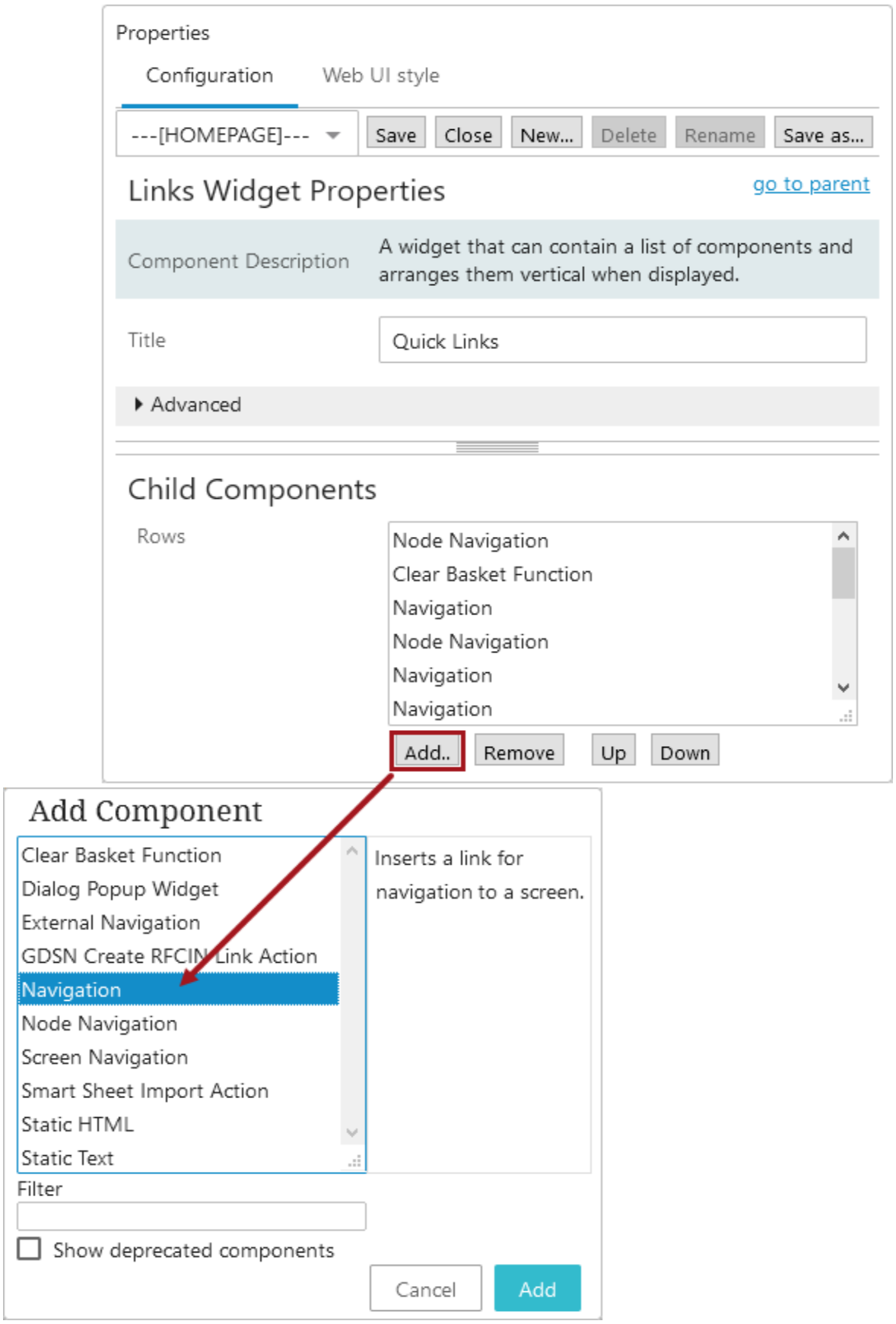
8. Save the screen properties and close the designer, or determine where the screen should be displayed. To display it on the homepage of the Web UI, refer to the next section.

Adding the Workflow Profile Screen to the Homepage

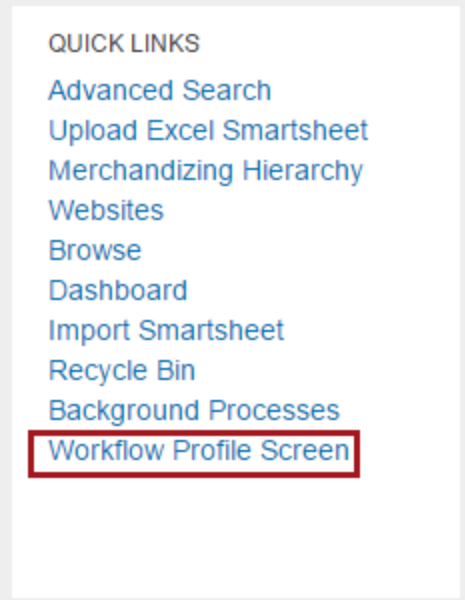
To add an easily accessible link to the Workflow Profile screen on the homepage:

1. With ---[HOMEPAGE]--- as the screen selection in designer, click the links widget (titled Quick Links). The Links Widget Properties dialog opens. For more information about creating or navigating into links widgets, refer to **Homepage Widgets** topic in the **Web User Interfaces** documentation.

2. Go down to the Child Components section, and click the **Add** button.


Properties
Configuration
Web UI style
---[HOMEPAGE]---
Save
Close
New...
Delete
Rename
Save as...
Links Widget Properties
go to parent
Component Description
A widget that can contain a list of components and arranges them vertical when displayed.
Title
Quick Links
Advanced
Child Components
Rows
Node Navigation
Clear Basket Function
Navigation
Node Navigation
Navigation
Navigation
Add..
Remove
Up
Down
Add Component
Clear Basket Function
Dialog Popup Widget
External Navigation
GDSN Create RFCIN Link Action
Navigation
Node Navigation
Screen Navigation
Smart Sheet Import Action
Static HTML
Static Text
Inserts a link for navigation to a screen.
Filter
Show deprecated components
Cancel
Add

3. Choose the Navigation component, and click **Add**.
4. On the Navigation properties screen, select your workflow profiles screen ID from the Screen dropdown (it is 'Workflow Profile' in the screenshot examples).
5. Fill in the Label field with the name that will show on the links widget, then click **Add**.
6. You can move the Links widget Child Components up and down based on your preference for how they show on the homepage.
7. Click **Save** in the Properties Configuration dialog box.
8. The Workflow Profile link will now show in the Quick links widget.

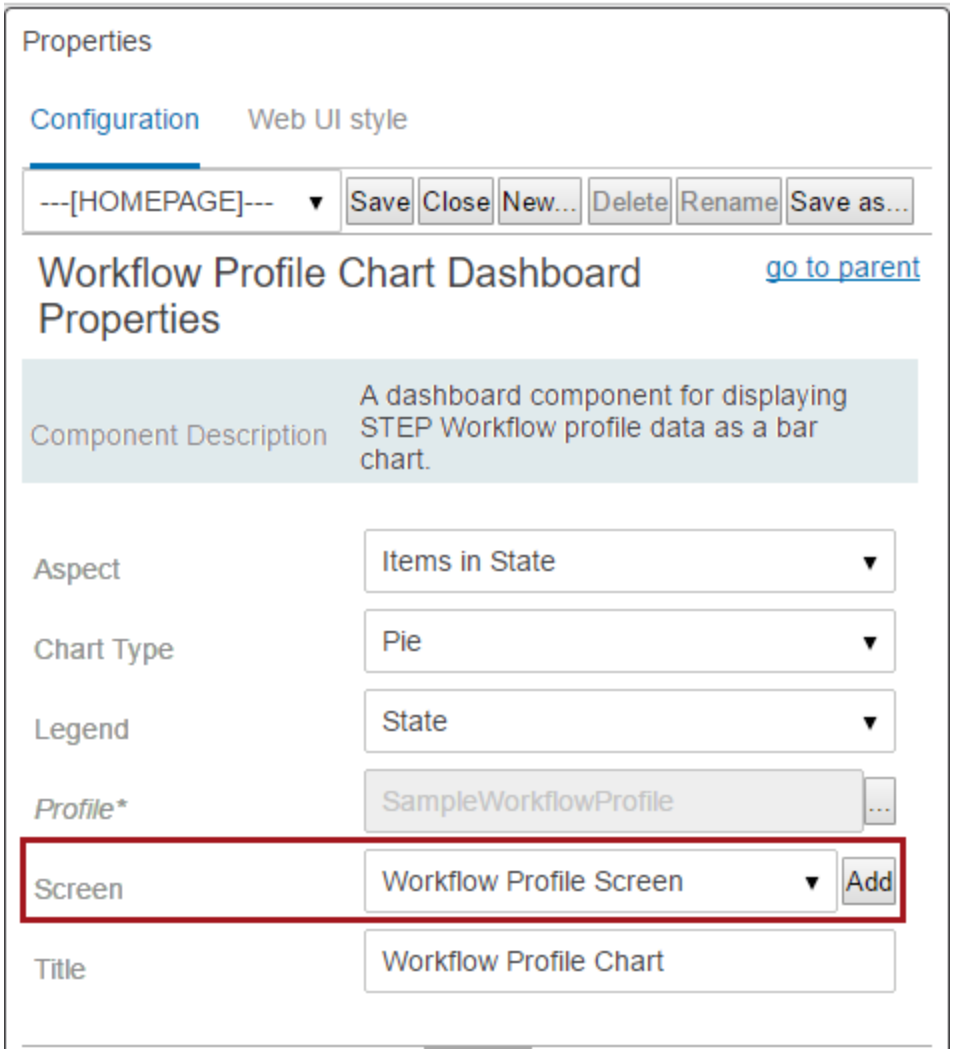


Linking the Workflow Profile Screen from a Homepage Widget

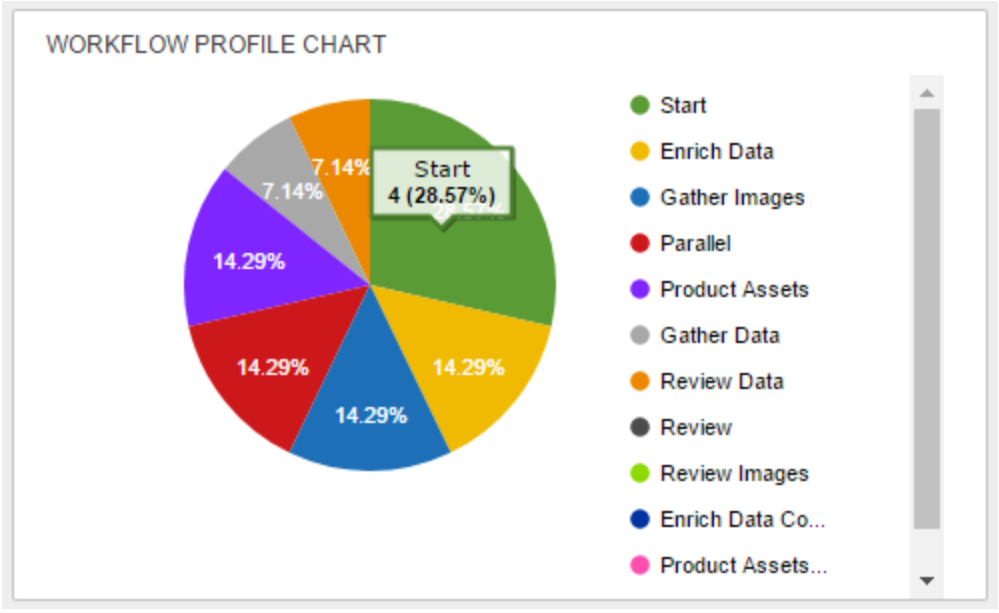
The Workflow Profiles screen can also be accessed through the Workflow Historical Line Dashboard and Workflow Profile Chart Dashboard homepage widgets. Once linked, clicking on the graph within the widget will bring you to the Workflow Profile screen.

To link a widget the Workflow Profile screen:

1. With ---[HOMEPAGE]--- as the screen selection in designer, click the Workflow Historical Line Dashboard or Workflow Profile Chart Dashboard.
2. In the Screen parameter, select the Workflow Profile screen from the dropdown, then click **OK**.



