STIBO SYSTEMS
MASTER DATA MANAGEMENT

USER GUIDE

Tables

2024.1 – March 2024

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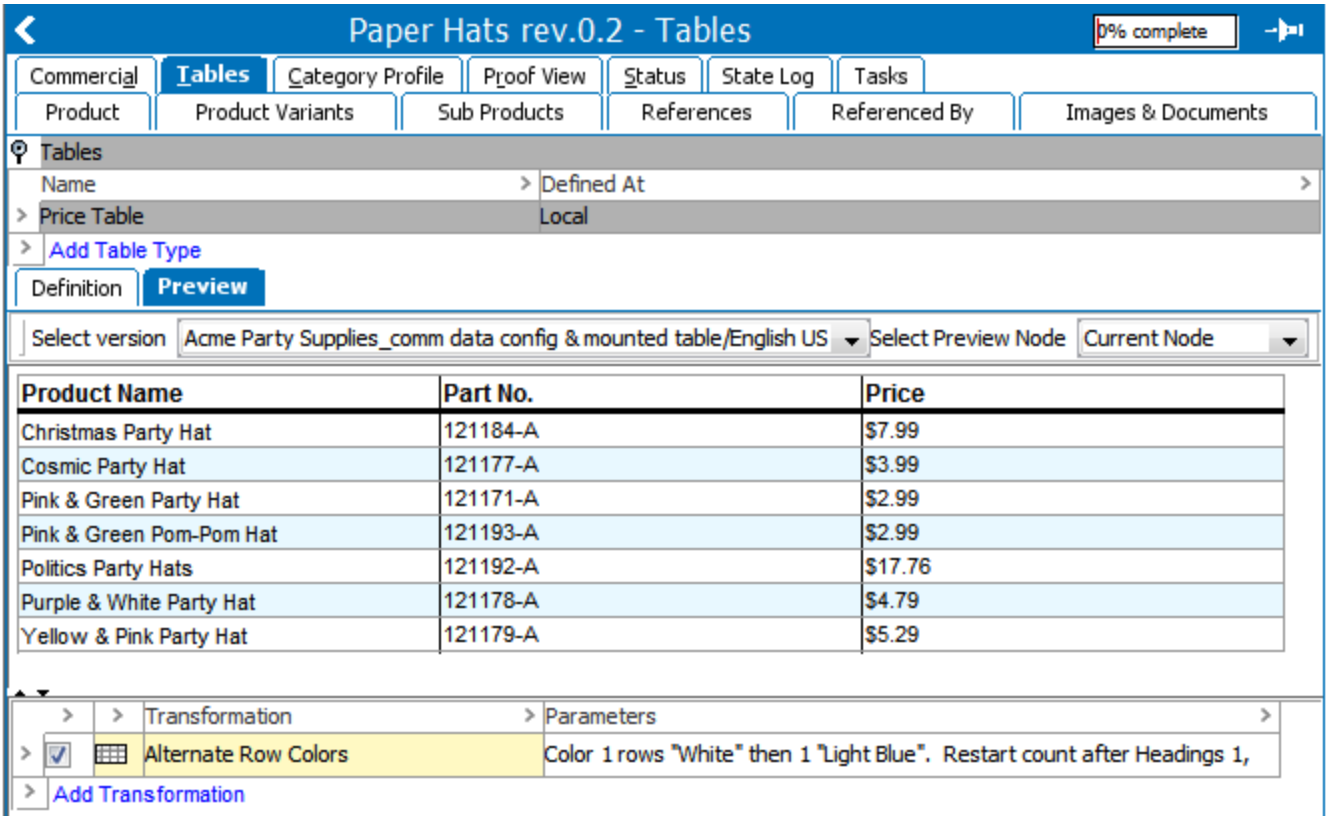
Tables

Dynamic, multidimensional **tables** can be created in the STEP Workbench on the Tables tab of product, classification, and product-override objects. Tables are used to present product information, such as product names, part numbers, and prices, in a tabular format. Tables are most often used in conjunction with Print Publisher for print applications, though tables can also be published to websites.

The configuration options available for tables in STEP are extensive. Tables can display attribute values, assets, references, commercial data, free text, and more. Since tables support inheritance, a table can be built once and used for an unlimited number of product presentations. Table layouts and settings can be shared across product, classification, and product-override hierarchies. Table types can be made dimension dependent to display different information for different contexts. Because tables are dynamic product presentations, they will automatically adapt to data changes in the workbench. Additionally, transformations can be applied to tables to perform simple actions like merging common cells, changing the font size / text style, and applying color to the font or to the cell, or for advanced transformations such as the Pivot Table Transformation.

The screenshot below shows a very simple table as previewed in STEP. It incorporates STEP names, STEP IDs, and pricing information. Tables are typically more complex than the sample presented, but even this simple table employs a table transformation (Alternate Row Colors), font styling, and more than one table rule line.



The following screenshot shows how this table looks on an InDesign page after being mounted using Print Publisher.

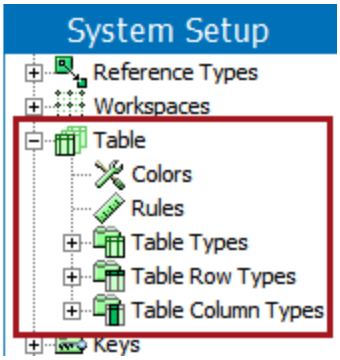
Product Name	Part No.	Price
Christmas Party Hat	121184-A	$7.99
Cosmic Party Hat	121177-A	$3.99
Pink & Green Party Hat	121171-A	$2.99
Pink & Green Pom-Pom Hat	121193-A	$2.99
Politics Party Hats	121192-A	$17.76
Purple & White Party Hat	121178-A	$4.79
Yellow & Pink Party Hat	121179-A	$5.29

Prerequisites

This documentation section assumes that users have a working knowledge of STEP.

Creating Table Types in System Setup

Before a table can be defined on product, classification, or product-override objects in the Tree, the table *type* must first be configured in System Setup.



Setting up a table type involves defining the settings and formatting for table types, column types, and row types. Table types, column types, and row types must all be defined under a group. Also included in the setup is the creation of the colors and rules that will be used in the tables.

Note: You can set up table types, column types, and row types in any sequence you want. However, if you start with no types defined at all, it is recommended that you define column types and row types before you assign them to a table type.

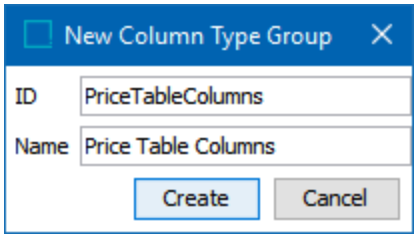
Creating Column Types

Column types are used to define how columns will appear in tables, such as what text style, width, background color, alignment, and rules will appear in columns of a specific type. Before you can define a column type, you must first define a column type *group* in System Setup. A column type group is used to store individual column types.

Note: The following instructions assume that you have *not* set an ID or name pattern on the Table Column Type Group (ID = table column type group) or Table Column Type (ID = table column type) object types, located under System Setup > Object Types and Structures > Basic Object Types > Table Column Type Group. To have these IDs and/or names autogenerate, follow the instructions provided in the **Autogenerate using Name Pattern and ID Pattern** topic in the **System Setup** documentation.

Defining Column Type Groups

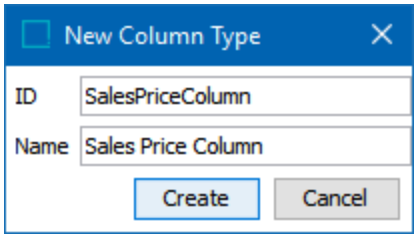
1. In System Setup, go to Table > Table Column Types, then right-click and select **Create Column Type Group**.
2. In the **New Column Type Group** dialog, enter an ID and Name for your column type group, then click **Create**.



3. The dialog closes and the column type group is created.
4. If you need to delete the column type group, right-click it and select **Delete**. If the column type group contains a column type, the column type must be deleted first.

Defining Column Types

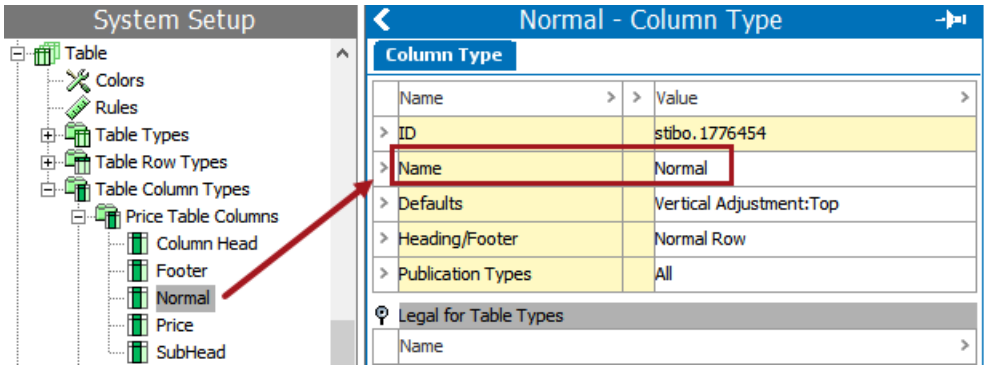
1. In System Setup, navigate to the desired column type group, then right-click and select **Create Column Type**.
2. In the **New Column Type** dialog, enter an ID and Name for your row type, then click **Create**.



3. The dialog closes and the column type is created.
4. If you need to delete the column type, right-click it and select **Delete**.

Modifying the Column Type Name

After the column type is created, you can modify the name by entering a new name in the **Name** field on the **Column Type** tab.



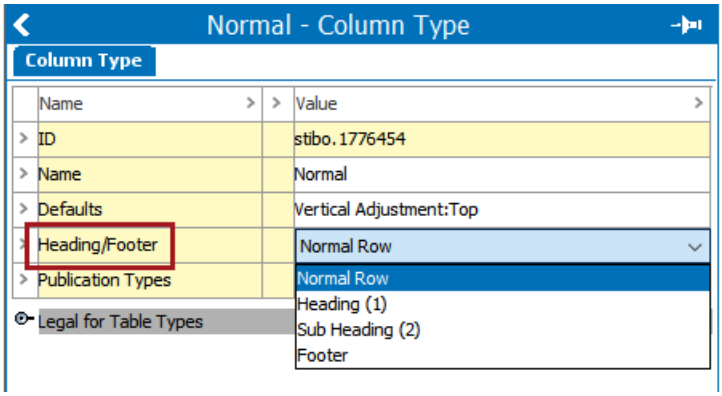
Defaults

Column type settings and formatting definitions, such as text alignment and column width, are applied under **Defaults**. Refer to the **Configuring Settings for Column Types and Columns** topic for more information.

Heading/Footer

In the **Heading/Footer** field, specify whether the column type should be a **Normal Row**, **Heading (1)**, **Sub Heading (2)**, or **Footer**. These column type designations enable table transformations to specify how to handle the column.

(The term 'Row' is used because columns can function similarly to rows in instances where a table is designed to display vertically instead of horizontally. In a vertical table, a header 'row' will appear as a column on the far left instead of a row across the top.)

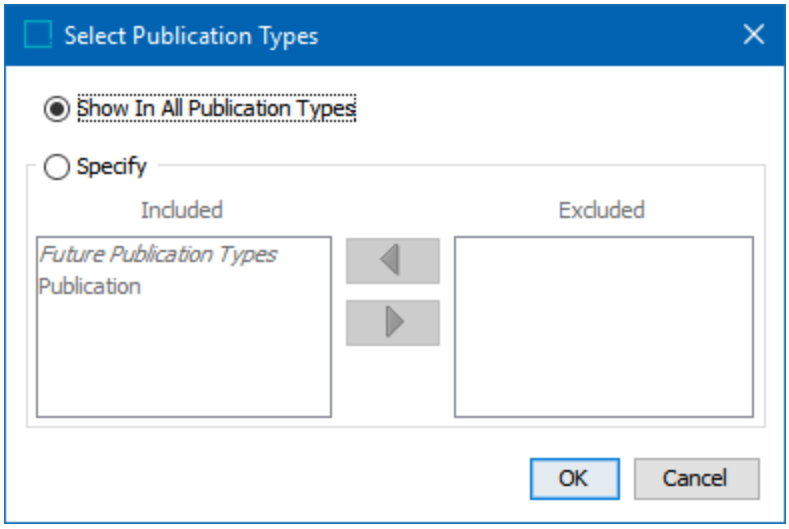


For example, **Heading** and **Sub Heading** 'rows' can be excluded for certain transformations, such as alternate row shading, where the Heading and Sub Heading rows should remain unformatted. Likewise, if a table is split across columns or pages when mounted in InDesign, a row designated as a Heading will repeat on the next column or page.

Publication Types

If the column type should only appear in tables that are mounted on pages connected to specific publication types, follow these steps:

1. In the **Publication Type** field, click the **[...]** button. The **Select Publication Type** dialog box appears. The dialog displays all the publication types that are available.

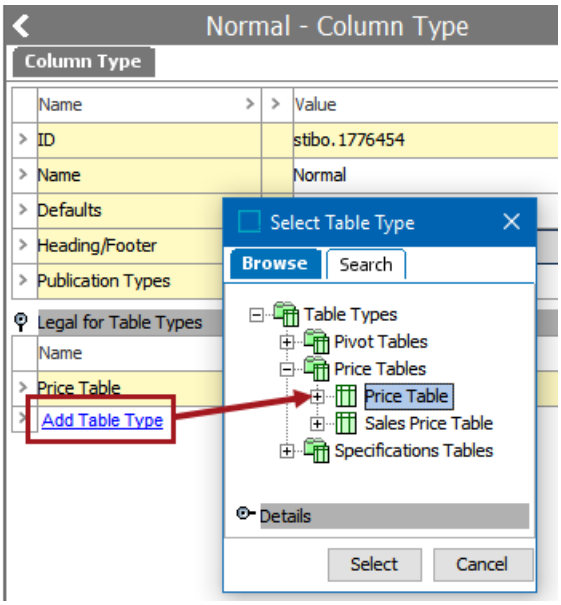


2. Leave **Show In All Publication Types** selected if the column type should be allowed in all publication types. This is the default setting.
3. Select **Specify** if the column type should only be allowed in certain publication types. To exclude the column type from a specific publication type, select the publication type, then click the right-pointing arrow to move the publication type into the Excluded column.
4. To ensure that the column type is excluded from any publication type created in the future, select **Future Publication Types**, then click the right-pointing arrow to move the publication type into the Excluded column.
5. Click **OK** when complete.

Legal for Table Types

All column types must be made legal (valid) for at least one table type before the table type can be used to create a table in STEP. To make a column type valid for a table type, follow these steps:

1. On the **Column Type** tab, expand the **Legal for Table Types** flipper.
2. Click **Add Table Type**. The **Select Table Type** dialog displays.

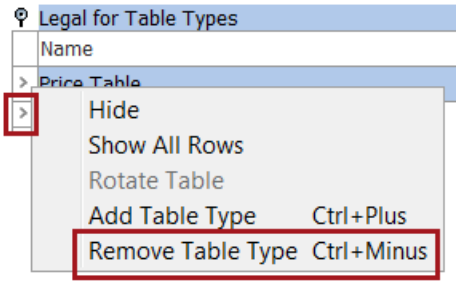


3. Click the **Browse** or **Search** tab to browse to or search for the desired table type, then click **Select**.
4. The column type is now legal for the table type.

Removing a Table Type

To remove the legal setting for a table type, follow these steps:

1. On the **Column Type** tab, expand the **Legal for Table Types** flipper.
2. Right-click on the arrow to the left of the table type that you would like to remove, then select **Remove Table Type**.



3. The table type is now removed.

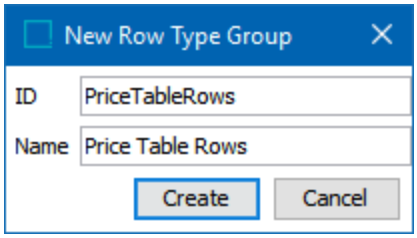
Creating Row Types

Row types are used to define how rows will appear in tables, such as what text style, height, background color, alignment, and rules will appear in rows of a specific type. Before you can define a row type, you must first define a row type *group* in System Setup. A row type group is used to store individual row types.

Note: The following instructions assume that you have *not* set an ID or name pattern on the Table Row Type Group (ID = table row type group) or Table Row Type (ID = table row type) object types, located under System Setup > Object Types and Structures > Basic Object Types > Table Row Type Group. To have these IDs and/or names autogenerate, follow the instructions provided in the **Autogenerate using Name Pattern and ID Pattern** topic in the **System Setup** documentation.

Defining Row Type Groups

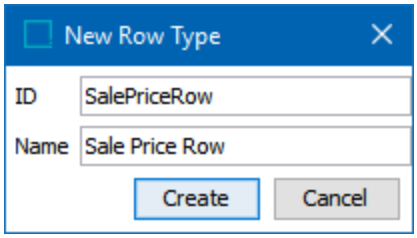
1. In System Setup, go to Table > Table Row Types, then right-click and select **Create Row Type Group**.
2. In the **New Row Type Group** dialog, enter an ID and Name for your row type group, then click **Create**.



3. The dialog closes and the row type group is created.
4. If you need to delete the row type group, select the row type group, then right-click and select **Delete**. If the row type group contains a row type, the row type must be deleted first.

Defining Row Types

1. In System Setup, navigate to the desired row type group, then right-click and select **Create Row Type**.
2. In the **New Row Type** dialog, enter an ID and Name for your row type, then click **Create**.

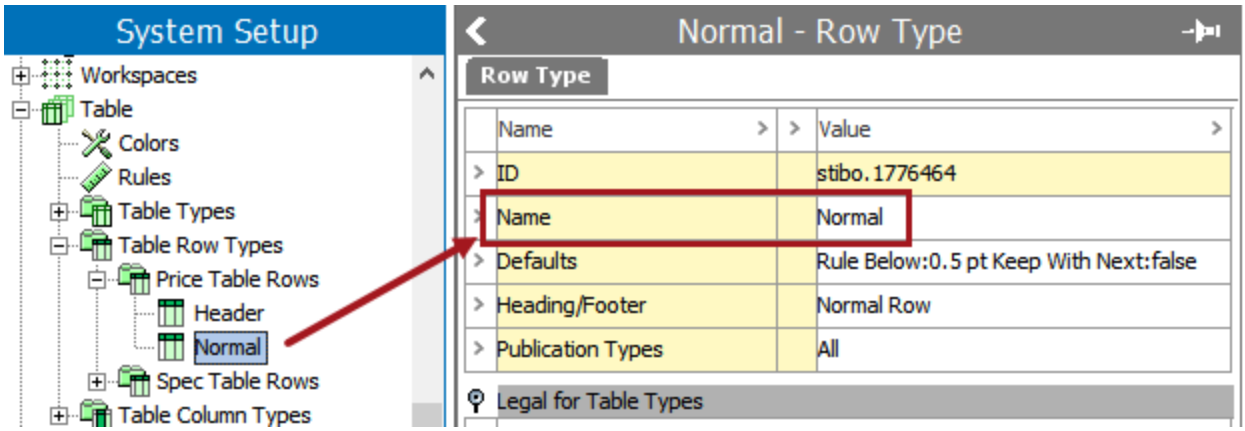


3. The dialog closes and the row type is created.
4. The row type is ready for use, through in most cases row type settings and formatting definitions will need to be applied. Refer to the **Configuring Settings for Row Types and Rows** topic for more information.

5. If you need to delete the row type, select the row type, then right-click and select **Delete**.

Modifying the Row Type Name

After the row type is created, you can modify the name by entering a new name in the **Name** field on the **Row Type** tab.

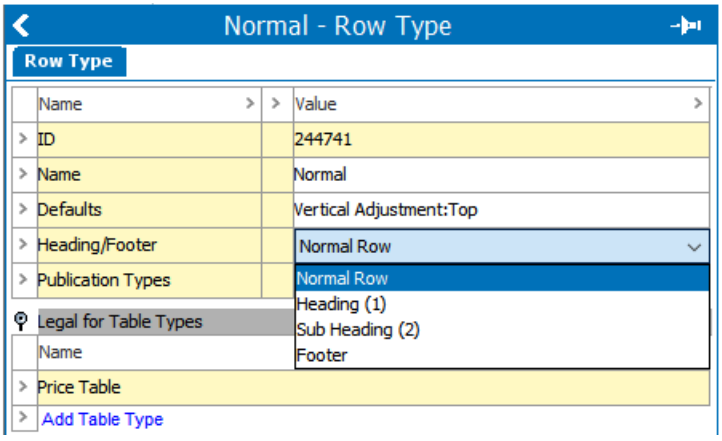


Defaults

Row type settings and formatting definitions, such as text alignment and row height, are applied under **Defaults**. Refer to the **Configuring Settings for Row Types and Rows** topic for more information.

Heading/Footer

In the **Heading/Footer** field, specify whether the row type should be a **Normal Row**, **Heading (1)**, **Sub Heading (2)**, or **Footer**. These row type designations enable table transformations to specify how to handle the row.



- For example, **Heading** and **Sub Heading** rows can be excluded for certain transformations, such as alternate row shading, where the Heading and Sub Heading rows should remain unformatted. Likewise, if a table is split across columns or pages when mounted in InDesign, a row designated as a Heading will

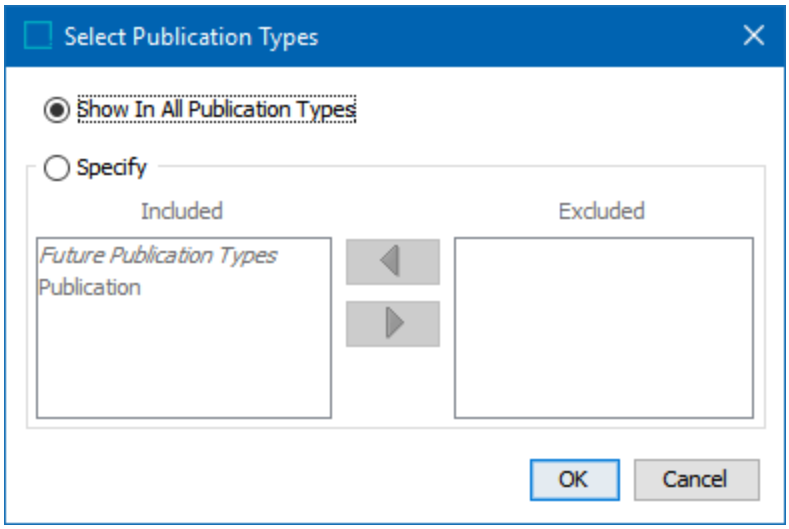
repeat at the top of the table in both frames.

- **Footer** rows are handled similarly by table transformations. For example, the text style or background shading of Footer rows is typically different than that of the rest of the table. Therefore, Footer rows can be excluded for certain transformations that apply to the whole of the table but should not apply to the Footer row.

Publication Types

If the row type should only appear in tables that are mounted on pages connected to specific publication types, follow these steps:

1. Click inside the **Publication Types** field and click the **[...]** button. The **Select Publication Types** dialog box displays. The dialog displays all available publication types.

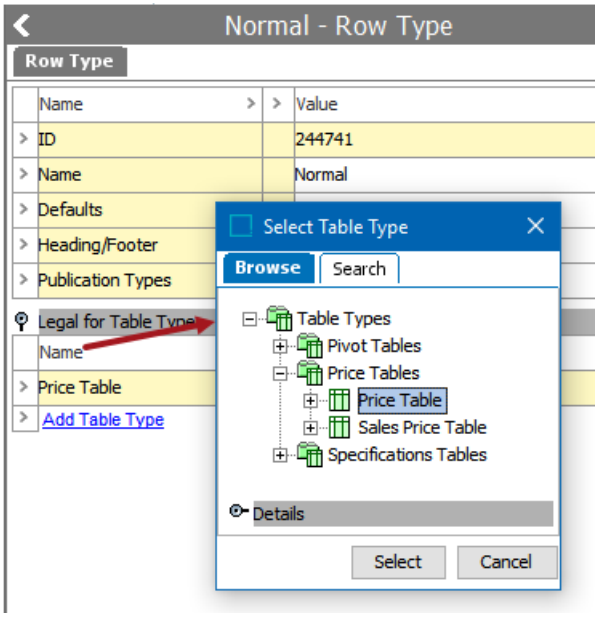


2. Leave **Show In All Publication Types** selected if the row type should be allowed in all publication types. This is the default setting.
3. Select **Specify** if the row type should only be allowed in certain publication types. To exclude the row type from a specific publication type, select the publication type, then click the right-pointing arrow to move the publication type into the Excluded column.
4. To ensure that the row type is excluded from any publication type created in the future, select **Future Publication Types**, then click the right-pointing arrow to move the publication type into the Excluded column.
5. Click **OK** when complete.

Legal for Table Types

All row types must be made legal (valid) for at least one table type before the table type can be used to create a table in STEP. To make a row type valid for a table type, follow these steps:

1. On the **Row Type** tab, expand the **Legal for Table Types** flipper.
2. Click **Add Table Type**. The **Select Table Type** dialog displays.

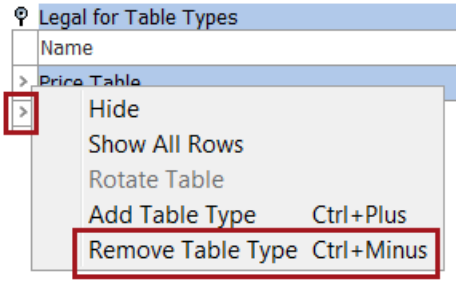


3. Click the **Browse** or **Search** tab to browse to or search for the desired table type, then click **Select**.
4. The row type is now legal for the table type.

Removing a Table Type

To remove the legal setting for a table type, follow these steps:

1. On the **Row Type** tab, expand the **Legal for Table Types** flipper.
2. Right-click on the arrow to the left of the table type that you would like to remove, then select **Remove Table Type**.



3. The table type is removed.

Creating Table Types

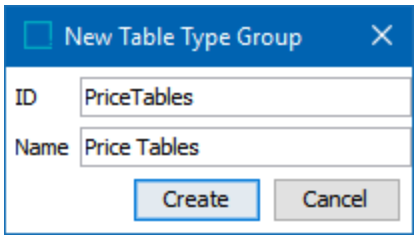
When you have created at least one column type and one row type, you can define the **table group type** and **table type** itself. The process is similar to creating row types or column types. After creating the table type and giving it at least one legal row type and one legal column type, you can start using it to create tables in the Tree.

Instructions on how to create legal row and column types are covered in this topic. For information on how to use a table type to build a table, refer to the **Creating Tables** topic in this guide.

Note: The following instructions assume that you have *not* set an ID or name pattern on the Table Type Group (ID = table type group) or Table Type (ID = table type) object types, located under System Setup > Object Types and Structures > Basic Object Types > Table Type Group. To have these IDs and/or names autogenerate, follow the instructions provided in the **Autogenerate using Name Pattern and ID Pattern** topic in the **System Setup** documentation.

Defining Table Type Groups

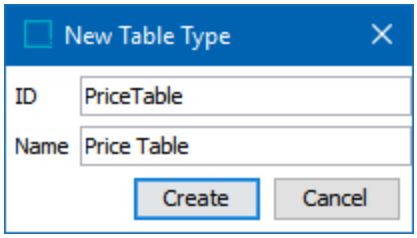
1. In System Setup, go to Table > Table Types, then right-click and select **Create Table Type Group**.
2. In the **New Table Type Group** dialog, enter an ID and Name for your table type group, then click **Create**.



3. The dialog closes and the table type group is created.
4. If you need to delete the table type group, right-click it and select **Delete**. If the table type group contains a table type, the table type must be deleted first.

Defining Table Types

1. In System Setup, navigate to the desired table type group, then right-click and select **Create Table Type**.
2. In the **New Table Type** dialog, enter an ID and Name for your table type, then click **Create**.

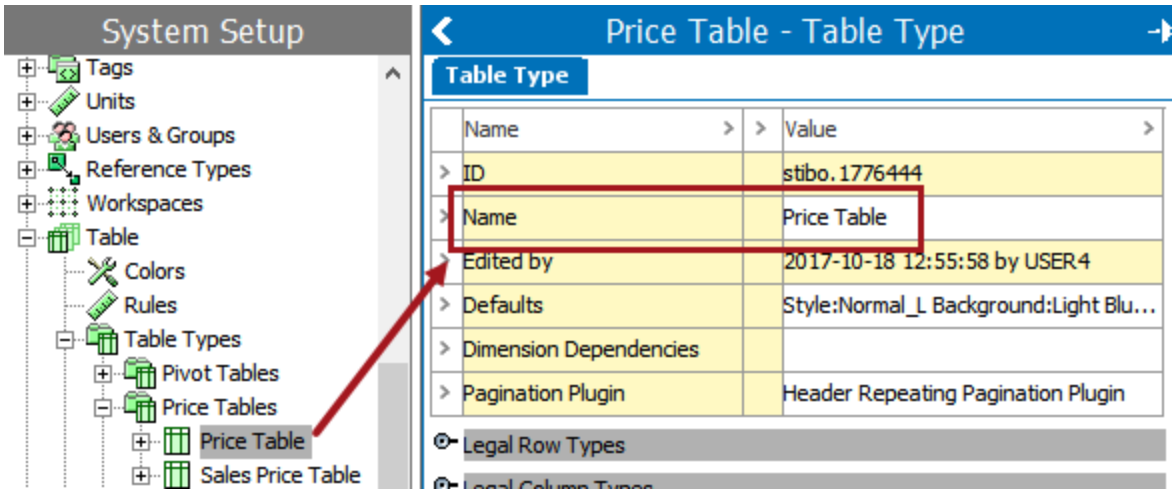


Note: The ID for table types has a limit of 33 characters and cannot end with a '$.' For row and column types, the ID has the usual restriction of 40 characters.

3. The dialog closes and the table type is created.
4. The table type is ready for use, through in most cases table type settings and formatting definitions will need to be applied. Refer to the **Configuring Settings for Table Types and Tables** topic for more information.
5. If you need to delete the table type, right-click it and select **Delete**.

Modifying the Table Type Name

After the table type is created, you can modify the name by entering a new name in the **Name** field on the **Table Type** tab.



Defaults

Table type settings and formatting definitions, such as text alignment and background color, are applied under **Defaults**. Refer to the **Configuring Settings for Table Types and Tables** topic for more information.

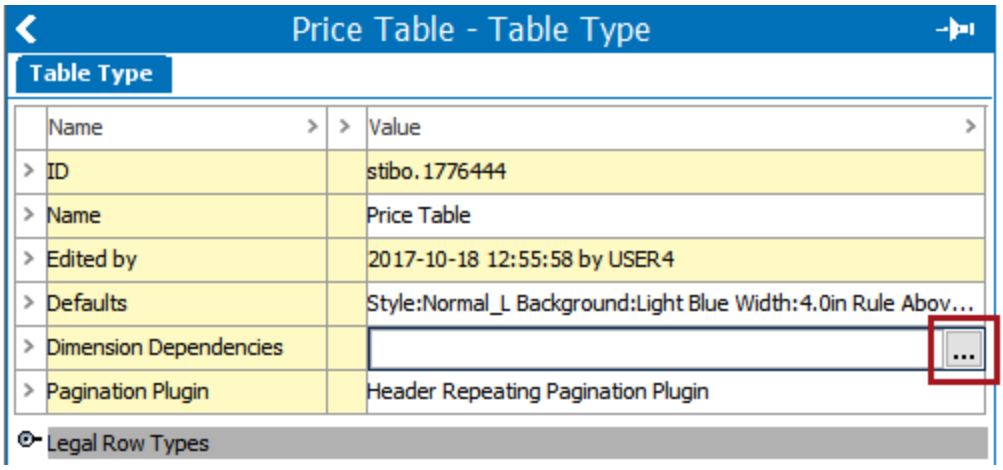
Dimension Dependencies

Table types can be made dimension dependent if there is **free text** content within the table that needs to be translated and/or appear differently in different countries. Since free text only exists within tables (and is not tied to attribute values), the only way to enable free text content to appear differently in different contexts is to make the table type dimension dependent.

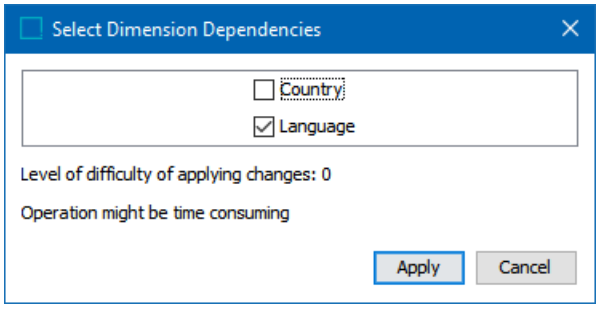
Note: Attributes used in a table can be dimension dependent even if the table type itself is not. Dimension-dependent attributes will display different values for different contexts automatically when the table is viewed in a different context.

To make a table dimension dependent:

1. Double-click inside the **Dimension Dependencies** field, then click the ellipsis button (...).



2. In the **Select Dimension Dependencies** dialog, check the applicable **Dimension** checkbox. The number of available checkboxes is determined by the number of dimensions that have been created in System Setup.

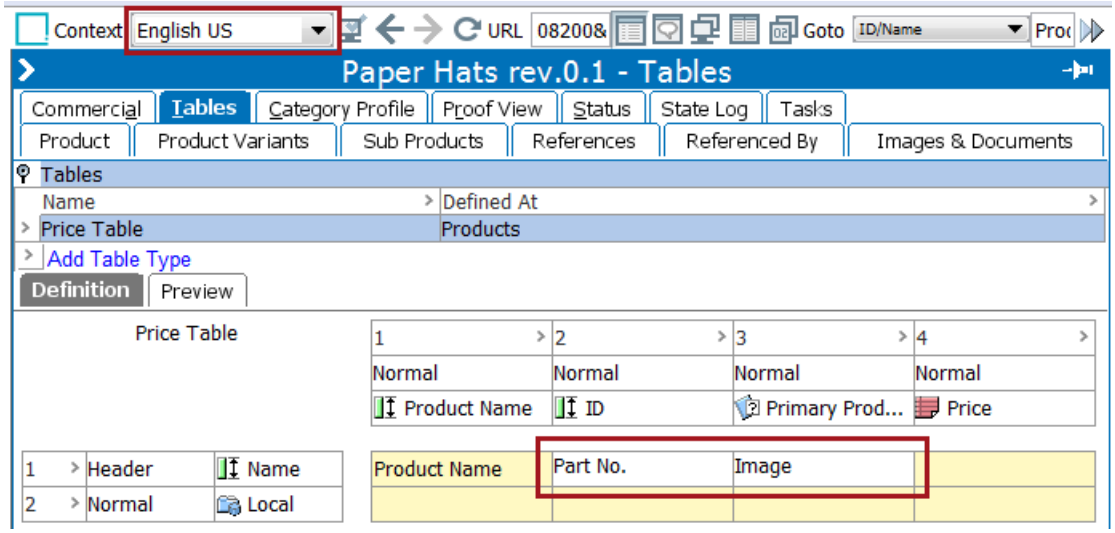


3. Click **Apply** to complete. The table type is now dimension dependent.

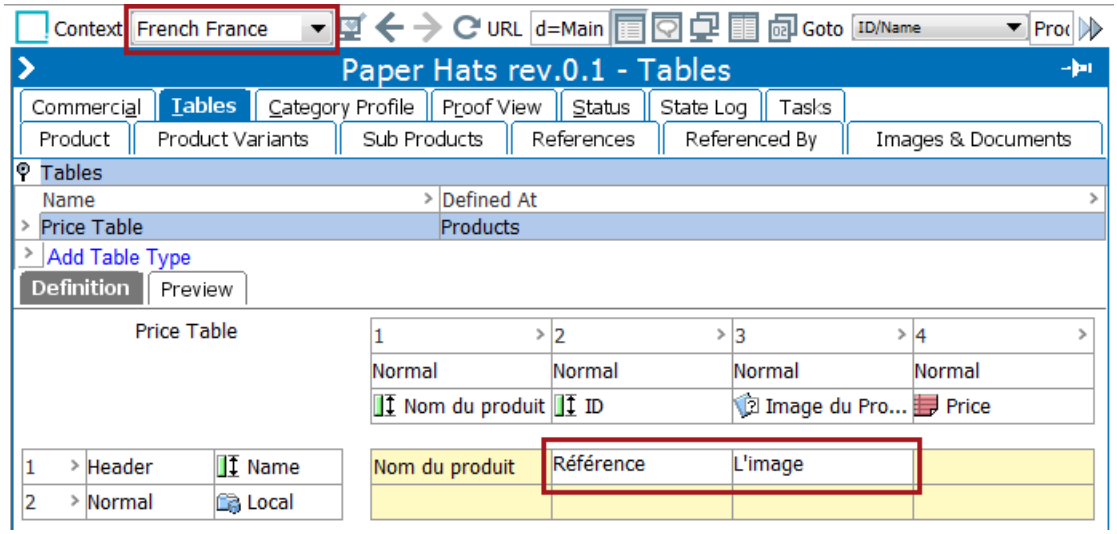
Dimension-Dependent Table Type Example

The following two screenshots show a dimension-dependent table type in two different Contexts.

1. Example with **English** Free Text values displayed in an English-language Context:



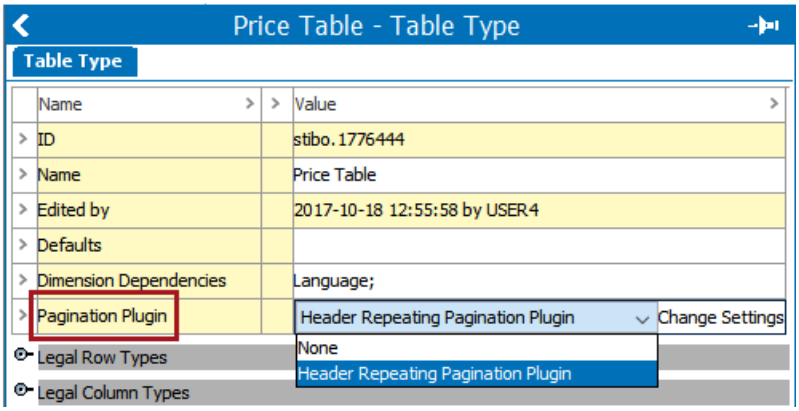
2. Example with **French** Free Text values displayed in a French-language Context:



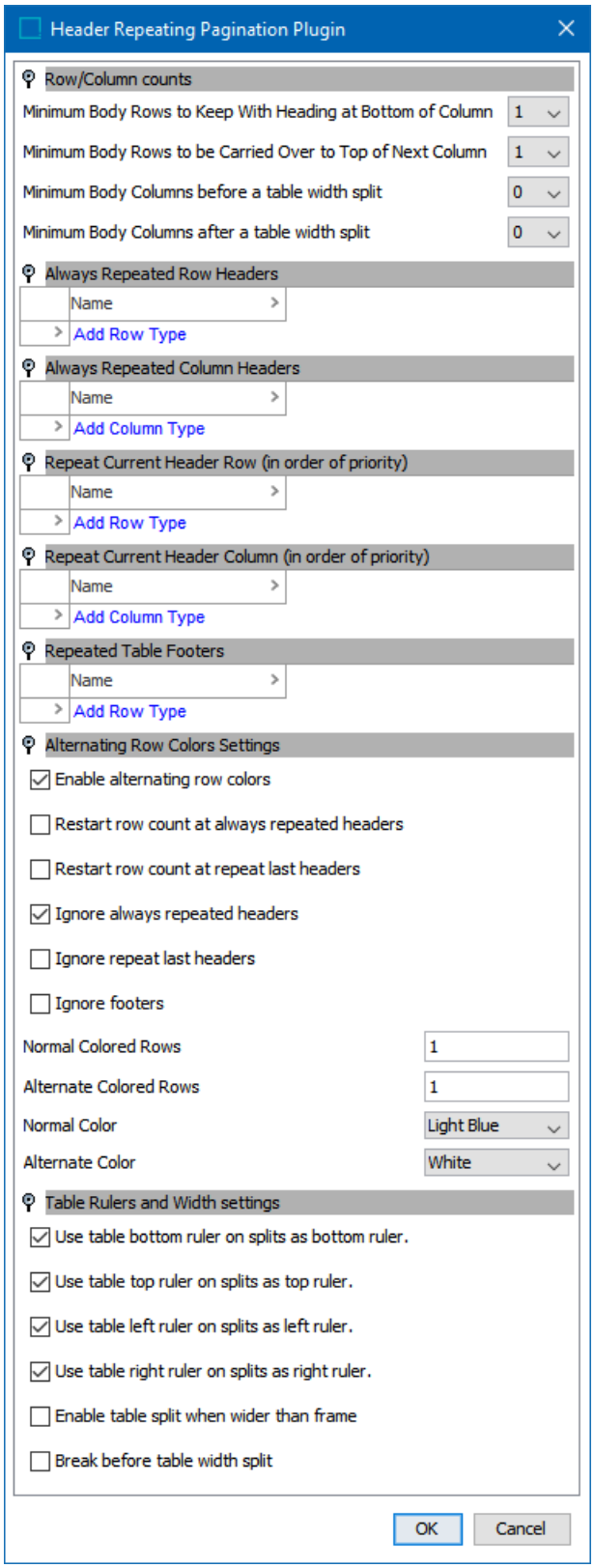
Pagination Plugin

The Pagination Plugin field is where the **Header Repeating Pagination Plugin** is selected. To choose this plugin:

1. On the table type tab, click in the **Pagination Plugin** field and select **Header Repeating Pagination Plugin**. ('None' will appear as the default selection.)



2. Click on Change Settings. The **Header Repeating Pagination Plugin** displays.


Header Repeating Pagination Plugin
Row/Column counts
Minimum Body Rows to Keep With Heading at Bottom of Column
1
Minimum Body Rows to be Carried Over to Top of Next Column
1
Minimum Body Columns before a table width split
0
Minimum Body Columns after a table width split
0
Always Repeated Row Headers
Name
Add Row Type
Always Repeated Column Headers
Name
Add Column Type
Repeat Current Header Row (in order of priority)
Name
Add Row Type
Repeat Current Header Column (in order of priority)
Name
Add Column Type
Repeated Table Footers
Name
Add Row Type
Alternating Row Colors Settings
Enable alternating row colors
Restart row count at always repeated headers
Restart row count at repeat last headers
Ignore always repeated headers
Ignore repeat last headers
Ignore footers
Normal Colored Rows
1
Alternate Colored Rows
1
Normal Color
Light Blue
Alternate Color
White
Table Rulers and Width settings
Use table bottom ruler on splits as bottom ruler.
Use table top ruler on splits as top ruler.
Use table left ruler on splits as left ruler.
Use table right ruler on splits as right ruler.
Enable table split when wider than frame
Break before table width split
OK
Cancel

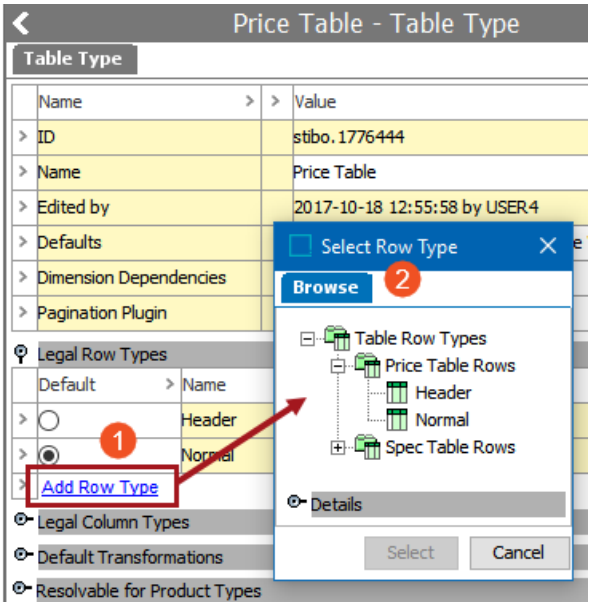
Instructions on how to configure the Header Repeating Pagination Plugin are not covered in this topic. For information, refer to the **Header Repeating Pagination Plugin** topic in this guide.

Legal Row Types

Every table type must contain at least one legal (valid) **row type** before the table type can be used to create tables in the product or classification hierarchies.

The following steps explain how to add a legal row type to a table type.

1. On the Table Type tab, expand the Legal Row Types flipper and click **Add Row Type**.
2. In the Select Row Type dialog, click the **Browse** tab to navigate to the desired row type(s), then click **Select**. Row types may be multi-selected by holding down Shift or Ctrl when making selections.

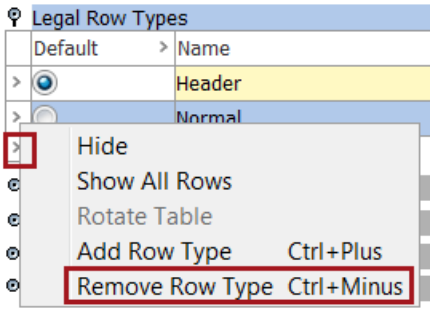


3. The row types are now legal for the table type.

Removing a Row Type

To remove a row type so it is no longer legal, follow these steps:

1. On the Table Type tab, expand the **Legal Row Types** flipper.
2. Right-click on the arrow to the left of the row type that you would like to remove, then select **Remove Row Type**.



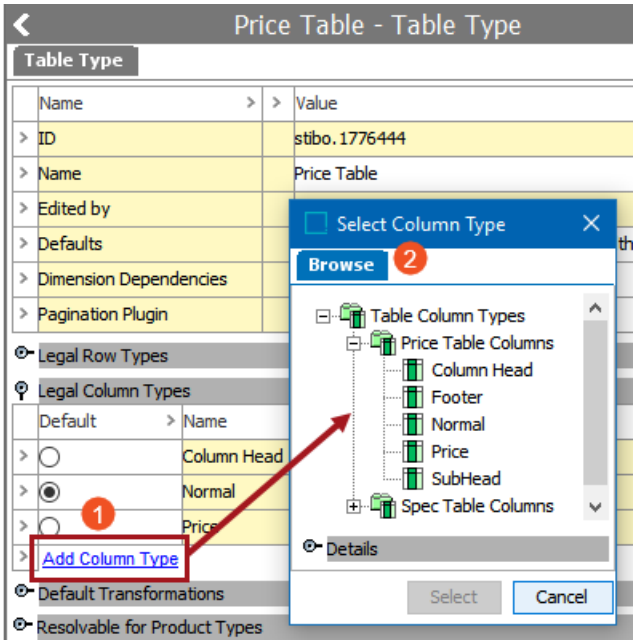
3. The row type is now removed.

Legal Column Types

Every table type must contain at least one legal (valid) **column type** before the table type can be used to create tables in the product and/or classification hierarchies.

The following steps explain how to add a legal column type to a table type.

1. On the Table Type tab, expand the Legal Column Types flipper and click **Add Column Type**.
2. In the Select Column Type dialog, click the **Browse** tab to navigate to the desired column type(s), then click **Select**. Column types may be multi-selected by holding down Shift or Ctrl when making selections.

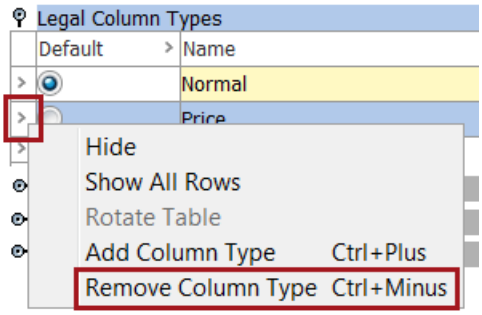


3. The column types are now legal for the table type.

Removing a Column Type

To remove (unlegalize) a column type, do the following:

1. On the **Table Type** tab, expand the **Legal Column Types** flipper.
2. Right-click on the arrow to the left of the column type that you would like to remove, then select **Remove Column Type**.



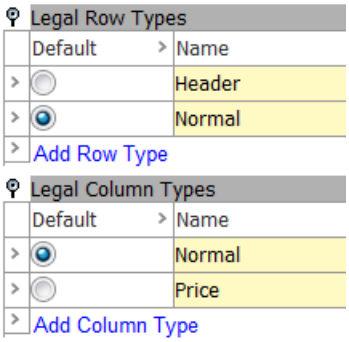
3. The column type is now removed.

Default Row and Column Types

If more than one row type or column type is added, a **default** type must be specified for each. Default column types are required to use the **Create Table From Clipboard** option.

Tables created using Create Table From Clipboard are 'pasted' from an external application such as Excel. Since no prompt appears that asks you to choose which row or column types to use, the system will build the table using the specified **default** row and column types.

To define a default row type or column type, click the radio button next to the preferred row type and column type. The default type can be overridden in the table if needed.

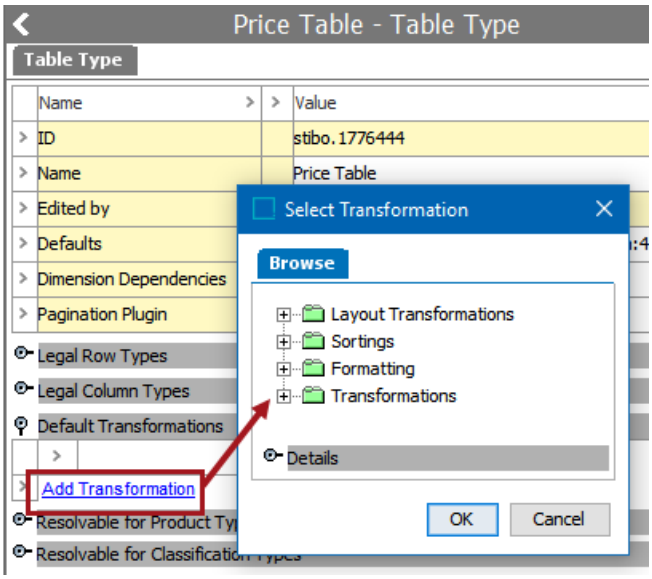


Refer to the **Creating Tables From the Clipboard** topic in this guide for more information.

Default Transformations

Transformations that apply to every table created from a table type are selected from the **Default Transformations** area. To apply a default transformation to the table type, follow these steps:

1. On the Table Type tab, expand the Default Transformations flipper and click **Add Transformation**.
2. In the **Select Transformation** dialog, navigate to the relevant transformation, then click **OK**.



3. Repeat these steps to add additional transformations.

Descriptions of these transformations and instructions on how to configure them are not included in this topic. Refer to the **Table Transformations** topic of this guide for more information.

Resolvable for Product Types and Classification Types

All table types must be made **resolvable** for at least one product, classification, or product-override object type before the table type can be used to create tables in the Tree. 'Resolvable' essentially means the same thing as 'valid.' Though a table can be built at a higher level in the product or classification hierarchy to take advantage of inheritance, the table cannot be previewed or mounted in InDesign on any object where it has not been made resolvable (valid). To make object types valid for table types, follow these steps:

1. On the **Table Type** tab, expand the **Resolvable for Product Types** and/or **Resolvable for Classification Type** flipper.
2. Check the box(es) for the product type(s) and/or classification type(s) where the table should be resolvable.

Configuring Table Formatting

When you create table types and tables, you can apply formatting rules that determine how the table looks in **InDesign** and in the STEP Workbench on the **Preview** tab.

To format a table, you have to configure the formatting definitions in both STEP and InDesign. In STEP, you assign formatting rules, and in InDesign the rules are interpreted. For example, if you have specified a light green background color and a thin border, the actual color and thickness of the border depends on how the master document is set up in InDesign.

The topics within this documentation section explain how to set formatting on entire tables, rows, columns, and cells.

Formatting Rules

Table formatting is based on the principle of **inheritance**.

Formatting inheritance enables you to define table formatting once, then have that formatting apply to all tables of the specific type. Formatting in tables can be inherited from the default settings applied to the table types, row types, and column types in System Setup, as well as from higher levels of the product hierarchy.

For example, in System Setup, you have a table type where the row height is set to 10 mm on the row type. However, on the actual table, you may need the row height to be 9 mm for a particular subset of products. In that instance, the definition inherited from System Setup would need to be overridden locally.

Inherited tables in the product hierarchy also inherit all formatting applied to the source table defined on the higher level. In turn, this formatting can be overridden on any table built on a lower level, which **localizes** the table. Refer to the **Table Inheritance and Suppression** topic for more information on the basic principles of table inheritance.

Additionally, definitions are inherited from within the table itself. For example, cells will inherit the formatting applied to rows and columns; rows and columns will inherit formatting applied to entire tables, etc., and all of these can be overridden as well.

Selecting Where to Apply Formatting Rules

Formatting rules can be defined **generally** in System Setup on table types, row types, and column types; and **locally** in tables that are built on a specific product, classification, or product-override object.

You can apply table formatting on the following elements:

- Table types
- Column types
- Row types
- Table in product hierarchy

- Table rows
- Table cells

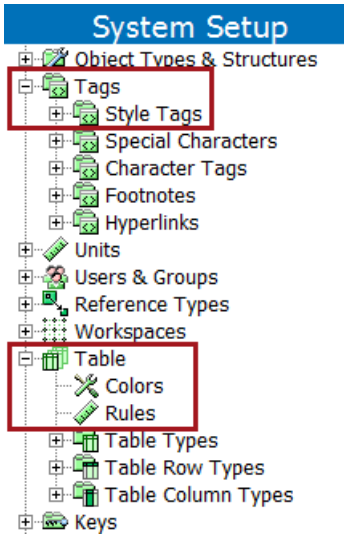
Note: It is recommended to apply all general formatting rules in System Setup to limit the amount of local formatting needed on individual tables. This makes it easier for you to gain an overview of all table formatting.

Configuring Table Formatting in System Setup and InDesign

Table formatting is used in STEP and InDesign to enable users to format or create their own styles like fonts, text colors, text styles, text sizes, and different background colors. For rules, users can apply thickness and colors to the rules. These settings are required for designing tables.

Formatting definitions for STEP Tables are configured in two places: the **System Setup** tab in the STEP Workbench and in **publication templates** created in InDesign using Print Publisher.

Table formatting definitions in STEP are composed of the setups for **Colors**, **Rules**, and **Style Tags**. The corresponding setups in publication templates are **swatches**, **line styles**, and **paragraph styles**.



The following sections of this documentation explain both the STEP Workbench and the corresponding Print Publisher publication template configurations required to format tables.

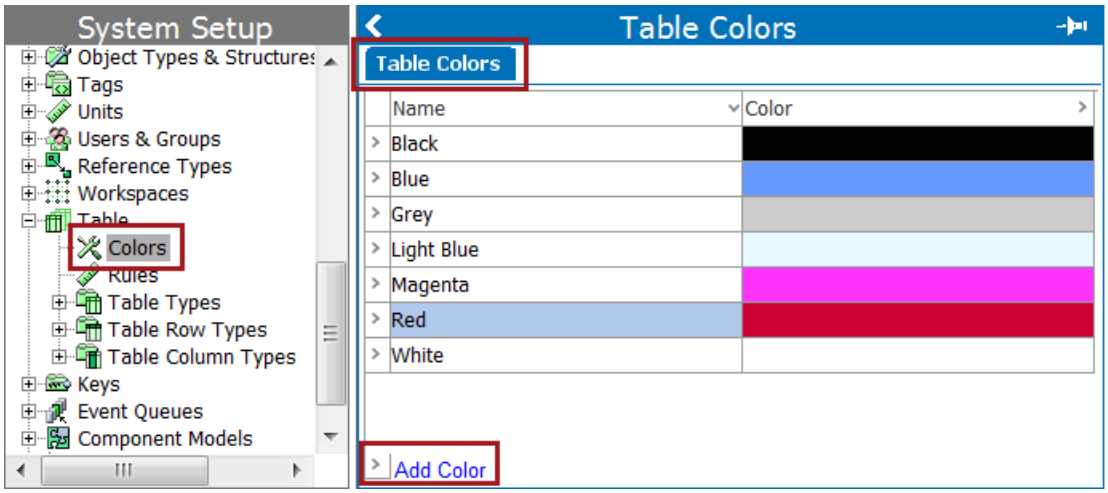
Defining Table Colors in STEP

Colors in STEP are used to define the colors applied to rule lines and for the background shading of cells, rows, columns, and entire tables themselves. These colors are used in the STEP Table **Preview** view in the workbench to provide a rough approximation of what the table will look like on the InDesign page.

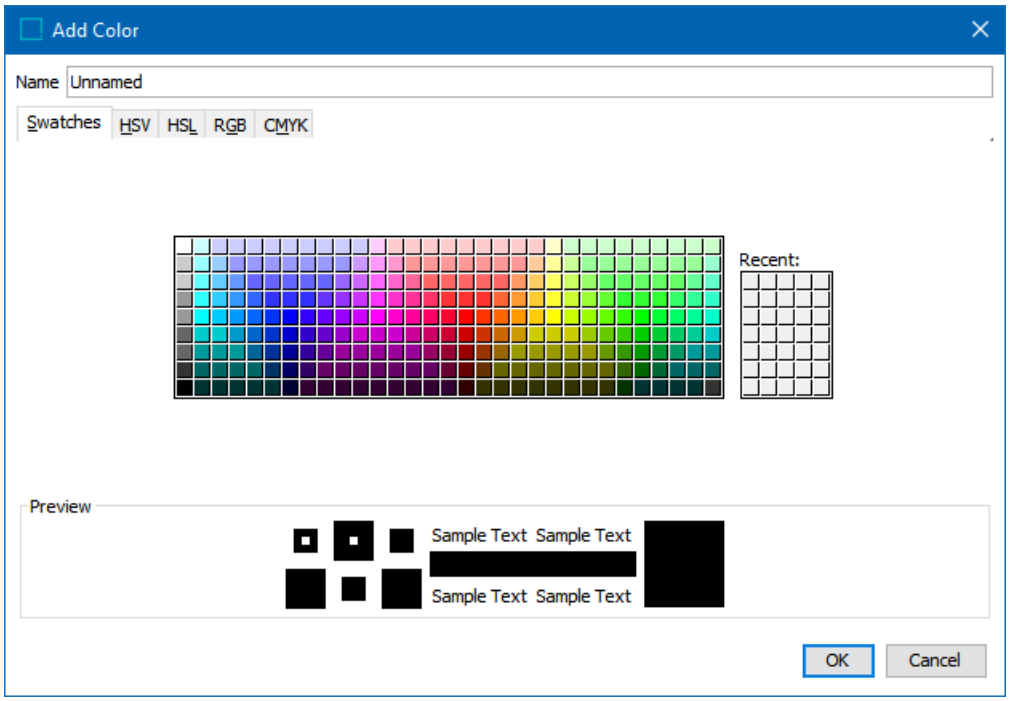
For these colors to display correctly on the InDesign page, each color used in a table must have a corresponding color **Swatch** defined in the publication template that will be used to mount these tables InDesign. For more information on configuring colors in the publication template, refer to the **Configuring Table Styles in Publication Templates** topic in this guide.

The following steps describe how to create a new color in STEP.

1. In System Setup, navigate to Table > **Colors**.
2. On the Table Colors tab, click **Add Color**.



3. In the **Add Color** dialog, enter a name for the new color.



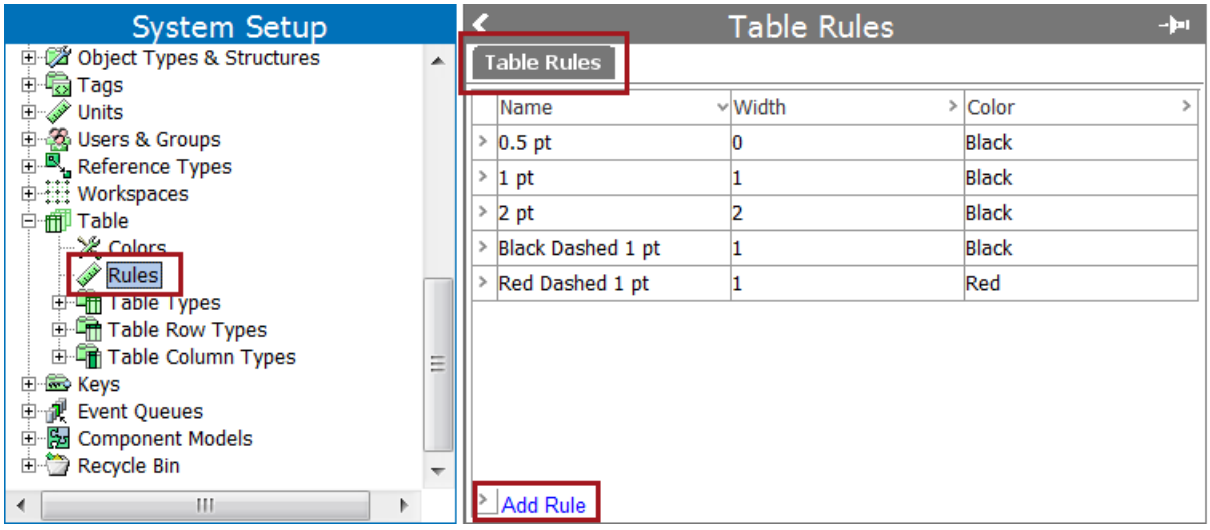
4. On the **Swatches** tab, select the preferred color.
5. Alternately, you may create a color from one of the four additional tabs:
   - HSV (Hue, Saturation, Value)
   - HSL (Hue, Saturation, Lightness)
   - RGB (Red, Green, Blue)
   - CMYK (Cyan, Magenta, Yellow, Black)
6. Click **OK**.

Note: Even though the **Add Color** dialog provides fairly advanced options for creating colors, colors created in STEP are only used to render the color of rule lines and table cells in the STEP Tables **Preview**. To mount tables in InDesign with the same color, you must create a corresponding color **swatch** for your publication template in InDesign. The name of the color created in STEP and the swatch created in InDesign must match exactly, as both names are case sensitive.

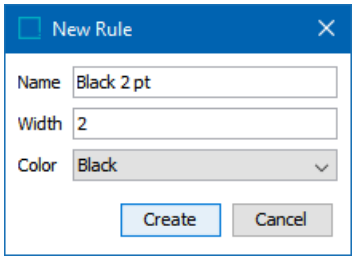
Defining Table Rules in STEP

Rules in STEP are used to define the width and color of rule lines used in STEP Tables. Rules are used in the table **Preview** view in the workbench to provide a rough approximation of what the table will look like on the InDesign page. Table rules created in STEP must also have corresponding **Line Styles** defined in the publication template through the Print Publisher **Table Settings** dialog. The following steps explain how to define a table rule in STEP.

1. In **System Setup**, expand **Table**, then click **Rules**.
2. On the **Table Rules** tab, click **Add Rule**.



3. In the **New Rule** dialog, enter a **Name** and **Width** for the new rule. The width of rule lines are always measured in points. Select a **Color** from the dropdown list.



   - Click **Create**.

Note: If needed, any of the aforementioned values (Name, Width, and Color) may be changed in STEP after the rule has been created.

Considerations and Limitations

Rule Name

The **Name** of the rule must exactly match the name of a corresponding **line style** created in the publication template in InDesign. The name in both locations is case sensitive.

Rule Width

The value entered for **Width** is a number that defines the width of the rule line in **points**, which is typically a number from 1 to 3 (but can be larger if needed). STEP will not accept a number lower than 1 in the **Width** field, even if the output for the line in InDesign will be less than 1 pt (for example, 0.25 pt or 0.5 pt).

The Width value entered in STEP is only valid for the table preview, as the preview functionality cannot represent a line smaller than 1 pt. Due to this, a rule line intended to only be 0.25 pt or 0.5 pt must always display as 1 pt in STEP. The true display of the rule line in InDesign will be set in the publication template.

Rule Color

The options available in the **Color** dropdown list are limited to those that have already been created under Table > **Colors** in System Setup. The previous section of this documentation, **Defining Table Colors in STEP**, explains the process for creating colors in STEP.

Dashed, Dotted, and Other Non-solid Rule Styles

The STEP Table Preview does not support display of dashed, dotted, or other non-solid line styles. Rule lines will still appear as solid lines in the preview. Non-solid styles are only visible from actual pages created in InDesign.

With this in mind, you may choose to differentiate a dashed rule from a solid rule in STEP by assigning a non-standard color to the rule line. For example, a bright fuchsia color could be a visual indicator—in the table preview only—that the rule line is 'different'.

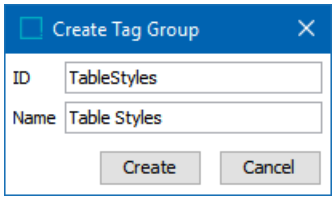
Defining Style Tags for Tables

Style tags in STEP are commonly used to apply text styling to STEP Tables. Style tags define styles such as bold, underline, italic, color, left aligned, right aligned, center aligned, and so on. Style tags can be applied at the table, column, row, or cell level. Typically, each style tag in STEP will match, by name, a corresponding paragraph style in the InDesign publication template.

Note: The following steps describe how to configure a *sample setup* for a style tag and tag group intended to be used for tables; this is *not* all-encompassing documentation on the subject of tags and style tags. Full instructions for how to create style tags in STEP are located in the **Tags** section of the **System Setup** documentation.

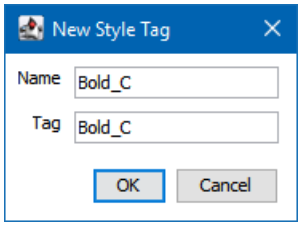
Create a Tag Group for Table Style Tags

1. In System Setup, navigate to Tags > **Style Tags**.
2. Right-click and select **New Tag Group**.
3. Give the new tag group an ID and Name that identifies the group as a container for tables-only styles, e.g., 'Table Styles'. Click **Create**. (This is merely a 'recommended practices' suggestion—style tags used in tables may be created in the same tag group as style tags that are used for basic text formatting in rich text editors in STEP.)

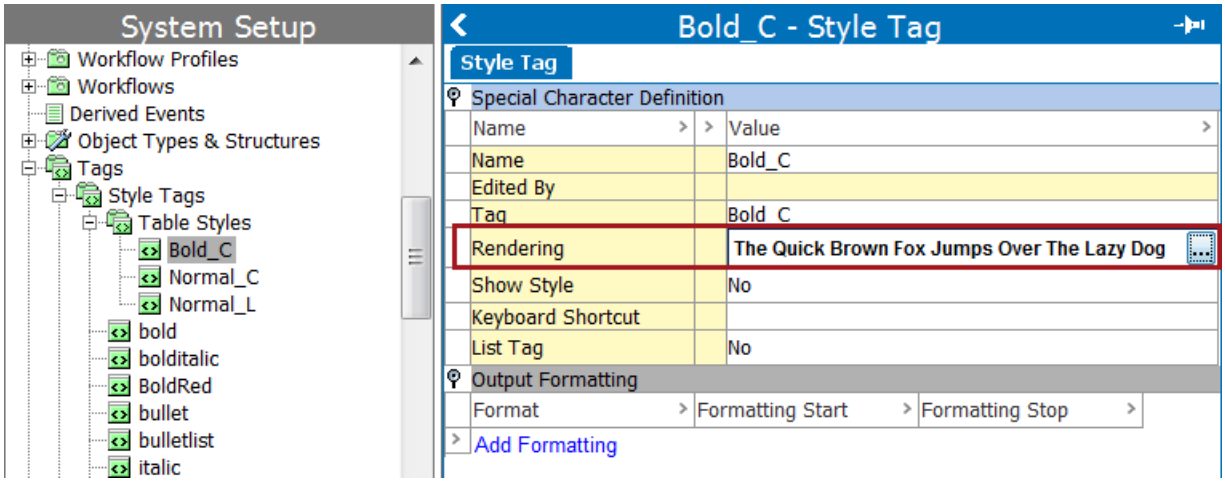


4. Right-click the newly created 'Table Styles' tag group, then select **New Tag**.
5. Give the new style tag a **Name** and **Tag** that indicates its intended output in InDesign. For example, the style could be named **Bold_C** to indicate that it is a bold, centered text style. (This is merely a suggestion, as the value of **Name** and **Tag** can be anything you would like as long as there is a matching paragraph style in InDesign.)

Note: To avoid confusion, it is recommended to give **Name** and **Tag** the same value.



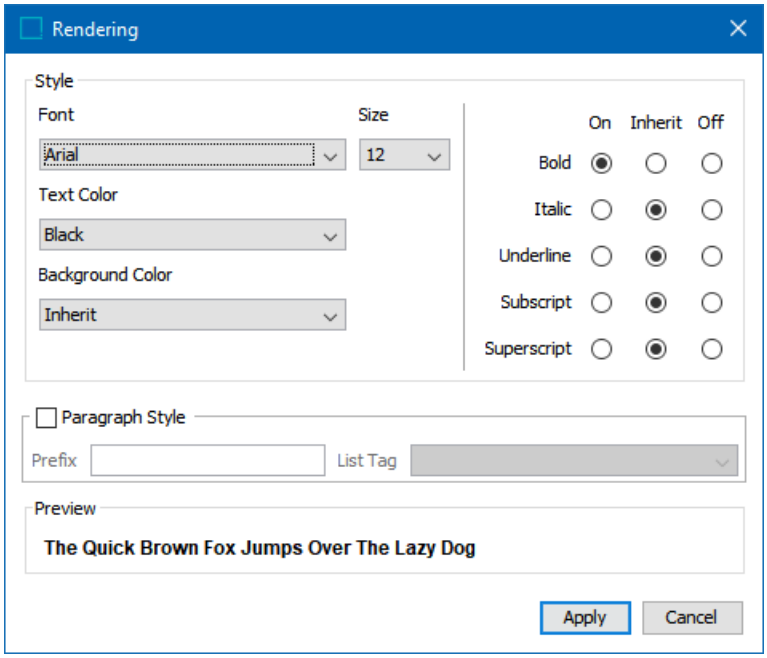
6. With the newly created style tag selected, click inside the **Rendering** field on the **Style Tag** tab, then click the ellipsis button (...).



7. In the **Rendering** dialog, make the selections that will approximate the intended look of the style on the InDesign page, then click **Apply**.

   In this example, the options to display the **Bold_C** style as 12 pt black Arial Bold have been selected. A preview of the text is shown at the bottom of the dialog.

> **Note:** The 'Paragraph Style' checkbox is only used for HTML output of style tags that are used to define bullet lists. For more information, refer to the **Creating Tag Groups and Tags** topic in the **System Setup** documentation.



8. After the Rendering dialog closes, the view reverts back to the **Style Tag** tab.
9. On the **Style Tag** tab, select **Yes** for **Show Style**.

   Note: Selecting **No** will make the tag unavailable for selection in all dropdown lists available in STEP. **No** is only used for 'hidden' styles such as stibo.STIBOSPELL, which is used by the system to highlight spelling errors in STEP's text editors.

10. Leave **Keyboard Shortcut** blank if you intend to use this style only in STEP Tables. Keyboard shortcuts are only relevant for tags intended for use in STEP rich text editors, since there is no way to use a shortcut to apply a style tag anywhere inside a table.
11. Select **No** for **List Tag**, since this style tag will not be used to configure the output of bullet lists in HTML.
12. **Output Formatting** is not required for style tags created specifically to apply styling to tables. These style tags are matched by Name to a corresponding paragraph style in InDesign.

Limitations of Style Tag Display in the STEP Tables Preview

The STEP Tables Preview will only display text as left aligned, even if the style tag is intended to display centered, right-aligned, or justified text in InDesign. However, this is merely a limitation of the preview; the text styles will display correctly when the table is mounted in InDesign.

Note that any settings applied in the **Rendering** dialog (bold, color, italics, etc.) *will* display properly in the preview.

Configuring Table Styles in Publication Templates

To format STEP tables on InDesign pages, a parallel set of formatting configurations must be created in STEP and InDesign for the following:

- Colors (used both for rule lines and background shading)
- Rule lines
- Text styles

In STEP, these configurations are the **Colors**, **Rules**, and **Style Tags** created on the System Setup tab. The corresponding configurations in InDesign are **swatches**, **line styles**, and **paragraph styles**. The InDesign configurations are created in the InDesign **publication template** that will be used to mount (generate) tables in InDesign.

This topic deals only with the table formatting definitions created in publication templates. Full details on how to configure the corresponding definitions in STEP are outlined in the **Configuring Table Formatting in System Setup and InDesign** topic.

Example of a Styled Table in STEP

The following screenshot shows a styled table in STEP as it appears in the STEP Table Preview. The background colors, rule lines, and text styles have been applied using the settings created in System Setup. In order for the table to appear with the same colors, text styles, and rule lines in InDesign, the corresponding settings must be created in the publication template.

Note: If no styles are defined for the table in STEP, the table will be mounted in InDesign with basic InDesign paragraph styling, and the table must then be styled manually using the standard InDesign table editor. Manual styling of tables on InDesign pages is discouraged, as formatting not connected to STEP can be easily lost when tables are updated.

Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

Product Name	Part No.	Image	Product Name	Price
Christmas Party Hat	121184-A		Christmas Party Hat	$7.99
Cosmic Party Hat	121177-A		Cosmic Party Hat	$3.99
Pink & Green Party Hat	121171-A		Pink & Green Party Hat	$2.99
Pink & Green Pom-Pom Hat	121193-A		Pink & Green Pom-Pom Hat	$2.99
Political Party Hat	121192-A		Political Party Hat	$17.76

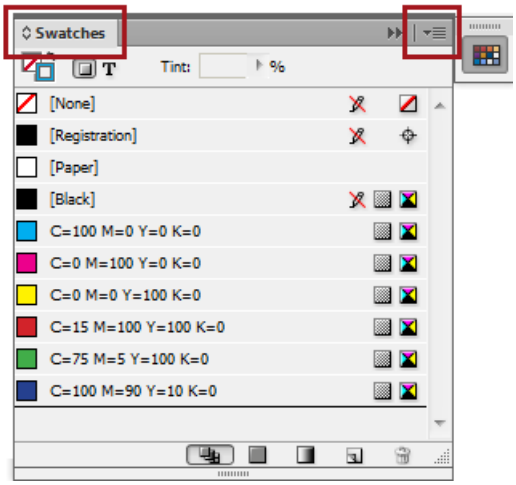
Transformation	Parameters
Alternate Row Colors	Color 1 rows "White" then 1 "Light Blue". Restart count after...

Add Transformation

Configuring Table Colors in InDesign

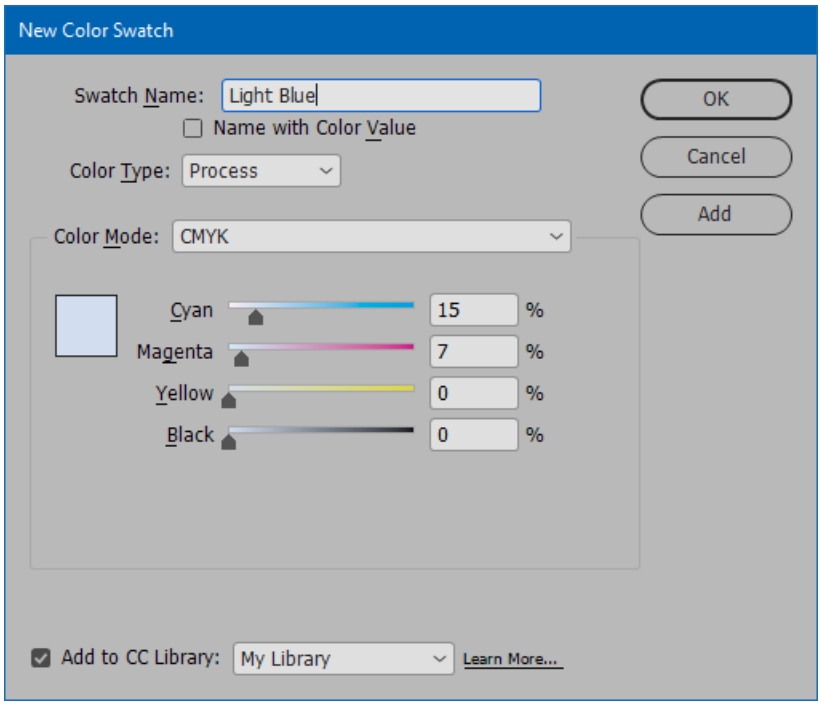
Colors defined in STEP are configured in InDesign as **Swatches**, as follows:

1. In InDesign, navigate to Window > Color > **Swatches** (or press F5). The **Swatches** panel displays.



2. Click the **Options** menu in the upper right corner of the **Swatches** panel, then click **New Color Swatch**.
3. On the **New Color Swatch** dialog, deselect the **Name with Color Value** checkbox, then type a name in the **Swatch Name** field.

Note: The name of the swatch must be identical to the corresponding color created in STEP. Names of colors and swatches are case sensitive.



4. Adjust the color values as needed, then click **OK**.

Loading Swatches From Another InDesign Document

To load swatches from another InDesign document:

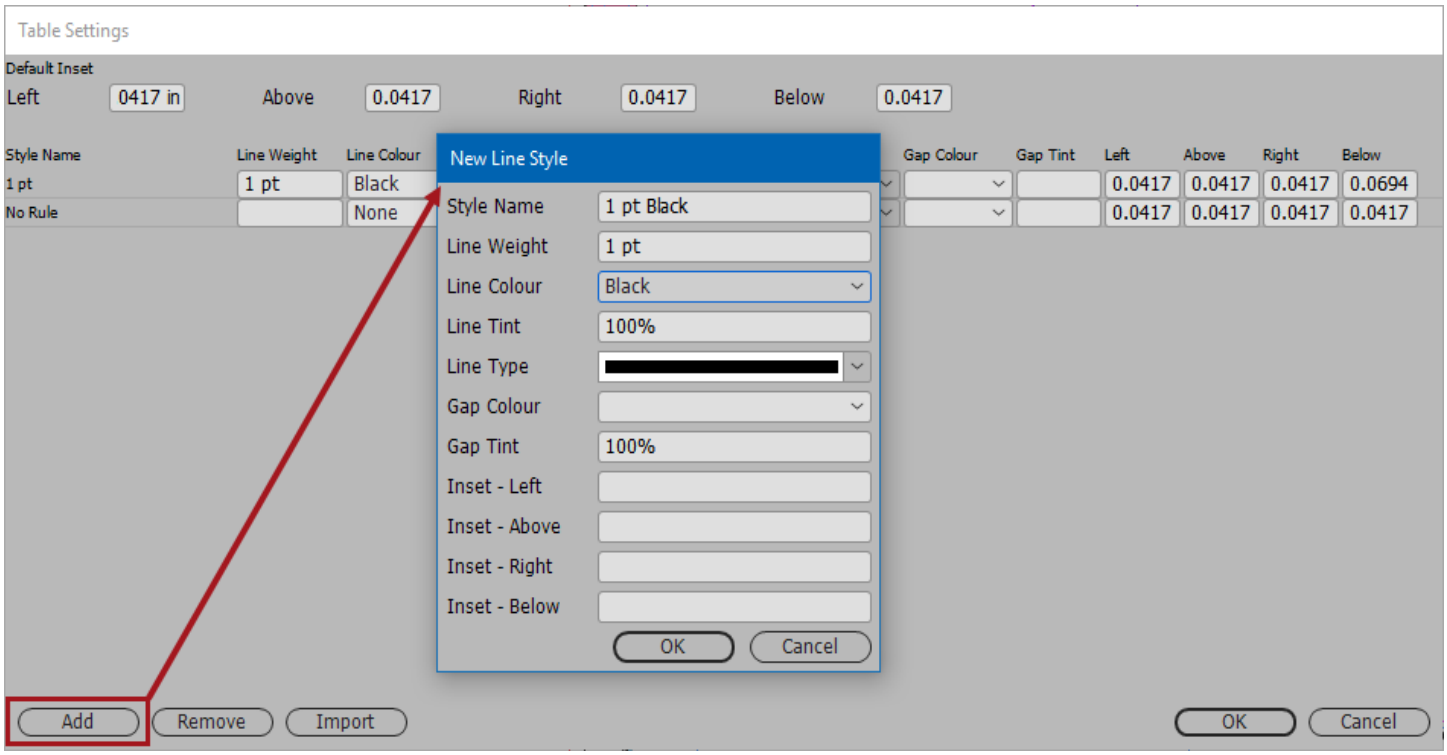
1. In the **Swatches** panel, click the **Options** menu, and then click **Load Swatches**. An **Open a File** dialog box displays.
2. Navigate to the InDesign file that contains the swatches that you would like to import, then click **Open**. (This file does not have to be another publication template; it can be any InDesign document.)
3. The Swatches from the selected InDesign file will automatically import.

Configuring Table Line Styles in InDesign

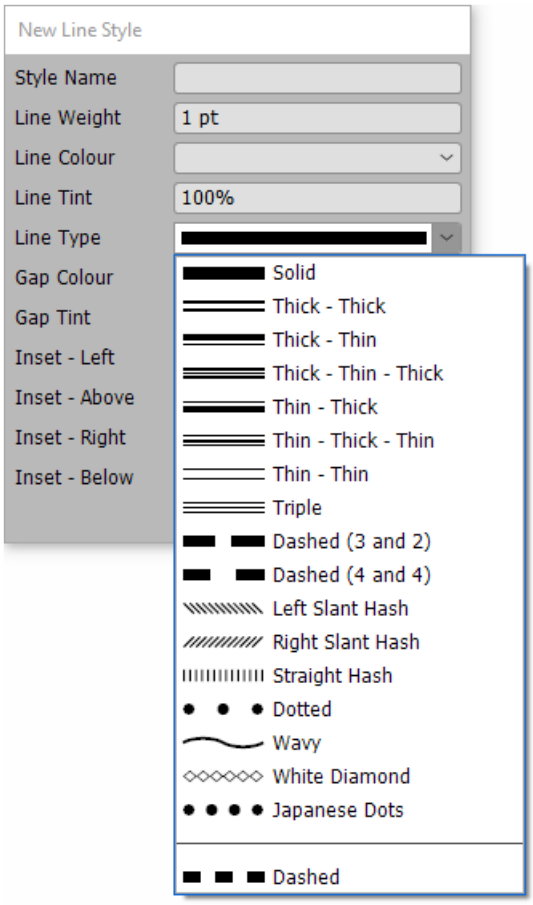
Rules defined in STEP are configured as table **Line Styles** in InDesign via the STEP > **Table Settings** menu. Line styles govern the lines ('borders' or 'rulers') that appear between cells and/or surround the table.

To create line styles in the InDesign publication template:

1. Navigate to STEP > **Table Settings**. The **Table Settings** dialog displays.
2. Click **Add** in the lower left-hand corner. The **New Line Style** dialog displays.



3. Populate the fields in the **New Line Style** dialog as follows:
   - **Style Name:** Name of the line style. Must exactly match the name of the corresponding rule created in STEP. Is case sensitive.
   - **Line Weight:** Width in points. The measurement unit will always default to points regardless of what measurement unit is being used for the rest of the page (for example, mm, inches, or picas).
   - **Line Colour:** Color of the line style. An InDesign **swatch** for the color must first be created in the publication template before the color will appear in this dropdown list.
   - **Line Tint:** Opacity level of the line style. Default is 100%. Value must be typed.
   - **Line Type:** Specify whether the line style should be solid (most common) or a different style such as dashed or dotted. The same line styles available in the InDesign **Stroke** panel are available in the Line Type dropdown.



- **Gap Colour:** Only applicable for non-solid rule lines. Defines the color that goes in between the dashes, dots, hashes, etc. The same colors (swatches) that appear in the dropdown list for Line Colour appear in the Gap Colour dropdown. Leave blank for solid rule lines.
- **Gap Tint:** Opacity level of the gap color. Default is 100%.
- **Insets (Left, Above, Right, Below):** How much inset space ('padding') should be placed between the edge of a cell that is bordered by the rule line and the text or image content within the cell. If left blank—or if a value of 0 is inserted—the insets will default to InDesign's default table cell inset, which is 4 points (or, 0.0556 inches or 1.411 mm).

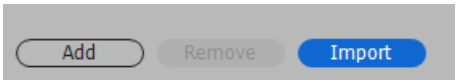
Note: If you would like no inset padding at all, enter a hairline space value of .0001. The system will recognize this value as being so close to 0 that there will be no visible inset padding.

4. Click **OK** when finished. Any values entered during the initial creation of the line style may be edited later if needed.

Loading Table Line Styles From Another InDesign Document

To load table line styles from another InDesign document:

1. Navigate to STEP > **Table Settings**, then click the **Import** button in the lower left corner of the **Table Settings** dialog box.

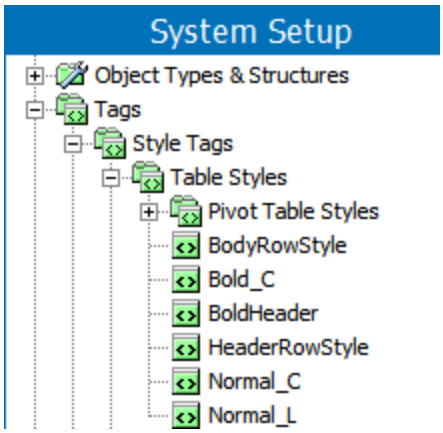


2. An **Open a File** dialog box displays. Locate the InDesign publication template containing the line styles that you would like to import, then click **Open**.
3. The line styles from the selected InDesign file will automatically import.
4. Click **OK** to complete.

Configuring Paragraph Styles for Tables in InDesign

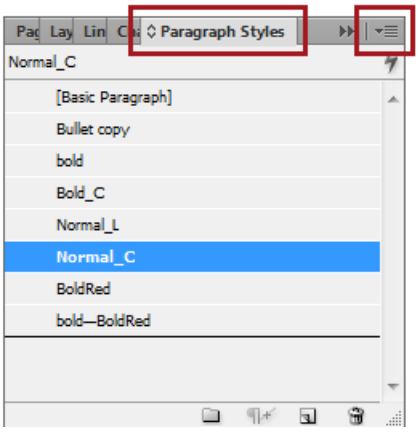
Style tags created in STEP and applied to tables are configured as **paragraph styles** in InDesign.

For example: If the tables you are mounting from STEP contain the styles 'HeaderRowStyle' and 'BodyRowStyle', then there must be corresponding paragraph styles also named 'HeaderRowStyle' and 'BodyRowStyle'. STEP style tags and InDesign paragraph styles are both case sensitive and must match exactly.

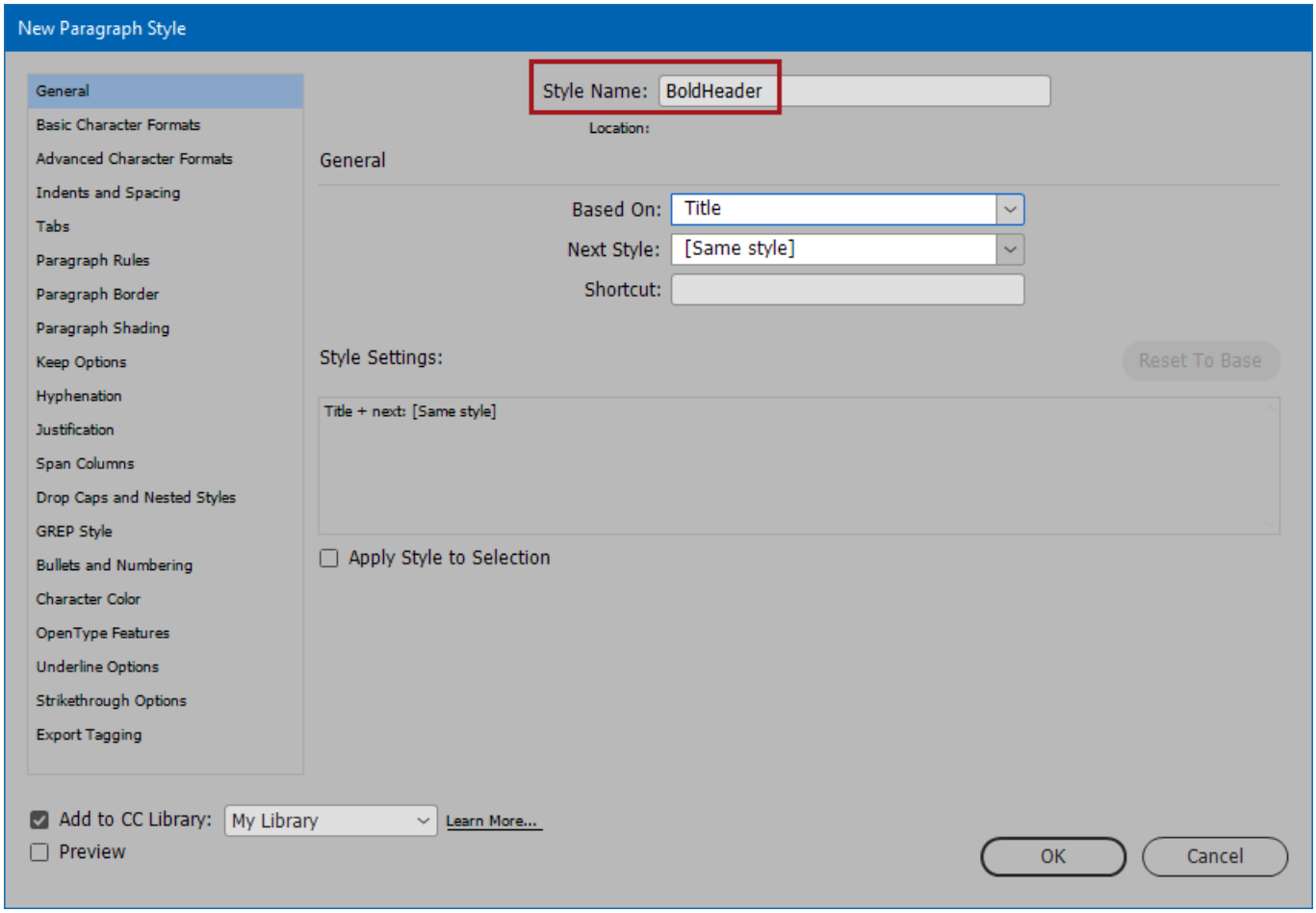


To create a paragraph style in InDesign:

1. In InDesign, navigate to Window > Styles > **Paragraph Styles** (or press F11). The **Paragraph Styles** panel displays.



2. Click the **Options** menu in the upper right corner of the **Paragraph Styles** panel, then click **New Paragraph Style**.
3. On the **New Paragraph Style** dialog, enter a **Style Name** that exactly matches the corresponding style tag in STEP.

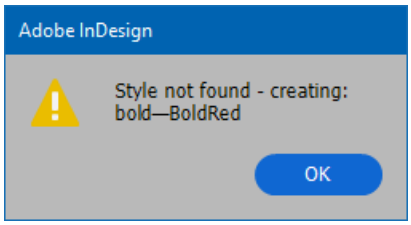


4. Continue configuring the paragraph style as needed, then click **OK** to complete.

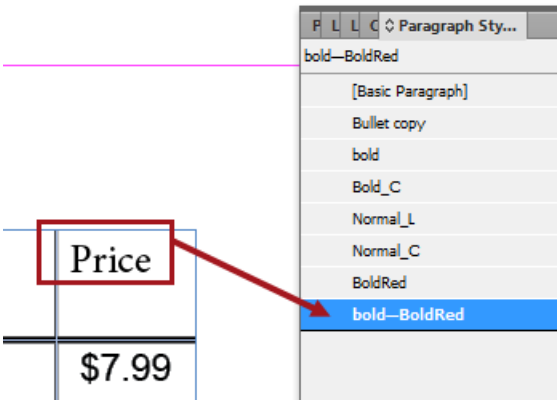
Merge of Row / Column Style Names

In the case where a row with a style applied crosses a column with a style applied, a third paragraph style is created when the table is mounted in InDesign. The name of this third paragraph style (sometimes called an 'intersection style') is a combination of the name of the paragraph style used for the row and the paragraph style used for the column, connected by an em dash.

For example, a table may contain a row style called 'bold' and a column style called 'RedBold'. In the cells where these rows and columns cross over each other, the two styles will overlap. When the table is mounted in InDesign, the system will automatically create a new paragraph style called 'bold—BoldRed'.



However, with the system not knowing which of the two paragraph styles to pick up, the newly created 'intersection' style will appear as a generic (basic) paragraph style.



Note: To avoid the creation of 'intersection' styles in InDesign, it is recommended to apply text styling at the **cell** level in tables where an overlap will occur between row and column styles. 'Intersection' styles are essentially duplicates of existing styles and can cause clutter in a long list of paragraph styles.

For more information on applying formatting to table cells, refer to the **Configuring Settings for Cells** topic in this guide.

Configuring Table Settings

Table settings are formatting options that are applied to tables either as **global** default settings on table object types in System Setup or as **local** settings on table definitions in the Tree. These settings not only include style tags, colors, and rules, but other formatting options such as table width, column width, row height, cell rotation, text alignment, table orientation, and image scaling options.

When applied globally in System Setup, the settings apply to table object **types**—table types, column types, and row types. When applied locally, these settings apply to table definitions—tables, rows, columns, and cells.

Global default settings inherit to the associated table types, column types, and/or row types wherever they are used in STEP. Using global settings lowers the amount of maintenance needed on tables that need similar formatting.

Local settings are applied if an exception is needed to the global settings, since local settings will override global settings. Another reason to use local settings is if you do not want to be locked into global default settings in the first place. Local settings can still be created once and used many, through inheritance. They can be applied to table definitions at a higher node in the product hierarchy and inherited by child nodes in the Tree below.

Note: Style tags, colors, and rules must be created in System Setup before they can be applied to table types and table definitions. For more information, refer to the **Configuring Table Formatting in System Setup and InDesign** topic in this guide.

Available Table Settings

The following table lists the available table settings and the table elements from which they can be accessed.

Setting	Availability			
	Table & Table Type	Row & Row Type	Column & Column Type	Cell
Width	Yes	No	Yes	No
Height	No	Yes	No	No
Text Style	Yes	Yes	Yes	Yes
Background Color	Yes	Yes	Yes	Yes
Rule Above	Yes	Yes	No	Yes

Setting	Availability			
Rule Below	Yes	Yes	No	Yes
Rule Left	Yes	No	Yes	Yes
Rule Right	Yes	No	Yes	Yes
Vertical Alignment	Yes	Yes	Yes	Yes
Cell Rotation	Yes	Yes	Yes	Yes
Process Flag	Yes	Yes	Yes	Yes
Cell Story Direction	Yes	Yes	Yes	Yes
Cell Image Scale	Yes	Yes	Yes	Yes
Table Orientation	Yes	No	No	No
Keep With Next	No	Yes	No	No

For more information on how to apply these settings to the relevant table elements, refer to the following subtopics within this documentation section:

- Configuring Settings for Table Types and Tables
- Configuring Settings for Column Types and Columns
- Configuring Settings for Row Types and Rows
- Configuring Settings for Cells

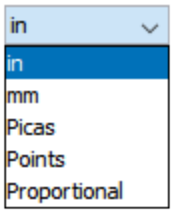
Descriptions of Table Settings

Descriptions of all available table settings are as follows:

Width

When set on a table or table type, this setting defines the width of the entire table. When set on a column or column type, this setting defines the width of the column. Available units are inches, millimeters, picas, and points.

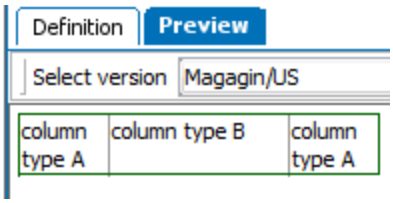
Also included in the dropdown is **Proportional**, which is used with columns. This setting provides the option to specify proportionality to other columns in the table.



Example: When Table X is mounted, then column type B will be twice as wide as column type A. The proportion is 2 to 1.

Table X	
Column Type A	Proportional is set to 1
Column Type B	Proportional is set to 2

Proportional is set to 1 for Column Type A and Proportional is set to 2 for Column Type B. Column type B will be twice as wide as column type A, as illustrated in this screenshot from the Preview tab in STEP:



To prevent having to select a unit every time a width is set, a default unit can be set in **System Settings** under Users & Groups. Refer to the **Table Defaults** section of the **System Settings** documentation for more information.

Height

Only available for **rows**. Defines the height of the specified row type or row. Available units are inches, millimeters, picas, and points.

To prevent having to select a unit every time a height is set, a default unit can be set in System Settings. Refer to the **Table Defaults** section of the **System Settings** documentation for more information.

Text Style

Defines the text style for the table, column, row, or cell. Contents of the dropdown list are populated by style tags created in System Setup.

Background Color

Sets the background color of the table, column, row, or cell. Contents of the dropdown list are populated by table colors created in System Setup.

Rule Above

Controls which line style is used as the top border of the table, row, or cell. Contents of the dropdown list are populated by table rules created in System Setup.

Rule Below

Controls which the line style is used as the bottom border of the table, row, or cell. Contents of the dropdown list are populated by table rules created in System Setup.

Rule Left

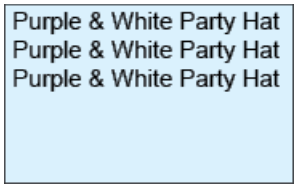
Controls which line style is used as the left border of the table, column, or cell. Contents of the dropdown list are populated by table rules created in System Setup.

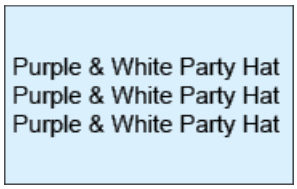
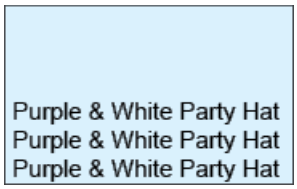
Rule Right

Controls which the line style is used as the right border of the table, column, or cell. Contents of the dropdown list are populated by table rules created in System Setup.

Vertical Alignment

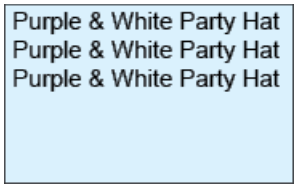
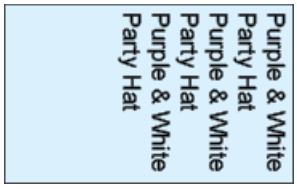
Controls the vertical alignment of cell contents (text and images) as follows:

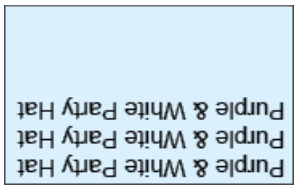
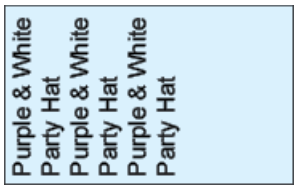
Alignment	Description	Example
Top	Aligns contents to top	

Alignment	Description	Example
Center	Centers contents vertically	
Bottom	Aligns contents to bottom	
Justify	Aligns content evenly from top to bottom	

Cell Rotation

Controls the orientation of cell contents (text or images). Cell contents can be rotated 0, 90, 180, or 270 degrees, as follows:

Cell Rotation	Example
0	
90	

Cell Rotation	Example
180	
270	

Process Flag

Nothing is typically available in this dropdown list. This area is sometimes used to store custom table settings.

Cell Story Direction

Determines whether the contents of the cells in the table (text and images) are displayed horizontally or vertically.

Cell Story Direction	Direction
Horizontal (default)	Sets the text direction to horizontal:
Vertical	Sets the text direction to vertical:

Cell Image Scale

Controls the size of images linked into the cell. Images may be scaled from 25% to 500%.

By default, the Cell Image Scale field is blank. If this field is left blank, and a width or height has not been set on the column or row containing the image, the image will mount at 100% (actual size). If a scale value is entered, the image will mount at the specified size, even if a width or height has been set on the column or row.

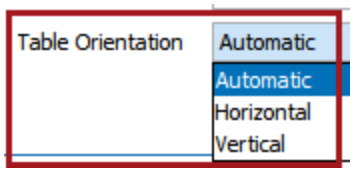
Table Orientation

Determines how STEP calculates cell values based on the placement of the **data providers** (e.g., products) and **data selectors** (e.g., attributes) in the table. This setting enables more predictability in cell values after transformations are applied.

Note: This option is only available when defining settings for table types or tables.

The available Table Orientation options are:

- **Automatic:** This is the default setting. The Automatic orientation calculation treats a table as horizontal if it encounters a data provider in a row, and vertical if it encounters a data provider in a column.
- **Horizontal:** When set to Horizontal, STEP calculates the cell value based on the assumption that the data provider is in the row and the data selector is in the column.
- **Vertical:** When set to Vertical, STEP calculates the cell value based on the assumption that the data provider is in the column and the data selector is in the row.



Data Providers and Data Selectors

The following table explains which content definitions are considered **Data Selectors** and which content definitions are considered **Data Providers**. For full details on these content definitions, refer to the **Content Definitions** section of this guide.

Data Providers	Data Selectors
• Composite Attribute Values • Current Object • First SubProduct, Classification • First SubProduct, Family • Node Reference • Parent • Product/Classification/Asset • Referenced Node • SubClassifications, Classification	• Asset • Asset Reference • Attribute • Attribute Group Attributes (will dynamically resolve to attributes) • Commercial Data • Commercial data aspect • Composite Attribute – All Attributes • Composite Attribute – Single Attribute • Date Spread Commercial data

Data Providers	Data Selectors
• SubProducts, Classification • SubProducts, Family	• Legal Attributes (will dynamically resolve to attributes) • Meta Data Attribute • Parent Name

Keep With Next

Only available for **rows**. Check this box if rows, or rows of the row type, should remain with the next row in the table if the mounted table splits across a column or page. (A table will split across a column or page if it is too large to fully mount in a single column or page.) The row will be mounted onto the following column or page in order to keep it with the next row.

Considerations and Limitations

The following settings are not visible in the STEP Tables Preview:

- Vertical Alignment
- Cell Rotation
- Cell Story Direction

To preview these settings in the table, you must either use the **Proof View** in the workbench or Web UI; or mount the table in **InDesign**.