3. Save the changes.



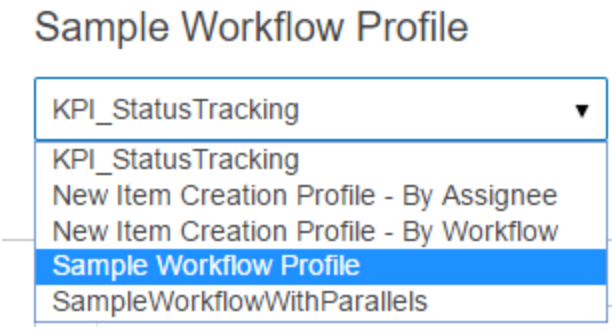
For more information on the Workflow Profile Chart Dashboard widget, refer to the **Workflow Profile Chart Dashboard** section of the **Web User Interfaces** documentation.

For more information on the Workflow Historical Line Dashboard widget, refer to the **Workflow Historical Line Dashboard** section of the **Web User Interfaces** documentation.

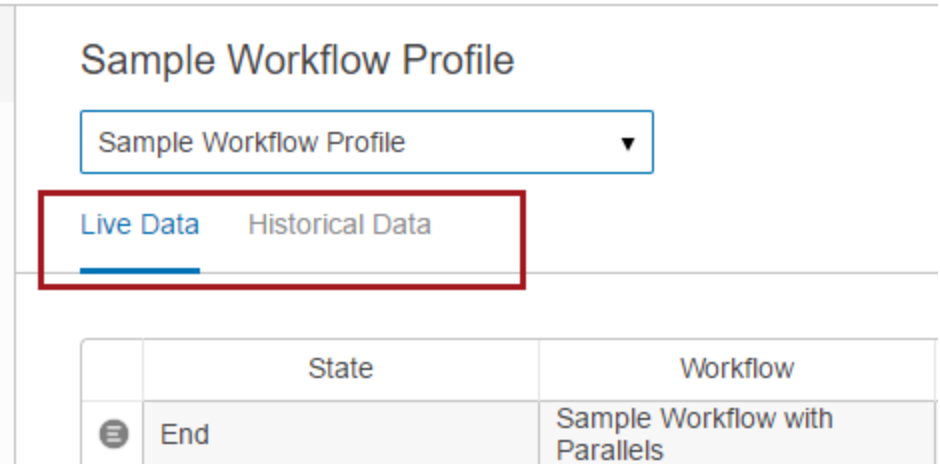
Using the Workflow Profile Web UI Interface

The Workflow Profile screen functions in a similar fashion as its workbench counterpart.

To select a Workflow Profile to view, use the dropdown above the profile table.

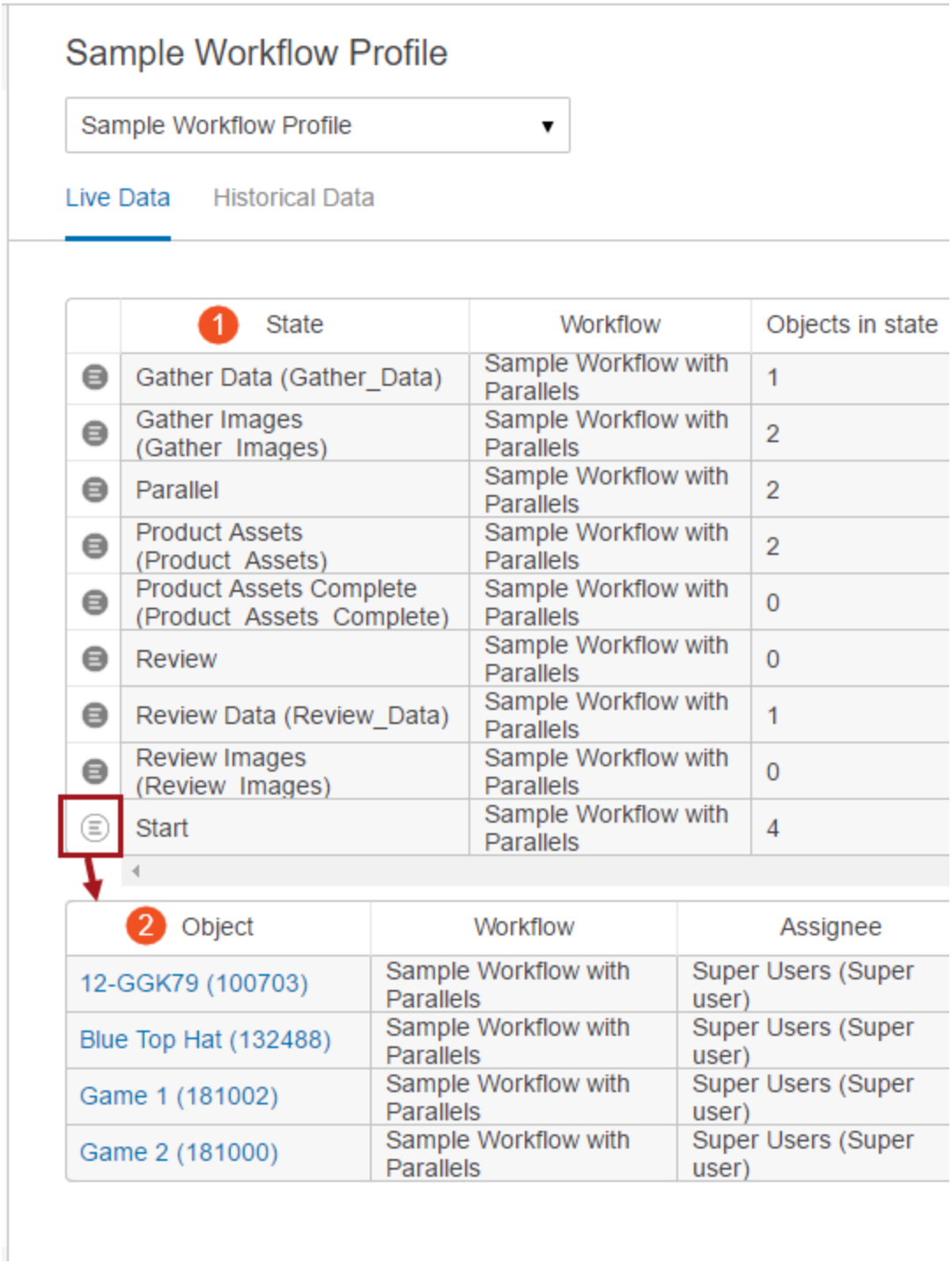


The displayed profile data is split into two tabs: Live Data and Historical Data.



Live Data Tab

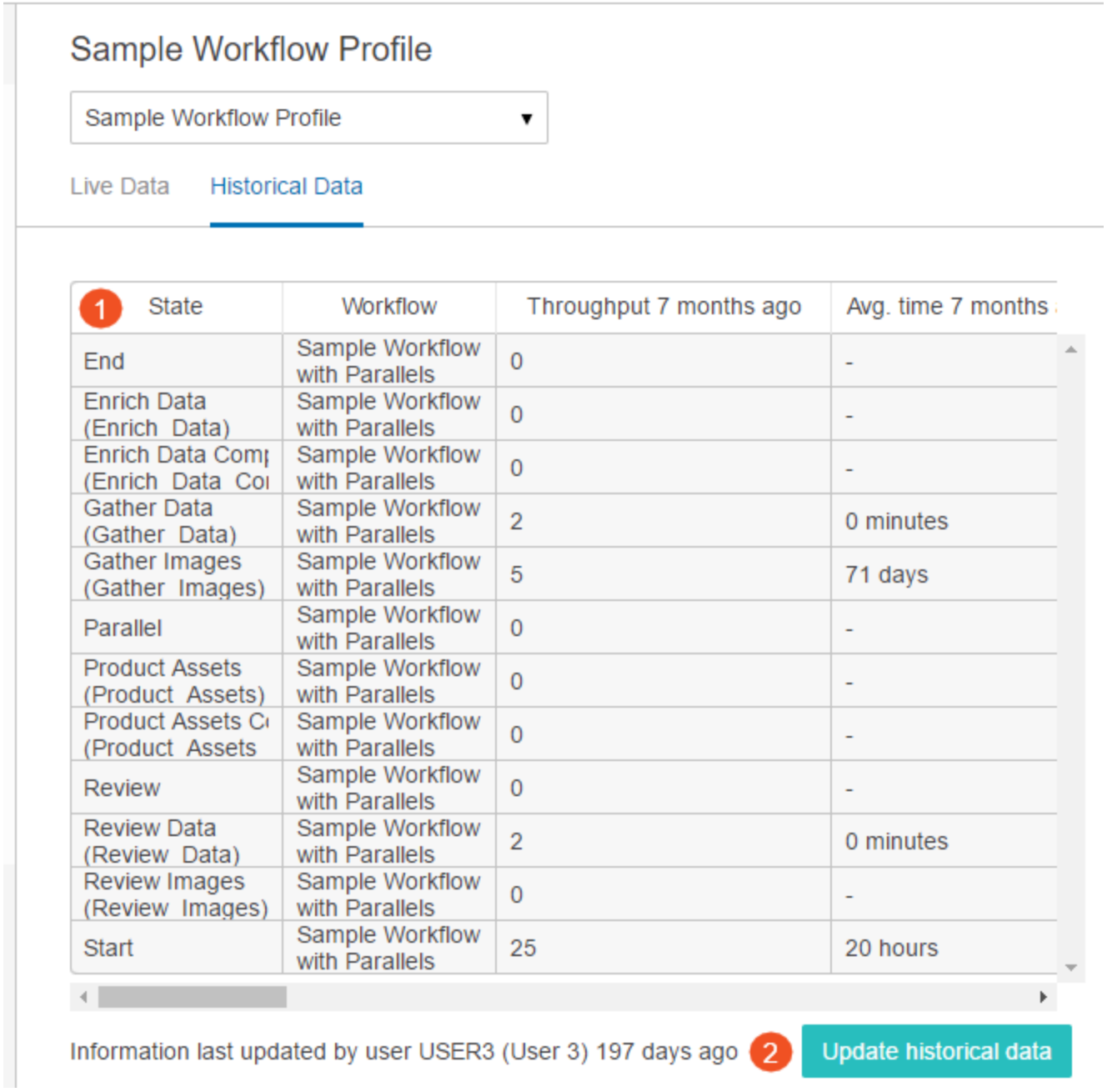
The Live Data tab displays workflow information as it currently exists. For the 'States' and 'Assignees' domains, the view is divided into a master table at the top and a details table at the bottom. Data on the details table is populated based on what is selected in the master table. For all domains, any columns displayed are based on the profile definition. To view individual the details of the workflow, click the Details icon on the left of the State name of the desired workflow.



1. **The Live Data master table -** Populated based on the workflow profile selection. This displays more general information about the stages or assignees.
2. **The Live Data details table -** Populated based on the master table selection. This appears when a row in the Master Table is selected and displays more specific information about the objects that are contained within a state or assigned to an assignee.

Historical Data Tab

Unlike the Live Data tab, the Historical Data tab is updated on-demand and displays historical information about the workflow(s).

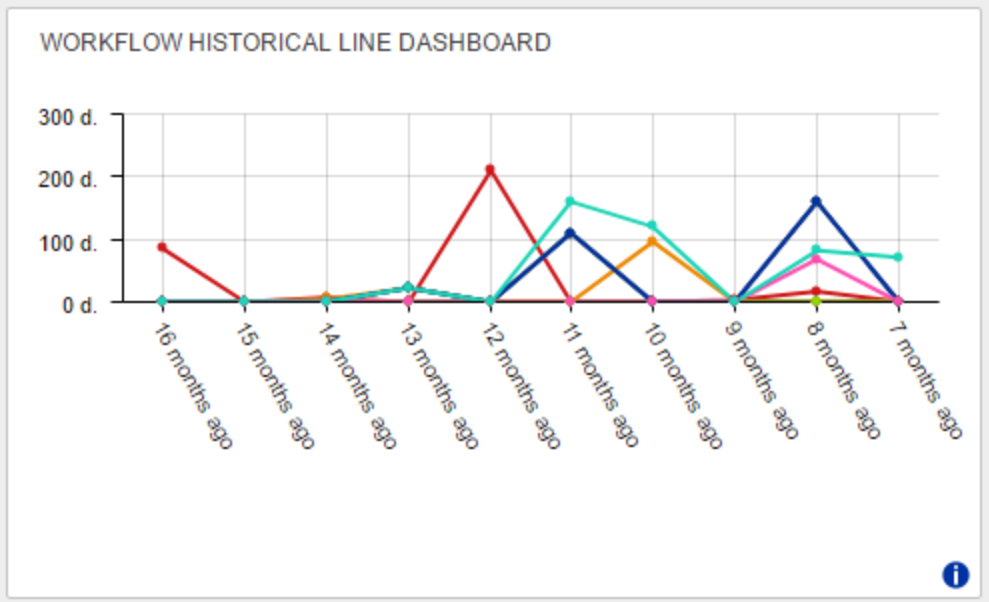


1. **Historical Data table -** Populated based on the workflow profile selection.
2. **Update historical data button -** Click to update the workflow profile's historical data.