For more information, refer to the **Print Proof View** topic and the **Mounting Products** topic, both in the **Publisher (Adobe InDesign Integration)** documentation.

Configuring Settings for Table Types and Tables

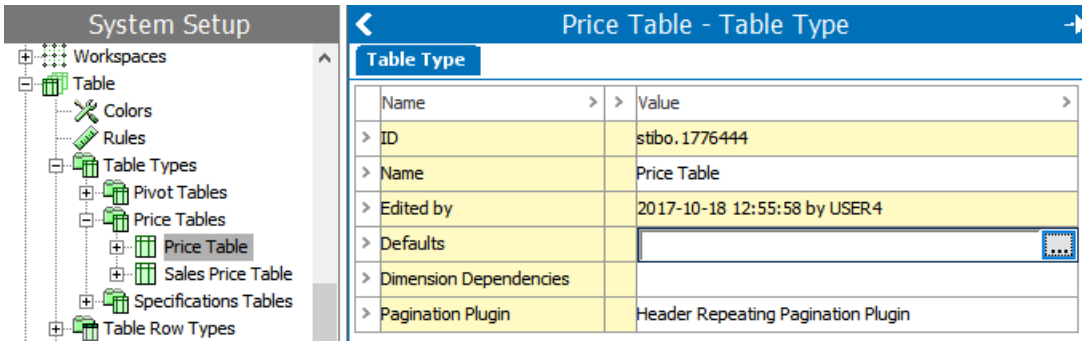
Settings for **table types** are applied in **System Setup**. These formatting definitions are global, meaning that they will inherit to the table type wherever it is used in STEP. Since case-by-case exceptions to global formatting are sometimes needed, these settings can be overridden locally on the table definition by changing the table settings.

Note: Style tags, colors, and rules must be created in System Setup before they can be applied to table types and tables. For more information, refer to the **Configuring Table Formatting in System Setup and InDesign** topic in this guide.

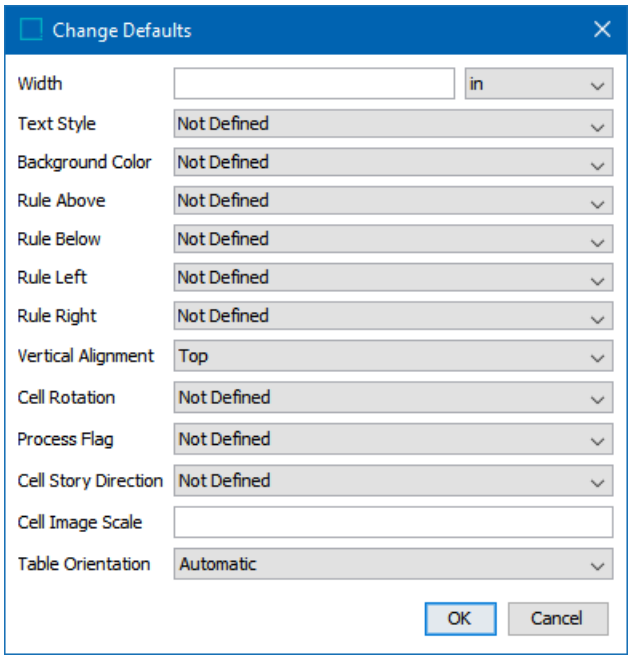
Configuring Default Table Type Settings

To configure settings for table types in System Setup, follow these steps.

1. On the **Table Type** tab, click the ellipsis button (...) in the **Defaults** field.



2. The **Change Defaults** dialog displays.



3. Settings applied from this dialog apply to the entire table. For full details on these settings, refer to the **Configuring Table Settings** topic within this guide.

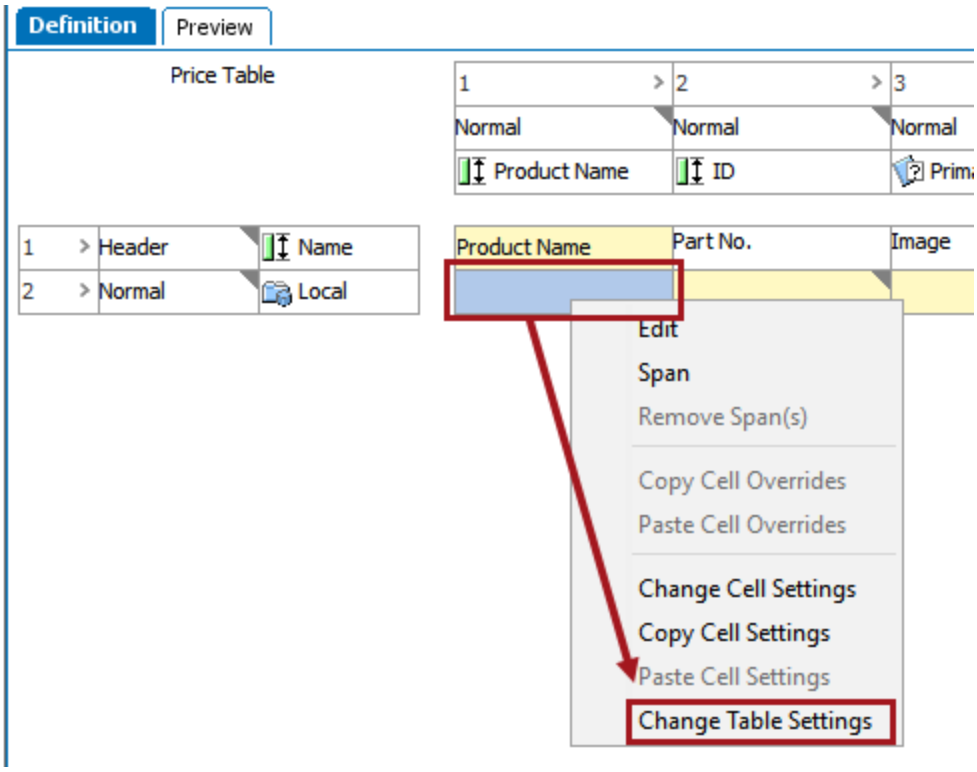
> **Note:** The Rule Above, Rule Below, Rule Left, and Rule Right settings do not apply rules to all columns and rows within the table. Rather, these settings control the line styles used for the outer borders of the table (top, bottom, left, and right).

Configuring Local Table Settings

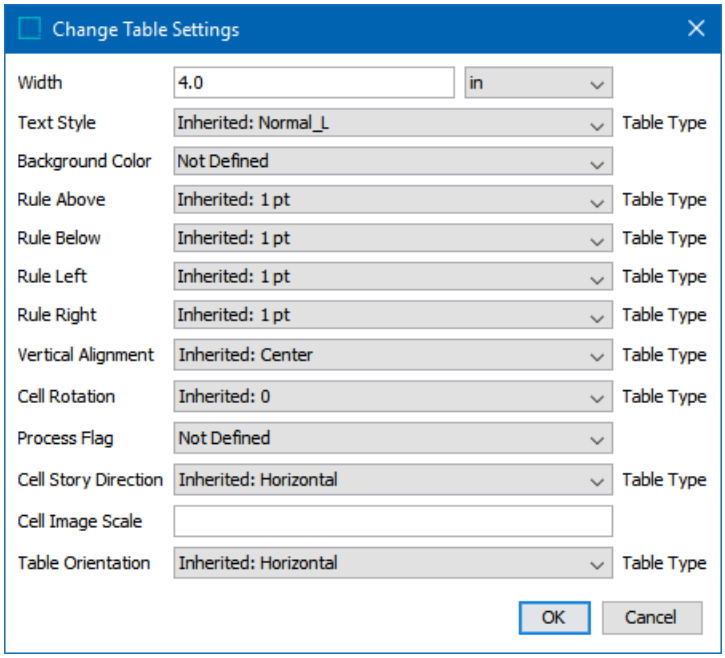
Local changes to formatting that applies to an entire table are made using the **Change Table Settings** dialog. This dialog is accessed from tables when viewed on the **Definition** tab. When table formatting is changed locally on a table definition, any default formatting inherited from the table type in System Setup is overridden.

To access the Change Table Settings dialog and apply local formatting to a table, follow these steps.

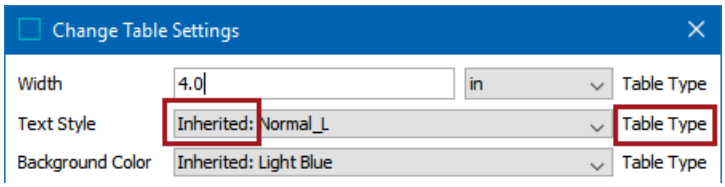
1. In the **Tree**, select the relevant product, classification, or product-override, and then click the **Tables** tab.
2. Select the relevant table, then click the **Definition** tab.
3. Right-click inside of any table cell, then select **Change Table Settings**.



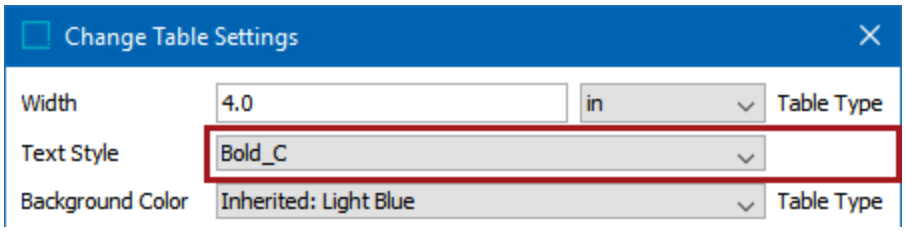
4. The **Change Table Settings** dialog displays. The settings in this dialog are identical to those in the **Change Defaults** dialog that is accessed from the table type in System Setup.



5. If a setting is inherited from the table type, 'Table Type' will display to the right of the options.



6. When a setting is changed, the 'Inherited' label no longer displays, and nothing is listed to the right of the options.



Note: When a table setting is changed locally, no gray triangles display anywhere within the table to indicate that something inherited from System Setup has been overridden. A gray triangle *does* appear when the settings of a columns, rows, or cell are overridden.

Configuring Settings for Column Types and Columns

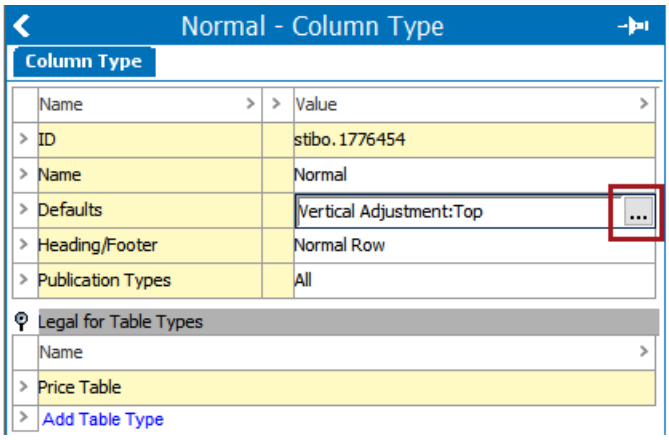
Settings and formatting definitions for **column types** are applied in **System Setup**. These formatting definitions are global, meaning that they will inherit to the column type wherever it is used in STEP. Since case-by-case exceptions to global formatting are sometimes needed, these definitions can be overridden locally on columns within table definitions. Row formatting takes priority over column formatting in tables.

Note: Style tags, colors, and rules must be created in System Setup before they can be applied to column types and columns. For more information, refer to the **Configuring Table Formatting in System Setup and InDesign** topic in this guide.

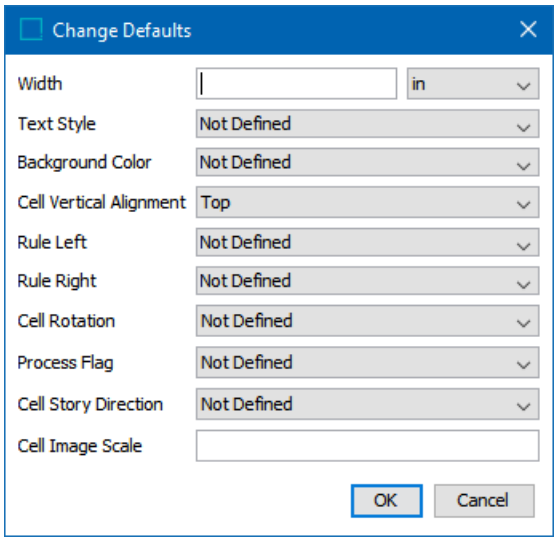
Configuring Default Column Type Settings

To configure settings for column types in System Setup, follow these steps.

1. On the **Column Type** tab, click the ellipsis button (...) in the **Defaults** field.



2. The **Change Defaults** dialog displays.

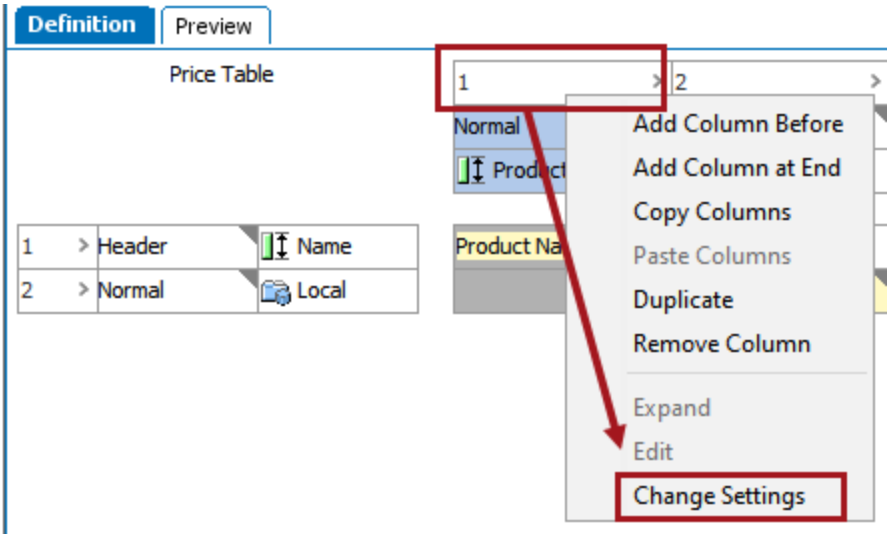


3. Settings applied from this dialog apply to all columns that will be created from the column type. For full details on these settings, refer to the **Configuring Table Settings** topic within this guide.

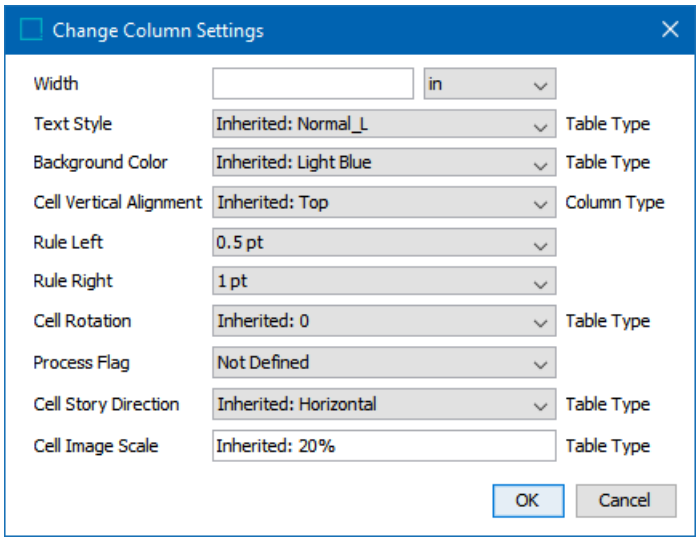
Configuring Local Column Settings

When column formatting is changed locally, all inherited formatting is overridden. Local changes to column formatting are made using the **Change Row Settings** dialog. To access this dialog and apply local formatting to a column, follow these steps:

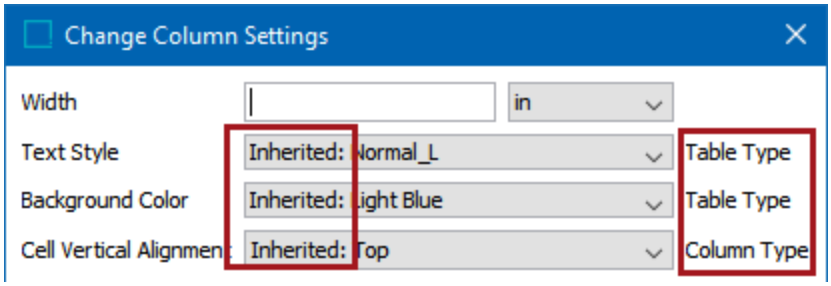
1. In the **Tree**, click the relevant product, classification, or product-override, then click the **Tables** tab.
2. Select a table, and then click the **Definition** tab.
3. Select a column, right-click, and then click **Change Settings**.



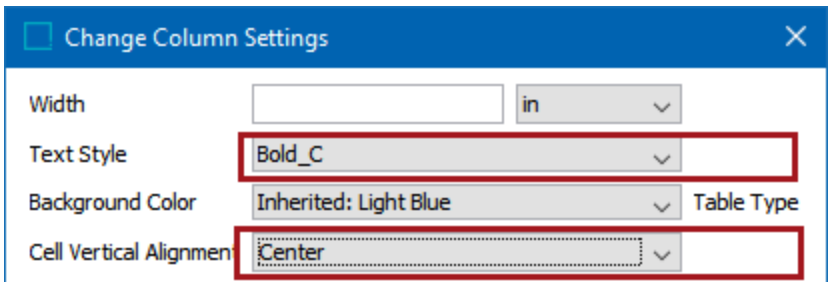
4. The **Change Column Settings** dialog displays. The settings in this dialog are identical to those in the **Change Defaults** dialog that is accessed from the column type in System Setup.



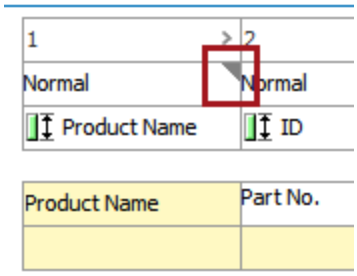
5. The level from which the settings are inherited is displayed to the right of the options, which is both Table Type and Column Type in this example.



6. When a setting is changed, the 'Inherited' label no longer displays, and nothing is listed to the right of the options.



7. Additionally, a gray triangle appears in the column type definition cell to indicate that the column has local settings applied that override inherited settings.


1
2
Normal
Normal
Product Name
ID
Product Name
Part No.

Configuring Settings for Row Types and Rows

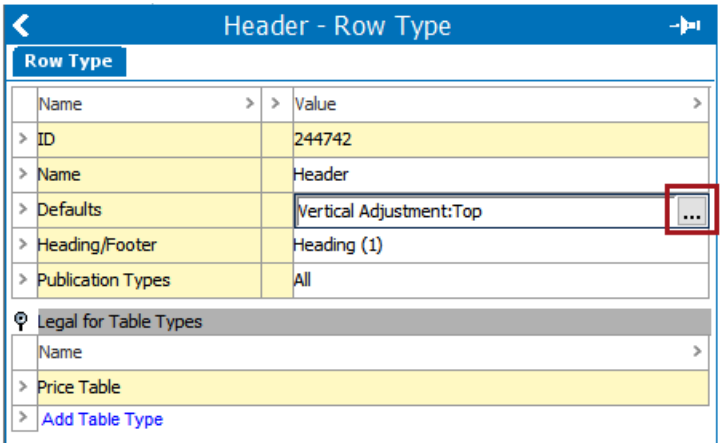
Settings and formatting definitions for **row types** are applied in **System Setup**. These formatting definitions are global, meaning that they will inherit to the row type wherever it is used in STEP. Since case-by-case exceptions to global formatting are sometimes needed, these definitions can be overridden locally on rows within table definitions. Row formatting takes priority over column formatting in tables.

Note: Style tags, colors, and rules must be created in System Setup before they can be applied to row types and rows. For more information, refer to the **Configuring Table Formatting in System Setup and InDesign** topic in this guide.

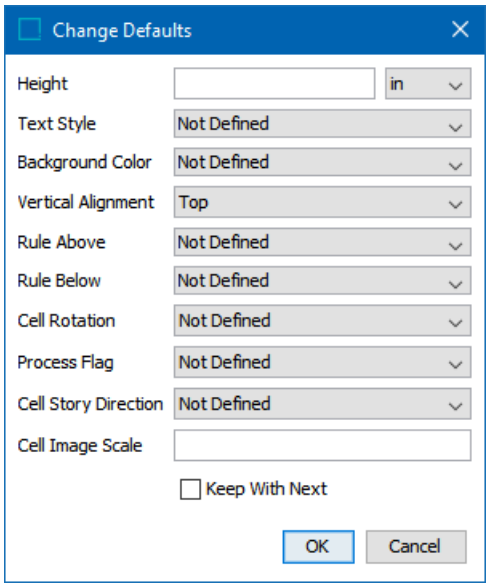
Configuring Default Row Type Settings

To configure settings for row types in System Setup, follow these steps.

1. On the **Row Type** tab, click the ellipsis button (...) in the **Defaults** field.



2. The **Change Defaults** dialog displays.

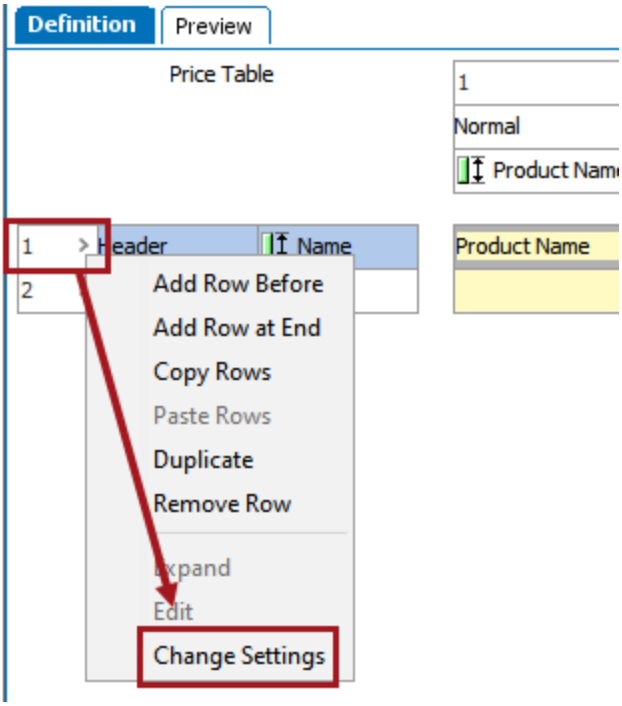


3. Settings applied from this dialog apply to all rows that will be created from the row type. For full details on these settings, refer to the **Configuring Table Settings** topic within this guide.

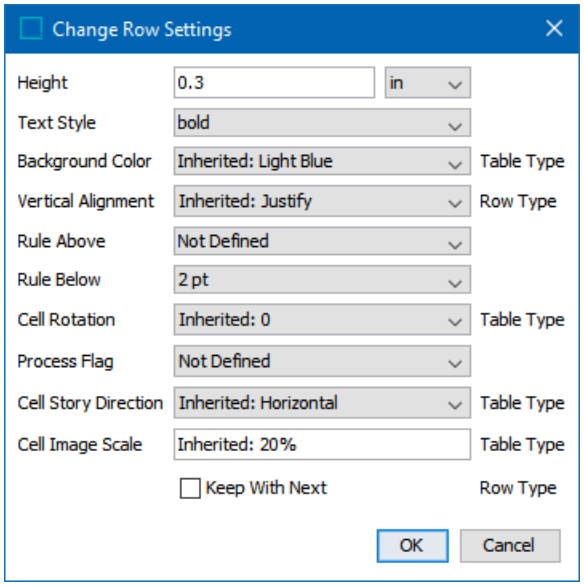
Configuring Local Row Settings

When row formatting is changed locally, all inherited formatting is overridden. Local changes to row formatting are made using the **Change Row Settings** dialog. To access this dialog and apply local formatting to a row, follow these steps:

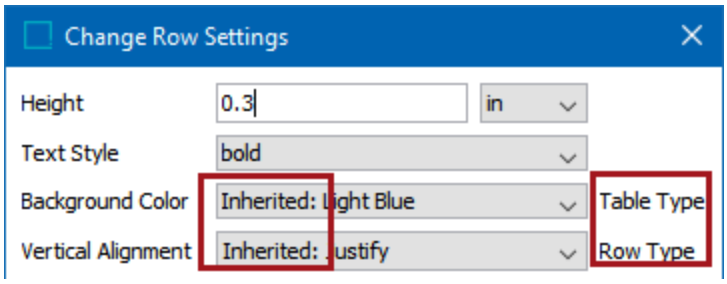
1. In the **Tree**, select the relevant product, classification, or product-override, then click the **Tables** tab.
2. Select the relevant table, then click the **Definition** tab.
3. Select a row, right-click, and then click **Change Settings**.



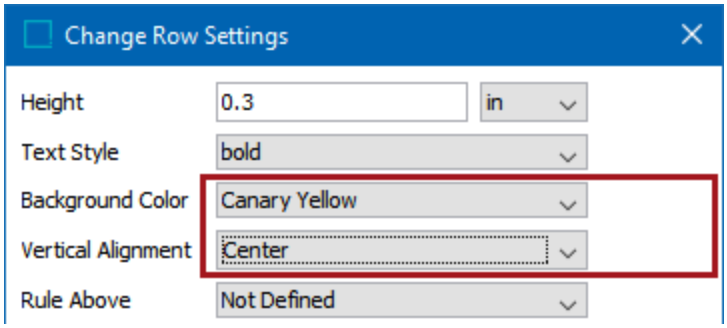
4. The **Change Row Settings** dialog displays. The settings in this dialog are identical to those in the **Change Defaults** dialog that is accessed from the row type in System Setup.



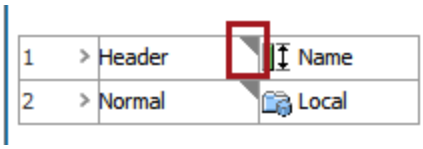
5. The level from which the settings are inherited is displayed to the right of the options, which is both Table Type and Row Type in this example.



6. When a setting is changed, the 'Inherited' label no longer displays, and nothing is listed to the right of the options.



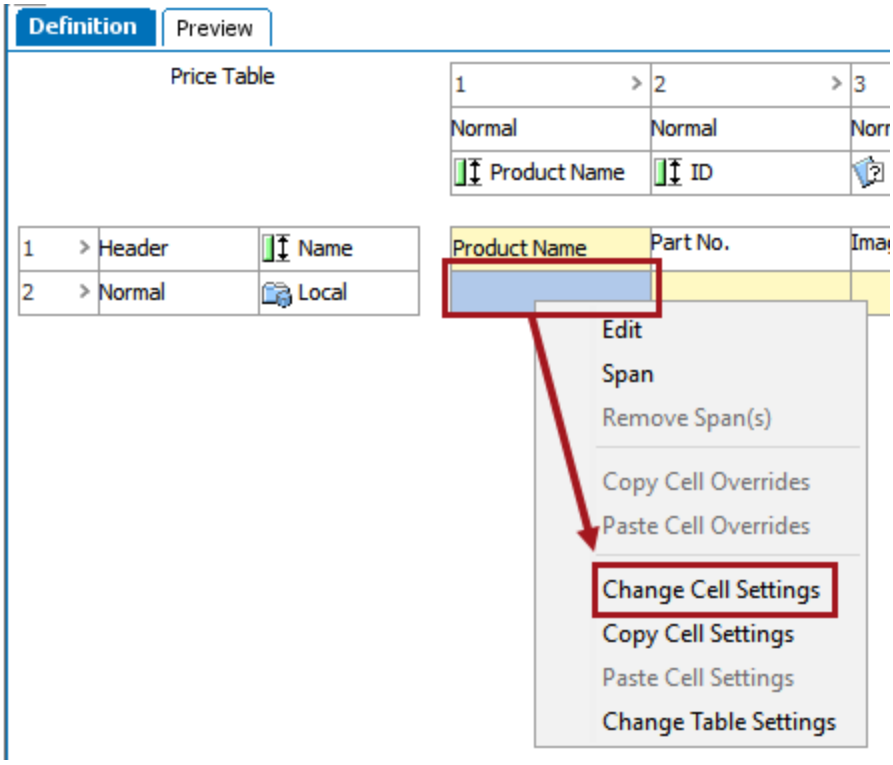
7. Additionally, a gray triangle appears in the row type definition cell to indicate that the row has local settings applied that override inherited settings.



Configuring Settings for Cells

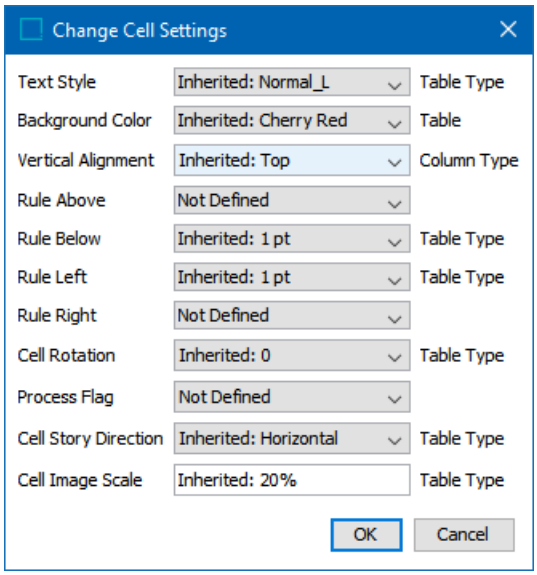
Settings that apply to individual cells can only be applied from within table definitions, using the **Change Cell Settings** dialog. Settings applied to cells take priority over all other formatting—table, row, and column. To access this dialog and apply settings to a cell, follow these steps.

1. In the **Tree**, select the relevant product, classification, or product-override, then click the **Tables** tab.
2. Select a table, and then click the **Definition** tab.
3. Right-click inside of the relevant cell, then click **Change Cell Settings**.

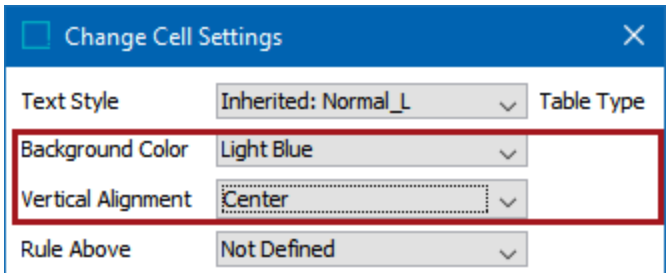


4. The **Change Cell Settings** dialog displays. The level from which the settings are inherited is displayed to the right of the options, which include Table Type, Table, and Column Type in this example.

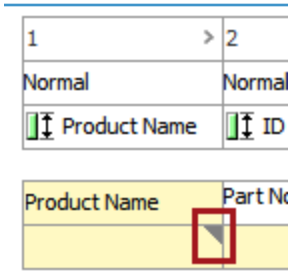
   For full details on these settings, refer to the **Configuring Table Settings** topic within this guide.



5. After a cell is overridden, the 'Inherited' label no longer displays, and nothing is listed to the right of the options.



6. Additionally, a gray triangle appears in the cell to indicate that the cell has local settings applied that override inherited settings.



Creating Tables

Tables are created in STEP on product, classification, or product-override objects, typically at a higher level of the hierarchy where it can be inherited to lower levels. The first step in creating a table is to add a table **type** to the relevant product, classification, or product-override object.

Prerequisites

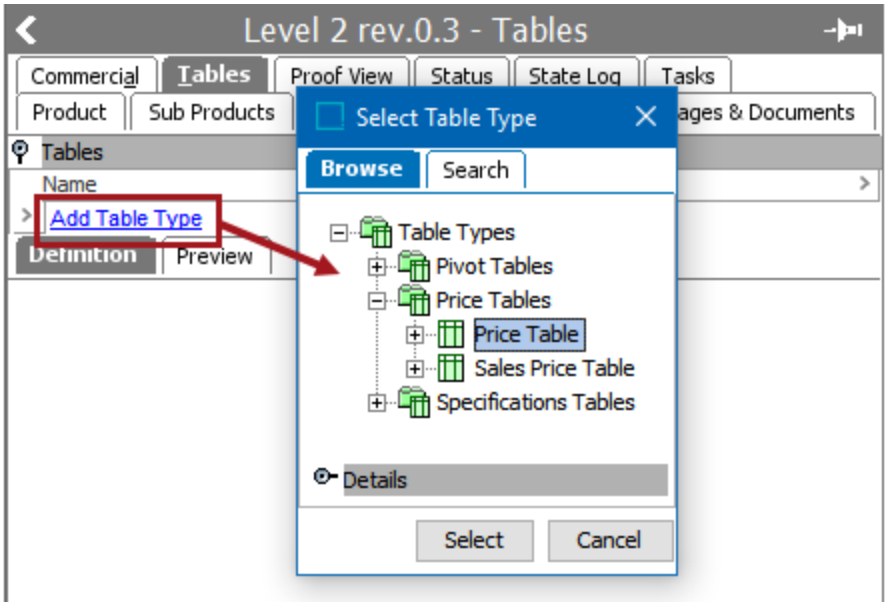
This topic assumes the following:

- A table type has already been created in System Setup
- You have determined the location in the product hierarchy where the table will be built. The creation point is important because tables are inherited downwards in the hierarchy, unless overridden by a local variation of the table. For more information on table inheritance, refer to the **Table Inheritance** topic in this guide.

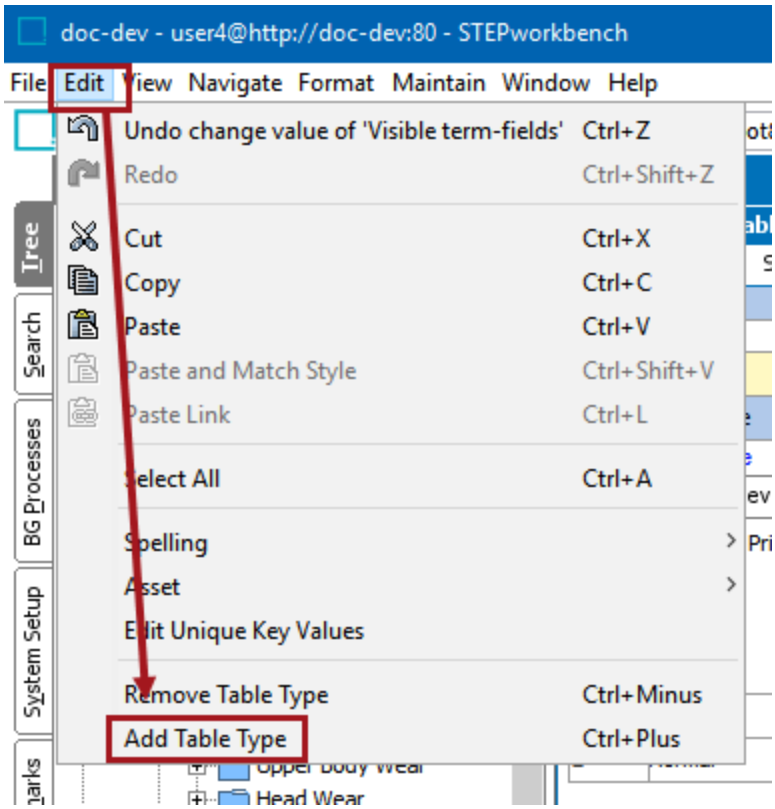
Important: Though tables can be created on classifications, it is recommended to only create them in the product hierarchy to simplify the maintenance of inherited tables.

Add a Table Type to a Product or Classification

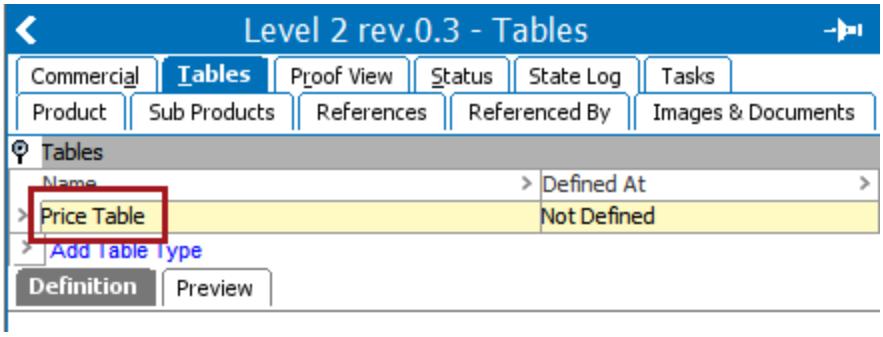
1. In the **Tree**, navigate to the relevant product, classification, or product-override object, then select the **Tables** tab.
2. Click **Add Table Type** to display the **Select Table Type** dialog.



Add Table Type can also be accessed from the STEP **Edit** menu.



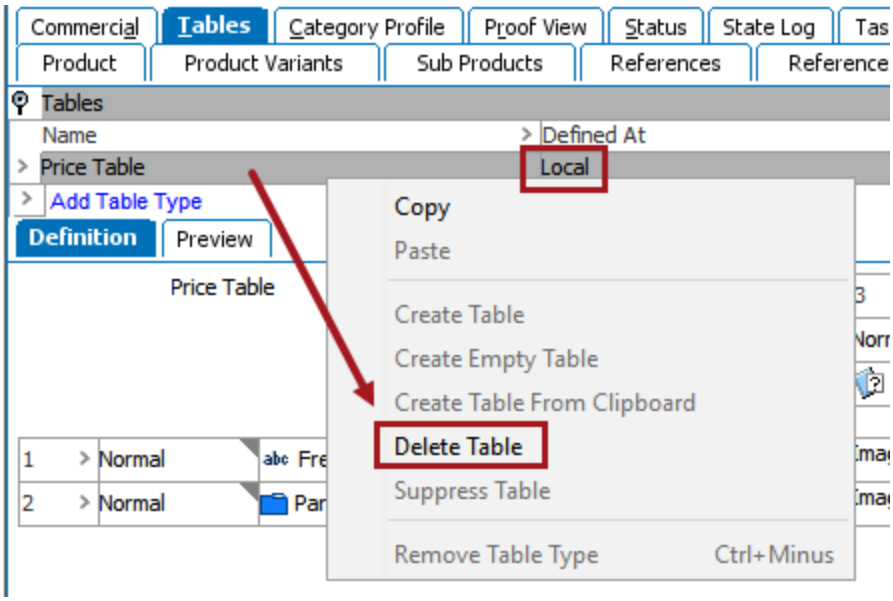
3. Browse or search for the relevant table type, then click **Select**.
4. The table type appears in the **Tables** list on the Tables tab.



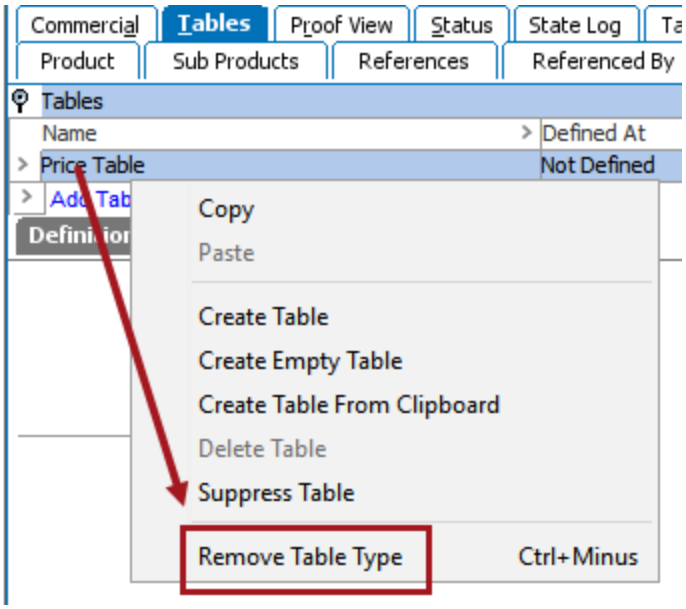
You can now create tables with the Create Table wizard or by starting with an empty table, then specifying the contents and settings of the table. For more information, refer to the following topics: **Using the Create Table Wizard** and **Creating a New Empty Table**.

Delete a Table

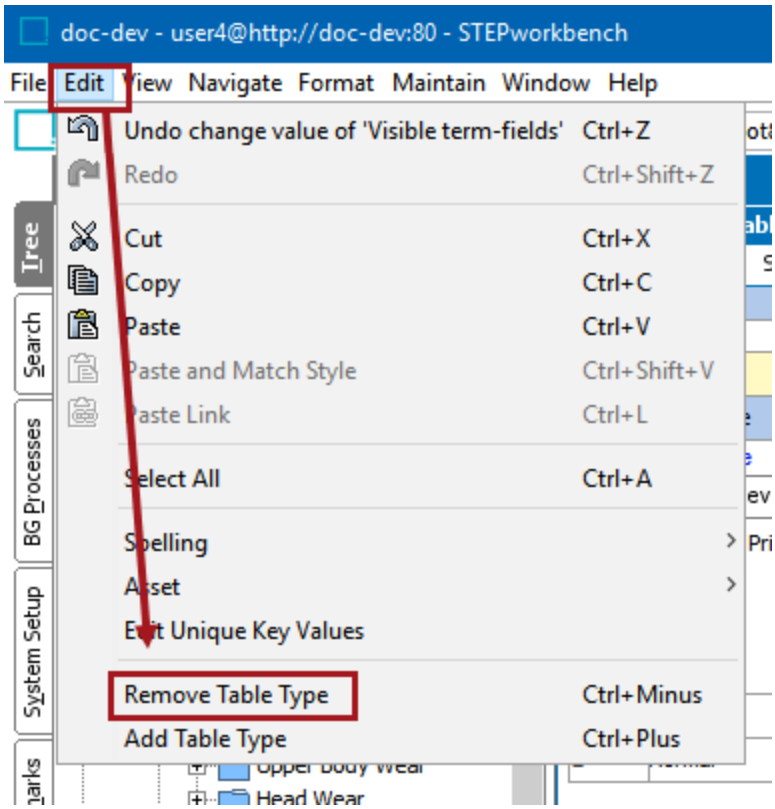
1. Right-click the table you want to delete, then click **Delete Table**.



2. If the table was defined locally, but the local table overrode a table inherited from a higher level, the text under the **Defined At** column changes from **Local** to the name of the node on which the table is built, and the table type itself remains. Due to the inheritance, the table type cannot be deleted; only suppressed. Refer to the **Table Inheritance and Suppression** topic in this guide for more information on table suppression.
3. If the table was defined locally and did *not* override a table built at a higher level, then **Local** changes to **Not Defined**. The table type can then be deleted by right-clicking on the table type and selecting **Remove Table Type**.



Remove Table Type can also be accessed from the STEP **Edit** menu.


doc-dev - user4@http://doc-dev:80 - STEPworkbench
File
Edit
View
Navigate
Format
Maintain
Window
Help
Undo change value of 'Visible term-fields' Ctrl+Z
Redo Ctrl+Shift+Z
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Paste and Match Style Ctrl+Shift+V
Paste Link Ctrl+L
Select All Ctrl+A
Spelling
Asset
Edit Unique Key Values
Remove Table Type Ctrl+Minus
Add Table Type Ctrl+Plus
Tree
Search
BG Processes
System Setup
Upper Body Wear
Head Wear

Using the Create Table Wizard

The Create Table wizard enables you to build a basic table through a two-step process that involves selecting the **products**, then selecting the **attributes** that should appear in the table. This wizard enables the creation of two basic types of tables—horizontal and vertical.

Most tables that are built with the Create Table wizard will need additional configurations once created, such as the addition of plain text or images, dynamic content definitions, and transformations. However, using this wizard gets the basic structure and content of the table in place. For information on how to add these more advanced features, refer to the **Content Definitions** section of this guide.

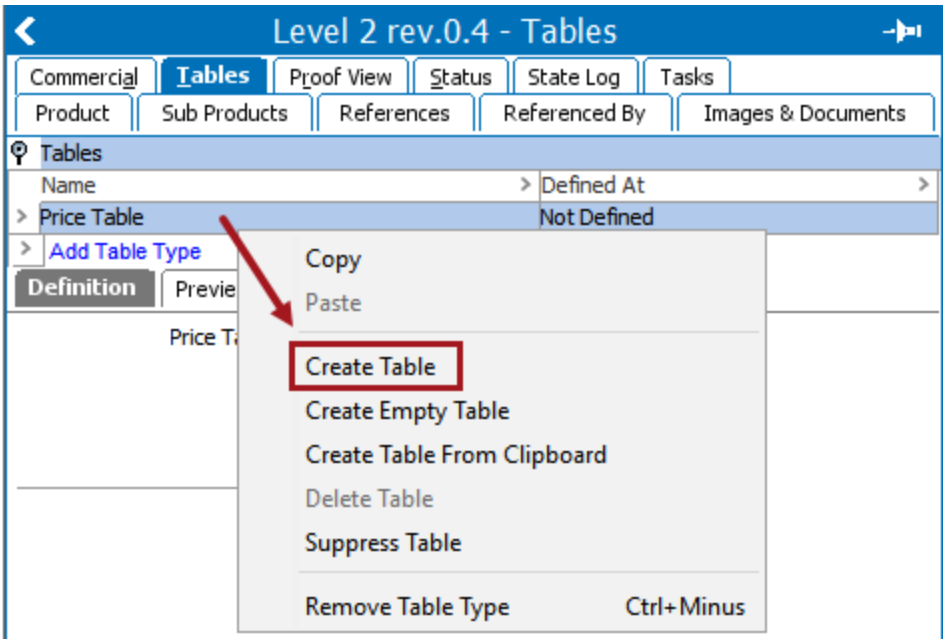
Prerequisites

This topic assumes the following:

- A table type has already been created and linked to the product, classification, or product-override where you will be building the table
- The table type has at least one legal column type and one legal row type
- You have determined the location in the product hierarchy where the table will be built. The creation point is important because tables are inherited downwards in the hierarchy, unless overridden by a local variation of the table. For more information on table inheritance, refer to the **Table Inheritance** topic in this guide.

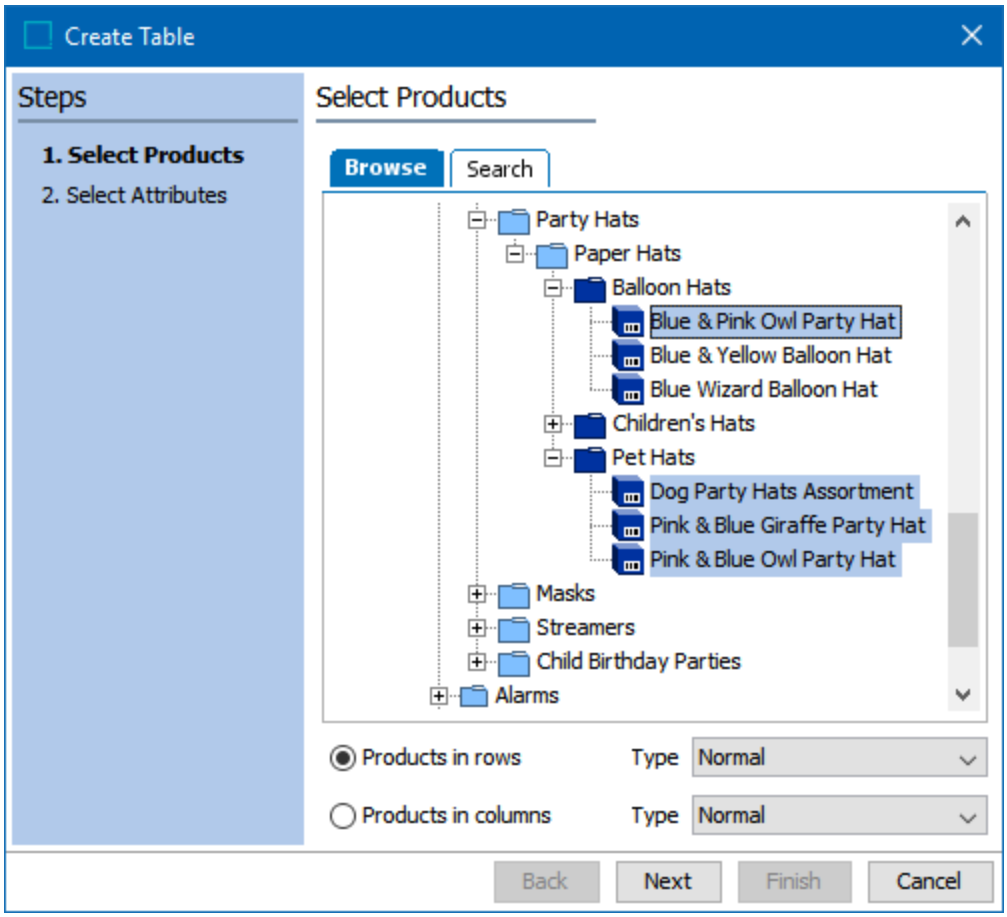
Create a Basic Table

1. In the Tree, select the product, classification, or product-override object on which the table will be built.
2. Go to the **Tables** tab, then select the relevant 'Not Defined' table type.
3. Right-click the table type and choose **Create Table** to display the **Create Table** wizard.



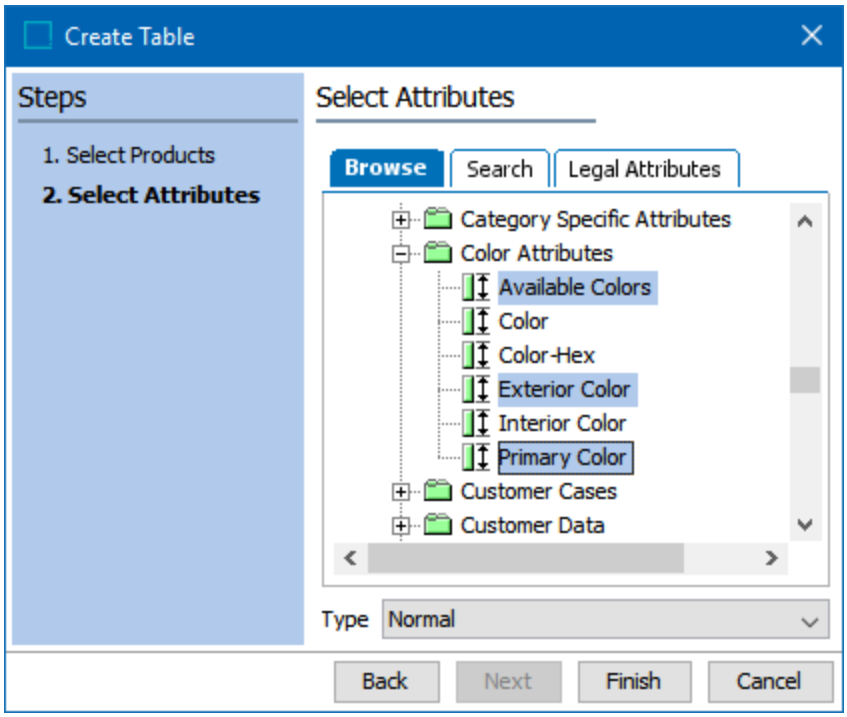
4. In the **Select Products** step of the Create Table wizard, browse to or search for the product(s) that should be included in the table. Products can be multi-selected by holding the Shift or Ctrl key while making selections. It is possible to select products that are located at different levels in the hierarchy than where you are creating the table.

   Note: A common setup for tables is to place a product, product-override, or classification object with children (e.g., a product family) into a single row, then apply a content definition to the row that will dynamically display the child objects in additional rows of the table. Refer to the **Product Content Definitions** topic for more information.

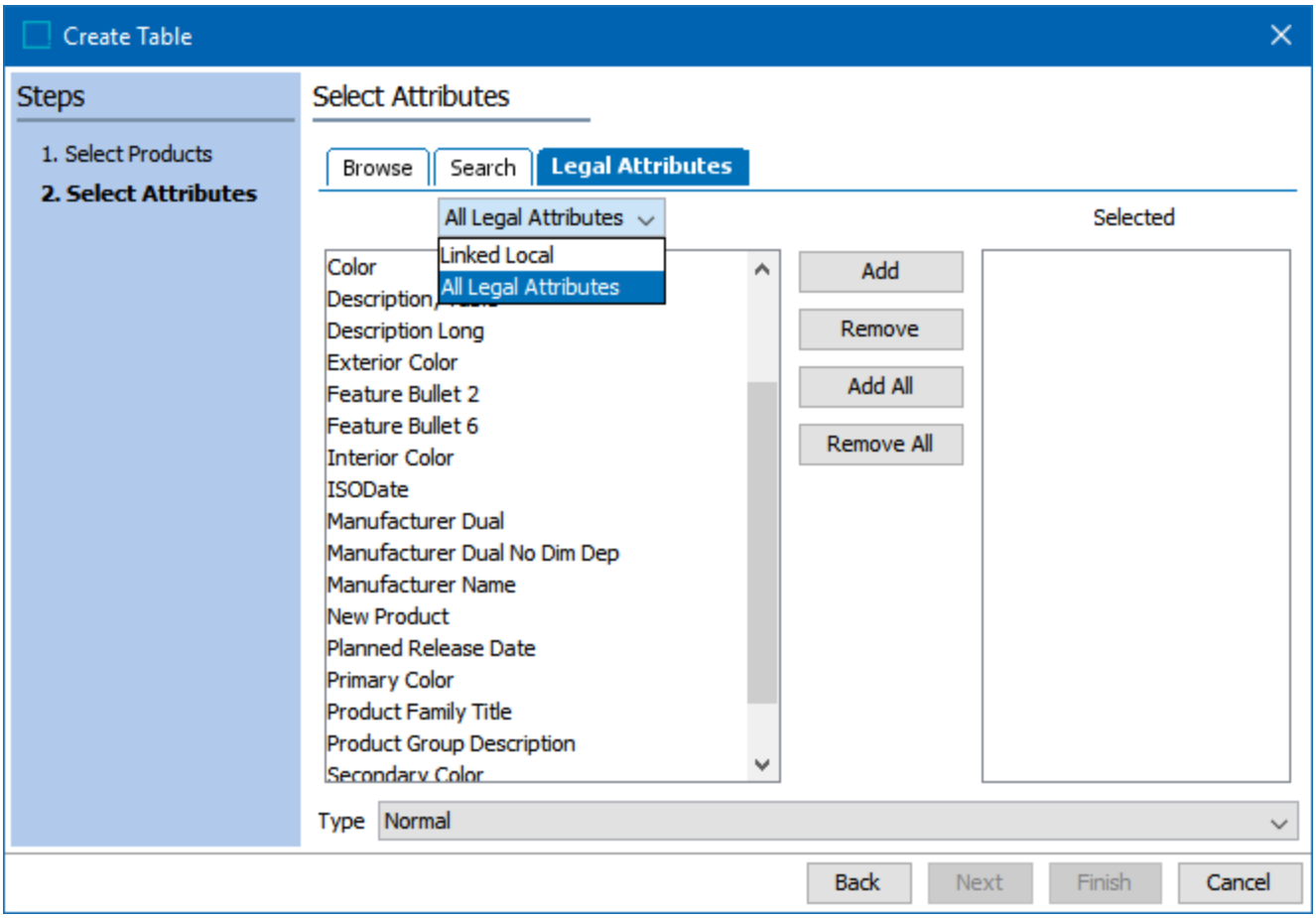


5. Next, specify whether the table should be **horizontal** or **vertical** by choosing whether products appear in **rows** or **columns**.
   - Select **Products in rows** to create a standard **horizontal** table where the information that relates to specific products is placed across the table, in rows. In the **Type** dropdown list, choose the row type to use for the product rows. The available row types are those that are legal for the table type.
   - Select **Products in columns** to create a **vertical** table where the information that relates to specific products is placed from top to bottom in the table, in columns. In the **Type** dropdown list, choose the column type to use for the product columns. The available column types are those that are legal for the table type.
6. After making the preferred selections, click 'Next' to proceed to the **Select Attributes** step.
7. On the **Select Attributes** screen, three options are available to choose the attributes for the table. You can **browse** to or **search** for attributes in the attributes hierarchy, or you can choose **Legal Attributes** to limit the list to the specification attributes that are valid for the products you selected in the previous step. In any of these methods, multiple attributes can be selected. The below screenshot shows how the attributes tree displays on the **Browse** tab.

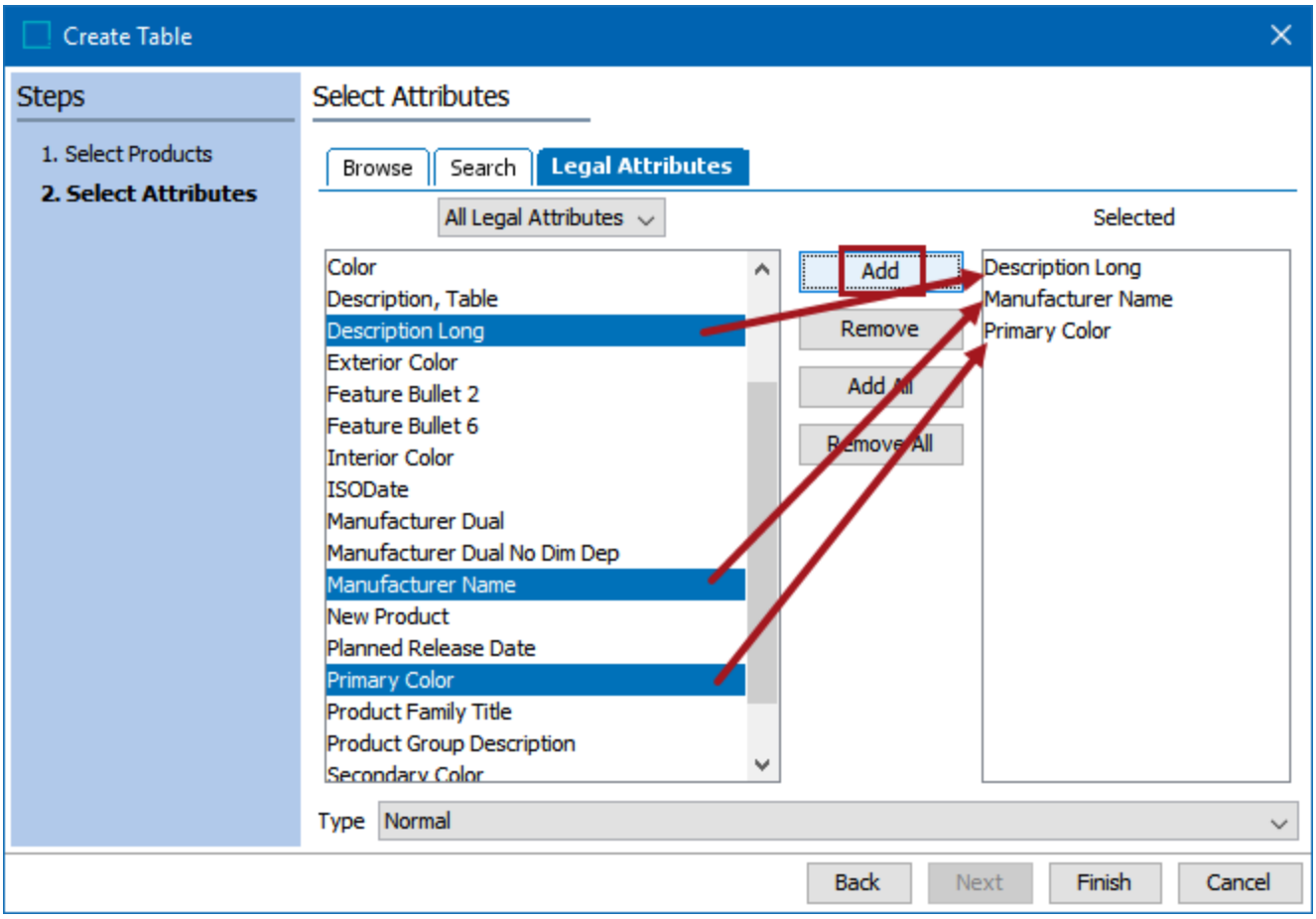
Note: Only individual attributes can be chosen in this step; entire attribute *groups* cannot. Even though the system will let you choose attribute groups if you have already selected at least one individual attribute, only the individual attributes will display in the finished table.



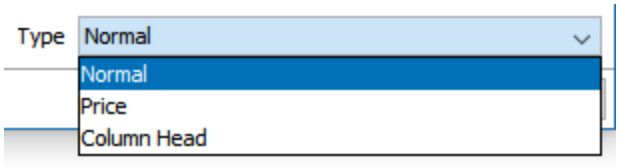
8. When **Legal Attributes** is selected, two options are available from the dropdown:
   - Choose **Linked Local** to view all attributes that are linked locally to the selected products. In this option, attributes inherited from a higher level are not displayed. For more information on locally linked attributes, refer to the **Attribute Links** section of the **System Setup** documentation.
   - Choose **All Legal Attributes** to view all specification attributes that are valid for the selected product(s). This includes both inherited attributes and attributes that are linked locally. For more information on attribute validity, refer to the **Validity on Specification Attributes** section of the **System Setup** documentation.



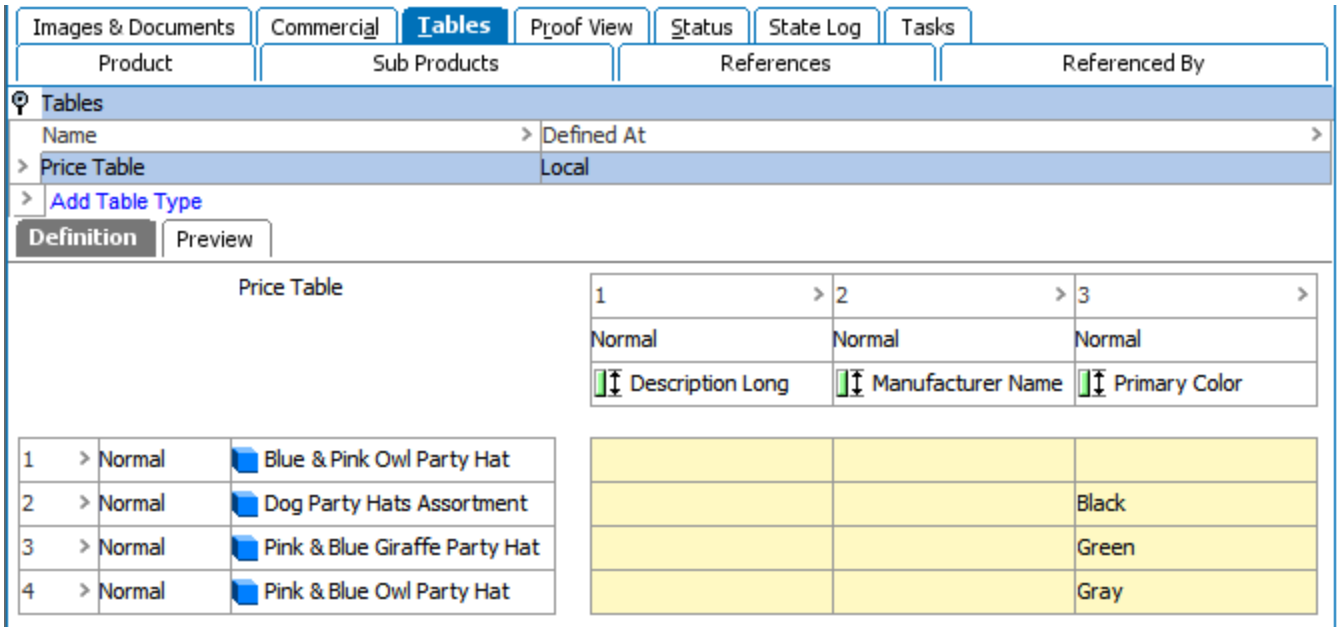
9. For the **Linked Local** and **All Legal Attributes** options, select the desired attributes in the left window of the dialog and choose **Add** to add them to the **Selected** window. Attributes may be multi-selected by holding the Ctrl or Shift key while making selections. To add all of the attributes to Selected, click **Add All**. To remove a selection of attributes from Selected, choose the relevant attributes, then click **Remove**. To remove all attributes from Selected, click **Remove All**.



10. In the **Type** dropdown, select the column or row type that you want to use for the attributes. The available options will be based on whether you selected 'Products in rows' or 'Products in columns' in the 'Select Products' step of the wizard. If you chose 'Products in rows,' then the dropdown list will contain column types. If you chose 'Products in columns,' the dropdown will contain row types.



11. After selecting the relevant attributes, click **Finish**.
12. A table is created with the selected products and attributes.


Images & Documents
Commercial
Tables
Proof View
Status
State Log
Tasks
Product
Sub Products
References
Referenced By
Tables
Name
Defined At
Price Table
Local
Add Table Type
Definition
Preview
Price Table
1
2
3
Normal
Normal
Normal
Description Long
Manufacturer Name
Primary Color
1
Normal
Blue & Pink Owl Party Hat
2
Normal
Dog Party Hats Assortment
3
Normal
Pink & Blue Giraffe Party Hat
4
Normal
Pink & Blue Owl Party Hat
Black
Green
Gray

Creating a New Empty Table

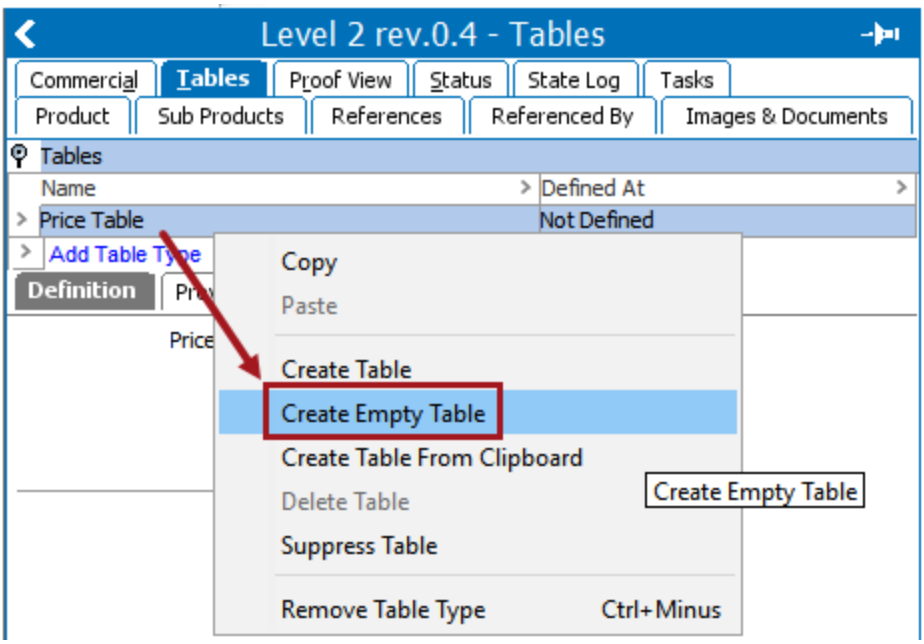
Instead of using the Create Table wizard, an alternate method of creating a new table is to create an **empty** table. This method allows you to create a table without necessarily having to know beforehand what attributes and/or products will be used, other than the product on which the table will be built. As with tables that are built with the Create Table wizard, an empty table will also need additional configurations once created, such as the addition of plain text or images, dynamic content definitions, and transformations. For information on how to add these more advanced features, refer to the **Content Definitions** section of this guide.

This topic assumes the following:

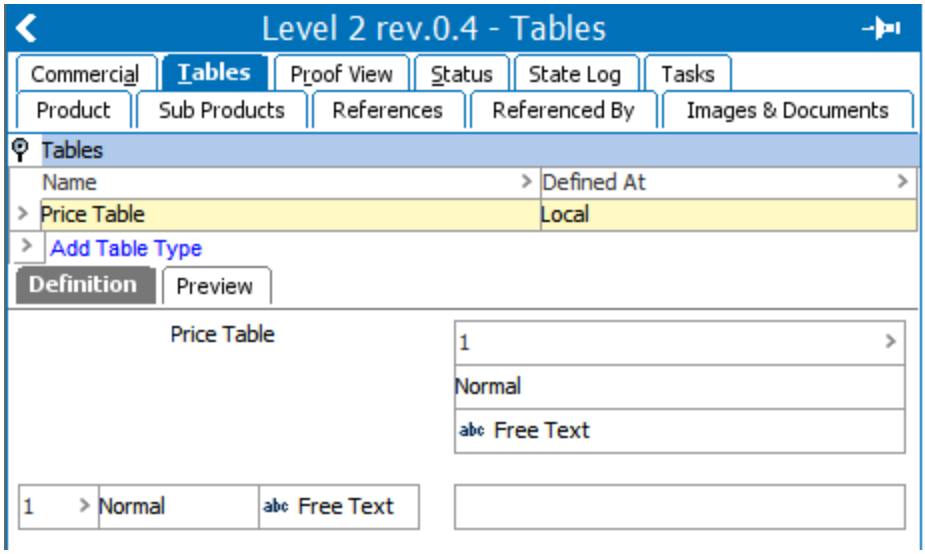
- A table type has already been created and linked to the product, classification, or product-override where you will be building the table
- The table type has at least one legal column type and one legal row type
- You have determined the location in the product hierarchy where the table will be built. The creation point is important because tables are inherited downwards in the hierarchy, unless overridden by a local variation of the table. For more information on table inheritance, refer to the **Table Inheritance** topic in this guide.

To Create an Empty Table

1. In the Tree, select the product, classification, or product-override object on which the table will be built.
2. Go to the **Tables** tab, then select the relevant 'Not Defined' table type.
3. Right-click the table type and choose **Create Empty Table**.



4. An empty table grid with one **free text** cell is created. The cell is composed of one row and one column. The row type and column type used are the ones chosen as default row / column types when the table type was created in System Setup.



5. Next, define the column and row **Content Definitions** of the table. For instructions, refer to the **Adding and Removing Content Definitions** section of this guide.

Creating Tables From the Clipboard

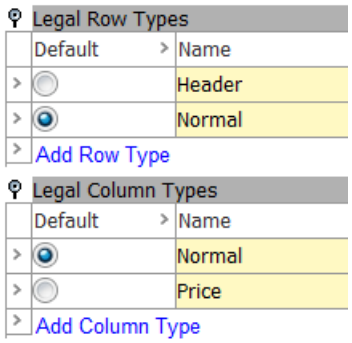
To create a table based on tabular data from an external application such as Excel or Word, you can copy and paste the information directly from the source document into STEP. This creates a table composed entirely of free text rows and columns, i.e., the data is pasted exactly as-is from the source document. The system will build the table using the specified **default** row types and column types.

Note: All content contained in a pasted table is free text and has no relation to attribute values in STEP, making the table non-dynamic. Also note that the pasted content ignores any styling from the source document.

Prerequisites

This topic assumes the following:

- A table type has already been created and linked to the product, classification, or product-override where you will be building the table
- The table type has at least one legal column type and one legal row type. If the table type uses more than one row type or column type, a **default** type must be specified for each.



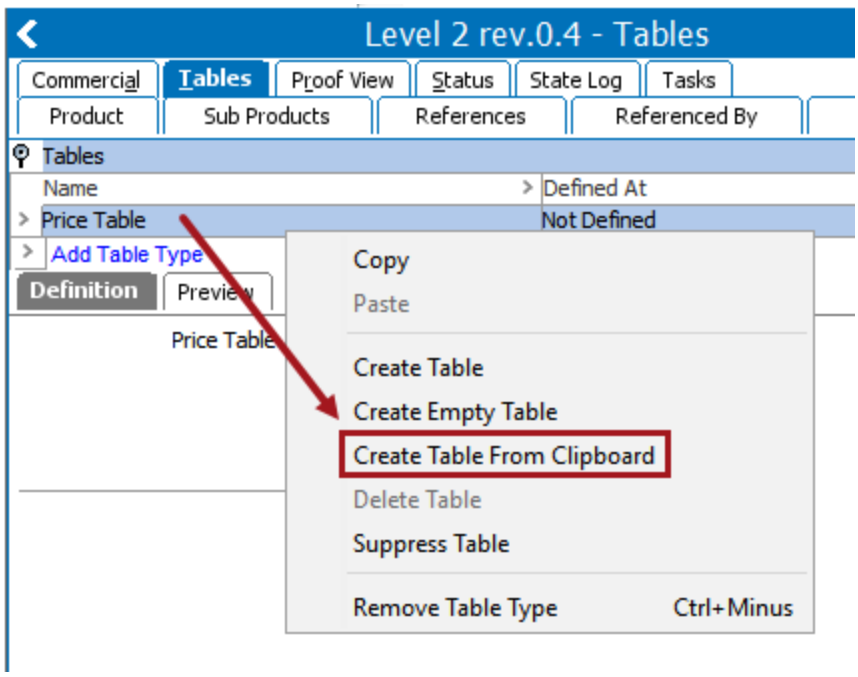
- You have a spreadsheet or Word document ready that contains the tabular data that will be copied and pasted
- You have determined the location in the product hierarchy where the table will be built. The creation point is important because tables are inherited downwards in the hierarchy, unless overridden by a local variation of the table. For more information on table inheritance, refer to the **Table Inheritance** topic in this guide.

Creating a Table From a Spreadsheet

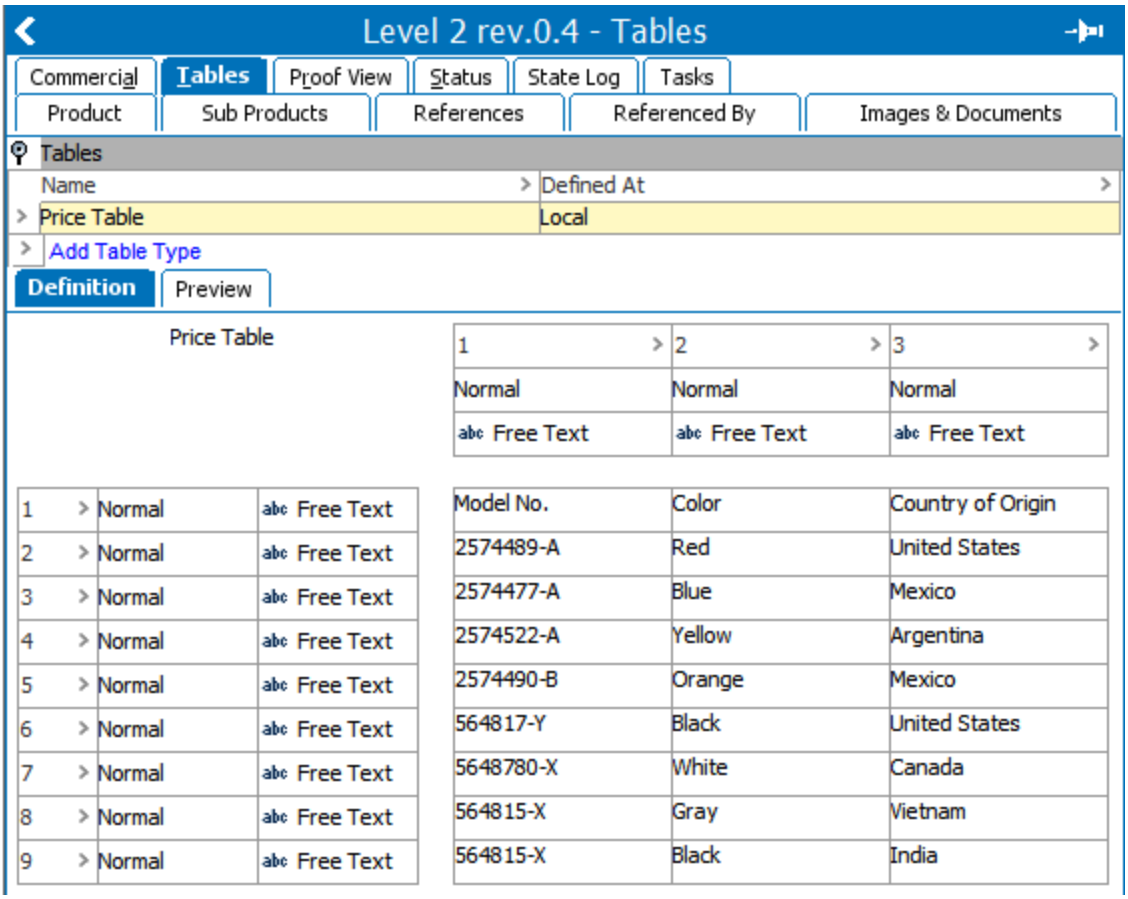
1. On your spreadsheet, highlight and copy the cells from which you would like to create the table.

	A	B	C
1	**Model No.**	**Color**	**Country of Origin**
2	2574489-A	Red	United States
3	2574477-A	Blue	Mexico
4	2574522-A	Yellow	Argentina
5	2574490-B	Orange	Mexico
6	564817-Y	Black	United States
7	5648780-X	White	Canada
8	564815-X	Gray	Vietnam
9	564815-X	Black	India
10			

2. In the Tree, select the product, classification, or product-override object on which the table will be built.
3. Go to the **Tables** tab, then select the relevant 'Not Defined' table type.
4. Right-click the table type and choose **Create Table From Clipboard**.



5. The content from the clipboard is pasted into the table. The row types and column types are those set as the default row and column type on the table type.



Creating a Table From a Word Document

The same steps are used as those for creating the table from Excel, except the table is copied and pasted from a Word document.

Model No.	Color	Country of Origin
2574489-A	Red	United States
2574477-A	Blue	Mexico
2574522-A	Yellow	Argentina
2574490-B	Orange	Mexico
564817-Y	Black	United States
5648780-X	White	Canada
564815-X	Gray	Vietnam
564815-X	Black	India

Copy and Paste Tables, Rows, Columns, and Cells

This topic explains how to copy and paste tables from one node to another, as well as how to copy and paste columns, rows, and cells within the same table or from one table to another table.

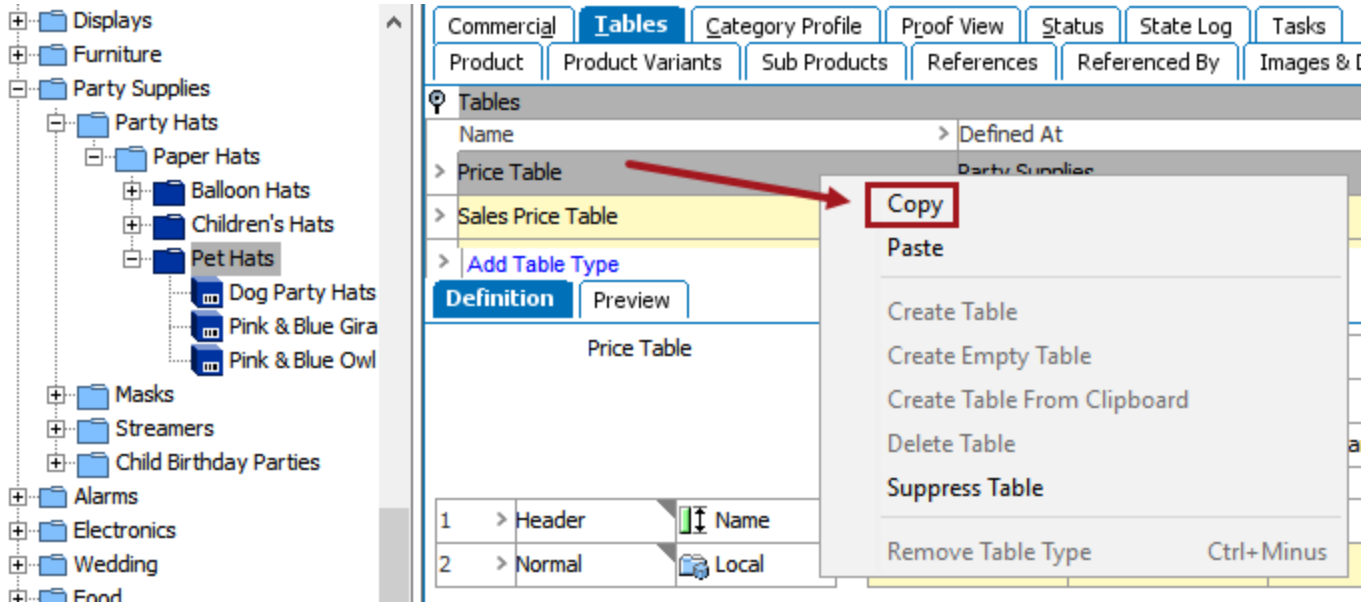
Copy and Paste Tables

Tables can be copied and pasted from one node to another. When a table has already been built, it can often be much simpler to copy and paste it onto another node than to build a new table from scratch. Then, adjustments can be made to the pasted table, as needed. Also, a table can be pasted over an existing table, which has already been defined, to override a table definition that is inherited from a higher node.

Tables can be copied and pasted from different object types (i.e., from an item object to a family object) as well as from product / product-override objects to classification objects (and vice versa). The copied table type does not have to be of the same table type as the target table type, though it is typically recommended that the tables are of the same type, since the pasted rows and columns may use row types and column types that are not legal for the target table.

The following steps assume that at least one source table has been created and defined on a product, classification, or product-override object, and that at least one table or table type exists on the target product, classification, or product-override object.

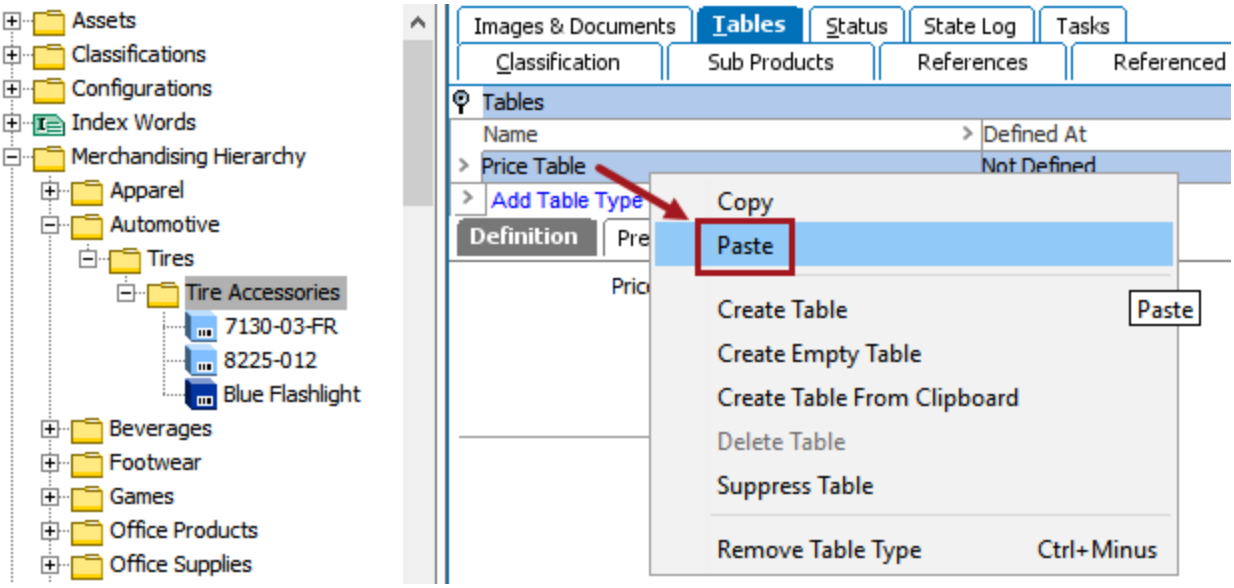
1. Navigate to the **Tables** tab of the product or classification object on which the source table has been built.
2. Right-click on the table, then select **Copy**.



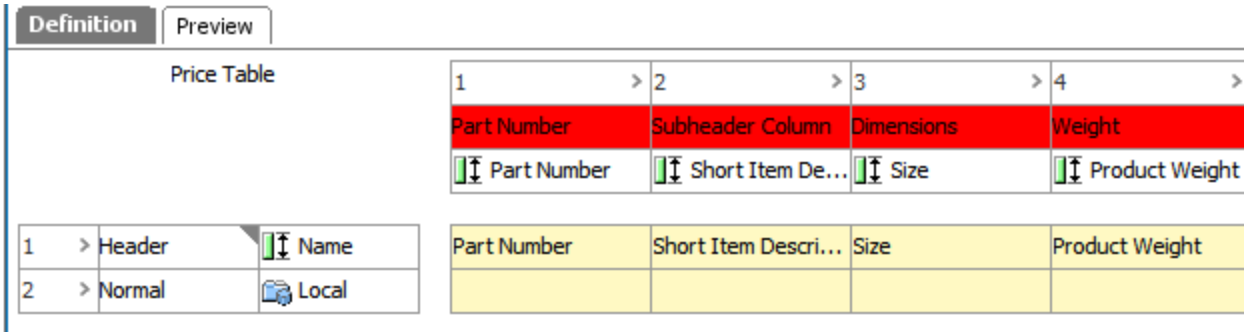
3. Navigate to the **Tables** tab of the product, classification, or product-override object on which the target table or table type has been added. The table does not have to say 'Not Defined'; if a table already exists, it can be

pasted over.

4. Right-click on the table, then select **Paste**.



Note: The table does not have to be of the same table type, but if the column and row types from the source table are not valid for the target table type, the column type / row type cells will be highlighted red to alert you that the types are not valid.



Copy and Paste Rows, Columns, and Cells

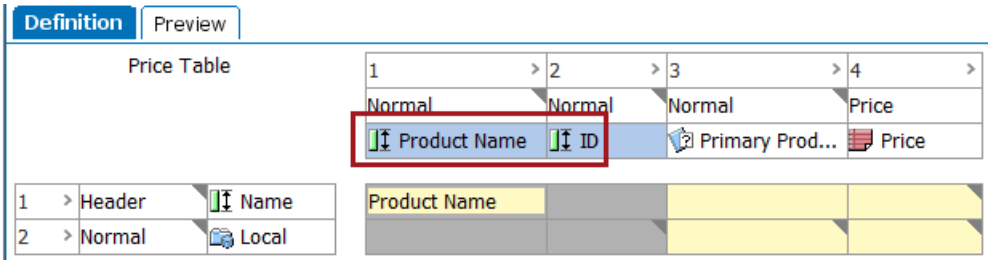
Rows, columns, and cells may be copied and pasted within the same table or from one table to another table.

1. Select the row, column, or cell that you would like to copy, then right-click and select the applicable option from the menu:
   - Copy Rows
   - Copy Columns
   - Copy Cell Overrides
   - Copy Cell Settings

2. Select a row, column, or cell in the destination location, then right-click and select the applicable option from the menu:
   - Paste Rows
   - Paste Columns
   - Paste Cell Overrides
   - Paste Cell Settings

3. The copied **row** is pasted beneath the destination row. The copied **column** is pasted to the right of the destination column. The copied **cell overrides** or **cell settings** are pasted directly into the destination cell and overwrite the destination cell.

To multi-select rows or columns, click on the **content definition cell** of the row or column and hold the Shift or Ctrl key while making selections.



Considerations for Copying and Pasting From One Table to Another

When copying and pasting rows, columns, and cells from one table to another, keep in mind the following:

- Any formatting settings (text, color, rules, etc.) applied to the source row, column, or cell will be copied along with it to the destination table
- If the pasted row or column uses a **row type** or **column type** that is not valid in the destination **table type**, the row type / column type will display in red, as found in the below screenshot. In this instance, either the column type must be changed in the destination table to a column type that is valid for the destination table type, or the column type itself must be made valid for the destination table type.

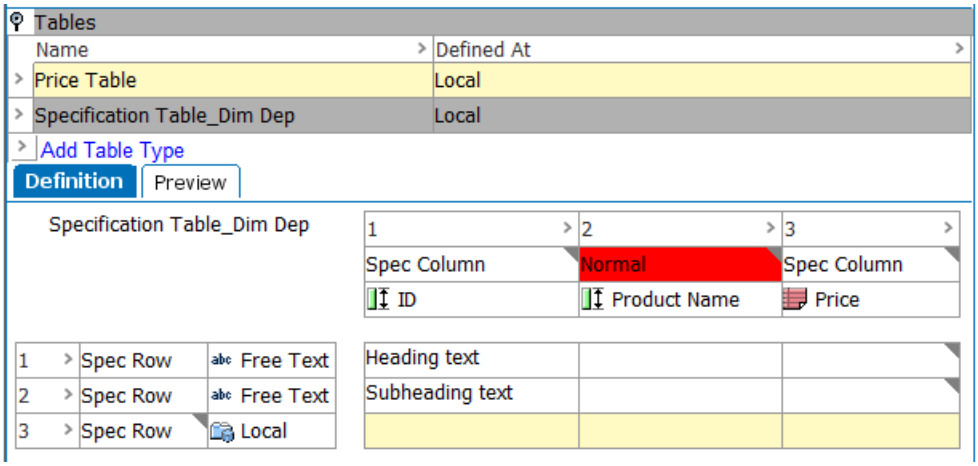


Table Inheritance and Suppression

This section contains information about table inheritance, how to create and remove local overrides for tables, and how to suppress and unsuppress tables.

STEP tables are based on the principle of inheritance. Just like product attributes set at a higher level in the product hierarchy are inherited by products lower in the hierarchy, tables that are linked or defined at higher levels in the product or classification hierarchy are then inherited by lower levels.

You can override the table definitions at lower levels if you need to create local variations of a table. This means that you can create a table with a default look that applies to an entire publication. You can then override that table style with a different style for specific a section of that catalog. That section can, in turn, contain a third variation of the table, and so on.

Inheritance also applies to table formatting and table transformations. Refer to the **Configuring Table Formatting** and **Table Transformations** topics in this guide for more information.

Table Inheritance

Before creating a table, you should consider carefully where in the product hierarchy it should be built. The creation point is important because tables are inherited downwards in the hierarchy, unless overridden by a local variation of the table.

If you plan to use your table on a large number of products, it should be defined close to the root of your product hierarchy. If you are creating a table that will only be used on a small number of product families, or only one, then select a definition point close to or on the actual product family level.

Making a Local Override

The following modifications result in an override of the inherited table style.

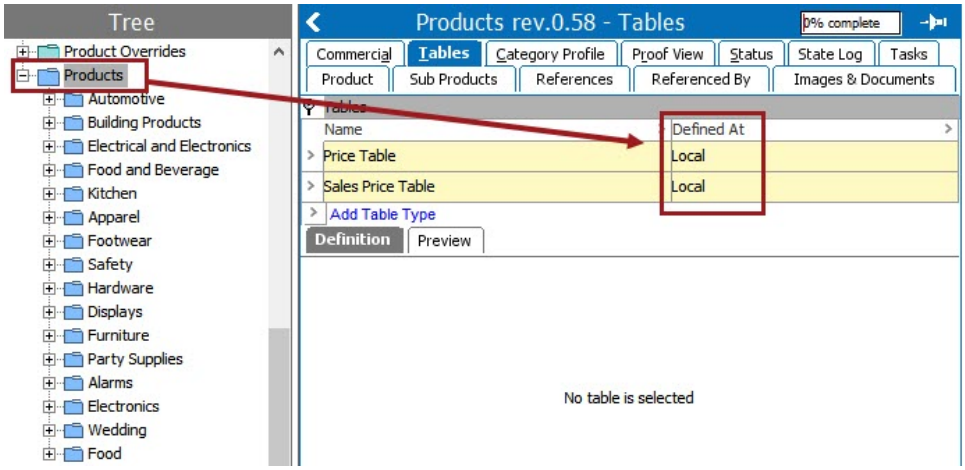
- Adding, changing and removing columns and rows
- Spanning or overriding cells
- Changing the graphical settings for columns, rows or cells
- Adding, changing or removing transformations
- Changing the contents of a free text type cell

Note: If you modify the layout of a table in InDesign, it does not create a local override of the table in STEP.

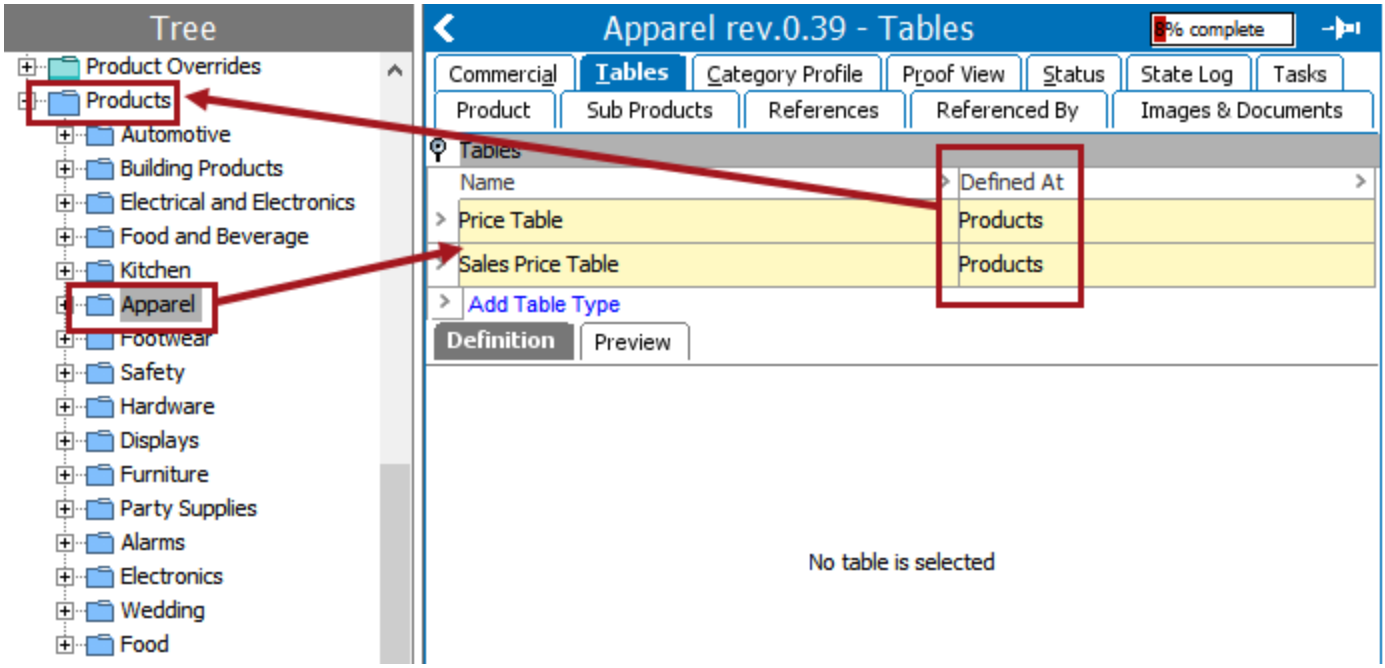
Overriding a table at a lower level

The following example shows a table that is created at a high level in the hierarchy, and then overridden at a lower level.

In this example, the Price Table and Sales Price Table have been created at the Products level. When you have selected the node on which the table is defined, **Local** displays in the **Defined At**column.



On lower levels in the hierarchy, the **Defined At** column displays where the tables are defined. In this example, the 'Apparel' node is selected, and 'Products' displays in Defined At.

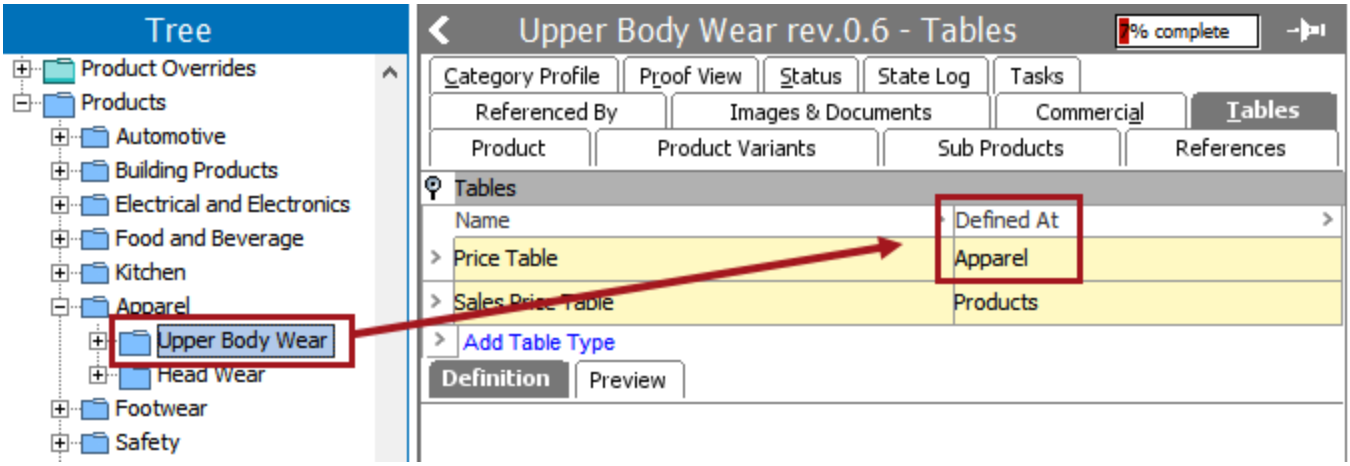


When an inherited table is changed at a lower level, a **local override** of the table is created. In this example, if changes are made to the table contents at the Apparel level, the table still has the same name, but the table definition is now different than the table defined at the Products level. **Local** is again displayed in the Defined At column, and, in turn, all products below the current level will now inherit the new table definition.

Note: Products at sibling levels still inherit the table definition from the higher level in the hierarchy.

In this example, changes have been made to the Price Table on the 'Apparel' level. **Defined At** now displays as Local.

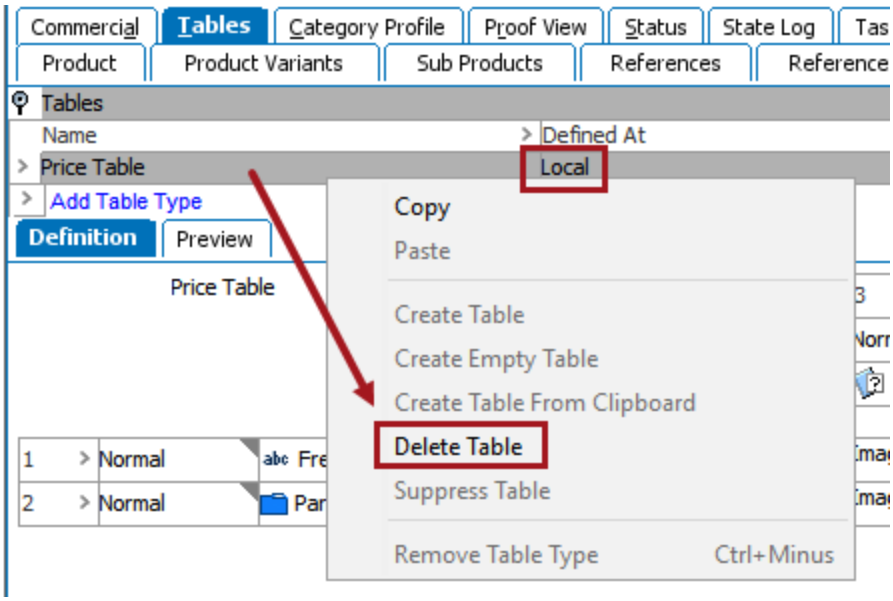
Subsequently, the nodes below Apparel now inherit the version of the table built on Apparel.



Removing a Local Table Override

A local instance of a table can be removed to return to the definition of the table inherited from a higher level. This deletion only removes the instance of the table defined at the local level; the table from the higher level remains.

1. Right-click on the Local table type that you want to delete, then select **Delete Table**.



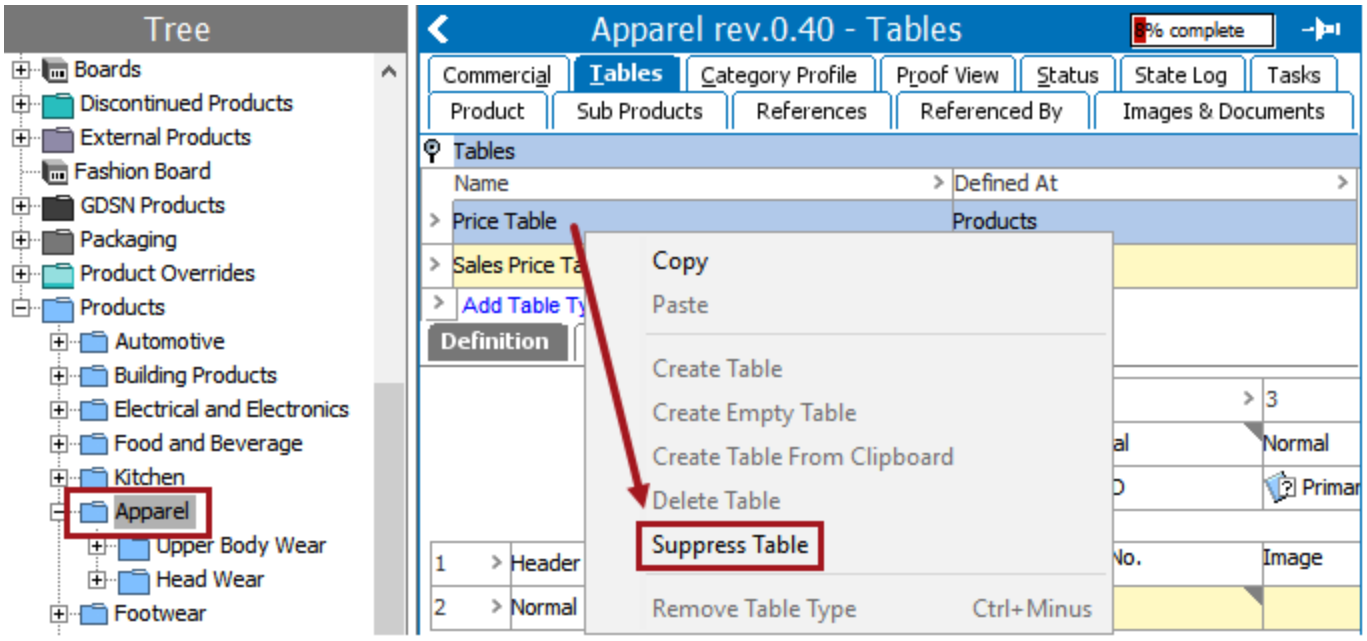
2. If the table was defined locally, but the local table overrode a table inherited from a higher level, the text under the **Defined At** column changes from **Local** to the name of the node on which the table is built. Due to the inheritance, the table itself cannot be deleted; only suppressed.

Suppressing Tables

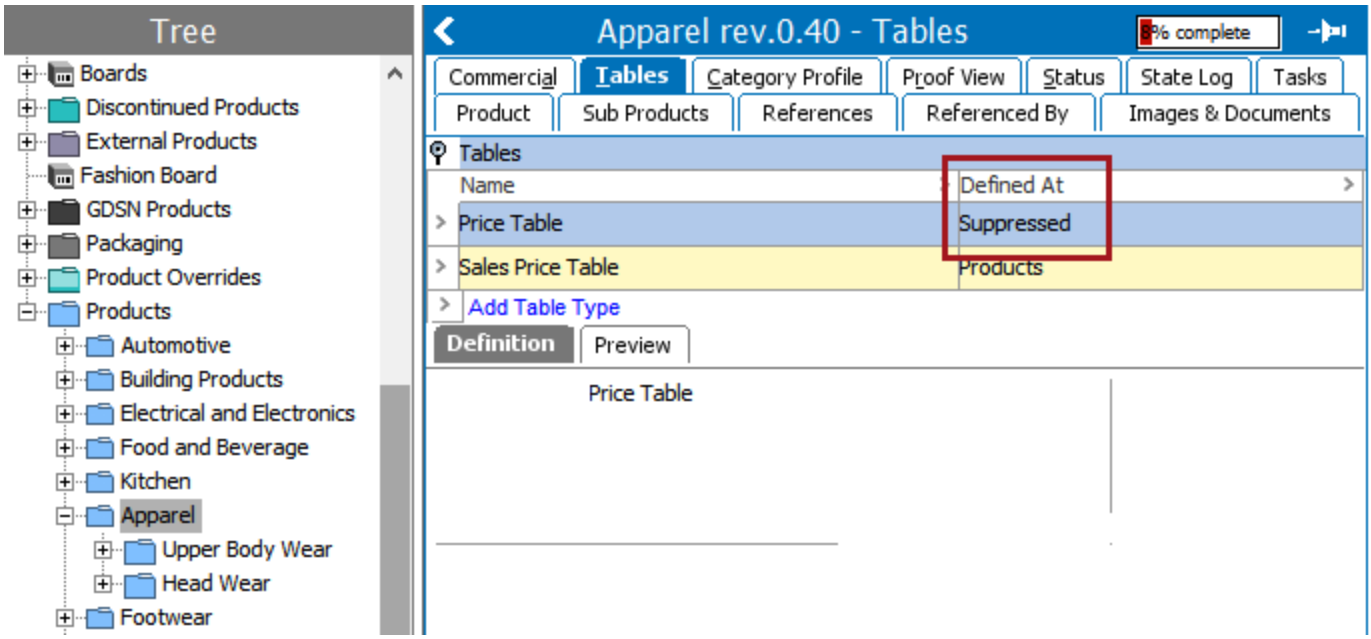
Inherited tables cannot be deleted, only suppressed. Conversely, tables that are created locally cannot be suppressed, only deleted. Refer to the **Creating Tables** topic for information on how to delete tables altogether.

A table is suppressed to keep it from being output when mounted to InDesign. For example, you have created an InDesign template that has text frames for two table types and you have two tables defined on a selection of products in STEP. Not all products will need both tables included on the mounted page. Suppress the one you do not need for each product so that it will not be output to InDesign.

1. Right-click on the inherited table that you want to suppress, then click **Suppress Table**.

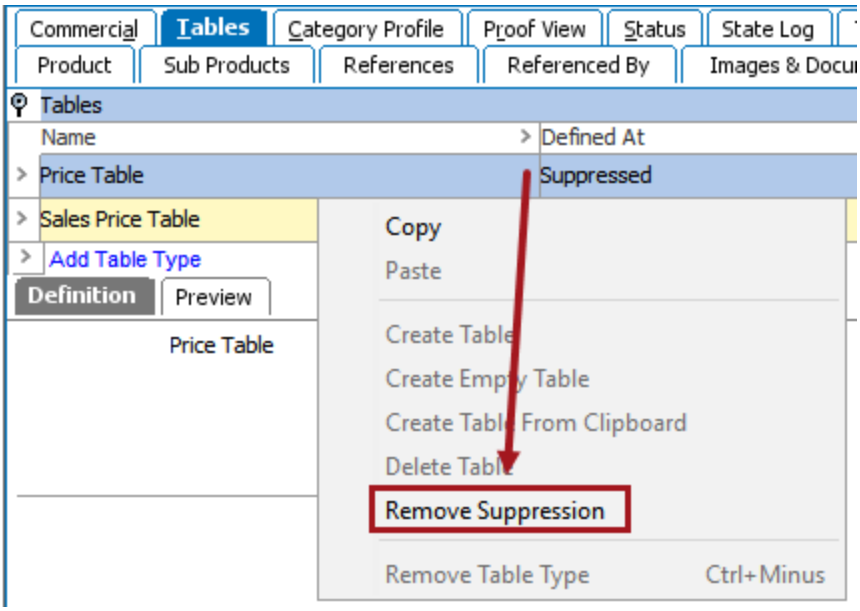


2. **Suppressed** now displays in the Defined At column. The table can also no longer be defined or previewed; nothing will display on either the Definition or Preview tab when a suppressed table is selected.



Unsuppress Tables

To unsuppress a table, right-click on the suppressed table and click **Remove Suppression**.


Commercial
Tables
Category Profile
Proof View
Status
State Log
Product
Sub Products
References
Referenced By
Images & Docu
Tables
Name
Defined At
Price Table
Suppressed
Sales Price Table
Add Table Type
Definition
Preview
Price Table
Copy
Paste
Create Table
Create Empty Table
Create Table From Clipboard
Delete Table
Remove Suppression
Remove Table Type
Ctrl+Minus

Previewing Tables

The table **Preview** shows a rough estimation of what your table currently looks like. The preview displays the text, colors, and lines based on how they are defined in System Setup. It does not exactly match what the table will look like when mounted onto the InDesign page; this is determined by the InDesign settings in the publication template. So, while the formatting options enable you to assign graphical attributes such as bold, italic, or color to your tables, it is not a true rendering of the final output.

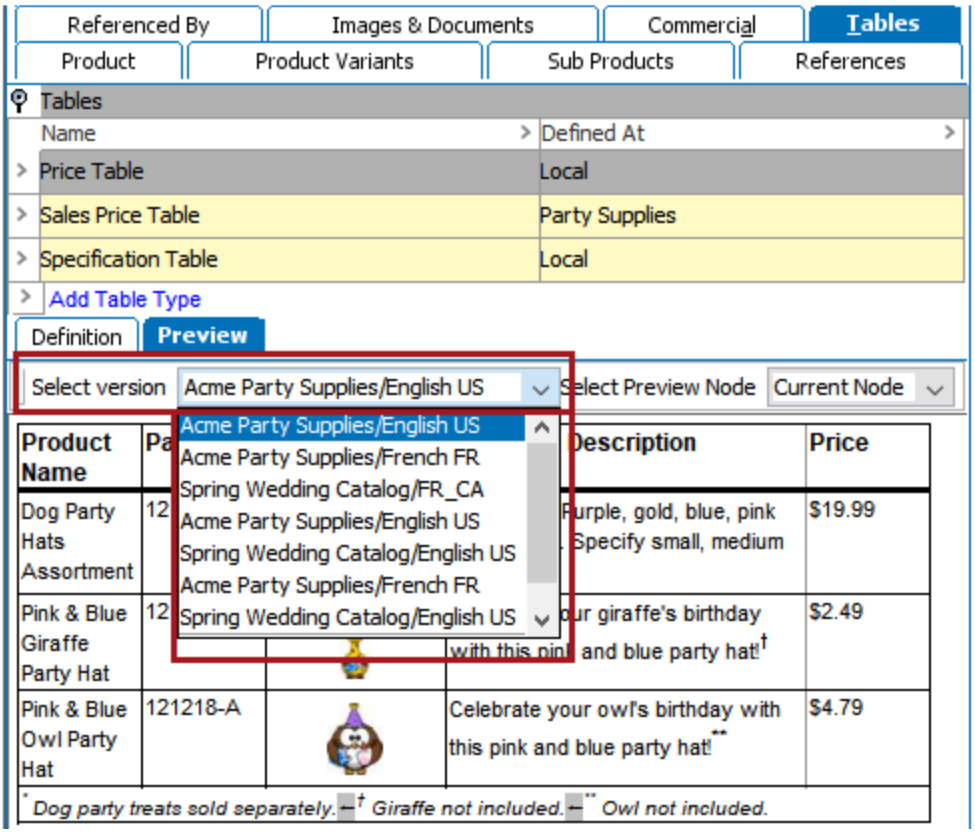
Preview a Table

Before you can preview a table, you have to select a specific publication version, since the table can include row types and column types that are only valid in specific publication types. Additionally, if the table has a row or column with a Commercial Data content definition, the publication version is important because commercial data is tied to publication versions.

The table preview only shows the columns and rows that are valid in the selected publication and filters away any other tables and rows. Likewise, commercial data is specified for a specific publication version, and is therefore only displayed in the table if the relevant publication version is selected.

The attribute values, references, and images that are displayed in the preview depend on the selected context.

1. In the Tree, navigate to the relevant product, classification, or product-override object, then click the **Tables** tab.
2. Select the table that you want to preview, then click the **Preview** tab.
3. In the **Select Version** list, select the preferred publication version. If you cannot view the relevant version, click **Other**, and search or browse for the relevant publication in the **Select Publication Version** window.



Note: The **Select Version** text is displayed in red if the version points to a different context and workspace than the ones selected in the toolbar. In this case, you have to change the context and workspace in the toolbar to match the context and workspace defined on the version.

Previewing Transformations

The Preview tab is also where all local table transformations are assigned to the table that you are previewing. The table transformations added are only added locally and do not override the table transformations on the table type. For information about adding table transformations, refer to the **Table Transformations** section of this guide.

Content Definitions

Content definitions determine what content appears in table rows, columns, and cells. The below table gives a brief overview of each content definition and a link to more details in subsequent sections of the Tables documentation.

The third column of the below table indicates whether the content definition is considered a data provider or a data selector. A **data provider** is a content definition that *provides* data; for example, a product that is placed into the table using the 'Current Object' content definition. A data provider is acted upon by a **data selector**, which is a content definition that *selects* data; for example, an attribute value being returned from the product by using the 'Attribute' content definition. A common orientation for a table is a *horizontal* table, where data providers (e.g., products) are in rows, and data selectors (e.g., attributes) are in columns.

Content Definition	Description	Data Provider or Data Selector	Related Topic
Attribute	Displays an attribute value for the selected object. The Name and ID of an object is also considered an attribute.	Data selector	**Attribute Content Definitions**
Attribute Group Attributes	Extracts all attributes in a group.	Data selector	
Meta Data Attribute	Functions like the Attribute content definition except it can display an attribute that is defined on a reference. This will only display the value on a reference when the opposing row or column is using the Node Reference content definition (as opposed to the Referenced Node content definition).	Data selector	
Legal Attributes	Dynamically resolves legal attributes of the extracted products.	Data selector	
Composite Attribute - All Attributes	Dynamically creates a row / column for each attribute within the composite attribute type every time the table is rendered.	Data selector	**Composite Attribute Content Definitions**

Content Definition	Description	Data Provider or Data Selector	Related Topic
Composite Attribute - Single Attribute	Creates a single row / column for each attribute selected from the composite attribute type.	Data selector	
Composite Attribute Values	Required to enable the two other composite attribute content definitions. I.e., if 'Composite Attribute - All Attributes' is placed in a column, then 'Composite Attribute Values' must be placed in a row to return the values from the specified composite attribute type on the current object.	Data provider	
Current Object	Extracts or resolves an object based on where the table is extracted.	Data provider	**Product Content Definitions**
First SubProduct, Classification	Dynamically returns information from the first child (subproduct) of a selected classification. This can, for example, be used to create a header in a table.	Data provider	
First SubProduct, Family	Similar to 'First Subproduct, Classification.' Dynamically returns information from the first child (subproduct) of a selected product family.	Data provider	
Node Reference	Extracts values from a referenced product, classification, or asset where the reference is owned by a configured product, classification, or asset.	Data provider	
Parent	Extracts the parent product up a specified number of levels in the product hierarchy.	Data provider	
Parent Name	Displays the name of the parent product of the product that is inserted in the table.	Data selector	

Content Definition	Description	Data Provider or Data Selector	Related Topic
Product/Classification/Asset	Enables you to select a specific product, classification or asset.	Data provider	
Referenced Node	Extracts values from a referenced product, classification or asset.	Data provider	
SubClassifications, Classification	Extracts classifications that are children of the current classification or a configured classification.	Data provider	
SubProducts, Classification	Extracts product families manually by pointing to any level in the classification hierarchy or dynamically from the level where the table is defined.	Data provider	
SubProducts, Family	Extracts products by pointing to any level in the product hierarchy or dynamically from the level where the table is defined.	Data provider	
Asset	Points to a specific image or asset.	Data selector	**Asset Content Definitions**
Asset Reference	Inserts an image or asset based on the selected asset type.	Data selector	
Free Text	Enables you to enter free text content directly in table cells. Free text is used where no suitable attribute exists, or where you need to enter some ad hoc data. Free text cells take priority over any selections made at the row or column level, meaning that the free text will appear regardless of what content definition has been chosen for the other row or column.	N/A	**Creating Table Types**. Free text cells can be translated if the table type is language dependent.
Commercial Data	Includes terms from a commercial list.	Data selector	**Commercial Data Content**

Content Definition	Description	Data Provider or Data Selector	Related Topic
			Definitions
Commercial Data Aspect	Includes a date aspect from the data field of a commercial list.	Data selector	
Date Spread Commercial Data	Uses commercial data from a publication dynamically.	Data selector	
Blank	Inserts a blank row or column.	N/A	*N/A; No additional documentation*

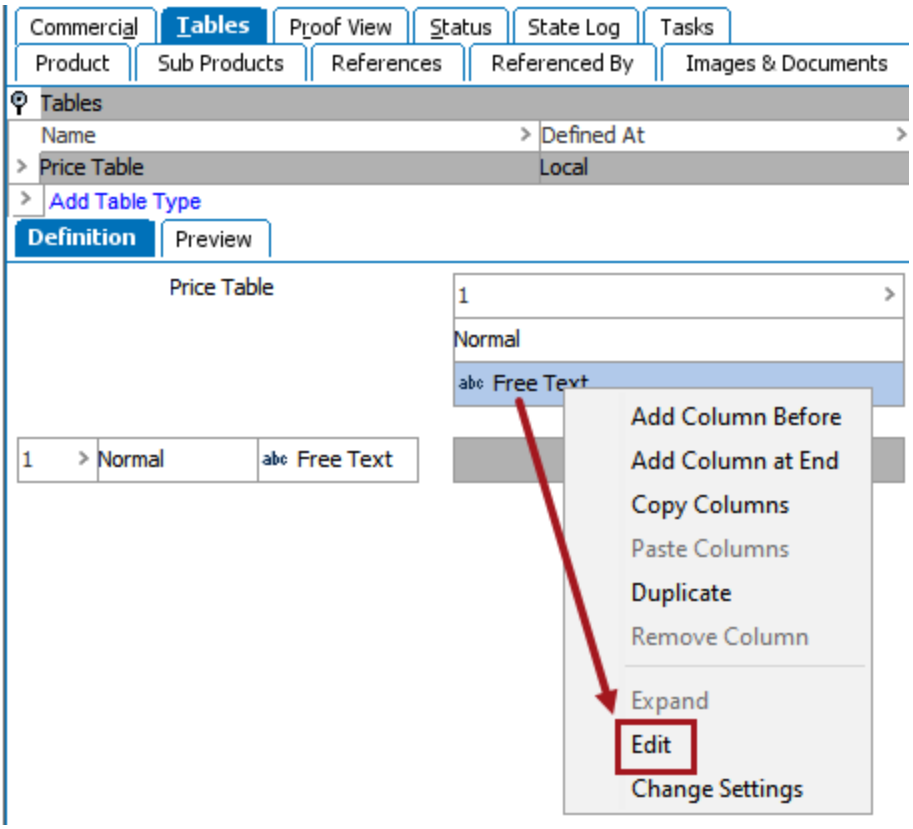
Adding, Editing, and Overriding Content Definitions

This topic explains how to add, remove, and override content definitions them within rows, columns, and cells in tables.

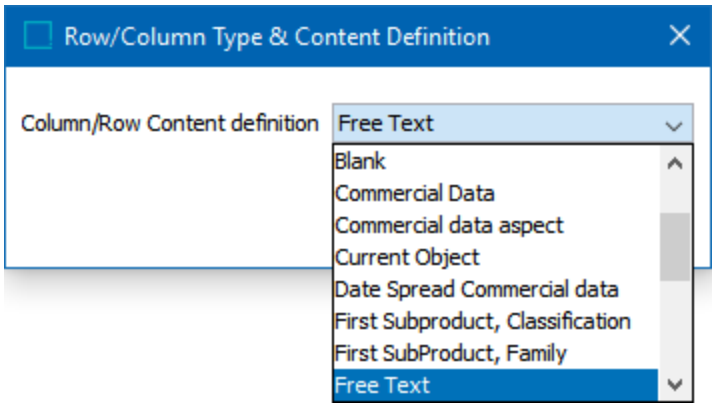
Add or Edit Content Definitions for Rows and Columns

1. In the Tree, locate the table that you want to edit, then click on the **Definition** tab.
2. Right-click in the content definition cell on the column or row that you would like to edit, then click **Edit**. In the following screenshot, the content definition cell has a preexisting content definition of abc Free Text.

   Alternatively, you may double-click the content definition cell.



3. In the **Row/Column Type & Content Definition** dialog that displays, choose the relevant content definition from the dropdown list. For most content definitions, a new dialog will display after you make your selection, requiring you to make additional configurations.

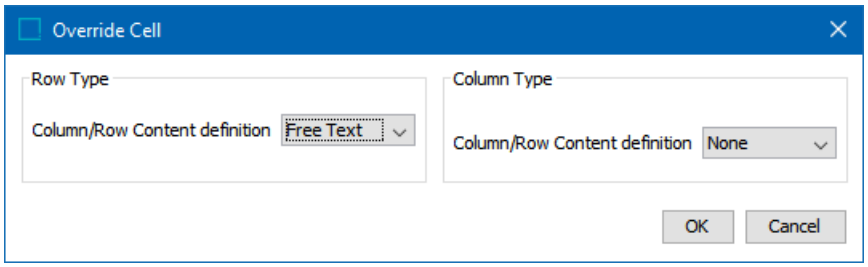


4. Refer to the **Content Definitions** section of this guide for next steps on how to choose and configure the desired content definition.

Override Content Definitions – Override Cell

In some instances, it may be necessary to overwrite the content definition of a row and/or column at the **cell** level. One use case is when using the **Asset** content definition. If applied to an entire column or row, an identical image will appear in every cell across the row or column. For this reason, the **Asset** content definition is typically applied at the cell level.

1. With your table open on the **Definition** tab, right-click inside the cell(s) that you want to edit, then choose **Edit**. Cells may be multi-selected by holding Ctrl or Shift while making selections.
2. In the **Override Cell** dialog, you can choose to override the content definition of the row, column, or both.



3. Select the preferred content definition, then click **OK**. The dialog changes according to the content definition you have selected.

To Remove Cell Overrides

1. Follow step 1 above to access the **Override Cell** dialog.
2. Choose **None** from the desired **Column/Row Content definition** dropdown list, then click **OK**.

Attribute Content Definitions

Attribute content definitions insert attributes for the selected object(s) in the table. Due to table inheritance, the attributes chosen for the table do not actually have to be valid on the object on which the table is built, if the table will be built dynamically using child objects. This would be the case, for example, when building a horizontally read table that uses attribute content definitions in the **columns** and a product content definition such as 'SubProducts, Family' or 'SubProducts, Classification' in the **rows**.

Attribute content definitions can be applied for individual attributes (both specification and description) as well as for attribute groups. The available attribute content definitions are:

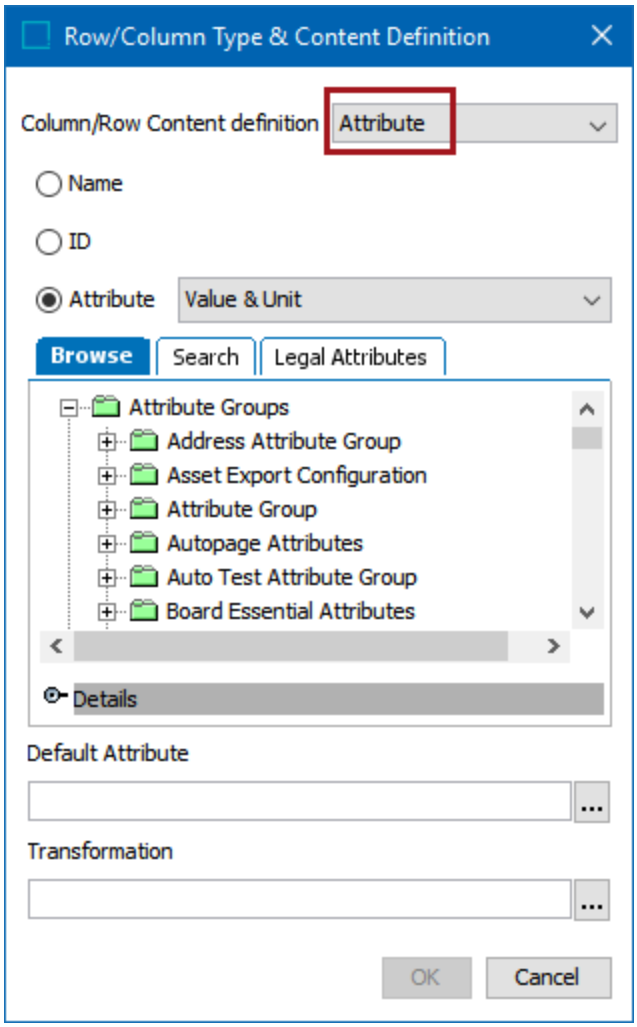
- Attribute
- Attribute Group Attributes
- Composite Attribute - All Attributes
- Composite Attributes - Single Attribute
- Composite Attribute Values
- Legal Attributes
- Meta Data Attribute

Attribute and Meta Data Attribute Content Definitions

The **Attribute** and **Meta Data Attribute** content definitions inserts an attribute for the selected object in the table. The Name and ID of an object is also considered an attribute. Both of these content definitions are configured identically, except Attribute pulls the value of a Specification attribute and Meta Data Attribute pulls the value of a Description attribute.

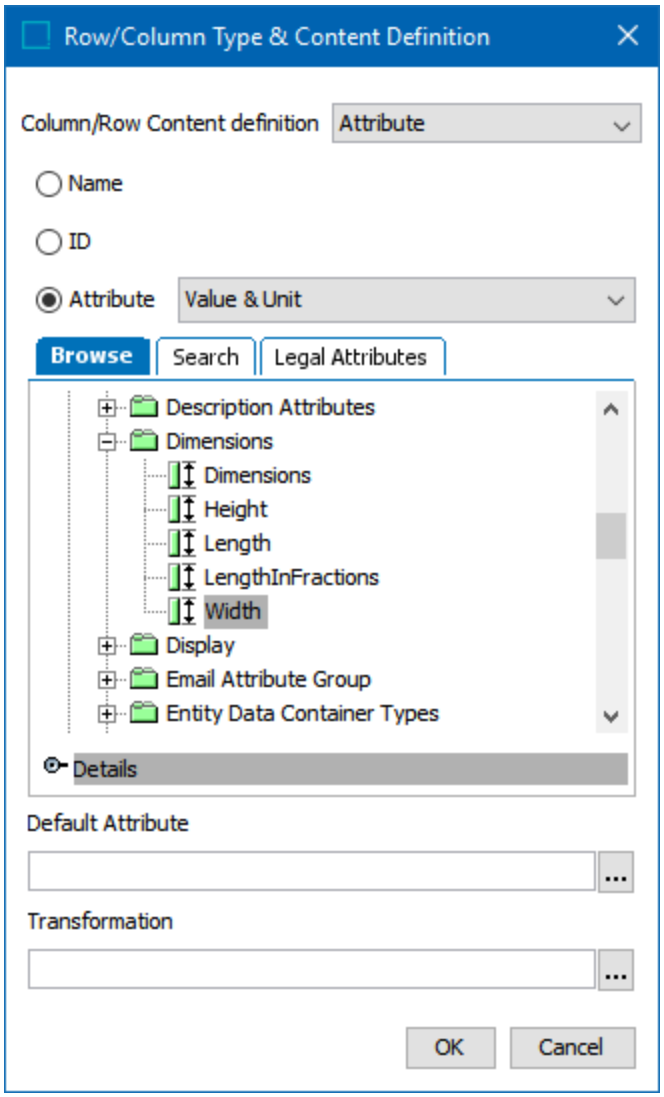
Note: Only individual attributes can be chosen when using the Attribute or Meta Data Attribute content definition; entire attribute *groups* cannot. To select attribute groups, the **Attribute Group Attributes** definition must be chosen. Refer to the **Attribute Group Attributes Content Definition** section of this guide for more information.

1. Follow the steps in the **Adding, Editing, and Overriding Content Definitions** topic to open the **Row/Column Type & Content Definition** dialog for your row or column.
2. In the Column/Row Content definition dropdown list, select **Attribute** or **Meta Data Attribute**. The steps in this topic show the Attribute definition.

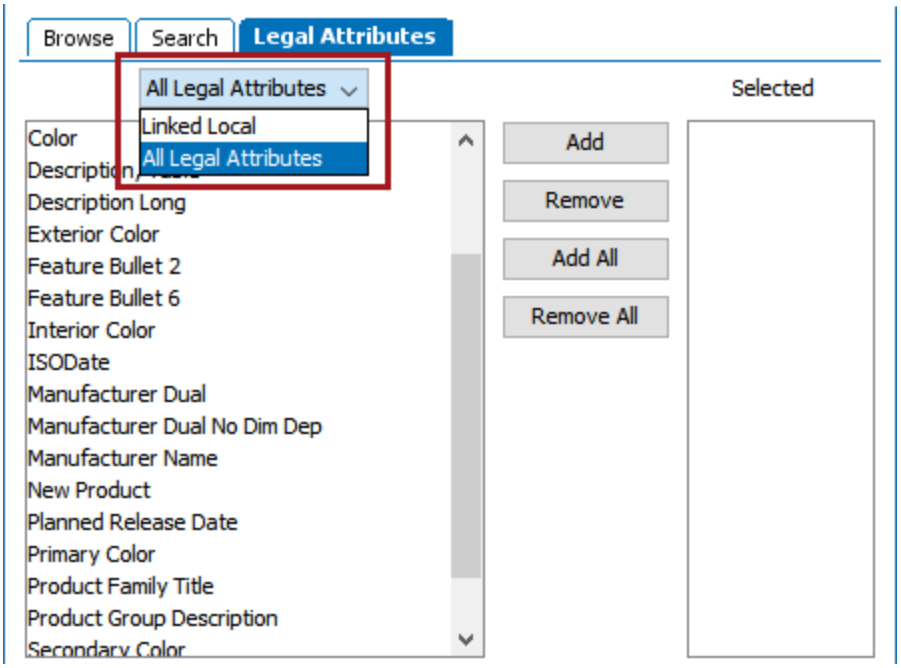


3. Select **Name** to insert the object names in the table. If Name is inserted in a column, and the row extracts a product, then the name of the product is inserted in the table.
4. Select **ID** to insert the object IDs in the table. If ID is applied to a column, and the row extracts a product, then the ID of the product is inserted in the table.
5. Select **Attribute** to insert a specific attribute in the table. Three tabs are available for locating the attribute: **Browse**, **Search**, and **Legal Attributes**.The screenshot below shows the dialog with the **Browse** tab selected.

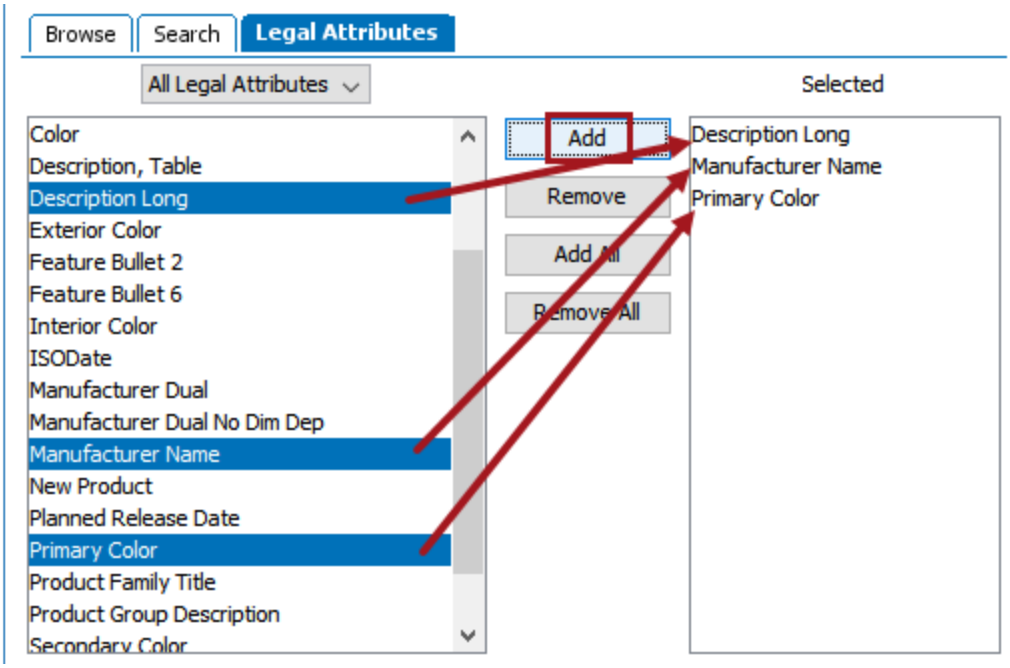
> **Note:** In any of these methods, multiple attributes can be selected by pressing Ctrl or Shift while making selections. A new row or column will be created for each attribute selected.



6. When **Legal Attributes** is selected, two options are available from the dropdown:
   - **Linked Local:** Select this to view all specification attributes that are linked locally to the selected products. In this option you will not view any attributes inherited from a higher level. For more information on locally linked attributes, refer to the **Attribute Links** section of the **System Setup** documentation.
   - **All Legal Attributes:** - Select this to view all specification attributes that are valid for the selected product. This includes both inherited attributes and attributes that are linked locally. For more information on attribute validity, refer to the **Validity on Specification Attributes** section of the **System Setup** documentation.

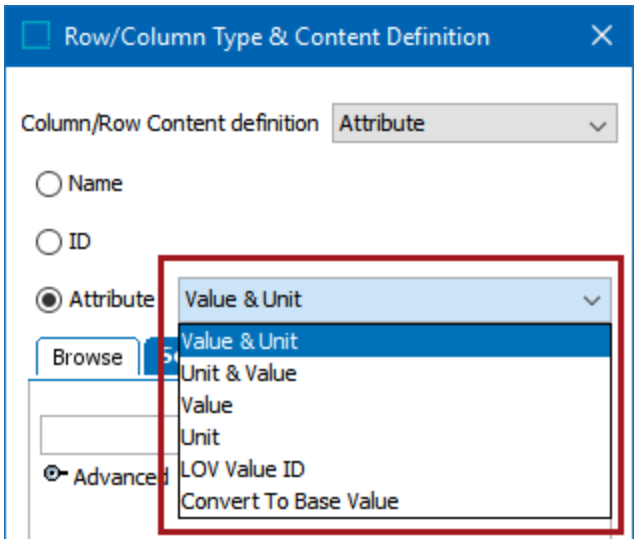


7. For the **Linked Local** and **All Legal Attributes** options, select the desired specification attributes in the left window of the dialog and choose **Add** to add them to the **Selected** window. Attributes may be multi-selected by holding the Ctrl or Shift key while making selections. To add all of the attributes to Selected, click **Add All**. To remove a selection of attributes from Selected, choose the relevant attributes, then click **Remove**. To remove all attributes from Selected, click **Remove All**.



Resolving Attributes

Several options are available in the **Attribute** dropdown list that determine how the attribute values will resolve in the table. Refer to the **Resolving Attributes** topic in this guide for information on these selections.

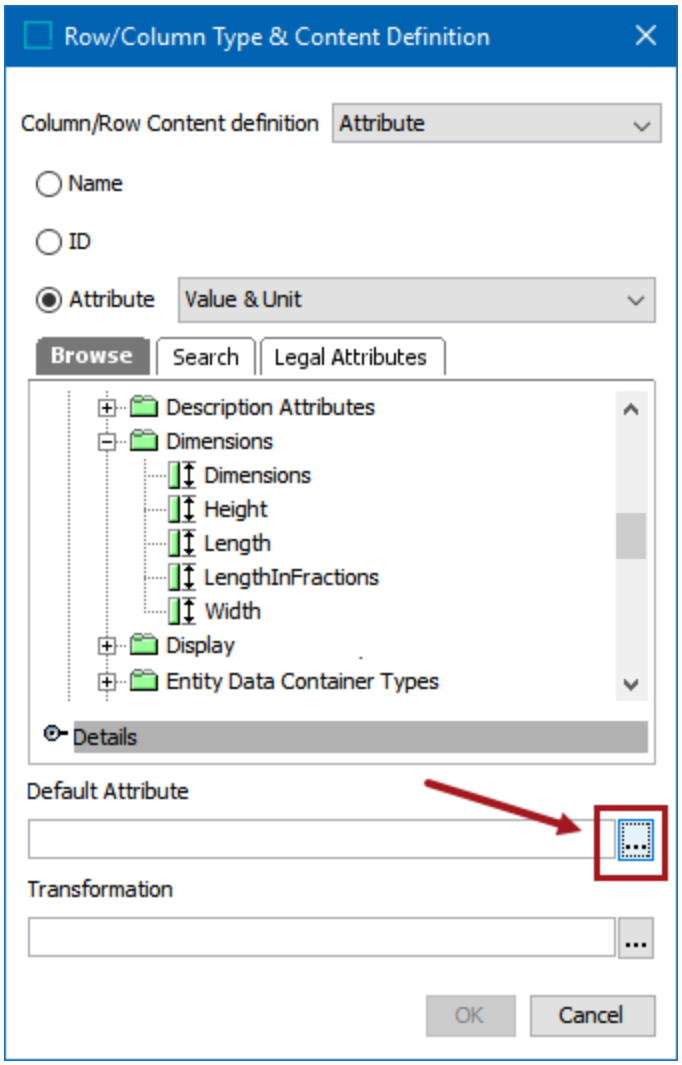


Default Attribute

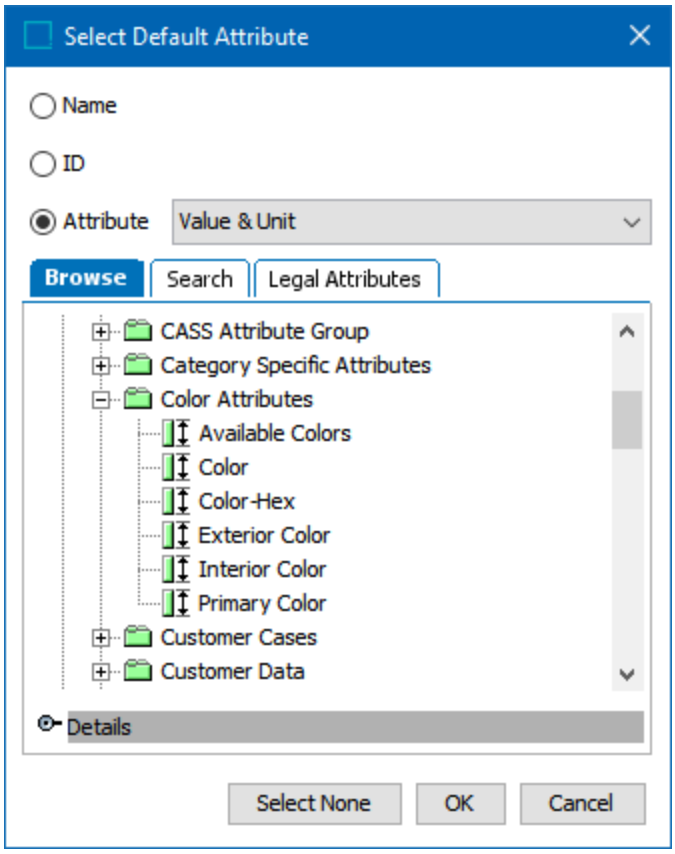
By using the inheritance feature of STEP, you can link an attribute higher up in the Tree to make it valid at the appropriate points in the hierarchy, on particular object types. Insert the 'Default Value' at the top level and let it inherit down. Then, if you need to change this value on some of the children, you can change the value. If later you remove the overridden value, the default value will again populate.

To add a default attribute:

1. Click the ellipsis button (...) to launch the **Select Default Attribute** dialog.



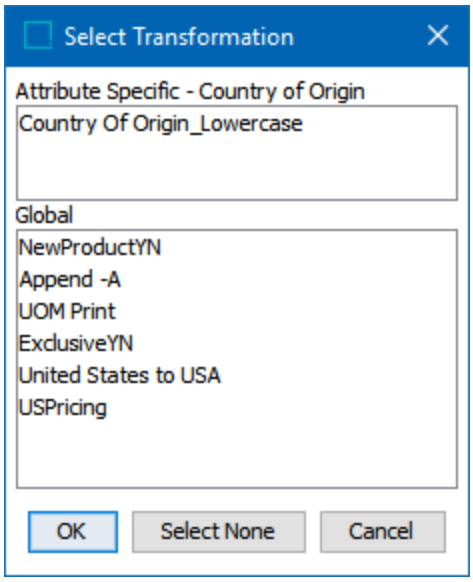
2. Locate the default attribute using either the Browse, Search, or Legal Attributes tab, then click **OK**. If an attribute has previously been chosen and you want to remove it, click **Select None**.



Transformation

There are numerous reasons to apply a transformation to an attribute in a table. One example would be if the attribute is multivalued. You can then apply a transformation that specifies how to separate the values.

1. To apply an attribute transformation to the selected attribute, click the ellipsis button (...) under **Transformation**.
2. Select the relevant transformation in from the **Select Transformation** dialog, then click OK.



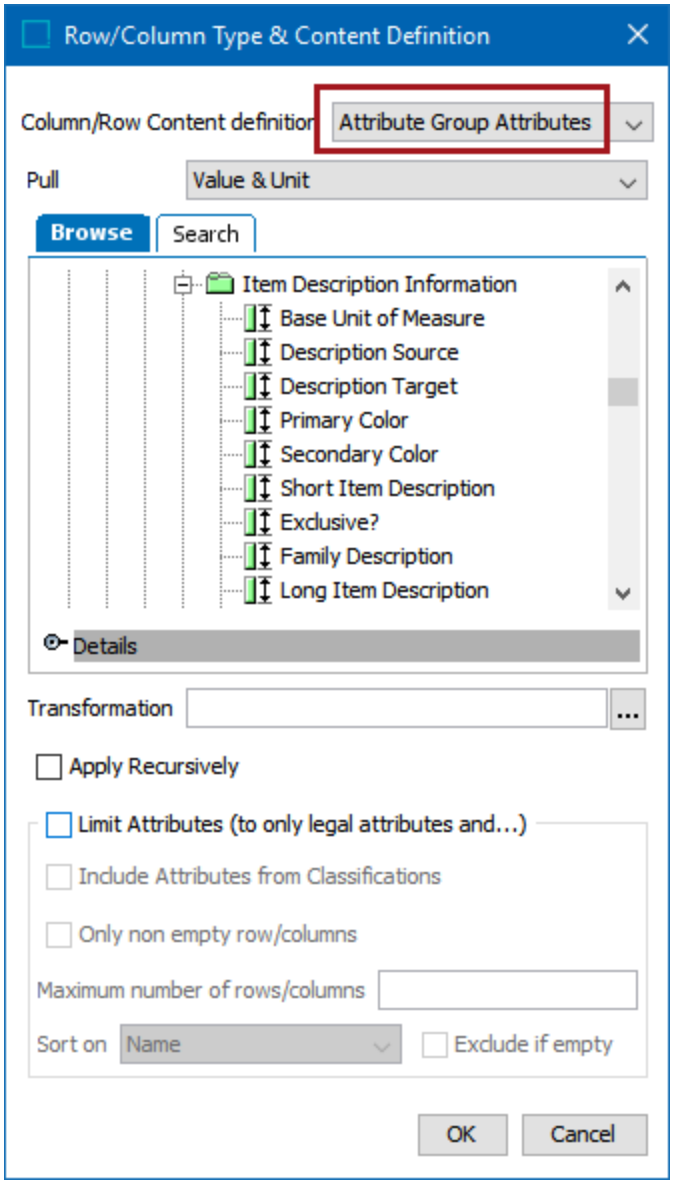
For more information about applying attribute transformations to table content, including initial setup, refer to the **Applying Attribute Transformations to Table Content** section of this guide.

Attribute Group Attributes Content Definition

The **Attribute Group Attributes** definition enables you to select an entire group of attributes and add them to a table in one operation. Each attribute will appear in its own column / row. For example, if you assign a column to an attribute group that contains six individual attributes, six columns will be created in the table, unless limiting options are applied; refer to the steps below for more information.

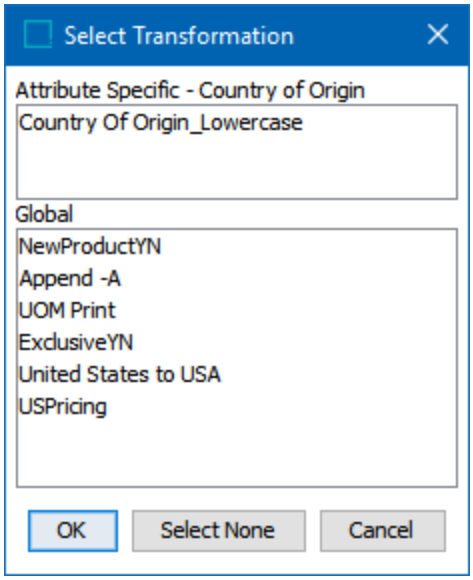
The Attribute Group Attributes content definition extracts all attributes in a group dynamically. Therefore, if new attributes are added to the attribute group in System Setup after the table has been created, new columns or rows for these attributes will be created dynamically.

1. In the Column/Row Content definition list, select **Attribute Group Attributes**.



2. In the **Pull** dropdown list, select what content should be displayed for each attribute. Available options are:
   - Value & Unit
   - Unit & Value
   - Value
   - Unit
   - LOV Value ID
   - Convert to Base Value

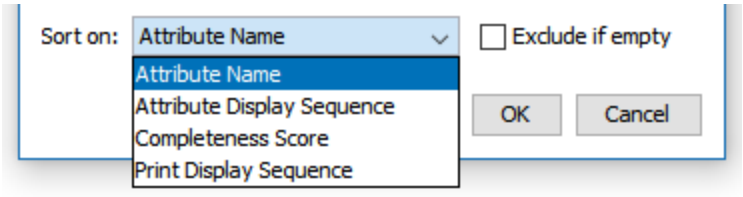
   Refer to the **Resolving Attributes** topic in this guide for information on these options.
3. Browse or search for the relevant attribute group using the **Browse** or **Search** tab.
4. To apply an attribute transformation, click the ellipsis button (...) next to the **Transformation** field and choose the relevant attribute transformation from the **Select Transformation** dialog.



   For more information about applying attribute transformations to table content, including initial setup, refer to the **Applying Attribute Transformations to Table Content** section of this guide.
5. Check **Apply Recursively** to apply the transformation.
6. Select **Limit Attributes (to only Legal attributes and...)** so that only specification attributes that have been made legal for the specific products included in the table will be included as columns / rows in the table. Selecting this also makes more limitations available.
7. Select **Include Attributes from Classifications** to include specification attributes that are inherited from classifications.
8. Select **Only non empty rows/columns** so attributes values will not be included as columns / rows in the table.
9. In the **Maximum number of rows/columns** field, enter the maximum number of rows / columns to include. If left blank, rows / columns will be created in the table for all attributes in the group, unless otherwise limited.

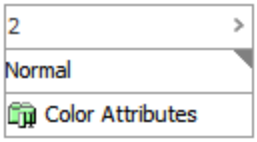
For example, if 'Only non empty row/columns' is checked, empty rows / columns will not be included, regardless.

10. From the **Sort on** list, select the relevant sorting attribute, or leave the default selection of Name to sort the rows / columns alphabetically by attribute name. The list is composed of all description attributes in the system that have been made valid on the **Attribute** object type and have a validation base type of **Number**. The below screenshot shows a representative sample; the attributes will vary from system to system.



The recommended practice for this option is to create a special 'table sort' attribute that is exclusively used for sorting rows and/or columns created using the Attribute Group Attributes content definition. For more information, refer to the **Controlling the Attribute Order in 'Attribute Group Attributes'** topic in this guide.

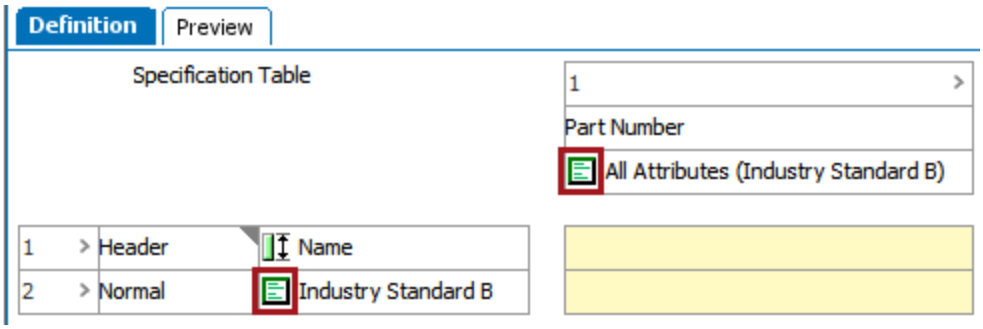
11. Check **Exclude if empty** to include only attributes that have a sorting sequence entered. In other words, any attributes (even if they have values entered) without a value in the selected sorting sequence metadata attribute will NOT be displayed. If this box is *not* selected, the attributes without a value for the sorting sequence attribute will be included at the end in alphabetical order.
12. Click **OK**. The Attribute Group Attributes definition is added.



Composite Attribute Content Definitions

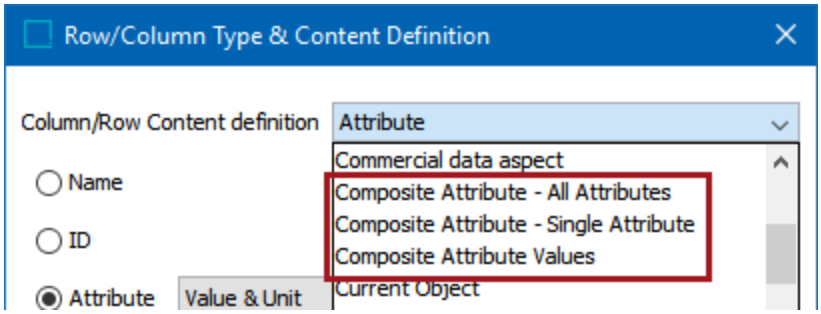
Composite attribute content definitions are applied to columns and rows in tables to dynamically pull information from attributes within composite attributes that have been configured on product objects.

When a composite attribute content definition is used in a table, it is represented by the square icon pictured in the below screenshot.



The available composite attribute definitions are:

- **Composite Attribute - All Attributes:** Dynamically creates a row / column for each attribute within the composite attribute type every time the table is rendered.
- **Composite Attribute - Single Attribute:** Creates a single row / column for each attribute selected from the composite attribute type.
- **Composite Attribute Values:** Required to enable the two other composite attribute content definitions. I.e., if 'Composite Attribute - All Attributes' is placed in a column, then 'Composite Attribute Values' must be placed in a row to return the values from the specified composite attribute type on the current object.



Note: Composite attributes are also known as **data containers**. As such, all configuration work for composite attributes is performed on the Data Containers tab in the STEP Workbench. For information on the setup and configuration of composite attributes / data containers, refer to the **Data Containers** section of the **System Setup** documentation.

Prerequisites

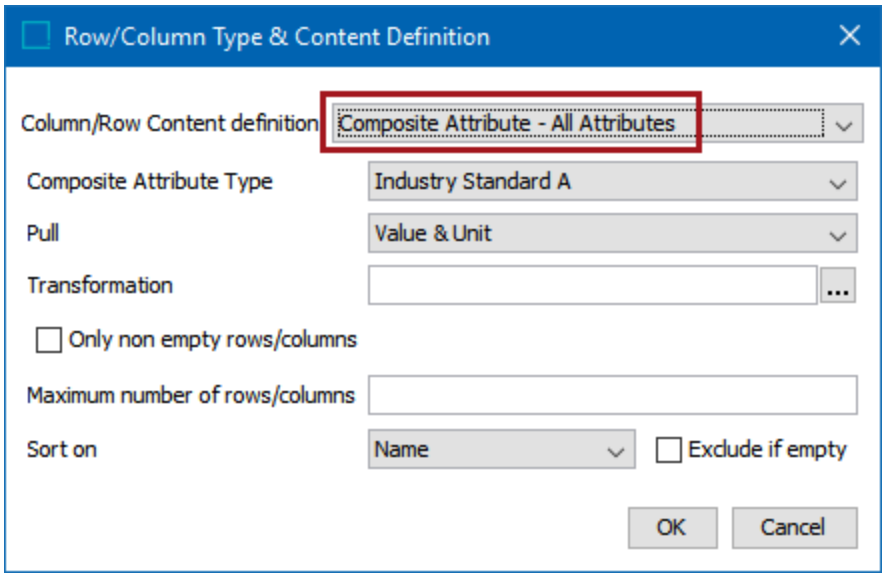
The following configuration instructions presume that you have already created a table definition on your product, and that you are now defining the content definitions on a column or row. For more information on the preliminary steps of adding content definitions, refer to the **Adding, Editing, and Overriding Content Definitions** topic in this guide.

Composite Attribute - All Attributes

The **Composite Attribute - All Attributes** content definition extracts the values from all attributes within the composite attribute type defined on the product. A row or column is dynamically created for each attribute within the composite attribute every time the table defined on the product is rendered.

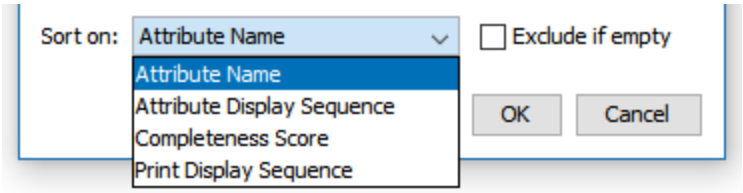
The Composite Attribute - All Attributes content definition is a data selector. It is used to select the composite attribute content provided by the Composite Attribute Values content definition, which is a data provider. For more information on how data selectors and data providers are defined, refer to the **Content Definitions** topic in this guide.

To configure the Composite Attribute - All Attributes content definition, follow these steps.



1. In the Column/Row Content definition dropdown, select **Composite Attribute - All Attributes**.
2. In the **Composite Attribute Type** dropdown list, select the relevant composite attribute object type.
3. From the **Pull** list, select the relevant option for how to resolve the attribute value. Refer to the **Resolving Attributes** topic in this guide for more information on the available options (e.g., Value & Unit).
4. In the **Transformation** field, click the ellipsis button (...) to apply an attribute transformation to all values returned from the composite attribute. For more information on adding attribute transformations to attributes in tables, refer to the **Applying Attribute Transformations to Table Content** topic in this guide.
5. Check **Only non empty rows/columns** to ensure that there are no empty rows or columns in the table if an attribute is missing a value in the composite attribute.

6. In the **Maximum number of rows/columns** field, enter a number that corresponds to the maximum number of rows or columns that should display. If left blank, all attributes within the composite attribute will display, unless otherwise limited. For example, if 'Only non empty row/columns' is checked, empty rows / columns will not be included, regardless.
7. From the **Sort on** list, select the relevant sorting attribute, or leave the default selection of Name to sort the rows / columns alphabetically by attribute name. The list is composed of all description attributes in the system that have been made valid on the **Attribute** object type and have a validation base type of **Number**. The below screenshot shows a representative sample; the attributes will vary from system to system.

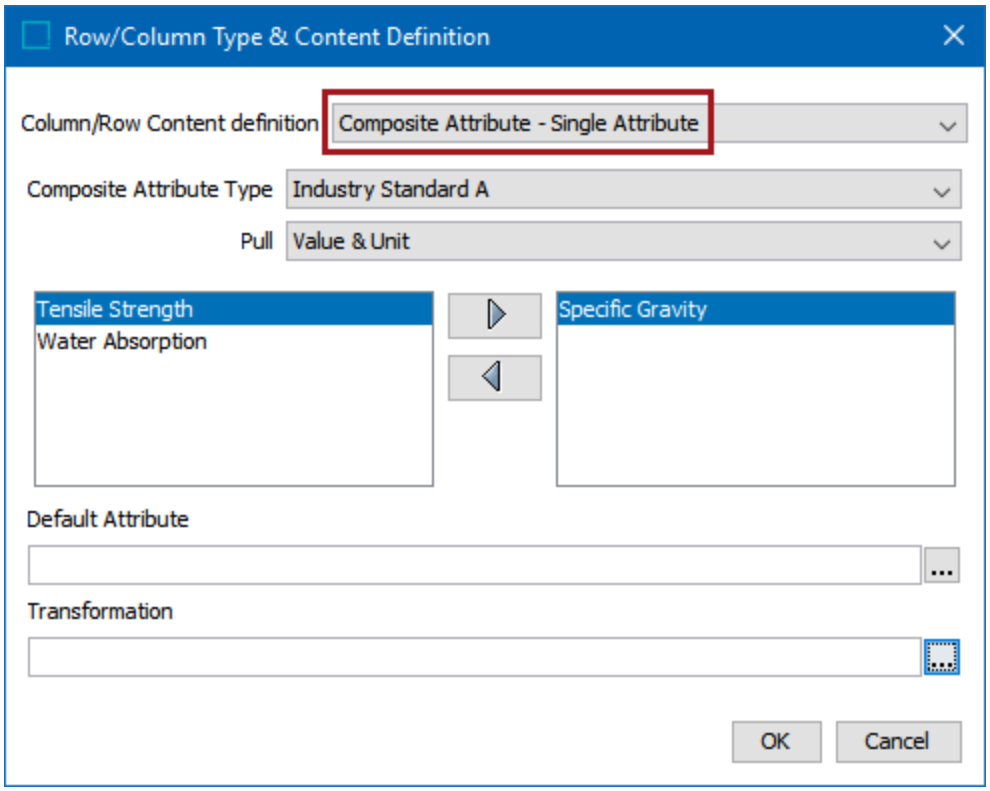


8. Check **Exclude if empty** to include only attributes that have a sorting sequence entered. In other words, any attributes (even if they have values entered) without a value in the selected sorting sequence metadata attribute will NOT be displayed. If this box is *not* selected, the attributes without a value for the sorting sequence attribute will be included at the end in alphabetical order.
9. Click **OK** to complete the configuration.

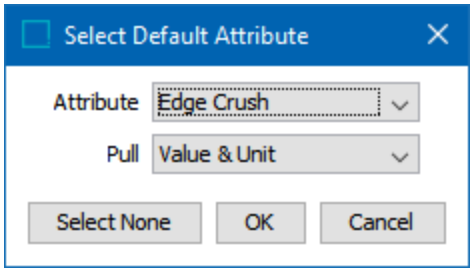
Composite Attribute - Single Attribute

The **Composite Attribute - Single Attribute** content definition extracts the value of selected attributes within the composite attribute. This definition is also a data selector, like the Composite Attribute - All Attributes definition.

To configure the Composite Attribute - Single Attribute content definition, follow these steps.



1. In the Column/Row Content definition dropdown, select **Composite Attribute - Single Attribute**.
2. In the **Composite Attribute Type** dropdown list, select the relevant composite attribute object type.
3. From the **Pull** list, select the relevant option for how to resolve the attribute value. Refer to the **Resolving Attributes** topic in this guide for more information on the available options (e.g., Value & Unit).
4. In the left window, select the attribute(s) that you want to display in the table, then click the right-facing arrow to add the attribute(s) to the right window. To remove an attribute, select the attribute in the right window and click the left-facing arrow. Each attribute you select will create an individual column or row in the table.
5. For **Default Attribute**, click the ellipsis button (...). If a value is missing for any of the selected attributes, then it will be populated with the value of the attribute chosen as the default attribute. The default attribute does not have to be one of the attributes that has been selected to display in the table.



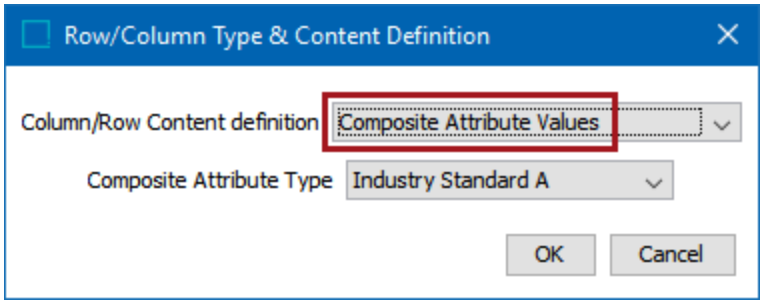
6. **Transformation:** Click the ellipsis button (...) button to apply a transformation to the selected attribute value (s). For more information about applying attribute transformations to table content, refer to the **Applying Attribute Transformations to Table Content** section of this guide.

7. Click **OK** to complete the configuration.

Composite Attribute Values

Composite Attribute Values is a data provider content definition that is used to provide content for the Composite Attribute - All Attributes and Composite Attribute - Single Attribute content definitions. Values are resolved where the Composite Attribute Values content definition intersects with one of the other two composite attribute content definitions.

To configure the Composite Attribute Values content definition, follow these steps.



1. In the Column/Row Content definition dropdown, select **Composite Attribute Values**.
2. In the Composite Attribute Type dropdown, select the relevant composite attribute type.

   Note: This composite attribute type must be the *same* composite attribute type chosen in the intersecting composite attribute content definition. If they do not match, the values will not resolve.

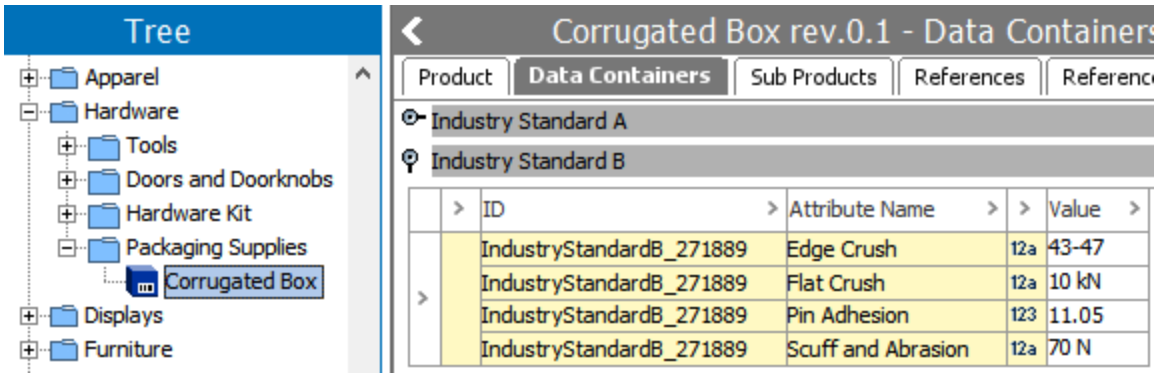
3. Click **OK** to complete the configuration.

Sample Composite Attribute Tables

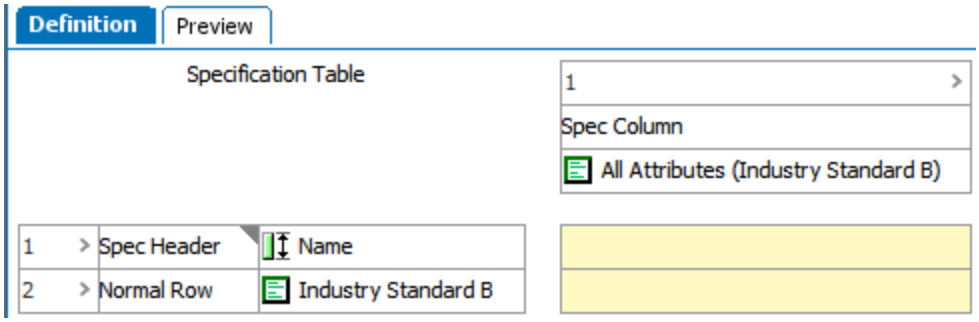
The following two examples show resolved tables using the Composite Attribute - All Attributes content definition, in conjunction with the Composite Attribute Values content definition. The first example uses a composite attribute type that contains one data container, and the second example uses a composite attribute type with two data containers.

Example 1 - Composite Attribute With One Data Container

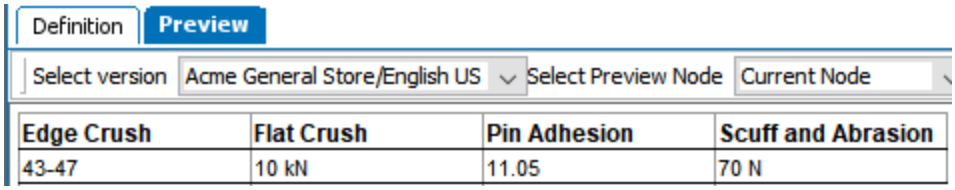
1. On the 'Corrugated Box' product, a composite attribute / data container type named 'Industry Standard B' has been defined on the Data Containers tab. The composite attribute contains four attributes.



2. The table **definition** contains one column and two rows. The Spec Column uses the Composite Attributes - All Attributes content definition, configured to *select* values from the Industry Standard B composite attribute. The Normal Row uses the Composite Attribute Values content definition, configured to *provide* values from the Industry Standard B composite attribute. The Spec Header row uses the Attribute content definition to pull the STEP name of the attributes within the composite attribute.

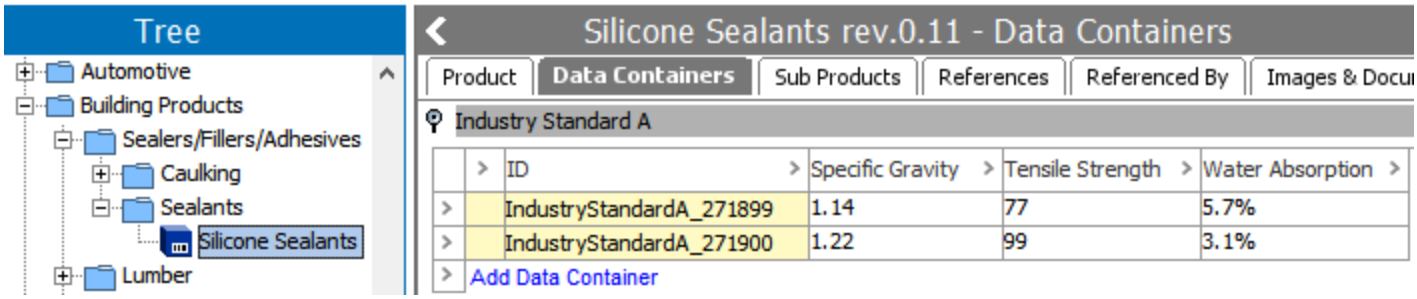


3. The table **preview** shows each attribute within the composite attribute in a separate column. No sort attribute was provided, so the attributes are sorted alphabetically.

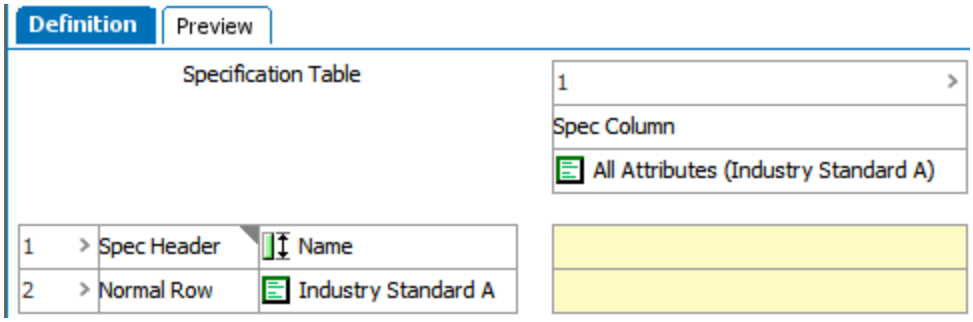


Example 2 - Composite Attribute With More Than One Data Container

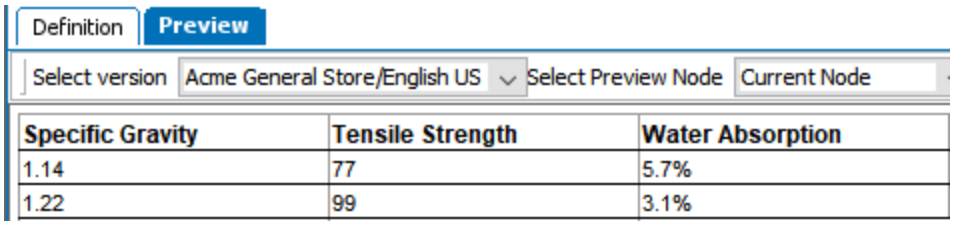
1. On the 'Silicone Sealants' product, two composite attribute / data containers of the 'Industry Standard A' type named have been defined on the Data Containers tab. Each composite attribute contains three attributes.



2. The table **definition** contains one column and two rows. The Spec Column uses the Composite Attributes - All Attributes content definition, configured to *select* values from the Industry Standard A composite attributes. The Normal Row uses the Composite Attribute Values content definition, configured to *provide* values from the Industry Standard A composite attributes. The Spec Header row uses the Attribute content definition to pull the STEP name of the attributes within the composite attribute.



3. The table **preview** shows each attribute within the composite attribute in a separate column. Since there are two data containers within the composite attribute, two rows display. No sort attribute was provided, so the attributes are sorted alphabetically.



Considerations and Limitations

The following considerations and limitations should be kept in mind when working with composite attribute content definitions in tables:

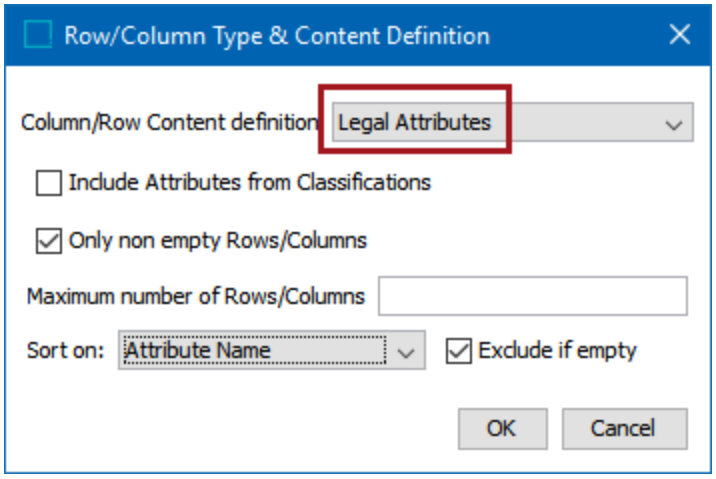
- Since tables cannot be resolved on entities in STEP, this functionality only applies to composite attributes / data containers on products.
- Composite attribute content definitions will only resolve on the current object.
- Composite attribute values, once mounted onto InDesign pages using Publisher, cannot be written back to STEP from within InDesign.

- Composite attribute rows / columns cannot be expanded within the table definition. For example, a composite attribute with four attributes will always be represented by a single row / column in the table definition, and cannot be expanded to show four separate rows.

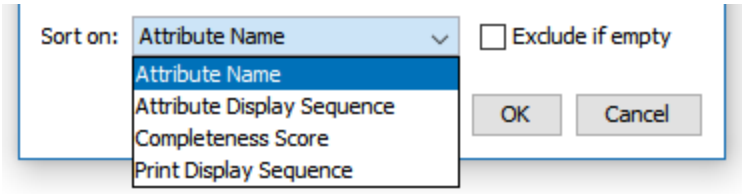
Legal Attributes Content Definition

The **Legal Attributes** content definition limits the number of available attributes to specification attributes that are legal on the selected object. It also enables additional limitation and sorting options.

1. In the **Column/Row Content definition** list, select **Legal Attributes**.



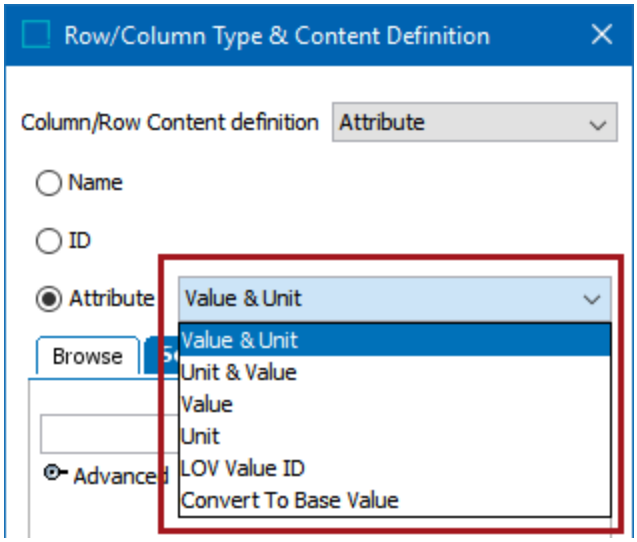
2. Select **Include Attributes from Classifications** to include attributes from classifications.
3. Select **Only non empty Rows/Columns** to resolve only attributes with values.
4. In the **Maximum number of Rows/Columns** field, enter the maximum number of attributes to be resolved.
5. From the **Sort on** list, select the relevant sorting attribute, or leave the default selection of Attribute Name to sort the rows / columns alphabetically by attribute name. The list is composed of all description attributes in the system that have been made valid on the **Attribute** object type and have a validation base type of **Number**. The below screenshot shows a representative sample; the attributes will vary from system to system.



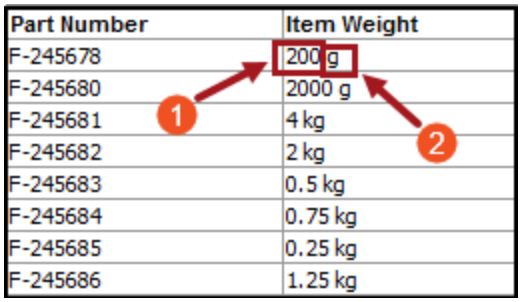
6. Check **Exclude if empty** to include only attributes that have a sorting sequence entered. In other words, any attributes (even if they have values entered) without a value in the selected sorting sequence metadata attribute will NOT be displayed. If this box is *not* selected, the attributes without a value for the sorting sequence attribute will be included at the end in alphabetical order.
7. Click **OK** when configurations are complete.

Resolving Attributes

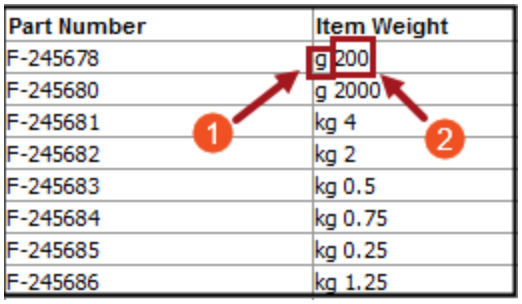
The following options are available in the **Attribute** dropdown list that determine how the attribute values will resolve in the table. This list is titled **Pull** in the Legal Attributes and Attribute Group Attributes content definitions.



1. **Value & Unit** - Attribute values and units are resolved with **values** (1, below) resolved before **units** (2, below).



2. **Unit & Value** - Attribute values and units are resolved with **units** (1, below) resolved before **values** (2, below).



3. **Value** - Only values are resolved. If the values also have a unit, the unit will not be resolved.
4. **Unit** - Only units are resolved. Attribute values will not be resolved.
5. **LOV Value ID** - The IDs of the LOVs will be resolved.

   Example *before* LOV value ID resolve:

Part Number	Item Weight	Item Weight	Item Discount Price	Primary Color	Sound
F-245678	g	200	8.99	Green	Cinema
F-245680	g	2000	6	Green	Compressed Audio
F-245681	kg	4000	7	Green	Custom
F-245682	kg	2000	2	Green	Dynamic
F-245683	kg	500.0	10	Green	Game
F-245684	kg	750.00	11	Green	Sports
F-245685	kg	250.00	7	Green	Sports
F-245686	kg	1250.00	10	Green	Cinema

   Example *after* LOV value ID resolve:

Part Number	Item Weight	Item Weight	Item Discount Price	Primary Color	Sound
F-245678	g	200	8.99	Green	2
F-245680	g	2000	6	Green	6
F-245681	kg	4000	7	Green	8
F-245682	kg	2000	2	Green	7
F-245683	kg	500.0	10	Green	5
F-245684	kg	750.00	11	Green	3
F-245685	kg	250.00	7	Green	3
F-245686	kg	1250.00	10	Green	2

6. **Convert To Base Value** - This will resolve and give the result of the base value. In the below example, two value units—g (gram) and kg (kilogram)—are used in the Item Weight column. When using the Convert to Base Value option, the values will be converted to grams.

   Example *before* Convert to Base Value resolve:

Part Number	Item Weight
F-245678	200 g
F-245680	2000 g
F-245681	4 kg
F-245682	2 kg
F-245683	0.5 kg
F-245684	0.75 kg
F-245685	0.25 kg
F-245686	1.25 kg

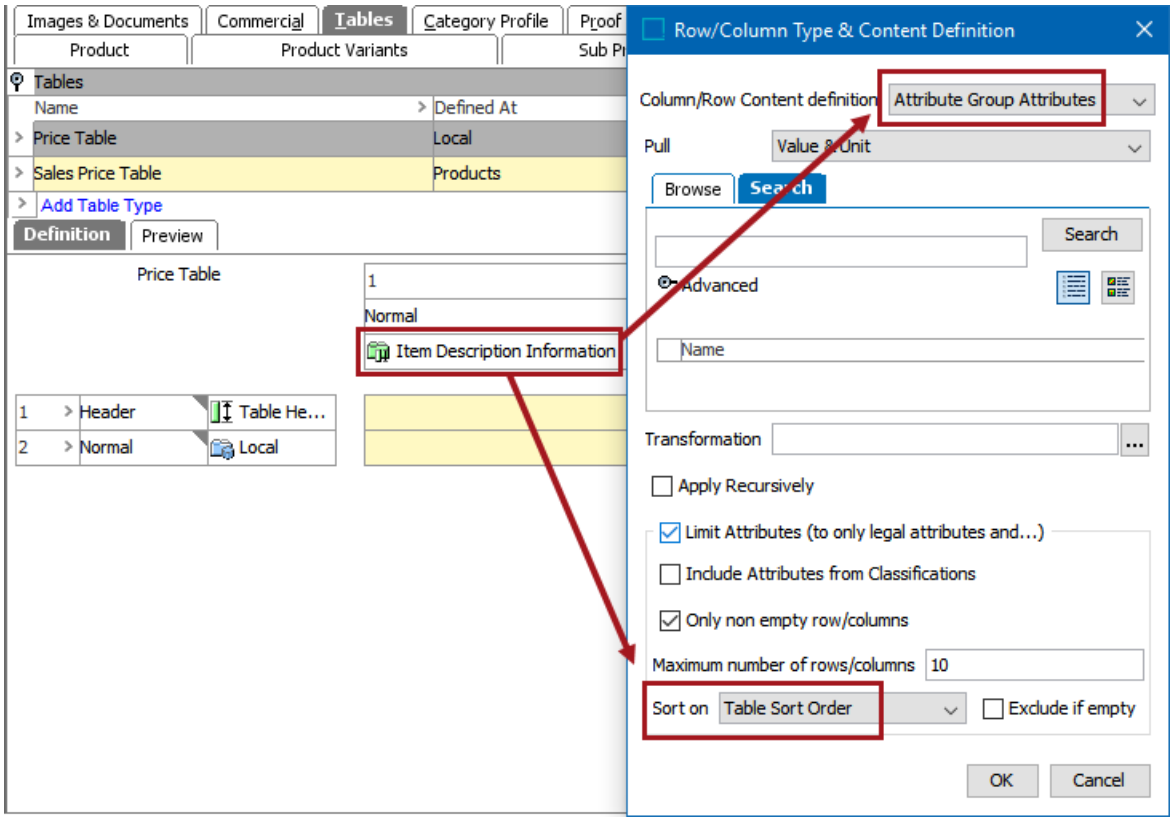
   Example *after* Convert to Base Value resolve:

Part Number	Item Weight
F-245678	200
F-245680	2000
F-245681	4000
F-245682	2000
F-245683	500.0
F-245684	750.00
F-245685	250.00
F-245686	1250.00

Controlling the Attribute Order in 'Attribute Group Attributes'

Understanding the control mechanisms available for the **Attribute Group Attributes** content definition in tables will help explain why you need to create a special 'table sort' description attribute to control the order of rows and/or columns created dynamically from an attribute group.

Though a standard 'attribute display sequence' attribute can be used to sort table rows and columns created from an attribute group, this approach is not ideal when different attribute sequencing is needed for different product categories. Due to this, a special 'table sort' attribute should be created to control the sequencing.

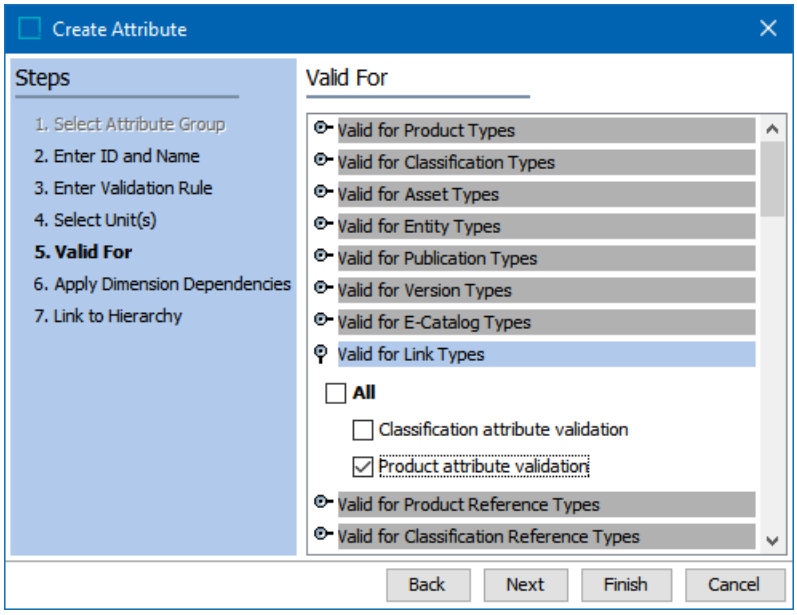


The steps in this topic assume the following:

- You have created a table type and legalized it
- You have created a table and are creating a column / row content definition of **Attribute Group Attributes** (refer to the **Attribute Content Definitions** topic in this guide for more information)
- You have an understanding of how to create and populate attributes

Creating a Table Sort Description Attribute

1. In System Setup, navigate to the attribute group in which you would like to create the new description attribute, then right-click and select **New Attribute**.
2. In the **Create Attribute** dialog, give the attribute an ID and Name (for example, 'Table Sort Order'), then select **Number** for Validation Base Type and **No** for Multi Valued.
3. Select **Description**, then click **Next**.
4. Click **Next** two more times to bypass the screens for steps 3 and 4 of the wizard. (No validation rules or units are needed for this attribute.)
5. In step 5 (Valid For), expand the **Valid for Link Types** flipper and check the **Product attribute validation** box. (Also check **Classification attribute validation** if you intend to link any of your attribute group attributes to a classification.) Click **Next** two more times to skip to step 7 (Link to Hierarchy).



6. Link to the Primary Product Hierarchy, then click **Finish**.

Populating Values for the Table Sort Attribute

Before the 'table sort' attribute can be used in your table, it must contain values. There are three ways to populate values for this attribute:

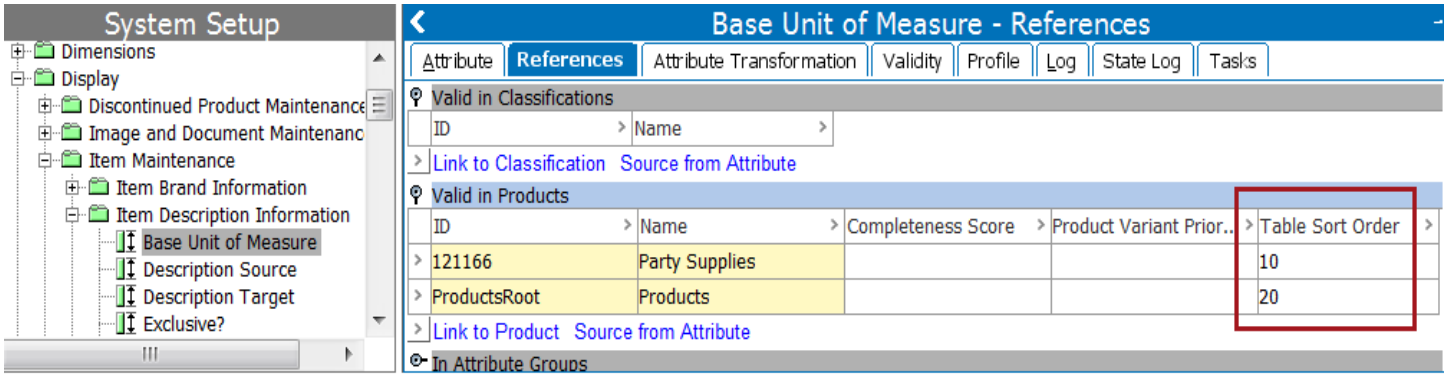
1. Manually enter values on the References tab of the relevant specification **attributes** within the attribute group that is being used in the table
2. Manually enter values on the References tab of the **product(s)** used in the table (values may be entered at a higher level of the product hierarchy in order to inherit to products below)
3. Import values using a **STEPXML** file

Note: Because the 'table sort' attribute is not valid for the Attribute object type (unlike a standard 'display sequence' attribute used to sort attributes in the workbench), the table sort attribute cannot be modified from the Attribute tab of the attributes that are being used in the table.

It is recommended to initially set a sequence by using 10, 20, 30, and so forth. To add attributes in between later, you can then use 15, 25, 35, etc.

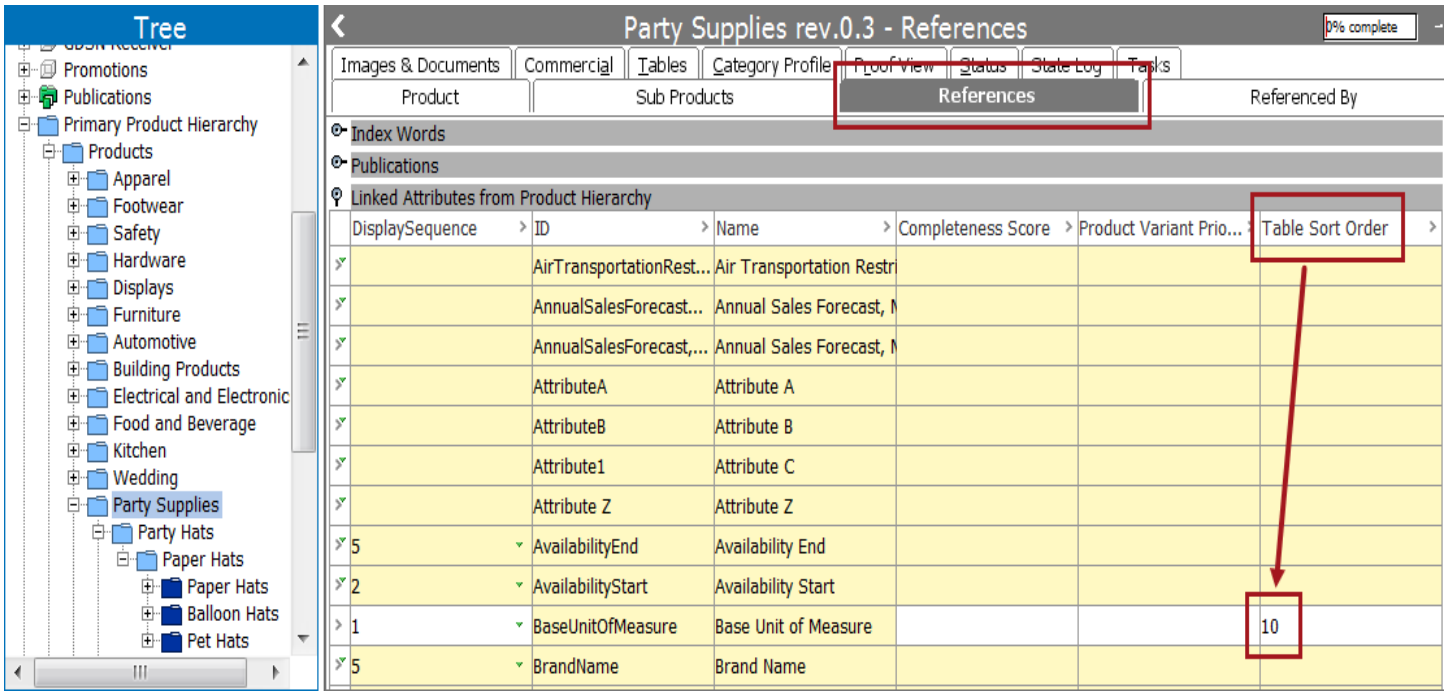
Editing from the Attribute Group

1. In System Setup, navigate to the attribute group that you intend to use in your table, then select the attribute inside the group that you would like to edit. (**Note:** Only one attribute at a time can be edited using this method.)
2. On the References tab, expand the **Valid in Products** flipper.
3. Enter values for the table sort attribute. Values may be different for the different levels of the product hierarchy to which the attribute is linked.



Editing from the Product Hierarchy

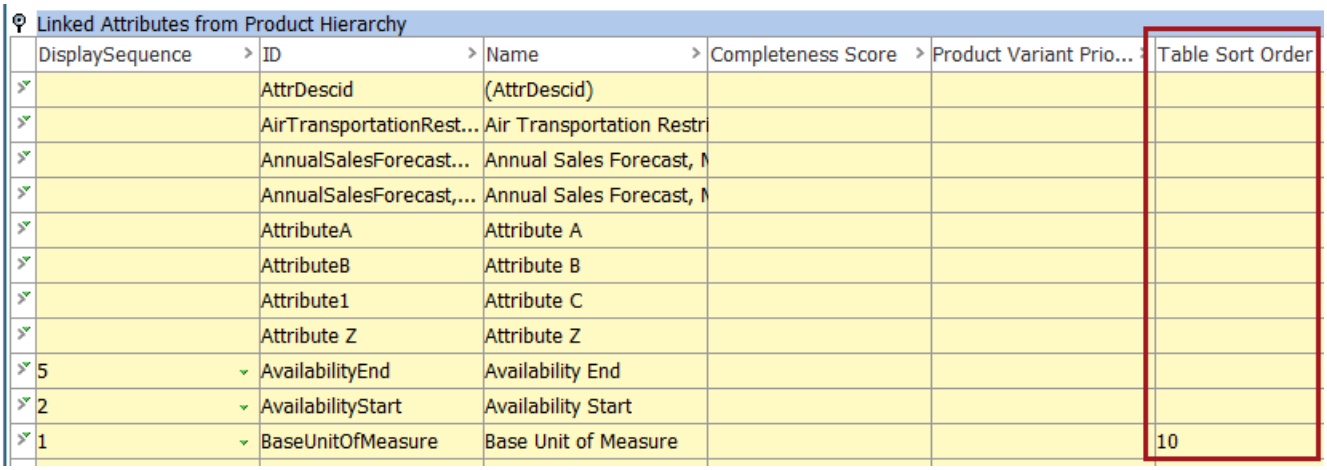
1. In the Tree, navigate to the level (node) of the product hierarchy where you would like to populate the table sort attribute.
2. On the References tab, expand the **Linked Attributes from Product Hierarchy** flipper.
3. Insert the relevant values for the table sort attributes. Multiple attributes can be populated at once from this view.



If all tables in a particular product category (node) should contain the same column / row sequencing, then values for the 'table sort' attribute should be populated at the highest level of the category in order to inherit to objects below. However, inherited values for the 'table sort' attribute cannot be overridden at a lower level of the hierarchy unless the attribute group attributes are linked to the lower level or values for the table sort attribute are imported through a STEPXML import. For more information on linking attributes to nodes within the product hierarchy, refer to the **Linking Specification Attributes** section of the **System Setup** documentation.

Editing by STEPXML Import

When the attribute group attributes are linked to a higher level (node) of the product hierarchy, the field for the sort attribute on the References tab is yellow on lower levels of the product hierarchy. This means that the table sort order cannot be edited from this lower level, as shown in the following screenshot.



The field can become editable if the relevant specification attributes are linked to the level of the hierarchy where you need to set the value of the table sort attribute. However, if this is not possible or not practical, a **STEPXML** load will allow you to edit the table sort attribute value on all object(s) where the specification attributes are valid, whether that was where they were linked or where the link has inherited to. In other words, this STEPXML load will allow you to enter values into the yellow fields without having to manually relink the specification attributes to various locations throughout a product hierarchy.

The following is sample XML that could be used to import a value into a metadata 'table sort order' attribute. The ID of the table sort attribute in the following example is TableSortOrder.

```
<?xml version="1.0" encoding="utf-8"?>
<STEP-ProductInformation ImportContext="English US" ContextID="Context1"
WorkspaceID="Main" UseContextLocale="false">
<Products RejectNewProducts="true">
<Product ID="121168" UserTypeID="Level2" ParentID="121166"> <!--Sample node in the
product hierarchy-->
<Name>Party Hats</Name>
<AttributeLink AttributeID="BaseUnitOfMeasure"> <!--Category-specific specification
attribute linked to the node in the hierarchy-->
<MetaData>
<Value AttributeID="TableSortOrder">100</Value> <!--Table sort description attribute
with value of 100-->
</MetaData>
</AttributeLink>
</Product>
</Products>
</STEP-ProductInformation>
```

Product Content Definitions

Most content definitions used in tables are **Product** content definitions. A common table setup (for a horizontally read table) uses **attribute** content definitions for columns and **product** content definitions for rows.

Product content definitions can be applied to pull information from individual products or classifications, from the children or parents of these products / product-overrides / classifications, and more. The available product content definitions are:

- Current Object
- First SubProduct, Classification
- First SubProduct, Family
- Node Reference
- Parent
- Parent Name
- Product/Classification/Asset
- SubProducts, Classification
- SubProducts, Family

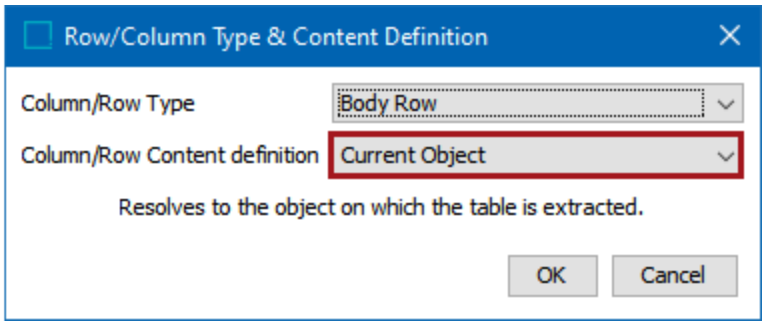
Note: Any content definition that applies to products also applies to product-overrides.

In all the images that follow, a drop down for row type is shown. The types will be different if adding a column.

Current Object

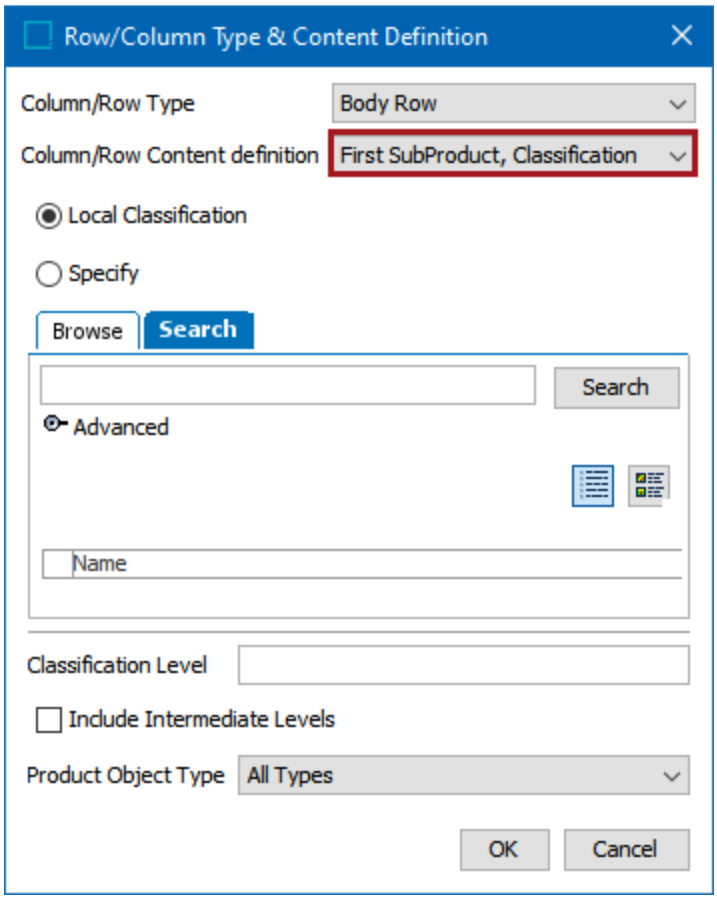
The **Current Object** content definition resolves to the object on which the table is extracted. You cannot point a current object row to a specific object. If you, for example, mount a table on the product 123-123 in InDesign, the current object resolves to 123-123.

In a horizontally read table, a current object row type is typically used with Attribute or Asset Reference column types to display selected attributes for the products in the rows.



First SubProduct, Classification

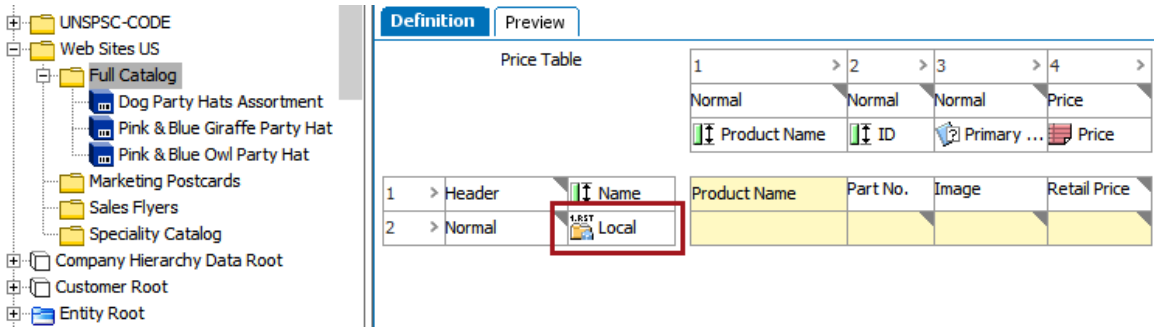
The **First SubProduct, Classification** content definition will extract the first product or product family from either a specified classification node or dynamically from where the table is defined.

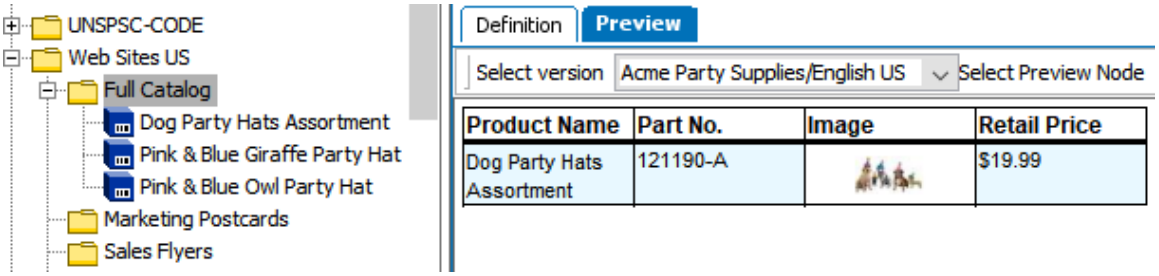


1. Select **Local Classification** to pull the information dynamically from the node on which the table is resolved.
2. Select **Specify** to choose a specific node in the classification hierarchy. This makes the content definition static, i.e., information from the specified classification will be pulled regardless of the node on which the table is resolved.
3. If Specify is chosen, use the **Browse** or **Search** tab to either browse to or search for the relevant classification.
4. In the **Classification Level** field, specify the level from where the products should be extracted. For example, if you select a product group with three levels below, you can specify 1 - 4 depending on how many levels you want to view.
5. To also include the intermediate levels, check the **Include Intermediate Levels** box.
6. If you only want the first subproduct of a particular object type to appear, select the object type from the **Object Type** dropdown list.
7. Click **OK** to add the definition

Example

8. The first screenshot below shows how the content definition looks on the table on the Definition tab. The second screenshot shows the table on the Preview tab, which is only pulling the first subproduct.

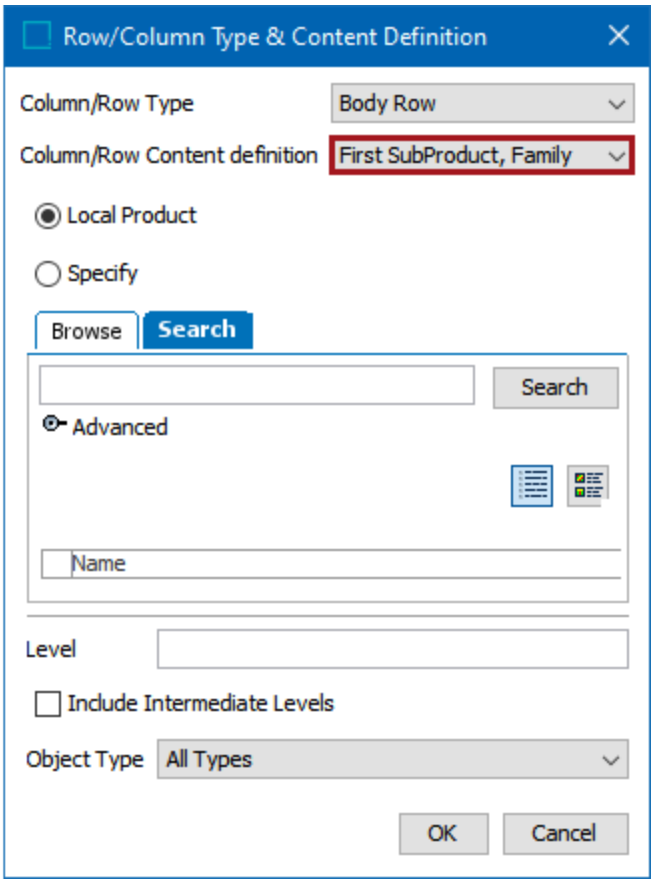




First SubProduct, Family

The **First SubProduct, Family** definition will insert the first child product under the family into the table. If you are already on the lowest level in the node, no product will show up in the table.

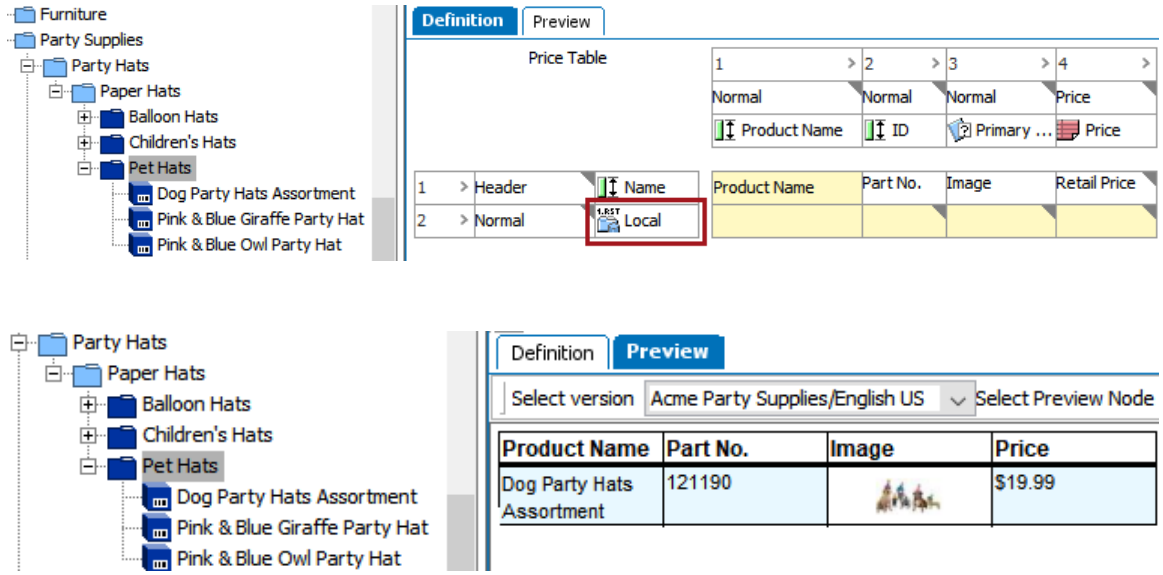
You are allowed to indicate at which level the products should be extracted and also if the intermediate levels should be included. You can also specify which Object Types should be extracted.