For more information on configuring what data appears on this screen, refer to the **Monitoring Workflows** section of the **Workflows** documentation.

Workflow Historical Line Dashboard

Historical workflow profile data can be displayed as a line graph on the Web UI homepage via the Workflow Historical Line Dashboard widget.



The graph data is populated based on the workflow profile specified in the configuration and must be manually updated in order to get the most up-to-date historical data. The data can be updated via the **Update historical data** button found on the Workflow Profile screen in Web UI.

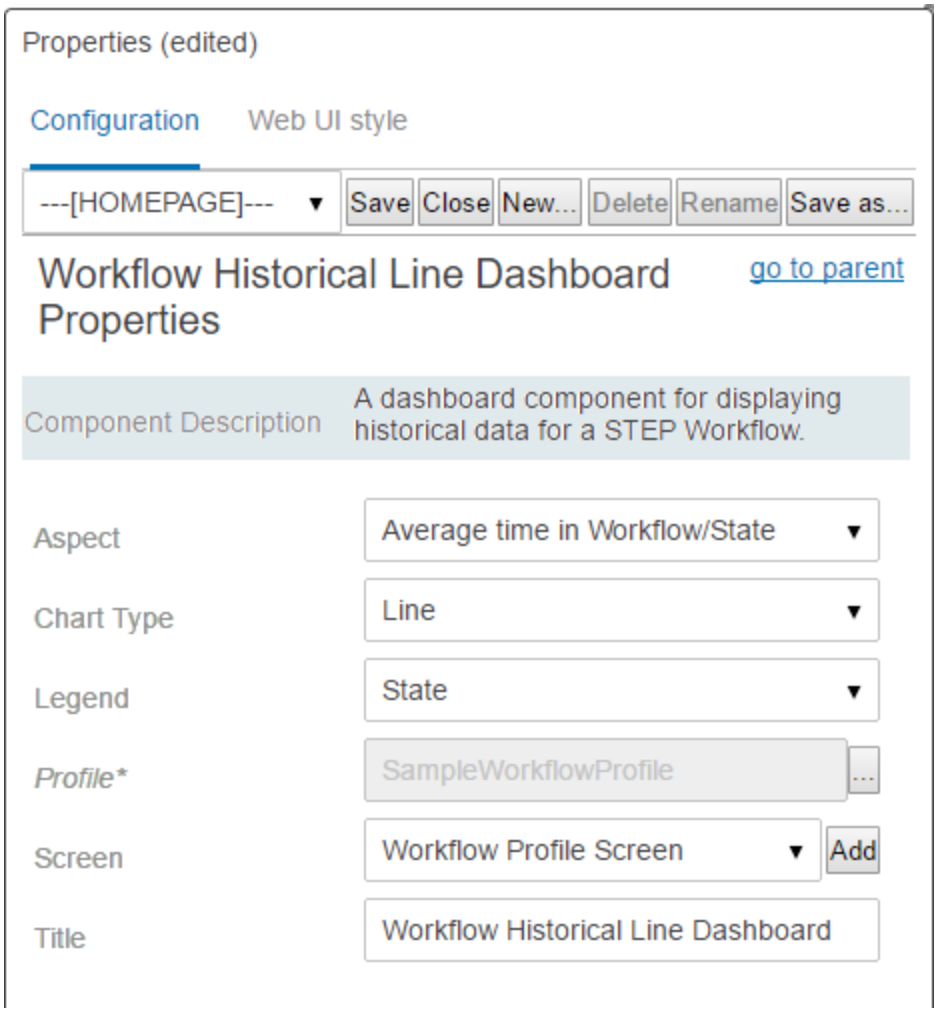
For more information on Workflow Profiles, refer to the **Monitoring Workflows** section of the **Workflows** documentation.

Configuration

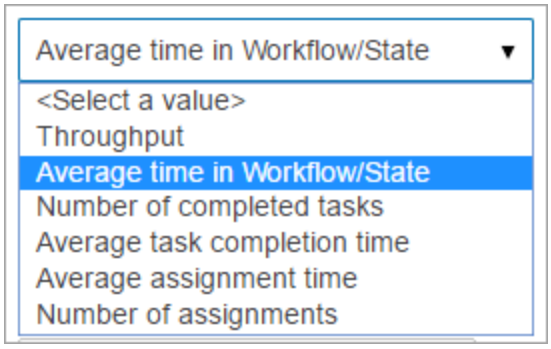
It is expected that anyone configuring the Workflow Historical Line Dashboard is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

Details on how to add a widget to a homepage can be found in the **Adding Widgets to a Homepage** topic in the **Getting Started** documentation.

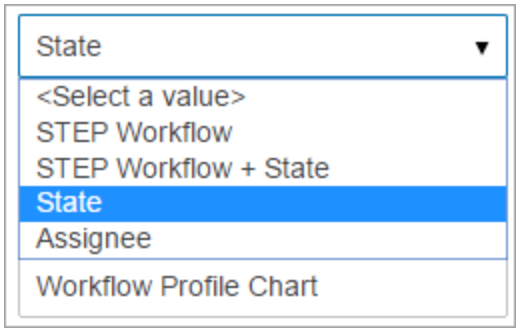
1. When configuring the Workflow Historical Line Dashboard for the Homepage, there are six parameters to consider: Aspect, Chart Type, Legend, Profile, Screen, and Title.



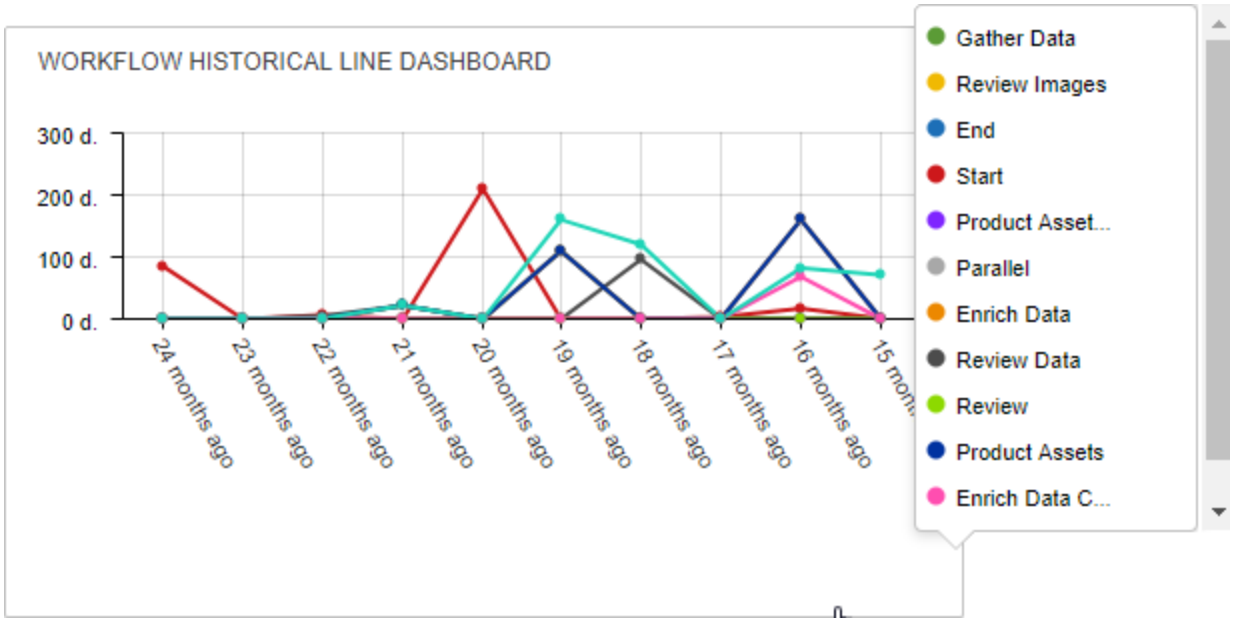
2. In the 'Aspect' parameter, use the dropdown to select which aspect of the workflow profile to display in the graph.



3. In the 'Chart Type' parameter, ensure 'Line' is selected from the dropdown.
4. In the 'Legend' parameter, determine how the entries in the chart should be represented via the dropdown.



When hovering over the lower right hand corner of the widget, the cursor changes. When it is clicked, the chosen legend (chosen as a state in this case) becomes available.



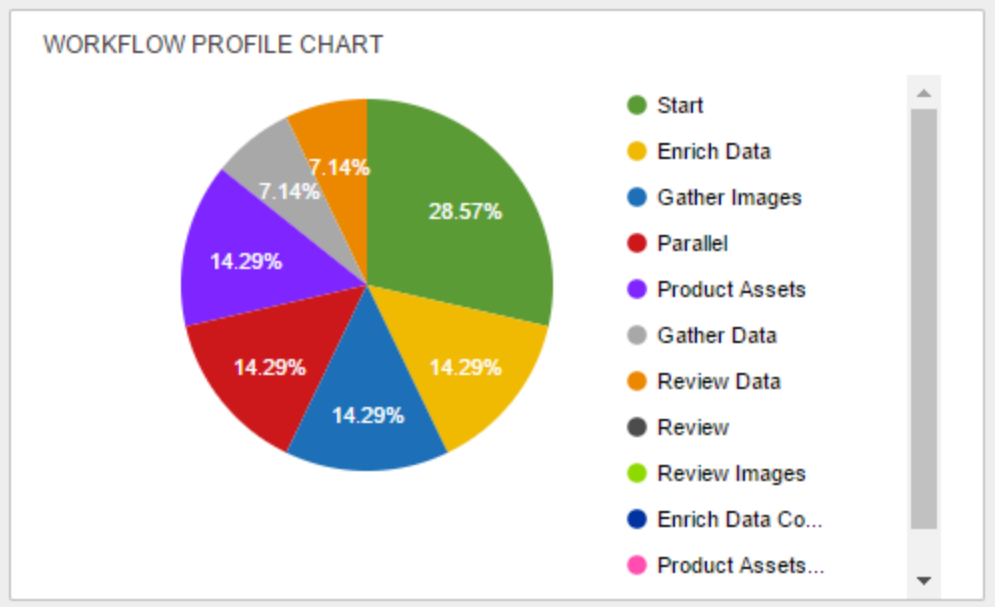
5. In the 'Profile' parameter, Click the ellipsis button (...) and select which workflow profile to display. Click **OK**.

Note: The 'Profile' parameter is mandatory.

6. In the 'Screen' parameter, select a screen to link the widget to from the dropdown. Typically, this screen should be a Workflow Profile screen.
7. In the 'Title' parameter, enter a title for the widget.

Workflow Profile Chart Dashboard

Live workflow profile data can be displayed on the Web UI homepage via the Workflow Profile Live Data widget. This data can be displayed as either a pie or line graph.



The graph data is populated based on the workflow profile specified in the configuration.