1. Select **Local Product** to pull the information dynamically from the node on which the table is resolved.
2. Select **Specify** to choose a specific node in the product hierarchy. This makes the content definition static, i.e., information from this specified product will be pulled regardless of the node on which the table is resolved.
3. If Specify is chosen, use the **Browse** or **Search** tab to either browse to or search for the relevant product.
4. In the **Level** field, enter specify the level from where the products should be extracted. For example, if you select a product group with three levels below, you can specify 1 - 4 depending on how many levels you want to view.
5. To also include the intermediate levels, check the **Include Intermediate Levels** box.
6. If you only want the first subproduct of a particular object type to appear, select the object type from the **Object Type** dropdown list.
7. Click **OK** to add the definition.

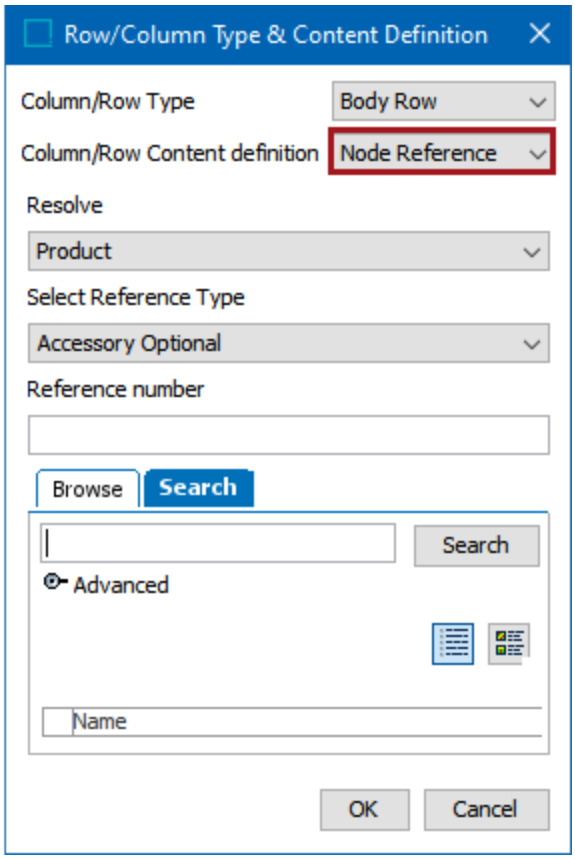
Example

The first screenshot below shows how the content definition looks on the table on the Definition tab. The second screenshot shows the table on the Preview tab, which is only pulling the first subproduct.



Node Reference

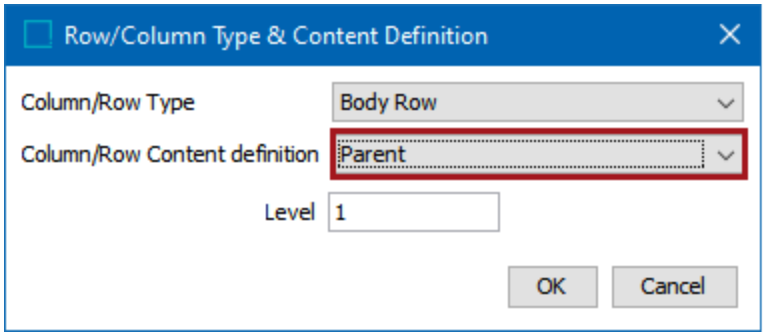
The Node Reference will insert a row or column in the table that resolves a reference for a product, classification, or asset.



1. For **Resolve**, choose Product, Classification, or Asset from the dropdown list.
2. Based on the selection you made from the Resolve drop down list, choose a reference type from the **Select Reference Type** dropdown.
3. Enter a **Reference number** to determine how many of the references to show. This field is only relevant if there is more than one object referenced with the selected reference type. To resolve all references, either leave the field empty or enter 0.
4. **Browse** or **Search** for the object from which you want to extract the reference(s). Click **OK**.

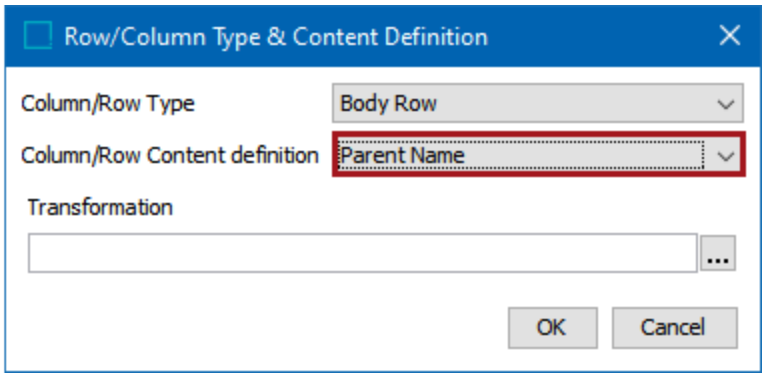
Parent

Pulls information from a Parent object. Enter a number in the **Level** field to determine how many levels up in the hierarchy to go to locate the parent.



Parent Name

The **Parent Name** content definition extracts the name of the parent product of the selected product.

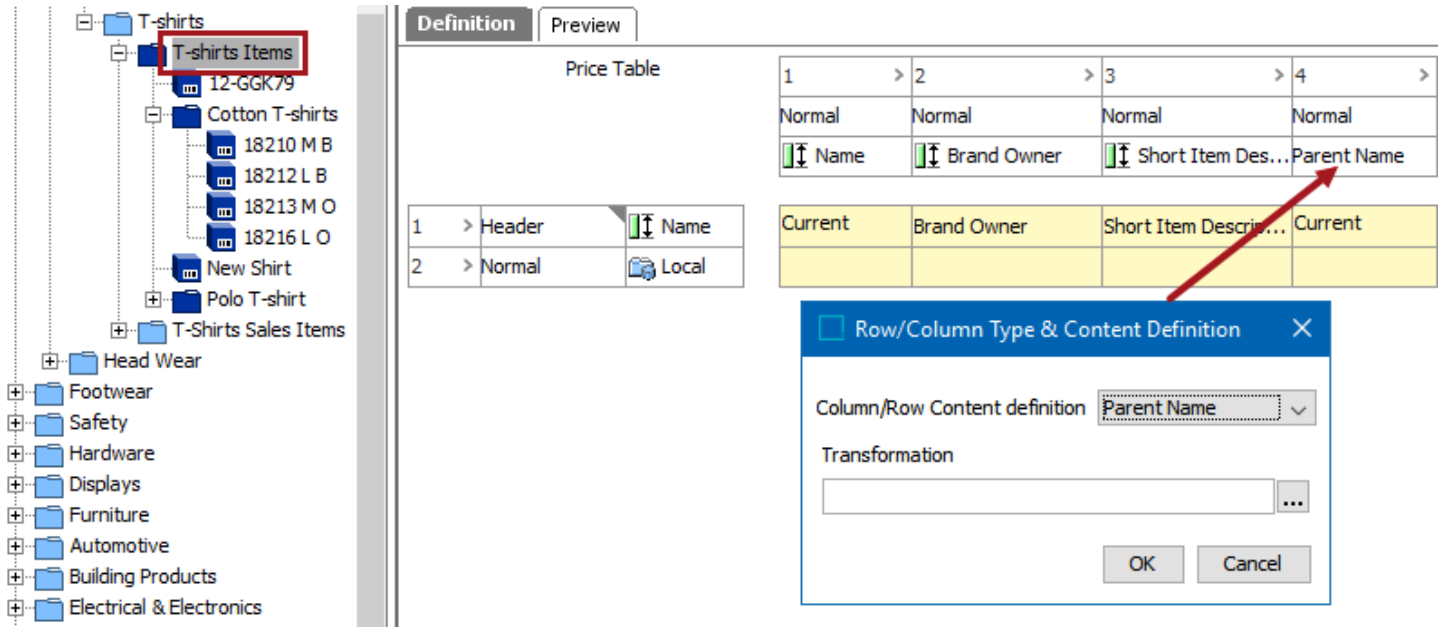


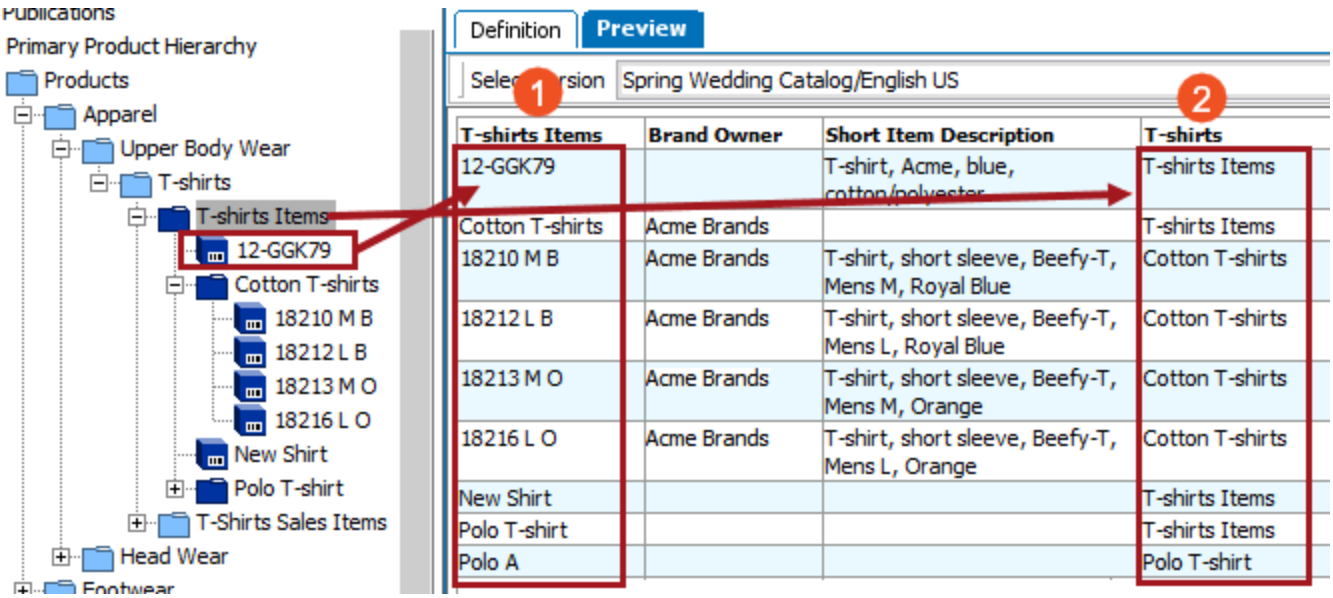
The parent name that is displayed comes either from the product or the classification hierarchy. Because product can be linked to both a product hierarchy and a classification hierarchy, the parent name depends on whether the product was inserted as a classification or a product.

To apply a transformation to the parent name value, click the ellipsis button (...) in the **Transformation** field. For more information about applying attribute transformations to data in tables, refer to the **Applying Attribute Transformations to Table Content** topic.

Example

The first screenshot below shows the table on the Definition tab, with the Parent Name content definition applied in the last column. The second screenshot shows how the table looks resolved, on the Preview tab. The object name is extracted in the first column (1), and the names of the objects' parents are extracted in the fourth column (2).





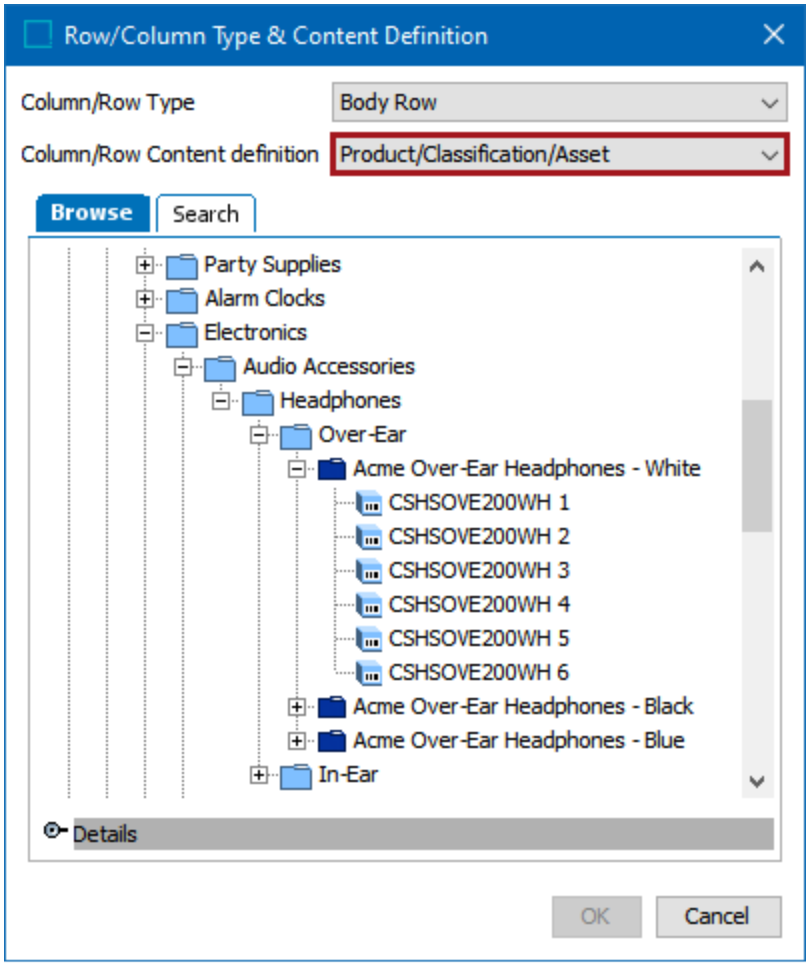
Product/Classification/Asset

The Product/Classification/Asset content definition enables you to select a specific product, classification, or asset. This selection is not dynamic; the content selection remains the same regardless of where the table is resolved.

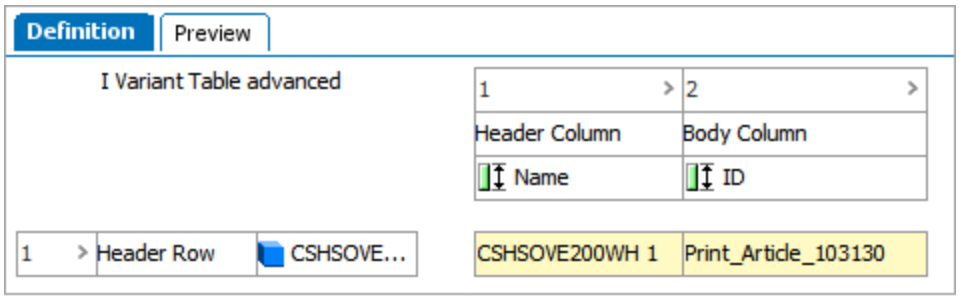
In a horizontally read table, a Product/Classification/Asset row type is typically used with **Attribute** column types. For example, if you want to display the name of the object or selected attributes on the object.

If you select an **asset**, the asset itself (e.g., image) is not displayed in the target cells. However, if using the **Attribute** content definition for the column, you can display the name or the ID of the asset in the cell(s). Likewise, if you select a **classification**, you can let the target cells display the name or ID of the classification.

1. In the 'Column/Row Content definition' list, select **Product/Classification/Asset.**
2. Browse to or search for the relevant product, classification or asset. Click **OK**. Multiple objects can be selected by holding Ctrl or Shift while making selections. Individual rows / columns will be created for each selected object.



3. The following is an example of a product object in a row, with Attribute content definitions in the columns pulling the Name and ID of the product.

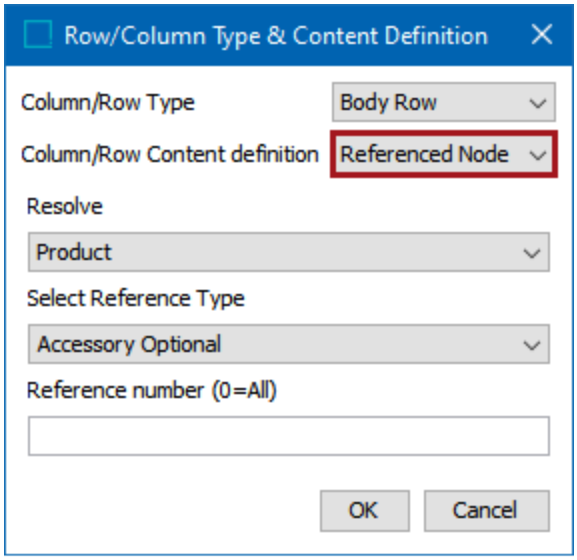


Referenced Node

The Referenced Node content definition extracts values from a referenced product, classification or asset.

If the product that you have created the table on has a product reference to another product, adding a Referenced Node row type enables you to extract values from the referenced product. For example, a product 'AAA-100' has a product reference to another product, 'AAA-200.' The reference type is 'Accessory Optional.' Creating a table on 'AAA-100' with a row type 'Referenced Node' will allow you to extract values from 'AAA-200.'

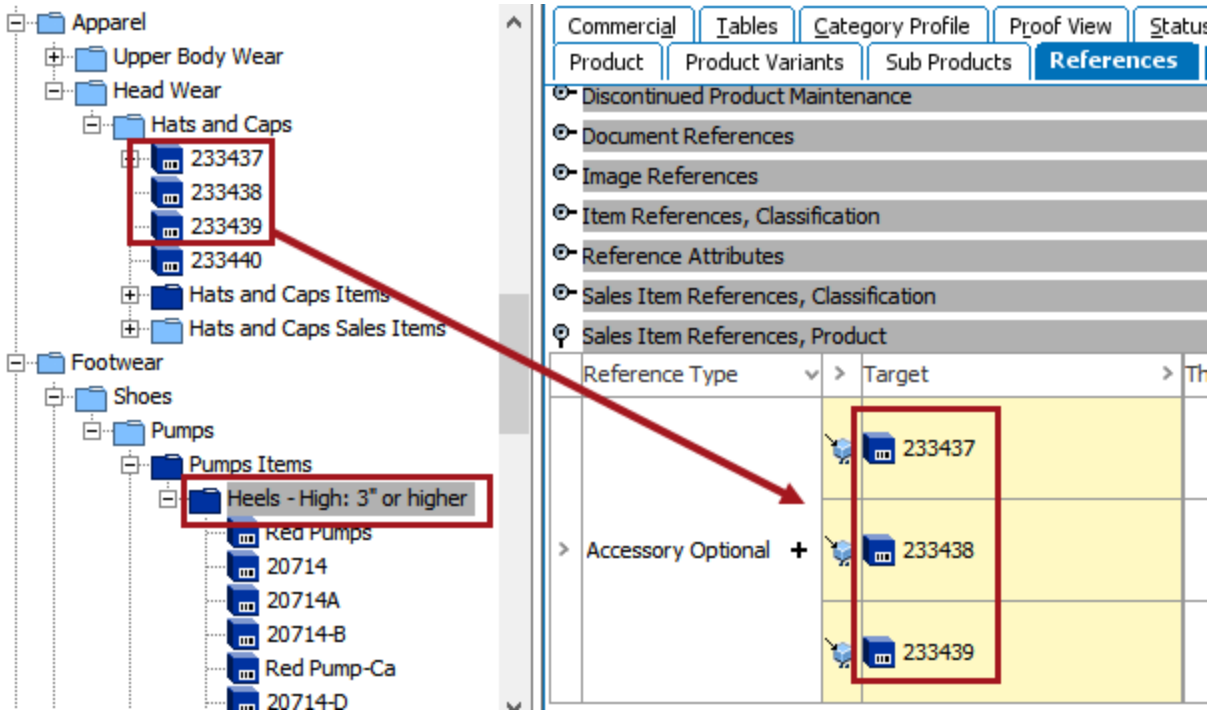
Note: Using Reference node in tables will only bring you the referenced products from the current node. You will not be able to fetch the subproduct(s) referenced products using this functionality.



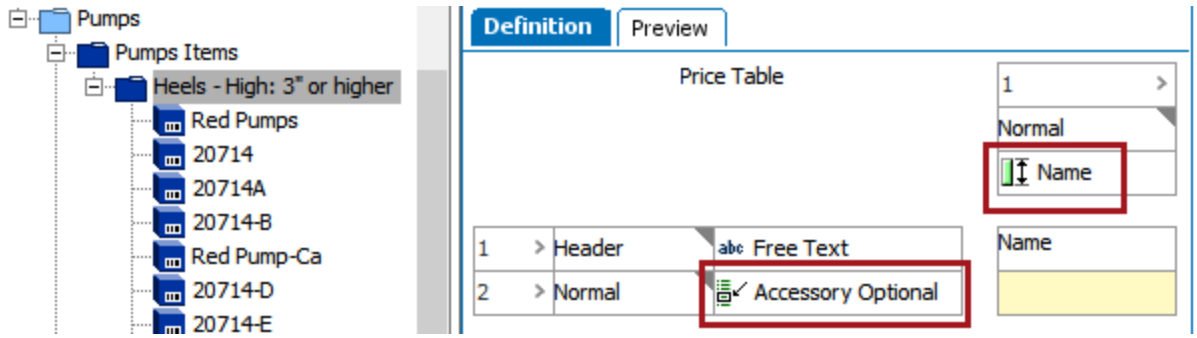
1. Select the relevant object type from the **Resolve** list. The available options are Product, Classification, and Asset.
2. From the **Select Reference Type** list, select the relevant reference type.
3. In the **Reference Number** field, specify the number of the reference type to resolve. This field is only relevant if there is more than one object referenced with the selected reference type. To resolve all references, either leave the field empty or enter 0.

Example

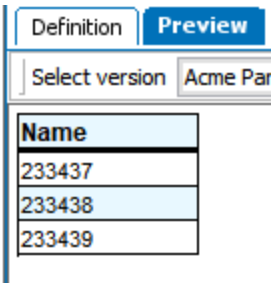
In the below example, the table will be resolved on the 'Heels - High: 3" or higher' product object. On the References tab, three products are linked from a different folder using the 'Accessory Optional' reference type.



A very simple table has been built that will pull the **name** of the objects that are linked using the Accessory Optional content definition.

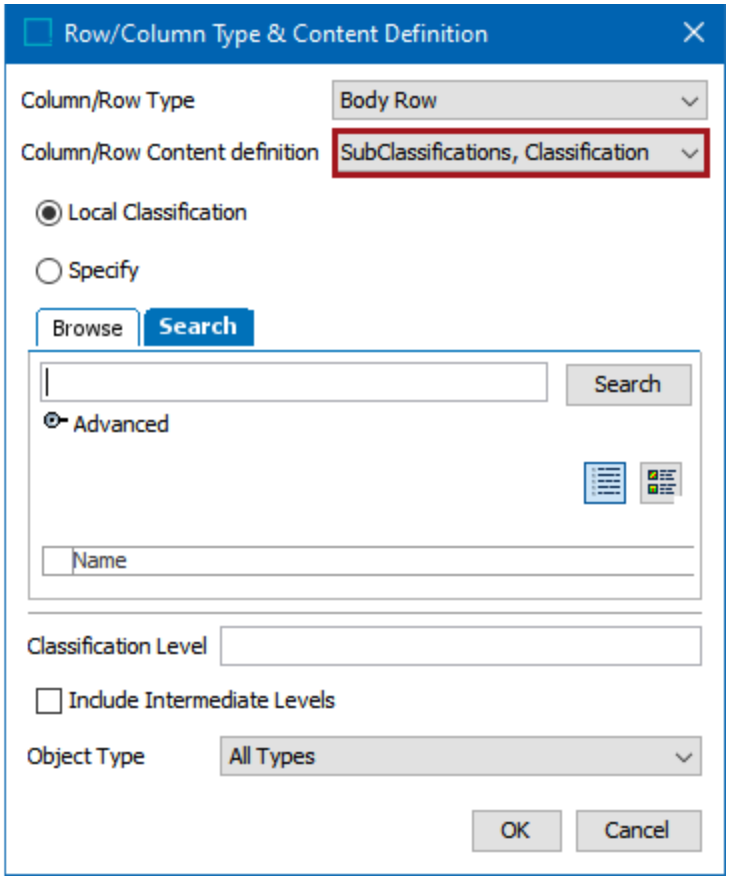


The resolved table lists the names of the referenced objects.



SubClassifications, Classification

The **SubClassifications, Classification** content definition works identically to the 'Subproducts, Classification' definition, except this definition displays sub-classifications instead of subproducts. Refer to the following subsection, 'SubProducts, Classification' for more information.

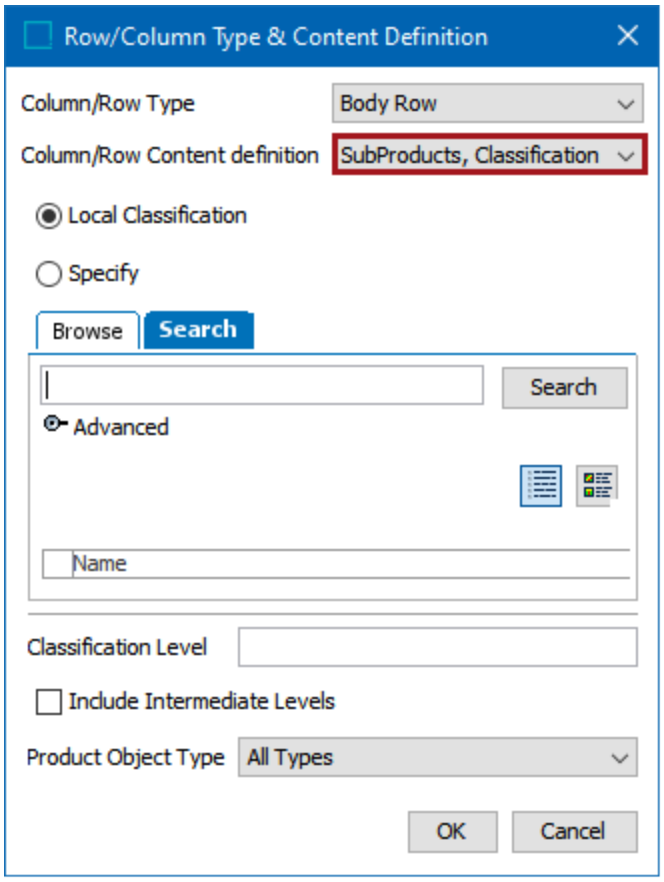


SubProducts, Classification

The SubProducts, Classification content definition extracts all products that are children within a specific classification, either manually from a specific level in the classification hierarchy, or dynamically from where the table is defined.

When you have selected a level in a classification, a row is inserted in the table for each product that the classification contains. So, if a classification contains three products, three rows are added to the table, unless filtering options such as object type are applied (refer to steps below for more information).

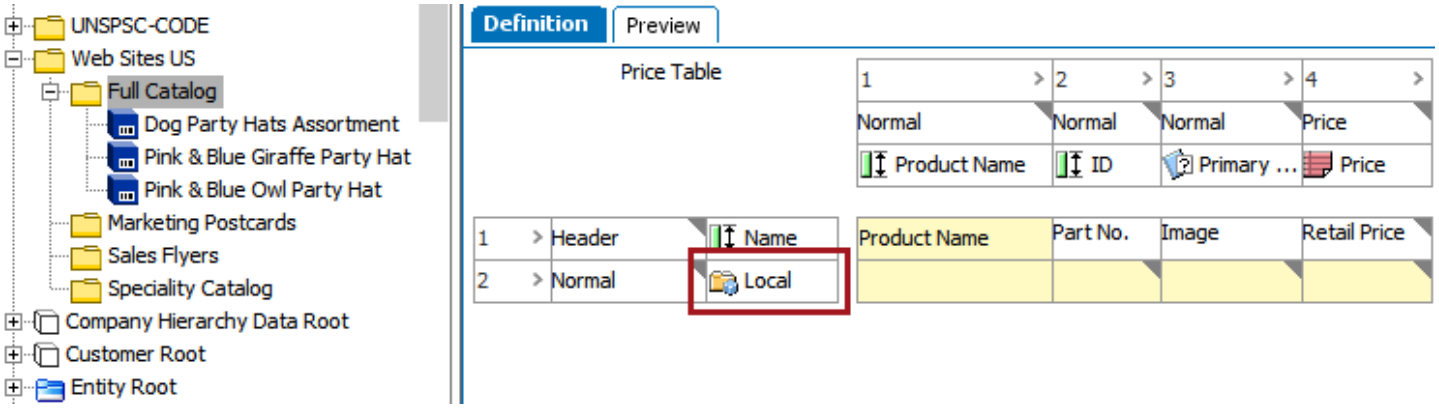
In a horizontally read table, a Subproducts, Classification row type is typically used with **Attribute** or **Asset Reference** column types. You can, for example, use the Attribute column type to display selected attributes for the products in the rows.

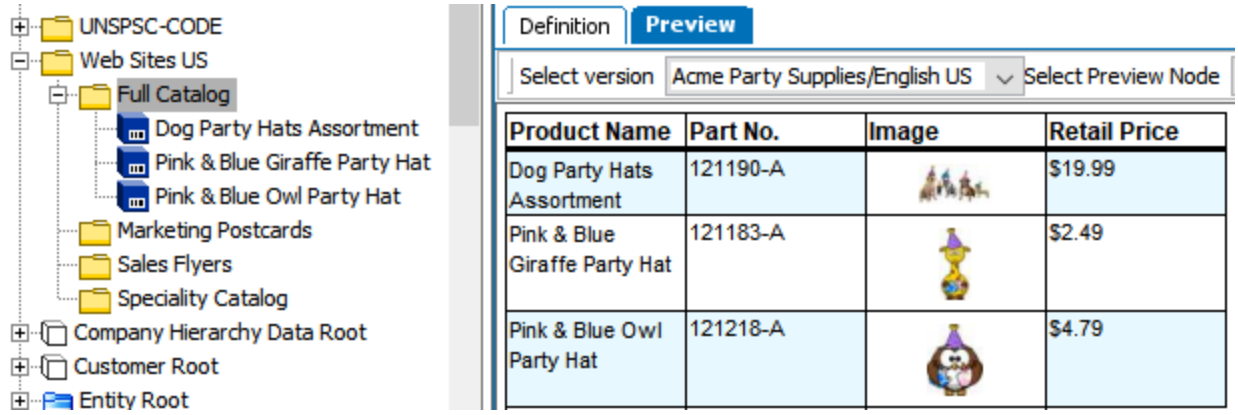


1. Select **Local Classification** to extract the product families dynamically. The subproducts are added to the table depending on where the table is extracted.
2. Select **Specify** to choose a specific classification from where to extract the product families. This selection is static, and remains the same regardless of where the table is extracted.
3. **Search** or **Browse** for the relevant classification.
4. In the **Classification Level** field, specify the level from where the products should be extracted. For example, if you select a product group with three levels below, you can specify 1 - 4 depending on how many levels you want to view.
5. To also include the intermediate levels, check the **Include Intermediate Levels** box.
6. If you only want the first subproduct of a particular object type to appear, select the object type from the **Product Object Type** dropdown list.
7. Click **OK** to add the definition

Example

The first screenshot below shows the Subproducts, Classification content definition on the **Definition** tab. The second screenshot shows the resolved table on the **Preview** tab, with one subproduct per row.





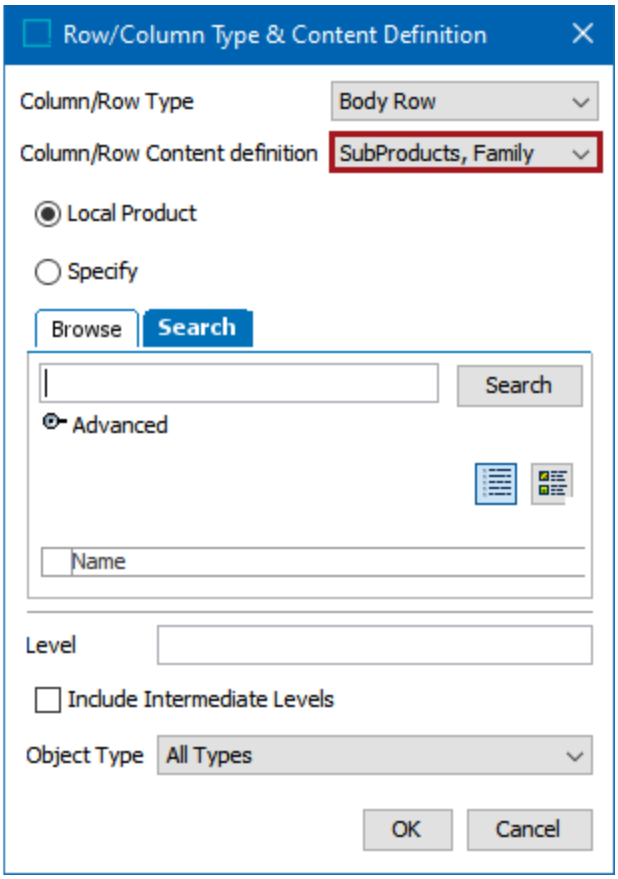
SubProducts, Family

Use this when you want to extract all products contained within the selected level in the product hierarchy.

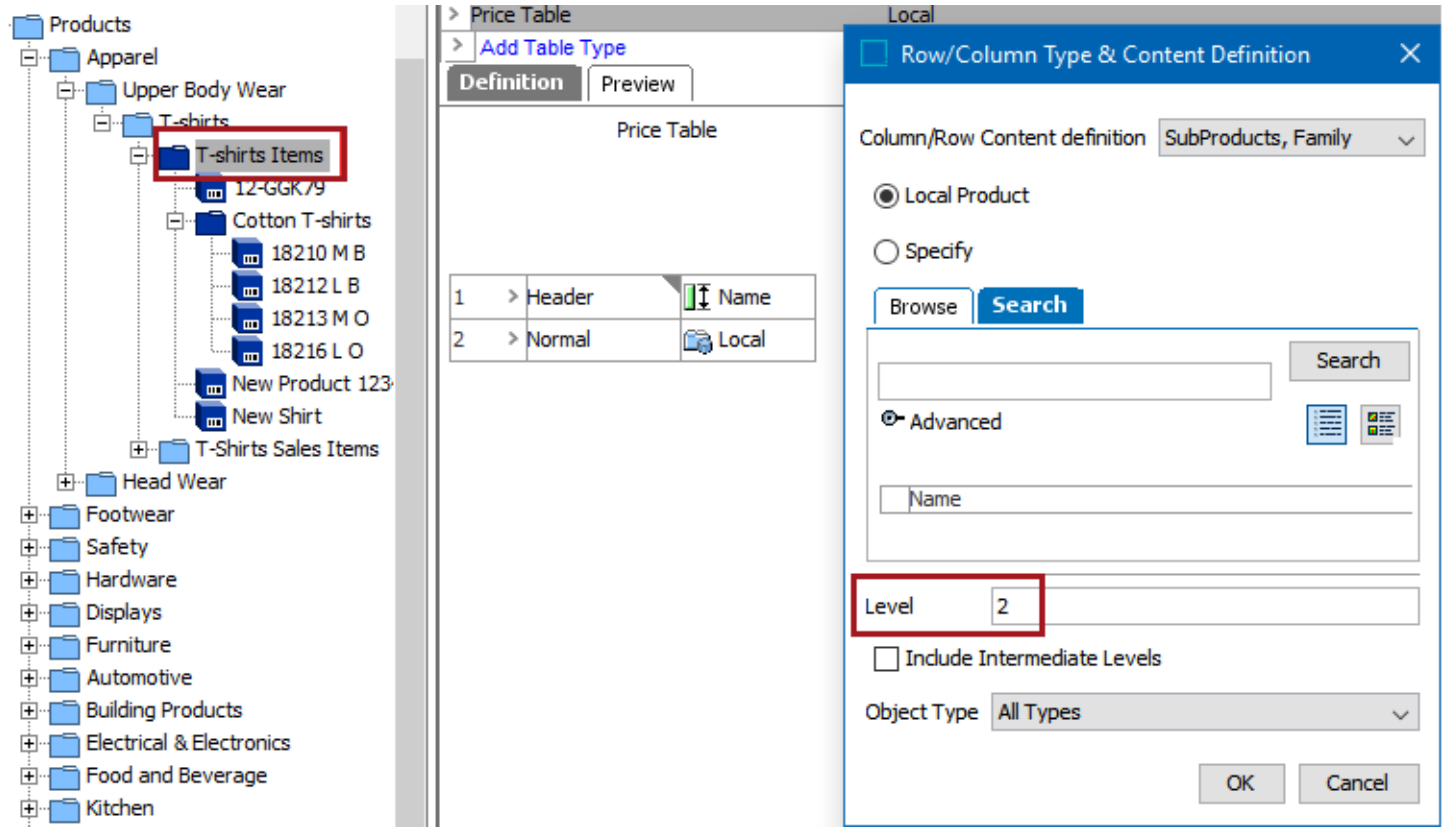
The Subproducts, Family content definition extracts product families either manually from a specific level in the product hierarchy or dynamically from where the table is defined.

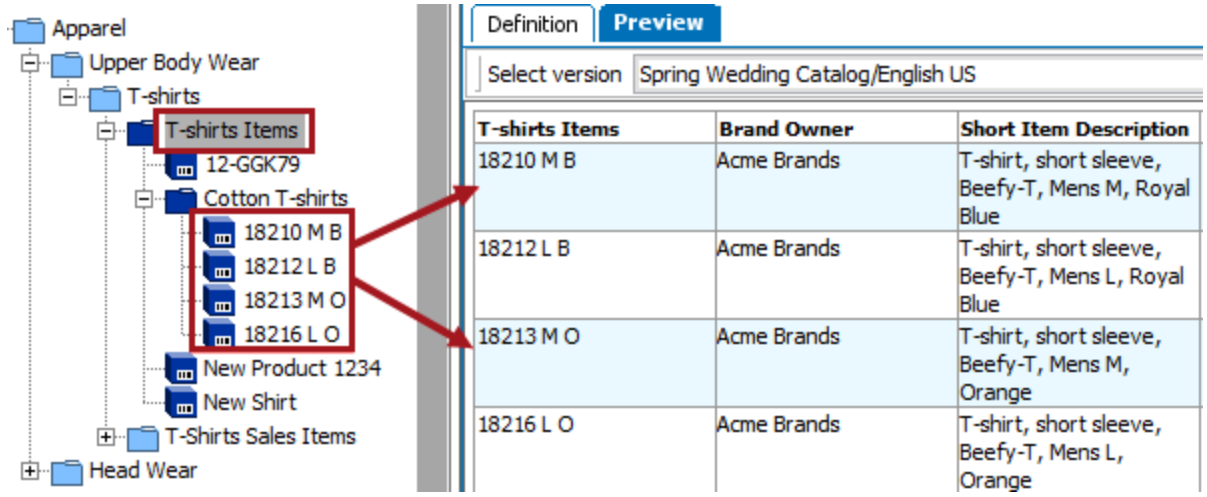
When you have selected a level in the product hierarchy, a row is inserted in the table for each product that the product level contains. So if a product level (family) contains three products, three rows are added to the table, unless filtering options such as object type are applied (refer to steps below for more information).

In a horizontally read table, a SubProducts, Family row type is typically used with **Attribute** or **Asset Reference** column types, for example, if you want to display selected attributes or images for the products in the rows.

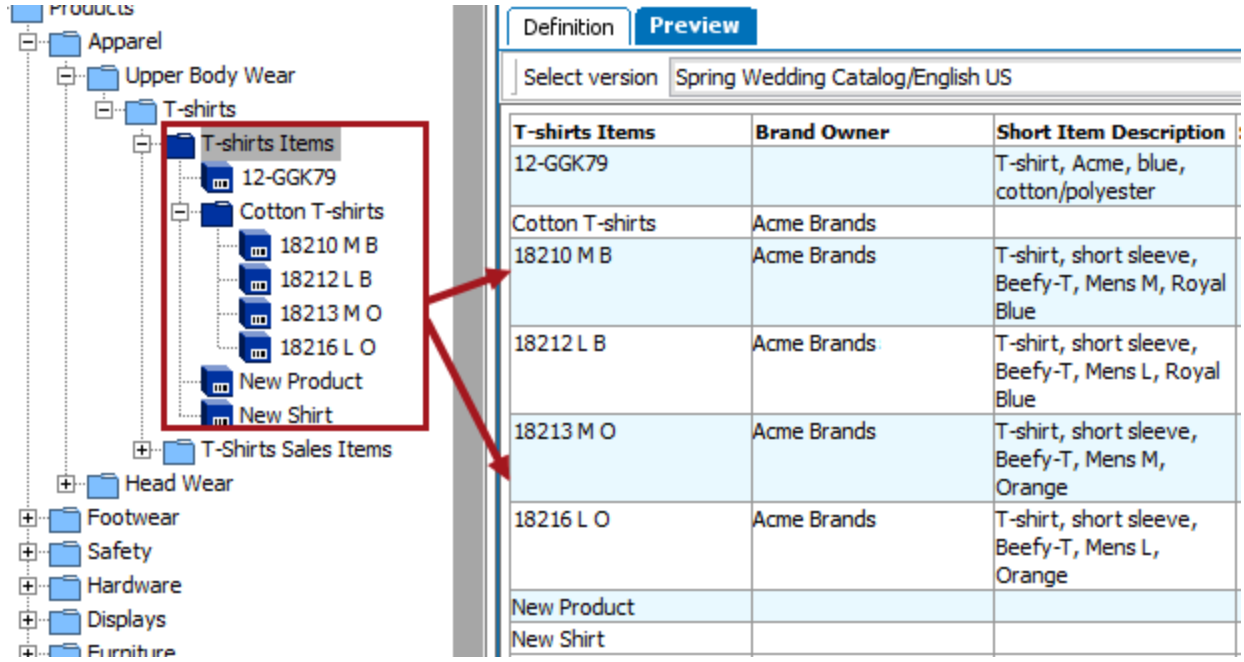


1. Select **Local Product** to extract the product families dynamically. The subproducts are added to the table depending on where the table is extracted.
2. Select **Specify** to select a specific product level from where to extract the product families. This selection is static, and remains the same regardless of where the table is extracted.
3. Optionally, enter the **Level** from where you want the products to be extracted. This refers to the number of nested subfolders downward in the hierarchy. For example, if 2 is entered for Level, then the objects mounted in the table will be pulled from two levels below where the table is built.





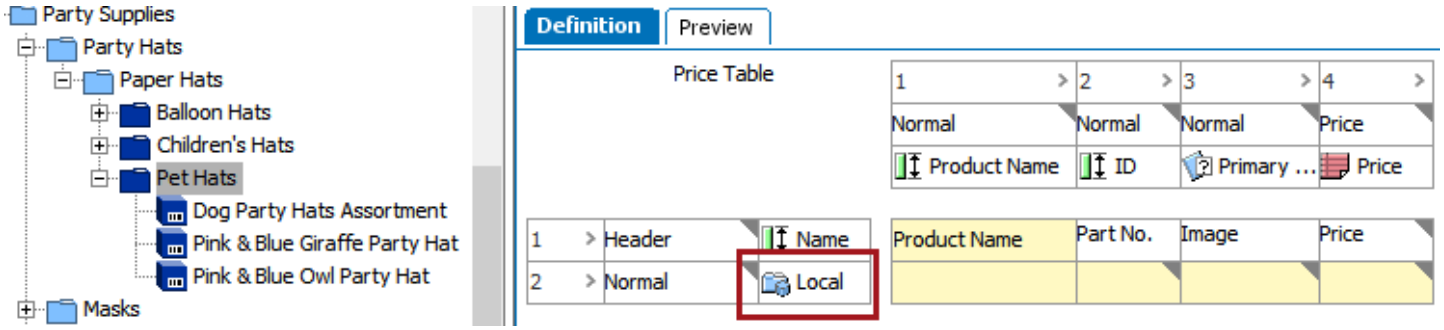
4. If you want the intermediate levels to be included as well, click the **Include Intermediate Levels** checkbox.

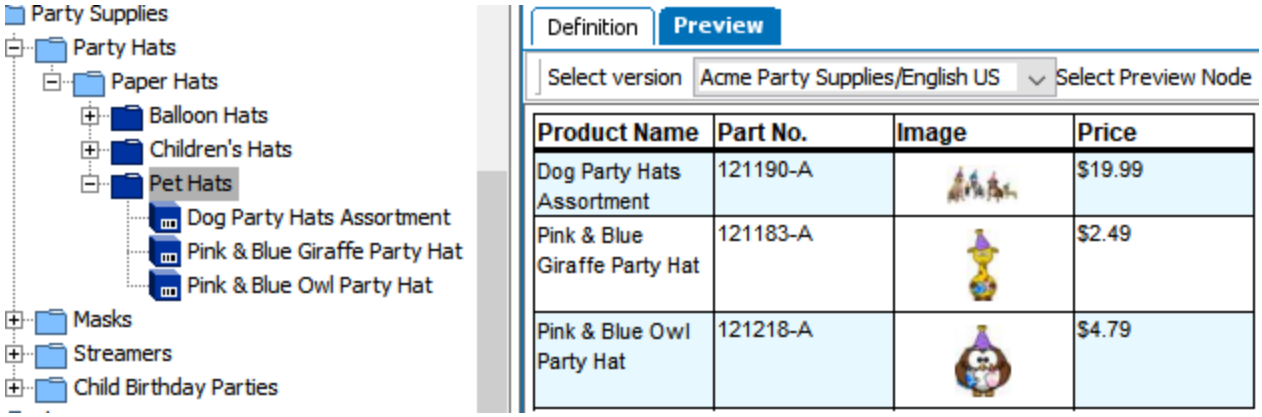


5. Optionally, select an object type from the **Object Type** list, to limit the number of extracted products to a specific object type.

Additional Example

The first screenshot below shows the Subproducts, Family content definition on the **Definition** tab. The second screenshot shows the resolved table on the **Preview** tab, with one subproduct per row.




Party Supplies
Party Hats
Paper Hats
Balloon Hats
Children's Hats
Pet Hats
Dog Party Hats Assortment
Pink & Blue Giraffe Party Hat
Pink & Blue Owl Party Hat
Masks
Streamers
Child Birthday Parties
Definition
Preview
Select version
Acme Party Supplies/English US
Select Preview Node
Product Name
Part No.
Image
Price
Dog Party Hats Assortment
121190-A
$19.99
Pink & Blue Giraffe Party Hat
121183-A
$2.49
Pink & Blue Owl Party Hat
121218-A
$4.79

Asset Content Definitions

Two content definitions are used to display assets in STEP Tables: **Asset** and **Asset Reference**. In most cases, assets that are displayed in tables are images.

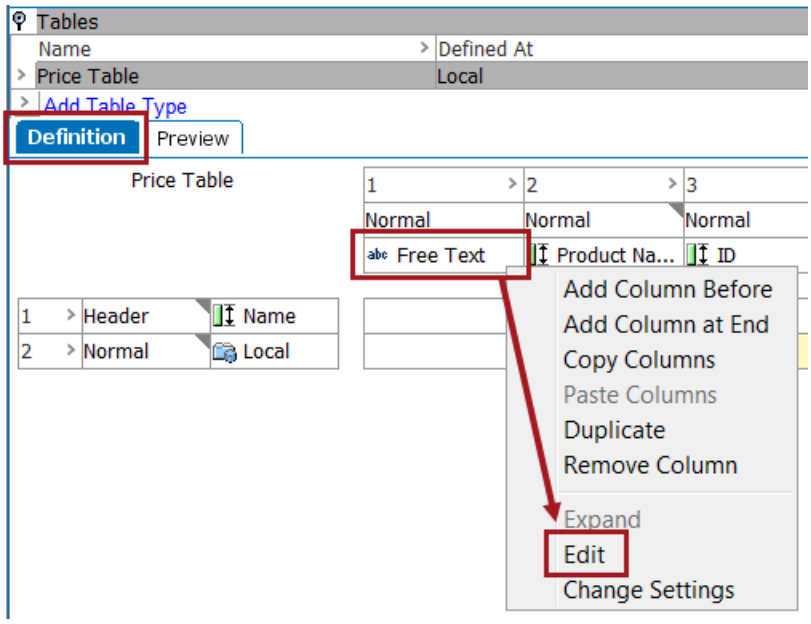
Asset

Use the Asset content definition to point to a specific asset. This is not a dynamic content type.

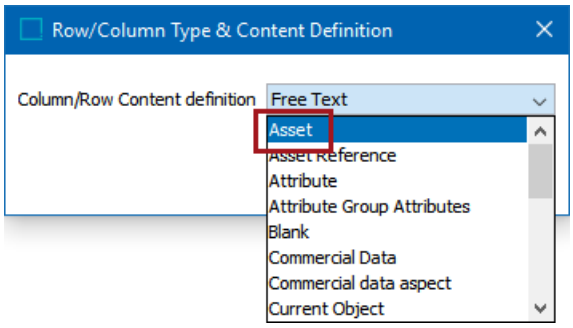
The Asset definition is most often used at the cell level in combination with the **Cell Override** setting. This is because, if applied to an entire column or row, an identical image will appear in every cell across the row or column. Asset cells take priority over any selection that has been made at the row or column level with the exception of Free Text. For more information on the Cell Override setting, refer to the **Adding, Editing, and Overriding Content Definitions** topic in this guide.

Applying the Asset Content Definition to a STEP Table Row or Column

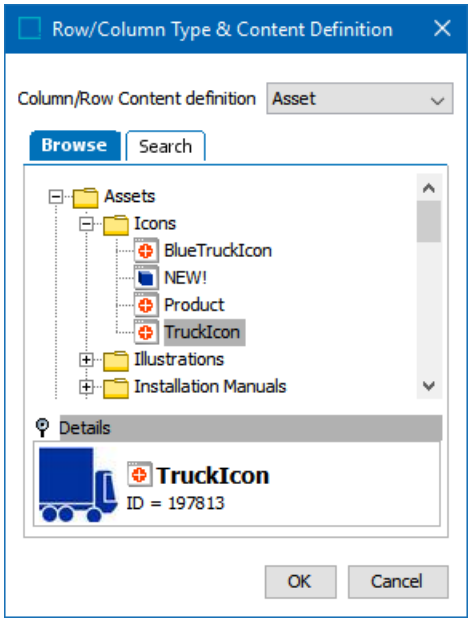
1. With your table open on the **Definition** tab, Right-click in the content definition cell on the column or row that you would like to edit, then click **Edit**. (In the following screenshot, the content definition cell has a preexisting content definition of abc Free Text).



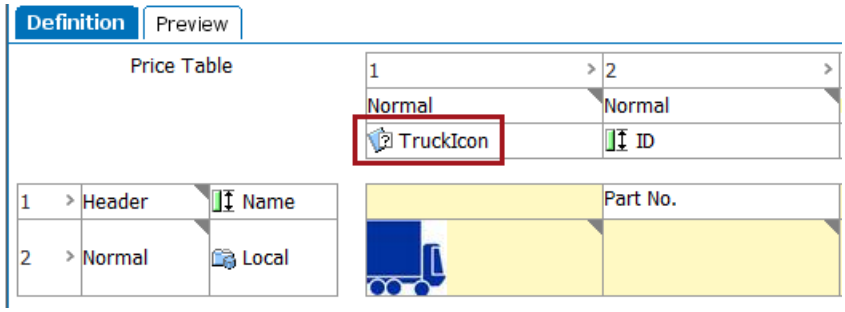
2. In the 'Row/Column Type & Content Definition dialog,' select **Asset** from the Column/Row Content definition list.

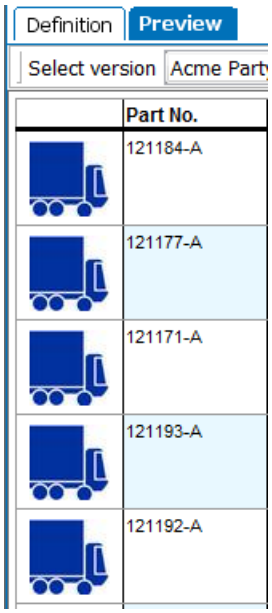


3. Browse or search for the preferred asset, and then click **OK**. Only one asset may be selected.



4. The Content Definition of the row or column is now set to **Asset**. The STEP Name of the asset (e.g., TruckIcon) appears in the Content Definition cell on the **Definition** tab.
5. The selected asset is visible in the table, both on the **Definition** tab and the **Preview** tab.





Asset Reference

The Asset Reference content definition is also typically used to insert images into table cells. However, unlike the **Asset** content definition, which only allows the selection of a specific asset, the **Asset Reference** content definition is a dynamic content type.

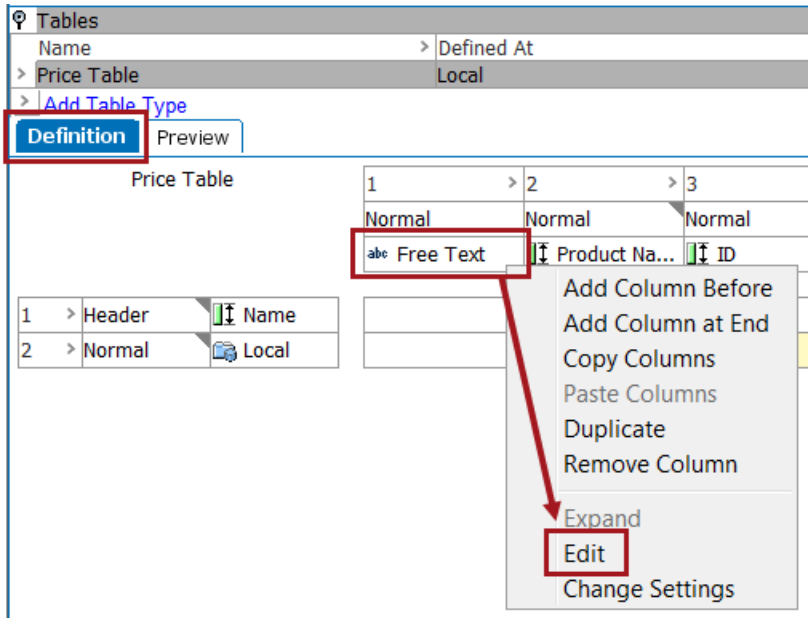
The Asset Reference content definition is used to insert assets that are linked to products, classifications, or product-overrides by an asset **Reference Type**.

In a horizontally read table, the Asset Reference content definition is typically used in a table **column** in conjunction with one or more table **rows** that use one of the following content definitions:

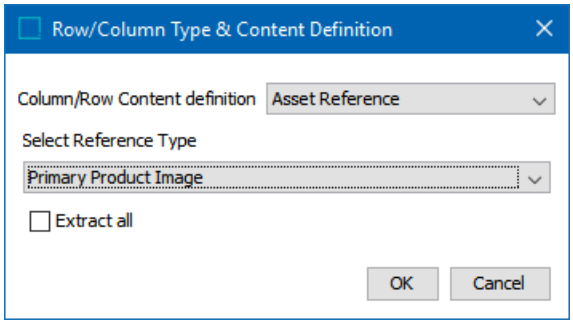
- Current Object
- SubProducts, Classification
- SubProducts, Family
- Product/Classification/Asset

Applying the Asset Reference Content Definition to a STEP Table Row or Column

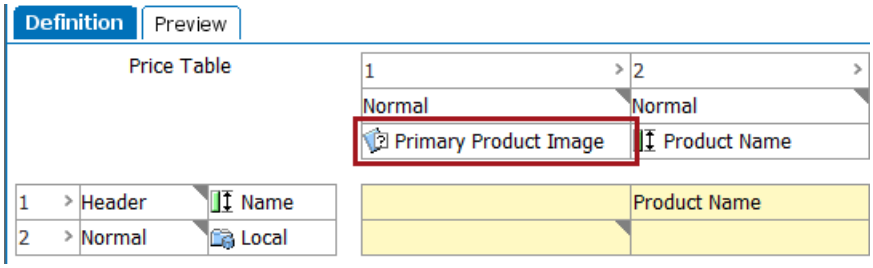
1. With your table open on the **Definition** tab, right-click in the content definition cell on the column or row that you would like to edit, then click **Edit**. (In the following screenshot, the content definition cell has a preexisting content definition of abc Free Text).



2. In the Row/Column Type & Content Definition dialog, select **Asset Reference** from the Column/Row Content definition list.



3. Select the relevant reference type from the **Select Reference Type** list, (for example, Primary Product Image).
4. Check **Extract All** to extract all referenced images of the selected type. This is only relevant if the product, classification, or product-override object has multiple images referenced using the same Reference Type. If there are multiple images referenced, all of the images will be inserted into the same table cell.
5. Click **OK**.
6. The content definition of the row or column is now set to **Asset Reference**. The STEP Name of the asset reference type (e.g., Primary Product Image) appears in the content definition cell on the **Definition** tab.



7. The referenced images / assets appear in the table on the **Preview** tab.

Commercial Data Content Definitions

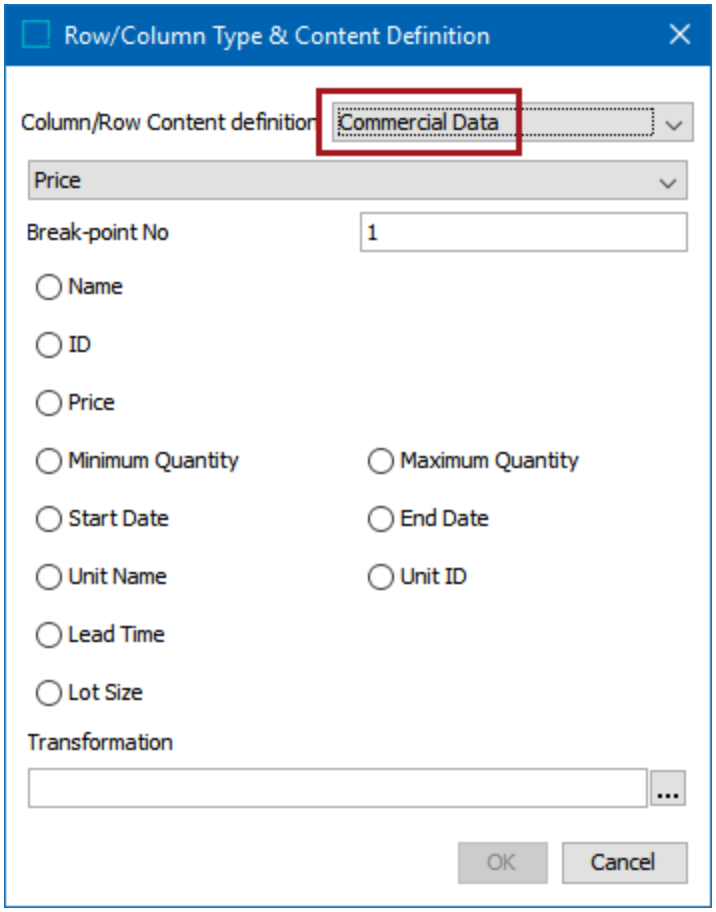
Commercial Data content definitions enable you to reference commercial data from a publication version in a table. Three content definitions are available for commercial data:

- Commercial Data
- Commercial Data Aspect
- Date Spread Commercial Data

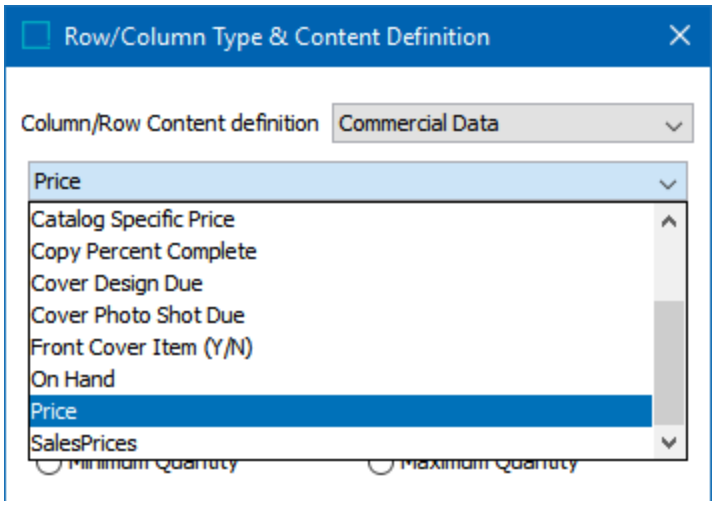
Commercial Data

The Commercial Data content definition is used to extract values from commercial terms lists.

1. In the 'Column/Row Content definition' list, select **Commercial Data**.



2. From the next dropdown list, select the commercial list that you want to include in the table.

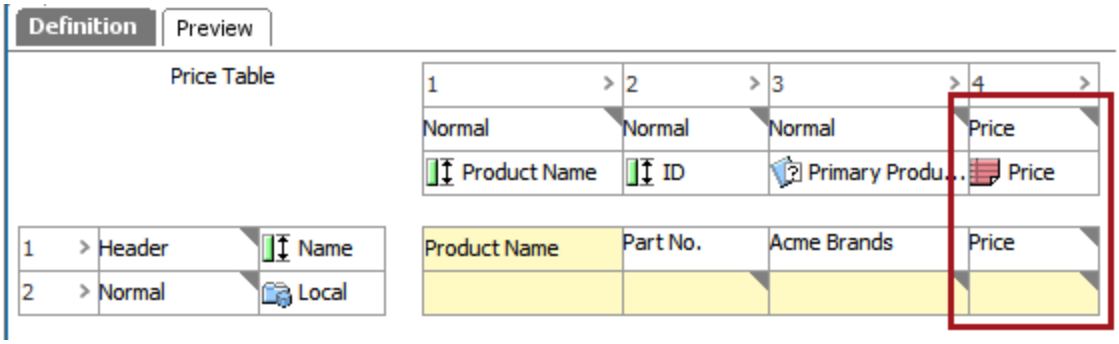


3. In the **Break-point No** field, enter the value of the break-point number of the term that you want to reference.
4. Select the relevant term type from the available types (Name, ID, Price, etc.).
5. To apply an attribute transformation to the resolved commercial data, click the ellipsis button (...). in the **Transformation** field. A common transformation for commercial data is to add a currency symbol before the prices, e.g., $ or €.

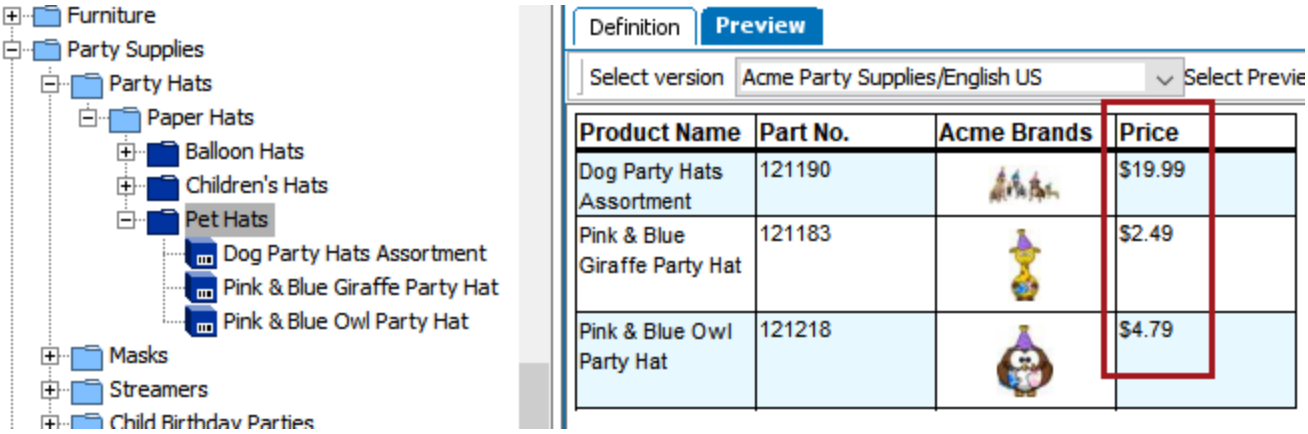
   For more information about adding attribute transformations to data in tables, refer to the **Applying Attribute Transformations to Table Content** topic.

Example

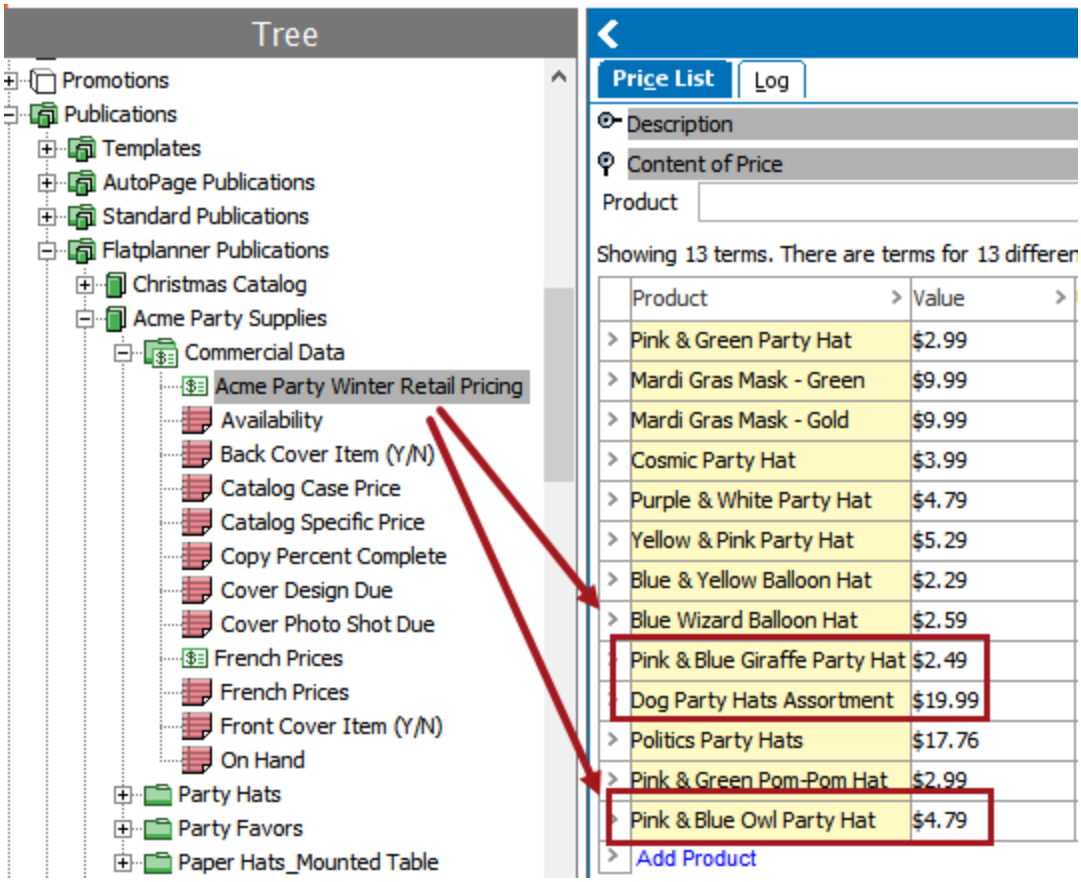
The following table has a Commercial Data content definition in the last column.



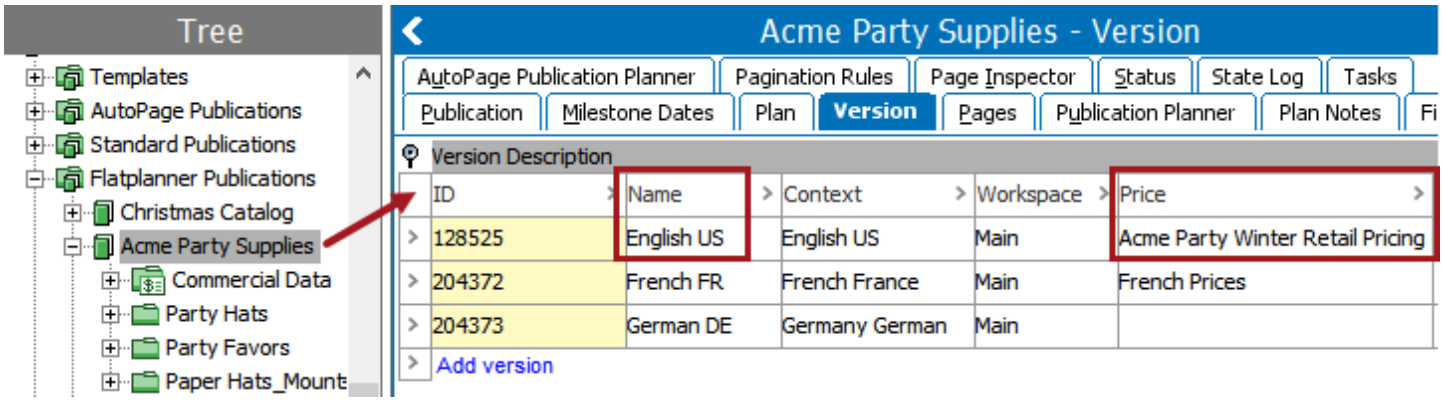
The resolved table displays the pricing values.



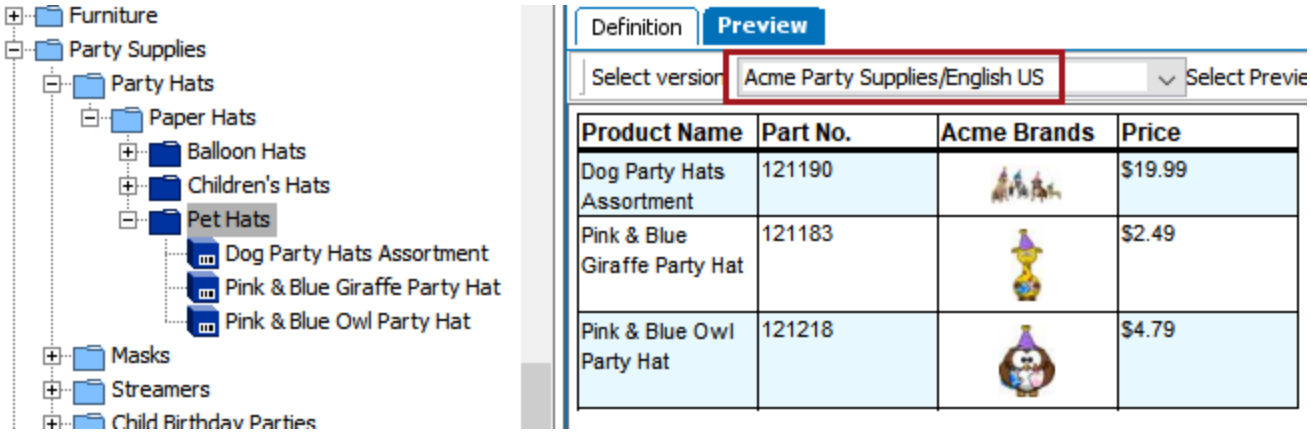
The three products mounted in the table pull their values from the 'Acme Party Winter Retail Pricing' list.



This list is connected to the English US Version of the Acme Party Supplies catalog.



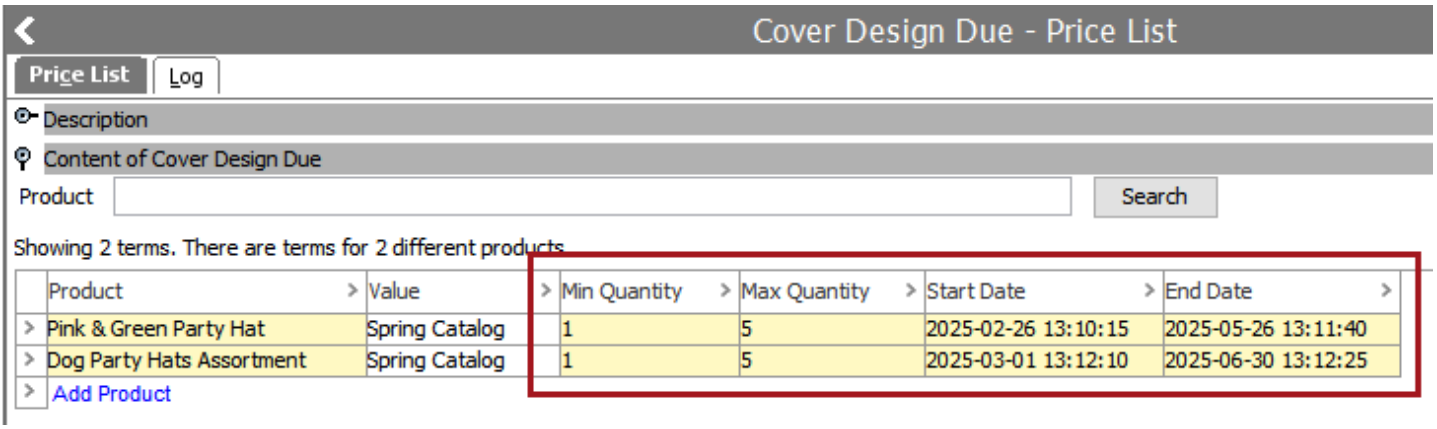
The pricing is viewed in the resolved table by selecting the Acme Party Supplies/English US version from the 'Select version' dropdown list on the tables Preview tab.



Commercial Data Aspect

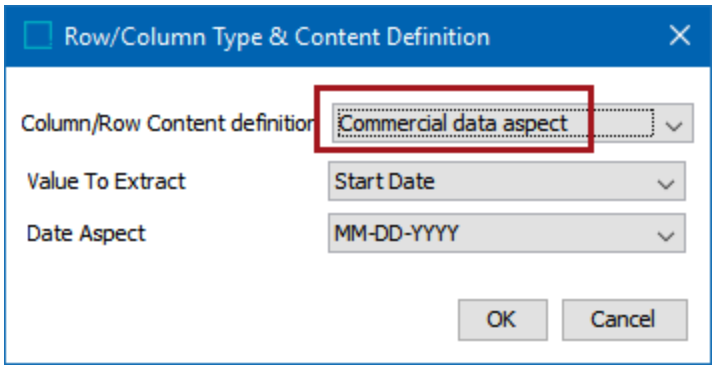
The Commercial Data Aspect content definition is used to extract a value from a terms list that is *not* in the Value field. The following aspects can be extracted:

- Start Date
- End Date
- Minimum Quantity
- Maximum Quantity

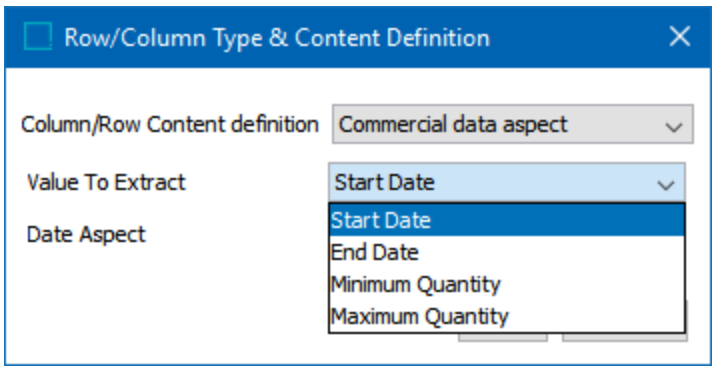


When pulling a date, this definition can display, for instance, the name of a weekday without having to store this weekday explicitly in STEP.

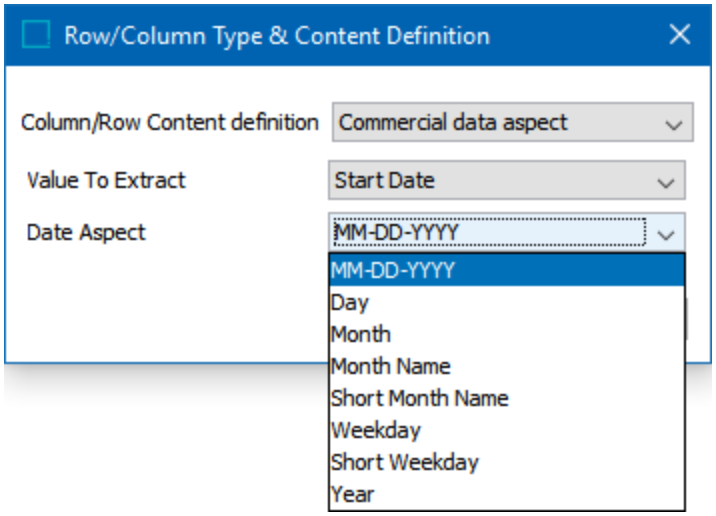
Important: For the Commercial Data Aspect content definition to work, you must apply the 'Date Spread Commercial data' content definition in an opposite row or column.



1. In the 'Column/Row Content definition' list, select **Commercial Data Aspect**.
2. In the **Value To Extract** list, choose 'Start Date' or 'End Date' to pull a date value. Choose 'Minimum Quantity' or 'Maximum Quantity' to pull a quantity value.



3. If you chose **Start Date** or **End Date** in the Value to Extract list, select the relevant aspect from the **Date Aspect** dropdown. This is not relevant if you selected Minimum Quantity or Maximum Quantity.



Date aspects resolve as follows:

Date Aspect	Renders
MM-DD-YYYY	06-11-2025
Day	6
Month	11
Month Name	November
Short Month Name	Nov
Weekday	Thursday
Short Weekday	Thu
Year	2025

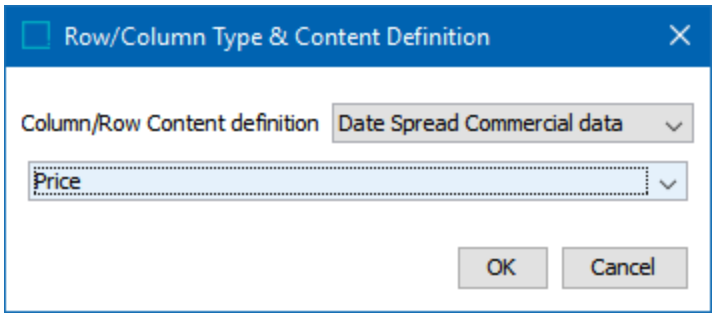
Date Spread Commercial Data

The Date Spread Commercial data content definition enables you to pull multiple commercial data values from a single product. For example, if a single product has multiple prices for different time periods, a corresponding number of rows with these prices can be created dynamically.

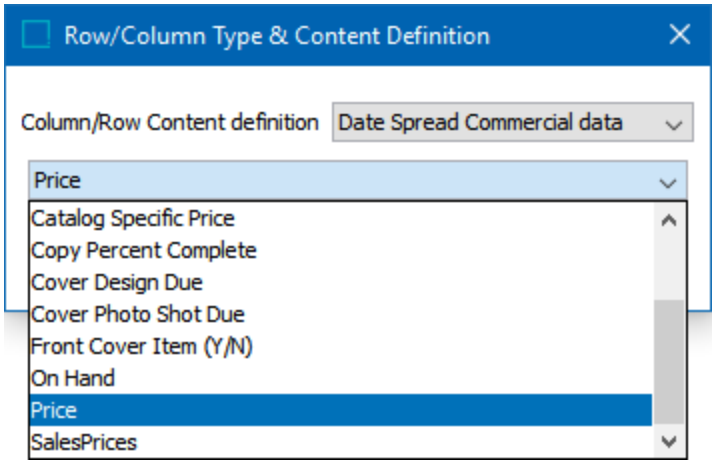
For each product in a table, Date Spread Commercial data pulls all values (typically prices) from the commercial list and sorts them by time periods. For each time period, a row is created dynamically.

Important: It is not possible to make Date Spread Commercial data rows and columns non-dynamic.

1. From the 'Column/Row Content definition' list, select **Date Spread Commercial data**.



2. Select the commercial list that contains the terms you want to include in the table, then click **OK**.



Modifying Tables

This topic explains how to make changes to cells, rows, and columns in a table. Also described is how to add, delete, and resequence columns and rows; copy and paste columns, rows, and cells; and how to span or merge multiple table cells.

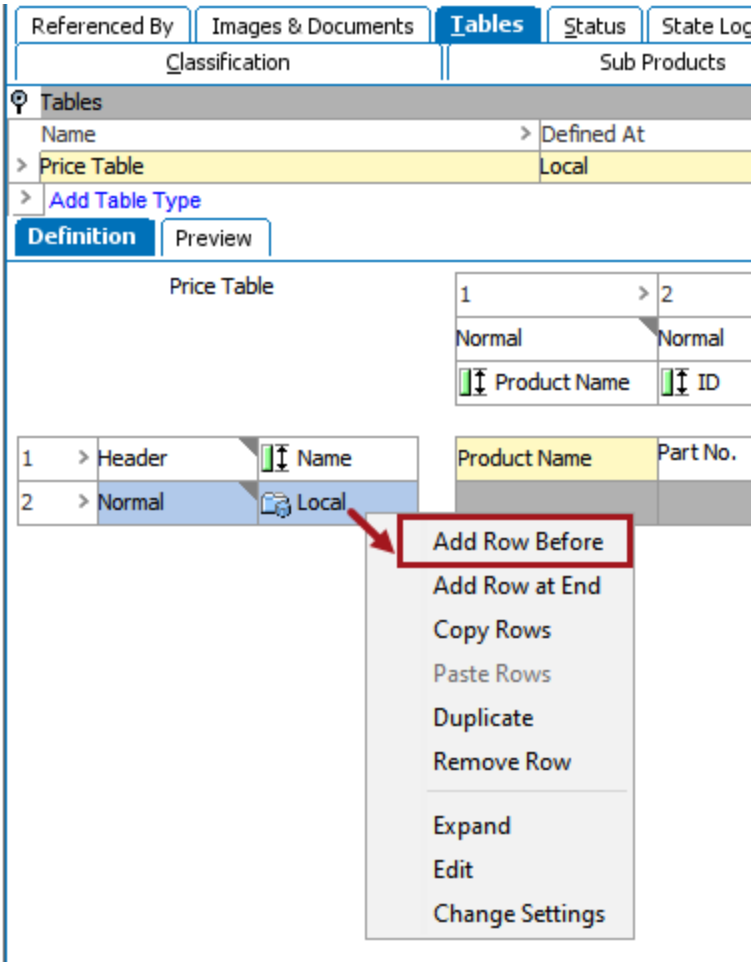
This topic assumes that you have already built your table and have it open with the **Definition** tab selected.

Add Rows and Columns

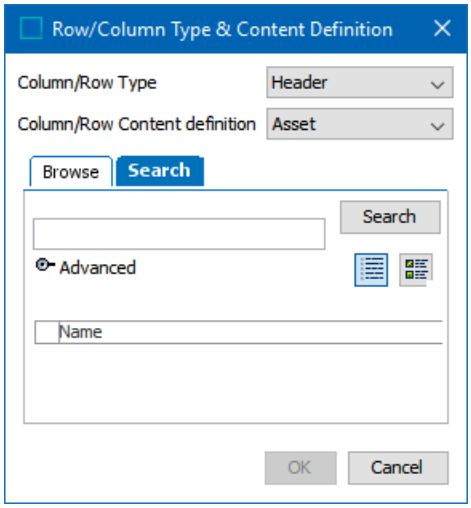
You can create columns and rows **before** the current column or row or as the final (**end**) row or column of the table.

Add Row Before

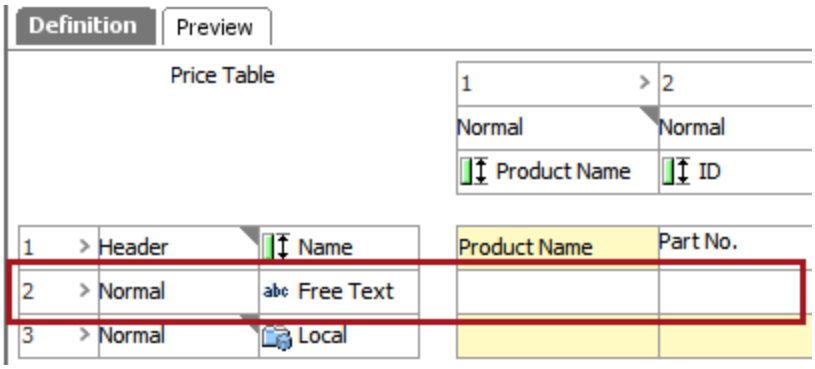
1. Right-click inside of the content definition cell ('Local,' in the below example) or the number of the row (row 2 in the example below) that you would like to add a new row before, then click **Add Row Before**.



2. The **Row/Column Type & Content Definition** dialog displays.

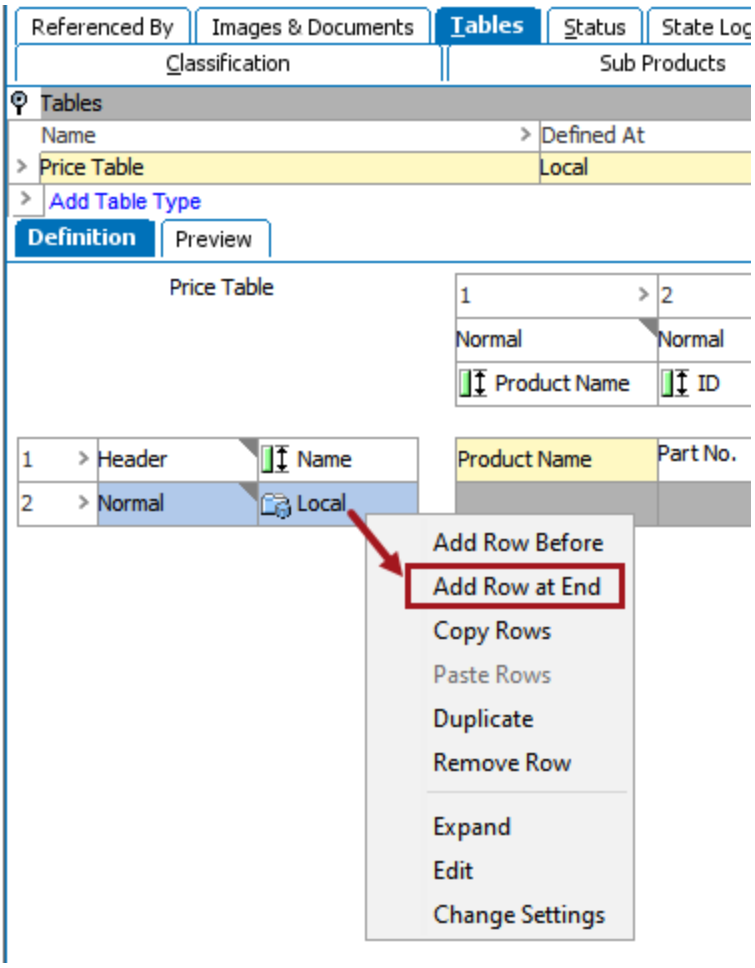


3. In the **Column/Row Type** list, select the relevant row type.
4. In the **Column/Row Content definition** list, select the relevant content definition.
5. Click **OK** to add the row. In the below example, a row type of Normal and a content definition of Free Text was chosen.

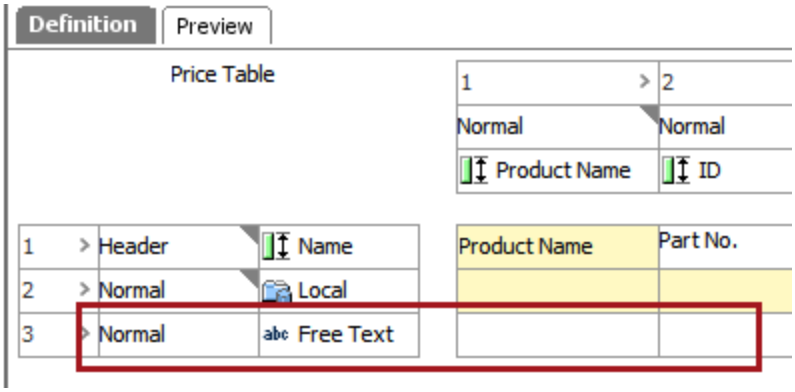


Add Row at End

1. Right-click inside of the content definition cell or the number of *any* row in the table, then click **Add Row at End**.

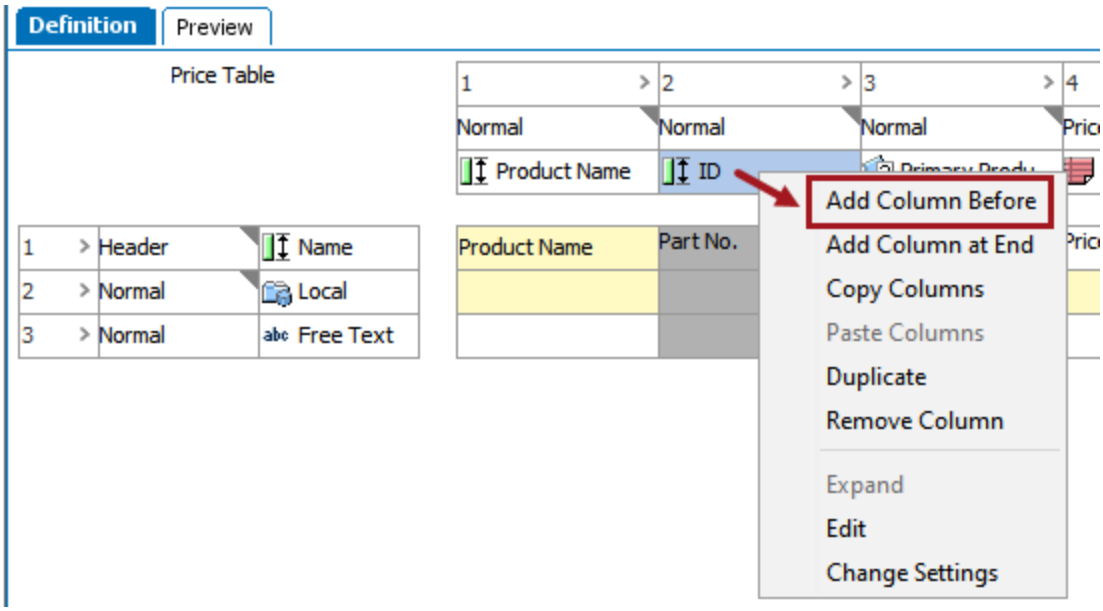


2. Follow steps 2 - 5 in the previous section to add the row.

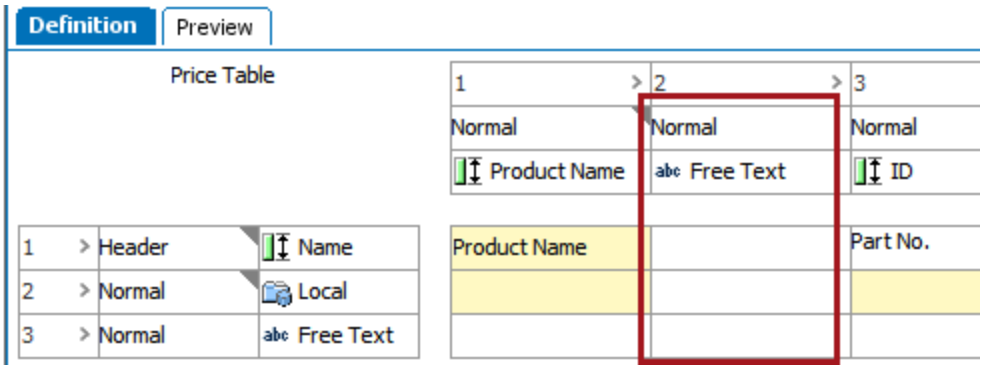


Add Column Before

1. Right-click inside of the content definition cell or the number of the column where you would like to add a new column before, then click **Add Column Before**.

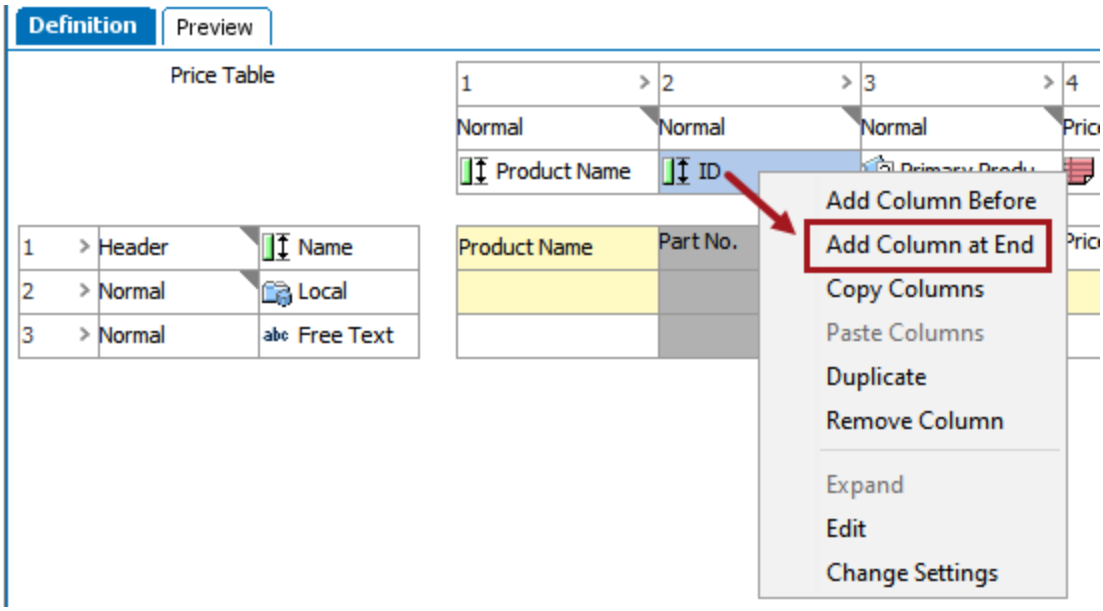


2. Follow steps 2 - 5 from the 'Add Row Before' section above to add the column.

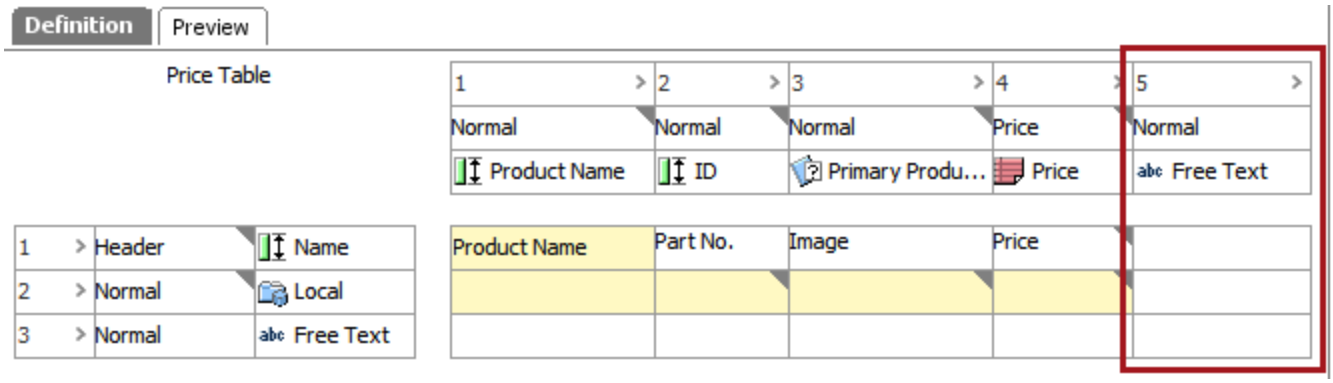


Add Column at End

1. Right-click inside of the content definition cell or the number of *any* column in the table, then click **Add Column at End**.

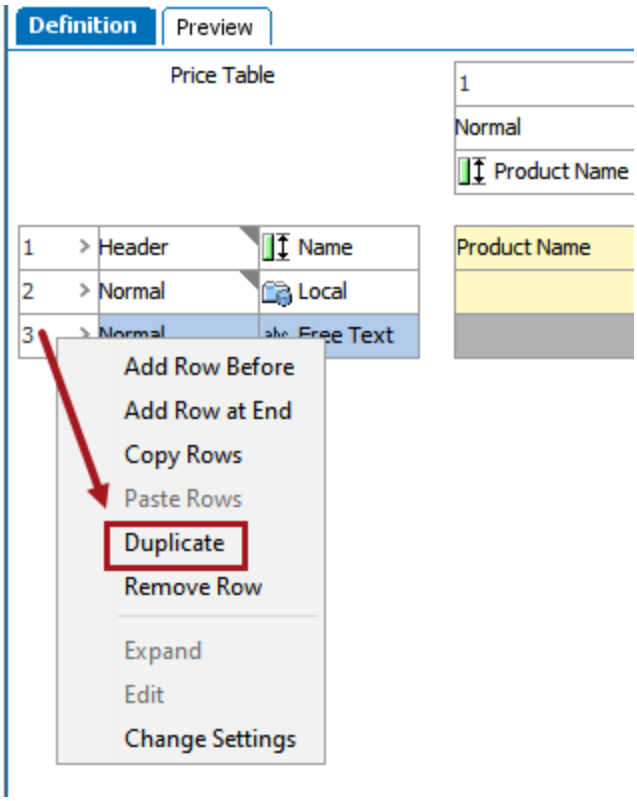


2. Follow steps 2 - 5 from the 'Add Row Before' section above to add the column.

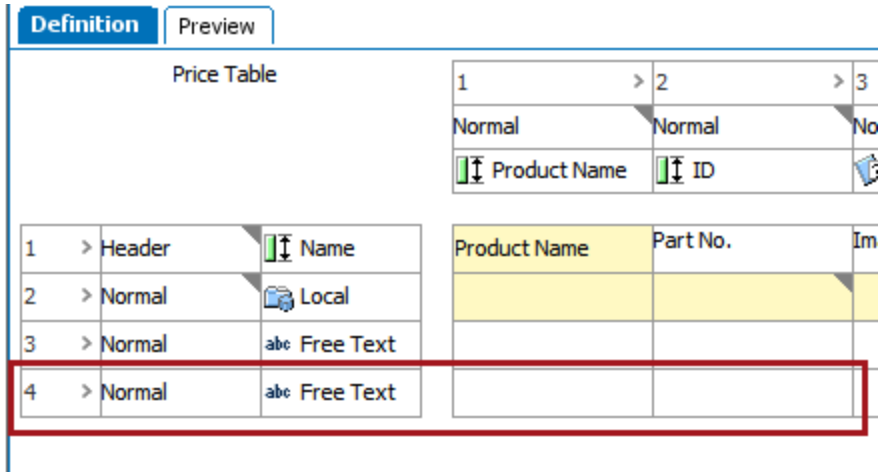


Duplicate Rows and Columns

1. Right-click inside of the content definition cell or the number of the column where you would like to add a new column before, then click **Add Column Before** and select **Duplicate**.

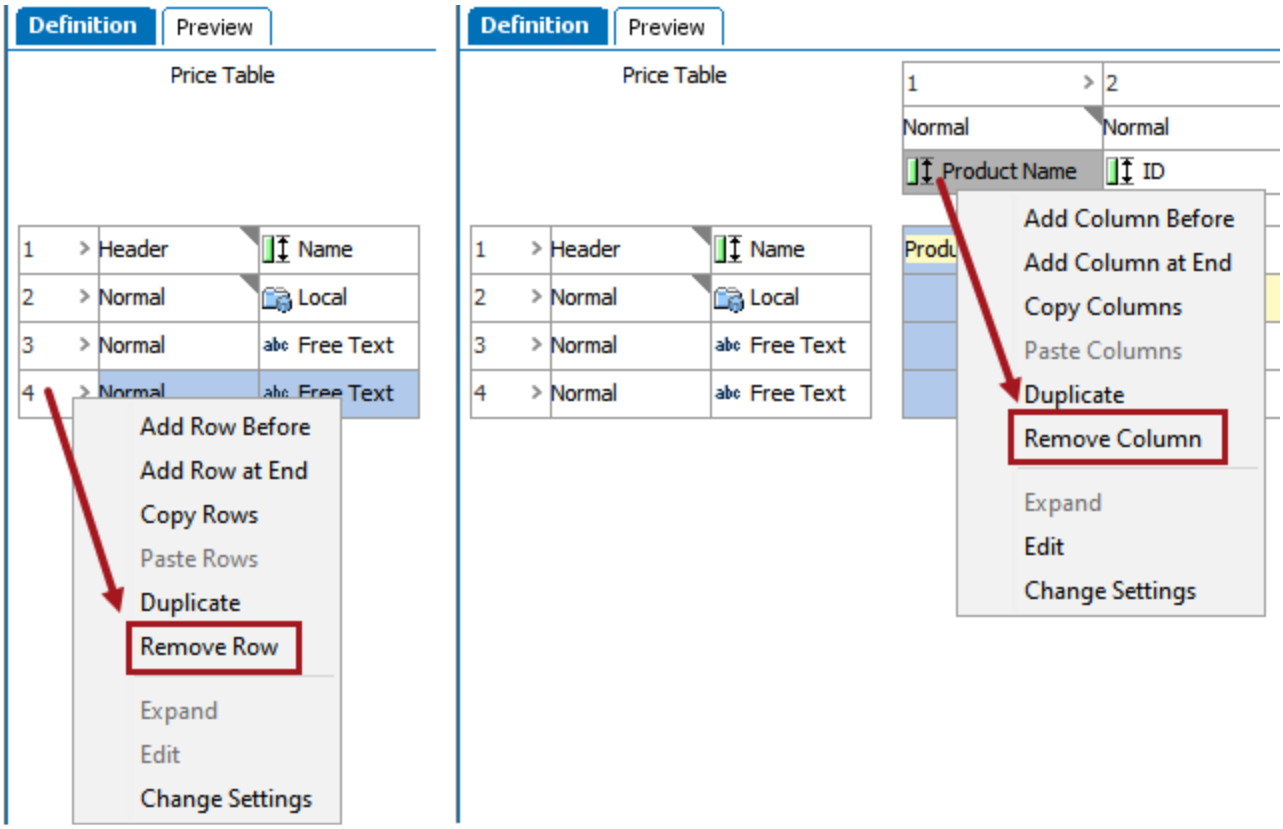


2. A duplicate of the row or column appears directly beneath the source row / to the right of the source column.



Remove Rows and Columns

Right-click inside of the content definition cell or the number of the row / column that you want to remove, then select **Remove Row** or **Remove Column**.



Expand Rows and Columns

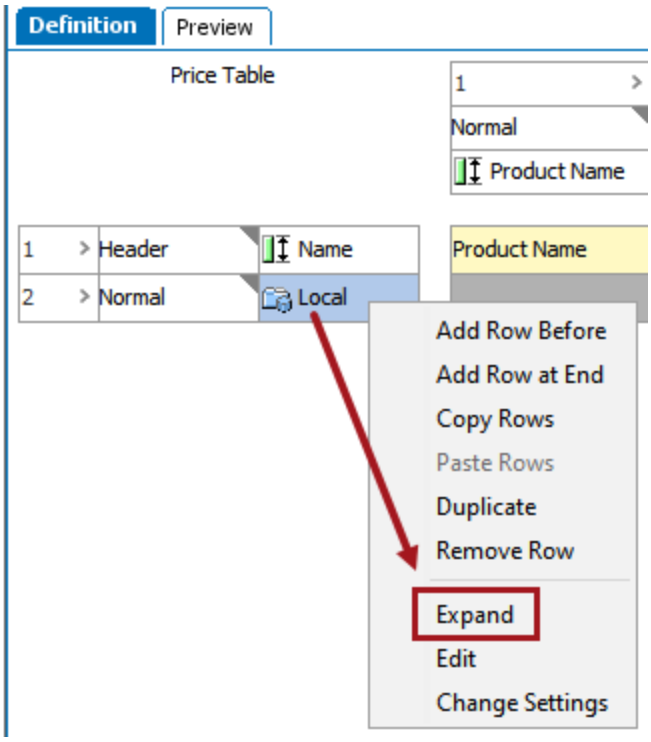
This option only applies to rows or columns with the following dynamic content definitions:

- SubProducts, Classification
- SubProducts, Family
- Attribute Group Attributes

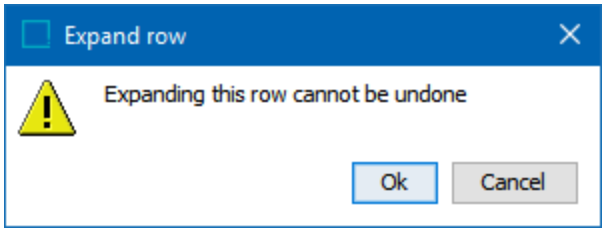
When you expand a column or row, the column or row is no longer dynamic. The content of the column or row remains as it is even if more products are added to the product family.

Note: You cannot expand dynamic rows created using the 'Date Spread Commercial data' content definition.

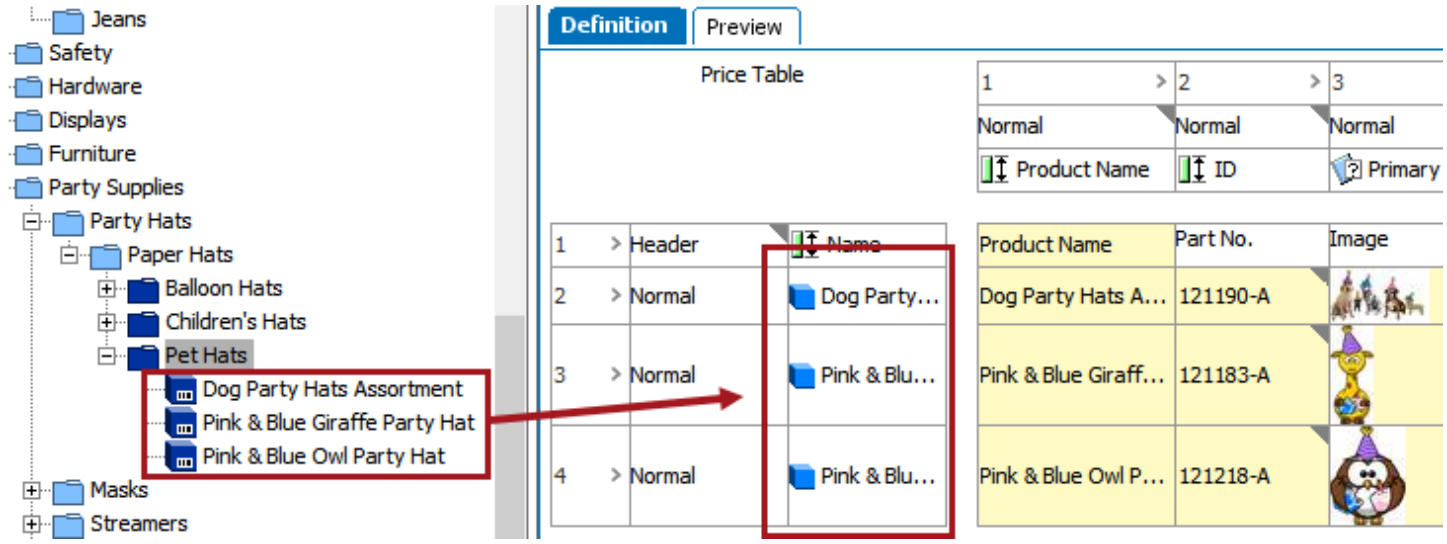
1. Right-click inside of the content definition cell or the number of the row / column that you want to expand, then select **Expand**.



2. Click **Ok** in the 'Expand row' / 'Expand column' dialog.



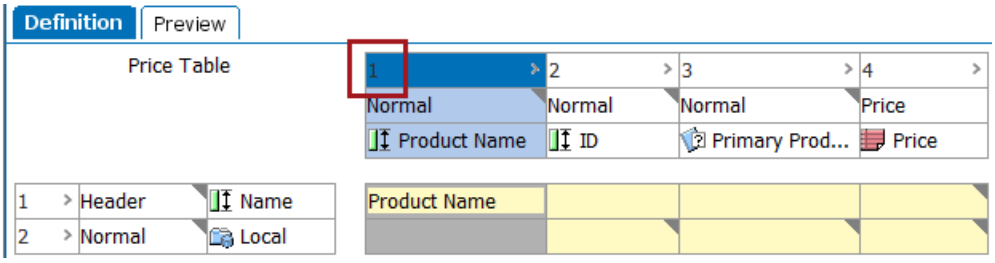
3. The dynamic row / column is expanded into individual non-dynamic rows. The below example shows a table defined on a product family object with three child objects. Once expanded, the table contains three individual rows for each child product. If another product is added to the family, a new row will not be automatically created.



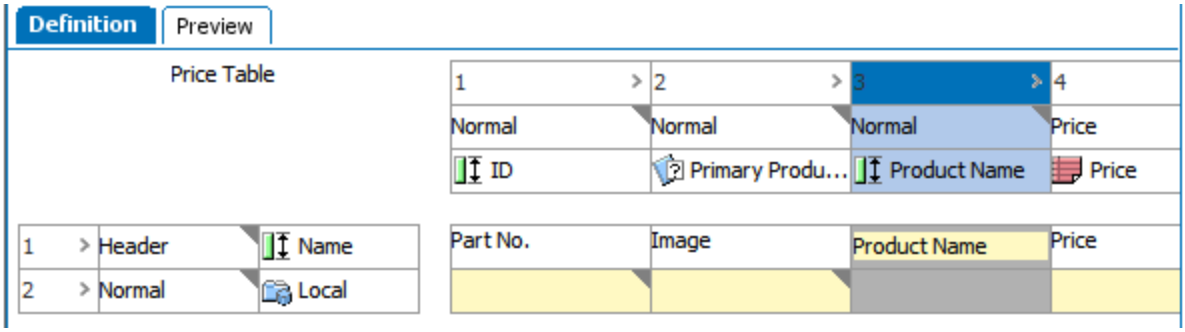
Change the Sequence of Columns and Rows

Columns and rows can be resequenced within a table using drag and drop.

1. Select the column or row that you want to move by clicking on its number.



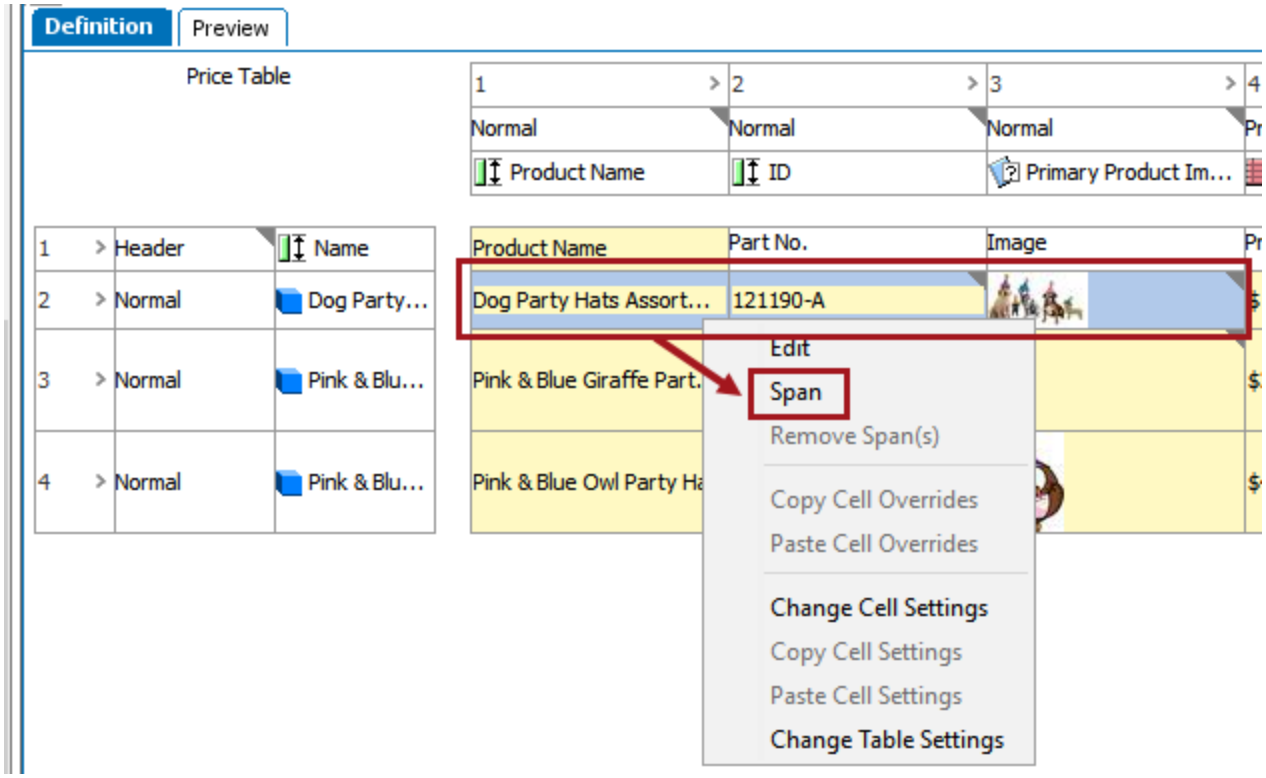
2. Drag the column or row to its new location.



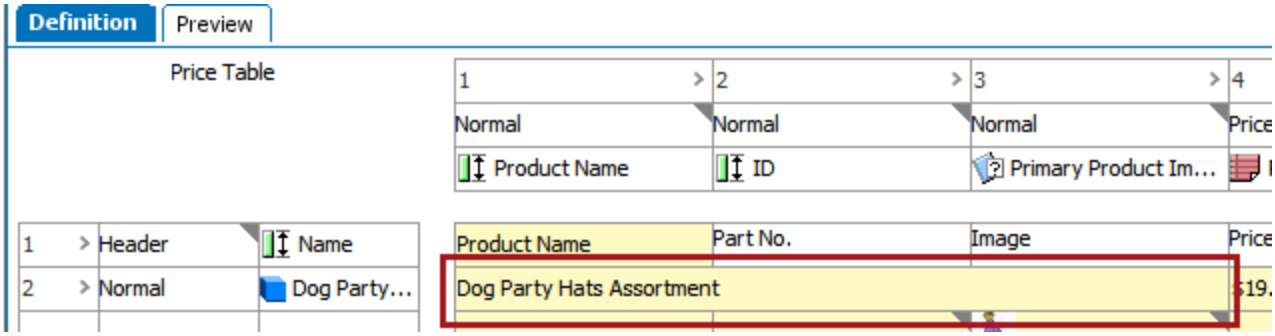
Span Cells

Two or more cells may be merged into one by using the **span** option. When cells are spanned, the cell in the upper left corner will span the full area and overwrite content in all other cells in the spanned area.

1. Select the cells that you want to span, either by holding your left mouse button and dragging your cursor across the cells, or by holding Ctrl or Shift while clicking on the cells.
2. Right-click, and then select **Span**.

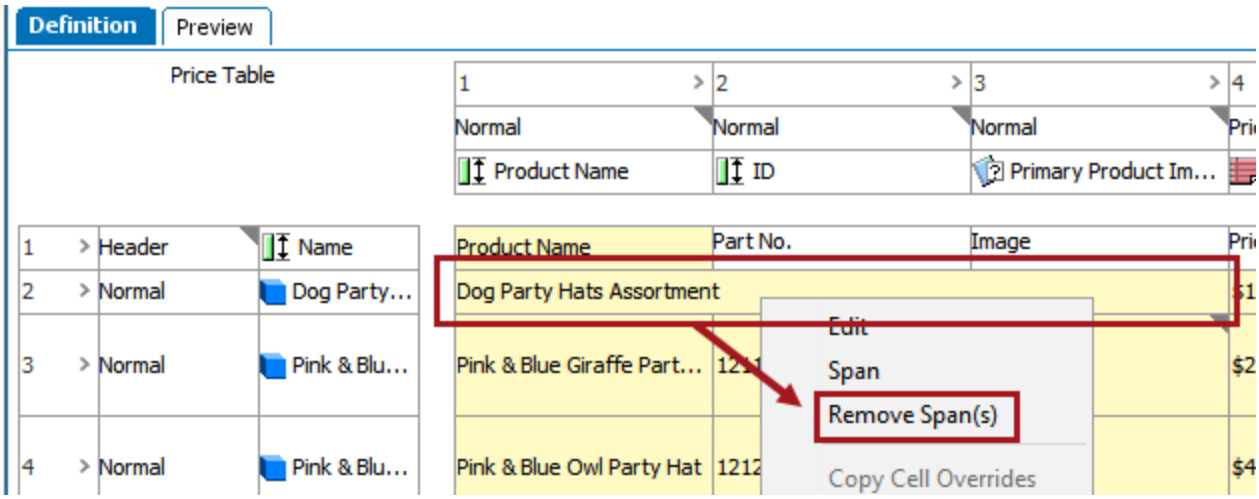


3. The cells are now spanned.



Remove Spans

Right-click anywhere within the spanned area, then click **Remove Span(s)**.


Definition
Preview
Price Table
1
2
3
4
Normal
Normal
Normal
Product Name
ID
Primary Product Im...
1
Header
Name
2
Normal
Dog Party...
3
Normal
Pink & Blu...
4
Normal
Pink & Blu...
Product Name
Part No.
Image
Dog Party Hats Assortment
Pink & Blue Giraffe Part...
Pink & Blue Owl Party Hat
1212
$4
Edit
Span
Remove Span(s)
Copy Cell Overrides

Applying Attribute Transformations to Table Content

An attribute transformation performs a task on an attribute such as inserting a prefix or converting periods to commas. There are numerous reasons to apply a transformation to an attribute in a table, but some additional use cases include removing a space between numbers and units and specifying how to separate values if there are multivalued attributes in the selected attribute group.

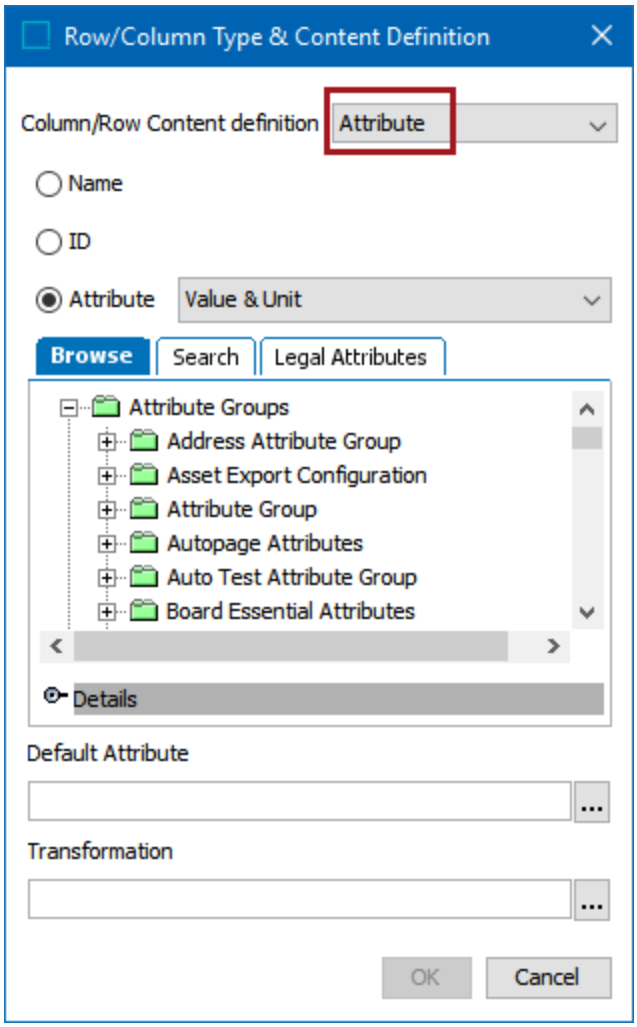
Transformations can be applied to **rows**, **columns**, or **cells** that use any of the following content definitions:

- Attribute
- Attribute Group Attributes
- Commercial Data
- Composite Attribute - All Attributes
- Composite Attribute - Single Attribute
- Parent Name

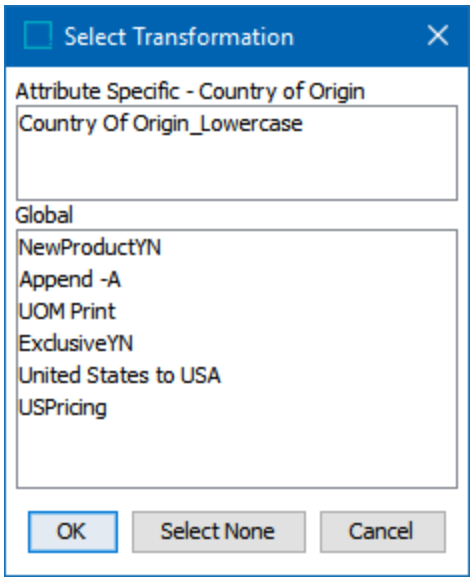
This topic explains how to apply *preexisting* attribute transformations to data in tables. For more information on how to create and configure an attribute transformation, refer to the **Attribute Transformations** section of the **System Setup** documentation.

To Apply Attribute Transformations

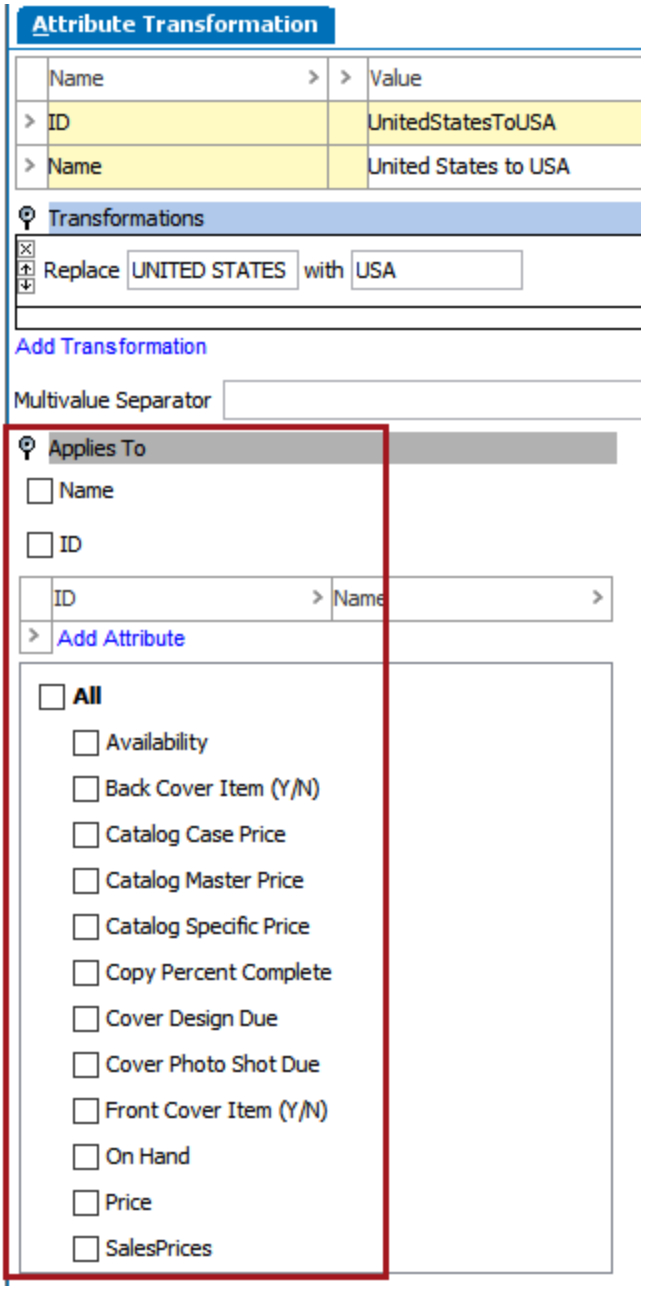
1. Follow the steps in the **Adding, Editing, and Overriding Content Definitions** topic to open the **Row/Column Type & Content Definition** dialog for your row or column.
2. In the 'Column/Row Content Definition' dropdown list, select one of the relevant content definitions mentioned in the introductory section of this topic (e.g., Attribute, Attribute Group Attributes, etc.). For this example, **Attribute** has been selected.



3. In the **Transformation** field, click the ellipsis button (...) to display the **Select Transformation** dialog. The top section of the dialog lists the 'Attribute Specific' transformation(s), e.g., transformations that have been applied to the attribute.



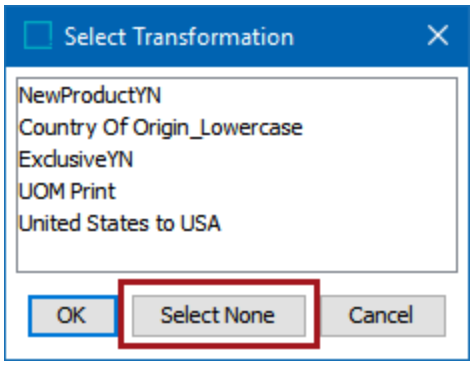
The bottom section of the dialog lists the 'Global' transformations, which are transformations that have *nothing* selected under the 'Applies To' flipper on the Attribute Transformation tab. Having no options selected allows these transformations to be global and not limited in where they can be used.



4. Select the relevant attribute transformation from the list, then click **OK**. The transformation is applied to the selected attribute.

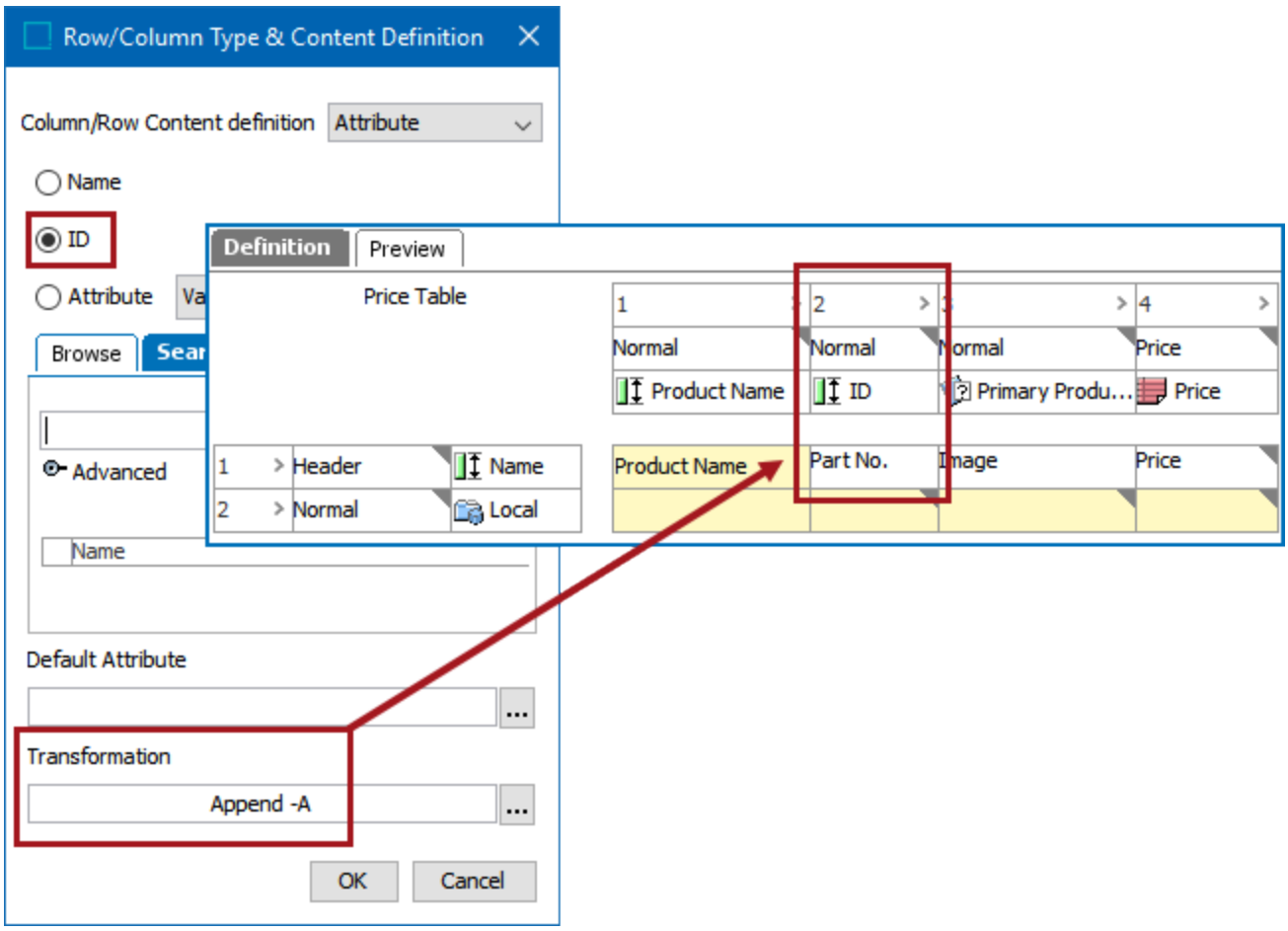
To Remove Attribute Transformations

In the 'Select Transformation' dialog, click **Select None**.

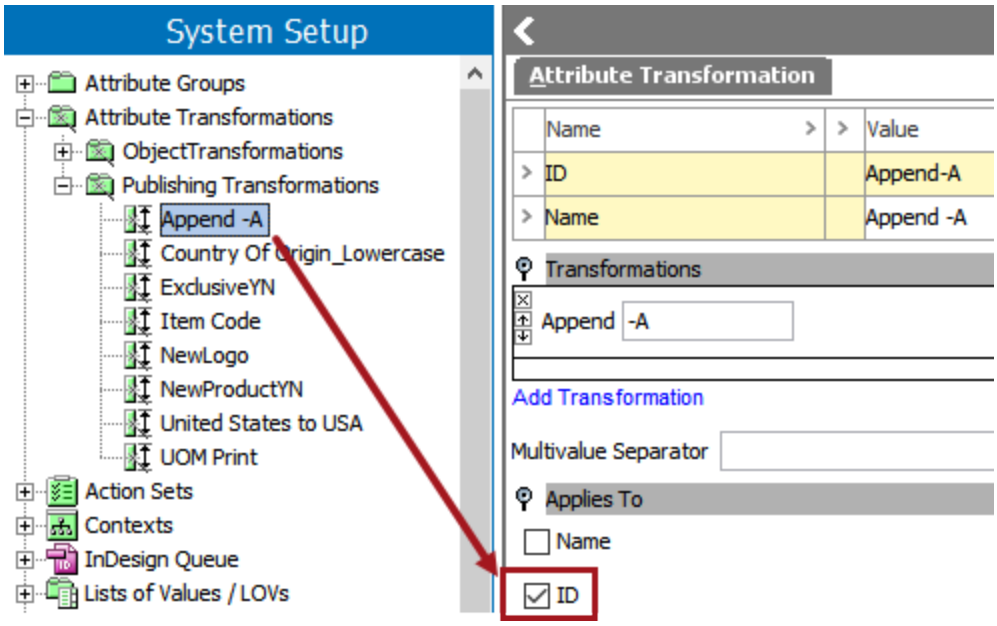


Basic Attribute Transformation Example for a Table Column

This example uses an attribute transformation that appends a text value of -A to the STEP **ID**.



The attribute transformation has been applied to the **ID** in System Setup.



Because the transformation has been specifically applied to something (in this case, ID), the transformation appears in the upper half of the Select Transformation dialog, and not at the bottom with the global transformations.

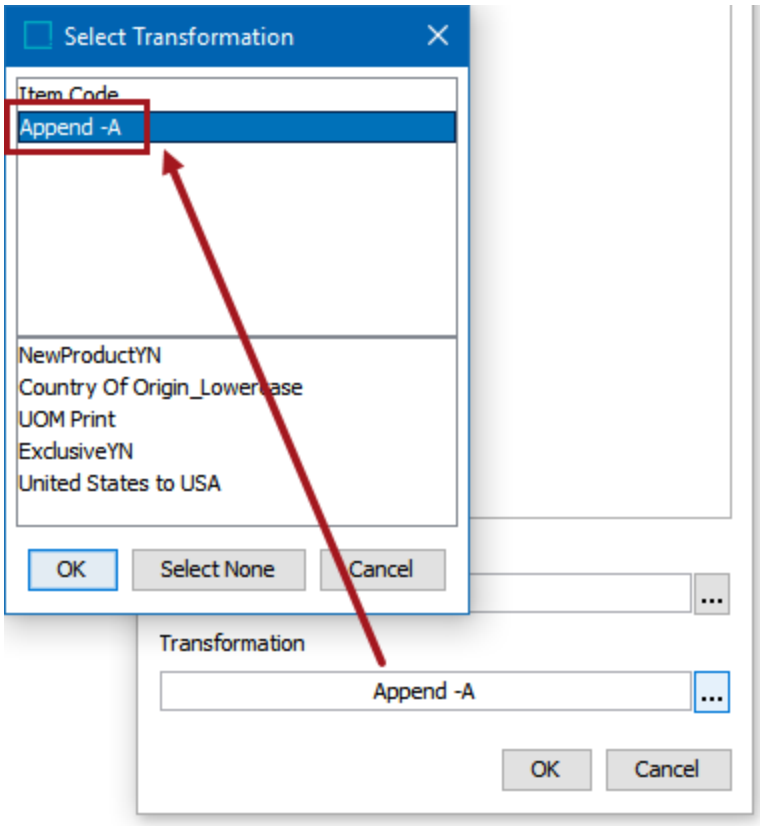


Table *before* applying the transformation:

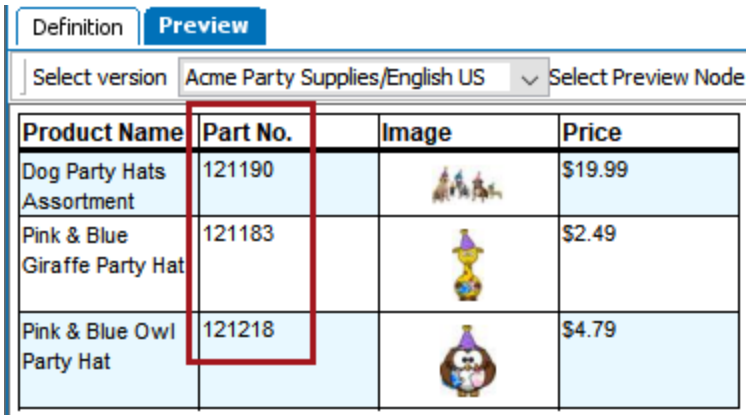
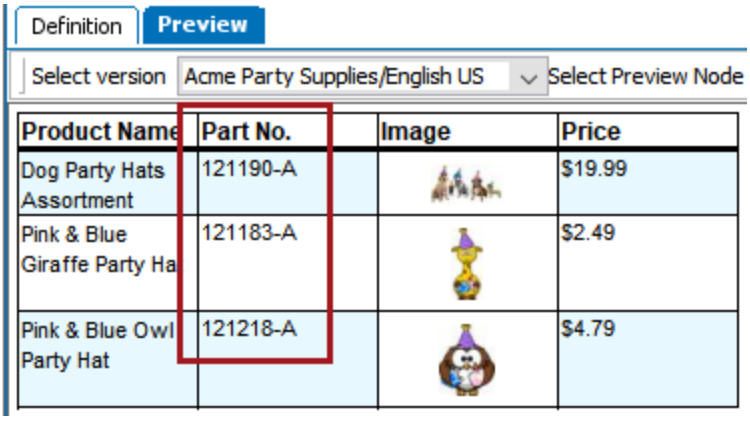


Table *after* applying the transformation:



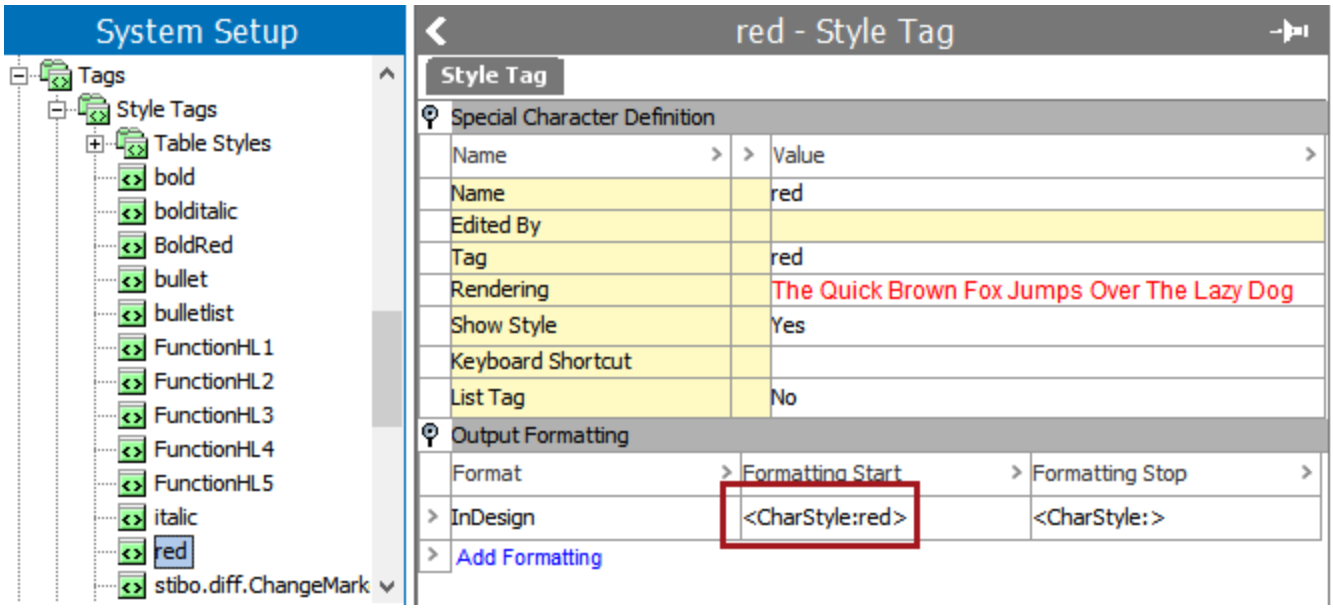
Advanced Attribute Transformation Example for a Table Column

The following example shows a more advanced attribute transformation that can be applied to a table column to change all codes (STEP IDs) that start with the letter 'D' to all caps and a red text color. This example combines the following STEP functionalities:

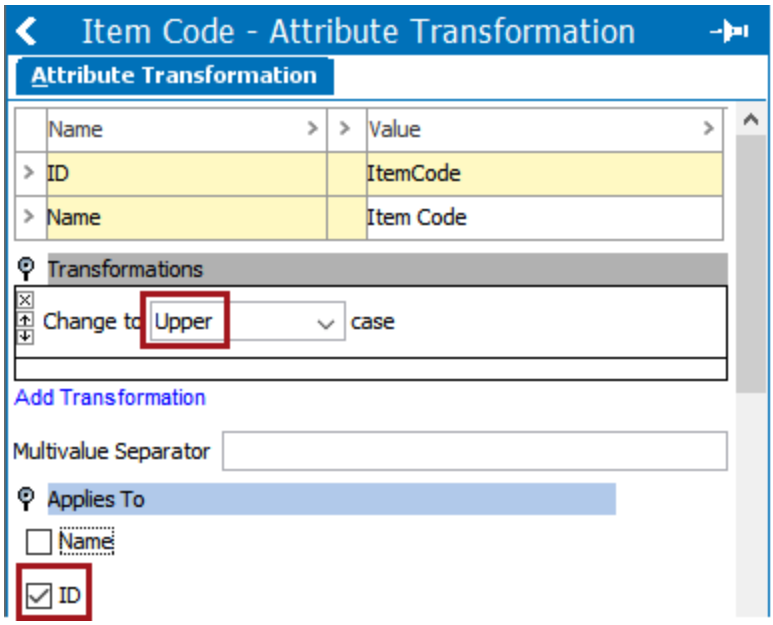
- A STEP **style tag** that utilizes an **InDesign character tag** in its output formatting. For more information, refer to the **Publication Template Layout, Formatting, and Styles** topic in the **Print Publisher** documentation.
- A **regular expression**. For more information, refer to the **Regular Expression** section of the **System Setup** documentation.

Sample Setup

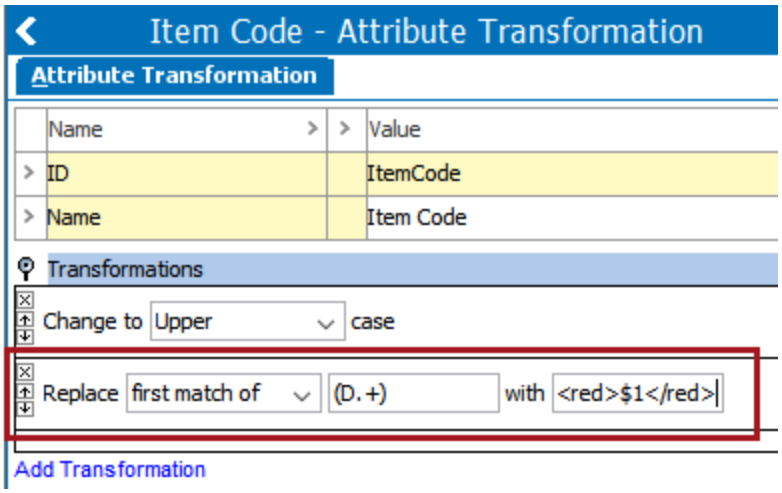
1. First, create a **style tag** in System Setup that is configured to output red text. The tag in this example corresponds to a character style in the publication template named 'red,' which is called out in the output formatting within the InDesign tag <CharStyle:**red**>.



2. Next, create an attribute transformation in System Setup intended to transform the STEP ID to upper case.



3. Click Add Transformation to add a second transformation using 'Replace substrings of the value using a regular expression.'
4. Configure this second transformation as follows:
   - Replace first match of
   - (D.+)
   - with <red>$1</red>



5. Apply this transformation to a table column that contains STEP IDs, following the steps outlined in the first section of this topic.

Table Header Attributes - Recommended Practice

Creating a description attribute that is valid on attributes—and exclusively used for creating table header values—is a recommended practice when generating table headers. Using this type of attribute is a more flexible and dynamic way to generate table headers instead of using non-dynamic free text or cumbersome transformations to change an attribute name into a value suitable for a table header. Free text is too easily removed or edited by a workbench user, and language translation is difficult to set up and maintain.

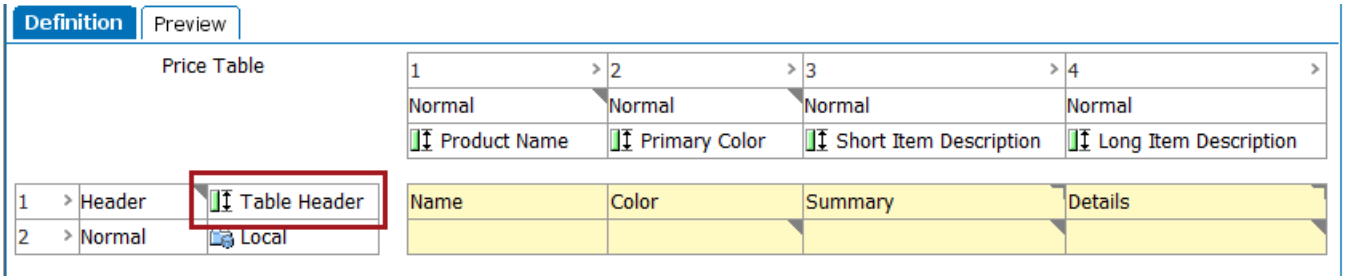
In addition, such an attribute can be used in product templates if table headers must be placed onto the template instead.

The instructions in this topic assume the following:

- You have created a table and understand how to define content definitions.
- You have an understanding of how to create and populate attributes.

Example Table Using a Table Header Attribute

In this basic example, the table has four columns containing specification attributes, each with a content definition of **Attribute**. The header row is using a content definition of **Meta Data Attribute**.



The values in the header row—Name, Color, Summary, and Details—are populated by the values of a description attribute named 'Table Header.' This attribute is valid on the **Attribute** object type.

If attribute 'Name' were used instead of 'Table Header' for the header row's content definition, then the *names* of the attributes would be pulled for the values instead—Product Name, Primary Color, Short Item Description, and Long Item Description. In all likelihood, these would not be the preferred values for the column headers.

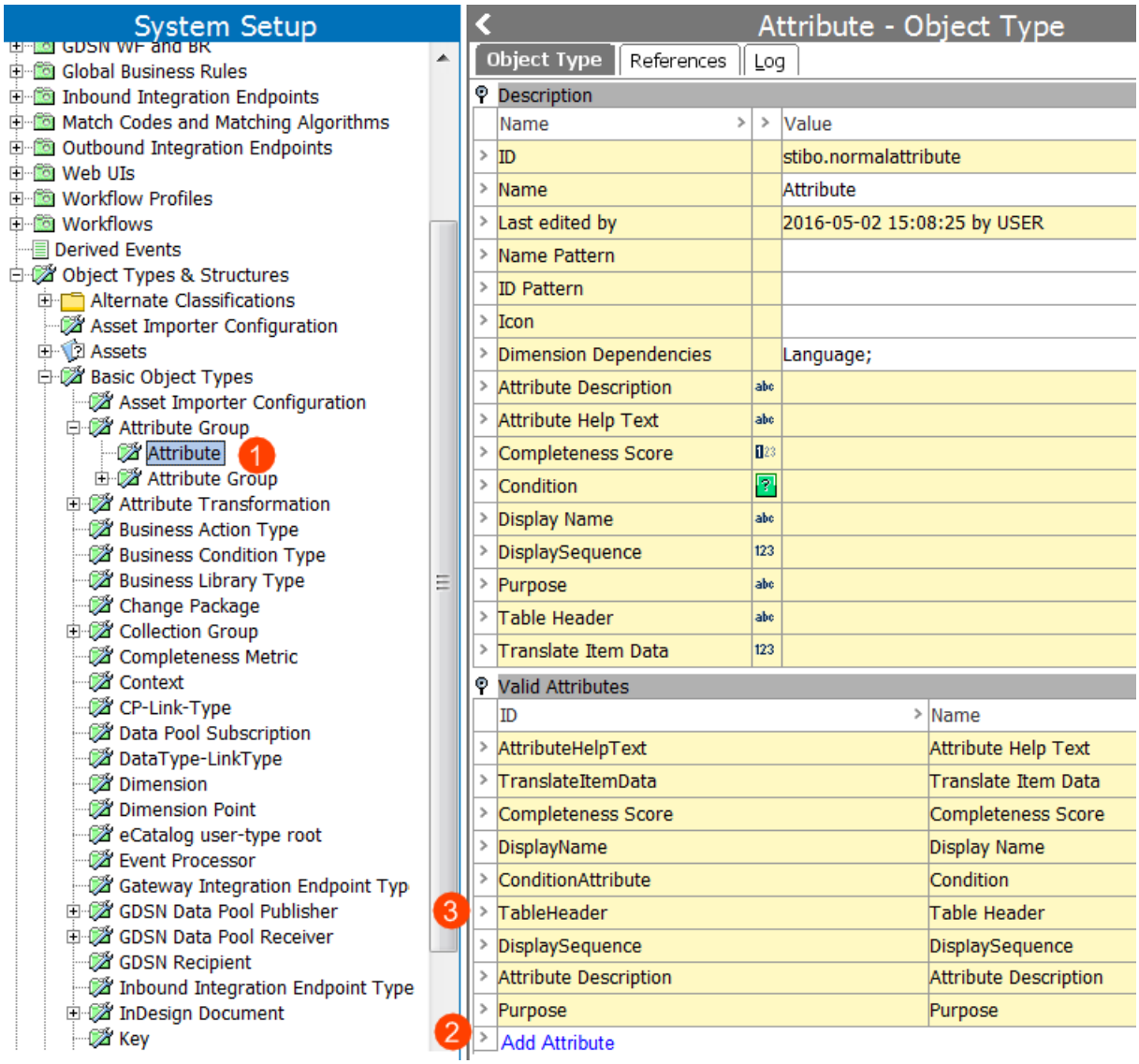
Creating a Table Header Description Attribute

1. In System Setup, navigate to the attribute group in which you would like to create your attribute, then right-click and select **New Attribute**.
2. In the **Create Attribute** dialog, give the attribute an ID and Name (for example, 'Table Header'), then select **Text** for Validation Base Type and **No** for Multi Valued. Click **Next**.

3. Provide a Maximum Length that aligns with the typical number of characters currently used as a column header in step 3 (Enter Validation Rule). This will probably be around 30 or 40 characters rather than the default 100.
4. Click **Next** two more times to bypass the screens for steps 4 and 5 of the wizard. (As this attribute will only be valid on attributes, there is no need to make it valid on product types. However, you may later make it valid on additional objects if a need arises.)
5. In step 6 (Apply Dimension Dependencies), choose Country and/or Language if you want the values of this attribute to be translatable.
6. Click **Finish**. No additional steps are needed, as this is a description attribute valid only on attributes.

Applying Attribute Validity to the Table Header Attribute

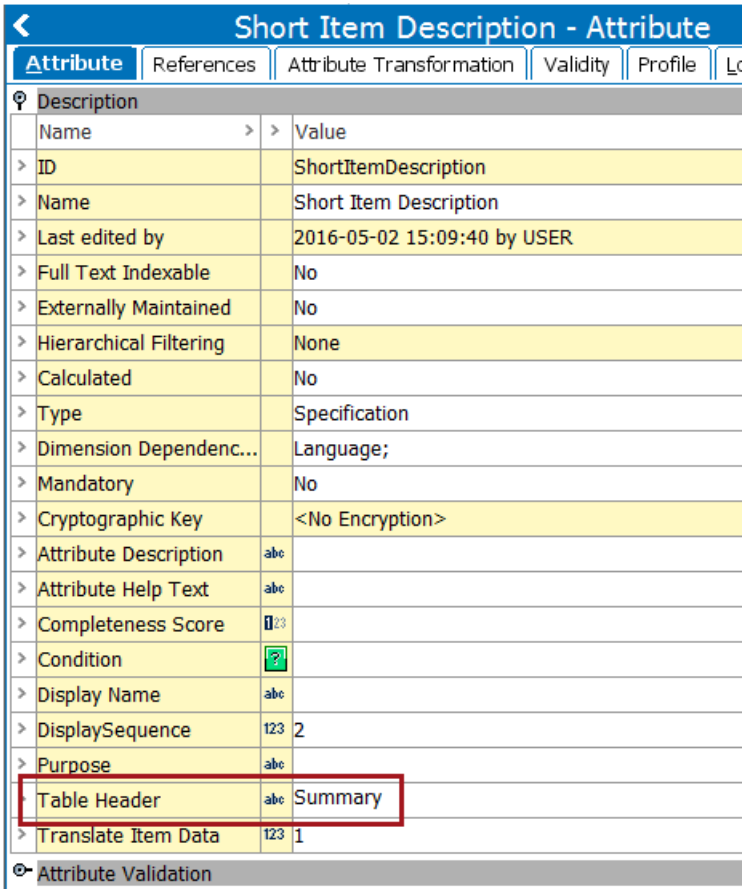
1. Next, navigate to the **Attribute** object type, located in System Setup > Object Types & Structures > Basic Object Types > Attribute Group > **Attribute**.
2. On the **Object Type** tab, expand the 'Valid Attributes' flipper, then click **Add Attribute**.
3. In the dialog that displays, browse to or search for the table header attribute that you just created, then click **Select**.
4. The table header attribute is now valid on attributes.



Populating Values for the Table Header Attribute

Now that the table header attribute is valid on attributes, it appears under the Description flipper on all attributes.

1. In System Setup, navigate to the specification attributes that you will be using in your table.
2. Locate your table header description attribute, then enter the value that you would like to appear as the table header for this attribute.
3. In the following screenshot, a value of 'Summary' has been entered as the value for 'Table Header' on the attribute named 'Short Item Description.'



4. Now, on the table, the value of 'Summary' appears as the header for the 'Short Item Description' column.

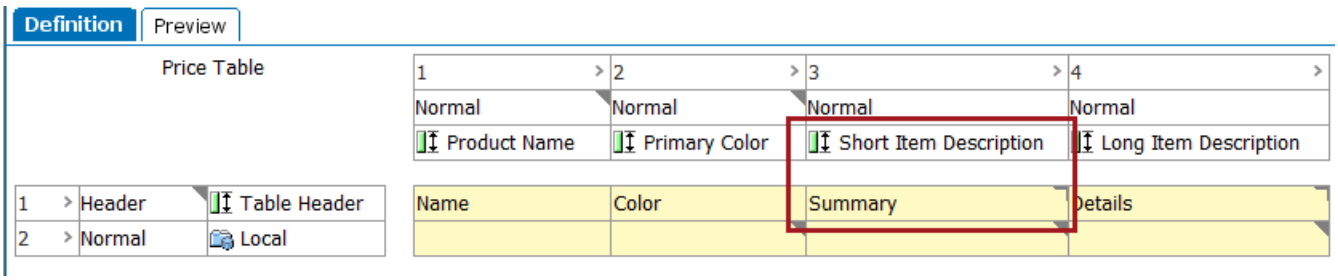


Table Transformations

Table transformations are used to manipulate the content and appearance of a table. A table transformation can perform operations on an entire table or part of a table, such as applying color to certain rows or merging cells with equal values. Transformations are added and configured on the tables **Preview** tab, allowing their effects on the table to be viewed in real-time.

For a list of all available transformations, refer to the **List of Transformations** topic.

General Transformation Information

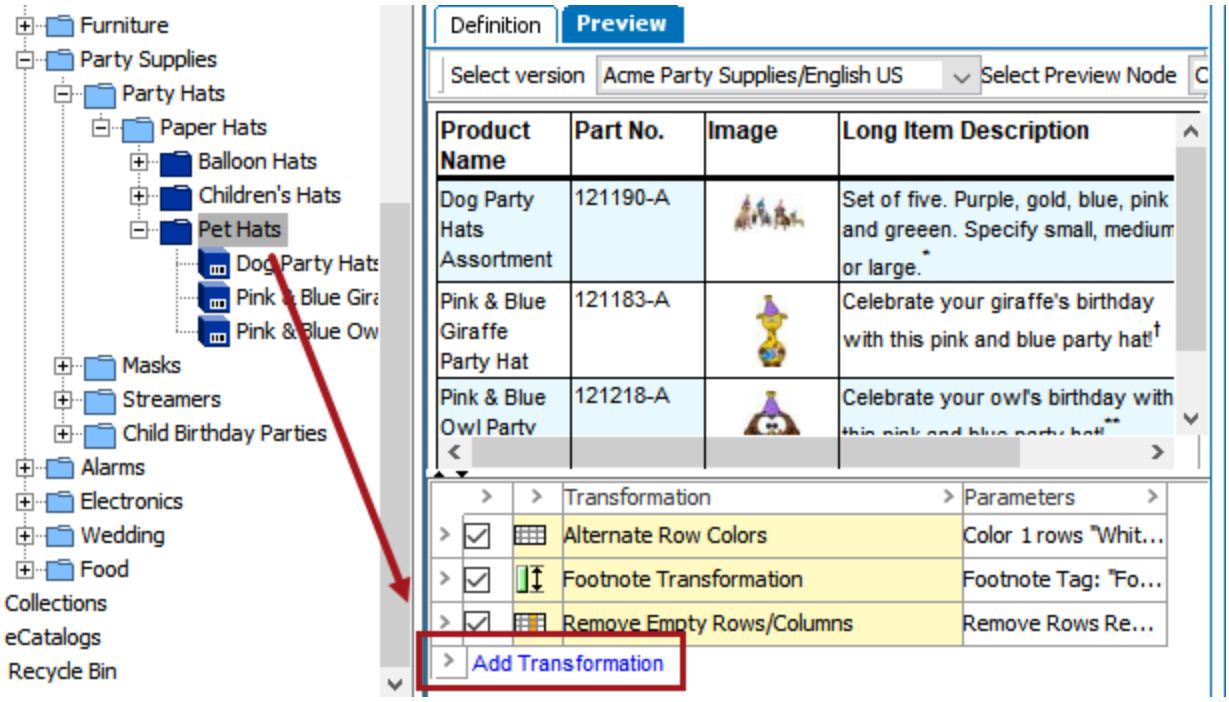
When you use transformations, be aware of the following:

- Most transformations are applied in a two-step process: First you add the transformation, then you modify the parameters.
- Transformations are cumulative, which means that you can add a range of transformations to your table. The transformations are executed in the sequence they are listed, and a transformation takes effect upon the result of the previous transformation. To change the sequence of transformations, you can drag and drop a transformation row to a new location.
- Transformations can impact the table formatting such as the text style or background color of a row or column. In some cases, you may have to set the formatting on the transformation as well.

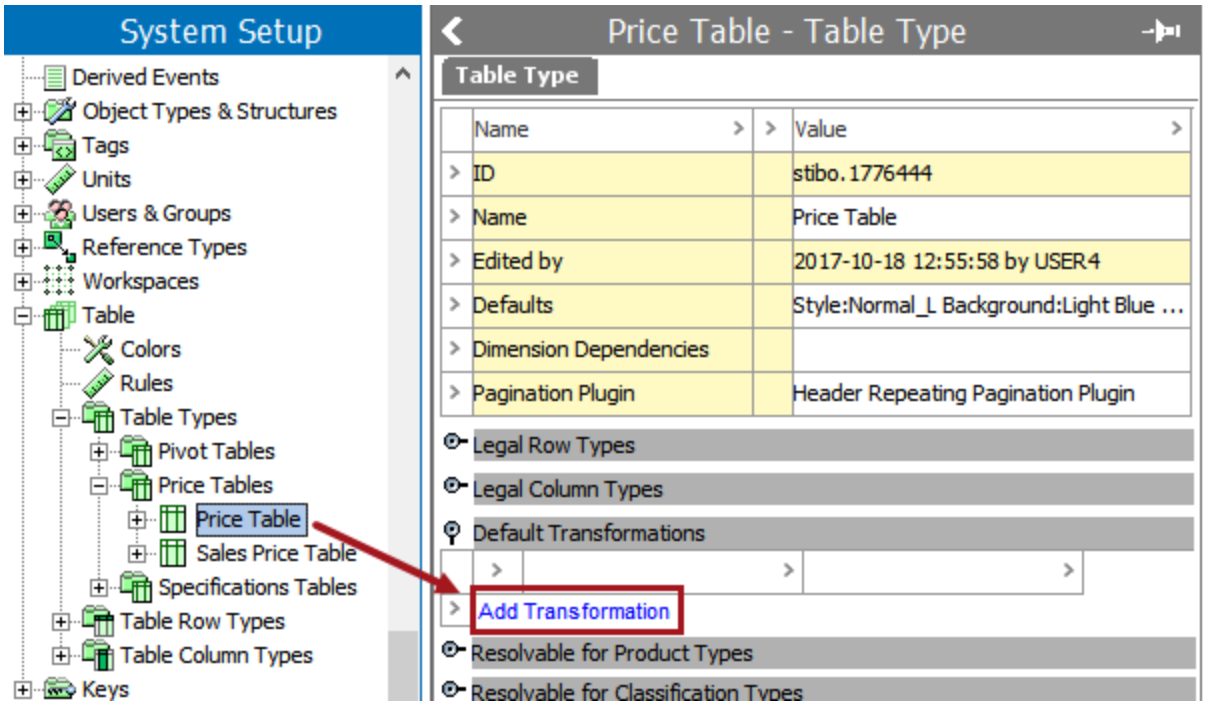
Adding Transformations

You can apply table transformations **locally** in the product or classification hierarchy of the Tree, and/or **globally** in System Setup. Any transformation added globally can be overridden later at the local level

- Local transformations are added on the **Preview** tab of the selected table on the **Table** tab.



- Global transformations are added in the **Default Transformations** area on the **Table Type** tab.

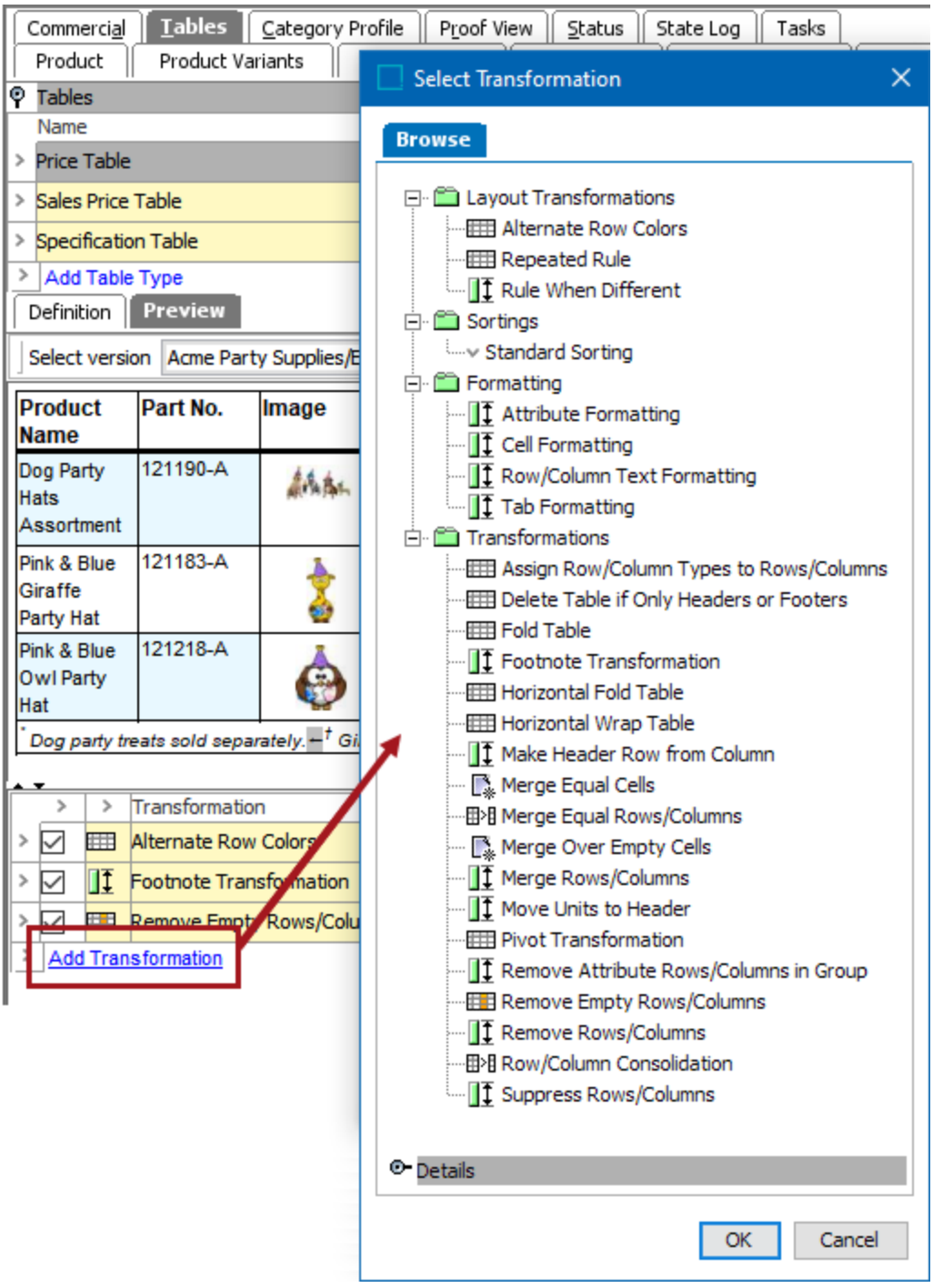


Important: You can only change the sequence of table transformations on a **table type** from the table type itself in System Setup. When you change the sequence of transformations on the table type, it affects all tables that are based on the table type.

Add a Transformation to a Table or Table Type

The following steps describe how to add transformations to an individual table. However, the process for adding transformations to a table type is similar, except that you add the transformation on the table type in System Setup.

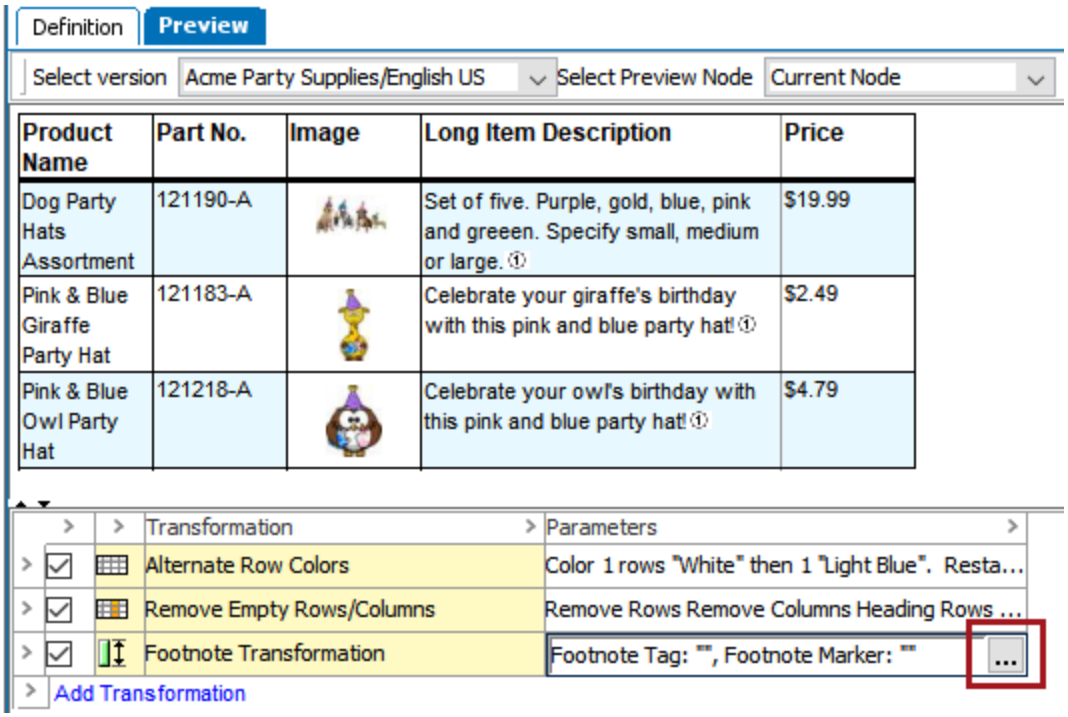
1. With the relevant table open on the Preview tab, click **Add Transformation**.
2. In the **Select Transformation** dialog, select the preferred transformation, then click **OK**.



3. For most transformations, additional parameters will need to be configured. These additional parameters are described in the following sections of this documentation topic.

Modify Transformation Parameters

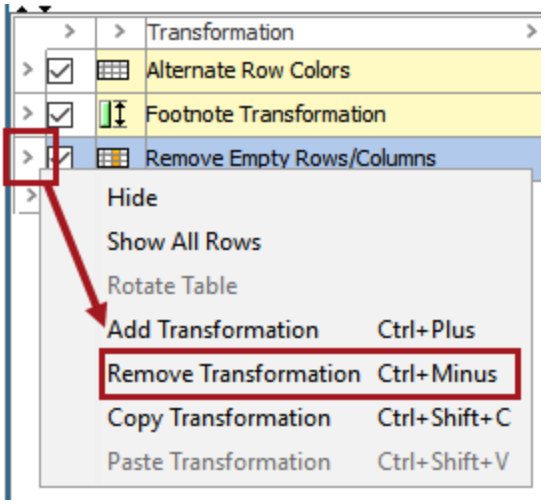
1. Return to the Preview tab and locate the transformation that you want to configure.
2. Click inside of the **Parameters** field to display the ellipsis button (...).



3. Make the desired changes, and then click **OK**. Parameters are different for every transformation, and are described in detail in the following topics of this documentation section.

Remove a Transformation

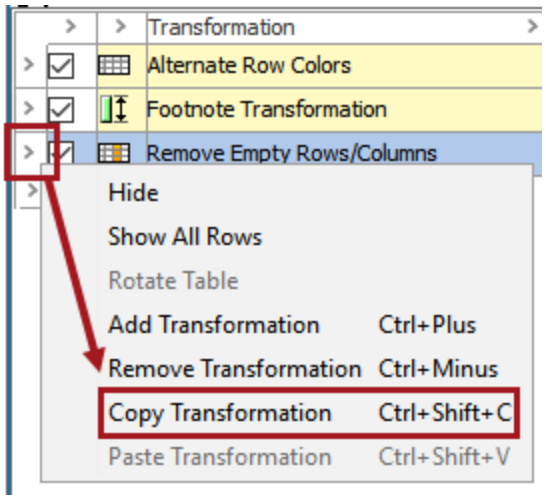
1. Click the arrow in front of the transformation that you want to remove, then click **Remove Transformation**.



Copy and Paste a Transformation

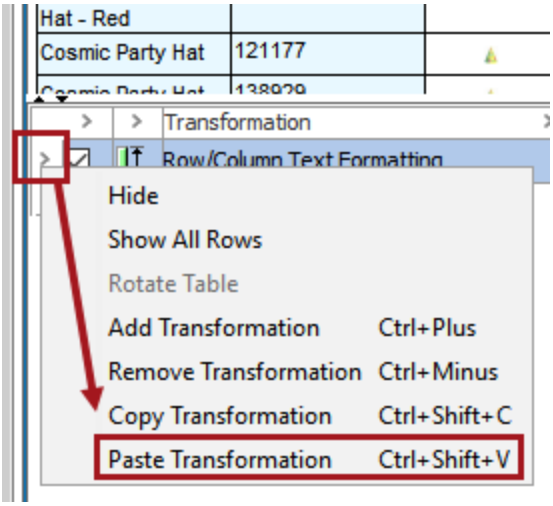
To save effort, transformations can be copied and pasted. To copy and paste to a *different* table means that the transformation does not have to be created again from scratch. To copy and paste within the *same* table could also be useful since transformations are applied accumulatively and sequentially. For example, a Remove Empty Rows/Columns transformation might be applied to remove empty rows or columns, then another transformation applied later removes additional values that create new empty rows or columns. So, the Remove Empty Rows/Columns transformation would need to be applied again, below the transformation that created new empty rows / columns.

1. Click the arrow in front of the transformation that you want to remove, then click **Copy Transformation**.

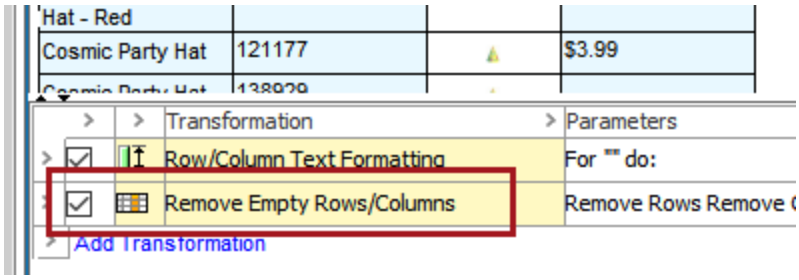


2. Click on an arrow by a different transformation, either on the same table or a different table, then click **Paste Transformation**.

> **Note:** To paste a transformation to a *different* table, at least one transformation must already exist on the target table.



3. The pasted transformation will be placed adjacent to the transformation where you clicked to paste.



List of Transformations

The below tables list the transformations available in STEP for tables. Each transformation is described in further detail in the related online help topic referenced below.

Layout Transformations

Transformation	Description	Related Topic
Apply Alternate Row Colors	Shades alternate rows according to a specified frequency.	**Table Layout Transformations**
Repeated Rule	Inserts specified rule styles as top and bottom borders of a row.	
Rule When Different	Inserts a specific rule style for a specific type of content.	

Sorting Transformations

Transformation	Description	Related Topic
Sortings	Sorts the rows in a table according to the specified settings.	**Table Sorting Transformations**

Formatting Transformations

Transformation	Description	Related Topic
Attribute Formatting Transformations	Applies a transformation to a specific attribute.	**Table Formatting Transformations**
Cell Formatting	Formats cells with specific content.	
Row/Column	Applies text formatting to a specific column or row. The	

Transformation	Description	Related Topic
Text Formatting	transformation also calculates, replaces, and applies prefixes and suffixes to values.	
Tab Formatting	Inserts a tab stop in a row or column.	

General Transformations

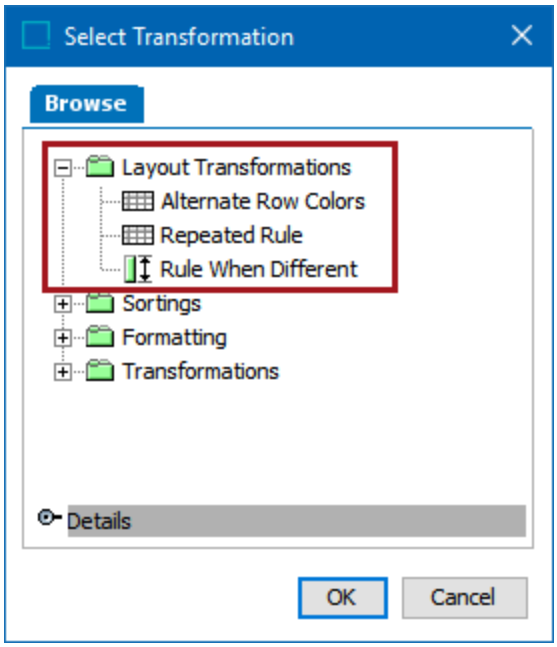
Transformation	Description	Related Topic
Assign Row/Column Types to Rows/Columns	Allows users to assign row and/or column types to fixed row / column numbers. This functionality is primarily intended for use after a Pivot Transformation has been applied.	**Assign Row/Column Types to Rows/Columns**
Delete Table if Only Headers or Footers	Checks if all of the current rows or columns in a table are designated as Headers or Footers, i.e., if they are designated as anything other than Normal. If either all rows or all columns are headers or footers, then the entire table is deleted.	**Delete Table If Only Headers Or Footers**
Fold Table	Divides a table into two or more side-by-side tables where the content flows across the tables.	**Fold Table**
Footnote Transformation	Controls how footnotes are displayed in a table.	**Footnote Transformation**
Horizontal Fold Table	Splits a wide table into two or more vertical 'folds' based on a designated number of folds.	**Horizontal Fold Table**
Horizontal Wrap Table	Splits a wide table into two or more vertical 'wraps' based on a specified column type.	**Horizontal Wrap Table**
Make Header Row from Column	Transforms column content into subheadings.	**Make Header Row from Column**
Merge Equal Cells	Merges adjacent cells with identical values. The transformation merges equal cells in the entire table or in specific rows or columns. Both horizontally and vertically adjacent cells are merged.	**Merge Equal Cells**

Transformation	Description	Related Topic
Merge Equal Rows/Columns	Merges consecutive rows or columns if they have identical data.	**Merge Equal Rows/Columns**
Merge Over Empty Cells	Merges row or column contents with empty cells. Use this transformation when you want to span dynamically created cell content.	**Merge Over Empty Cells**
Merge Rows/Columns	Merges the content of the specified rows or columns.	**Merge Rows/Columns**
Move Units to Header	Enables a header row or header column to be built from unique units that appear on values inside the table. If all units are they same within the column or row, they are removed from the values and then moved into the new or existing header row / header column.	**Move Units to Header**
Pivot Transformation	Creates a pivot table that allows you to summarize and analyze the data in your table independent of the original data layout of your table.	**Pivot Table Transformations**
Remove Attribute Rows/Columns in Group	Removes all attributes that belong to a specific attribute group.	**Remove Attribute Rows/Columns in Group**
Remove Empty Rows/Columns	Removes empty rows or columns. The entire row or column must be empty.	**Remove Empty Rows/Columns**
Remove Rows/Columns	Removes a specific row or column.	**Remove Rows/Columns**
Row/Column Consolidation	Consolidates consecutive rows or columns that are identical except for the values in one designated row or column. The values in those cells corresponding to the designated row or column are merged.	**Row/Column Consolidation**
Suppress Rows/Columns	Suppresses a row or column if a specified string matches a value in the selected column or row.	**Suppress Rows/Columns**

Layout Transformations

When you add a transformation, you typically need to specify parameters for the transformation to work. The following layout transformations are available and are defined in the sections below:

- Apply Alternate Row Colors
- Repeated Rule
- Rule When Different



Prerequisites

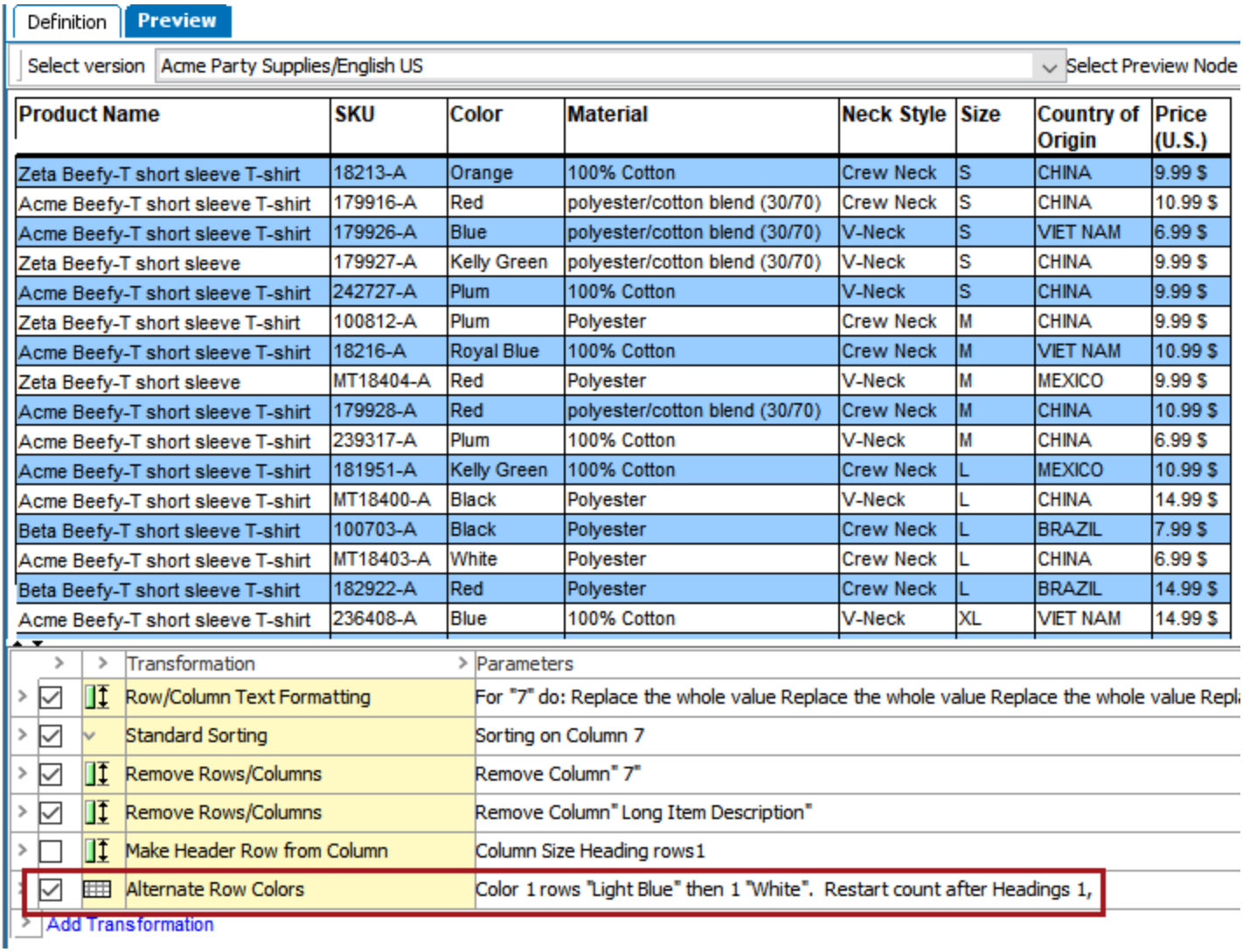
The instructions in the following subsections assume that you have already added the specified transformations to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Alternate Row Colors

The Alternate Row Colors transformation alternates the background shading of rows at a specified frequency; for example, every other row, every two rows, etc.

Example

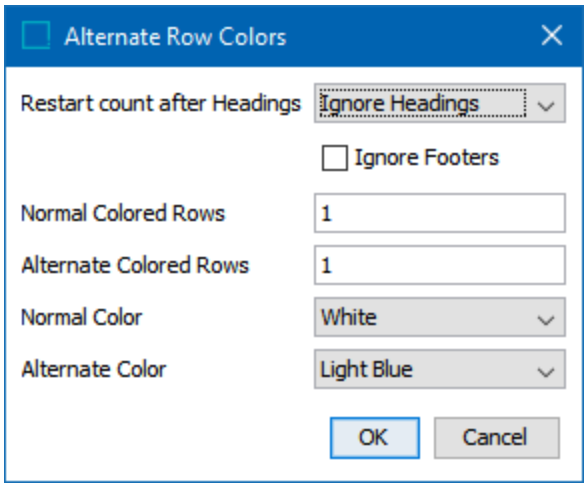
In this example, every other row is shaded Light Blue.



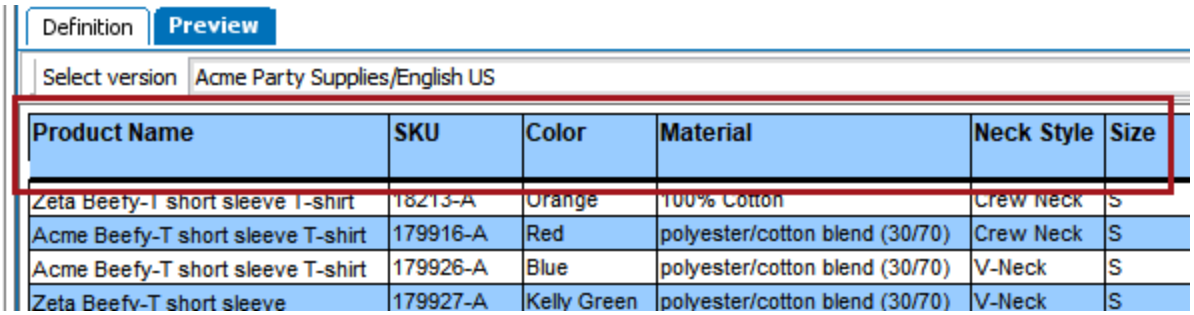
Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Alternate Row Colors** dialog displays.



2. In the **Restart count after Headings** list, select either **Ignore Headings**, **1**, or **2**. Selecting 'Ignore Headings' will actually *include* headings in the row shading. For example, if the Normal Color is blue and the Alternate Color is white, then the header row will be shaded blue if 'Ignore Headings' is selected.



Product Name	SKU	Color	Material	Neck Style	Size
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S

   Selecting **1** will cause the row shading to start with the normal row(s) that appear directly below Heading (1) rows. Selecting **2** will cause the row shading to start with the normal row(s) that appear directly beneath Sub Heading (2) rows.

   Check **Ignore Footers** to prevent row colors from being applied to Footer rows.

3. In the **Normal Colored Rows** field, enter the number of rows to shade in the Normal Color before shading rows with the Alternate Color.
4. In the **Alternate Colored Rows** field, enter the number of rows to shade in Alternate Color before shading rows with the Normal Color again.

   In the table example shown at the beginning of this topic, 1 has been selected for both the Normal and Alternate options.

5. In the **Normal Color** list, select the relevant color.
6. In the **Alternate Color** list, select the relevant color.
7. Click **OK**.

Note: For a more complex level of control over the appearance of alternate-colored rows in lengthy, split tables with multiple repeated headers, the **Alternating row colors settings** available in the Header Repeating Pagination Plugin may be a better option than using the Alternate Colored Rows transformation. For more information, refer to the **Header Repeating Pagination Plugin** topic.

Repeated Rule

The **Repeated Rule** transformation inserts a specified line style based on table rules; for example, a rule line of a certain width is added at a specified frequency.

Example

In the below example, a 2 pt rule line is added every two rows.

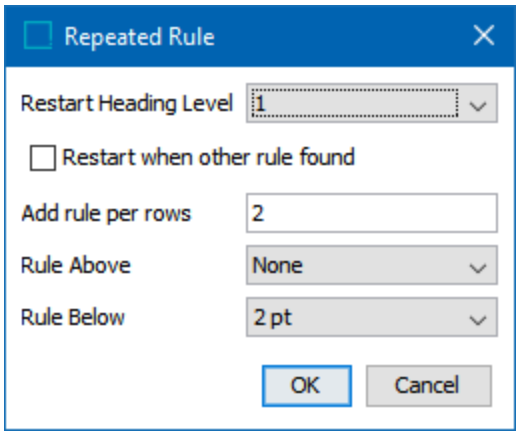
Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node: Current Node

Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Repeated Rule** dialog displays.



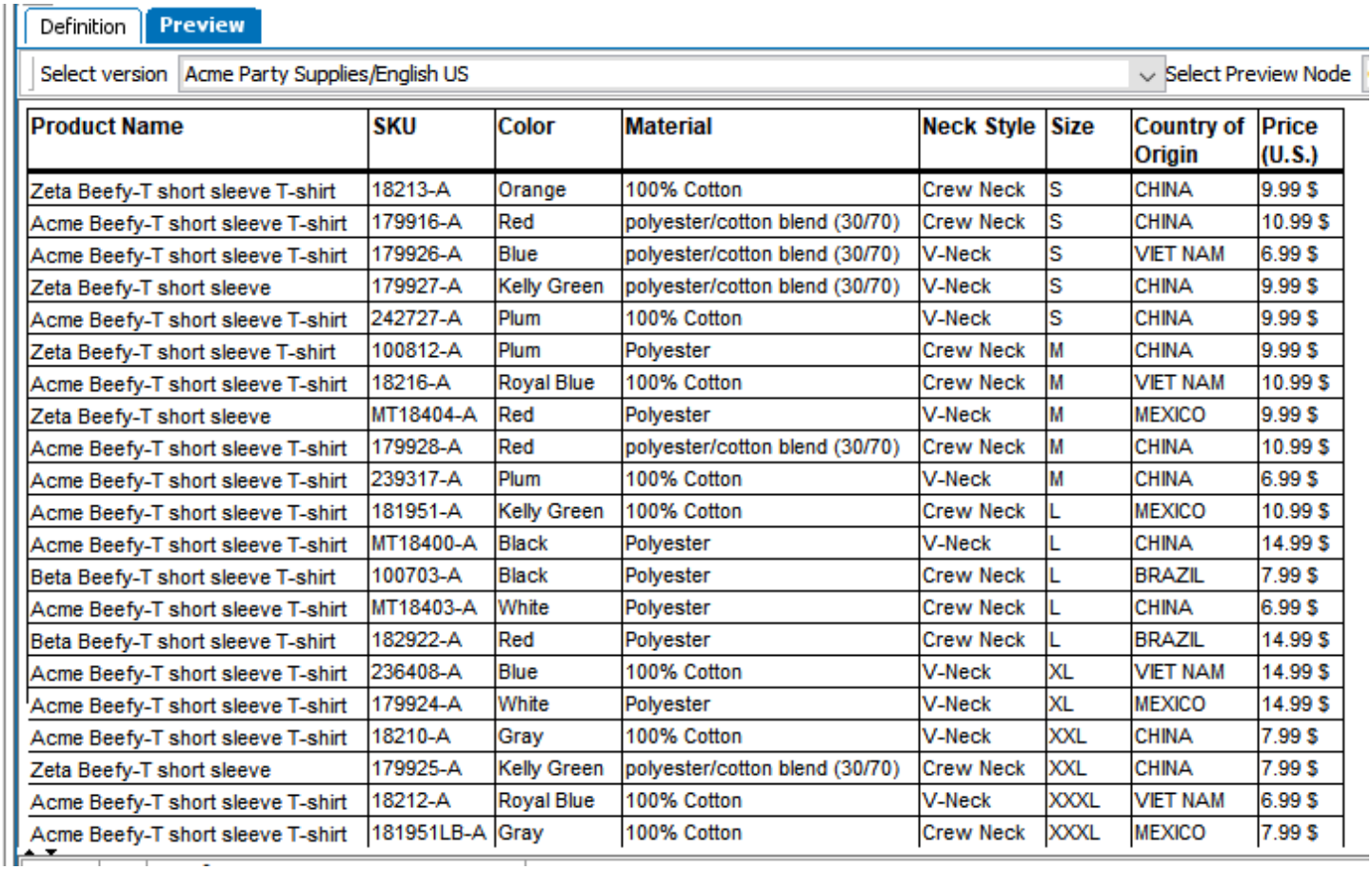
2. From the **Restart Heading Level** list, choose either **None**, **1**, **or 2**. The default setting is **None**, meaning that no line style is inserted at the heading level. When you select **1** or **2**, the line style is applied again after each header row of the specified level number.
3. Check **Restart when other rule found** to reset the count when another line style is found in the table.
4. In the **Add rule per rows** field, enter a relevant number of rows to put in a line style.
5. From the **Rule Above** list, select the relevant line style to be used as the top border of the row.
6. From the **Rule Below** list, select the relevant line style to be used as the bottom border of the row.
7. Click **OK**.

Rule When Different

The Rule When Different transformation will automatically inserts a rule style when column contents are changed.

Example

In this example, a 3 pt rule line is added every time a value in the **Size** column changes, so a 3 pt rule surrounds all size S rows, all size M rows, etc. This is how the table looks before the transformation:

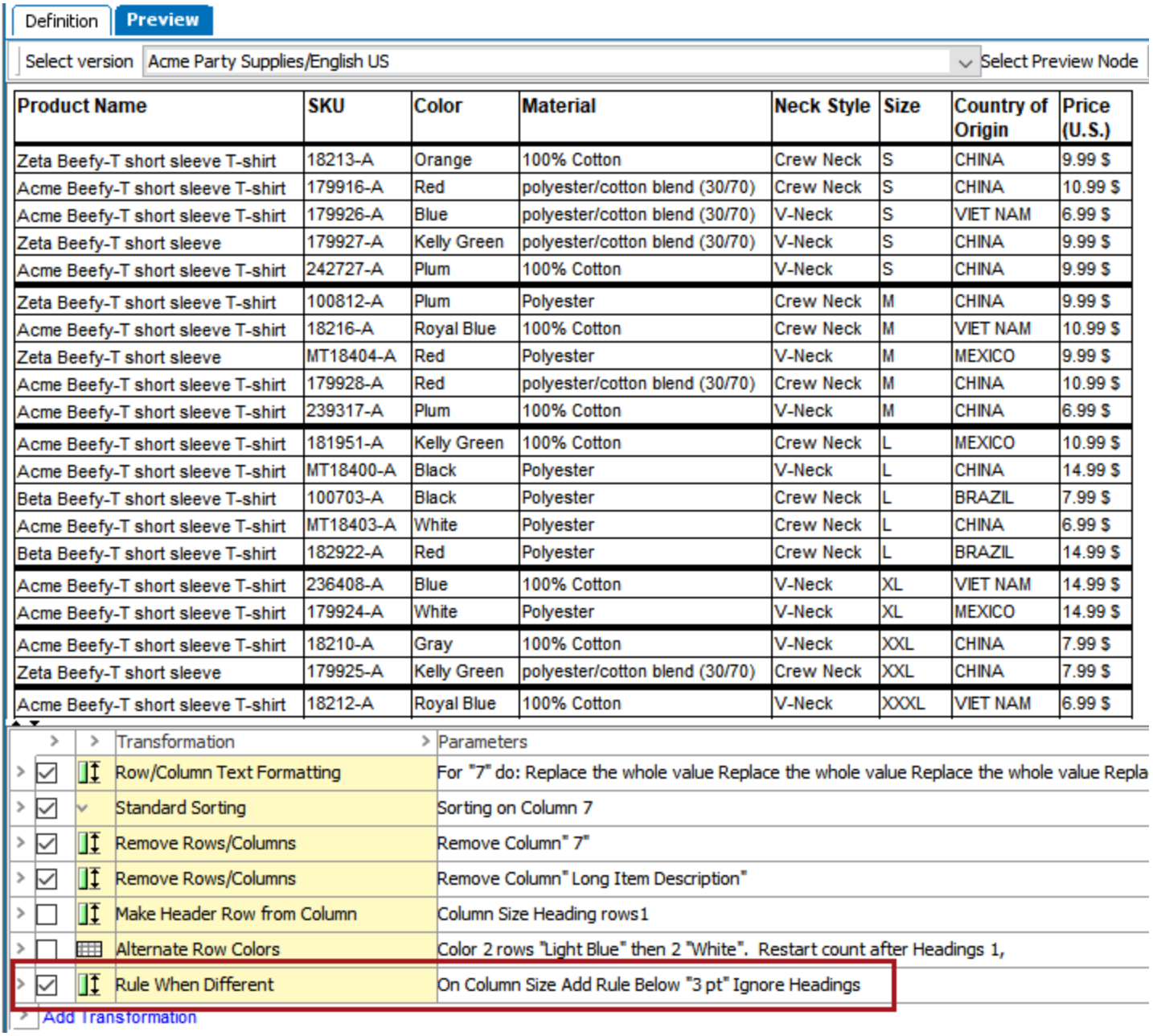


Definition | Preview

Select version: Acme Party Supplies/English US | Select Preview Node

Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	MEXICO	7.99 $

After the transformation:



Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

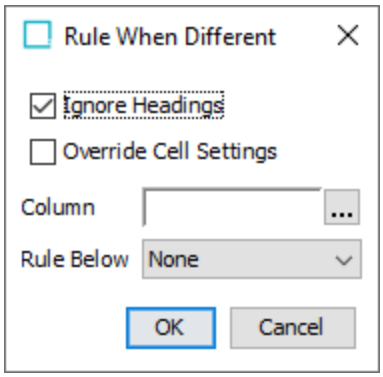
Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $

Transformation	Parameters
Row/Column Text Formatting	For "7" do: Replace the whole value Replace the whole value Replace the whole value Repla
Standard Sorting	Sorting on Column 7
Remove Rows/Columns	Remove Column" 7"
Remove Rows/Columns	Remove Column" Long Item Description"
Make Header Row from Column	Column Size Heading rows1
Alternate Row Colors	Color 2 rows "Light Blue" then 2 "White". Restart count after Headings 1,
Rule When Different	On Column Size Add Rule Below "3 pt" Ignore Headings

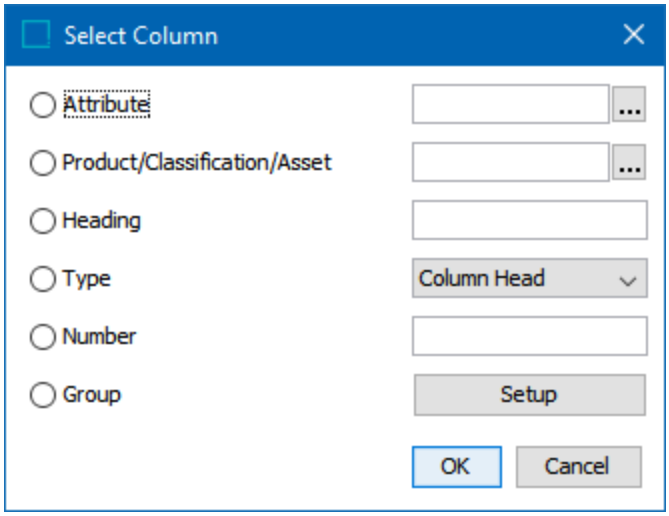
Add Transformation

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Rule When Different** dialog displays.

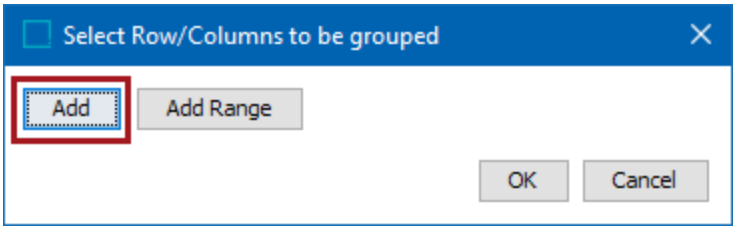


2. Select **Ignore Headings** if you do not want the transformation to consider contents in Heading columns types.
3. Select **Override Cell Settings** to have the applied rule override any existing rule settings on affected cells. This setting ensures that a horizontal rule will be applied across all columns of a row when the 'Rule When Different' transformation is applied after a Pivot Transformation.
4. In the **Column** field, click the ellipsis button (...) to display the **Select Column** dialog.

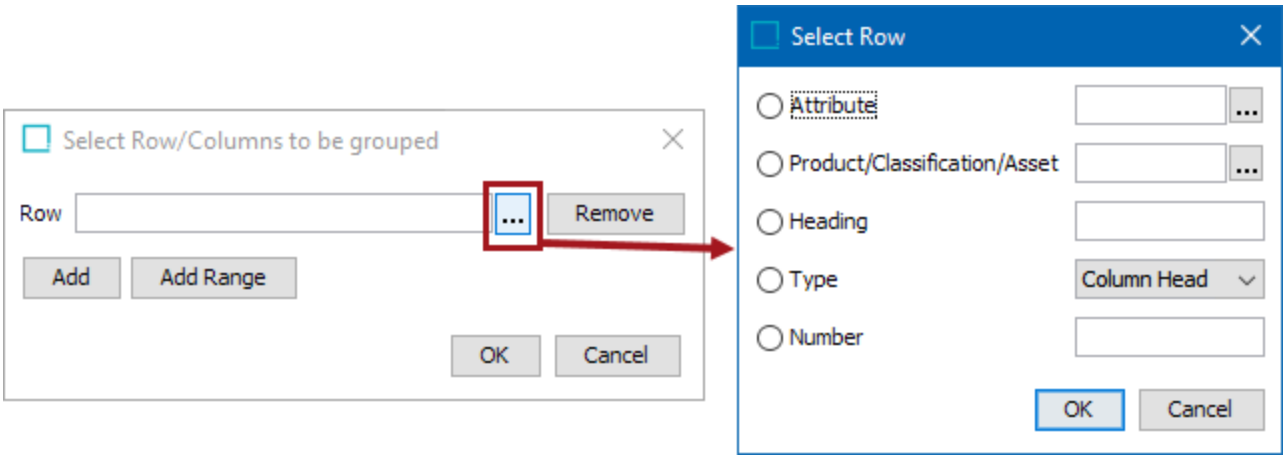


- Select **Attribute** to apply the transformation to the column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the column by typing the header text of the relevant column.
- Select **Type** to choose a specific column type from the dropdown list.
- Select **Number** to identify the column by entering the sequence number of the relevant column. For example, to apply the transformation the second column, type 2.
- Select **Group** to apply the transformation to a group or columns and/or a range of columns, then click the **Setup** button.

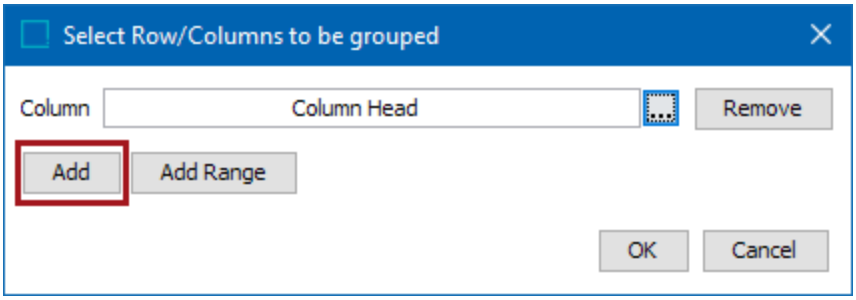
- Click **Add** in the **Select Row/Columns to be grouped** dialog to add columns to the group individually.



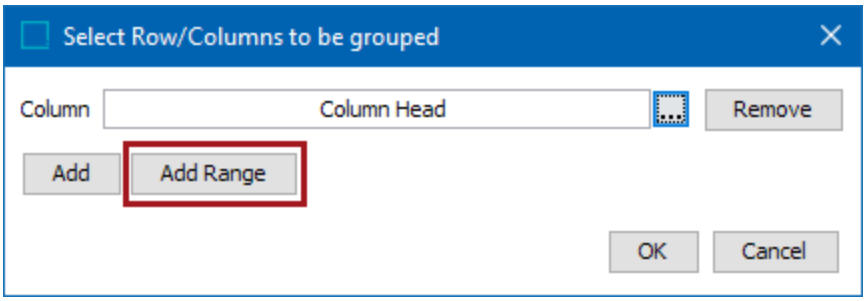
- After clicking **Add**, an **Undefined** field displays. Click the ellipsis button (...) to launch another **Select Column** dialog. This is identical to the previous 'Select Column' dialog, except without the Group option.



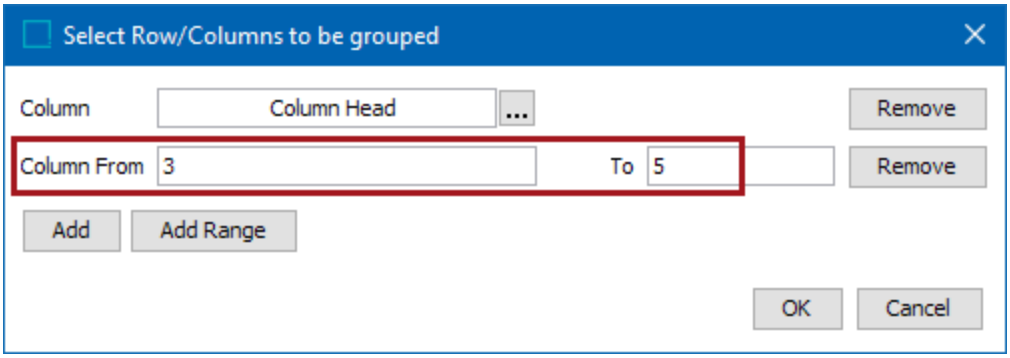
- Click **Add** again to repeat the previous steps and add more columns to the group. Click **OK**.



- To add a **Range** of columns to the group, click **Add Range**.



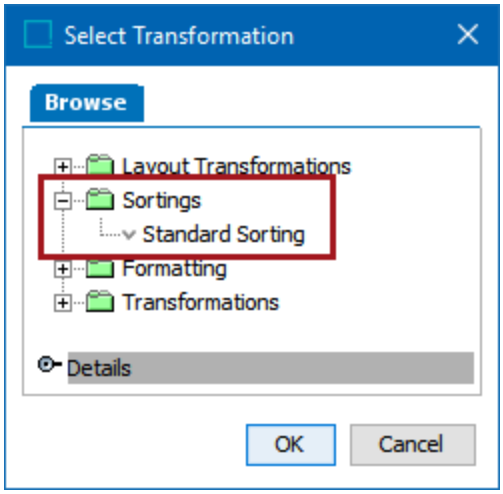
- Enter the starting and ending column numbers in the **Column From** and **To** fields. Click **OK**. To enter a range that will contain the remainder of the table if columns are added later, enter a larger number in the 'To' field such as 5999. Note that these fields can only contain integer values.



4. From the **Rule Below** list, click the relevant Line Style to be used as the bottom border of the row.
5. Click **OK**.