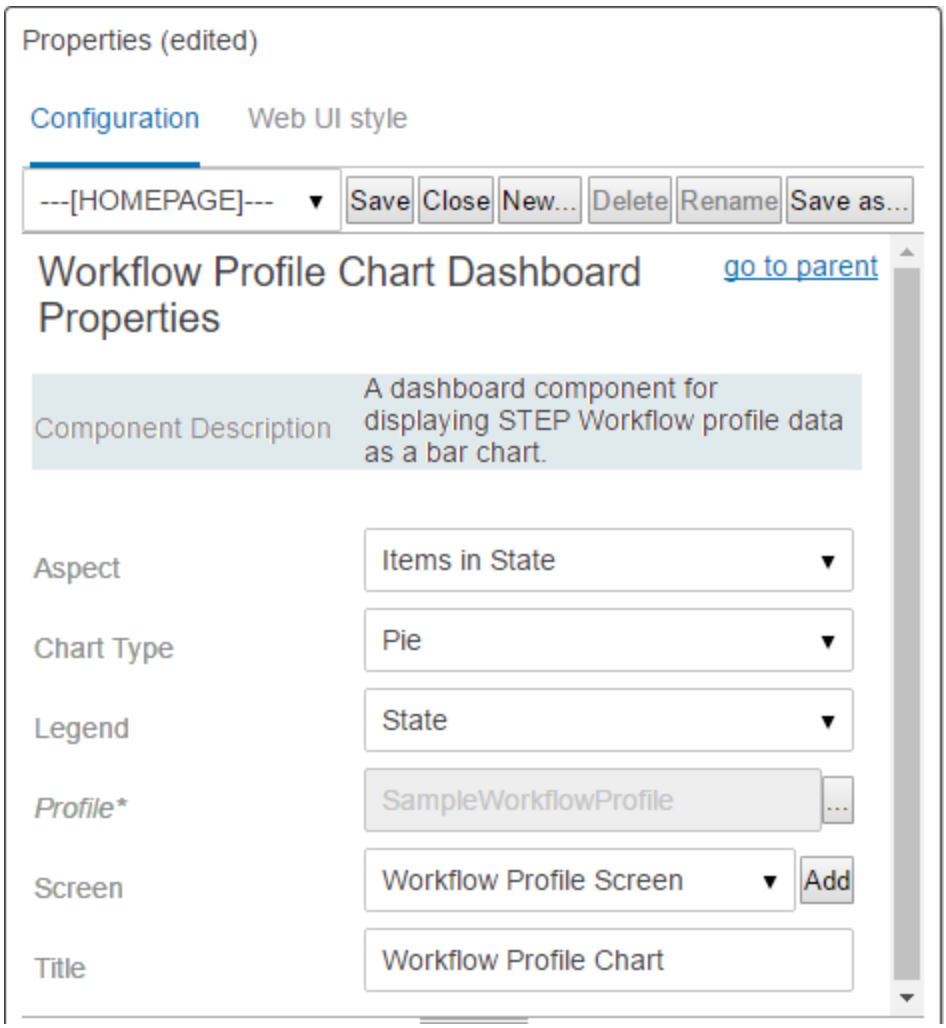
For more information on Workflow Profiles, refer to the **Monitoring Workflows** section of the **Workflows** documentation.

Configuration

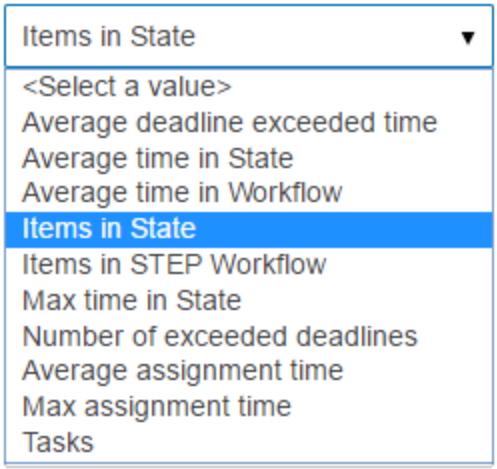
It is expected that anyone configuring the Workflow Profile Live Data Widget is familiar with the Web UI Designer, as basic concepts for working with the designer are not covered in this section. In addition, the user must have appropriate privileges to access the designer.

For information on adding a widget to a homepage, refer to the **Homepage Widgets** section of the documentation.

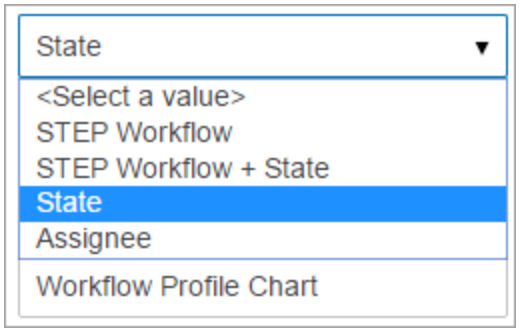
1. When configuring the Workflow Profile Live Data Widget for the Homepage, there are six parameters to consider: Aspect, Chart Type, Legend, Profile, Screen, and Title.



2. In the 'Aspect' parameter, use the dropdown to select which aspect of the workflow profile to display in the graph.



3. In the 'Chart Type' parameter, select which type of chart to use from the dropdown. Options include pie charts and bar charts.
4. In the 'Legend' parameter, determine how the entries in the chart should be represented via the dropdown.



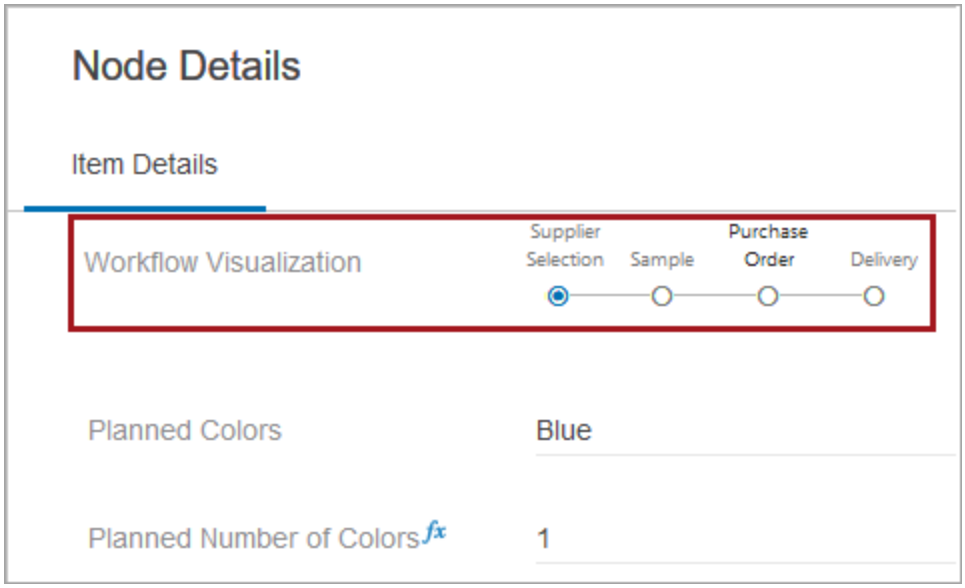
5. In the 'Profile' parameter, Click the ellipsis button (...) and select which workflow profile to display. Click **OK**.

> **Note:** The 'Profile' parameter is mandatory.

6. In the 'Screen' parameter, select a screen to link the widget to from the dropdown. Typically, this screen should be a Workflow Profile screen.
7. In the 'Title' parameter, enter a title for the widget.

Workflow Visualization

The Workflow Visualization component allows you to visually track objects in various workflows by defining a group of STEP workflow states (from one or more workflows) into one workflow visualization work process step. Once these process steps are configured, you can view an object's step-by-step progression on the screen. This can help in understanding, at a glance, the overall status of an object, instead of having to review every workflow the object is in.

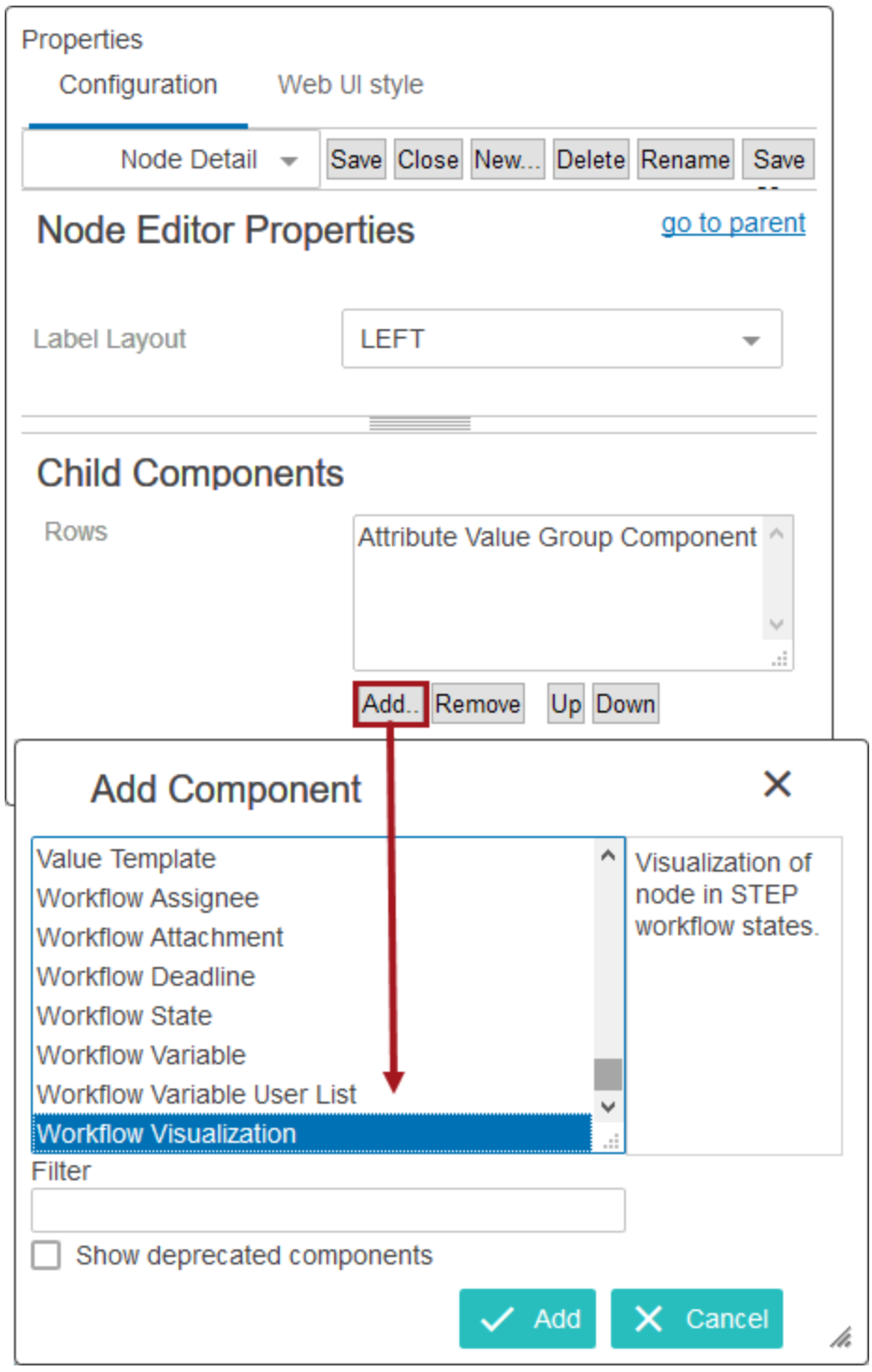


The Workflow Visualization component, which is applied to a Node Editor on a Node Details screen, is highly configurable, making it easy to display the status of an item, according to company needs. Refer to the sections below for configuration.

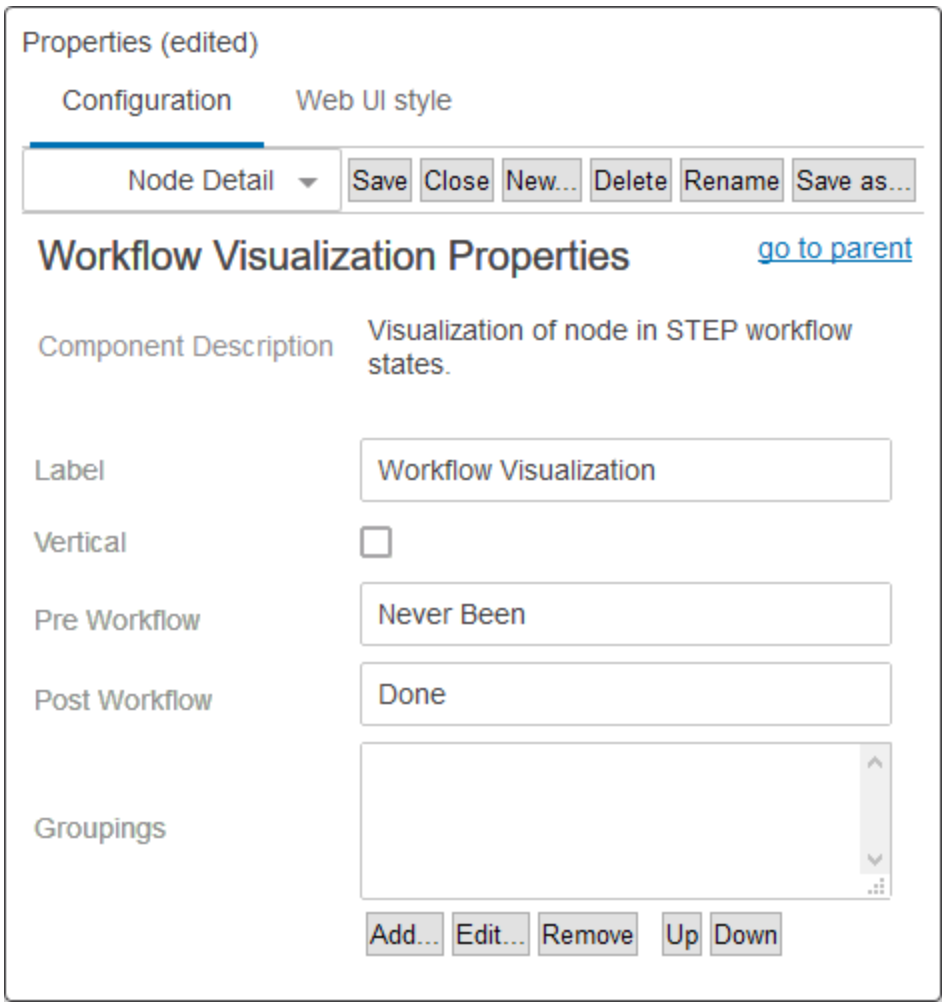
Configuring Workflow Visualization

This component is intended to be used on objects or tasks that will enter into multiple workflows at one time. To configure the Workflow Visualization component for an object, follow these steps:

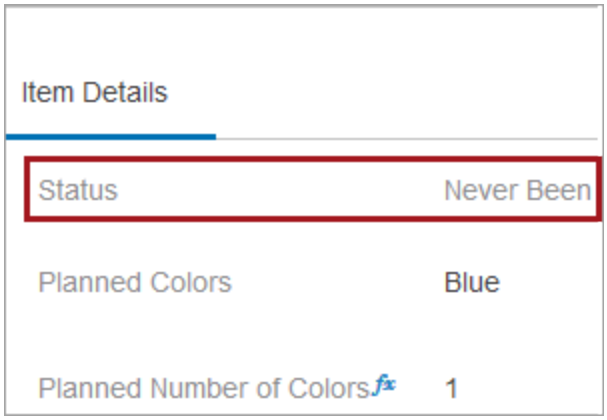
1. In Web UI, open the designer and navigate to the desired **Node Editor Properties**. Typically, this will be a Node Editor configured to view and provide details about the desired objects.
2. On the Node Editor Properties go to Child Components > Rows > add a **Workflow Visualization** component.