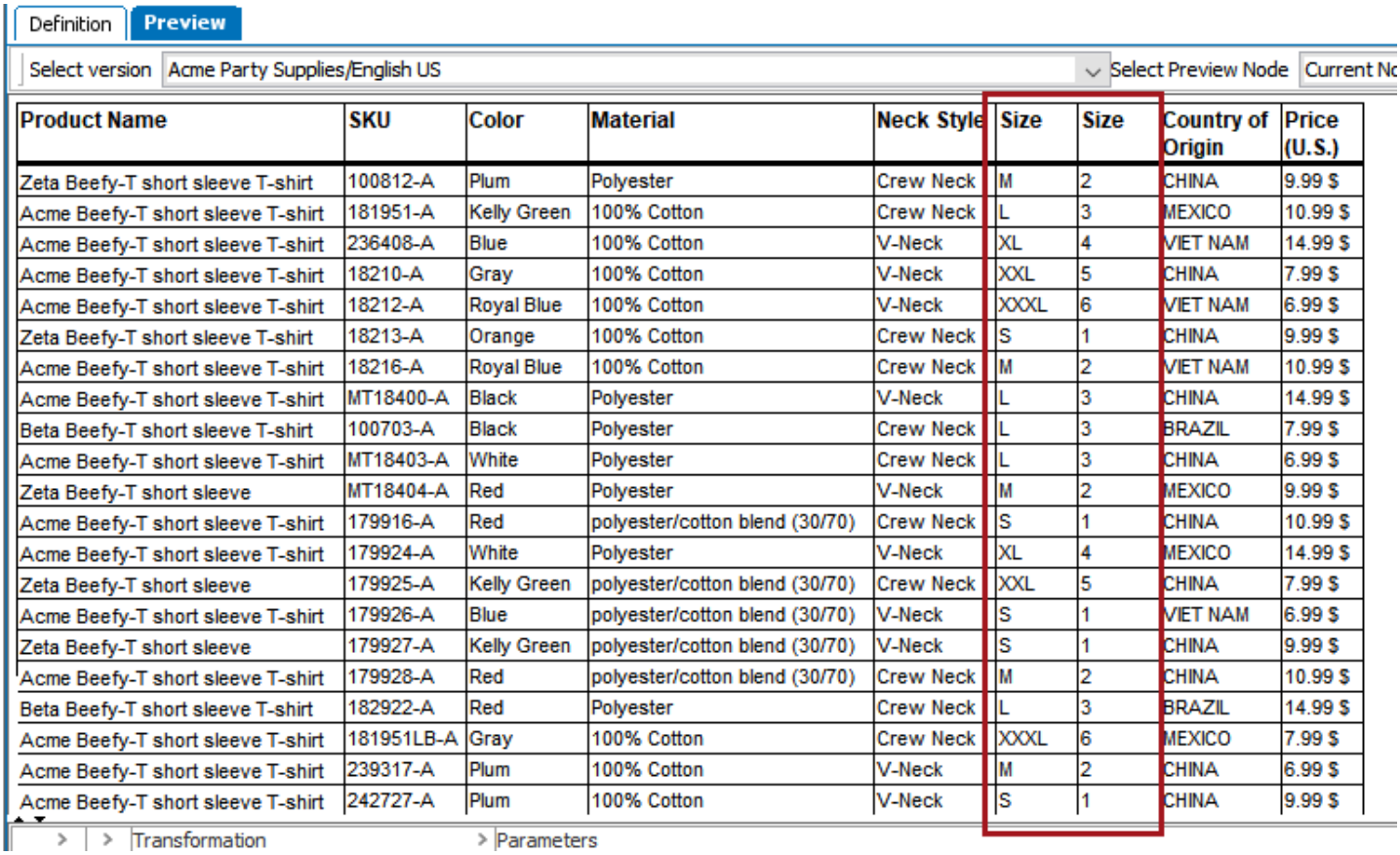
Sorting Transformation

Only one sorting transformation, **Standard Sorting**, exists for tables. The Standard Sorting transformation enables you to sort the rows in your table according to the contents of one or more columns.



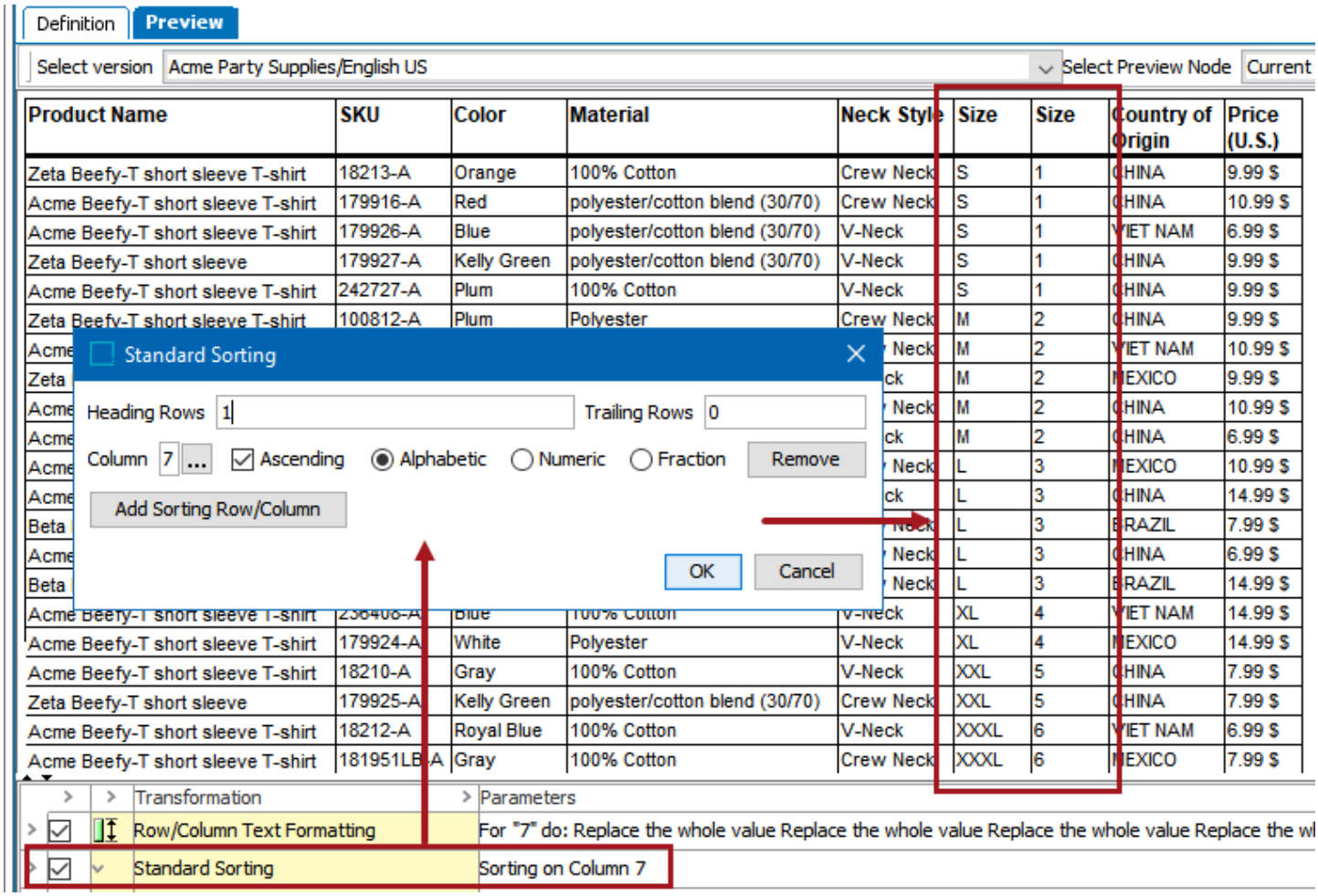
Example

In this example, the table includes a listing of T-shirt sizes in S, M, L, XL, XXL, and XXXL. Two **Size** columns are present. One lists the T-shirt sizes, and the second contains numbers that correspond to the sizes—1 for S, 2 for M, etc. This is so an ascending sort can be applied to sort the T-shirts from smallest to largest size (S, M, L, XL, etc.) instead of alphabetically (M, L, S, XL, etc.)



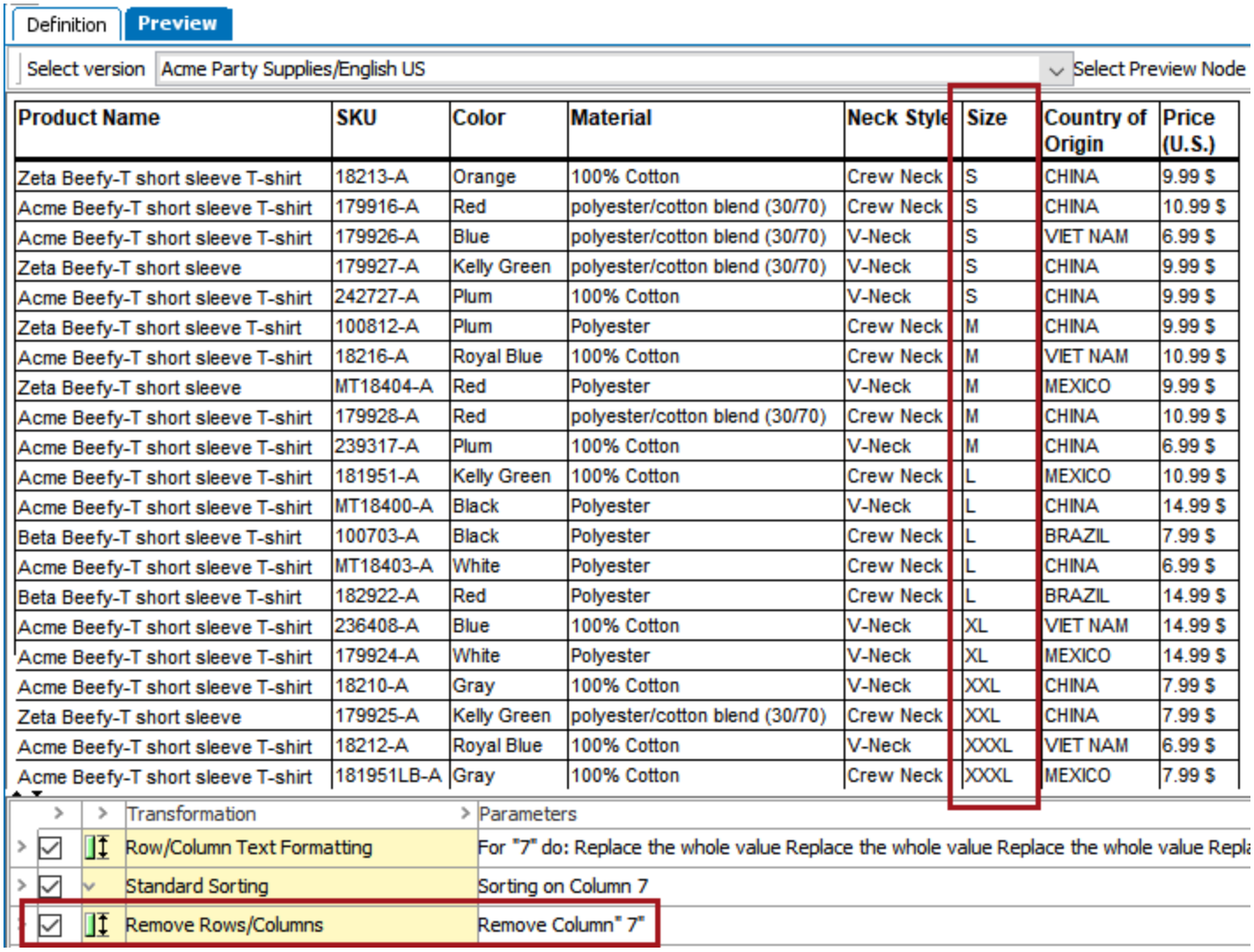
Product Name	SKU	Color	Material	Neck Style	Size	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	2	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	3	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	4	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	5	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	6	VIET NAM	6.99 $
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	1	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	2	VIET NAM	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	3	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	3	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	3	CHINA	6.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	2	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	1	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	4	MEXICO	14.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	5	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	1	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	1	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	2	CHINA	10.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	3	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	6	MEXICO	7.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	2	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	1	CHINA	9.99 $

The Standard Sorting transformation is added to the second Size column (in this example, column 7) to sort the rows by ascending numbers.



Product Name	SKU	Color	Material	Neck Style	Size	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	1	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	1	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	1	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	1	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	1	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	2	CHINA	9.99 $
Acme				Neck	M	2	VIET NAM	10.99 $
Zeta				ck	M	2	MEXICO	9.99 $
Acme				Neck	M	2	CHINA	10.99 $
Acme				ck	M	2	CHINA	6.99 $
Acme				Neck	L	3	MEXICO	10.99 $
Acme				ck	L	3	CHINA	14.99 $
Beta				Neck	L	3	BRAZIL	7.99 $
Acme				Neck	L	3	CHINA	6.99 $
Beta				Neck	L	3	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	4	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	4	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	5	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	5	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	6	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	6	MEXICO	7.99 $

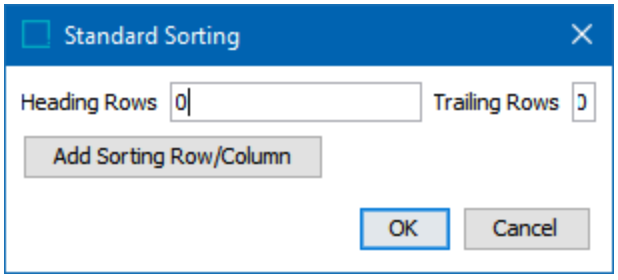
To finish the look of the table, a **Remove Rows/Columns** transformation is added to remove the sort column, so the finished table has the rows sorted by S, M, L, etc. Refer to the **Remove Rows/Columns** topic for more information on this transformation.



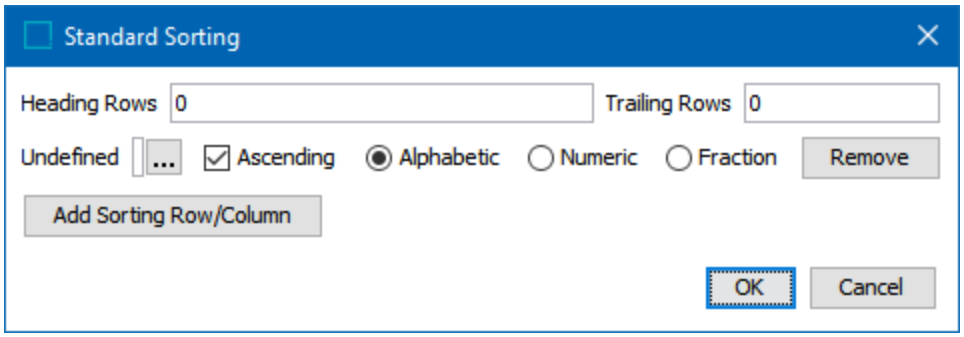
Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	MEXICO	7.99 $

Steps

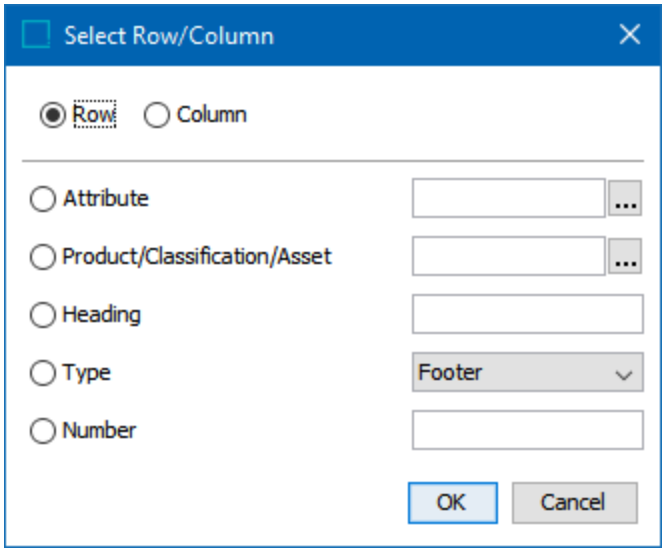
1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Standard Sorting** dialog displays.



2. Click **Add Sorting Row/Column** to display the sorting priority options.

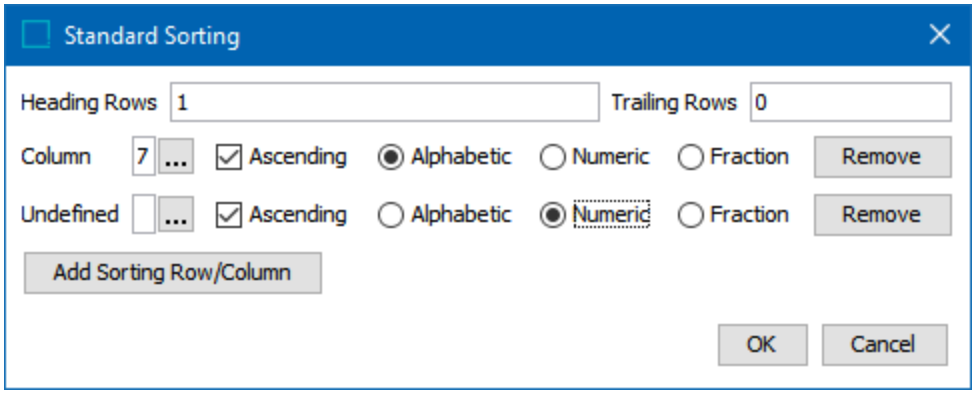


3. In the **Heading Rows** field, enter the number of heading rows that you want to exclude from the sorting transformation.
4. In the **Trailing Rows** field, enter the number of trailing rows that you want to exclude from the sorting transformation.
5. In Undefined, click the ellipsis button (...). The **Select Row/Column** dialog displays.



- Select **Row** or **Column** to specify whether the transformation applies to a row or a column.
- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify a column or row by typing the header text of the relevant column or row.
- Select **Type** to identify the column or row by selecting Column Type or Row Type.
- Select **Number** to identify the column or row by entering the sequence number of the relevant column or row. For example, if you want to apply the transformation the second column, then type 2.
- Click **OK**.

6. Check **Ascending** to sort the rows in ascending order.
7. Select **Alphabetic**, **Numeric**, or **Fraction** to specify the sorting type.
8. Click **Add Sorting Row/Column** again to add another row or column to sort on, if needed.

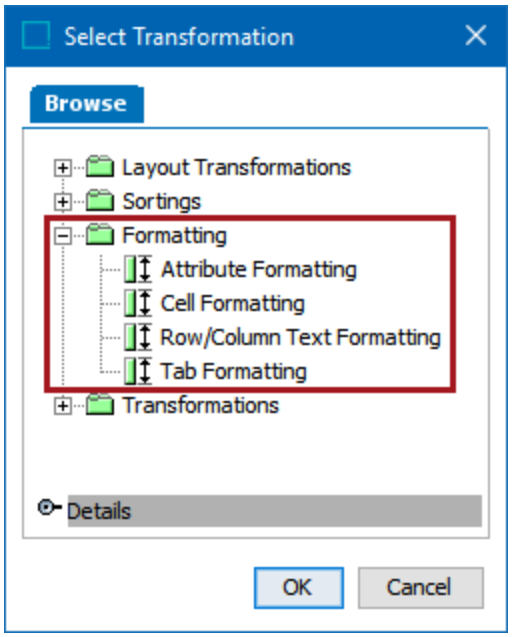


9. Click **OK**.

Formatting Transformations

Formatting transformations enable you to apply transformations to attribute values, rows, column, tabs, and cells. The following formatting transformations are available and are defined in the sections below:

- Attribute Formatting Transformations
- Cell Formatting
- Row/Column Text Formatting
- Tab Formatting



Prerequisites

The instructions in the following subsections assume that you have already added the specified transformations to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Attribute Formatting

The Attribute Formatting transformation allows you to apply an attribute transformation to any selected attribute in the table. These transformations perform tasks on an attribute such as calculating or replacing a value, or applying a prefix or a suffix.

Example

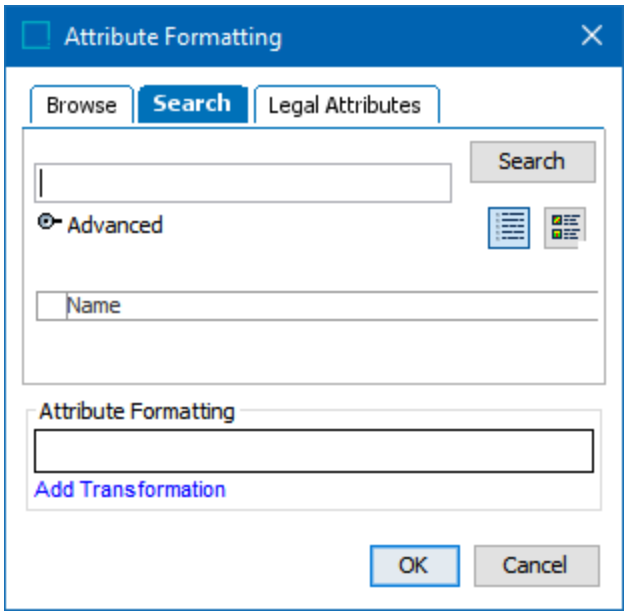
The below column samples show how attribute values look before applying the transformation (left) and how they look after (right). The applied attribute transformation inserts the text 'Made of' before the attribute values for 'Material.'

Material
100% Cotton
polyester/cotton blend (30/70)
polyester/cotton blend (30/70)
polyester/cotton blend (30/70)
100% Cotton
Polyester
100% Cotton
Polyester
polyester/cotton blend (30/70)
100% Cotton
100% Cotton
Polyester
Polyester
Polyester
Polyester
100% Cotton
Polyester
100% Cotton
polyester/cotton blend (30/70)
100% Cotton
100% Cotton

Material
Made of 100% Cotton
Made of polyester/cotton blend (30/70)
Made of polyester/cotton blend (30/70)
Made of polyester/cotton blend (30/70)
Made of 100% Cotton
Made of Polyester
Made of 100% Cotton
Made of Polyester
Made of polyester/cotton blend (30/70)
Made of 100% Cotton
Made of 100% Cotton
Made of Polyester
Made of Polyester
Made of Polyester
Made of Polyester
Made of 100% Cotton
Made of Polyester
Made of 100% Cotton

Steps

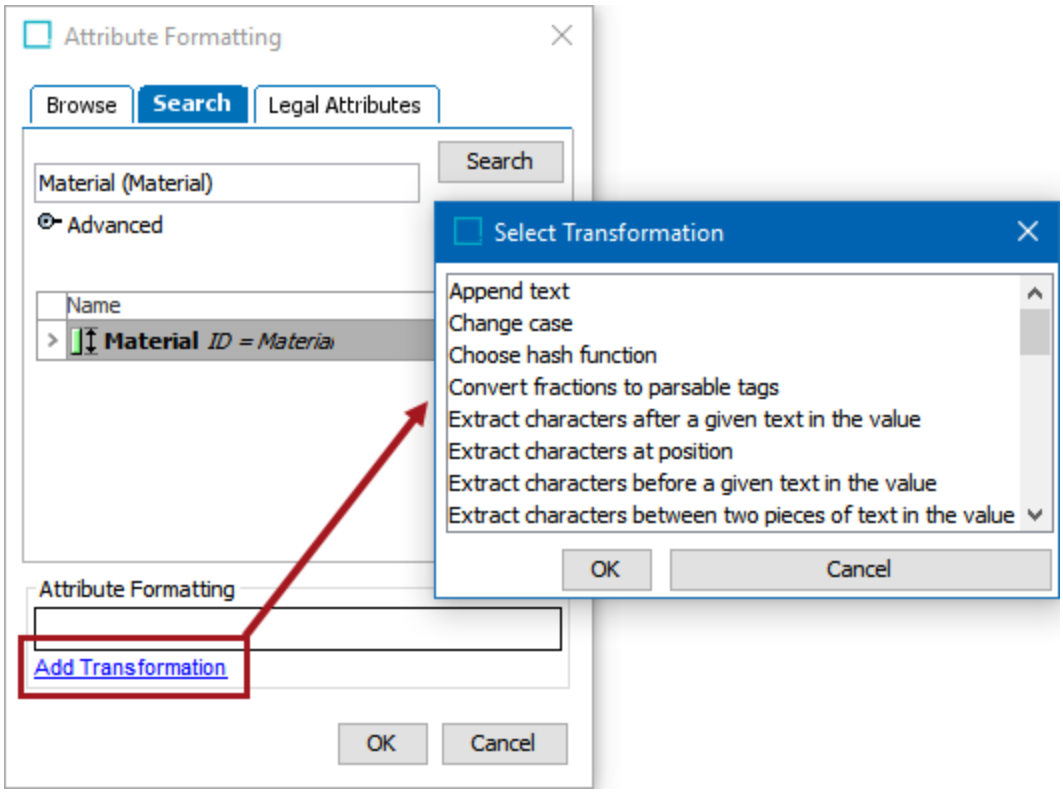
1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Attribute Formatting** dialog displays.



2. **Search** or **browse** for the attribute to which you want to apply a transformation. Alternatively, click on the **Legal Attributes** tab to access the specification attributes linked locally to the product / classification node on which your table is built.
3. Click **Add Transformation** to launch the **Select Transformation** dialog. Select the relevant transformation, and then click **OK**.

   The list of transformations is identical to those that are available when creating an attribute transformation in System Setup. For more information on the attribute transformations and what they do, refer to the **Transformations** topic in the **Resource Materials** online help.

   Three transformations to perform cell-level text transformations are also available within the list of transformations: 'Sort values within cells,' 'Range consolidation within cells,' and 'Remove duplicate values within cells.' For more information on these transformations, refer to the **Cell Text Formatting Transformations** topic in this guide.

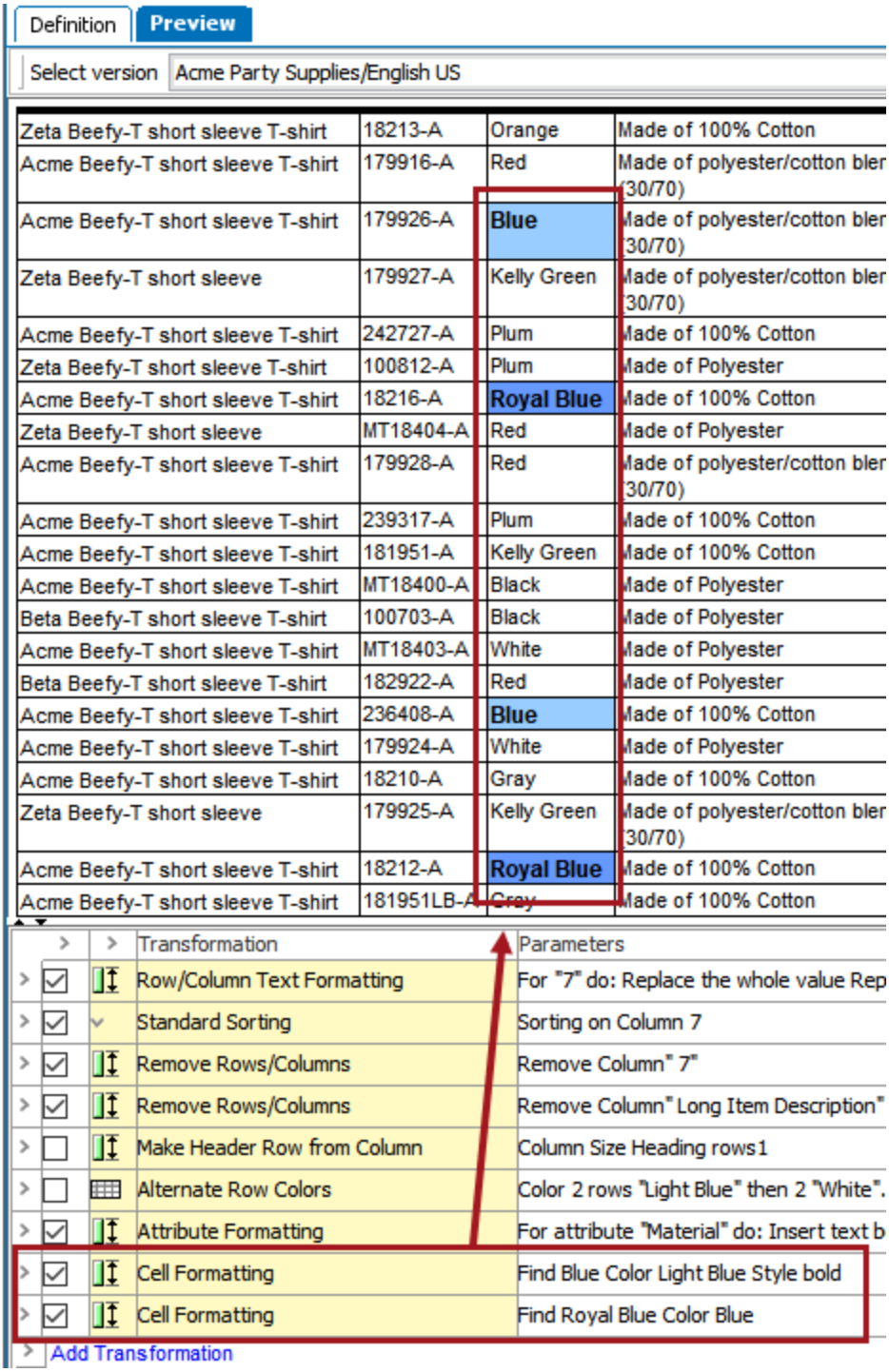


Cell Formatting

The Cell Formatting transformation allows you to narrow down formatting to individual cells in a table.

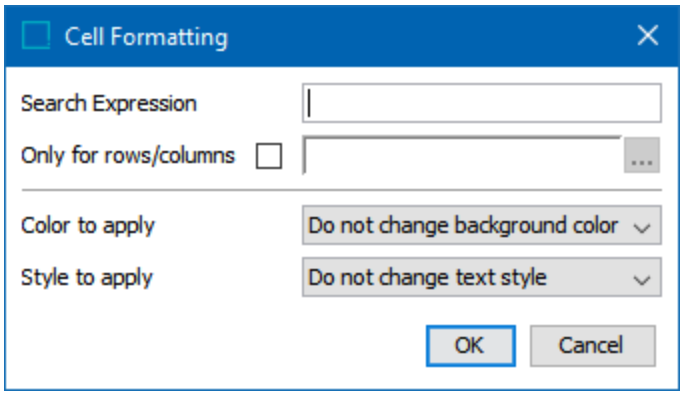
Example

This example uses two Cell Formatting transformations—one to change cells containing the word 'Blue' to have a light blue background and bold text, and the second to change cells containing the text 'Royal Blue' to a darker blue color, retaining the bold text applied in the first Cell Formatting transformation.



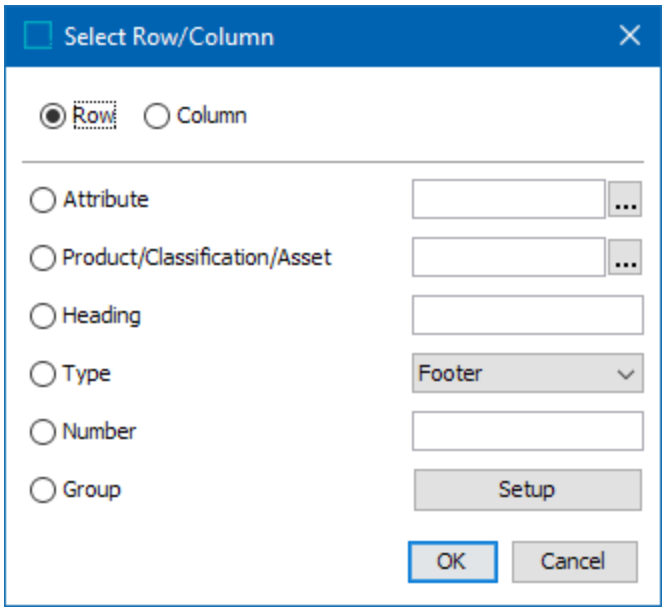
Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Cell Formatting** dialog displays.

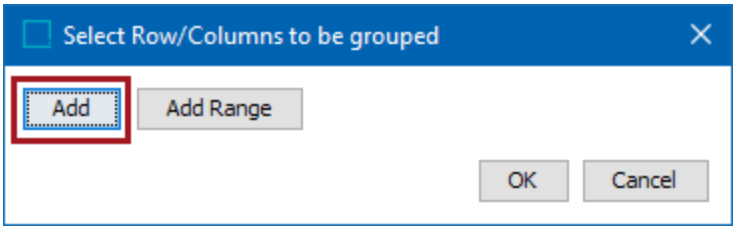


2. In **Search Expression**, enter a regular expression to find specific cells. This option is case sensitive. For example:
   - Enter the search expression 'Blue.' The value Blue is searched in the entire table and, if the value matches, the specified style will be applied to the cell.
   - Enter the search expression as [A-Z]. The characters A to Z will be searched and, if any matches are found, the specified style will be applied to the cell.

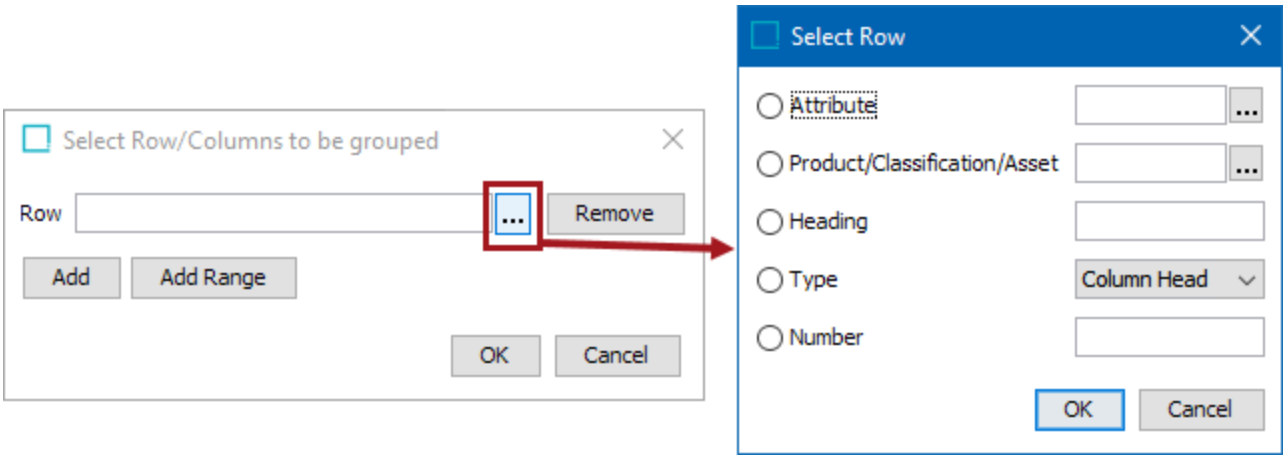
   For more information on regular expression and practical examples, refer to the **Regular Expression** topic in the **Resource Materials** online help.
3. Check the **Only for rows/columns** box if you want the formatting to apply only for cells in specific rows or columns.
4. If you selected Only for rows/columns, then click the ellipsis button (...) to launch the **Select Row/Column** dialog.



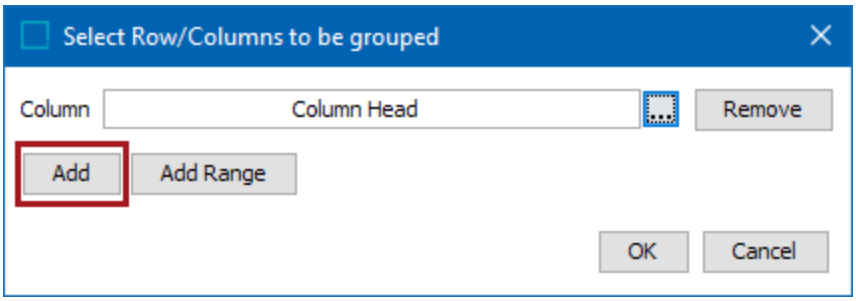
- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.
  - Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



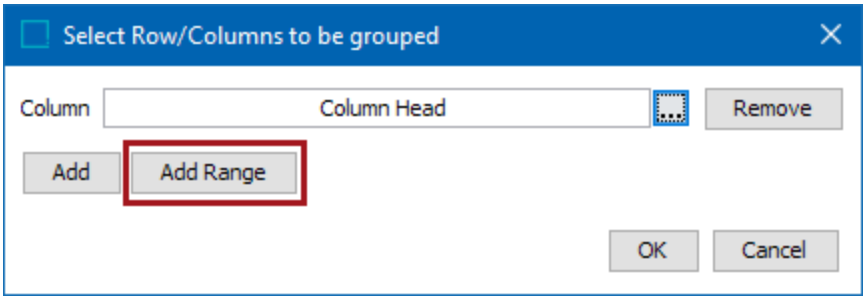
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



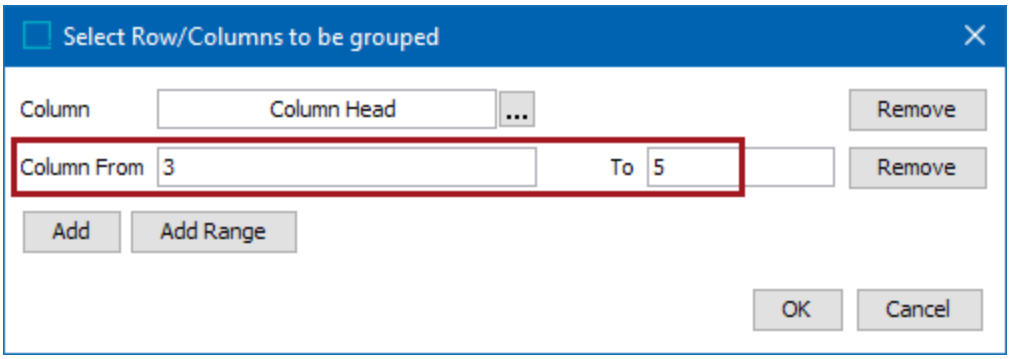
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



- To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.

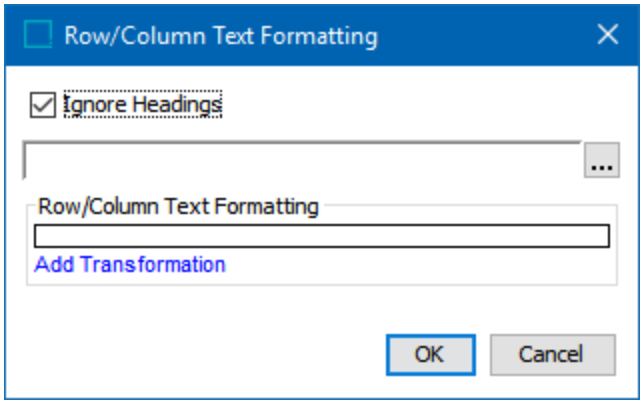


4. In the **Color to apply** list, select the color you want to apply to the cells, or leave the default option of 'Do not change background color.'
5. In the **Style to apply** list, select the style that you want to apply to the cells, or leave the default option of 'Do not change text style.'
6. Click **OK**.

Row/Column Text Formatting

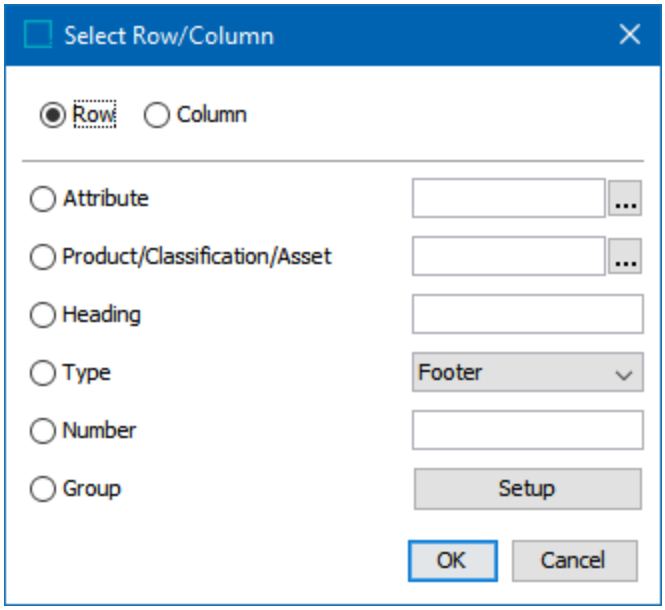
The **Row/Column Text Formatting** transformation enables you to transform data in specific columns or rows. You can calculate or replace values or apply prefixes and suffixes to values in entire columns and rows in one operation. Where the Attribute Formatting transformation is applied to a specific attribute, the Row/Column Text Formatting transformation enables you to transform data in columns and tables of your own choice.

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Row/Column Text Formatting** dialog displays.



2. Select **Ignore Headings** if you want the transformation to ignore contents in header column types.
3. Click the ellipsis button (...) to launch the **Select Row/Column** dialog.

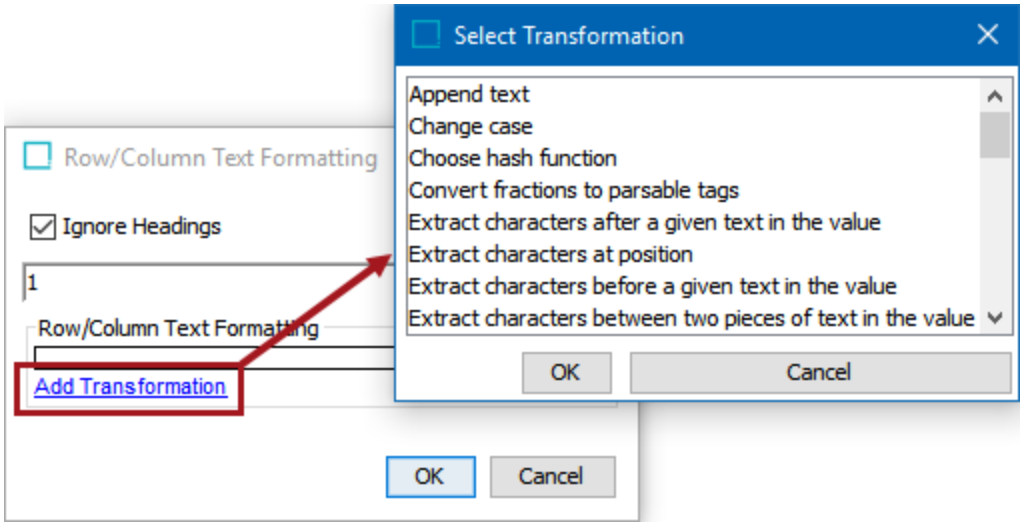
   The options available in this dialog have already been explained in this topic in the **Cell Formatting** section above; refer to that section for more information.



4. Click **Add Transformation** to launch the **Select Transformation** dialog.

   The list of transformations is identical to those that are available when creating an attribute transformation in System Setup. For more information on the attribute transformations and what they do, refer to the **Transformations** topic in the **Resource Materials** online help.

Three transformations to perform cell-level text transformations are also available within the list of transformations: 'Sort values within cells,' 'Range consolidation within cells,' and 'Remove duplicate values within cells.' For more information on these transformations, refer to the **Cell Text Formatting Transformations** topic in this guide.



5. Select the relevant transformation, then click **OK**.

Tab Formatting

The **Tab Formatting** transformation inserts a tabulator in a row or column, which indents the text in the row or column with a tab.

Example

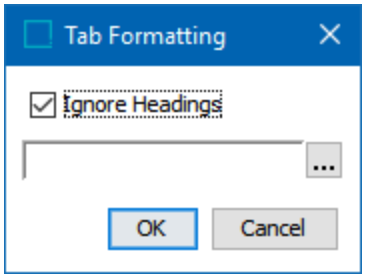
The below screenshot shows how a column looks before (left) and after (right) applying the transformation, which in this example inserts a tab before the values in the 'Color' column.

Color
Orange
Red
Blue
Kelly Green
Plum
Plum
Royal Blue
Red
Red
Plum
Kelly Green
Black
Black
White
Red
Blue
White
Gray

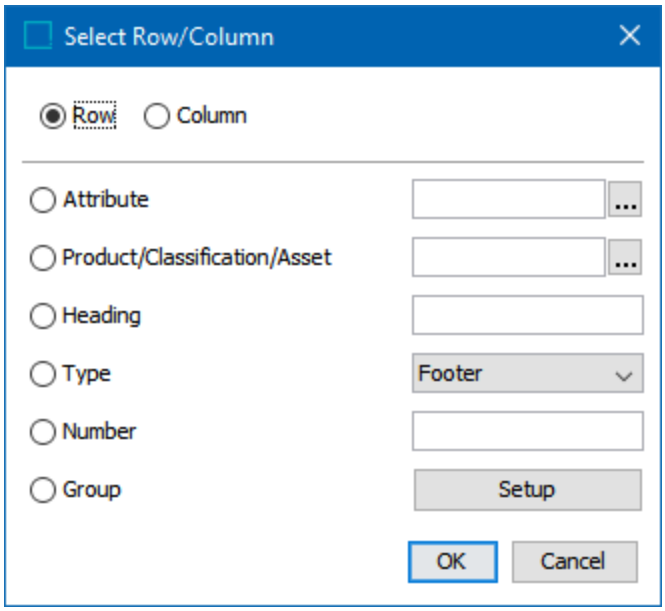
Color
Orange
Red
Blue
Kelly Green
Plum
Plum
Royal Blue
Red
Red
Plum
Kelly Green
Black
Black
White
Red
Blue
White
Gray

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Tab Formatting** dialog displays.



2. Select **Ignore Headings** if you want the transformation to ignore contents in header column types or header row types.
3. Click the ellipsis button (...) to launch the **Select Row/Column** dialog. The options available in this dialog have already been explained in this topic in the **Cell Formatting** section above; refer to that section for more information.


Select Row/Column
Row
Column
Attribute
Product/Classification/Asset
Heading
Type
Footer
Number
Group
Setup
OK
Cancel

4. Click **OK**.

Cell Text Formatting Transformations

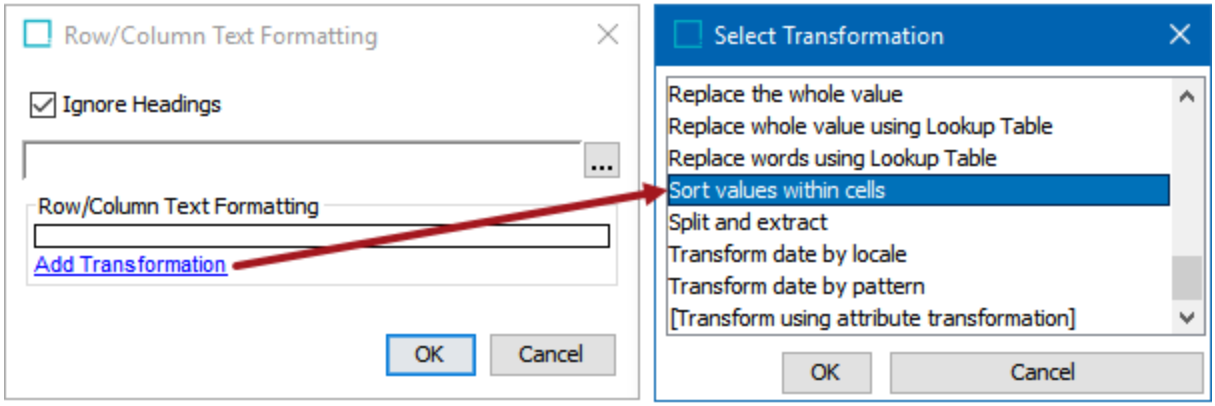
Three cell text formatting transformations are available that can sort values, consolidate ranges, and remove duplicate values within table cells. These are:

- Sort values within cells
- Range consolidation within cells
- Remove duplicate values within cells

Note: Though these text transformations also appear in the list of transformations available for attribute transformations created in System Setup, they are **only** used to transform content within table cells. As such, they serve no purpose for attribute values that display outside of tables. For more information on other attribute transformations and what they do, refer to the **Transformations** topic in the **Resource Materials** online help.

Sort values within cells

The **Sort values within cells** text transformation is used to sort multiple values when they are contained within a single table cell. It is available as a selection under 'Add Transformation' within the **Attribute Formatting** and **Row/Column Text Formatting** table transformations, as shown below:



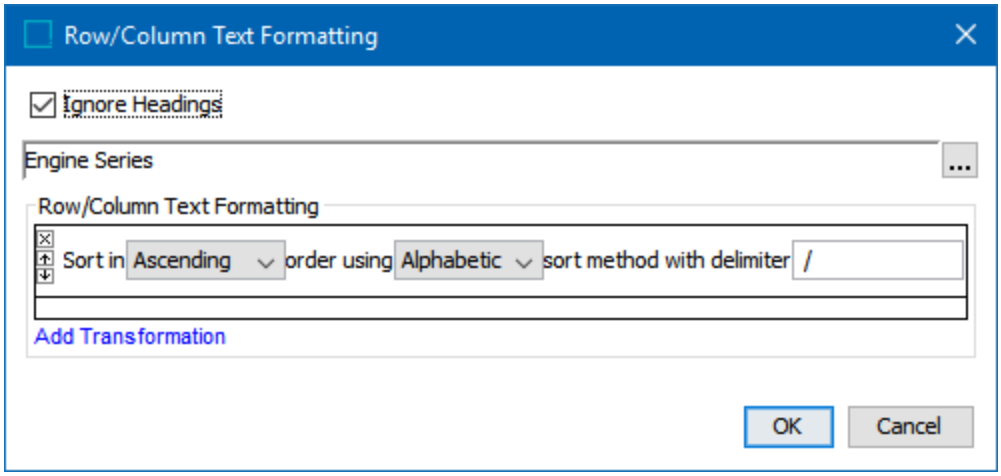
Entries within a cell may be sorted alphabetically, numerically, or by fractional values, and in ascending or descending order. Since the sorting affects multiple values within a single cell, a separator (value delimiter) must be placed between the values to differentiate them. If a hard return should separate the entries in a cell, the delimiter of \n should be used.

Examples

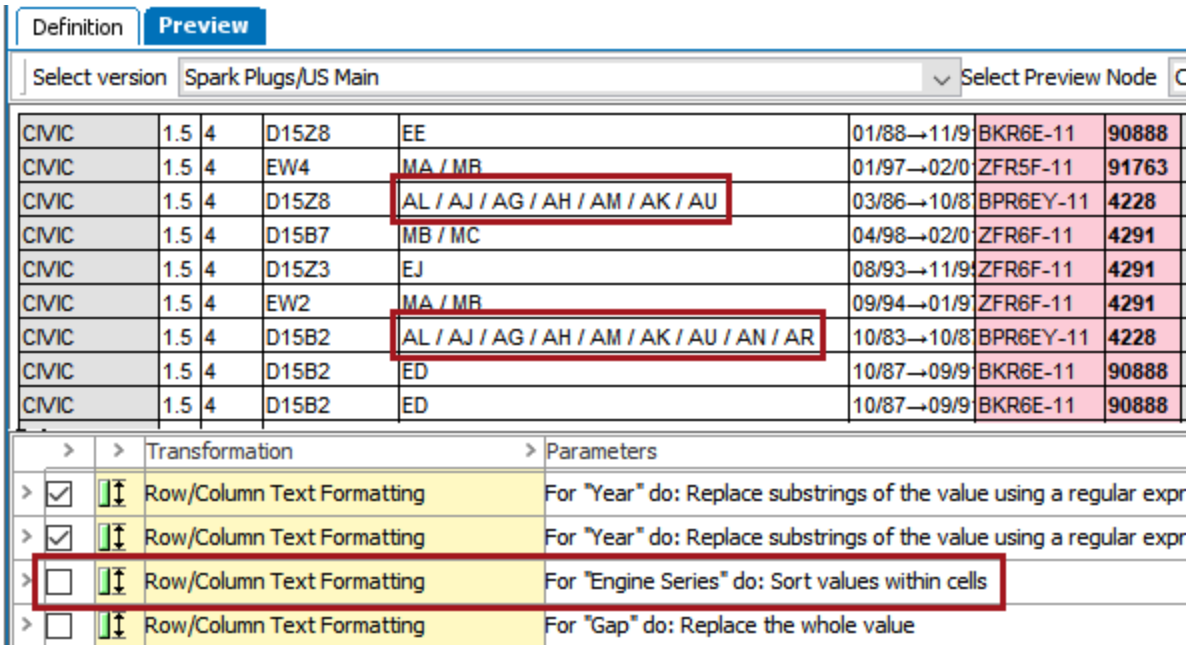
The following examples use the pipe character (|) as the delimiter:

- The value string '2002|2007|2005|2012' becomes '2002|2005|2007|2012' when sorted using the Ascending and Numeric options.
- 'A|C|H|B|G ' becomes 'A|B|C|G|H' when sorted using the Ascending and Alphabetic options.
- 'DC7|DC9|DC13|DC12|DC5|DC6' becomes 'DC5|DC6|DC7|DC9|DC12|DC13' when sorted using the Ascending and Numeric options.

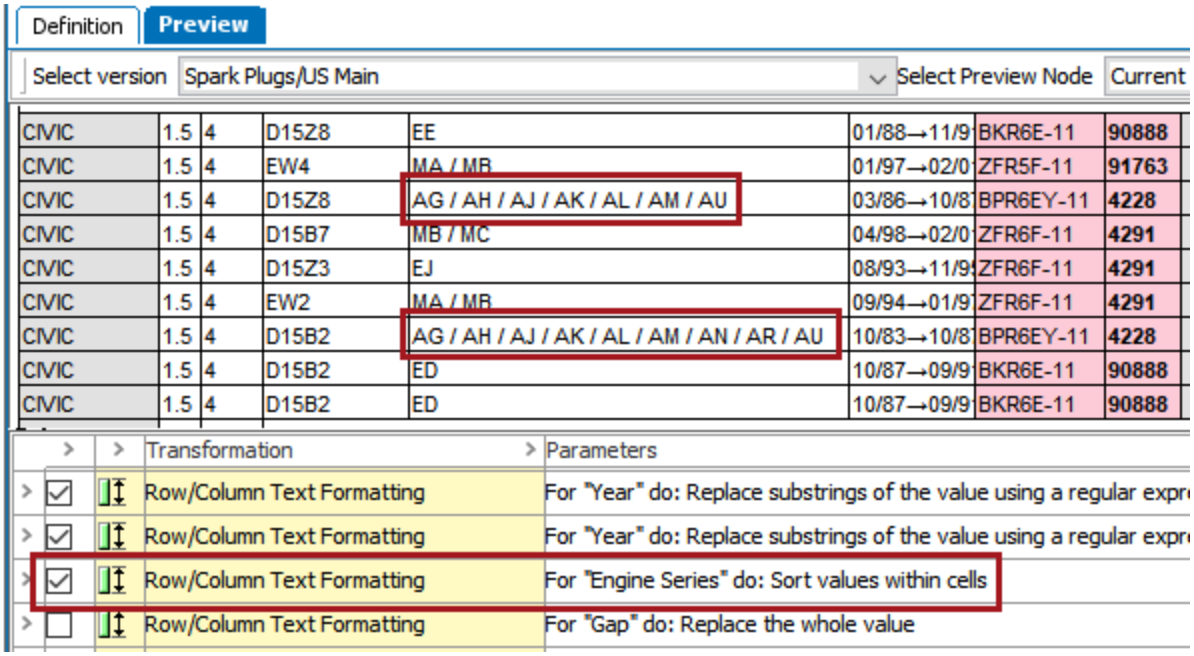
The following example shows a table in which this transformation will be applied to sort values in ascending alphabetic order using the '/ ' delimiter. As shown in the field with the ellipsis button, the transformation has been selected to apply to cells within the 'Engine Series' column.



Before the transformation is applied, the values in the Engine Series column (column 5) display in non-alphabetical order, e.g., AL / AJ / AG / AH / AM / AK / AU.

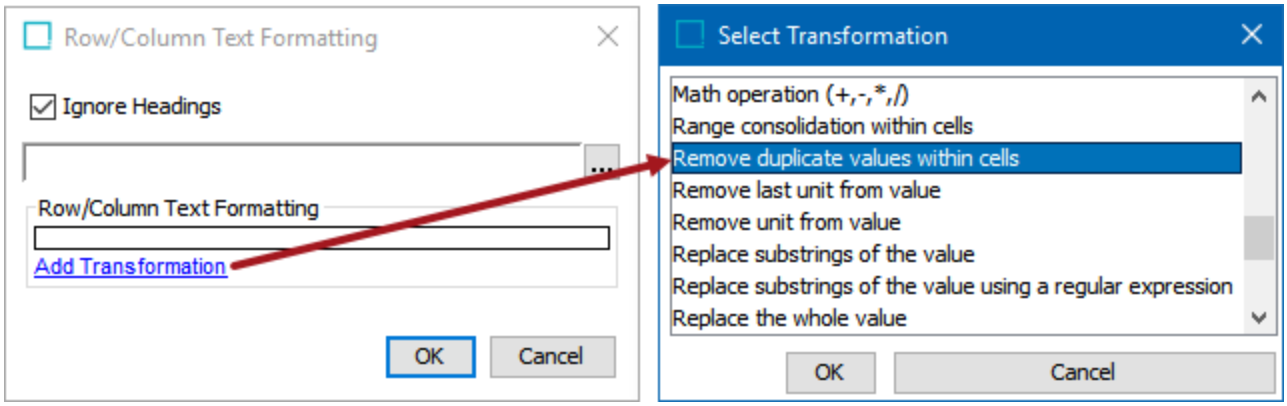


After the transformation is applied, the values display in alphabetical order, e.g., AG / AH / AJ / AK / AL / AM / AU.



Remove duplicate values within cells

The **Remove duplicate values within cells** text transformation is used to remove duplicate values when they are contained within a single cell of a table. Like the 'Sort values within cells' transformation, it is available as a selection under 'Add Transformation' within the **Attribute Formatting** and **Row/Column Text Formatting** table transformations, as shown below:

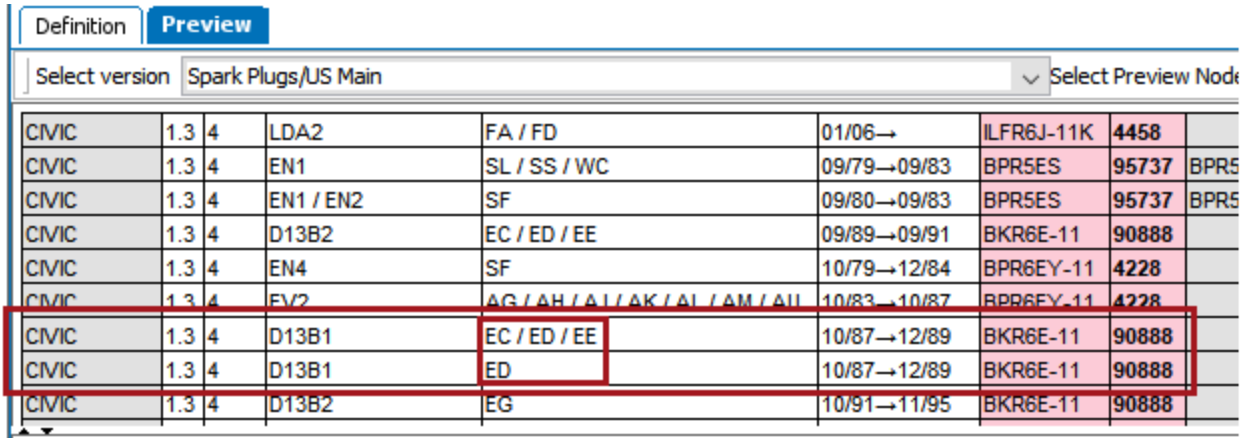


This transformation is useful when consecutive rows in a table have been consolidated into one row. When this is done, the resultant row will often have cell entries of merged data that require some cleanup and/or consolidation.

Duplicates are removed by specifying a value delimiter. For example, using the pipe character (|) as the delimiter, the string 'DC9|DC9|DC7|DC12|DC9|DC7' becomes 'DC9|DC7|DC12'. If a hard return separates the entries in a cell, the delimiter of \n should be specified.

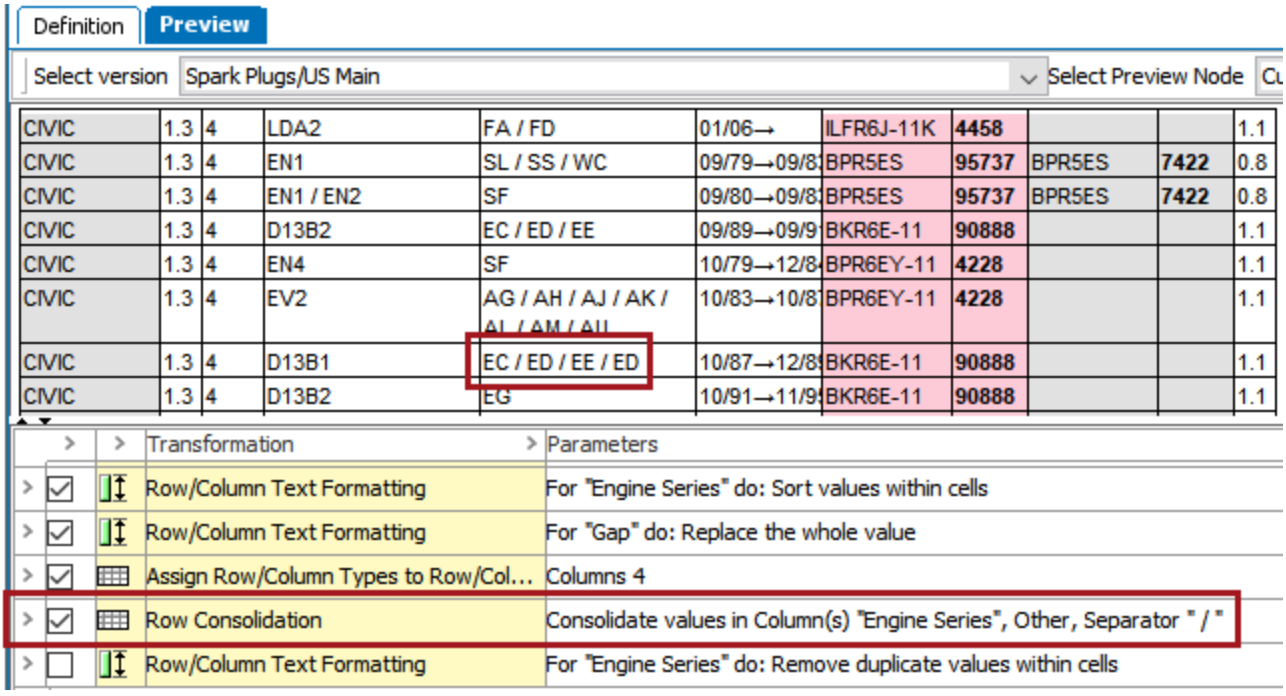
Example

The following example shows a table with two adjacent rows that contain identical information except for in one column (Engine series, column 5).



CIVIC	1.3	4	LDA2	FA / FD	01/06→	ILFR6J-11K	4458	
CIVIC	1.3	4	EN1	SL / SS / WC	09/79→09/83	BPR5ES	95737	BPR5
CIVIC	1.3	4	EN1 / EN2	SF	09/80→09/83	BPR5ES	95737	BPR5
CIVIC	1.3	4	D13B2	EC / ED / EE	09/89→09/91	BKR6E-11	90888	
CIVIC	1.3	4	EN4	SF	10/79→12/84	BPR6EY-11	4228	
CIVIC	1.3	4	EV2	AG / AH / AJ / AK / AL / AM / AU	10/83→10/87	BPR6EY-11	4228	
CIVIC	1.3	4	D13B1	EC / ED / EE	10/87→12/89	BKR6E-11	90888	
CIVIC	1.3	4	D13B1	ED	10/87→12/89	BKR6E-11	90888	
CIVIC	1.3	4	D13B2	EG	10/91→11/95	BKR6E-11	90888	

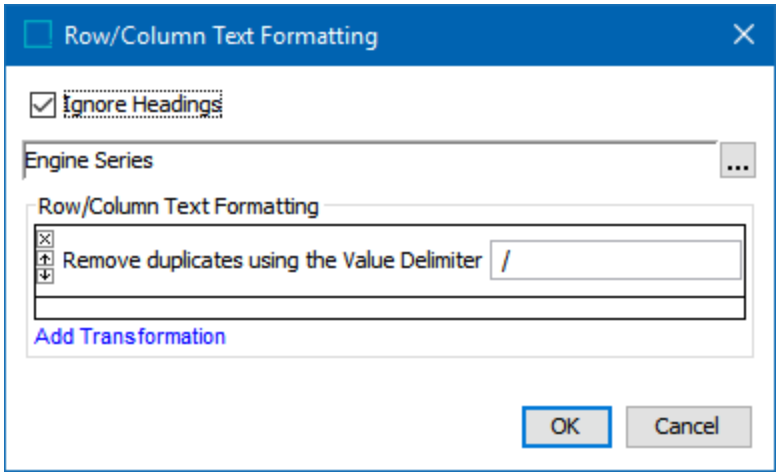
After a Row Consolidation transformation is applied, the value 'ED' appears twice in the Engine Series column.



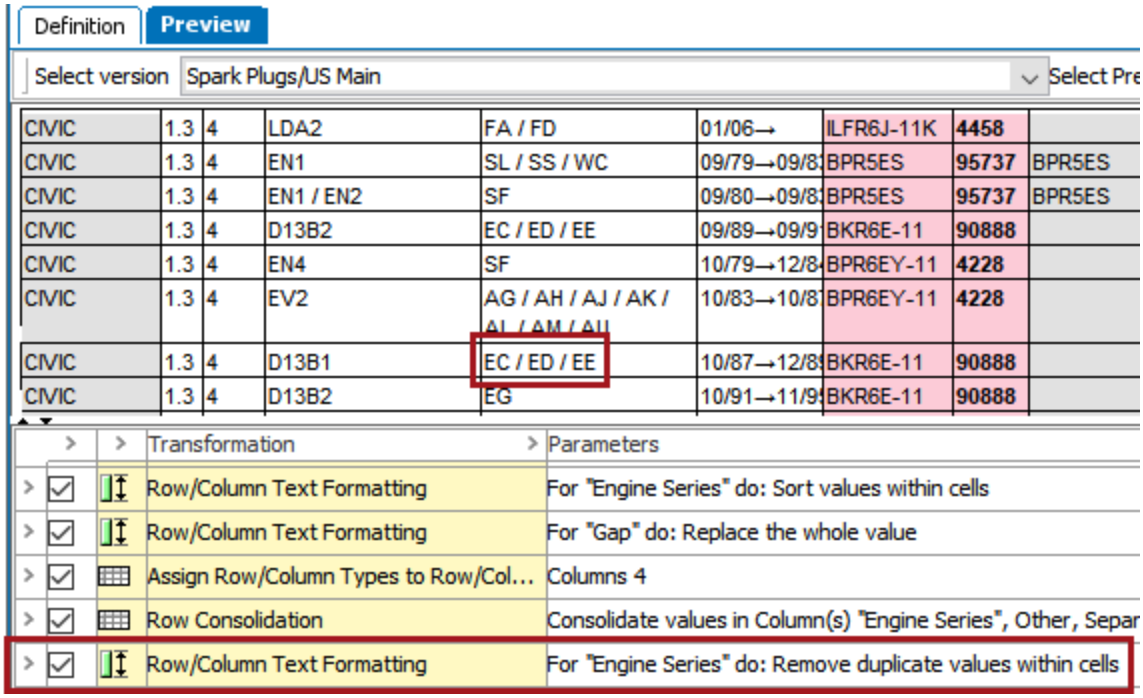
CIVIC	1.3	4	LDA2	FA / FD	01/06→	ILFR6J-11K	4458			1.1
CIVIC	1.3	4	EN1	SL / SS / WC	09/79→09/8	BPR5ES	95737	BPR5ES	7422	0.8
CIVIC	1.3	4	EN1 / EN2	SF	09/80→09/8	BPR5ES	95737	BPR5ES	7422	0.8
CIVIC	1.3	4	D13B2	EC / ED / EE	09/89→09/9	BKR6E-11	90888			1.1
CIVIC	1.3	4	EN4	SF	10/79→12/8	BPR6EY-11	4228			1.1
CIVIC	1.3	4	EV2	AG / AH / AJ / AK / AL / AM / AU	10/83→10/8	BPR6EY-11	4228			1.1
CIVIC	1.3	4	D13B1	EC / ED / EE / ED	10/87→12/8	BKR6E-11	90888			1.1
CIVIC	1.3	4	D13B2	EG	10/91→11/9	BKR6E-11	90888			1.1

	Transformation	Parameters
☑	Row/Column Text Formatting	For "Engine Series" do: Sort values within cells
☑	Row/Column Text Formatting	For "Gap" do: Replace the whole value
☑	Assign Row/Column Types to Row/Col...	Columns 4
☑	Row Consolidation	Consolidate values in Column(s) "Engine Series", Other, Separator " / "
☐	Row/Column Text Formatting	For "Engine Series" do: Remove duplicate values within cells

To remove this duplicate value, the 'Remove duplicate values within cells' transformation is applied as part of the Row/Column Text Formatting transformation. It is configured to remove values from the Engine Series column that are separated by the ' / ' delimiter.

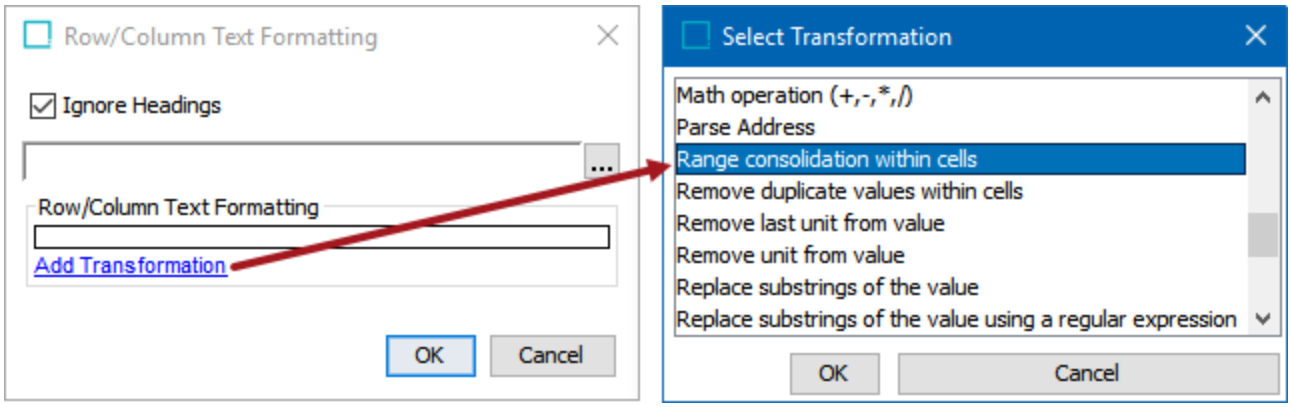


After the transformation is applied, the duplicate 'ED' values are removed and consolidated into a single value.



Range consolidation within cells

The **Range consolidation within cells** text transformation is used to consolidate ranges of data that might exist within a single cell of a table. Like the 'Sort values within cells' and 'Remove duplicate values within cells' transformations, it is available as a selection under 'Add Transformation' within the **Attribute Formatting** and **Row/Column Text Formatting** table transformations, as shown below:



As part of the consolidation process, the transformation allows users to provide delimiter characters to be used between values, as follows:

- **Value Delimiter:** Users may enter one or more characters to indicate the delimiter between the entries in a cell. If a hard return separates the entries in a cell, the delimiter of \n should be used.
- **Range Delimiter:** Users may enter one or more characters that denote the delimiter. This delimiter is used when ranges are created as the result of this operation. A range can be created that is ascending (low-to-high) or descending (high-to-low). Example: 2007-2012 or 2012-2007 if a numerical range, and A-F or F-A for an alphabetic range.

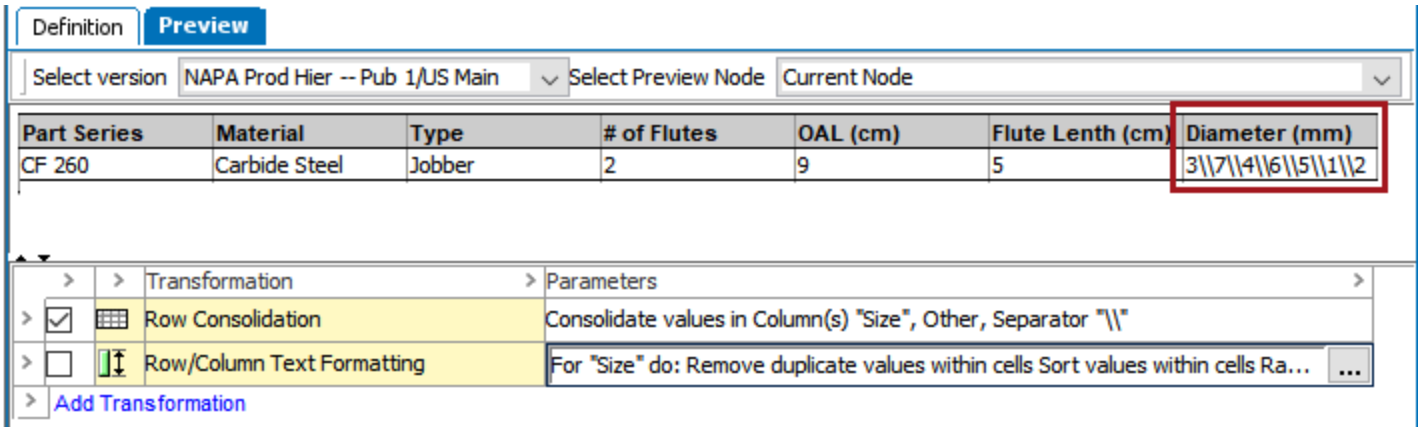
The following examples assume the value delimiter is the pipe character (|) and the range delimiter is a hyphen (-):

- The string '2002|2003|2004|2005|2006|2007' becomes '2002-2007'
- '2015|2014|2013|2012' becomes '2015-2012'
- 'A|B|C|F|G|H' becomes 'A-C|F-H'
- '2002|2003|2004|2005|2007|2008' becomes '2002-2005|2007-2008'

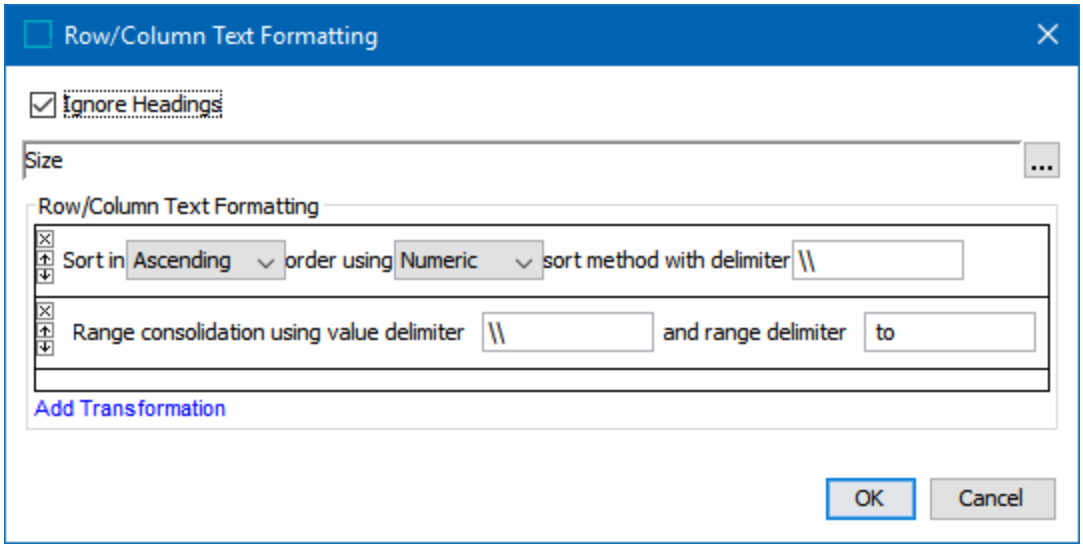
Note: This transformation only operates on numbers or single characters in the ASCII range 'A to Z' or 'a to z.'

Example

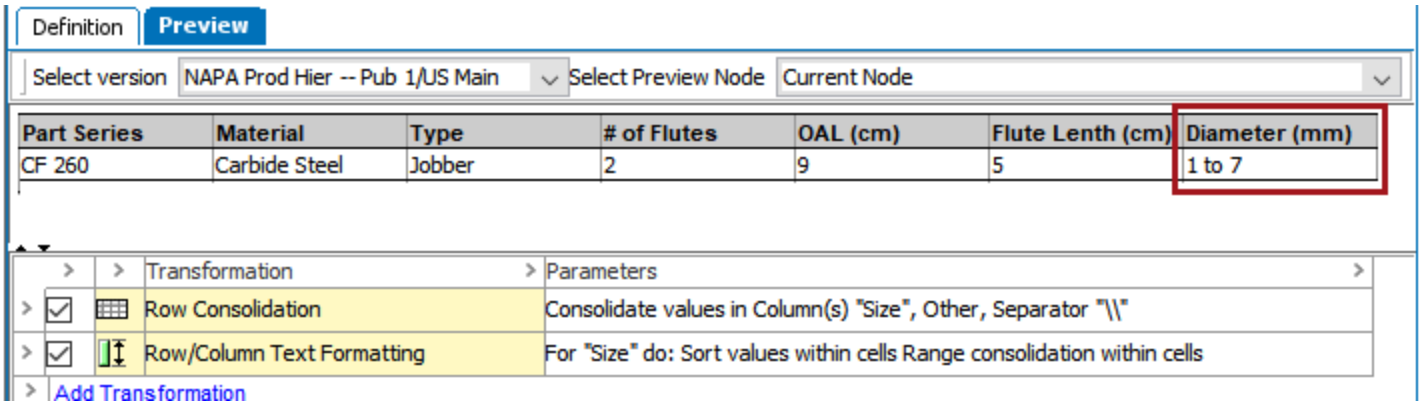
The following example shows a table in which a cell contains a range of values after a Row Consolidation transformation has been applied. The values are both unsorted and separated by '\\ ' as a delimiter.



To sort these values and convert them into a range, two transformations are applied. The **Sort values within cells** text transformation is first applied to sort the numbers in ascending numeric order. Next, **Range consolidation within cells** is applied, which has been configured to remove the \\ value delimiters and replace them with 'to.'

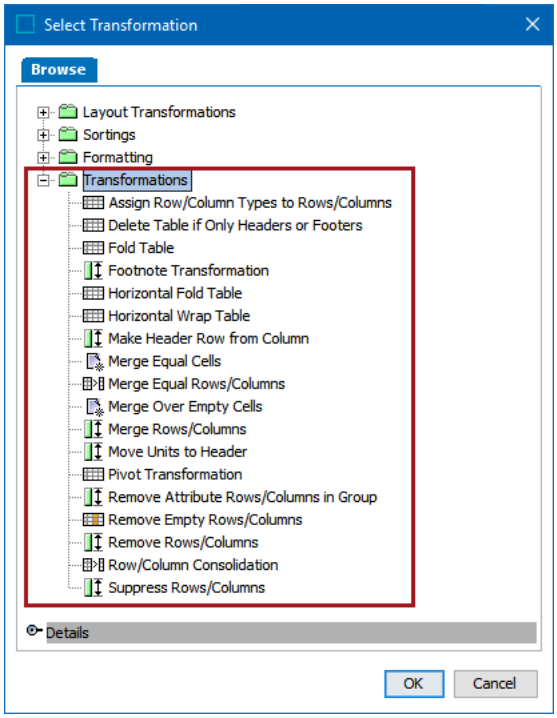


After the transformations are applied, the values are consolidated into a range.


Definition
Preview
Select version
NAPA Prod Hier -- Pub 1/US Main
Select Preview Node
Current Node
Part Series
Material
Type
# of Flutes
OAL (cm)
Flute Lenth (cm)
Diameter (mm)
CF 260
Carbide Steel
Jobber
2
9
5
1 to 7
Transformation
Parameters
Row Consolidation
Consolidate values in Column(s) "Size", Other, Separator "\\"
Row/Column Text Formatting
For "Size" do: Sort values within cells Range consolidation within cells
Add Transformation

General Table Transformations

The general table transformations are defined in detail in the following topics in this documentation section.



- Assign Row/Column Types to Rows/Columns
- Delete Table if Only Headers or Footers
- Fold Table
- Footnote Transformation
- Horizontal Fold Table
- Horizontal Wrap Table
- Make Header Row from Column
- Merge Equal Cells
- Merge Equal Rows/Columns
- Merge Over Empty Cells
- Merge Rows/Columns
- Move Units to Header
- Pivot Transformation
- Remove Attribute Rows/Columns in Group

- Remove Empty Rows/Columns
- Remove Rows/Columns
- Row/Column Consolidation
- Suppress Rows/Columns

Assign Row/Column Types to Rows/Columns

The 'Assign Row/Column Types to Row/Column Numbers' table transformation allows users to assign row and/or column types to fixed row / column numbers. This functionality is intended for use after a Pivot Transformation has been applied.

Though available for any table created in STEP, this transformation is especially useful for tables created for the PMDM for Automotive solution. These tables tend to be very structured, using a consistent number of columns with the same attributes in the same order, and have fixed column widths. The number of columns can be quite high—15 or more columns is not unusual. It is also very common that the Pivot Transformation is required in these tables.

The Pivot Transformation does not allow for the assignment of so many different column types to the 'common values' columns. This transformation solves this issue by allowing users to assign column types to these columns after the Pivot Transformation. Further, it can define the designation of header row types instead of using the Pivot Transformation.

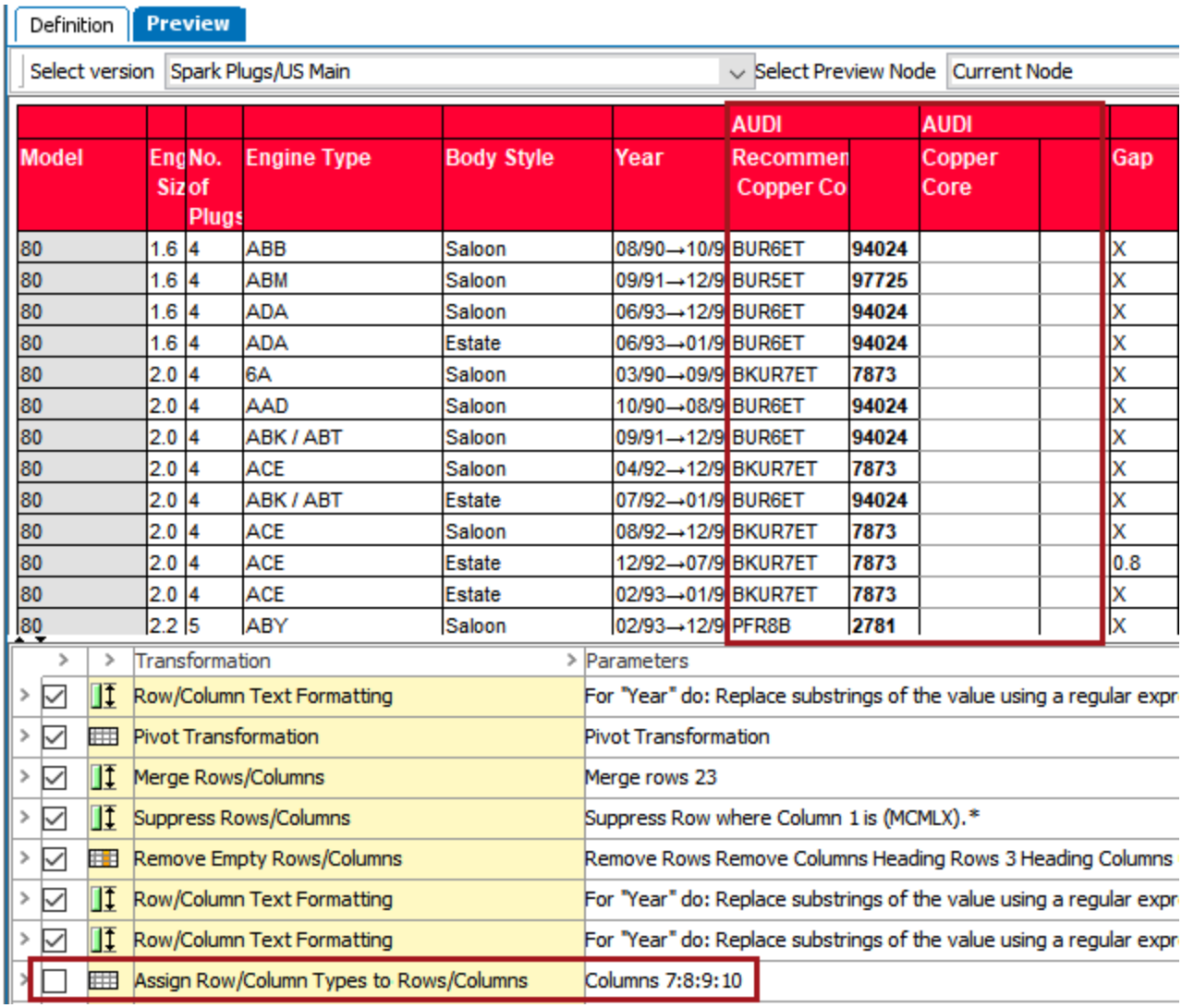
Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

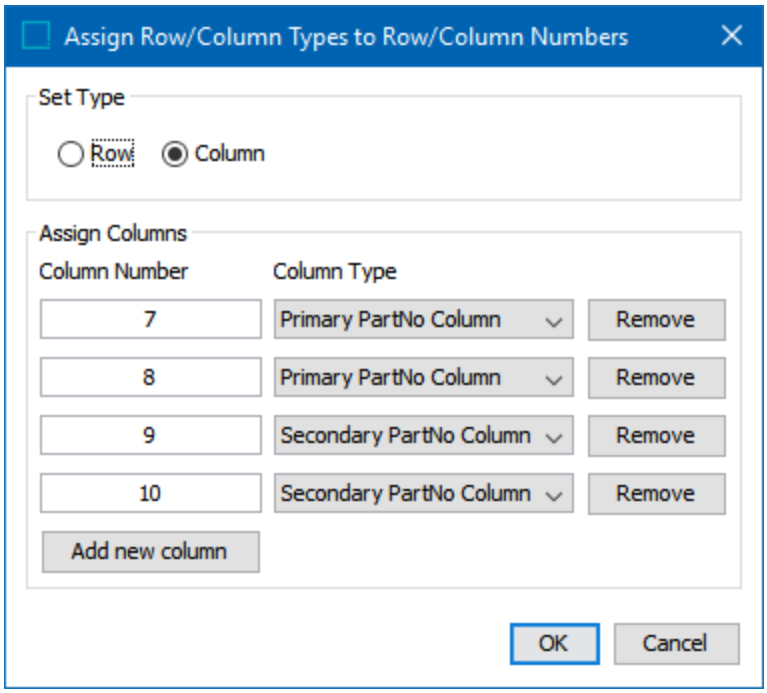
Example

The following example shows a table in which this transformation will be used to apply two different column types to four different columns (columns 7, 8, 9, and 10).

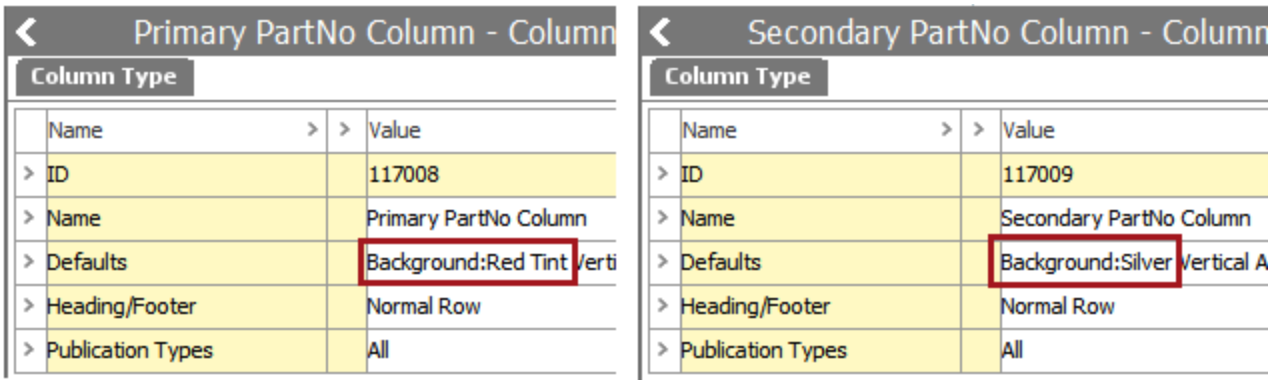
- Before the transformation is applied, the columns have no background shading:



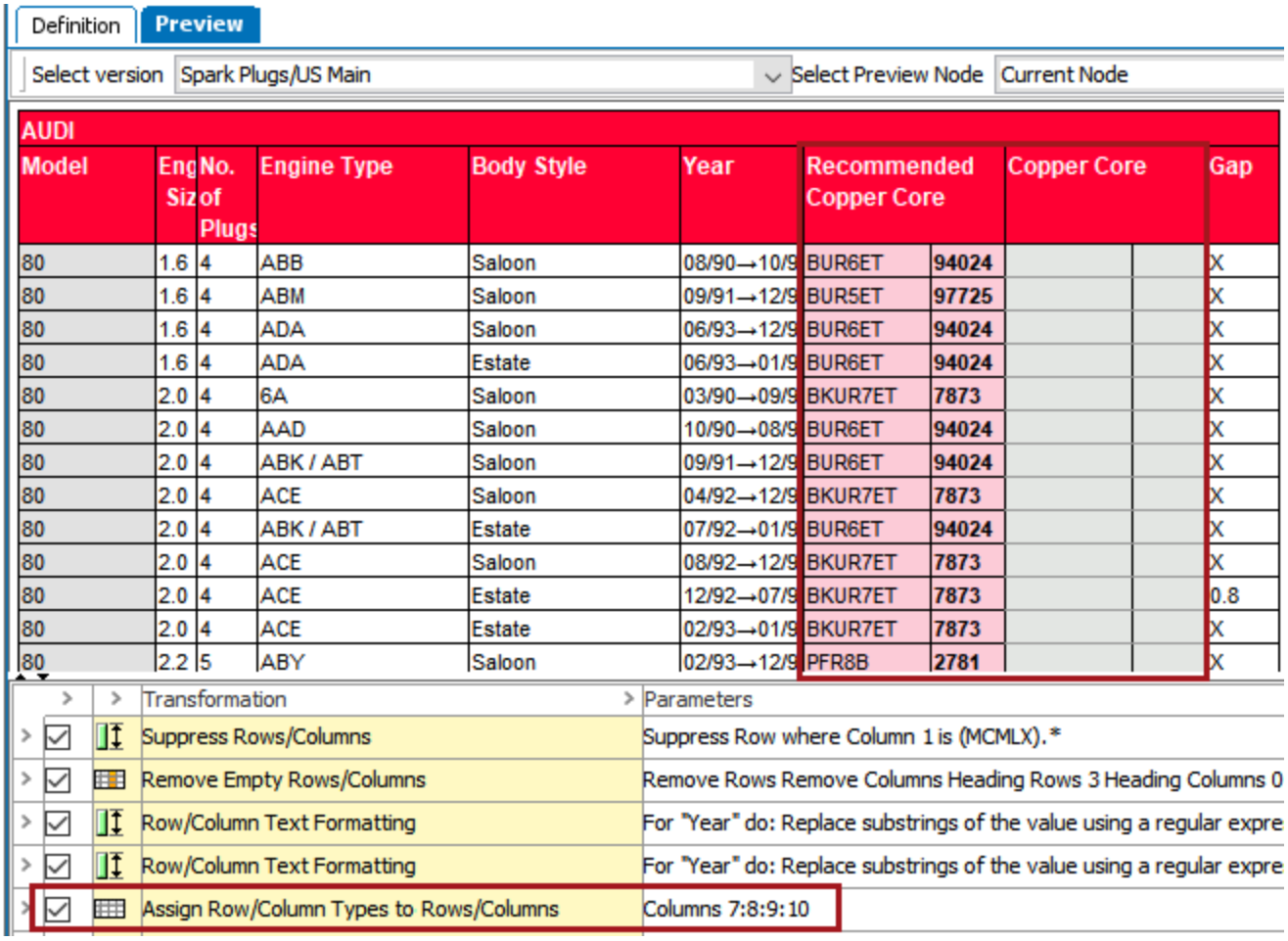
- The transformation has been configured to apply the 'Primary PartNo Column' column type to columns 7 and 8 and the 'Secondary PartNo Column' column type to columns 9 and 10.



- The Primary PartNo Column type has a 'Red Tint' background and the Secondary PartNo Column has a 'Silver' background.



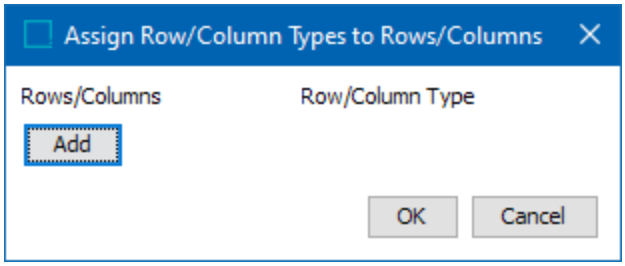
- After the transformation is applied, columns, 7, 8, 9, and 10 reflect the styles of the applied column types.



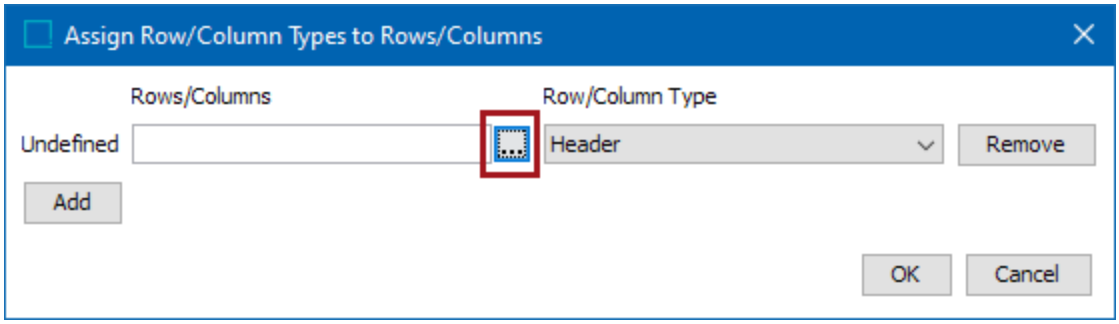
Additional Configuration Information

To configure the **Assign Row/Column Types to Row/Column Numbers** transformation:

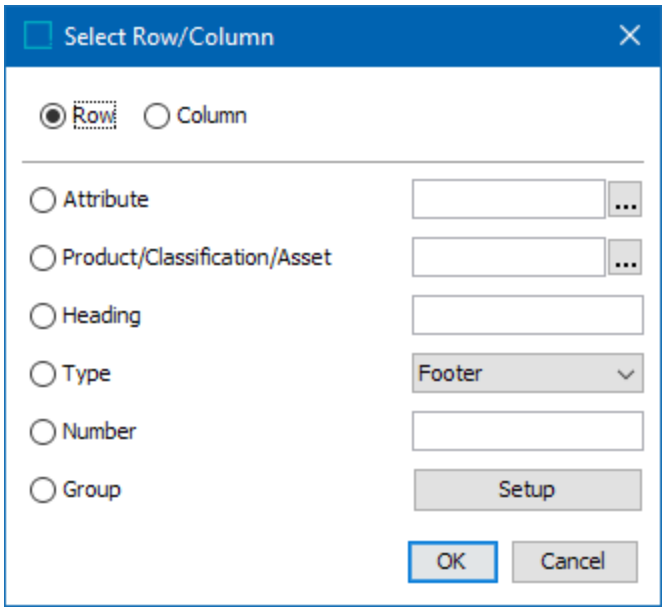
1. After adding the transformation, click the ellipsis button (...) under **Parameters** to display the **Assign Row/Column Types to Rows/Columns** dialog.
2. In the dialog, **Row** is selected by default. Click **Add new row** to choose a row number to which you would like to assign a row type.
3. Click **Add** to select the row or column to which you would like to assign a new row or column type.



4. Under Rows/Columns, click the ellipsis button (...) to select the row(s) or column(s) that you want to replace with a different row or column type.

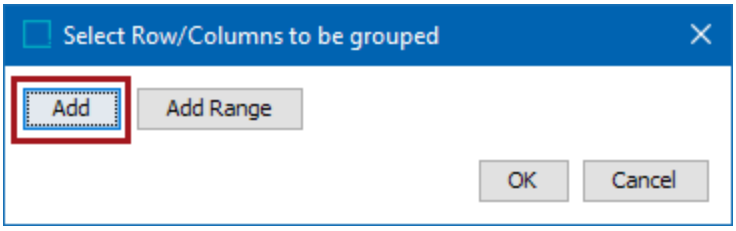


5. In the **Select Row/Column** dialog that displays, choose from the following options. The most common selections for this transformation will be to enter a row or column **Number** or a range of rows or columns (selected under the Group option).

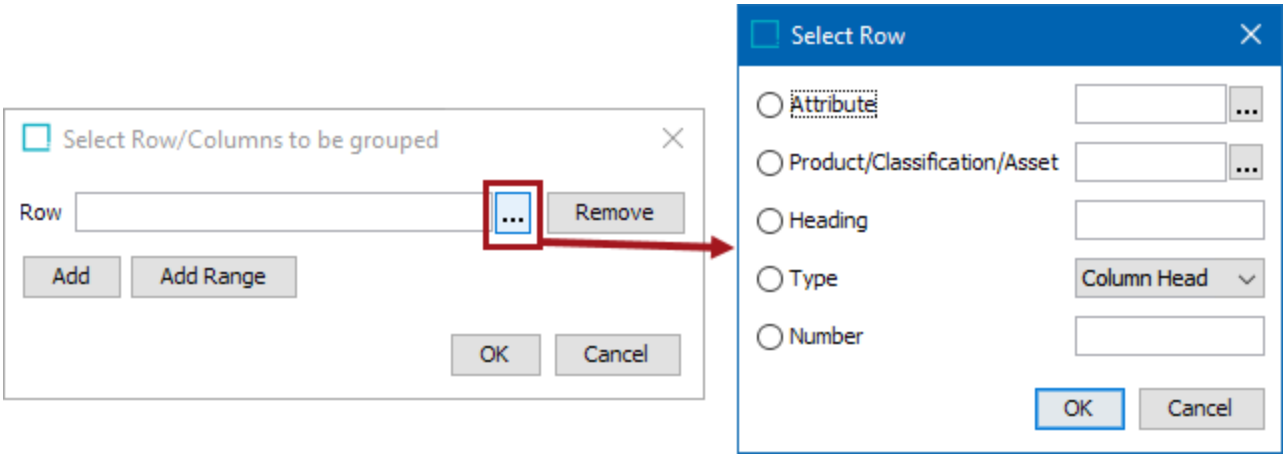


- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.

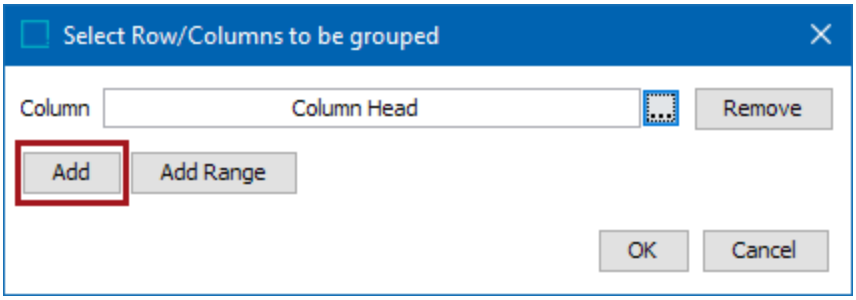
- Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



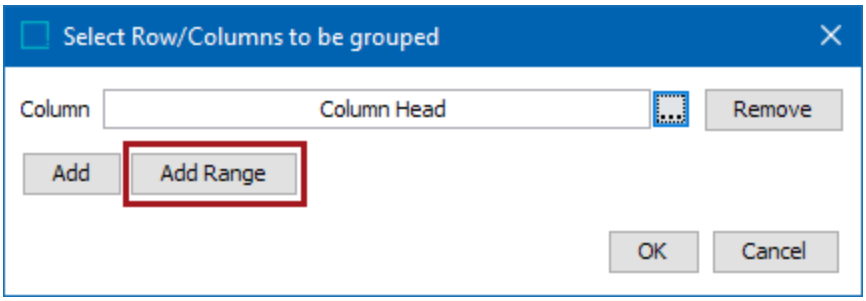
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



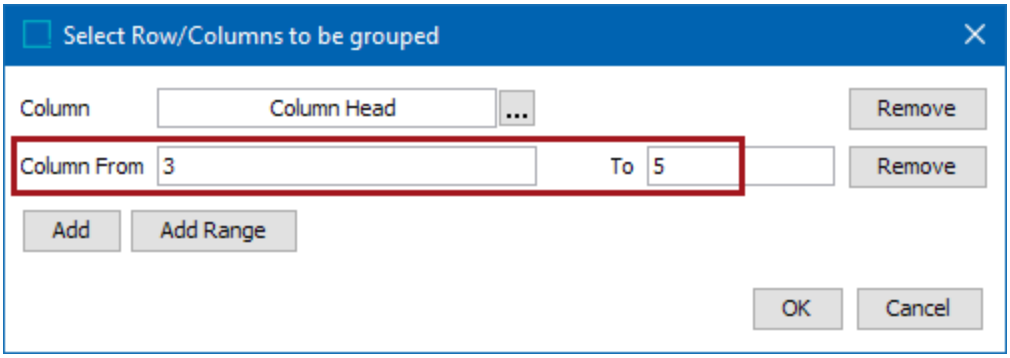
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



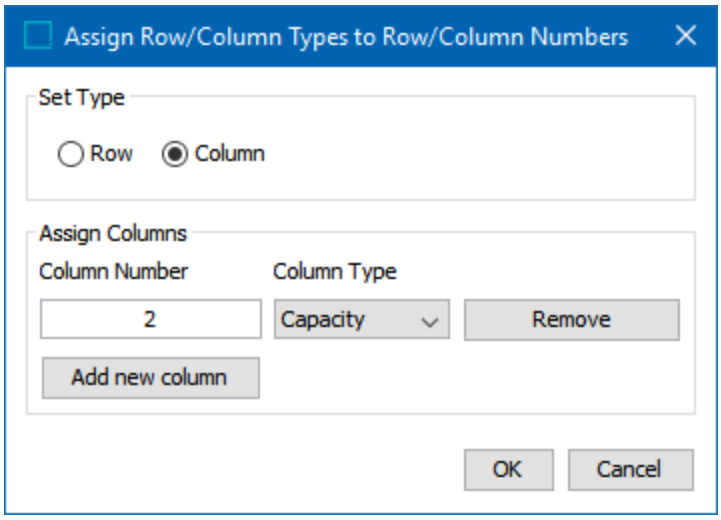
- To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.

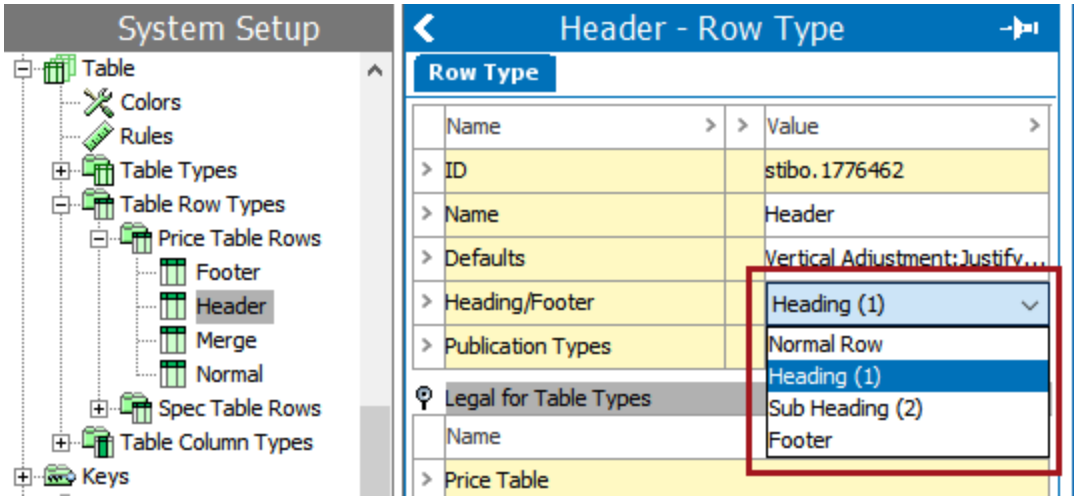


6. To add additional rows, click **Add new row**. Click **OK** when finished.
7. If you are working with columns instead, choose **Column**, then follow the same steps outlined above for selecting rows.



Delete Table if Only Headers or Footers

The **Delete Table if Only Headers or Footers** transformation checks if all of the current rows or columns in a table are designated as Headers or Footers, i.e., if they are designated as anything *other than* Normal Row in the System Setup for Rows and Columns. If either all rows or all columns are headers or footers, then the entire table is deleted.



This transformation is used when prior transformations, such as Remove Rows/Columns or Remove Empty Rows/Columns, have been applied to the table, leaving only header rows and/or footer rows. Since the table no longer has any relevant content, it should not be mounted on an InDesign page. By removing the remaining headers and/or footers, the entire table is removed and nothing is output to InDesign.

This transformation can be applied both on rows and columns. It requires no additional configuration, and has no additional functionality other than deleting the table.

Prerequisites

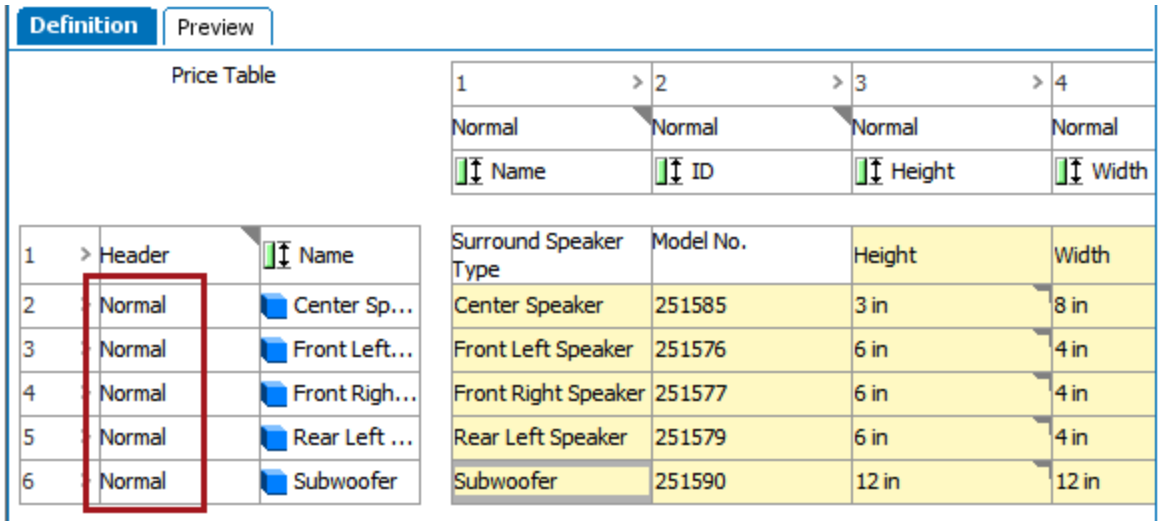
The instructions in this topic assume that you know how to add a transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

In the following basic example, a transformation that removes all 'Normal rows is first applied, then the Delete Table if Only Headers or Footers transformation is applied.

Before

This is how the table appears on the Definition tab. It has one Header row and five Normal rows.



Definition | Preview

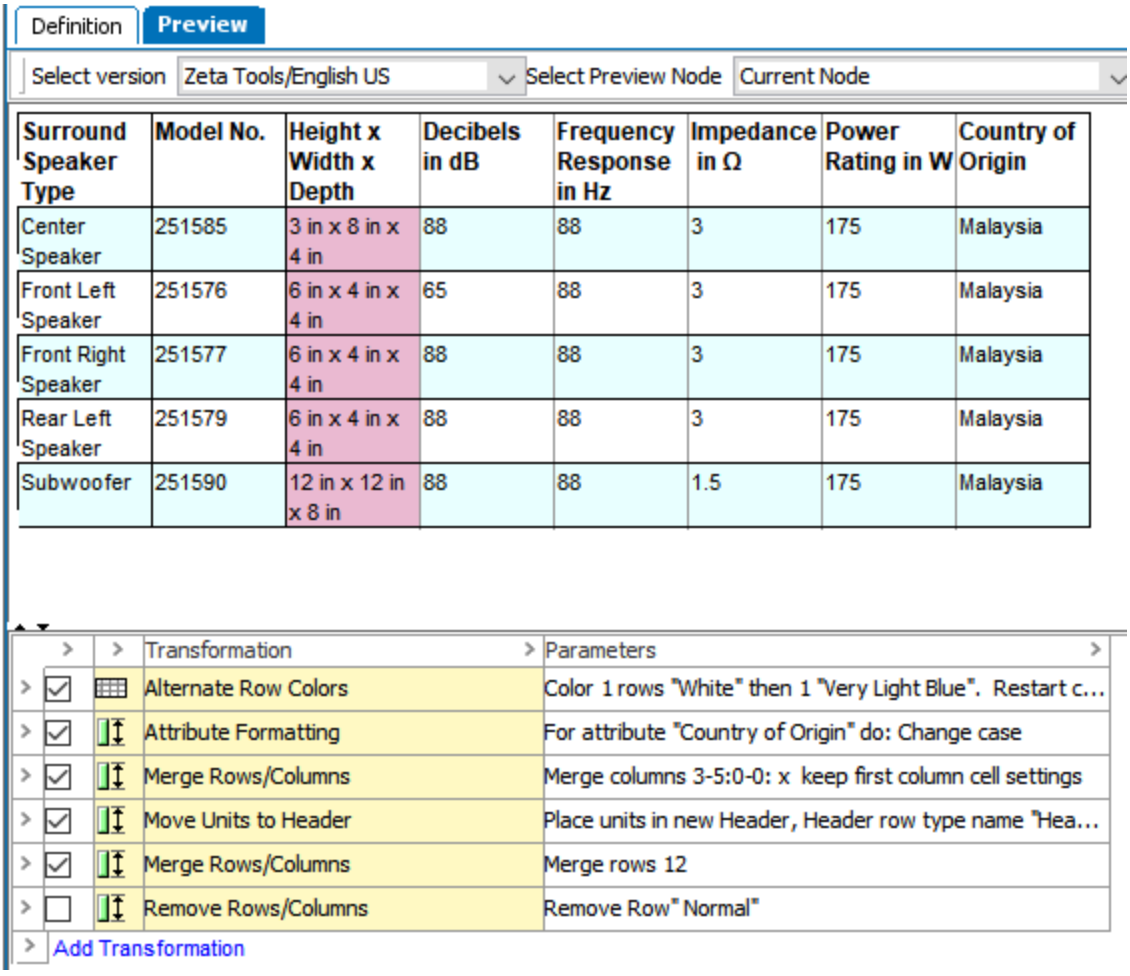
Price Table

1	2	3	4
Normal	Normal	Normal	Normal
Name	ID	Height	Width

1	Header	Name
2	Normal	Center Sp...
3	Normal	Front Left...
4	Normal	Front Righ...
5	Normal	Rear Left ...
6	Normal	Subwoofer

Surround Speaker Type	Model No.	Height	Width
Center Speaker	251585	3 in	8 in
Front Left Speaker	251576	6 in	4 in
Front Right Speaker	251577	6 in	4 in
Rear Left Speaker	251579	6 in	4 in
Subwoofer	251590	12 in	12 in

Before the transformation to remove all Normal rows is applied (Remove Rows/Columns), the table looks like this:



Definition | Preview

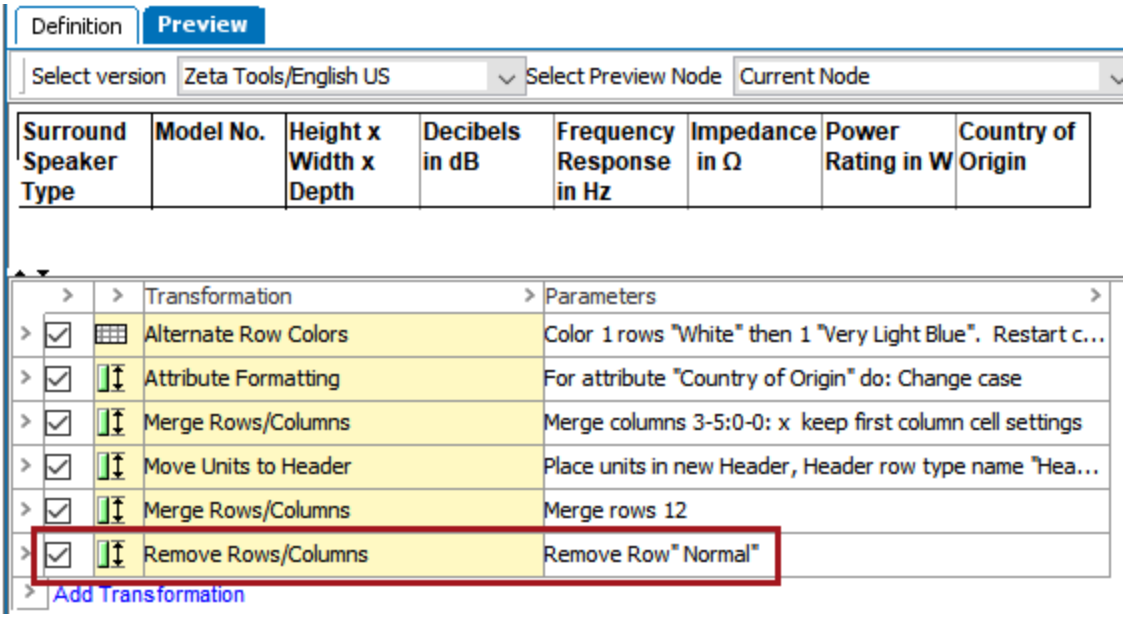
Select version: Zeta Tools/English US Select Preview Node: Current Node

Surround Speaker Type	Model No.	Height x Width x Depth	Decibels in dB	Frequency Response in Hz	Impedance in Ω	Power Rating in W	Country of Origin
Center Speaker	251585	3 in x 8 in x 4 in	88	88	3	175	Malaysia
Front Left Speaker	251576	6 in x 4 in x 4 in	65	88	3	175	Malaysia
Front Right Speaker	251577	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Rear Left Speaker	251579	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Subwoofer	251590	12 in x 12 in x 8 in	88	88	1.5	175	Malaysia

	Transformation	Parameters
☑	Alternate Row Colors	Color 1 rows "White" then 1 "Very Light Blue". Restart c...
☑	Attribute Formatting	For attribute "Country of Origin" do: Change case
☑	Merge Rows/Columns	Merge columns 3-5:0-0: x keep first column cell settings
☑	Move Units to Header	Place units in new Header, Header row type name "Hea...
☑	Merge Rows/Columns	Merge rows 12
☐	Remove Rows/Columns	Remove Row" Normal"

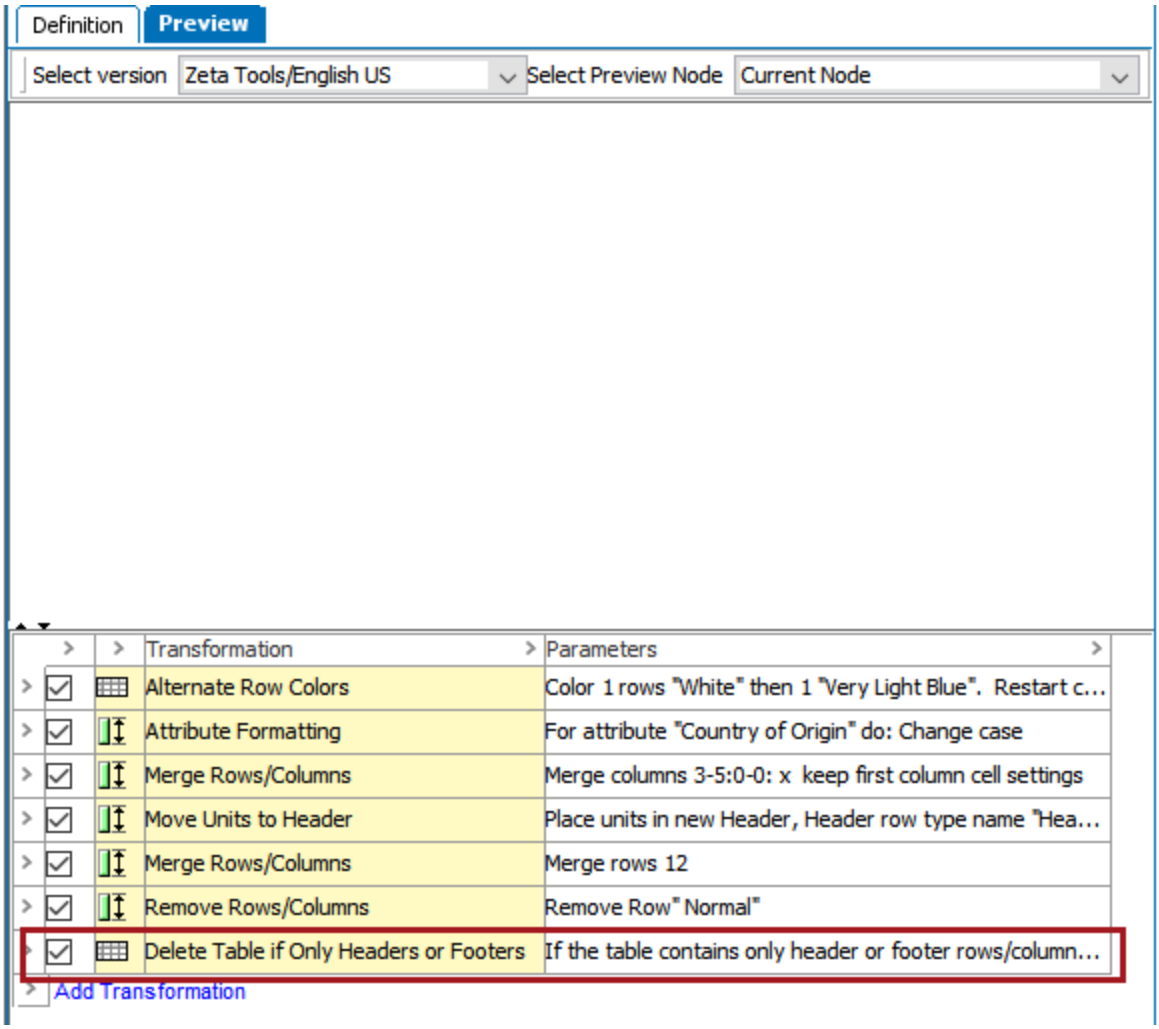
Add Transformation

After applying the Remove Rows/Columns transformation, all that remains of the table is the Header.



After

After applying the Delete Table if Only Headers or Footers transformation, the remainder of the table (the Header row) is deleted, leaving nothing.


Definition
Preview
Select version
Zeta Tools/English US
Select Preview Node
Current Node
Transformation
Parameters
Alternate Row Colors
Color 1 rows "White" then 1 "Very Light Blue". Restart c...
Attribute Formatting
For attribute "Country of Origin" do: Change case
Merge Rows/Columns
Merge columns 3-5:0-0: x keep first column cell settings
Move Units to Header
Place units in new Header, Header row type name "Hea...
Merge Rows/Columns
Merge rows 12
Remove Rows/Columns
Remove Row" Normal"
Delete Table if Only Headers or Footers
If the table contains only header or footer rows/column...
Add Transformation

Fold Table

The Fold Table transformation enables you to split a table into two or more equal table columns. The transformation breaks the table so that the content flows from one column to the next. This is useful if you have a very tall table and would like to convert it to a shorter, more horizontally defined table.

Important: Rows in the table align over the folded table and space in between rows is divided evenly. If the number of rows does not divide fully with the number of folds, empty rows are added at the end of the last fold. This means that if there is an uneven number of rows, Fold 2 will have one less row than Fold 1.

Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

Before

Before the Fold transformation is applied, the table is very tall and vertically oriented.

Definition | Preview

Select version: Acme Party Supplies/English US

SKU	Color	Neck Style	Material	Size	Country of Origin	Price (U.S.)
18213-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
245304-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
179916-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
245311-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
179926-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
245314-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
179927-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S	CHINA	9.99 $
245315-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S	CHINA	9.99 $
242727-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
245322-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
100812-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
245307-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
18216-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
245305-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
245310-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
MT18404-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
179928-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
245316-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
239317-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
245321-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
181951-A	Kelly Green	Crew Neck	100% Cotton	L	MEXICO	10.99 $
245317-A	Kelly Green	Crew Neck	100% Cotton	L	MEXICO	10.99 $
245308-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
MT18400-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
100703-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
245306-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
245309-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
MT18403-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
182922-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
245318-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
236408-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
245320-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
179924-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
245312-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
18210-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
245302-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
179925-A	Kelly Green	Crew Neck	polyester/cotton blend (30/70)	XXL	CHINA	7.99 $
245313-A	Kelly Green	Crew Neck	polyester/cotton blend (30/70)	XXL	CHINA	7.99 $
18212-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
245303-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
181951LB-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $
245319-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $

After

After the Fold transformation is applied, the table is horizontally oriented, with two folds.

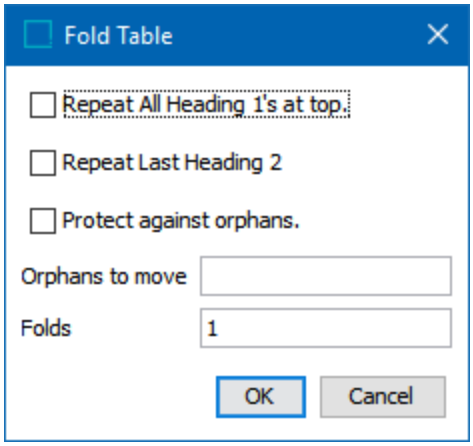
Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node: Current Node

SKU	Color	Neck Style	Material	Size	Country of Origin	Price (U.S.)
18213-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
245304-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
179916-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
245311-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
179926-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
245314-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
179927-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S	CHINA	9.99 $
245315-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S	CHINA	9.99 $
242727-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
245322-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
100812-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
245307-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
18216-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
245305-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
245310-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
MT18404-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
179928-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
245316-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
239317-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
245321-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
181951-A	Kelly Green	Crew Neck	100% Cotton	L	MEXICO	10.99 $
245317-A	Kelly Green	Crew Neck	100% Cotton	L	MEXICO	10.99 $
245308-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
MT18400-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
100703-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
245306-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
245309-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
MT18403-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
182922-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
245318-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
236408-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
245320-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
179924-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
245312-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
18210-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
245302-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
179925-A	Kelly Green	Crew Neck	polyester/cotton blend (30/70)	XXL	CHINA	7.99 $
245313-A	Kelly Green	Crew Neck	polyester/cotton blend (30/70)	XXL	CHINA	7.99 $
18212-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
245303-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
181951LB-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $
245319-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Fold Table** dialog displays.



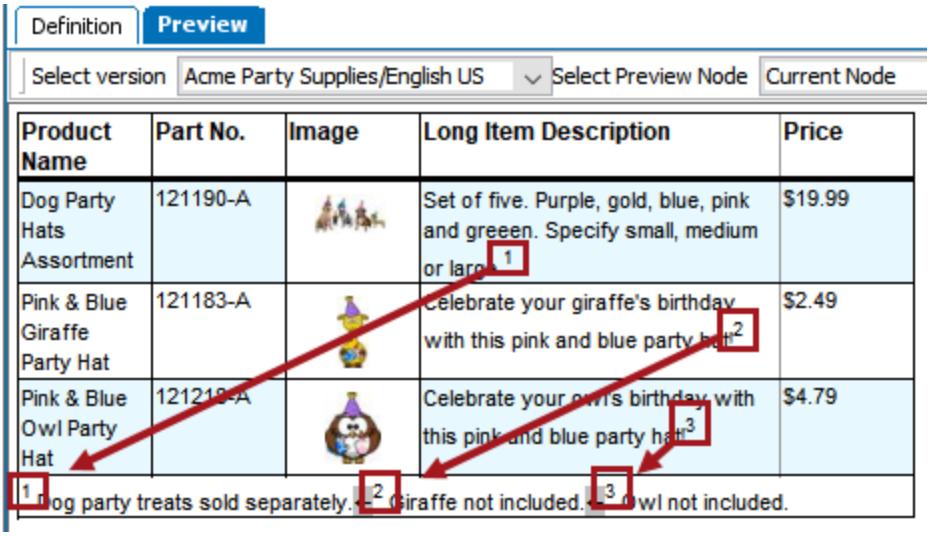
2. Select **Repeat All Heading 1's** at top and/or **Repeat Last Heading 2** depending on whether one or two table headings need to be repeated in the next fold.
3. **Protect against orphans.** and **Orphans to Move:** 'Orphan' is a typographical term that refers to a paragraph-opening line that appears by itself at the bottom of a page or column, thus separated from the rest of the text. The same concept applies to 'orphaned' rows in folded tables. Sometimes a 'Normal' (non-header) row end up by itself on a fold when the headers are repeated, causing it to be orphaned.

   Check 'Protect against orphans' to move any orphaned rows, and in the 'Orphans to move' field, enter the number of orphans that should be moved.

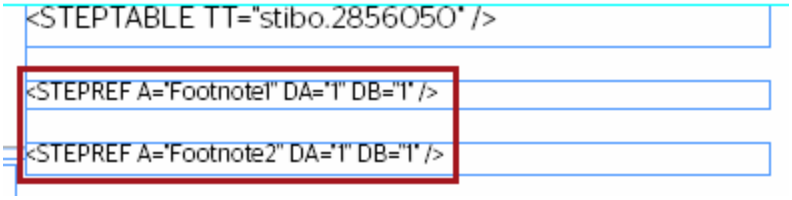
4. In the **Folds** field, enter the desired number of folds. Click **OK**. The minimum number of folds is **2**.
5. Click **OK**.

Footnote Transformation

The Footnote transformation enables you to control how footnotes are displayed in a table and create a specified footer row for footnotes.



For tables with uncomplicated footnotes, a typical standard setup is to keep the footnotes in separate text boxes below the table on the product template, driven by a regular footnote text attribute, as pictured below. This works well when footnotes apply to the entire table in general. It may also be easier to set up and maintain.



However, the table footnote **transformation** is often a better option when there are multiple footnotes in a table. The transformation also provides these advantages:

- Automatic superscript for footnote markers (e.g., superscript [1], [2]).
- The setup is more dynamic; footnotes are embedded within attribute values and do not have to be stored in separate footnote attributes.
- Footnote numbering is dynamic; users do not have to manually enter superscript numbers into attribute fields, avoiding the possibility of numbers being incorrectly sequenced.
- Footnotes may be added into a free text cell of a table, again avoiding the need for separate footnote attributes.
- Footnotes are placed in a dedicated, spanned row at the bottom of the table, which is an advantage when using folded tables.

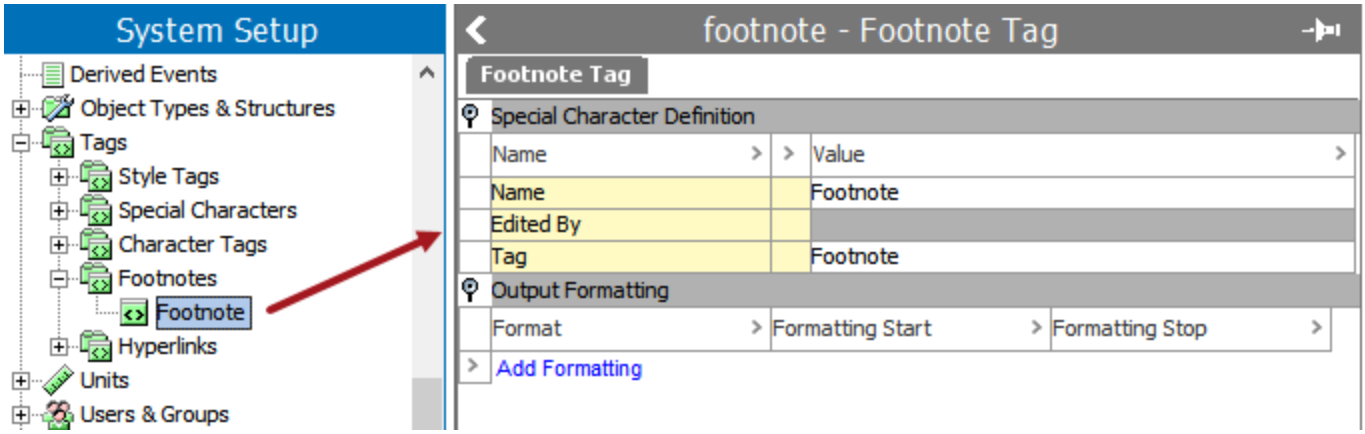
Creating the Footnote Tag

If no footnote tag exists, you must create one in System Setup. For more detailed information on how to create tags, refer to the **Tags** section of the **System Setup** documentation.

Follow these steps to configure a footnote tag.

1. Go to **Tags** under system setup and select the **Footnotes** tag group. Right-click and create a new Footnote tag.

   The footnote tag should not have any output formatting. It is merely needed for the system to set up the transformation. If the tag is not created, 'Insert Footnote' will be disabled when you want to add a footnote to an attribute value.



2. If the same long text is used many times throughout a catalog, you can create the footnote *text* as a **character tag** that you can insert in all the places where you want to use the text. This tag will be created as a regular character tag, not as a footnote tag, though it will be used in conjunction with the footnote tag (i.e., it is not a replacement for the footnote tag). Creating the footnote text as a character tag will ensure that the text is consistent (e.g., always spelled correctly).

   Note: It is not necessary to create a footnote text character tag if the text is different on all footnotes.

Add Footnote Texts to an Attribute Value

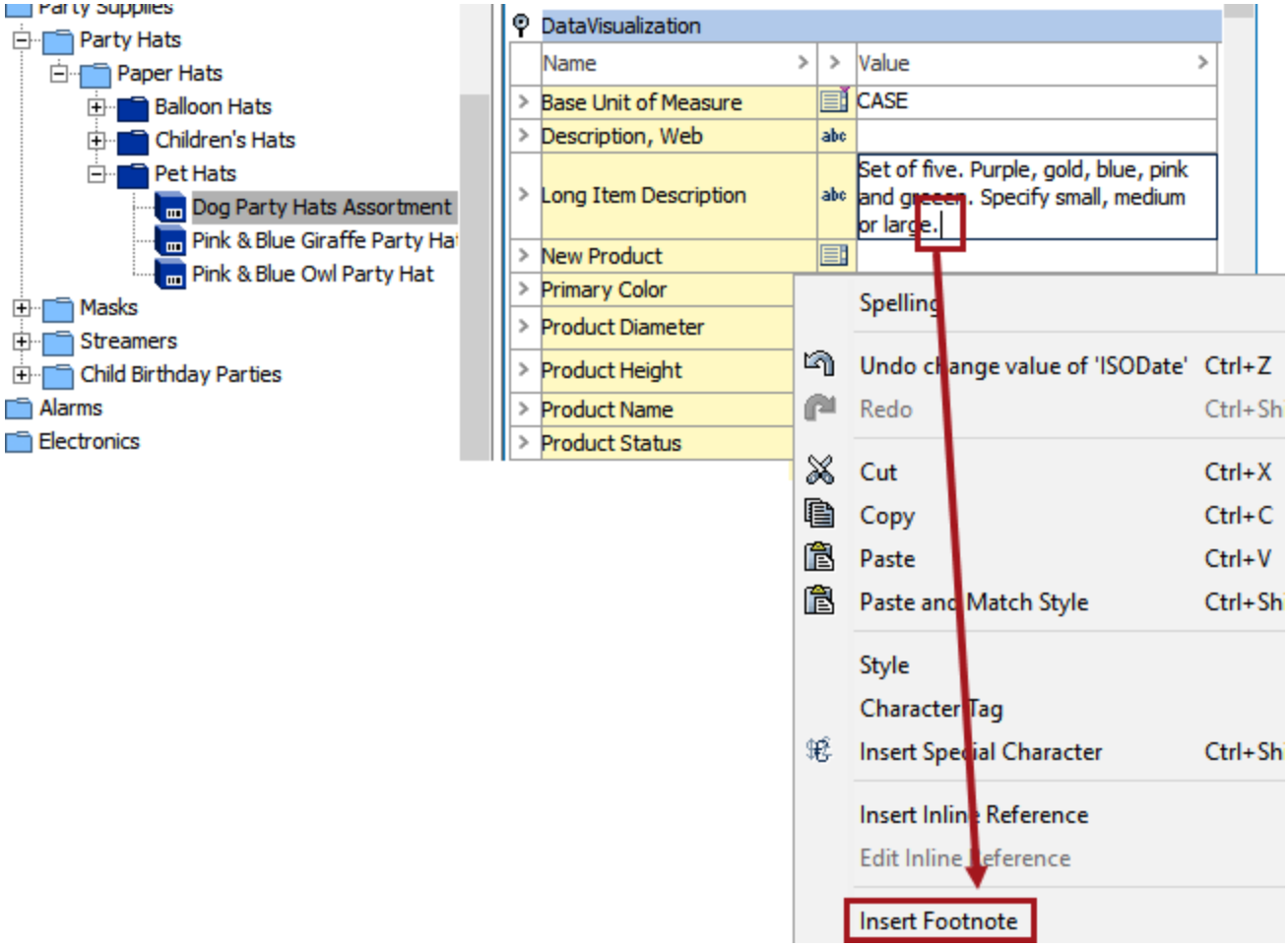
Before you can add the footnote transformation, you first have to add footnote text to an attribute value.

Note: Do not add footnotes to attributes that may later be extracted for a publication index, e.g., a part number attribute.

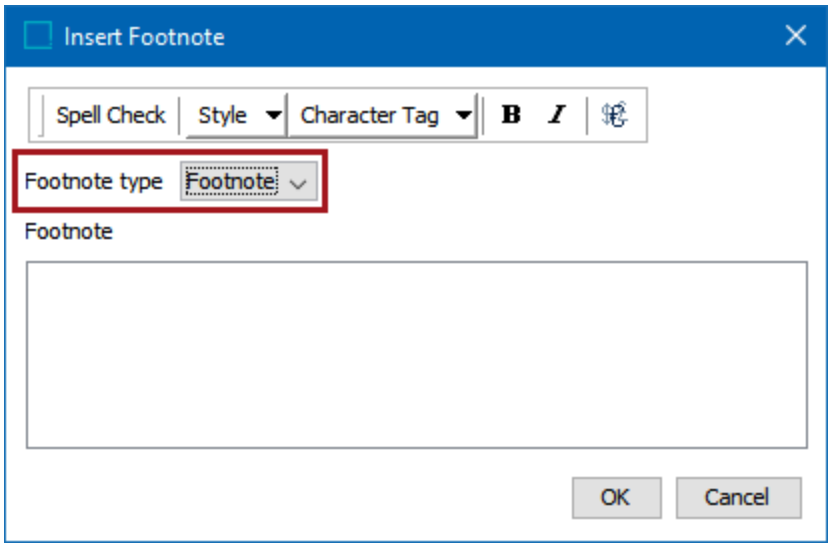
1. Navigate to the product In the Tree that has the attribute to which you would like to add a footnote. This must be a text-based attribute.
2. Double-click the attribute value field to edit it, then place your cursor in the location where you want to add the

footnote.

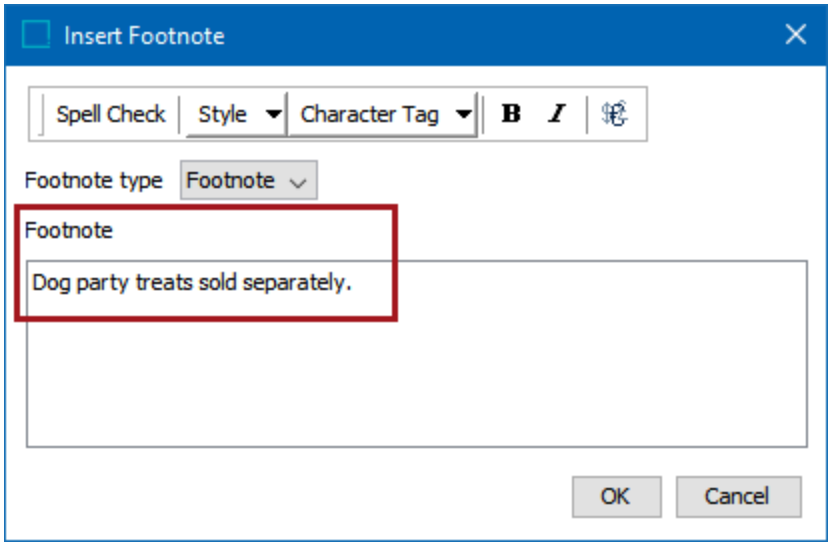
3. Right-click and select **Insert Footnote**.



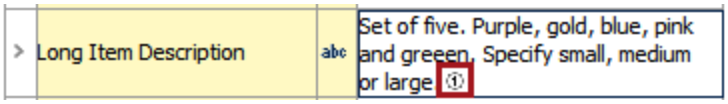
4. In the **Insert Footnote** dialog, choose the relevant Footnote tag from the **Footnote type** dropdown list.



5. In the **Footnote** field, enter the footnote text as either free text or as a character tag, then click **OK**. The footnote text can also be styled in this dialog.



6. The footnote symbol (1) displays in the attribute field.



Note: If the same free text footnote is used for different products in same table, the footnote symbols are the same for all footnotes. If the text does not match 100 percent, then different footnote symbols are displayed.

7. Repeat these steps for all attributes to which you would like to add a footnote.

Edit or Remove a Footnote

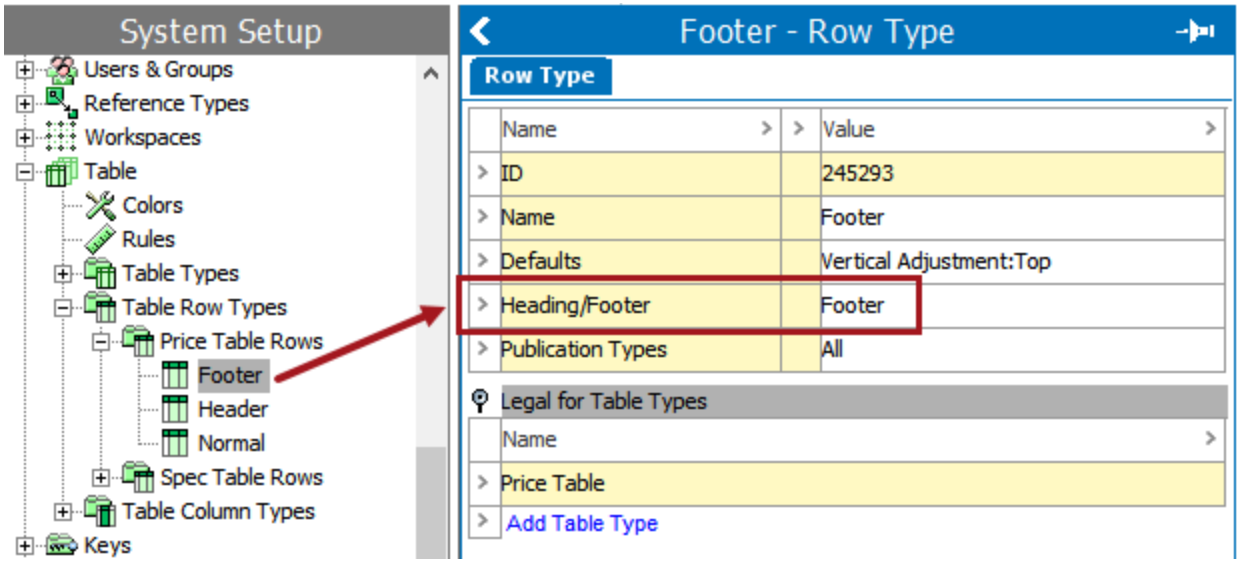
1. If you need to edit the footnote, place your cursor before or after the footnote symbol in the attribute field, then right-click and select **Edit Footnote**.
2. To **delete** the footnote, delete the footnote symbol from the attribute field.

Setting Up the Table

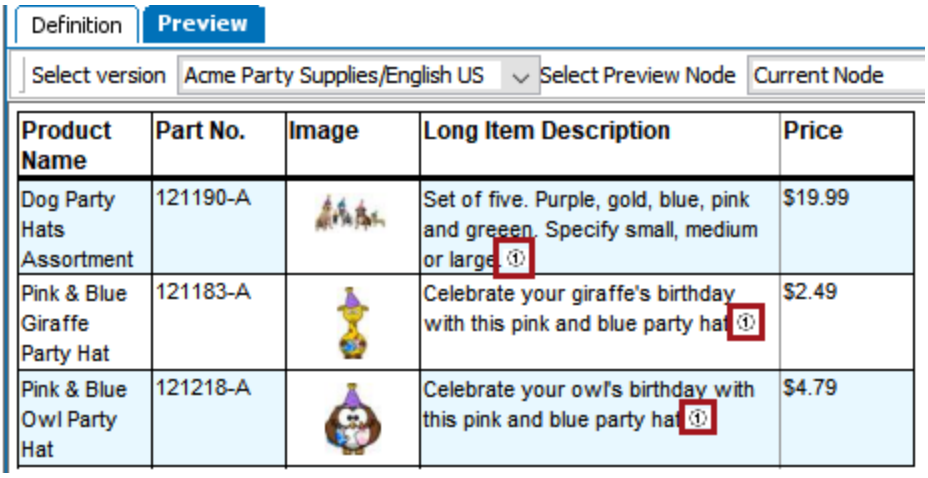
1. Create a footnote **row type** for your table in System Setup. In this step you are only creating the row *type*; you will not create the footnote row on the table itself. The footnote transformation will later 'fetch' the row and insert it for you as part of the transformation functionality. Then, you can apply styling to the row type if desired.

   The row must be designated as **Footer** for the transformation to work properly.

Important: This row type must only be used for footnotes.



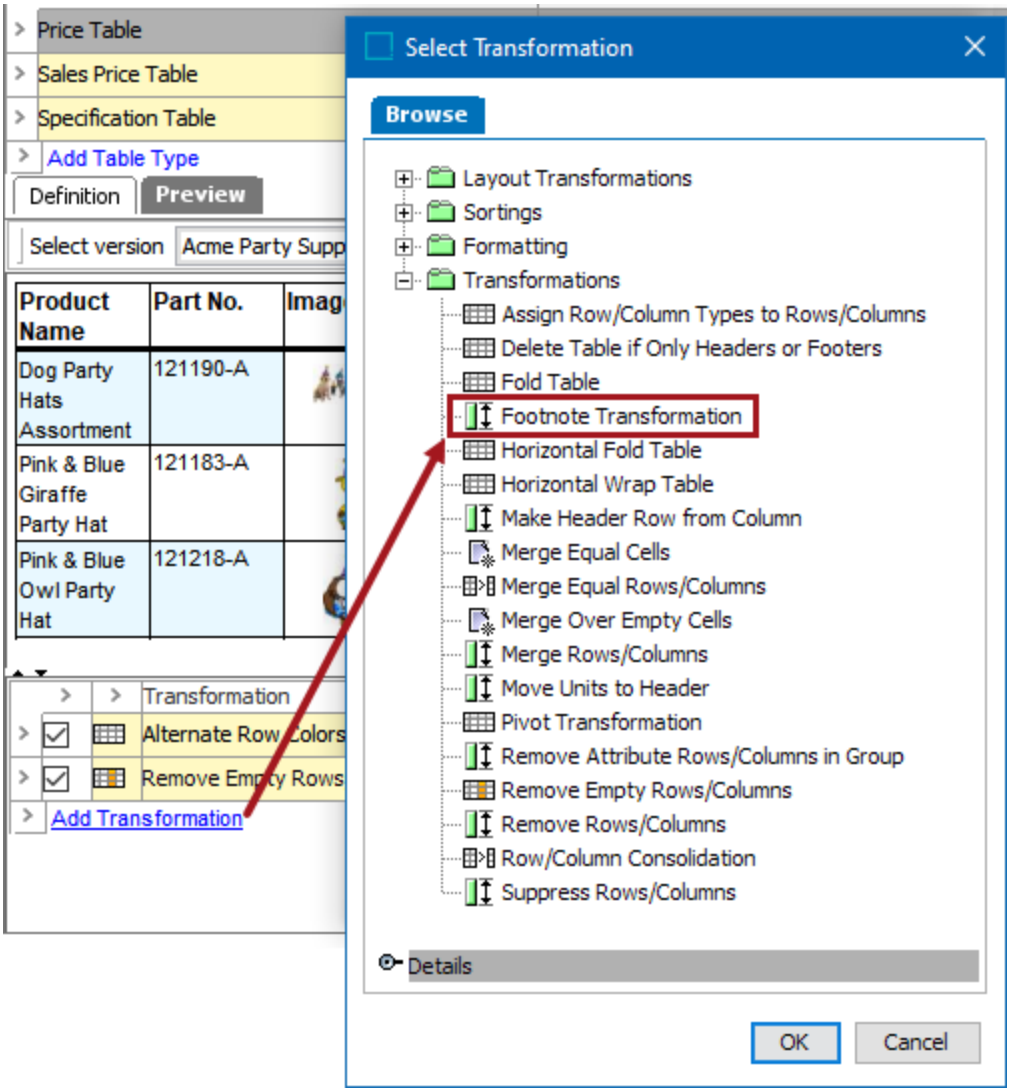
2. Navigate to the table in which you want to add the footnote, then view the table on the **Preview** tab.
3. If the footnotes were added correctly in the attribute fields, the footnote symbols in the table are displayed.



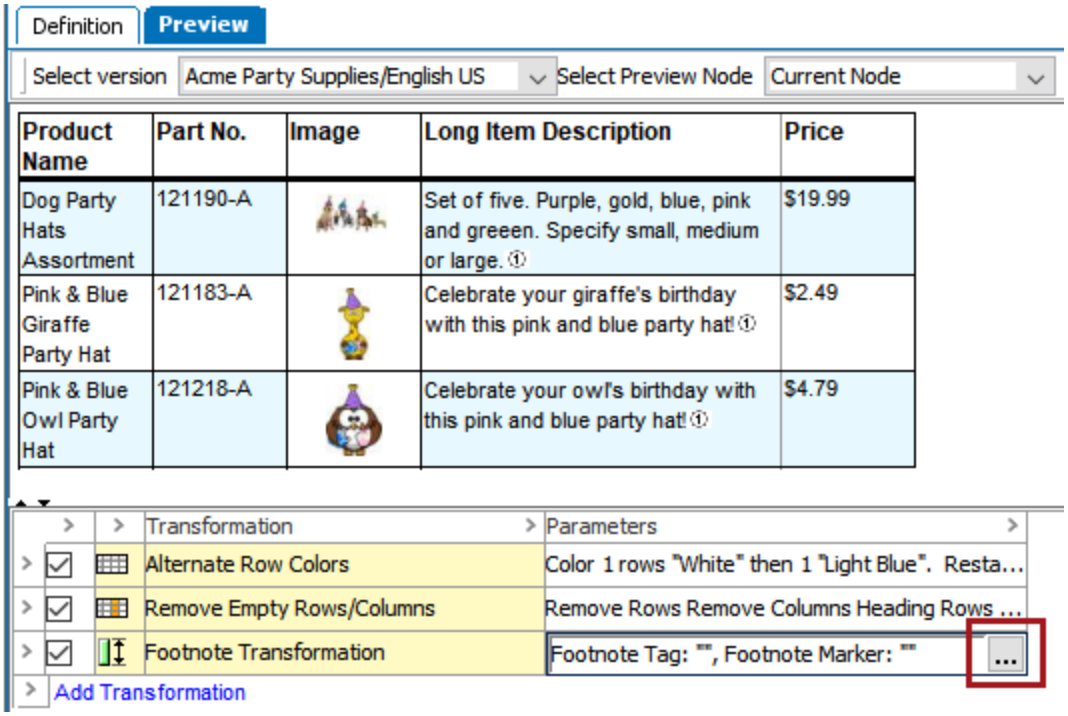
Product Name	Part No.	Image	Long Item Description	Price
Dog Party Hats Assortment	121190-A		Set of five. Purple, gold, blue, pink and greeen. Specify small, medium or large. ①	$19.99
Pink & Blue Giraffe Party Hat	121183-A		Celebrate your giraffe's birthday with this pink and blue party hat ①	$2.49
Pink & Blue Owl Party Hat	121218-A		Celebrate your owl's birthday with this pink and blue party hat ①	$4.79

Adding the Footnote Transformation

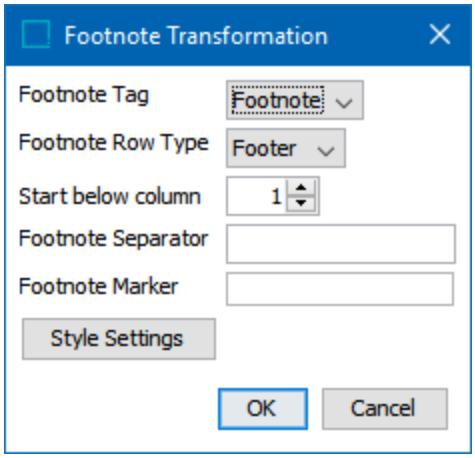
1. With your table open on the Preview tab, click 'Add Transformation' to launch the **Select Transformation** dialog.
2. Expand the 'Transformations' folder and select **Footnote Transformation**, then click **OK**.



3. The Footnote Transformation is added. Click inside of the **Parameters** field to display the ellipsis button (...).

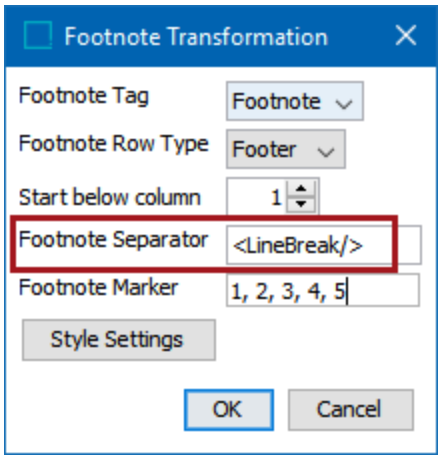


4. Click the ellipsis button (...) to launch the **Footnote Transformation** dialog.



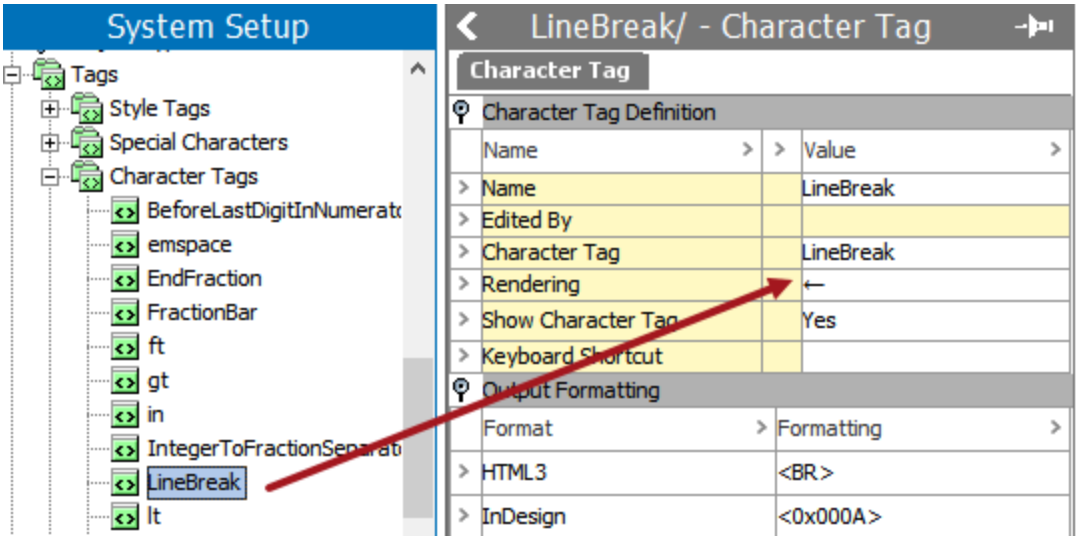
5. Select the **Footnote Tag** from the dropdown list. This must be the same footnote tag used when you added the footnote text to the attribute value.
6. Select the relevant **Footnote Row Type** from the list.
7. In the **Start below column** field, specify the column where the footnote row should begin below. This is typically column 1, then the row spans all columns.
8. In the **Footnote separator** field, specify the separator to be used in between multiple footnotes when mounted in InDesign. This applies when different footnote texts with the same footnote tag are found in the same table. In this example, the character tag <LineBreak/> tag is used, though any separator may be used.

> **Note:** The field does not recognize the repeat separators that are used in InDesign, such as \n.

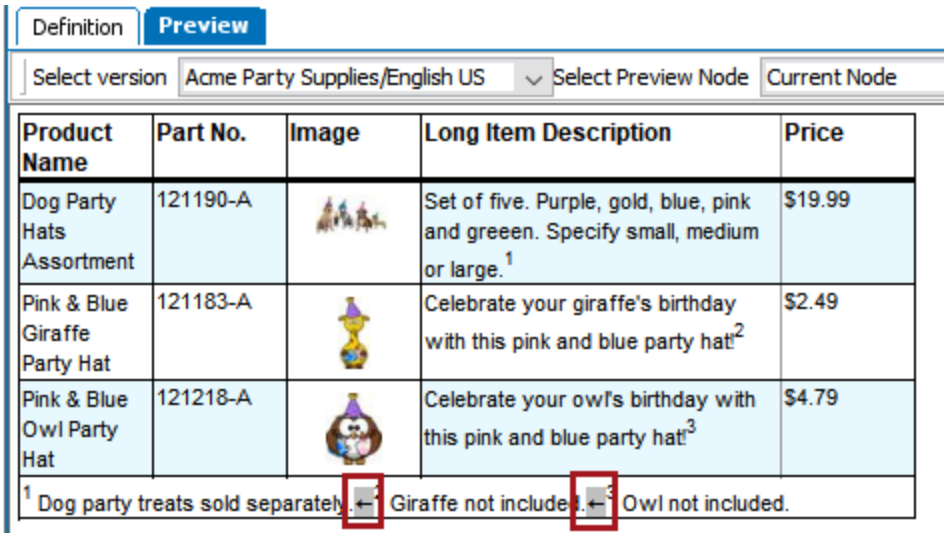


Example

- <LineBreak/> tag in System Setup:



- <LineBreak/> footnote separator in table preview:

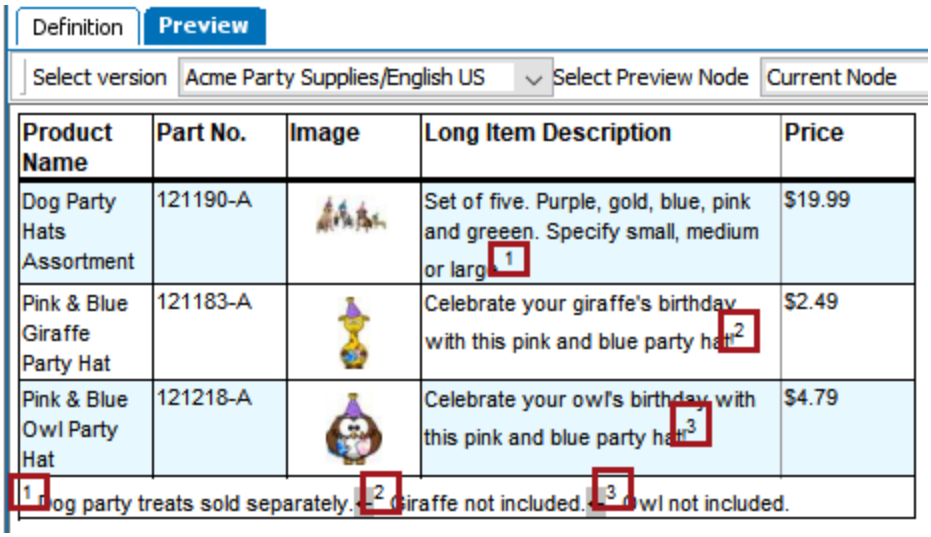


- Mounted footnote row in InDesign:

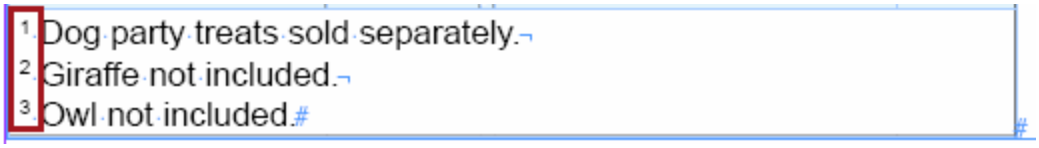
9. In the **Footnote Marker** field, specify how to mark the footnotes in the table; for example, 1, 2, 3, 4, 5. It does not matter whether or not spaces are added after the commas. When all footnote markers have been used in the same table, the numbers / characters start over from the beginning. These values display as superscript characters by default, without needing to have styling applied.

   Example

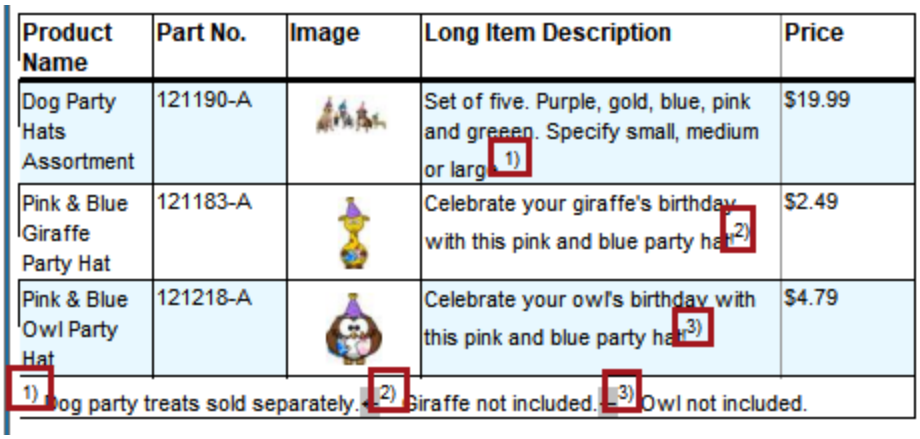
   - Footnote markers in table preview:



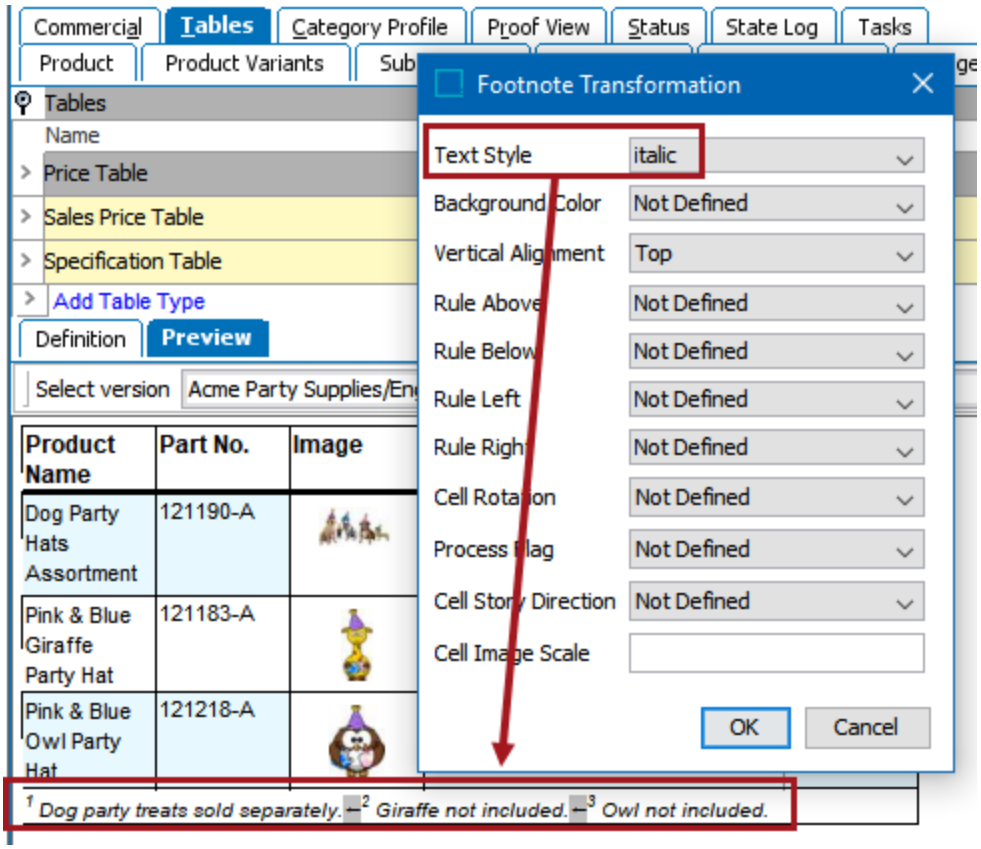
- Mounted footnote row in InDesign:



- Leaving the field blank will mount superscript numbers with a closing parenthesis character after them, which may not always be desirable.

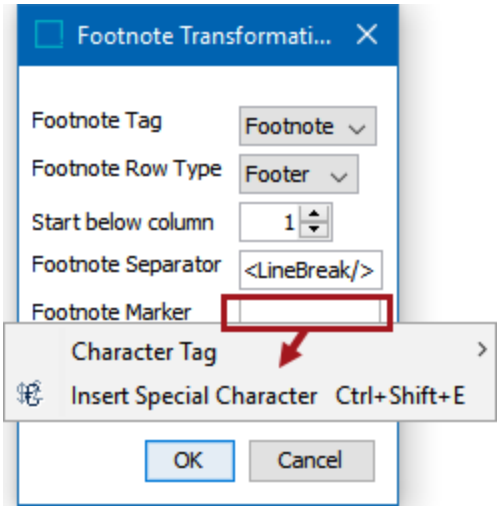


10. Click the **Style Settings** button to specify a style for the footnote text and/or additional styling for the footnote row, such as background color, alignment, borders and so forth. The following screenshot shows the result when 'italic' is chosen as the footnote text style.

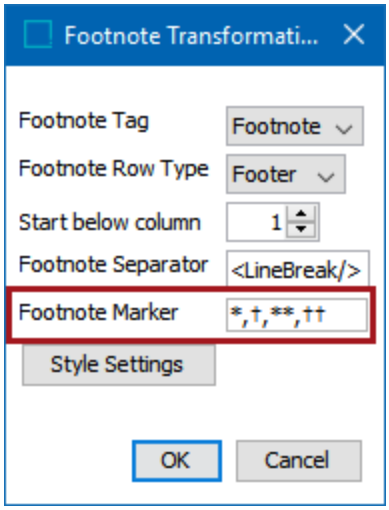


Using Characters Other Than Digits as Footnote Markers

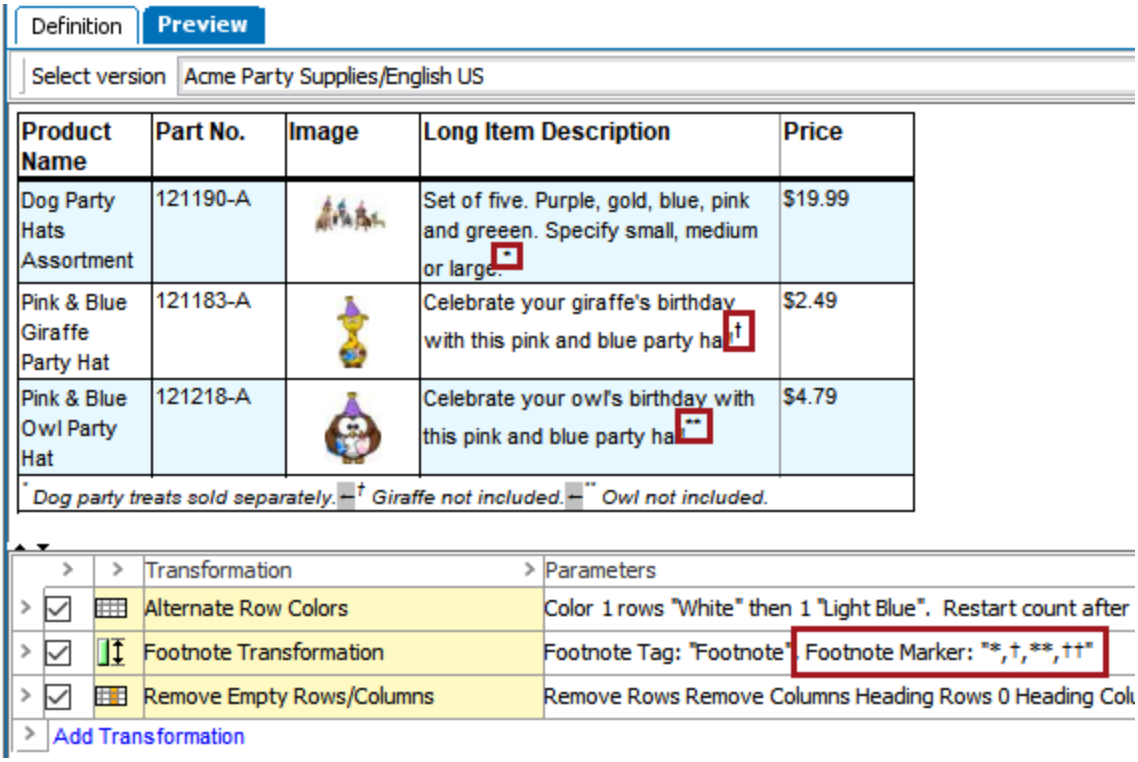
To use characters other than digits as footnote markers, special characters or character tags, right-click inside of the **Footnote Marker** field of the Footnote Transformation dialog.



Footnote markers for each desired symbol must be placed into the field. Multiple footnote markers must be placed in this field if multiple footnotes are anticipated. If only one marker is placed in the box, it will only be used for footnote 1, and subsequent footnotes will revert to the '2)' style.



Example



Footnotes Based on Calculated Attribute Values

You can use footnotes based on calculated attribute values to handle new symbols in front of order numbers and generate footnote text below the tables that contain the new symbols.

1. Create a calculated attribute using the following value template for the calculation. For information on how to create a calculated attribute, refer to the **Calculated Attributes** section of the **System Setup** documentation.

```
if (exact(PRODVAL("Brand Name"),'Acme pens'),'Acme
pens<RegistrationFoot><FootnoteRegistration/></RegistrationFoot>',
(</PRODVAL("Brand Name")))
```

   In this example, the calculation does the following:

   If the brand name is Acme pens, then the attribute value is "Acme pens" with a footnote sign. The footnote sign is defined as: <RegistrationFoot><FootnoteRegistration/></RegistrationFoot> where the tags are:

   <RegistrationFoot> and </RegistrationFoot>: The footnote tag types. There is a start and an end tag.

   <FootnoteRegistration/>: The character tag that defines the output of the footnote text.

2. Make the calculated attribute valid for the part of the product hierarchy where you want the calculated attribute to result in table footnotes.

Horizontal Fold Table

The **Horizontal Fold Table** transformation is used to 'fold' wide tables that contain a large number of columns into a taller, vertically oriented table. Users may have a need for the Horizontal Fold Table transformation if the table is so wide that it either cannot fit within a single InDesign page column or page, or if a vertical layout is desired.

This transformation works similarly to the 'Horizontal Wrap Table' transformation (documented in the **Table Transformation: Horizontal Wrap Table** topic), as both facilitate the ability to 'fold' a wide table into multiple table sections ('folds' or 'wraps') that stack on top of one another. However, unlike the Horizontal Wrap Table transformation, a table folded using the Horizontal Fold Table transformation is folded based on a designated number of folds, not on particular column types. This transformation is also similar to the **Fold Table** transformation (documented in the **Table Transformation: Fold Table** topic), except the Fold Table transformation takes a table that is very tall and folds it over into a horizontally oriented table.

Though there are many combinations of configurations that can be applied within the transformation, the following two screenshots show a sample 'before' and 'after' of a table (as previewed within the workbench) after applying the Horizontal Fold Table transformation.

Example

Before

Definition | Preview

Select version: Acme Party Supplies/English US Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	3 in	$24.99	$14.99

After

Definition | Preview

Select version: Acme Party Supplies/English US

Part Number	Short Item Description	Size	Product Weight
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb
957416	1st Birthday Boy Paper Plates	N/A	1 lb
301897	1st Birthday Boy Party Banner	N/A	2 lb
5522886	1st Birthday Girl Cake Kit	N/A	3 lb
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb
541531	1st Birthday Girl Paper Plates	Assorted	1 lb
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb
4646416	1st Birthday Girl Tiara	One Size	2 lb
Part Number	**Short Item Description**	**Product Width**	**Product Height**
123456	1st Birthday Boy Blue Cupcake Kit	12 in	5 in
789112	1st Birthday Boy Cupcake Kit	12 in	5 in
543216	1st Birthday Boy Party Hat	4 in	8 in
957416	1st Birthday Boy Paper Plates	12 in	12 in
301897	1st Birthday Boy Party Banner	36 in	24 in
5522886	1st Birthday Girl Cake Kit	12 in	3 in
1144885	1st Birthday Girl Cupcake Kit	12 in	3 in
541531	1st Birthday Girl Paper Plates	8 in	6 in
4421255	1st Birthday Girl Party Invitation	10 in	5 in
4646416	1st Birthday Girl Tiara	8 in	3 in
Part Number	**Short Item Description**	**List Price**	**Sale Price**
123456	1st Birthday Boy Blue Cupcake Kit	9.99 $	7.99
789112	1st Birthday Boy Cupcake Kit	9.99 $	7.99
543216	1st Birthday Boy Party Hat	4.99 $	3.99
957416	1st Birthday Boy Paper Plates	5.99 $	4.99
301897	1st Birthday Boy Party Banner	12.99 $	9.99
5522886	1st Birthday Girl Cake Kit	12.99 $	9.99
1144885	1st Birthday Girl Cupcake Kit	12.99 $	9.99
541531	1st Birthday Girl Paper Plates	7.99 $	5.99
4421255	1st Birthday Girl Party Invitation	14.99 $	9.99
4646416	1st Birthday Girl Tiara	24.99 $	14.99

Prerequisites

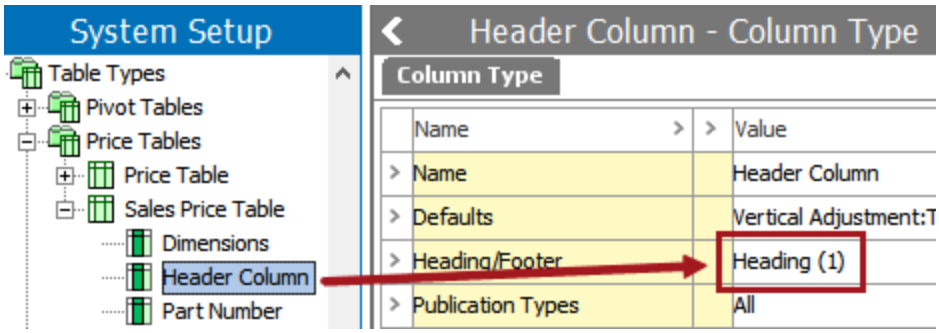
In order to take full advantage of this transformation, the table should meet these conditions:

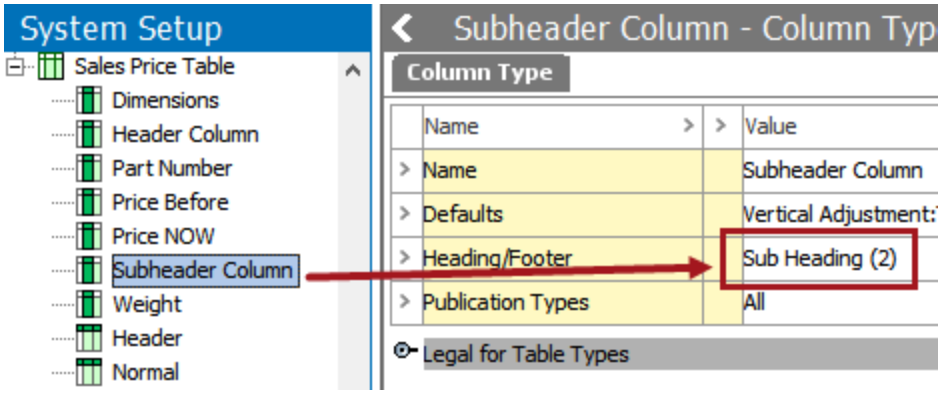
Required

- The table has a minimum of three columns

Optional

- Though not required to use the transformation, tables using the Horizontal Fold Table transformation typically use at least one column type of Heading (1) and/or Sub Heading (2).





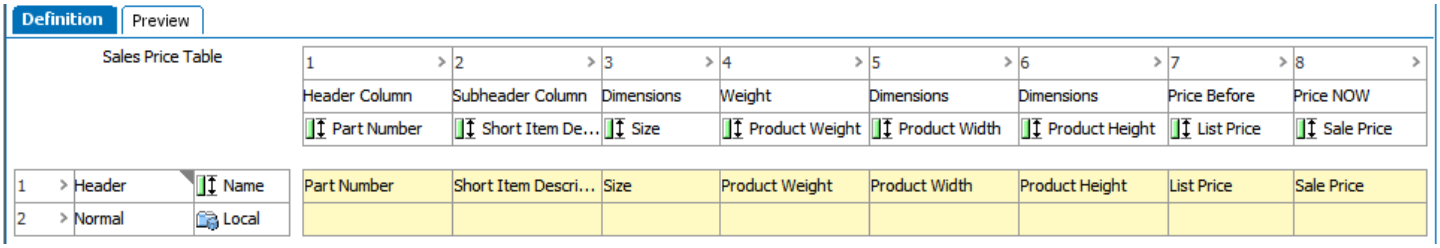
Important: Columns in the table align over the split table and space in between column is divided evenly. i.e., the width of the each column and in each fold will have the same measurement.

This topic assumes the following:

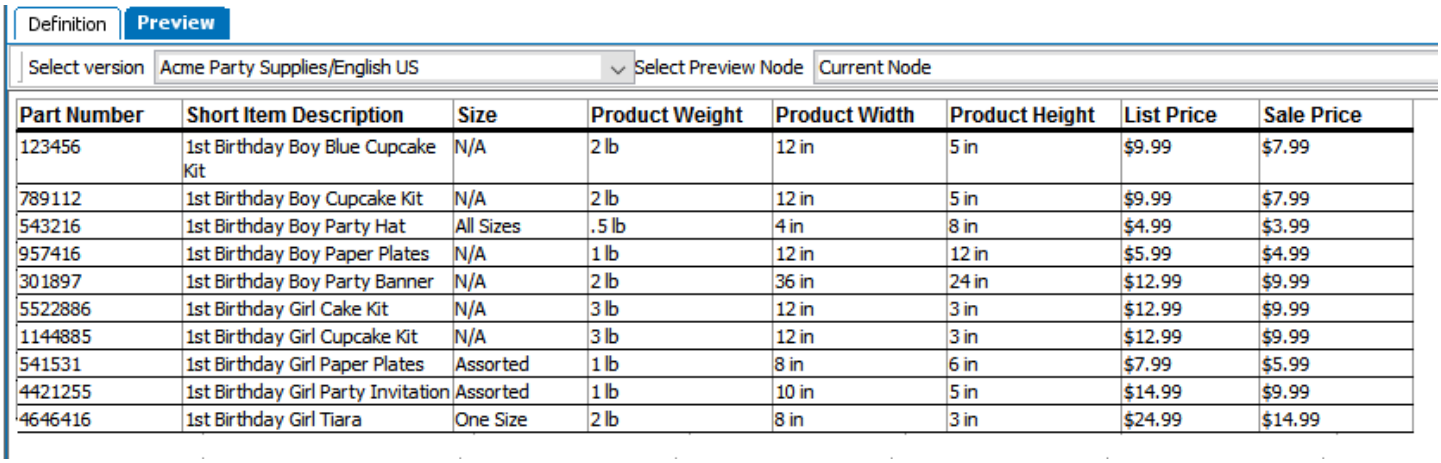
- You have already built the table to which you will be applying the Horizontal Fold Table transformation. Instructions on how to build the table itself are not provided in this topic; refer to the **Creating Tables** documentation for more information.
- You have already designated which columns should be used as the header(s) and/or subheader(s). This topic does not describe how to designate columns as such; for information, refer to the **Creating Column Types** topic.

Applying and Configuring the Horizontal Fold Table Transformation

For this topic, the example table has eight columns, two of which are headers (a header column and subheader column), and the remainder of which are 'Normal Row' columns. (Even though the setting is Normal 'Row,' this setting applies to both rows and columns and means that the column / row is not used as a header, a subheader, or a footnote column / row.)



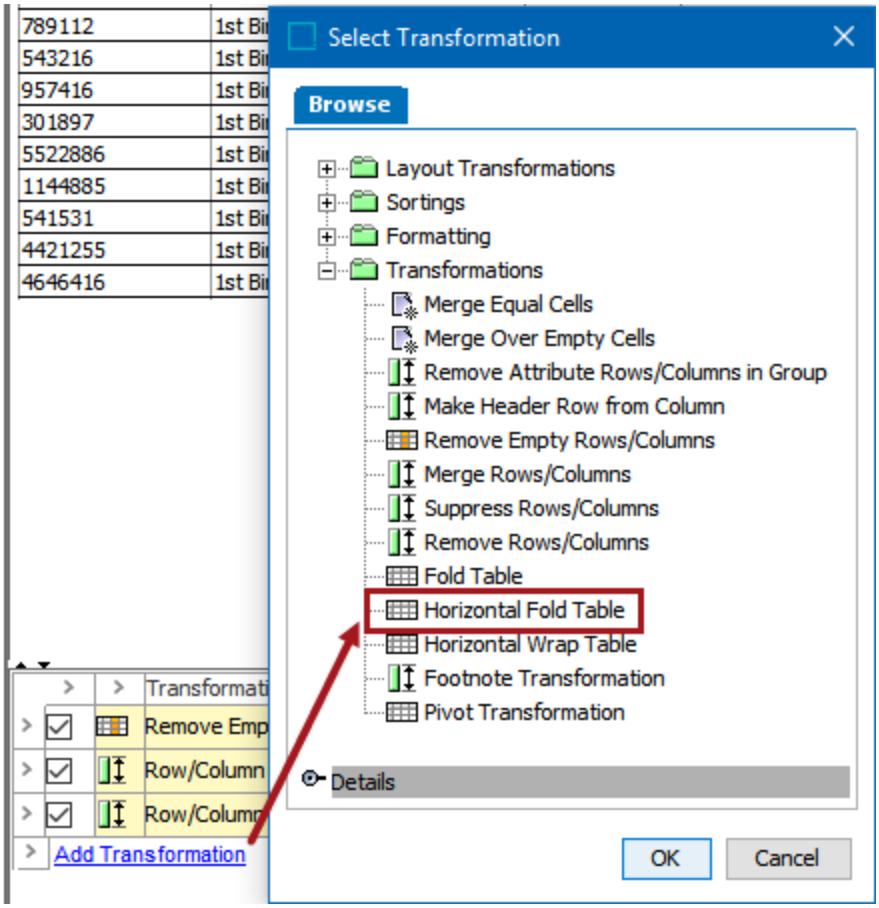
The Preview of the table looks like this before any transformations are applied:



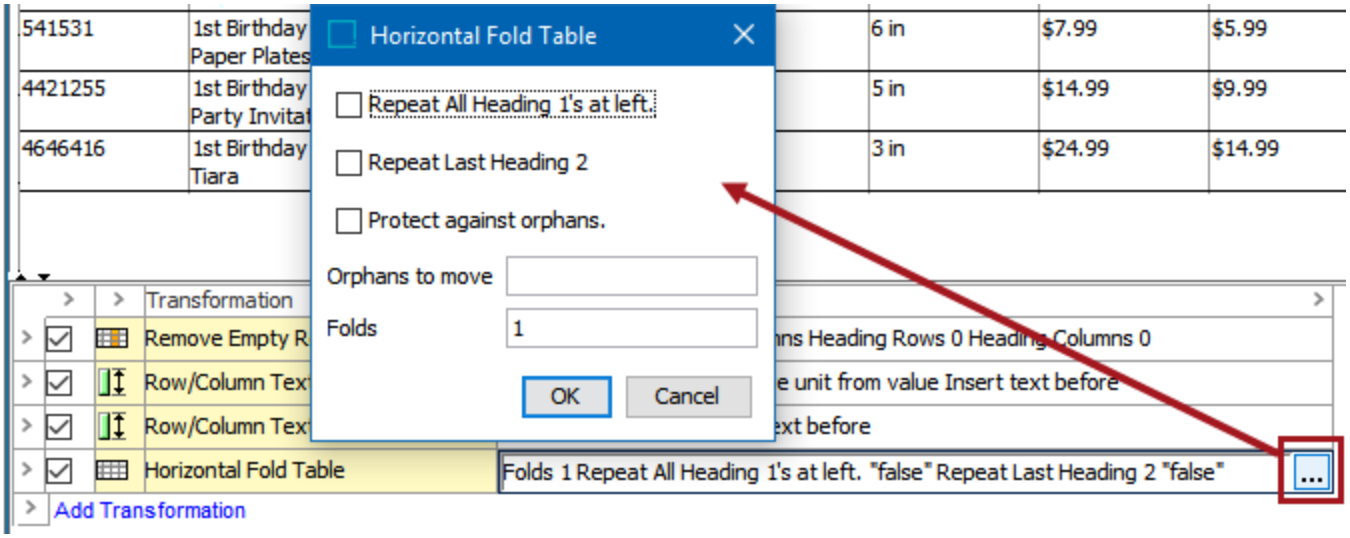
Part Number	Short Item Description	Size	Product Weight	Product Width	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	3 in	$24.99	$14.99

To apply the Horizontal Fold Table transformation:

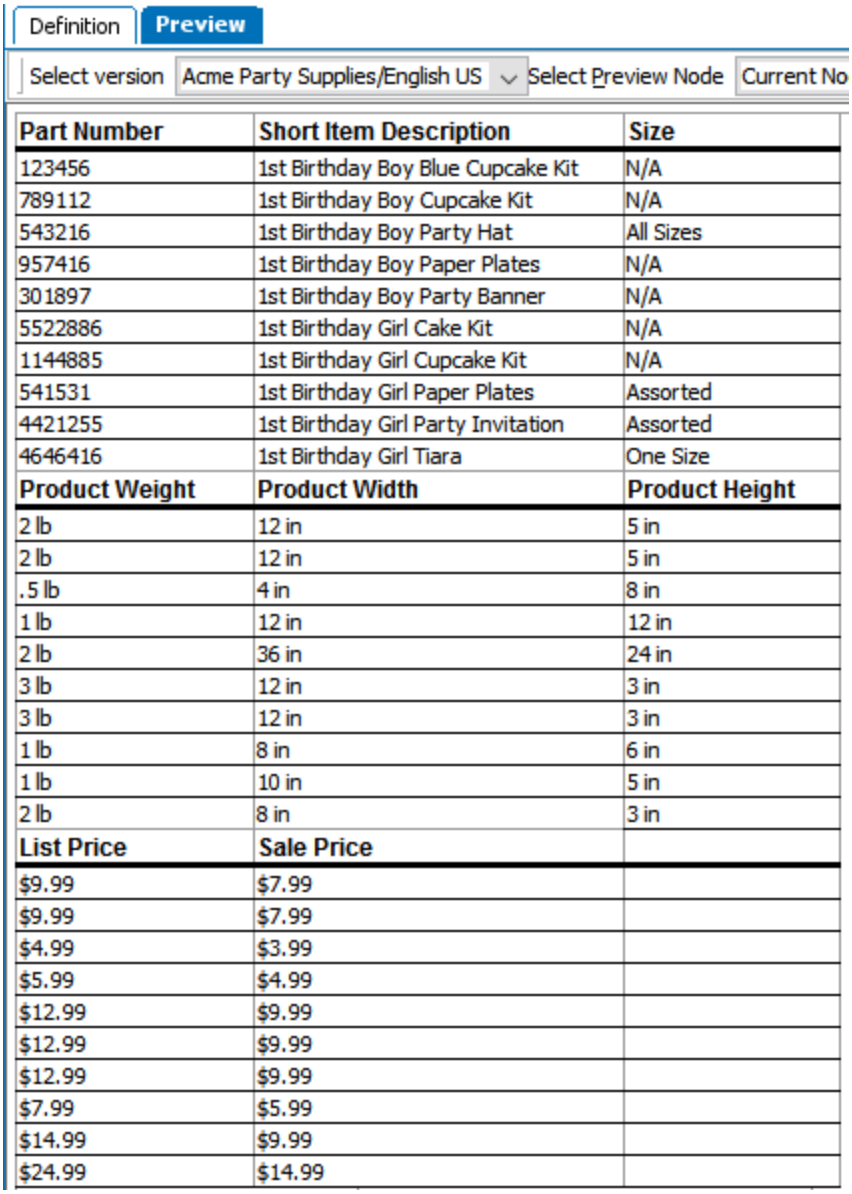
1. In the Tree, navigate to the product, classification, or product-override object that contains the table to which you would like to apply the transformation, then click the **Tables** tab.
2. Select the table type to which you would like to apply the transformation, then click the **Preview** tab.
3. Beneath the table preview, click 'Add Transformation' to display the **Select Transformation** dialog.
4. Select the **Horizontal Fold Table** transformation, then click **OK** to apply the transformation.



5. Next, the transformation itself must be configured. Click the ellipsis button (...) on the transformation to launch the **Horizontal Fold Table** configuration dialog.

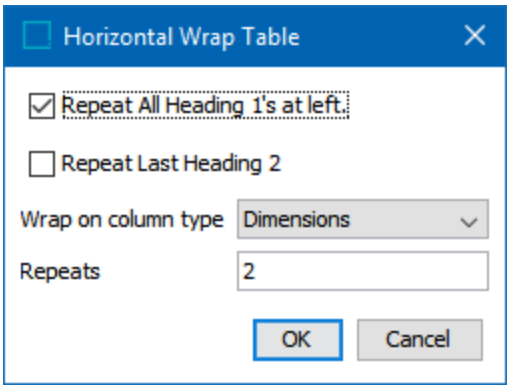


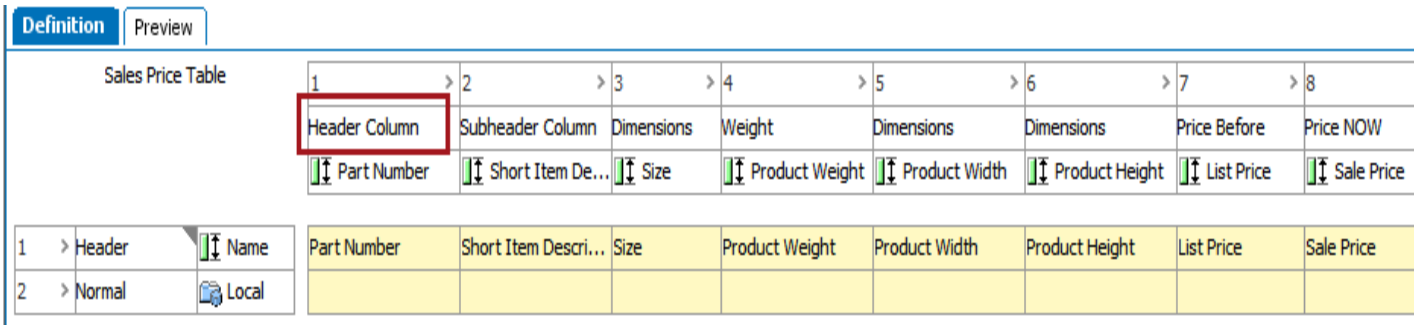
6. The options within the Horizontal Wrap Table transformation dialog and their functions are as follows. The options are described in the logical order in which they are typically selected.
   - **Folds:** In the Folds field, enter a number to designate how many times the table should be folded. The following screenshot shows a preview of the table with (3) entered in this field.

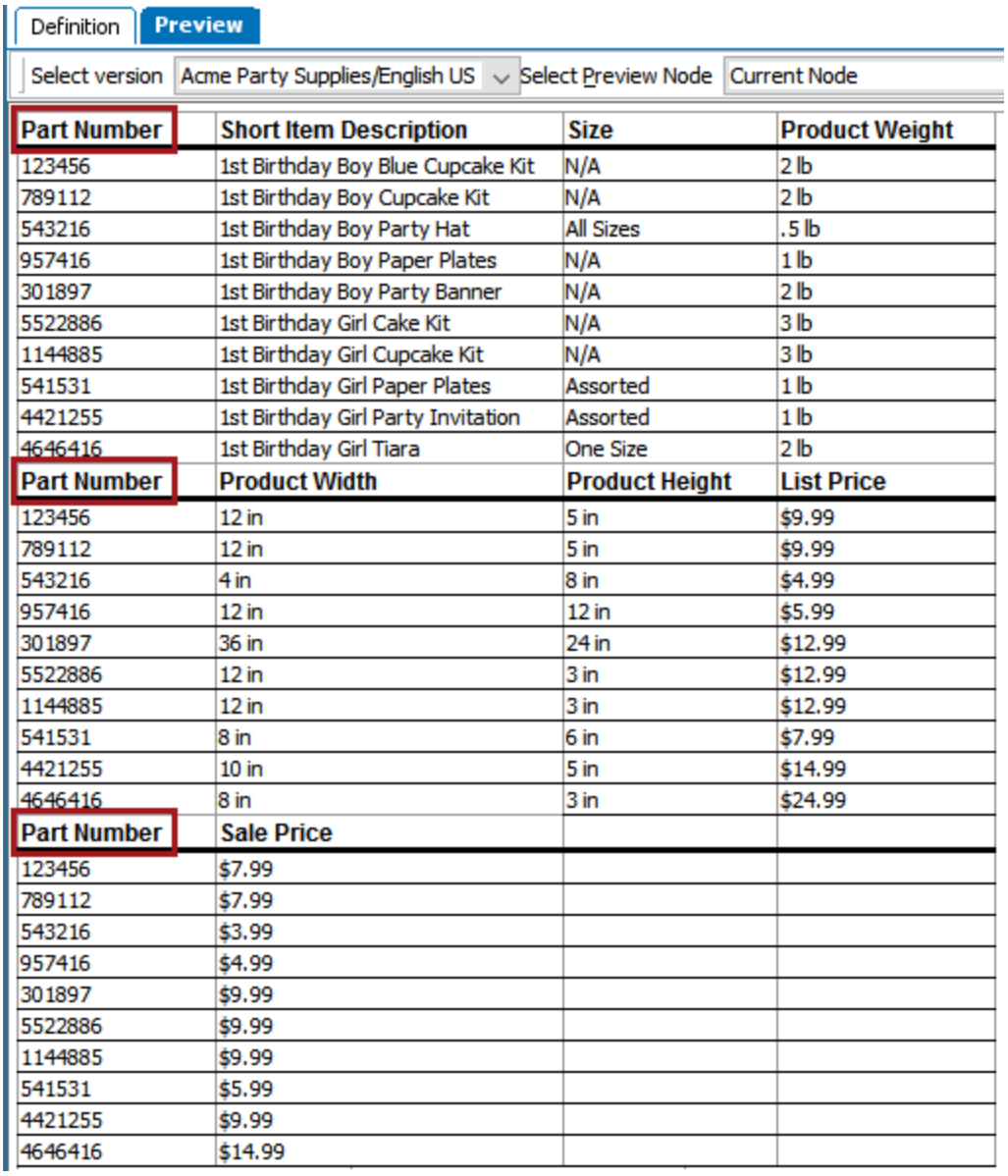


Part Number	Short Item Description	Size
123456	1st Birthday Boy Blue Cupcake Kit	N/A
789112	1st Birthday Boy Cupcake Kit	N/A
543216	1st Birthday Boy Party Hat	All Sizes
957416	1st Birthday Boy Paper Plates	N/A
301897	1st Birthday Boy Party Banner	N/A
5522886	1st Birthday Girl Cake Kit	N/A
1144885	1st Birthday Girl Cupcake Kit	N/A
541531	1st Birthday Girl Paper Plates	Assorted
4421255	1st Birthday Girl Party Invitation	Assorted
4646416	1st Birthday Girl Tiara	One Size
Product Weight	**Product Width**	**Product Height**
2 lb	12 in	5 in
2 lb	12 in	5 in
.5 lb	4 in	8 in
1 lb	12 in	12 in
2 lb	36 in	24 in
3 lb	12 in	3 in
3 lb	12 in	3 in
1 lb	8 in	6 in
1 lb	10 in	5 in
2 lb	8 in	3 in
List Price	**Sale Price**	
$9.99	$7.99	
$9.99	$7.99	
$4.99	$3.99	
$5.99	$4.99	
$12.99	$9.99	
$12.99	$9.99	
$12.99	$9.99	
$7.99	$5.99	
$14.99	$9.99	
$24.99	$14.99	

   - **Repeat All Heading 1's at left.:** Check this box to repeat all Heading (1) columns at the beginning of each wrap. The below example shows how this table looks with the settings configured as follows:


Horizontal Wrap Table
Repeat All Heading 1's at left.
Repeat Last Heading 2
Wrap on column type
Dimensions
Repeats
2
OK
Cancel


Definition
Preview
Sales Price Table
1
2
3
4
5
6
7
8
Header Column
Subheader Column
Dimensions
Weight
Dimensions
Dimensions
Price Before
Price NOW
Part Number
Short Item De...
Size
Product Weight
Product Width
Product Height
List Price
Sale Price
1
Header
Name
2
Normal
Local
Part Number
Short Item Descri...
Size
Product Weight
Product Width
Product Height
List Price
Sale Price



Definition | Preview

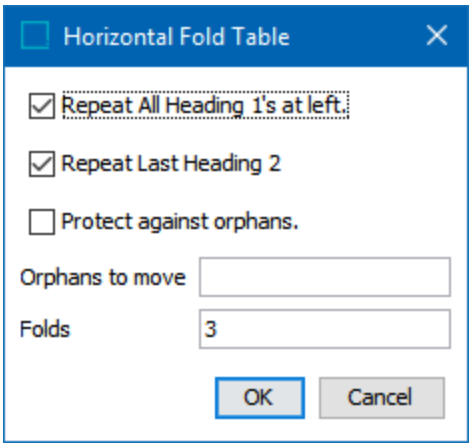
Select version: Acme Party Supplies/English US | Select Preview Node: Current Node

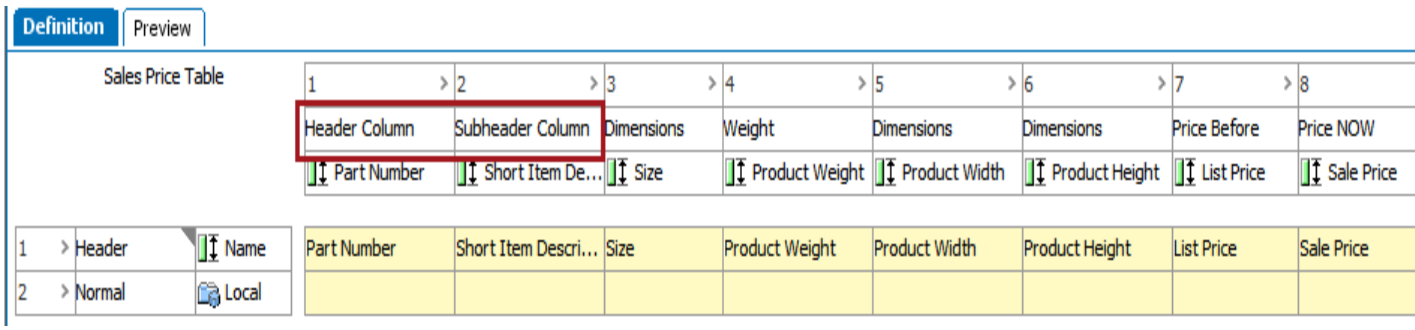
Part Number	Short Item Description	Size	Product Weight
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb
957416	1st Birthday Boy Paper Plates	N/A	1 lb
301897	1st Birthday Boy Party Banner	N/A	2 lb
5522886	1st Birthday Girl Cake Kit	N/A	3 lb
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb
541531	1st Birthday Girl Paper Plates	Assorted	1 lb
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb
4646416	1st Birthday Girl Tiara	One Size	2 lb

Part Number	Product Width	Product Height	List Price
123456	12 in	5 in	$9.99
789112	12 in	5 in	$9.99
543216	4 in	8 in	$4.99
957416	12 in	12 in	$5.99
301897	36 in	24 in	$12.99
5522886	12 in	3 in	$12.99
1144885	12 in	3 in	$12.99
541531	8 in	6 in	$7.99
4421255	10 in	5 in	$14.99
4646416	8 in	3 in	$24.99

Part Number	Sale Price
123456	$7.99
789112	$7.99
543216	$3.99
957416	$4.99
301897	$9.99
5522886	$9.99
1144885	$9.99
541531	$5.99
4421255	$9.99
4646416	$14.99

- **Repeat Last Heading 2:** Check this box to repeat the last subheader column at the beginning of each wrap. A typical setup includes only one header and one subheader column. The below example shows how this table looks with the settings configured as follows:


Horizontal Fold Table
Repeat All Heading 1's at left.
Repeat Last Heading 2
Protect against orphans.
Orphans to move
Folds
3
OK
Cancel


Definition
Preview
Sales Price Table
1
2
3
4
5
6
7
8
Header Column
Subheader Column
Dimensions
Weight
Dimensions
Dimensions
Price Before
Price NOW
Part Number
Short Item De...
Size
Product Weight
Product Width
Product Height
List Price
Sale Price
1
Header
Name
2
Normal
Local
Part Number
Short Item Descri...
Size
Product Weight
Product Width
Product Height
List Price
Sale Price

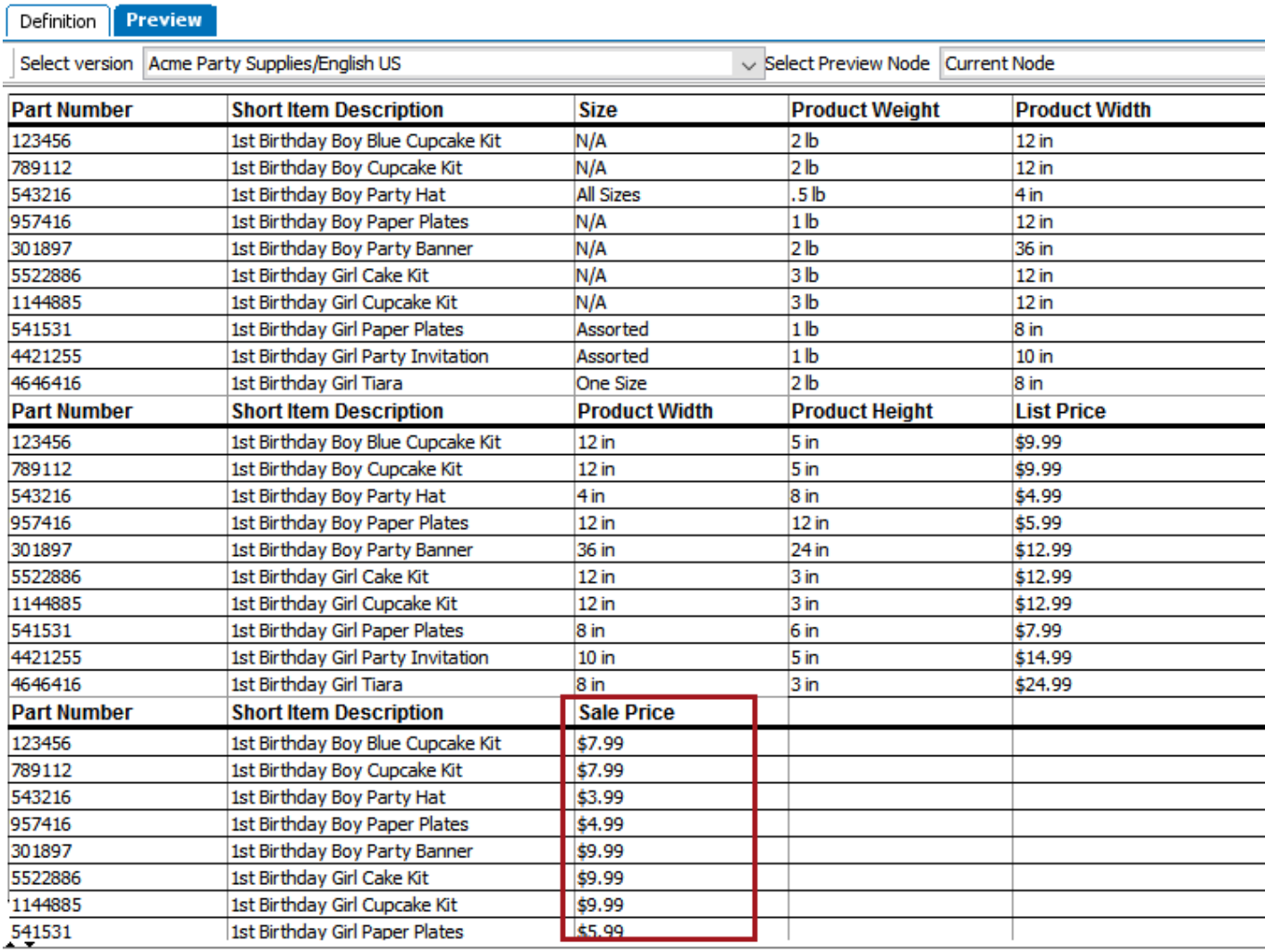
Definition | Preview

Select version: Acme Party Supplies/English US | Select Previ

Part Number	Short Item Description	Size	Product Weight
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb
957416	1st Birthday Boy Paper Plates	N/A	1 lb
301897	1st Birthday Boy Party Banner	N/A	2 lb
5522886	1st Birthday Girl Cake Kit	N/A	3 lb
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb
541531	1st Birthday Girl Paper Plates	Assorted	1 lb
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb
4646416	1st Birthday Girl Tiara	One Size	2 lb
Part Number	**Short Item Description**	**Product Width**	**Product Height**
123456	1st Birthday Boy Blue Cupcake Kit	12 in	5 in
789112	1st Birthday Boy Cupcake Kit	12 in	5 in
543216	1st Birthday Boy Party Hat	4 in	8 in
957416	1st Birthday Boy Paper Plates	12 in	12 in
301897	1st Birthday Boy Party Banner	36 in	24 in
5522886	1st Birthday Girl Cake Kit	12 in	3 in
1144885	1st Birthday Girl Cupcake Kit	12 in	3 in
541531	1st Birthday Girl Paper Plates	8 in	6 in
4421255	1st Birthday Girl Party Invitation	10 in	5 in
4646416	1st Birthday Girl Tiara	8 in	3 in
Part Number	**Short Item Description**	**List Price**	**Sale Price**
123456	1st Birthday Boy Blue Cupcake Kit	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	$9.99	$7.99
543216	1st Birthday Boy Party Hat	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	$5.99	$4.99
301897	1st Birthday Boy Party Banner	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	$14.99	$9.99
4646416	1st Birthday Girl Tiara	$24.99	$14.99

- **Protect against orphans.** and **Orphans to Move:** 'Orphan' is a typographical term that refers to a paragraph-opening line that appears by itself at the bottom of a page or column, thus separated from the rest of the text. The same concept applies to 'orphaned' columns in folded tables.