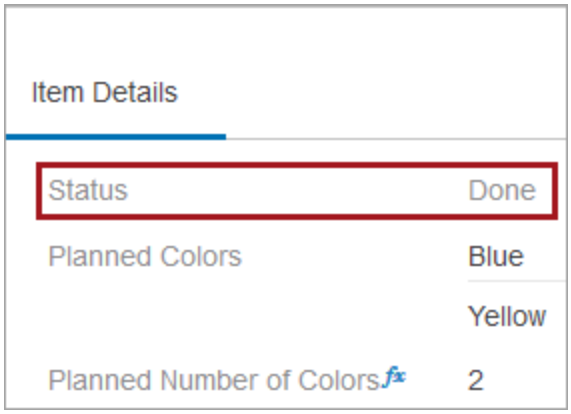
3. Double click on the newly added Workflow Visualization component to navigate to Workflow Visualization Properties. The fields are defined below.



- **Label** -Displays as the workflow visualization label.
- **Vertical** - When checked, displays the workflow visualization vertically instead of horizontally.
- **Pre Workflow** - Displays in place of the workflow visualization tracker if the viewed object ***has not been initiated*** into any mapped workflow visualization work process steps.



- **Post Workflow** - Displays in place of the workflow visualization tracker if the viewed object ***has exited*** all mapped workflow visualization work process steps.

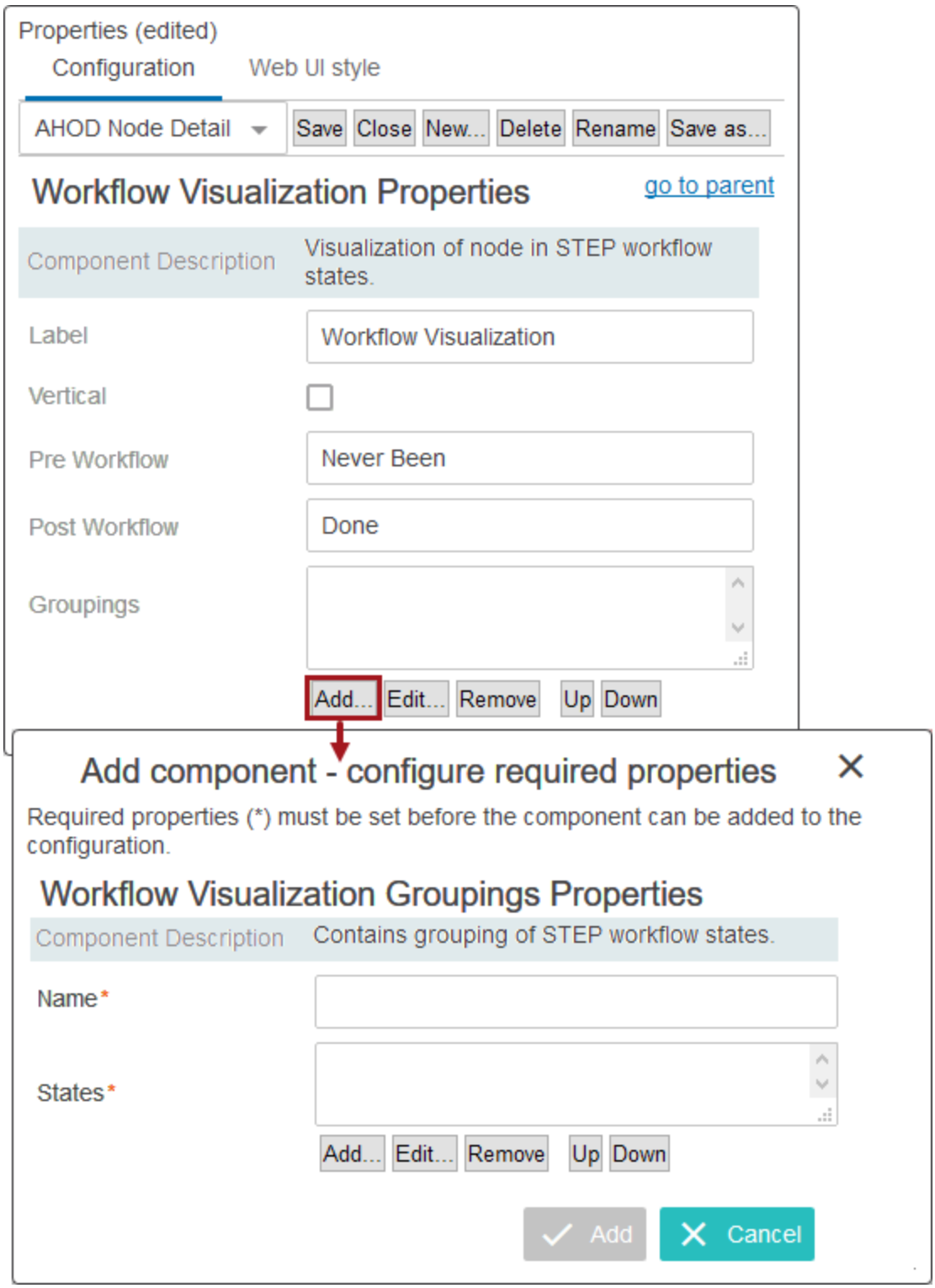


- **Groupings** - Field to configure mappings from workflow states to workflow visualization work process steps.

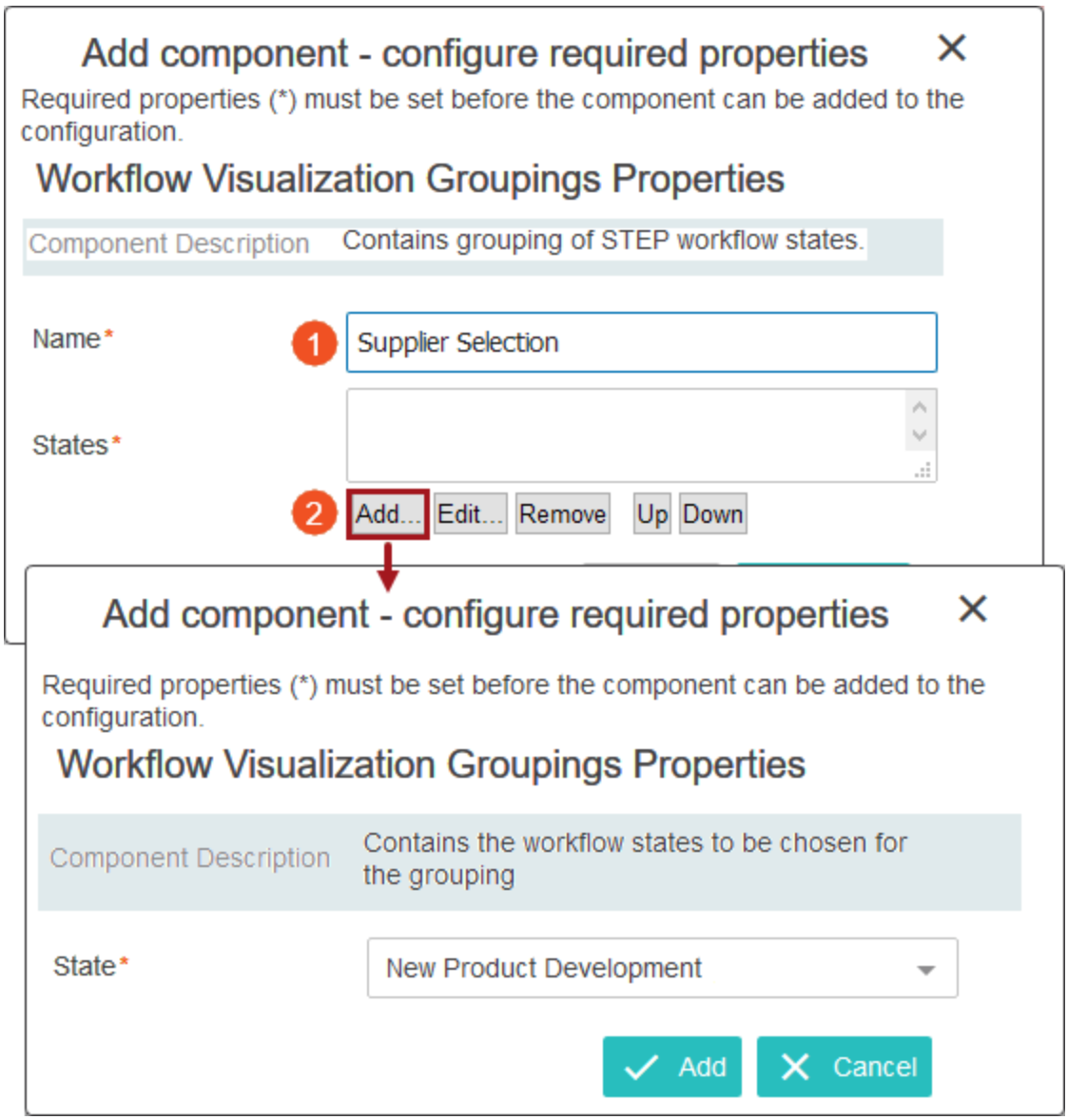
Configuring Groupings

To map states from various workflows to one workflow visualization work process step, follow the directions below:

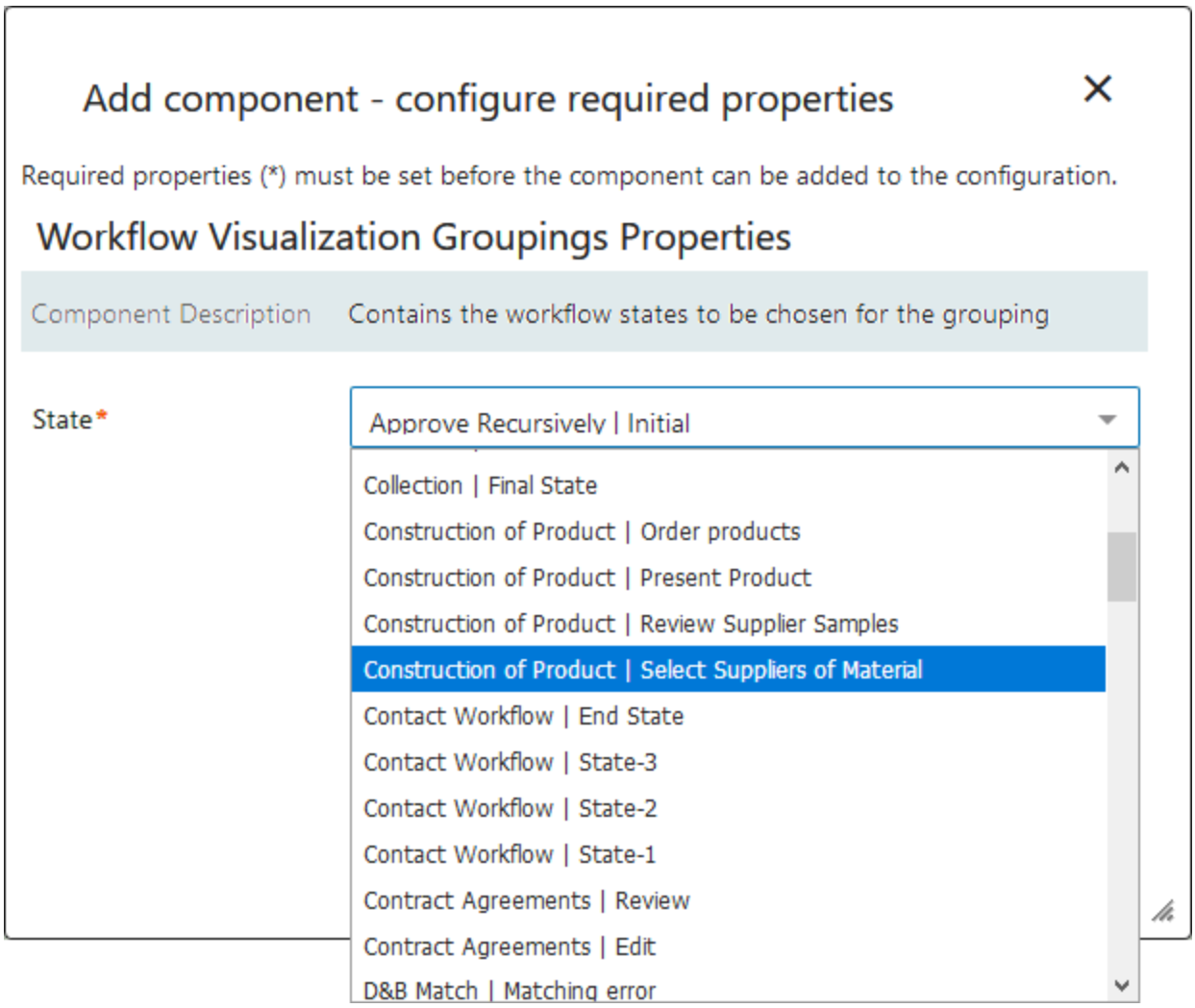
1. In the Groupings field, click the **Add** button to open the Workflow Visualization Groupings Properties.



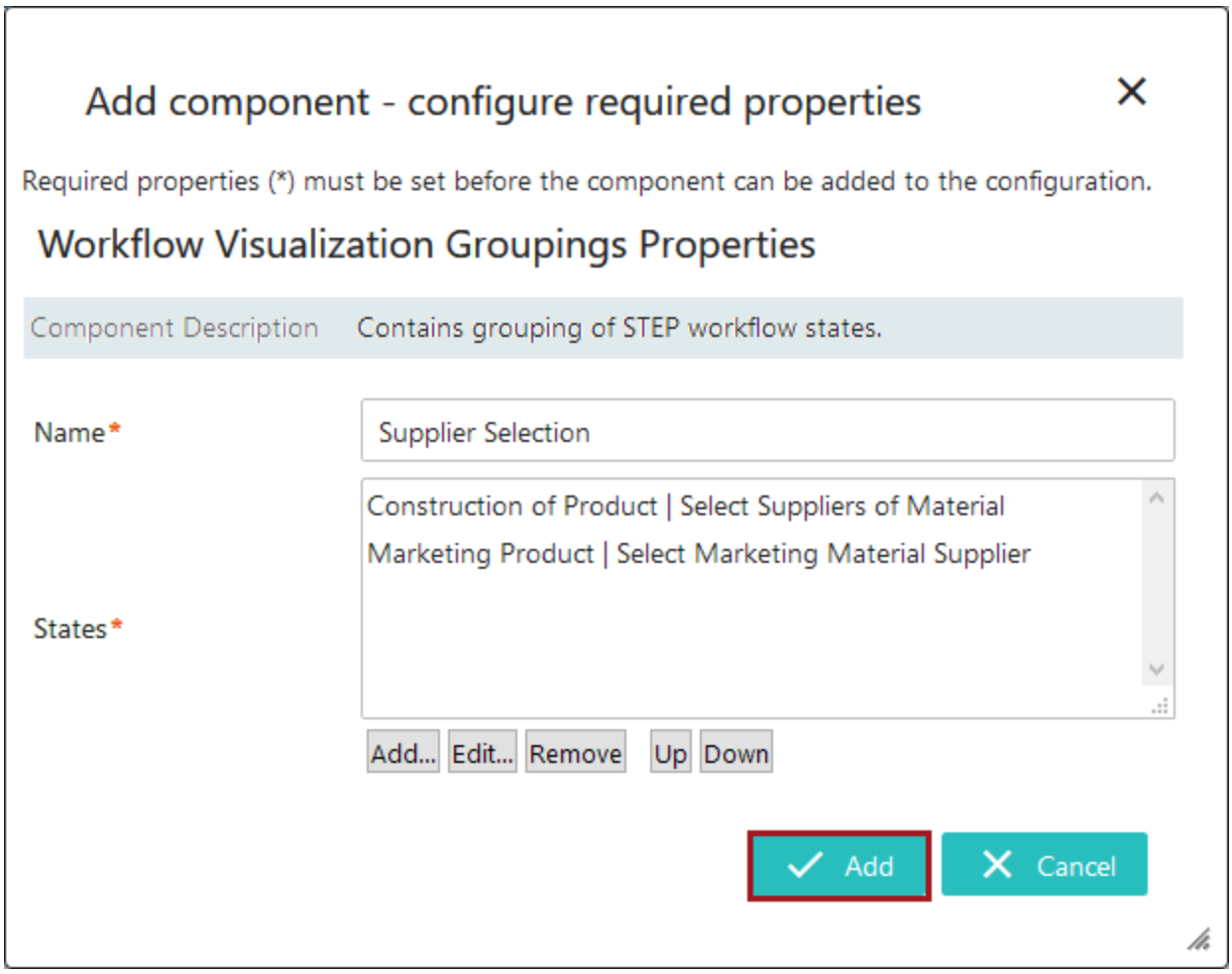
2. First enter in a name for the workflow visualization work process step, then in the States field, click the **Add** button.



3. All valid workflows and their respective states are visible in the dropdown menu 'State.' Select the desired workflow state, and click **Add**.

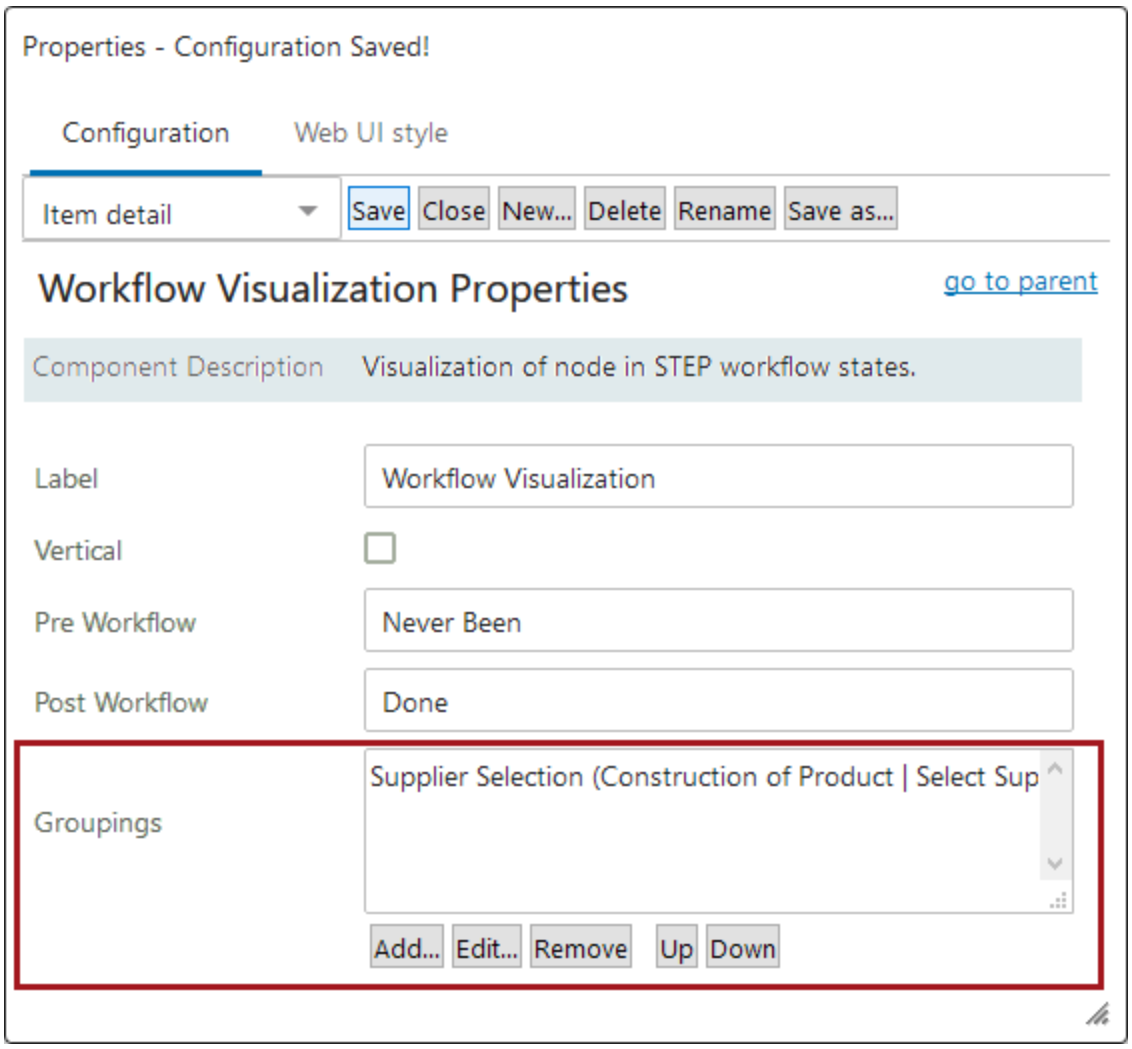


4. Continue to add as many states from various workflows as needed. When finished, click the **Add** button on the Workflow Visualization Grouping Properties.

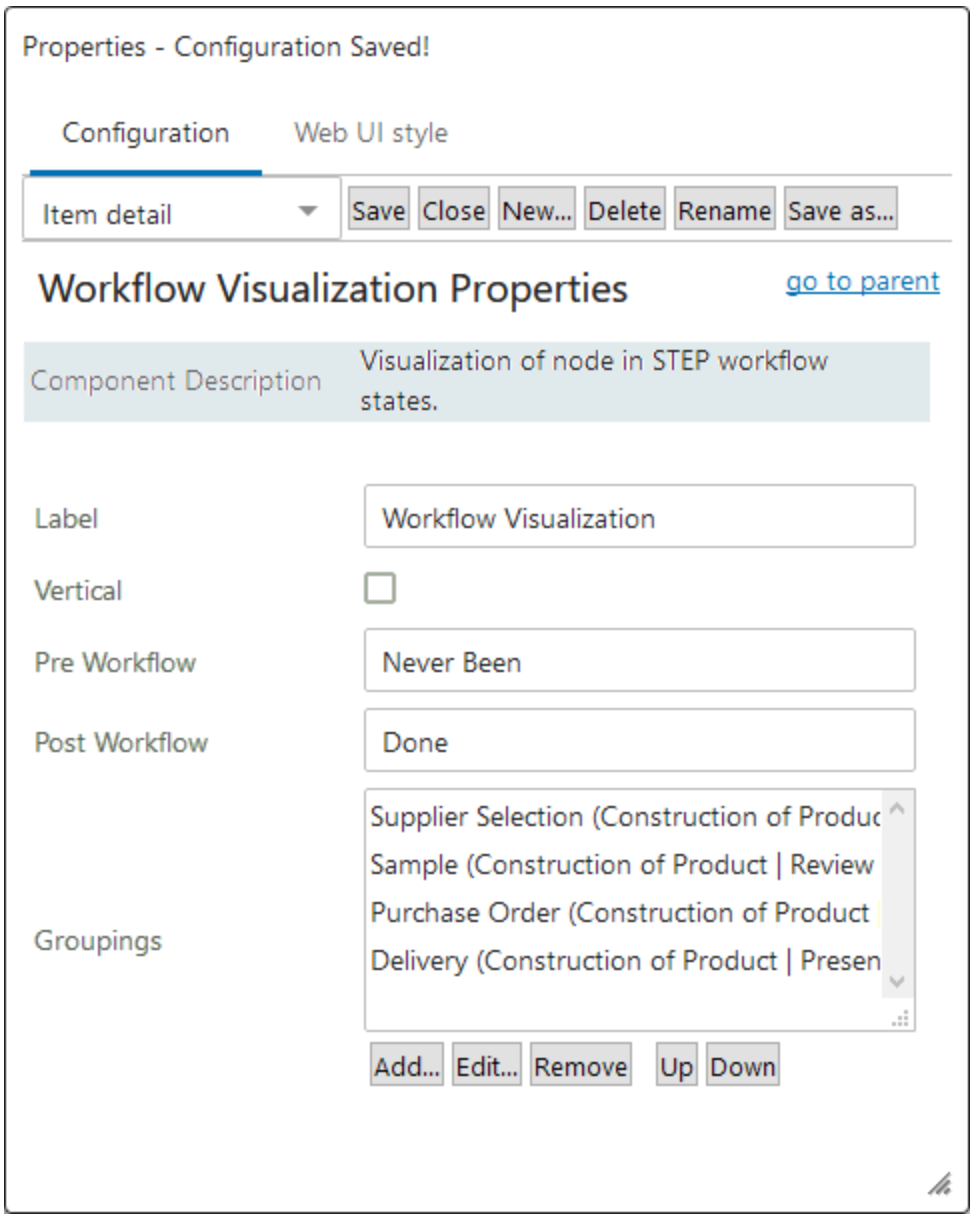


The first work process step for the workflow visualization is now complete.

Note: When creating work process steps for workflow visualization, it is a recommended practice to use only workflows that are valid for the same object type.

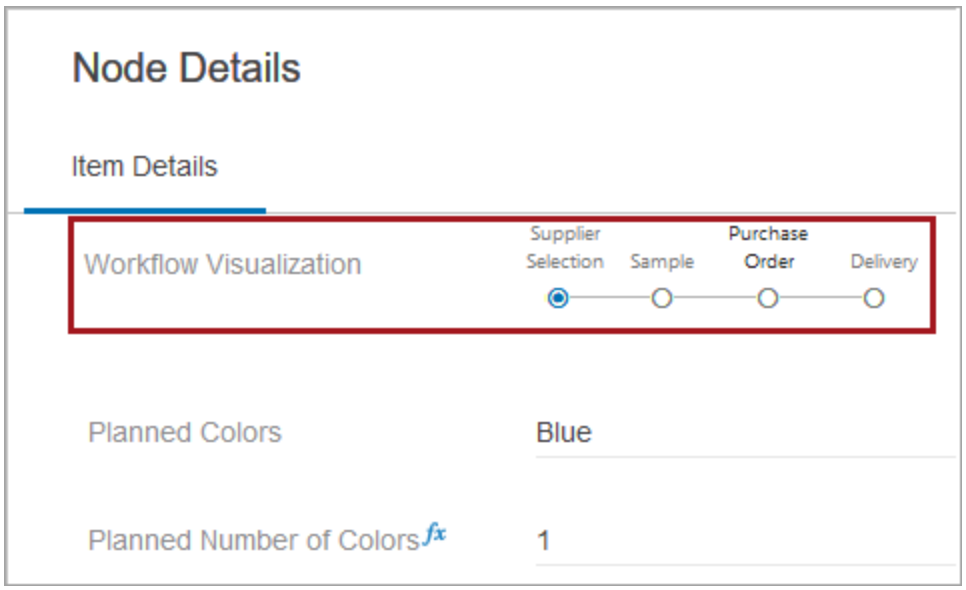


5. Repeat steps one through four to add as many workflow visualization work process steps as needed. Work process step are displayed in the Web UI in the sequence configured in the designer. If the order needs to be altered, use the Up and Down buttons.



6. When all needed work process steps are finished, click **Save** and **Close**.

If configured correctly, clicking on an object displaying on a Node Details screen in which the workflow visualization has been configured will display the configured workflow visualization tracker.



Refer to the **Using Workflow Visualization** topic in this documentation for an example.

Note: It is recommended practice to create workflows strategically before mapping any states to workflow visualization work process steps. If a particular state does not require mapping to a workflow visualization work process step, it may be best to include that state in a cluster, and map the cluster to a workflow visualization work process step. This is due to the fact that if one or more states in the relevant workflows are unmapped, the user risks a false data reading. For any workflow state not mapped to a workflow visualization work process step, when an object enters this state, the workflow visualization will display as if it is completed and show the default label or manually-entered text set in the Post Workflow parameter field of the Web UI designer instead of the workflow visualization tracker. Then once the object enters into a workflow state that is mapped to a work process step, the workflow visualization will once again display the object in a work process step in the workflow visualization tracker. To aid in avoiding this, workflow designers should consider using cluster states. For more on creating workflows and cluster states, refer to the Creating A Workflow topic in this documentation.

Using Workflow Visualization

Once the workflow visualization component is successfully configured, users may use the workflow visualization tracker to review an object's progress in one or multiple workflows. To understand how the workflow visualization tracker works, read the following section.

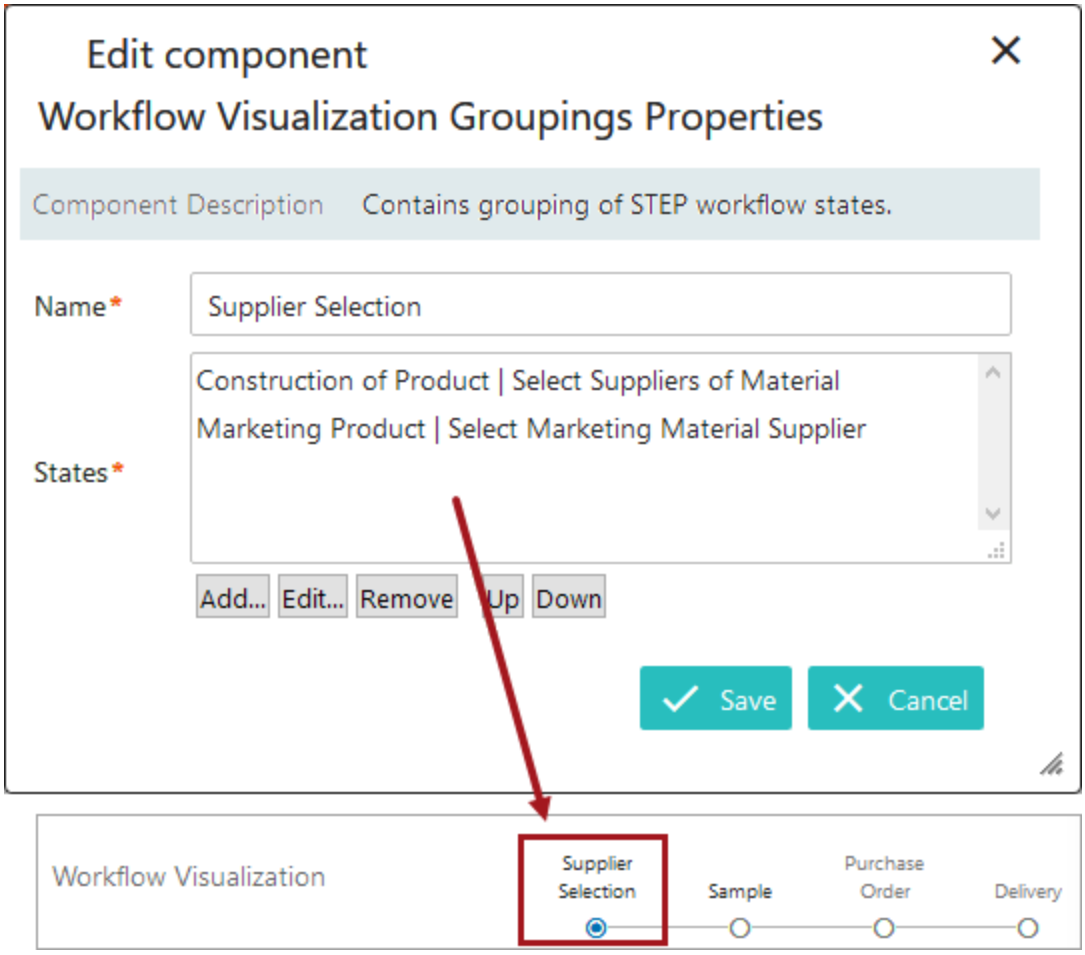
Workflow Visualization Tracker

The workflow visualization tracker is comprised of defined work process steps. The number of work process steps are defined in the designer and depend on the number of workflow states or cluster states that need to be mapped for visibility. For more information on how to create workflow visualization work process steps, refer to the **Workflow Visualization** topic in this documentation.

In the example below, a workflow visualization is comprised of two workflows:

- Marketing Product
- Construction of Product

Each of these workflows has four states. Each state is mapped, in order, to four workflow visualization work process steps. An example of the first workflow process step is shown below.



For more on how to map work process steps, refer to the **Workflow Visualization** topic in this documentation.

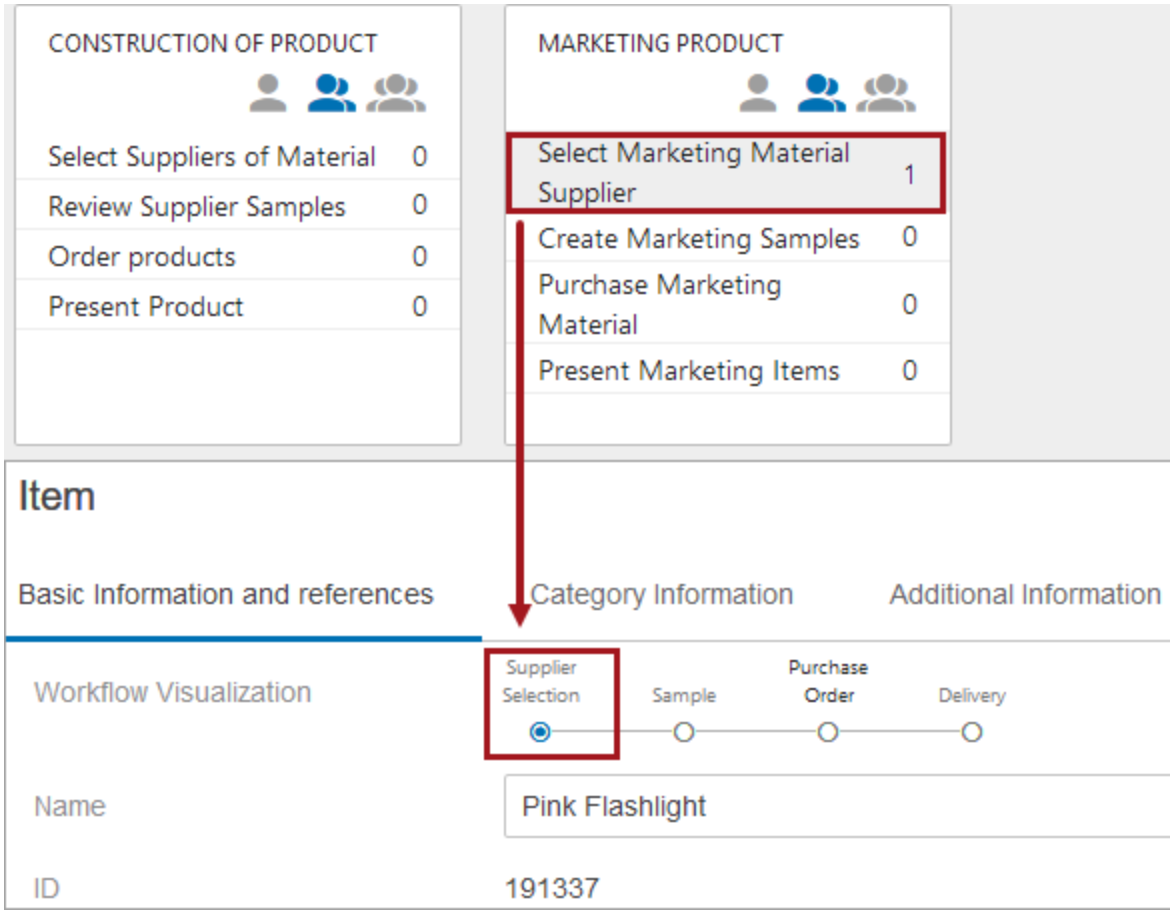
Tracking an Object Through a Workflow Visualization Tracker

Using the workflow visualization described above, the object 'Pink Flashlight' will be tracked through the workflow visualization tracker.

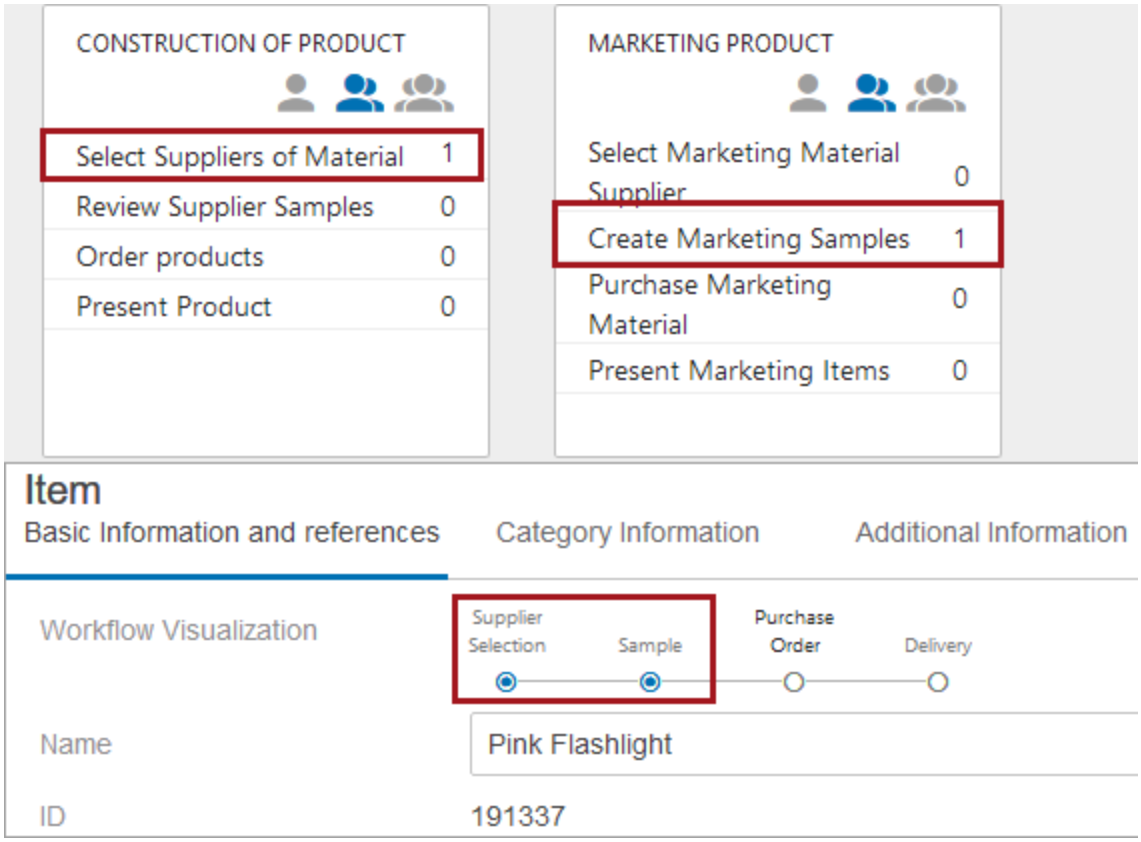
1. If the 'Pink Flashlight' product has not been initiated into any workflow state that has also been mapped to a workflow visualization work process step, the workflow visualization tracker does not display. What displays in its place is the text added into the workflow visualization component's Pre Workflow field (or the default value, 'Never Been').



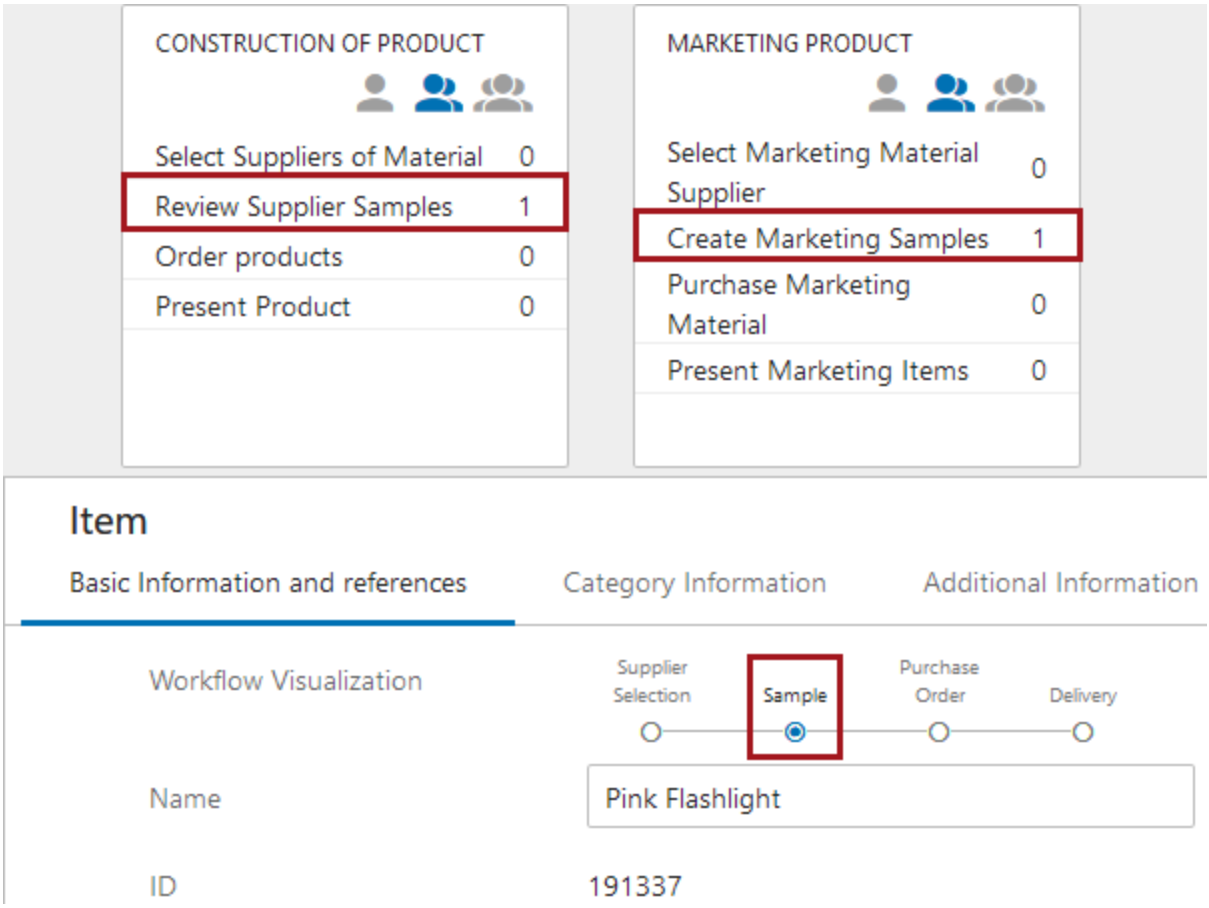
2. Once the 'Pink Flashlight' enters into one of the workflow states mapped to the first work process step, the workflow visualization tracker will display and highlight the first work process step.



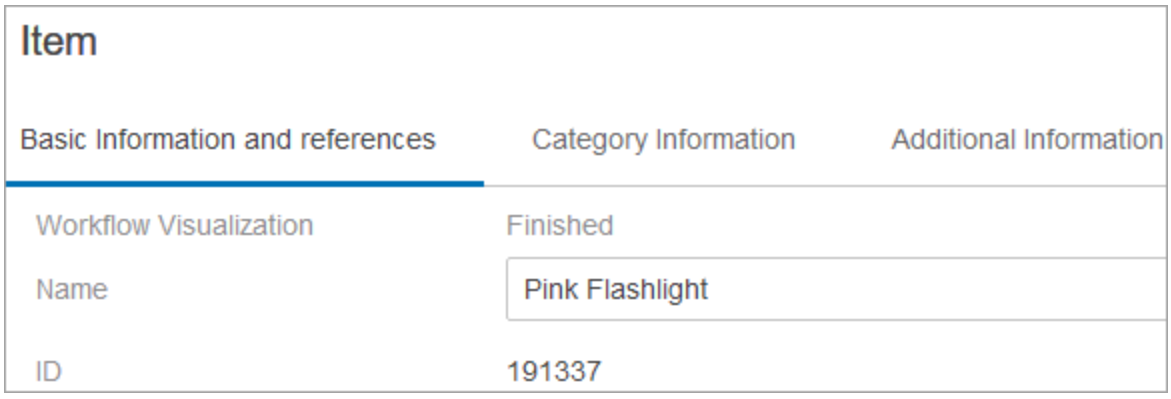
3. The 'Pink Flashlight' then enters into state one of the 'Construction of Product' workflow, but moves to state two in the 'Marketing Design' workflow. Because state two is mapped to workflow visualization step process two, the workflow visualization tracker will show the object as existing in both work process steps one and two.



After the 'Pink Flashlight' completes the first state in the 'Construction of Product' workflow, and in turn exits all states mapped to the first workflow visualization process step, the workflow visualization tracker no longer shows the product as existing in the first work process step. Instead, if the 'Pink Flashlight' is in the second states of both the 'Marketing Product' and 'Construction of Product' workflows, then only process step two will be highlighted.



4. After the 'Pink Flashlight' has completed all states from all workflows mapped to the workflow visualization work process steps, the tracker will no longer display. What displays in its place is the text added into the workflow visualization component's designer's Post Workflow field, (or the default value, 'Finished').



Workflow Mandatory Attributes in Web UI

It is often necessary that attributes or whole groups of attributes are mandatory for a state or transition in a STEP Workflow. This means that the object can only pass further in the workflow if the indicated attributes have values. To facilitate this, the relevant mandatory attribute groups and/or attributes can be indicated directly in the STEP Workflow Designer, with mandatory indications being enforced in both the workbench and Web UI.

This simplifies the configuration within the workflow itself, enabling business users to steer the Web UI and Smartsheets behavior for end-users without requiring use of the Web UI Designer.

For more information on how to set up these attributes in a workflow, refer to **Mandatory Attributes and References in Workflows** in the **Workflows** documentation.

For information about how conditionally mandatory attributes are handled in Web UI, refer to the **Conditionally Mandatory Attributes and References in Workflows** section of the **Workflows** documentation.

Handling Workflow State and Transition Mandatory Attributes in Web UI

Web UI screens must be configured to include all mandatory attributes. If not, end users will receive errors that they cannot correct. Mandatory attributes set on a Web UI screen are only honored if the 'Submit Action' has 'Enforced Validity' checked within the component properties.

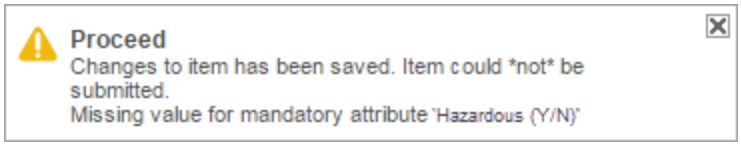
State-mandatory attributes are checked prior to transition-mandatory attributes. In the case that both are used, end users will first have to correct state-mandatory attributes before transition-mandatory attribute errors are displayed.

Note: References listed in attribute groups are not supported for use in workflow state and transition mandatory attributes through Web UI configurations (e.g., selecting an attribute group that includes a reference will not cause that reference to be considered mandatory). However, mandatory references listed in attribute groups **are** supported (in certain Web UI components) if designated as mandatory when editing states and transitions in the STEP Workflow Designer. For more information, refer to the **Mandatory Attributes and References in Workflows** topic in the **Workflows** documentation.

Web UI support of mandatory attributes requires the use of Attribute Value or Attribute Value Group Web UI components. To make an attribute mandatory, they must be added on the appropriate Properties dialog via the Mandatory parameter, as described in the following topics:

- Attribute Value Component
- Attribute Value Group Component

Enforcement of the mandatory attributes occurs in the Web UI, with errors being displayed to the user if an attempt to transition the attribute is made without all mandatory attributes being populated.



Any mandatory attributes are indicated in the Web UI with an asterisk. Those that are mandatory on transitions, rather than states, do not show an asterisk until the user has attempted to submit the object to the next state in the workflow.

Additionally, when using tab pages within a Node Details screen type, if there is any kind of error that impacts the data displayed on a tab (a validation error or missing mandatory value), then a yellow line is displayed directly under the tab name. The underline serves as an easy notification to users that attention is required on a particular tab page or on multiple tab pages. No configuration is needed to turn on this feature.

Important: It is important to consider how mandatory attributes interact with conditional attributes.