  Sometimes a 'Normal' (non-header) column can end up by itself on a fold when the headers are repeated, causing it to be 'orphaned,' as such:



Definition | Preview

Select version: Acme Party Supplies/English US | Select Preview Node: Current Node

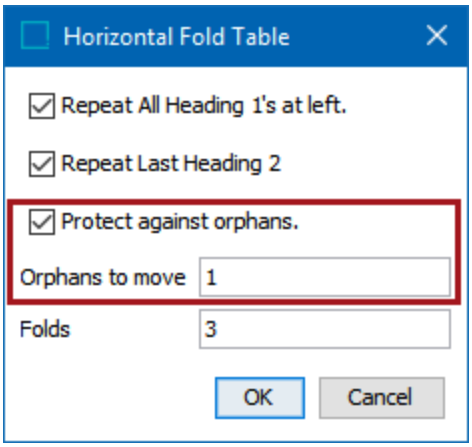
Part Number	Short Item Description	Size	Product Weight	Product Width
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in

Part Number	Short Item Description	Product Width	Product Height	List Price
123456	1st Birthday Boy Blue Cupcake Kit	12 in	5 in	$9.99
789112	1st Birthday Boy Cupcake Kit	12 in	5 in	$9.99
543216	1st Birthday Boy Party Hat	4 in	8 in	$4.99
957416	1st Birthday Boy Paper Plates	12 in	12 in	$5.99
301897	1st Birthday Boy Party Banner	36 in	24 in	$12.99
5522886	1st Birthday Girl Cake Kit	12 in	3 in	$12.99
1144885	1st Birthday Girl Cupcake Kit	12 in	3 in	$12.99
541531	1st Birthday Girl Paper Plates	8 in	6 in	$7.99
4421255	1st Birthday Girl Party Invitation	10 in	5 in	$14.99
4646416	1st Birthday Girl Tiara	8 in	3 in	$24.99

Part Number	Short Item Description	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	$7.99
789112	1st Birthday Boy Cupcake Kit	$7.99
543216	1st Birthday Boy Party Hat	$3.99
957416	1st Birthday Boy Paper Plates	$4.99
301897	1st Birthday Boy Party Banner	$9.99
5522886	1st Birthday Girl Cake Kit	$9.99
1144885	1st Birthday Girl Cupcake Kit	$9.99
541531	1st Birthday Girl Paper Plates	$5.99

Note: Number of folds takes precedence over orphan protection, so this option is more of a 'protect if possible' option. In addition, this option only works when Sub Heading (2) columns are repeated; it will not work if only Heading (1) level columns are repeated.

For the table pictured in the previous screenshot, ticking 'protect against orphans' will move the orphaned column (Sale Price) up to the previous fold so it is no longer by itself. For this configuration, (1) has been entered for **Orphans to move**.



The 'orphan' Sale Price column is now moved to the previous fold:

Definition | Preview

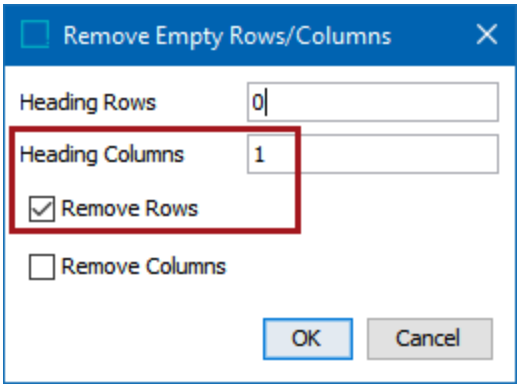
Select version: Acme Party Supplies/English US | Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width	
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	
Part Number	**Short Item Description**	**Product Width**	**Product Height**	**List Price**	**Sale Price**
123456	1st Birthday Boy Blue Cupcake Kit	12 in	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	12 in	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	4 in	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	12 in	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	36 in	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	12 in	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	12 in	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	8 in	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	10 in	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	8 in	3 in	$24.99	$14.99
Part Number					
123456					
789112					
543216					
957416					
301897					
5522886					
1144885					
541531					

Orphaned Header Columns

As illustrated in the preceding section, moving an orphaned 'Normal' column can sometimes create an orphaned header. In this example, it is the 'Part Number' Heading (1) column that has been orphaned and now appears by itself on the last fold. Removing it will require a separate table transformation. (It is not unusual, however, to have multiple transformations stacked on one another, as this is common with tables in order to manipulate them to their final form.)

To remove this 'empty' header, the 'Remove Empty Rows/Columns' transformation must be added after the Horizontal Fold Table transformation. Full instructions on how to configure this transformation are described in the **Table Transformation: Remove Empty Rows/Columns** topic. But, to illustrate the configuration for this example, a value of '1' is entered in the 'Heading Columns' field and the 'Remove Rows' box is checked.



The table now looks like this:

Definition | **Preview**

Select version: Acme Party Supplies/English US | Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width	
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	

Part Number	Short Item Description	Product Width	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	12 in	5 in	9.99 $	7.99
789112	1st Birthday Boy Cupcake Kit	12 in	5 in	9.99 $	7.99
543216	1st Birthday Boy Party Hat	4 in	8 in	4.99 $	3.99
957416	1st Birthday Boy Paper Plates	12 in	12 in	5.99 $	4.99
301897	1st Birthday Boy Party Banner	36 in	24 in	12.99 $	9.99
5522886	1st Birthday Girl Cake Kit	12 in	3 in	12.99 $	9.99
1144885	1st Birthday Girl Cupcake Kit	12 in	3 in	12.99 $	9.99
541531	1st Birthday Girl Paper Plates	8 in	6 in	7.99 $	5.99
4421255	1st Birthday Girl Party Invitation	10 in	5 in	14.99 $	9.99
4646416	1st Birthday Girl Tiara	8 in	3 in	24.99 $	14.99

Horizontal Wrap Table

The **Horizontal Wrap Table** transformation is used to 'wrap' wide tables that contain a large number of columns into a taller, vertically oriented table. Users may have a need for the Horizontal Wrap Table transformation if the table is so wide that it either cannot fit within a single InDesign page column or page, or if a vertical layout is desired.

This transformation works similarly to the 'Horizontal Fold Table' transformation (documented in the **Table Transformation: Horizontal Fold Table** topic), as both facilitate the ability to 'fold' a wide table into multiple table sections ('folds' or 'wraps') that stack on top of one another. However, unlike the Horizontal Fold Table transformation, a table folded using the Horizontal Wrap Table transformation is not folded based on a designated number of folds, but rather on particular column *types*, providing control over where these particular column types land within the folds.

Though there are many combinations of configurations that can be applied within the transformation, the following two screenshots show a sample 'before' and 'after' of a table (as previewed within the workbench) after applying the Horizontal Wrap Table transformation.

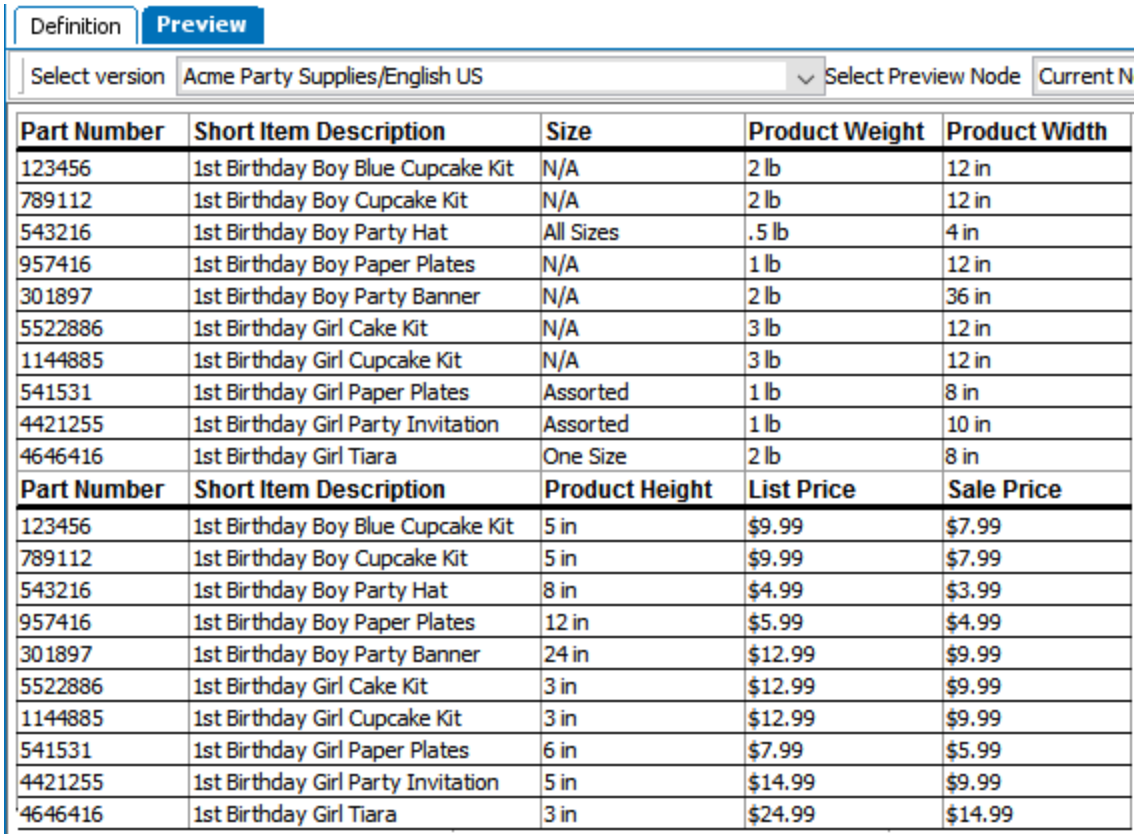
Before:

Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	3 in	$24.99	$14.99

After:



Definition | Preview

Select version: Acme Party Supplies/English US | Select Preview Node: Current N

Part Number	Short Item Description	Size	Product Weight	Product Width
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in

Part Number	Short Item Description	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	3 in	$24.99	$14.99

Preconditions

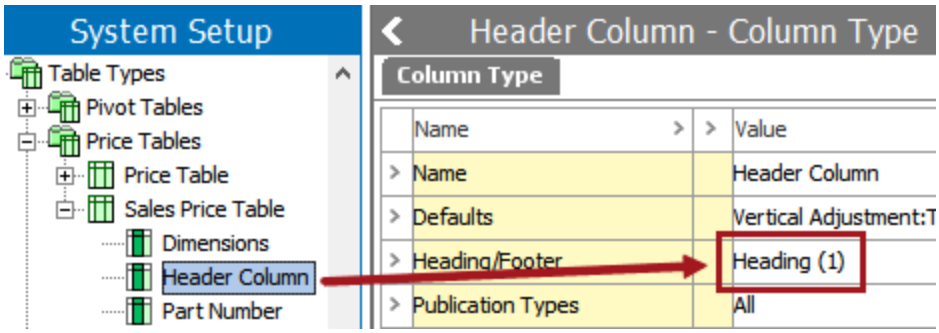
In order to take full advantage of this transformation, the table should meet these conditions:

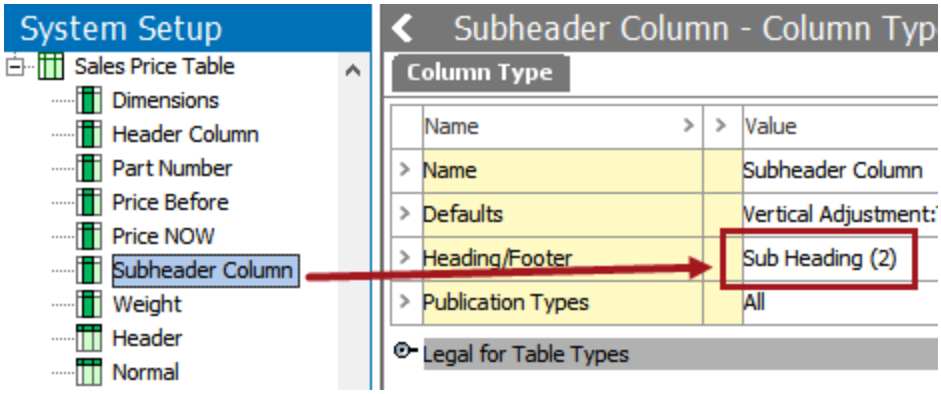
Required:

- The table has a minimum of three columns
- The table uses the same column type in at least two places within the table. This is the column type on which the table will be wrapped and must be a column type of 'Normal Row.'

Optional:

- Though not required to use the transformation, tables using the Horizontal Wrap Table transformation typically use at least one column type of Heading (1) and/or Sub Heading (2).



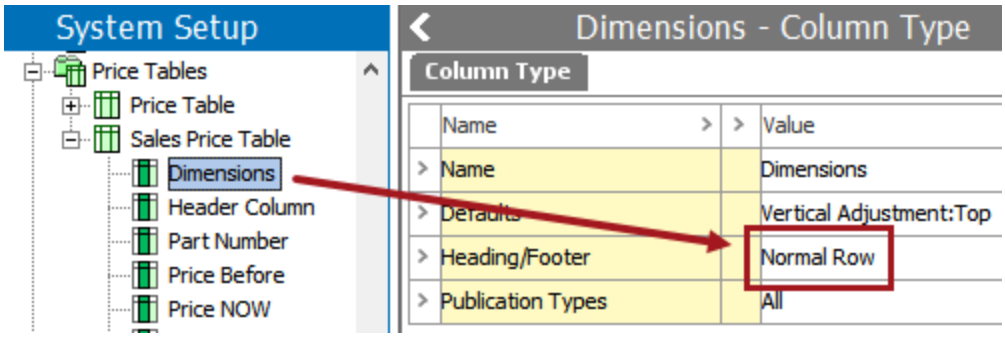


This topic assumes the following:

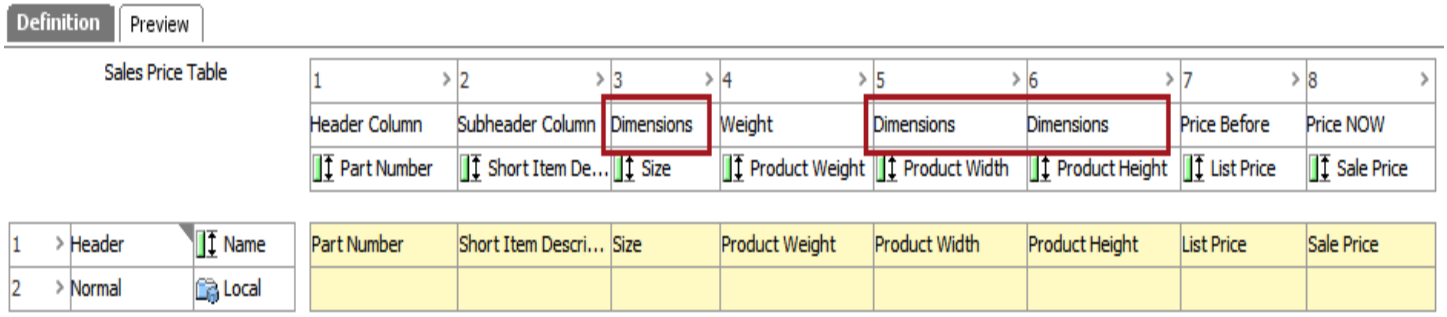
- You have already built the table to which you will be applying the Horizontal Wrap Table transformation. Instructions on how to build the table itself are not provided in this topic; refer to the **Creating Tables** documentation for more information.
- You have already designated which columns should be used as the header(s) and/or subheader(s). This topic does not describe how to designate columns as such; for information, refer to the **Creating Column Types** topic.

Applying and Configuring the Horizontal Wrap Table Transformation

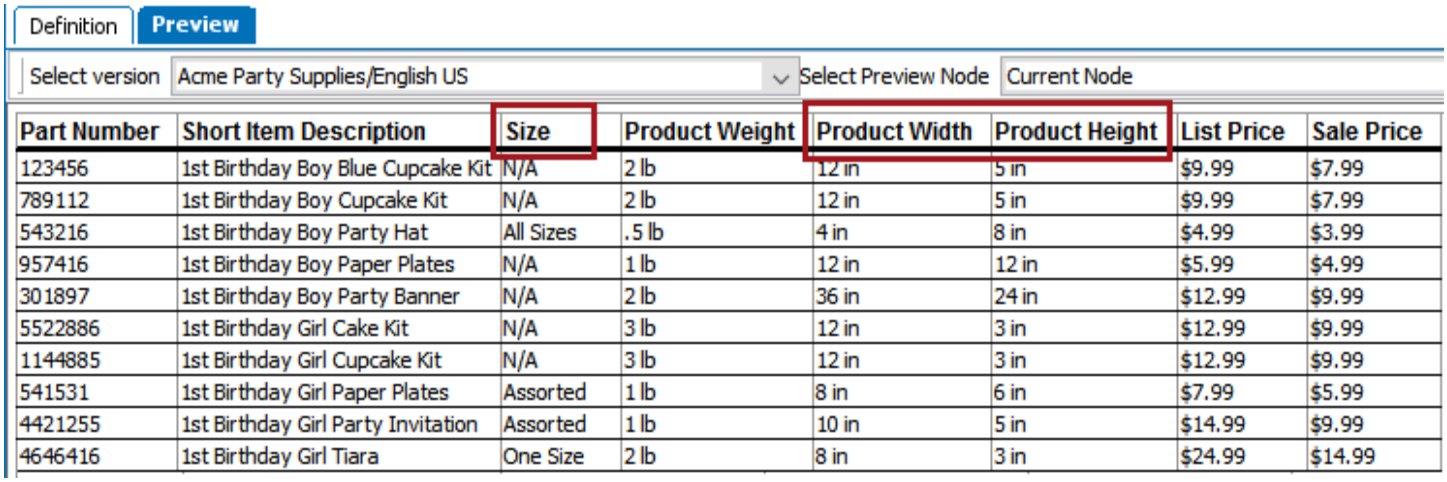
For this topic, the example table has eight columns, which includes the repeating column type of 'Dimensions.' The Dimensions column is a 'Normal Row' column. (Even though the setting is Normal 'Row,' this setting applies to both rows and columns and means that the column / row is not used as a header, a subheader, or a footnote column / row.)



The 'Dimensions' column type is used in three places in the table. The attributes used for the 'Dimensions' column are Size, Product Width, and Product Height.



Before applying the transformation, the table looks like this in the **Preview** view (Dimensions columns types are outlined):

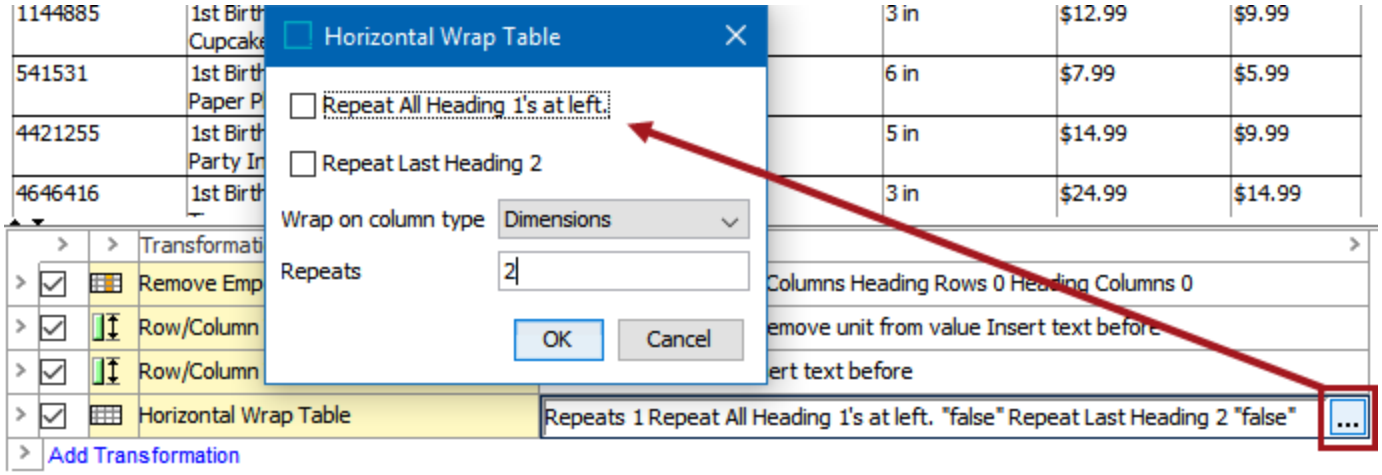


Part Number	Short Item Description	Size	Product Weight	Product Width	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in	3 in	$24.99	$14.99

To apply the Horizontal Wrap Table transformation:

1. In the Tree, navigate to the product, classification, or product-override object that contains the table to which you would like to apply the transformation, then click the **Tables** tab.
2. Select the table type to which you would like to apply the transformation, then click the **Preview** tab.

3. Beneath the table preview, click 'Add Transformation' to display the **Select Transformation** dialog.
4. Select the **Horizontal Wrap Table** transformation, then click **OK** to apply the transformation.
5. Next, the transformation itself must be configured. Click the ellipsis button (...) on the transformation to launch the **Horizontal Wrap Table** configuration dialog.



6. The options on the Horizontal Wrap Table and their functions are as follows. The options are described in the logical order in which they are typically applied.
   - **Wrap on column type:** Select the column type on which the table should be wrapped. This is a dropdown list that contains all column types used in the table. For the example table in this topic, the Dimensions column type is used.
   - **Repeats:** Enter the number of times the chosen 'wrap on' column type should appear in each wrap (fold) of the table. If (1) is entered, one 'Dimensions' column will appear on each table wrap:

Definition | Preview

Select version: Acme Party Supplies/English US

Part Number	Short Item Description	Size	Product Weight
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb
957416	1st Birthday Boy Paper Plates	N/A	1 lb
301897	1st Birthday Boy Party Banner	N/A	2 lb
5522886	1st Birthday Girl Cake Kit	N/A	3 lb
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb
541531	1st Birthday Girl Paper Plates	Assorted	1 lb
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb
4646416	1st Birthday Girl Tiara	One Size	2 lb

Product Width
12 in
12 in
4 in
12 in
36 in
12 in
12 in
8 in
10 in
8 in

Product Height	List Price	Sale Price
5 in	$9.99	$7.99
5 in	$9.99	$7.99
8 in	$4.99	$3.99
12 in	$5.99	$4.99
24 in	$12.99	$9.99
3 in	$12.99	$9.99
3 in	$12.99	$9.99
6 in	$7.99	$5.99
5 in	$14.99	$9.99
3 in	$24.99	$14.99

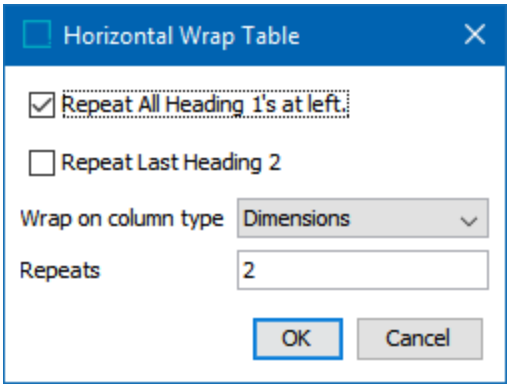
If (2) is entered, there will be two Dimensions columns on each 'wrap.' (Only one Dimensions column appears on the second wrap in this example since there are only three Dimensions columns in the table.)

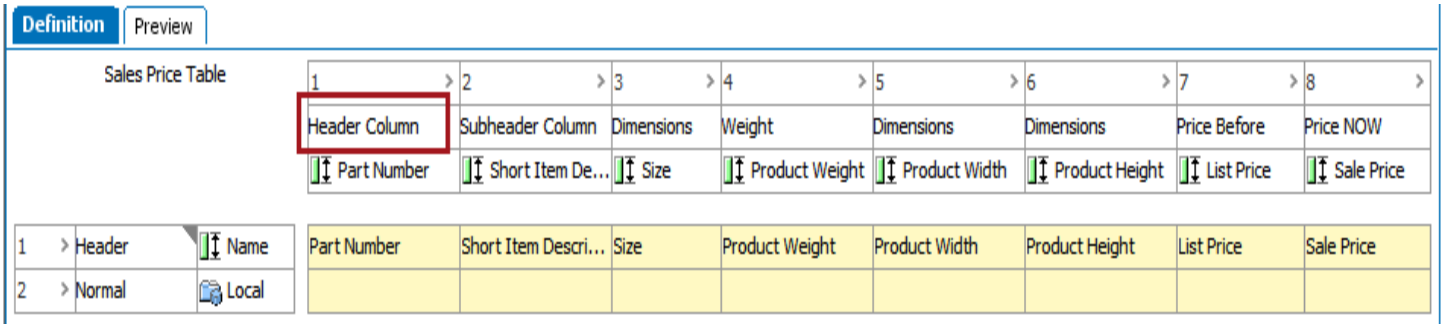
Definition | Preview

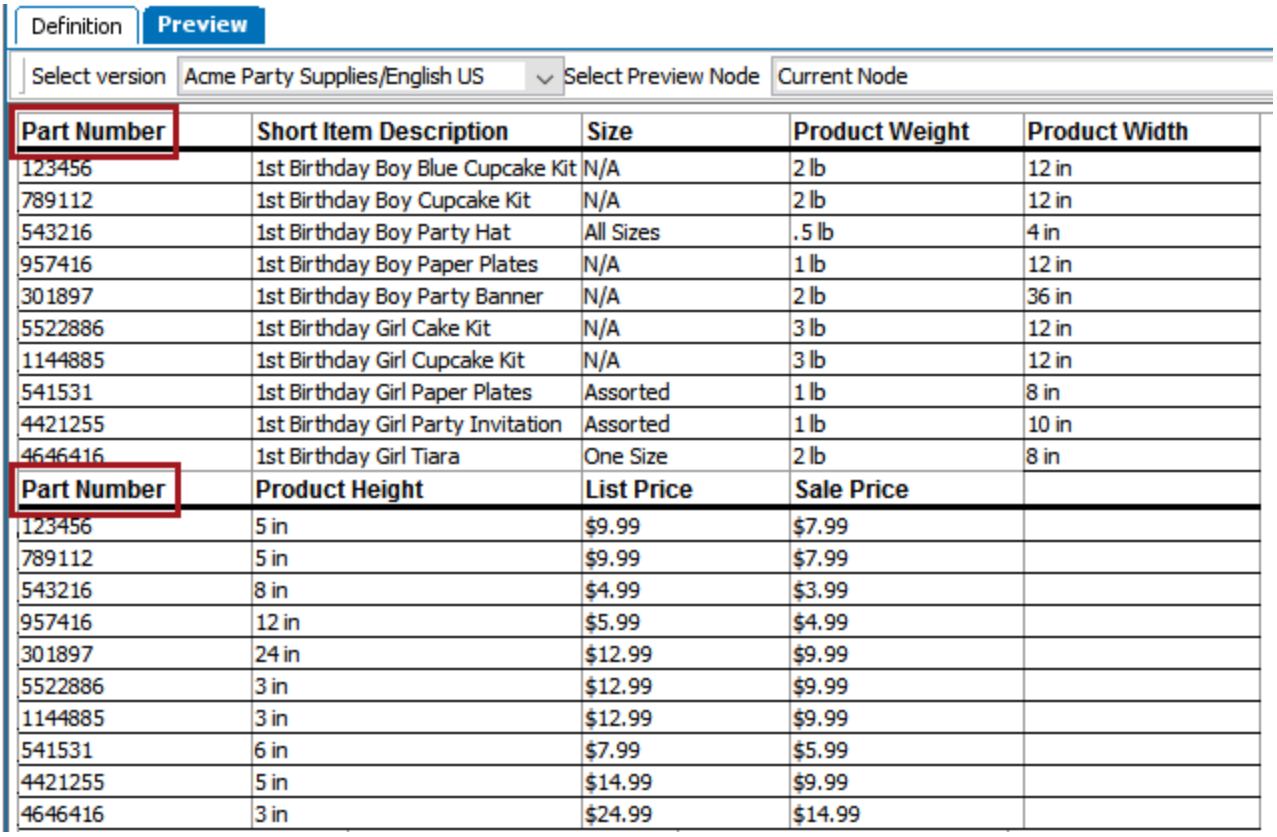
Select version: Acme Party Supplies/English US | Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in
Product Height	**List Price**	**Sale Price**		
5 in	$9.99	$7.99		
5 in	$9.99	$7.99		
8 in	$4.99	$3.99		
12 in	$5.99	$4.99		
24 in	$12.99	$9.99		
3 in	$12.99	$9.99		
3 in	$12.99	$9.99		
6 in	$7.99	$5.99		
5 in	$14.99	$9.99		
3 in	$24.99	$14.99		

- **Repeat All Heading 1's at left.:** Check this box to repeat all Heading (1) columns at the beginning of each wrap. The below example shows how this table looks with the settings configured as follows:



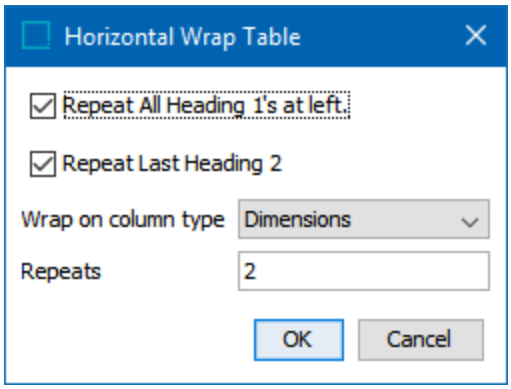


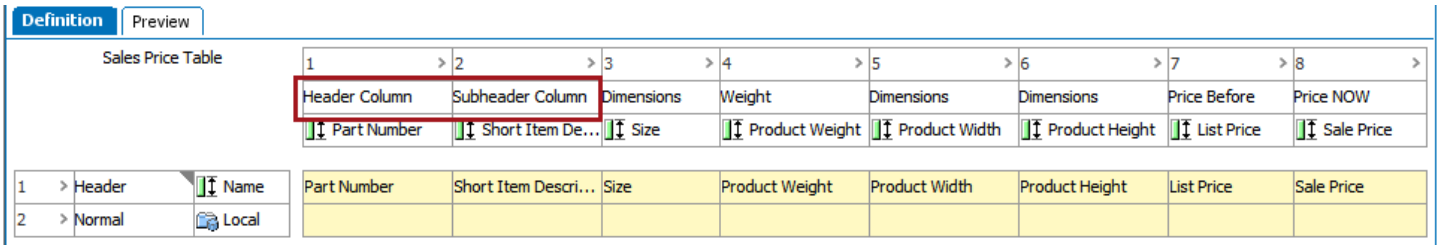


Part Number	Short Item Description	Size	Product Weight	Product Width
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in

Part Number	Product Height	List Price	Sale Price	
123456	5 in	$9.99	$7.99	
789112	5 in	$9.99	$7.99	
543216	8 in	$4.99	$3.99	
957416	12 in	$5.99	$4.99	
301897	24 in	$12.99	$9.99	
5522886	3 in	$12.99	$9.99	
1144885	3 in	$12.99	$9.99	
541531	6 in	$7.99	$5.99	
4421255	5 in	$14.99	$9.99	
4646416	3 in	$24.99	$14.99	

- **Repeat Last Heading 2:** Check this box to repeat the last subheader column at the beginning of each wrap. A typical setup includes only one header and one subheader column. The below example shows how this table looks with the settings configured as follows:





Definition **Preview**

Select version: Acme Party Supplies/English US — Select Preview Node: Current Node

Part Number	Short Item Description	Size	Product Weight	Product Width
123456	1st Birthday Boy Blue Cupcake Kit	N/A	2 lb	12 in
789112	1st Birthday Boy Cupcake Kit	N/A	2 lb	12 in
543216	1st Birthday Boy Party Hat	All Sizes	.5 lb	4 in
957416	1st Birthday Boy Paper Plates	N/A	1 lb	12 in
301897	1st Birthday Boy Party Banner	N/A	2 lb	36 in
5522886	1st Birthday Girl Cake Kit	N/A	3 lb	12 in
1144885	1st Birthday Girl Cupcake Kit	N/A	3 lb	12 in
541531	1st Birthday Girl Paper Plates	Assorted	1 lb	8 in
4421255	1st Birthday Girl Party Invitation	Assorted	1 lb	10 in
4646416	1st Birthday Girl Tiara	One Size	2 lb	8 in

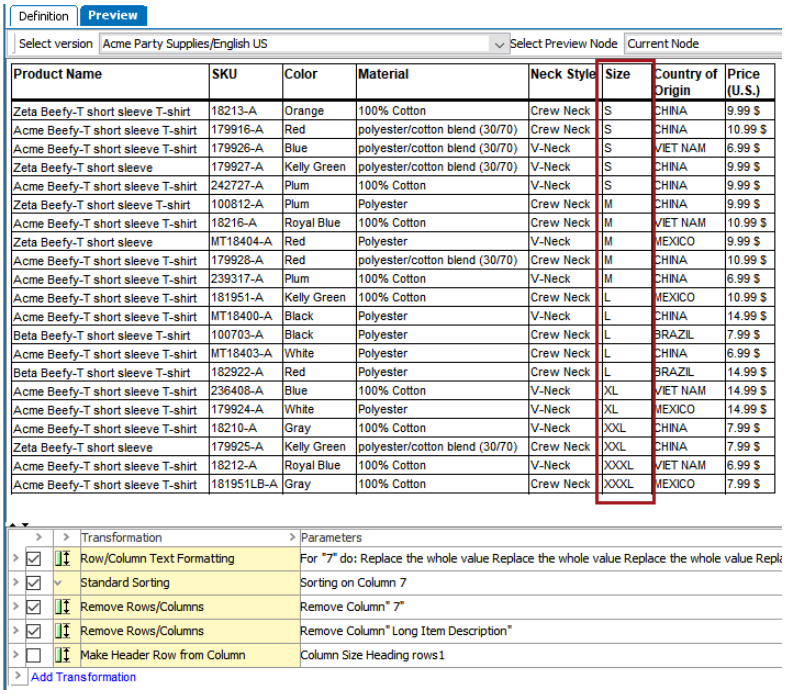
Part Number	Short Item Description	Product Height	List Price	Sale Price
123456	1st Birthday Boy Blue Cupcake Kit	5 in	$9.99	$7.99
789112	1st Birthday Boy Cupcake Kit	5 in	$9.99	$7.99
543216	1st Birthday Boy Party Hat	8 in	$4.99	$3.99
957416	1st Birthday Boy Paper Plates	12 in	$5.99	$4.99
301897	1st Birthday Boy Party Banner	24 in	$12.99	$9.99
5522886	1st Birthday Girl Cake Kit	3 in	$12.99	$9.99
1144885	1st Birthday Girl Cupcake Kit	3 in	$12.99	$9.99
541531	1st Birthday Girl Paper Plates	6 in	$7.99	$5.99
4421255	1st Birthday Girl Party Invitation	5 in	$14.99	$9.99
4646416	1st Birthday Girl Tiara	3 in	$24.99	$14.99

Make Header Row from Column

The **Make Header Row from Column** transformation enables you to transform the contents of a selected column to header rows. This is useful, for example, if you want to save space or enhance readability by removing a column, and instead have the contents of that column display as header rows in the table.

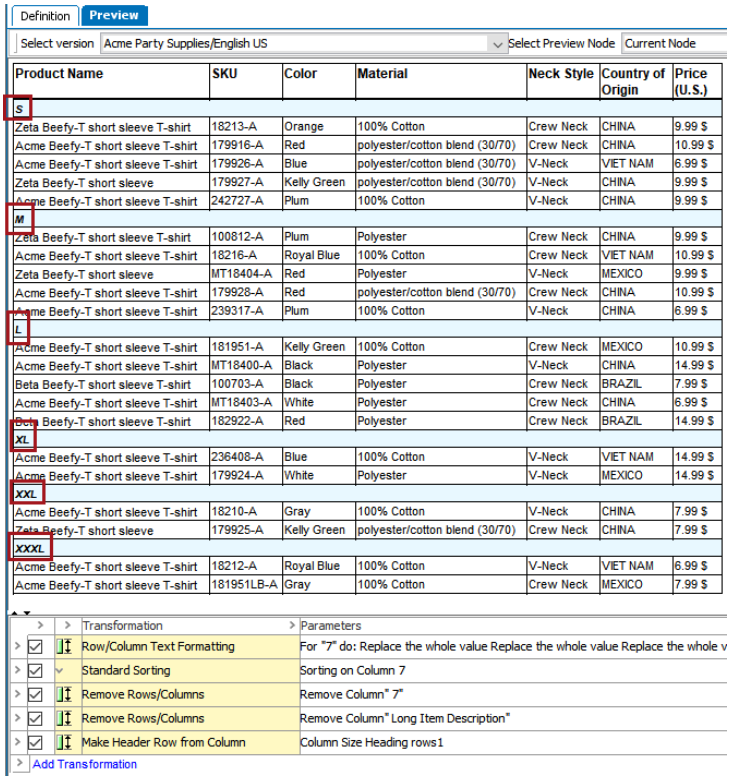
In the following example, the Size column is transformed into header rows.

Before the **Make Header Row from Column** transformation is applied, the table is sorted on the **Size** column by S - M - L - XL - XXL - XXXL.



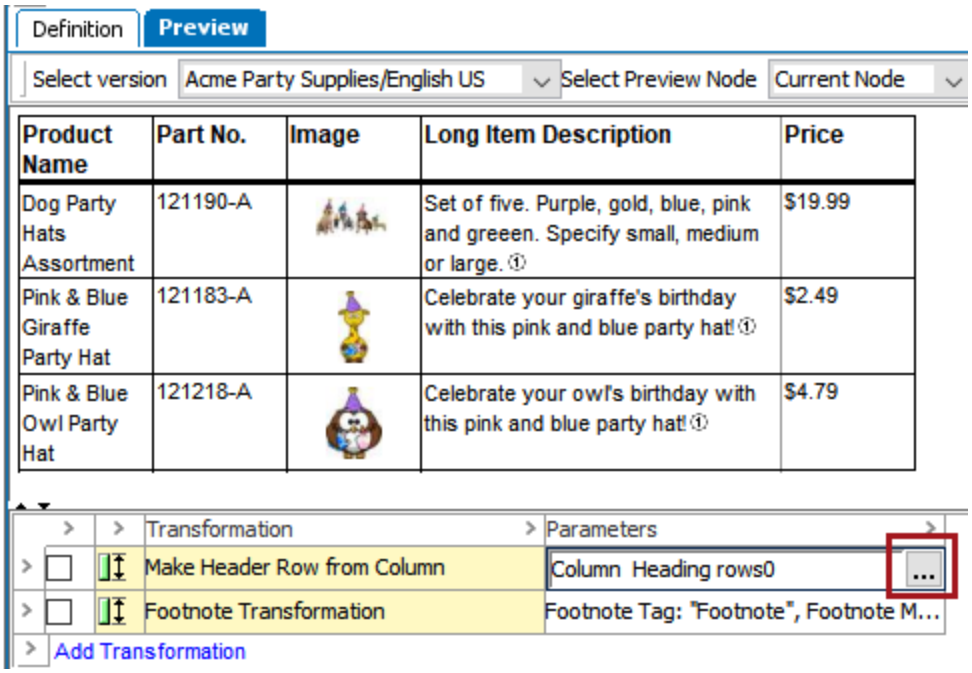
Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	MEXICO	7.99 $

After applying the transformation, the Size column has been removed and header rows have been created based on the contents of the Size column. A new header row is created every time the value changes, for example, from M to L. The rows in this example also have had styling applied within the transformation, including a background shading of light blue and an italic text style.

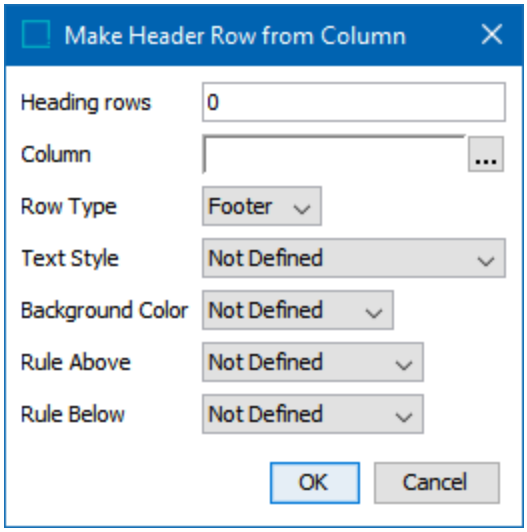


Adding the Make Header Row from Column Transformation

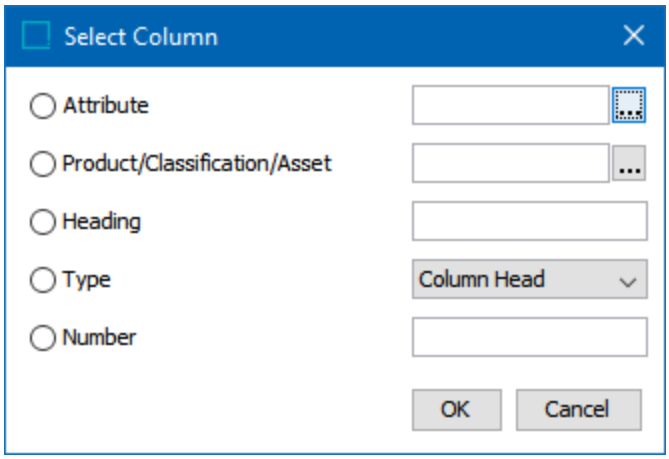
1. With your table open on the Preview tab, click 'Add Transformation' to launch the **Select Transformation** dialog.
2. Expand the 'Transformations' folder and select **Make Header Row from Column**, then click **OK**.
3. The transformation is added. Click inside of the **Parameters** field to display the ellipsis button (...).



4. Click the ellipsis button (...) to launch the **Make Header Row from Column** dialog.



5. In the **Heading rows** field, Enter 1 to ignore 'Heading (1)' rows. Enter 2 to ignore 'Sub Heading (2)' rows. Enter 0 to include all heading rows.
6. By the **Columns** field, click the ellipsis button (...) to launch the **Select Column** dialog. This is where you specify which column to convert to header rows.



- Select **Attribute** to apply the transformation to the column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify a column by typing the header text of the relevant column.
- Select **Type** to identify the column or row by selecting Column Type.
- Select **Number** to identify the column by entering the sequence number of the relevant column. For example, if you want to apply the transformation the second column, then type 2.
- Click **OK** to close the dialog.

8. In the **Row Type** list, select the row type that will be used for the converted column.

   For the remaining options, leaving them as 'Not Defined' will cause the formatting to be inherited from the specified row type. To override the inherited settings, make a selection.

9. In the **Text style** list, select text style that will be used in the header rows that are created by the transformation.
10. In the **Background Color** list, select the background color you want to use for the header rows that are created by the transformation.
11. In the **Rule Above** list, select the line style you want to use as the top border of the header rows created by the transformation.
12. From the **Rule Below** list, select the line style you want to use as the bottom border of the header rows created by the transformation.
13. Click **OK**.

Merge Equal Cells

The Merge Equal Cells transformation merges adjacent cells that contain identical / equal values. It can be applied to merge equal cells in the entire table or in specific rows or columns. Both horizontally and vertically adjacent cells can be merged. The transformation also merges adjacent spanned cells that contain identical values.

If two equal cells appear from merging other cells, they are also merged. The transformation repeats the merging process until there are no more cells to merge.

Note: The cells must be adjacent to one another in the table before they can be merged. This means that additional transformations, such as Standard Sorting, may need to be applied to position the cells next to each other so they can be merged.

Prerequisites

The instructions in this topic assume that you have already added the Merge Equal Cells transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

Before

This is how the table appears **before** applying the Merge Equal Cells transformation:

Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	MEXICO	7.99 $

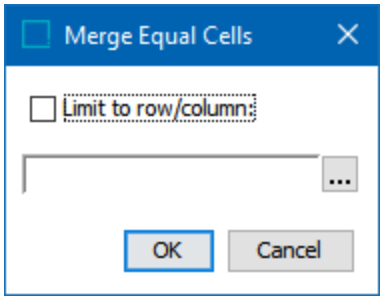
After

This is how the table looks **after**.

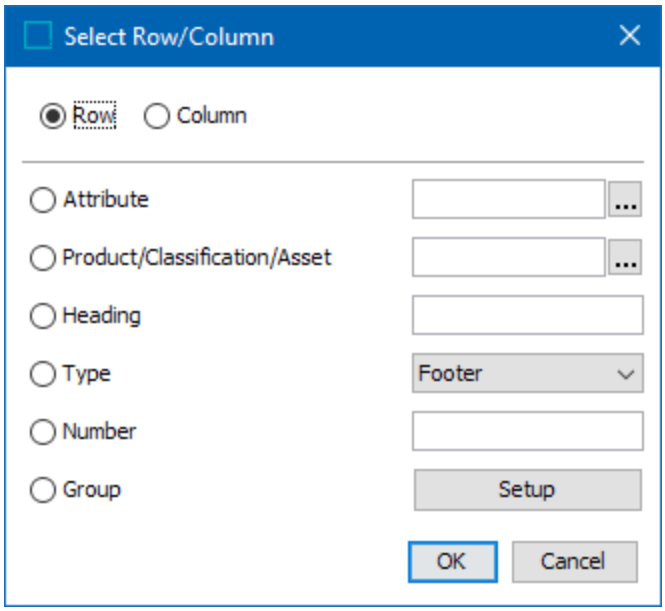
Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)				10.99 $
	179926-A	Blue		V-Neck		VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green				CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton				
Zeta Beefy-T short sleeve T-shirt	100812-A		Polyester	Crew Neck	M		
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton			VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck		MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A		polyester/cotton blend (30/70)	Crew Neck		CHINA	10.99 $
	239317-A	Plum	100% Cotton	V-Neck			6.99 $
	181951-A	Kelly Green		Crew Neck	L	MEXICO	10.99 $
	MT18400-A	Black	Polyester	V-Neck		CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A			Crew Neck		BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White				CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red				BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	
	179924-A	White	Polyester			MEXICO	
	18210-A	Gray	100% Cotton		XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck			
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
	181951LB-A	Gray		Crew Neck		MEXICO	7.99 $

Steps

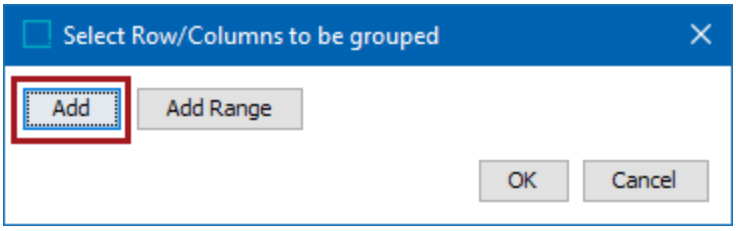
1. After adding the transformation, the identical cells that are adjacent to one another will automatically merge.
2. If you want to limit the cells that are merged to specific rows or columns, click the ellipsis button (...) under **Parameters** to launch the **Merge Equal Cells** dialog.



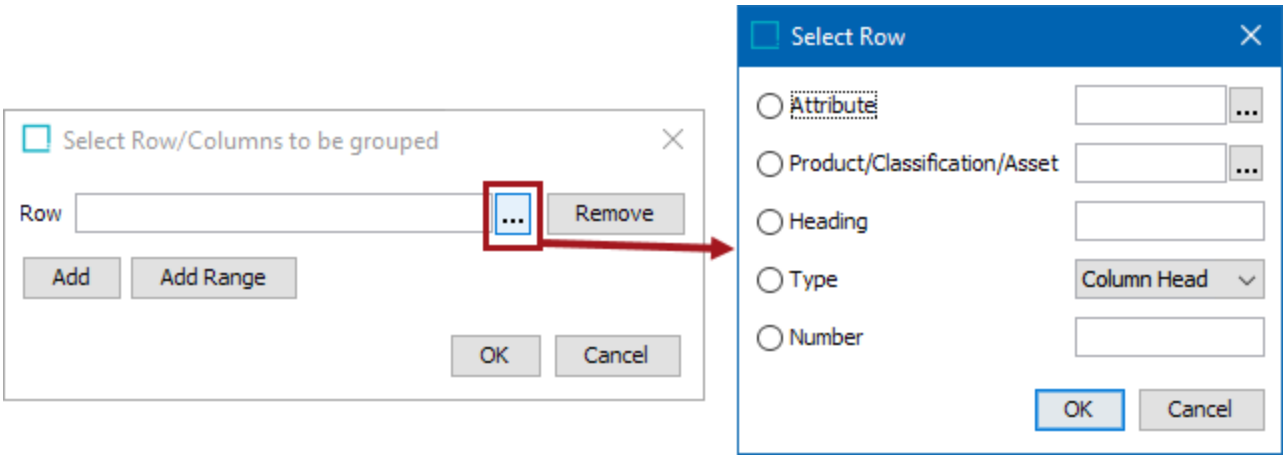
3. Check **Limit to row/column** to apply the transformation to a specific row or column only, then click the ellipsis button (...) to launch the **Select Row/Column** dialog.



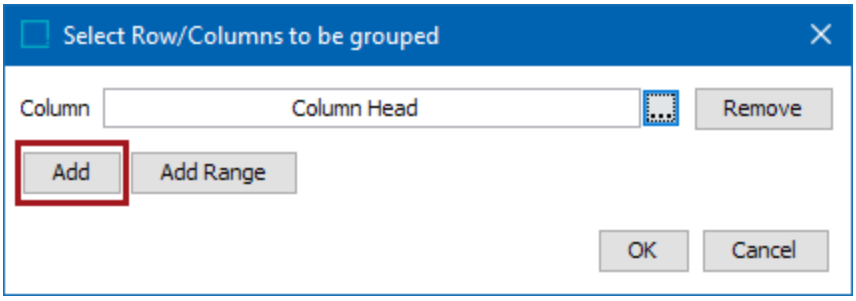
- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.
  - Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



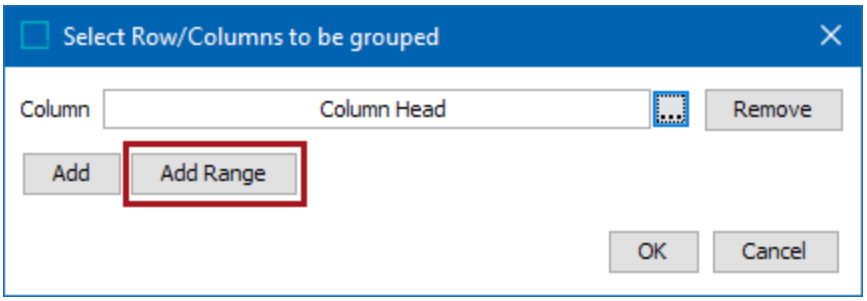
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



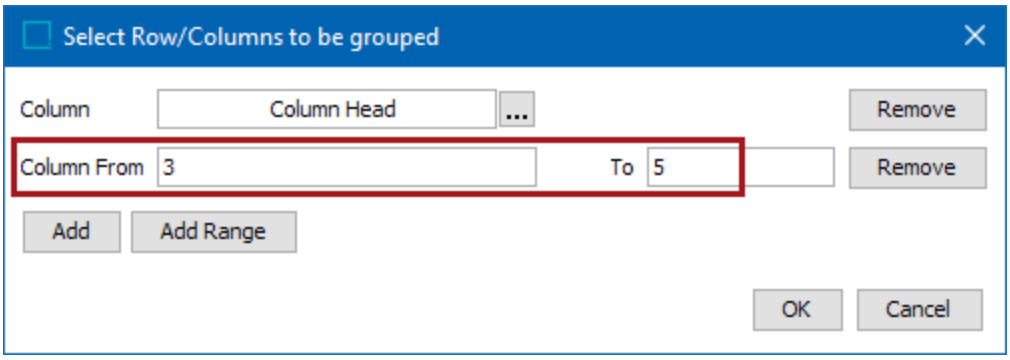
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



- To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.



4. Click **OK** when complete.

Merge Equal Rows/Columns

The **Merge Equal Rows/Columns** transformation merges consecutive rows or columns if they have identical data.

Prerequisites

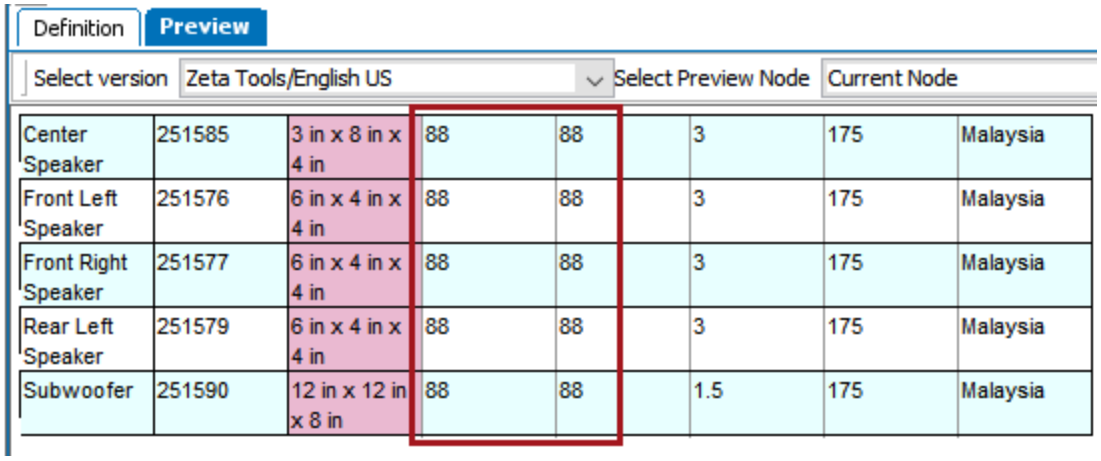
The instructions in this topic assume that you know how to add a transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

In the following example, there are two consecutive columns with identical data, which are then merged by the Merge Equal Rows/Columns transformation.

Before

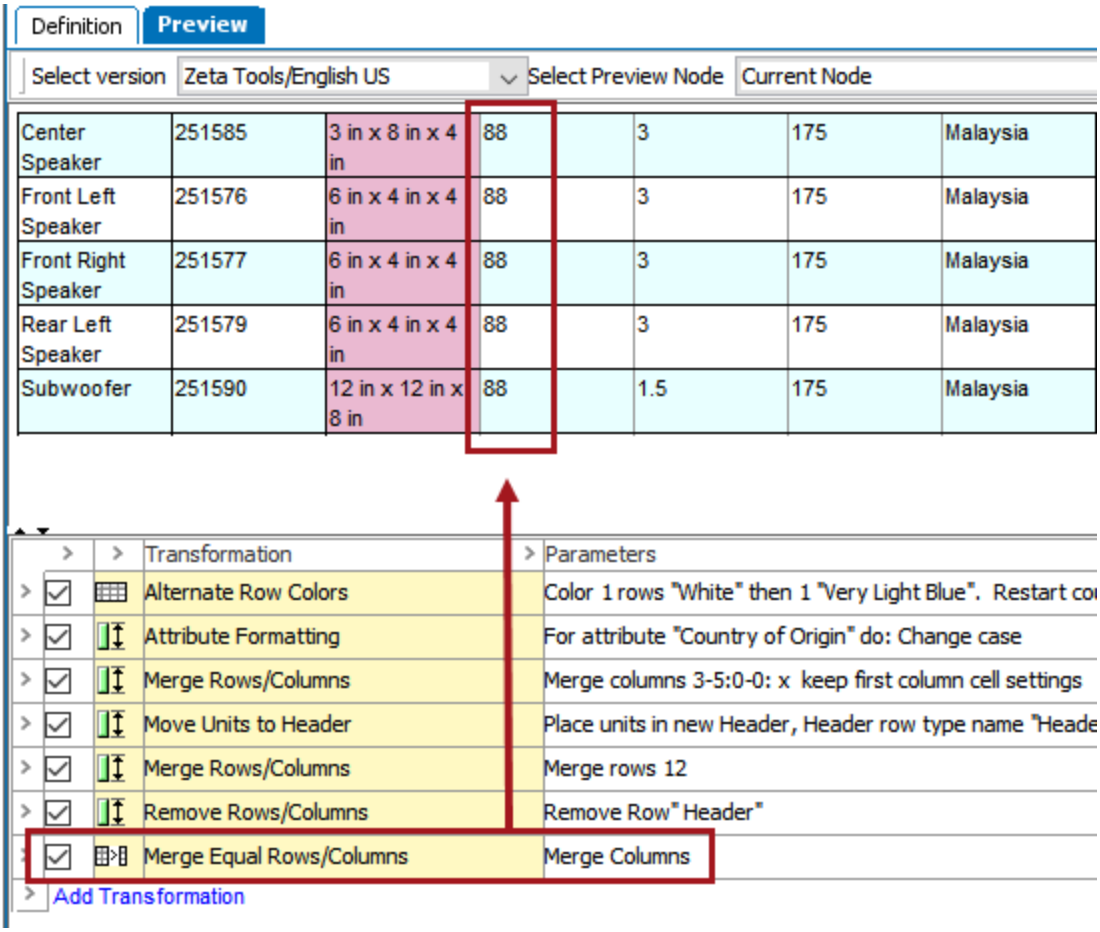
This is how the table appears before the transformation is applied.



Center Speaker	251585	3 in x 8 in x 4 in	88	88	3	175	Malaysia
Front Left Speaker	251576	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Front Right Speaker	251577	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Rear Left Speaker	251579	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Subwoofer	251590	12 in x 12 in x 8 in	88	88	1.5	175	Malaysia

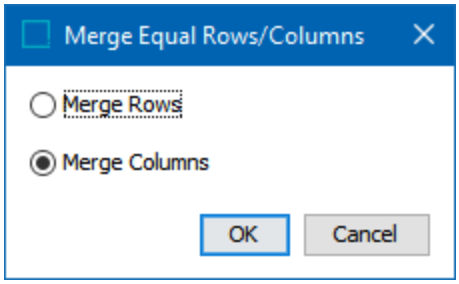
After

This is how the table appears after. There is now one column with the '88' values.



Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (**...**). The **Merge Equal Rows/Columns** dialog displays.



2. Select whether you want to **Merge Rows** or **Merge Columns**, then click **OK**.
3. The transformation is applied.

Merge Over Empty Cells

The **Merge Over Empty Cells** transformation merges row or column contents over empty cells. This transformation is useful when you want to span cells with dynamically created content where you cannot use the Span Cells functionality.

Note: This transformation also merges equal spanned cells.

Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

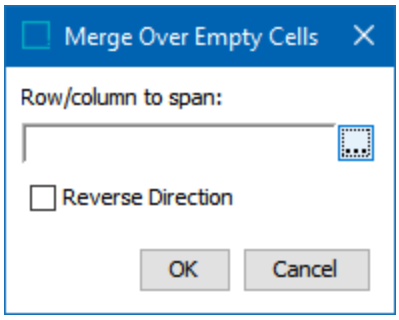
The below screenshots show three examples of the same column, before and after the application of the Merge Over Empty Cells transformation.

1. The first is the original column, with individual empty cells.
2. The second is how the column appears after applying the transformation. Cells are merged from top to bottom.
3. The third is how the column appears after applying the transformation *and* checking the **Reverse Direction** box in the **Merge Over Empty Cells** dialog (more information is provided in the steps below). Cells are merged from bottom to top.

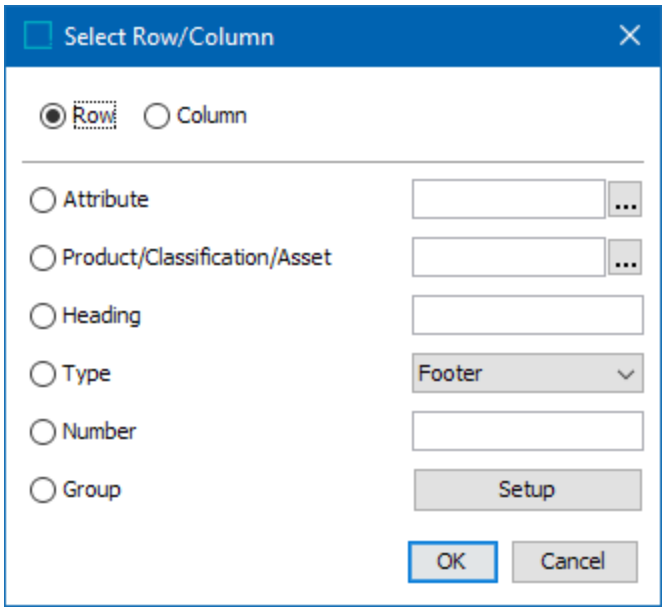
Material 1	Material 2	Material 3
100% Cotton	100% Cotton	100% Cotton
polyester/cotton blend (30/70)	polyester/cotton blend (30/70)	polyester/cotton blend (30/70)
polyester/cotton blend (30/70)	polyester/cotton blend (30/70)	polyester/cotton blend (30/70)
polyester/cotton blend (30/70)	polyester/cotton blend (30/70)	polyester/cotton blend (30/70)
100% Cotton	100% Cotton	100% Cotton
		100% Cotton
100% Cotton	100% Cotton	
		polyester/cotton blend (30/70)
polyester/cotton blend (30/70)	polyester/cotton blend (30/70)	
100% Cotton	100% Cotton	100% Cotton
100% Cotton	100% Cotton	100% Cotton
		100% Cotton
100% Cotton	100% Cotton	
		100% Cotton
100% Cotton	100% Cotton	
polyester/cotton blend (30/70)	polyester/cotton blend (30/70)	polyester/cotton blend (30/70)
100% Cotton	100% Cotton	100% Cotton
100% Cotton	100% Cotton	100% Cotton

Steps

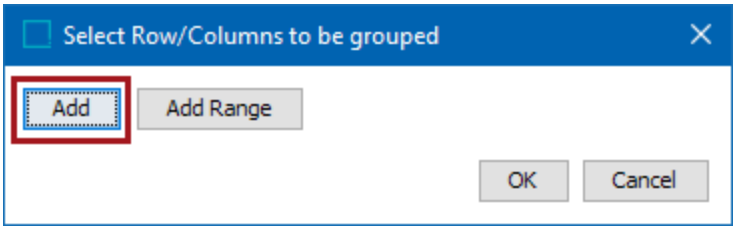
1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Merge Over Empty Cells** dialog displays.



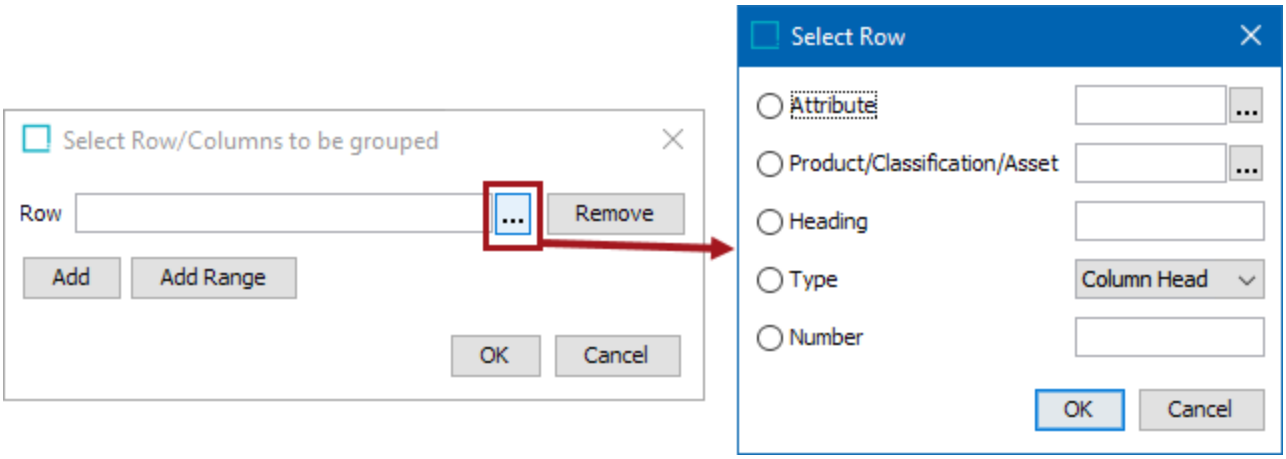
2. Click the ellipsis button (...) to launch the **Select Row/Column** dialog.



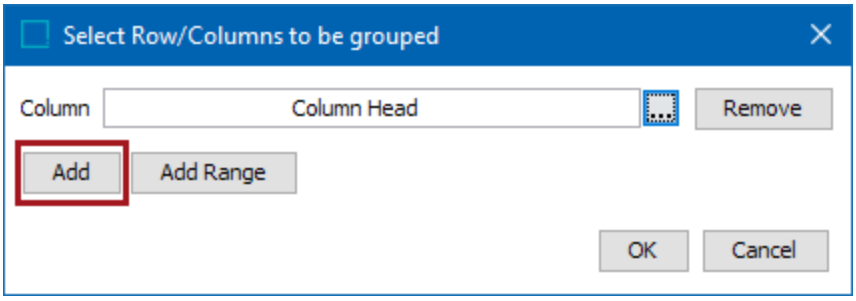
- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.
  - Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



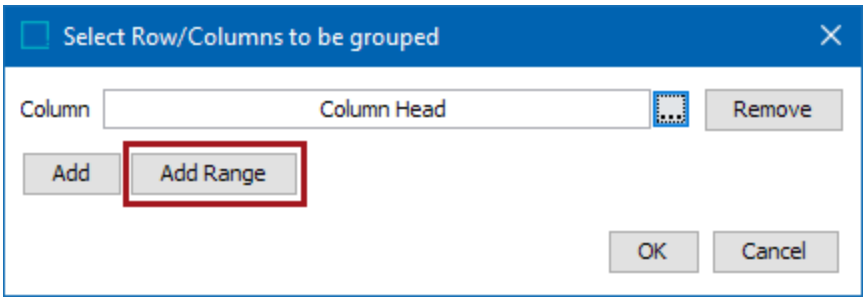
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



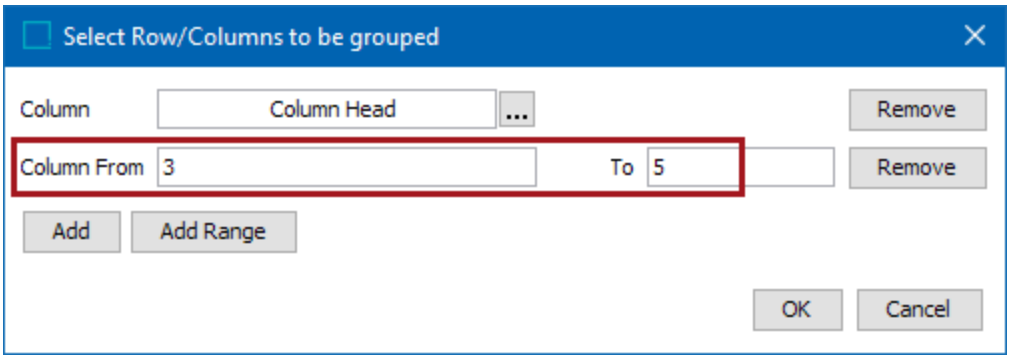
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



- To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.



3. Check the **Reverse Direction** box to merge over the empty cells from bottom to top instead of top to bottom. Refer to the example given at the beginning of this topic for an illustration.
4. Click **OK** when done.

Merge Rows/Columns

The **Merge Rows/Columns** transformation enables you to merge single columns or rows, groups of columns or rows, or a range of columns or rows into one column or row.

When you merge columns or rows, the values of all rows or columns are retained and usually separated by a separator character. After the merge, it will look as if two or more attributes are placed in the same column or row.

Prerequisites

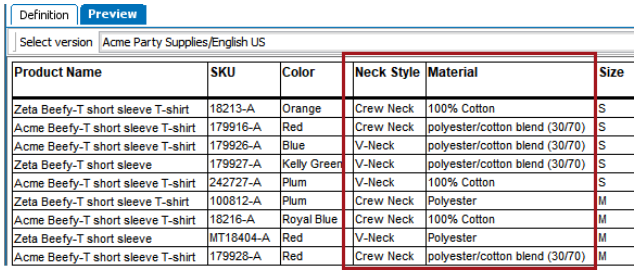
The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

In the following example, the 'Neck Style' and 'Material' columns are merged. Though it is common to merge columns or rows that are directly adjacent to one another, any columns or rows can be chosen. E.g., in the below example, 'Product Name' and 'Color' could be merged, and so forth.

Before

Before the merge, the 'Neck Style' and 'Material' attributes are maintained in two separate columns.

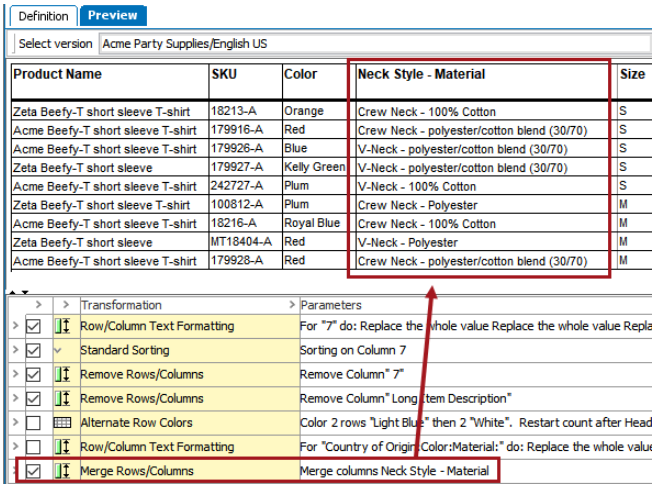

Definition | Preview

Select version: Acme Party Supplies/English US

Product Name	SKU	Color	Neck Style	Material	Size
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	Crew Neck	100% Cotton	S
Acme Beefy-T short sleeve T-shirt	179916-A	Red	Crew Neck	polyester/cotton blend (30/70)	S
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	V-Neck	polyester/cotton blend (30/70)	S
Zeta Beefy-T short sleeve	179927-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	V-Neck	100% Cotton	S
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Crew Neck	Polyester	M
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	Crew Neck	100% Cotton	M
Zeta Beefy-T short sleeve	MT18404-A	Red	V-Neck	Polyester	M
Acme Beefy-T short sleeve T-shirt	179928-A	Red	Crew Neck	polyester/cotton blend (30/70)	M

After

After the merge, the contents of the two columns are now merged into one column, and the values are separated by a hyphen with a space on either side.



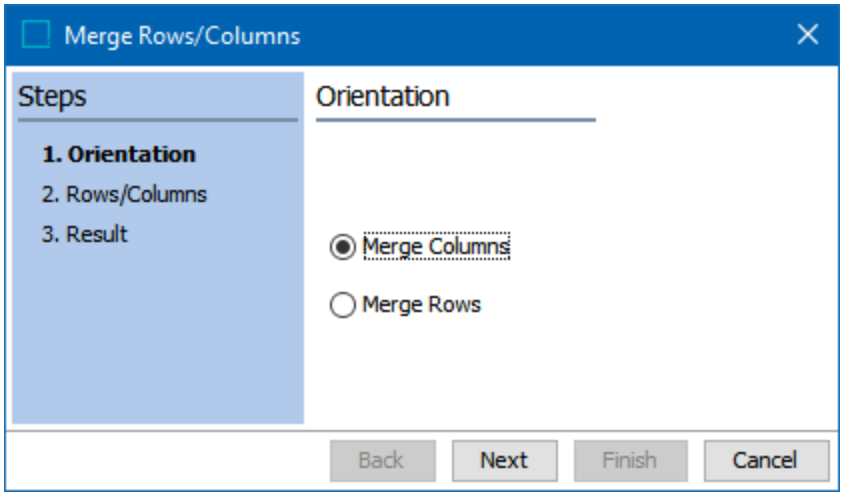
Steps

The Merge Rows/Columns transformation is set up in a three-step wizard. The steps are **Orientation**, **Rows/Columns**, and **Result**.

To get started, after adding the transformation, click the ellipsis button (...) under **Parameters** to display the **Merge Rows/Columns** wizard.

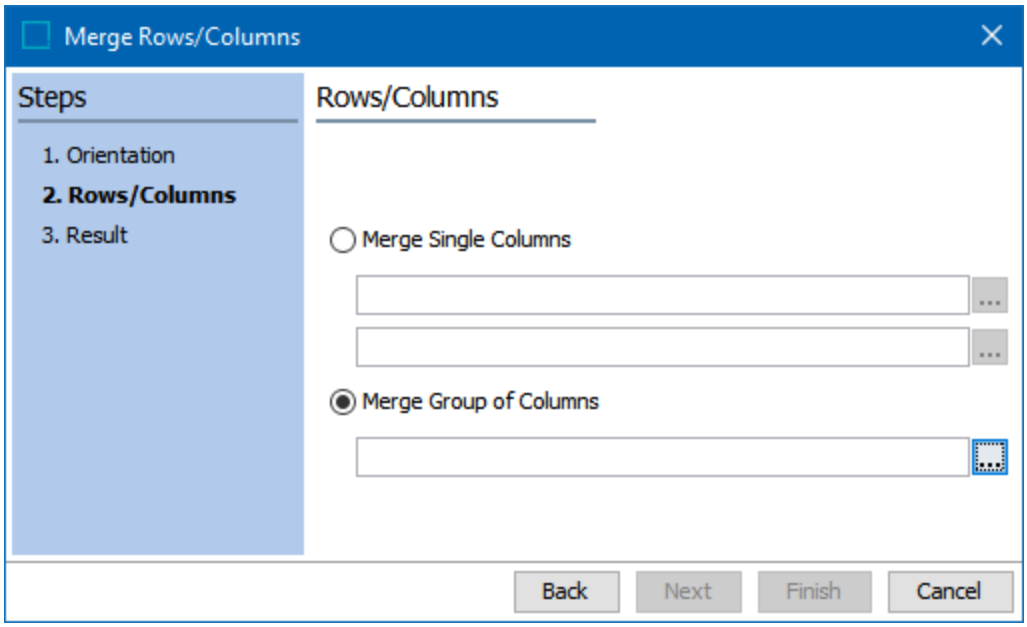
Orientation

In the **Orientation** step, specify whether you want to merge columns or rows. Click **Next**.



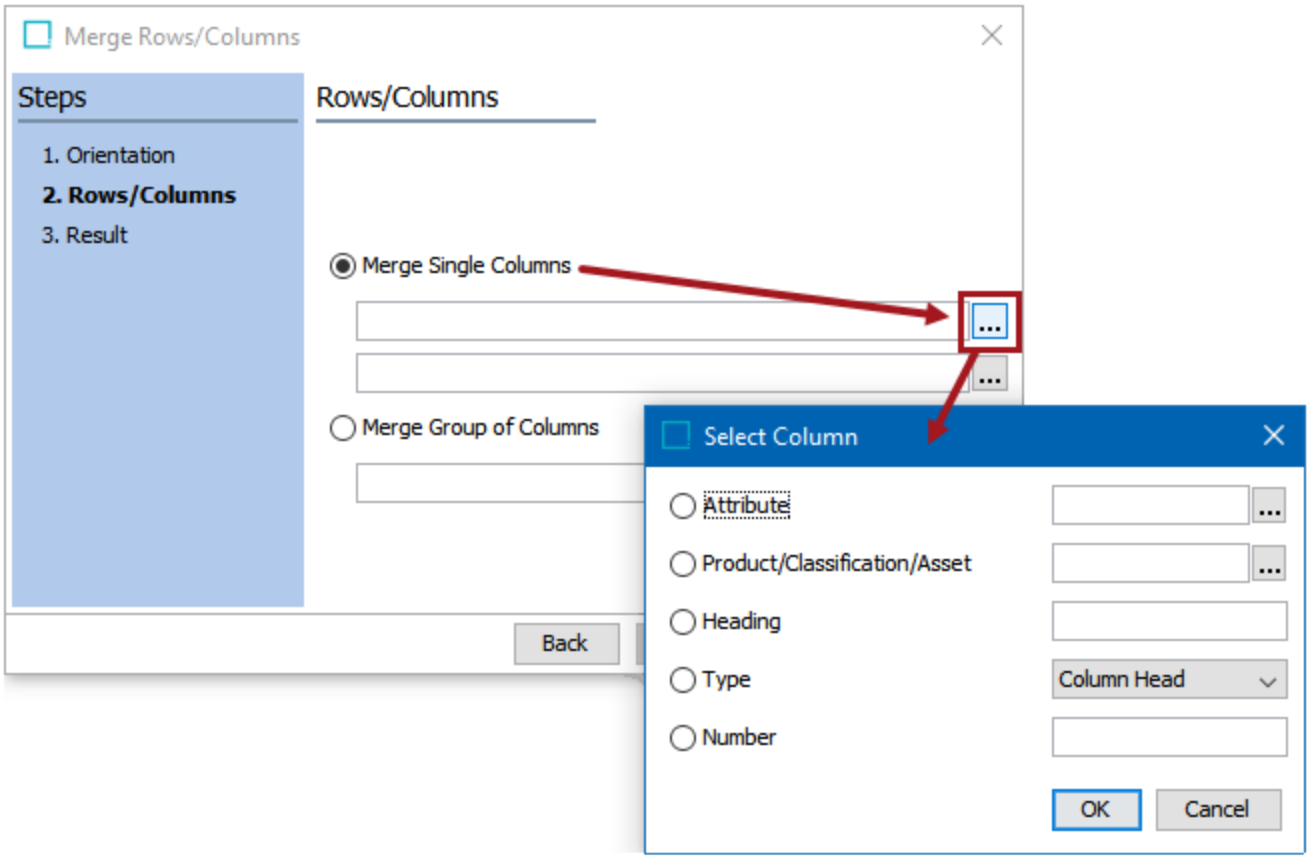
Rows/Columns

In the **Rows/Columns** step, two merge options are available—**Merge Single Columns** and **Merge Group of Columns**.



To Merge Single Columns

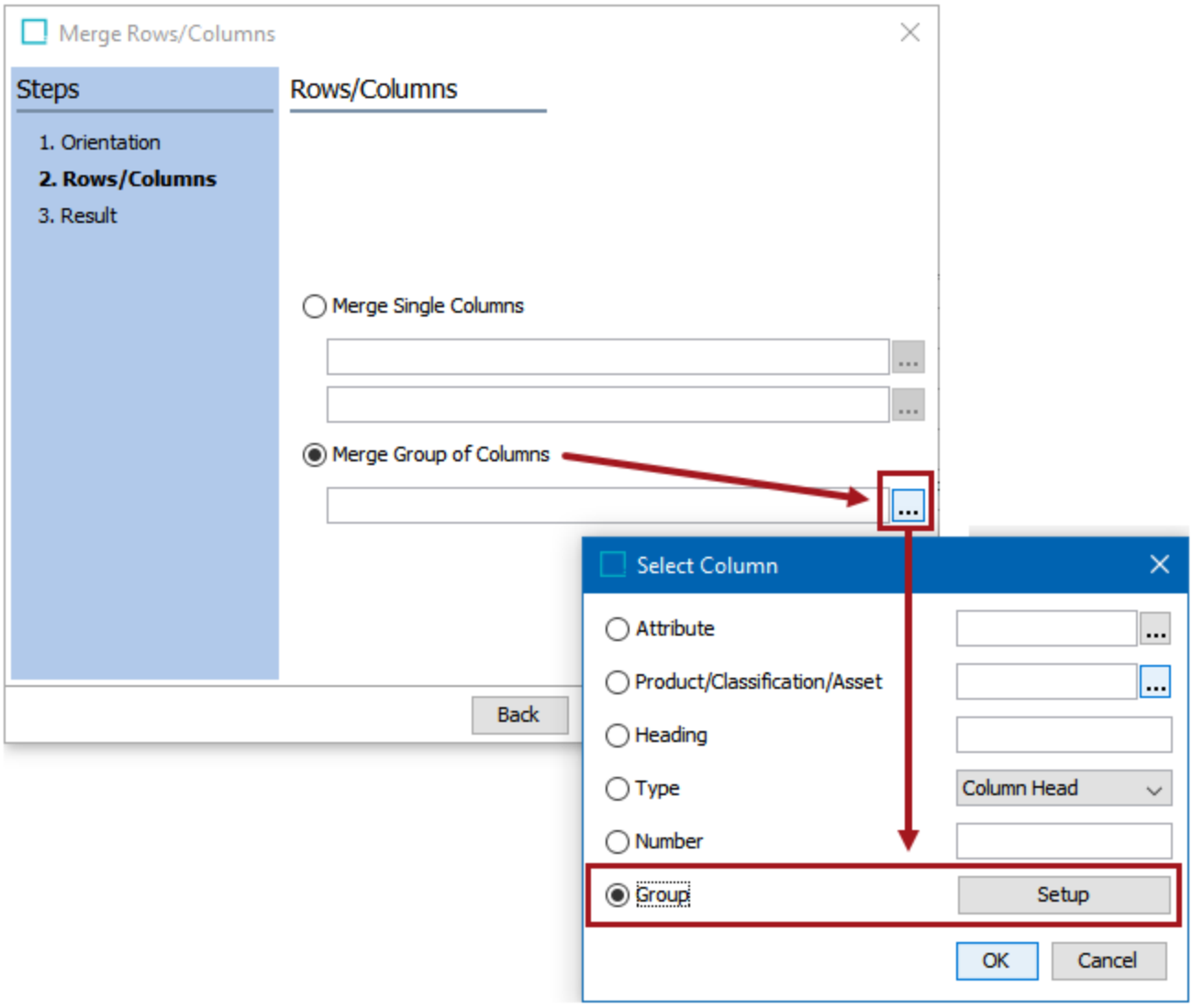
1. Select the **Merge Single Columns** radio button, then click the ellipsis button (...) on the first parameter to choose the first row or column that you want to merge.
2. In the **Select Column** dialog that displays, choose the column or row by selecting one of the available options (Attribute, Product/Classification/Asset, etc.). These options are explained in detail in the **Rule When Different** subsection of the **Layout Transformations** topic; refer to that topic for more information.



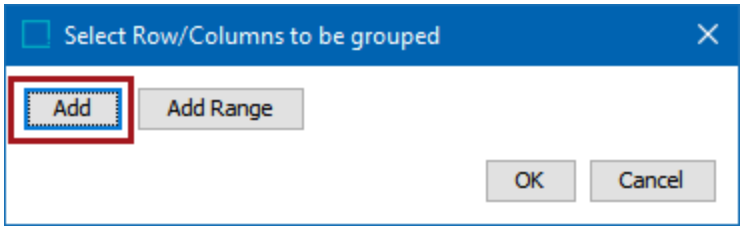
3. Click the ellipsis button (...) in the second field to choose the second row or column to be merged, following the same steps that you used to choose the first row or column.
4. After choosing both rows / columns, click **Next** to go to the **Result** step.

To Merge a Group of Columns

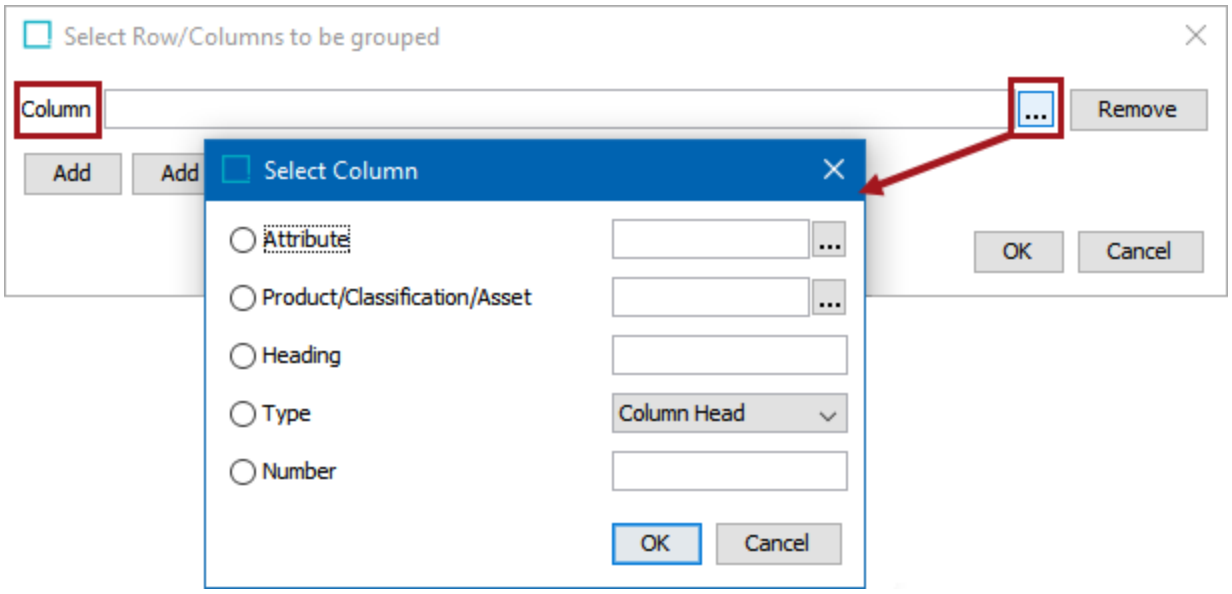
1. Select the **Merge Group of Columns** radio button, then click the ellipsis button (...).
2. In the **Select Column** dialog that displays, select **Group**, then click **Setup**.



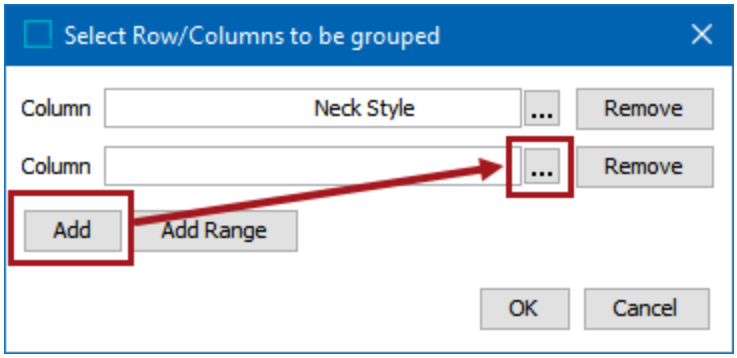
3. On the **Select Row/Columns to be grouped** dialog, click **Add** to select individual columns to be grouped.



4. If you are grouping columns, a **Column** field will appear (and conversely, a **Row** field will appear if grouping rows). Click the ellipsis button (...) to launch the **Select Column** (or, **Select Row**) dialog. Specify the first row to be grouped, then click **OK**.



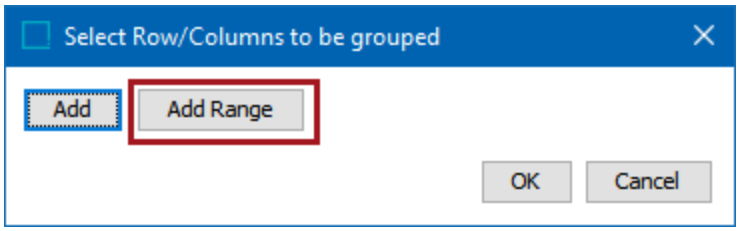
5. Click **Add** again to create a second Column (or Row) field. Repeat these steps until you have added all of the desired columns or rows to the group. Click **Remove** to remove a column / row selection.



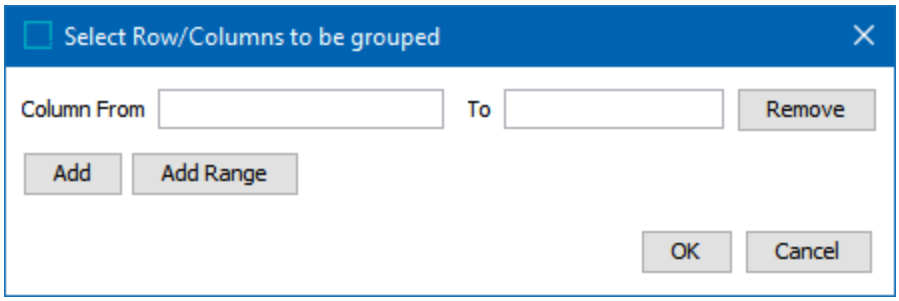
6. When finished, click **OK** in the **Select Row/Columns to be grouped** dialog. Then, click OK in the **Select Column** (or, Select Row) dialog.
7. Click Next to go to the **Result** step.

To Merge a Range of Columns

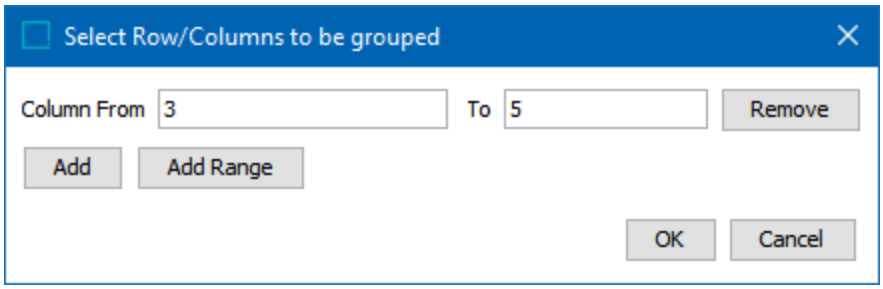
1. On the **Select Row/Columns to be grouped** dialog, click **Add Range**.



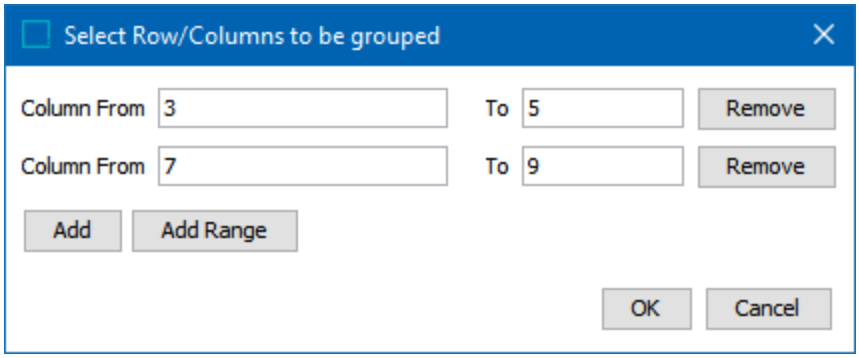
2. If merging columns, a **Column From** field and a **To** field will display. If merging rows, a **Row From** field and a **To** field will display.



3. Enter the number of the 'from' column / row in the Column From / Column Row field, then enter the number of the 'to' column / row in the To field. **Note:** These fields will take number entries only.



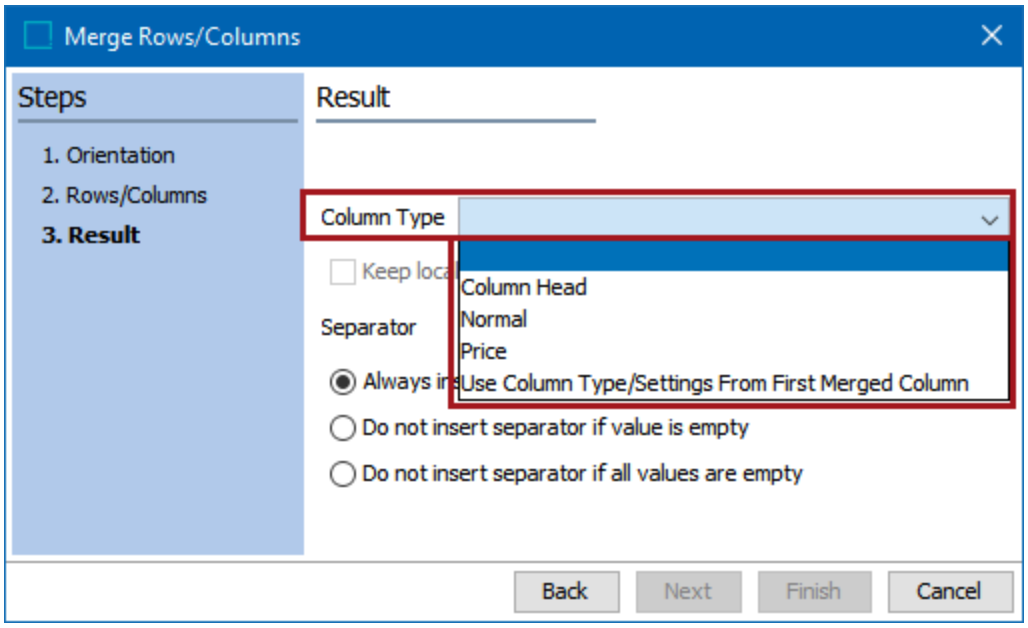
4. To add an additional range, click **Add Range** again and follow the previous steps.



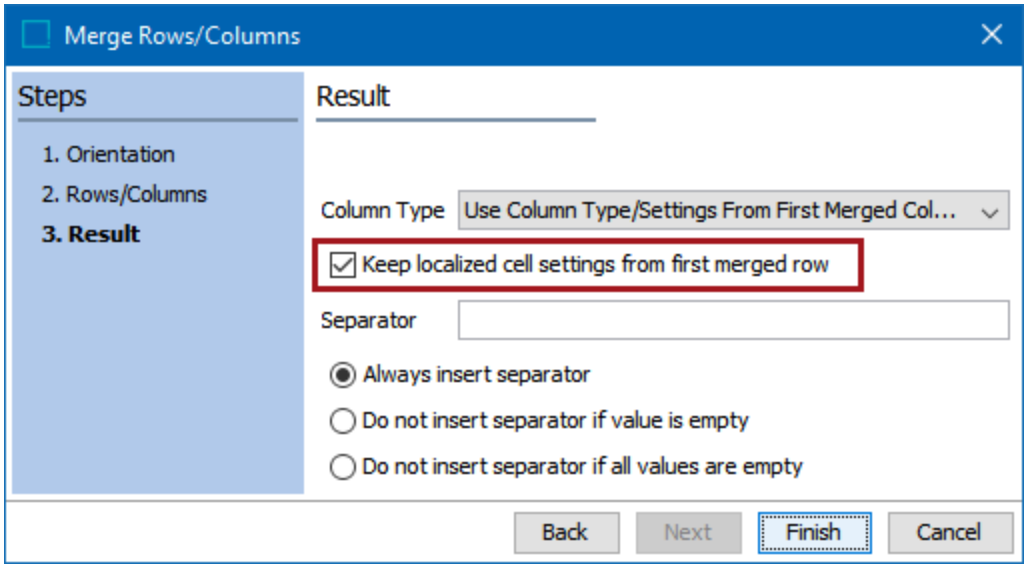
5. When finished, click **OK** in the **Select Row/Columns to be grouped** dialog. Then, click OK in the **Select Column** (or, Select Row) dialog.
6. Click Next to go to the **Result** step.

Result

1. In the **Result** step, specify the row or column type to use for the merged column or row. In addition to the legal column types / row types available for the table, you can also choose to keep the style of the first merged column / merged row.

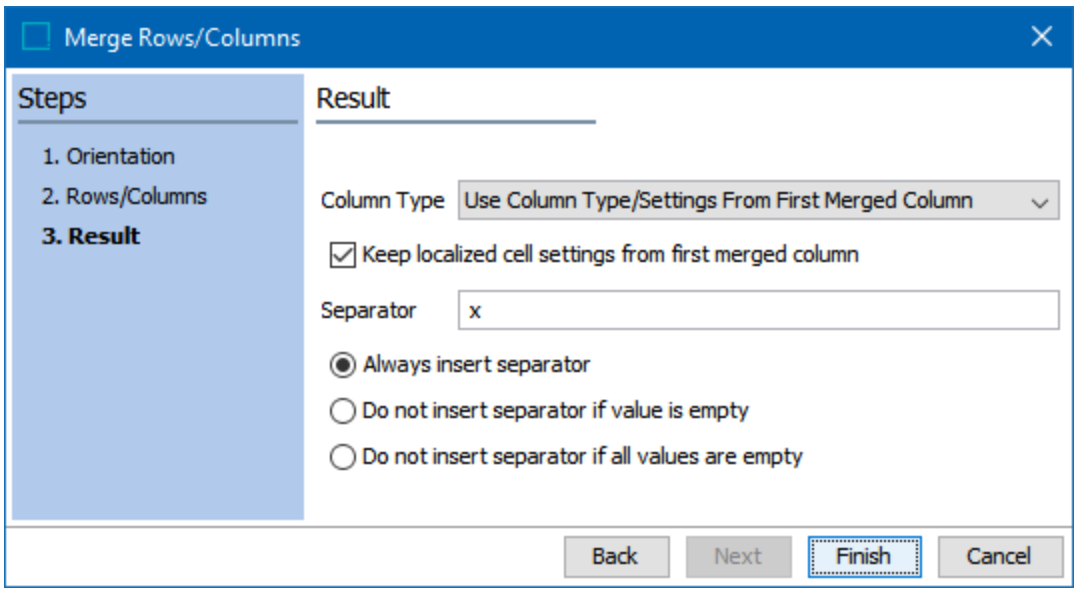


2. If you choose 'Use Column Type/Settings from First Merged Column' (or, if merging rows, 'Use Row Type/Settings from First Merged Row'), the **Keep localized cell settings from first merged column** / **Keep localized cell settings from first merged row** checkbox will become activated. This setting enables cell-level formatting to be retained from the first merged column or row.



3. Next, enter the **Separator** character(s) that should appear between values in the merged column or row. In this example, the separator is ' x ', an x with a space on both sides. Then, choose one of the three available options:
   - Always insert separator
   - Do not insert separator if only one value is empty

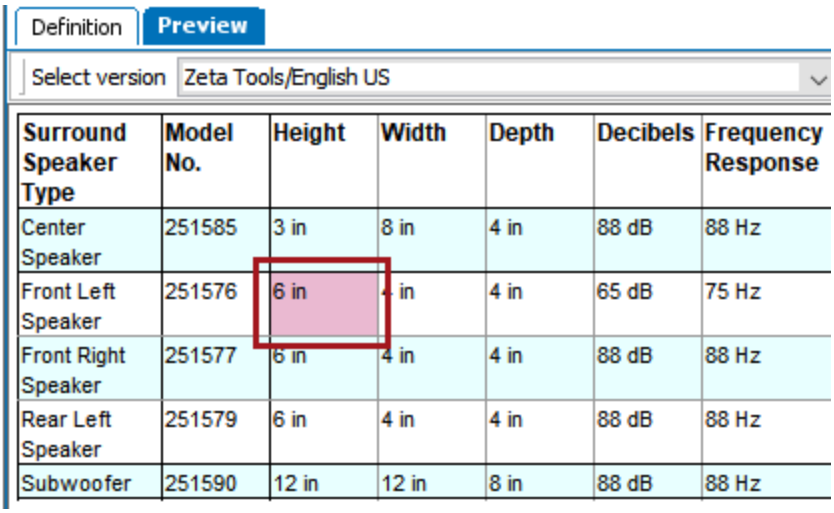
- Do not insert separator if both values are empty



4. Click **Finish** to complete the transformation setup.

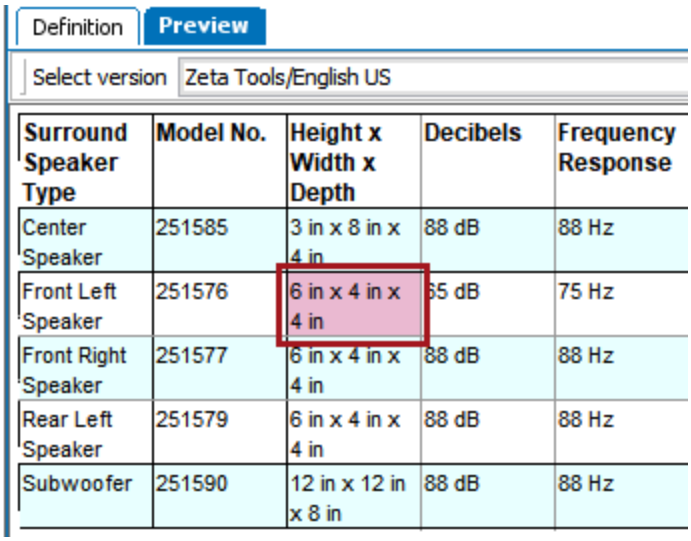
Additional Example - 'Keep localized cell settings' and 'Separator'

In the following example, the 'Height,' 'Width,' and 'Depth' columns will be merged using the Merge Rows/Columns transformation. Before the transformation is applied, a single pink cell appears in the 'Height' column, and all dimension values appear independently, each in their own column.



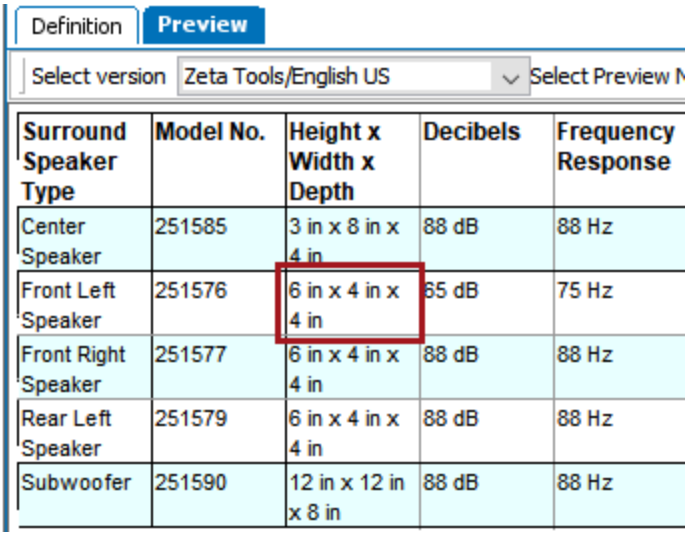
Surround Speaker Type	Model No.	Height	Width	Depth	Decibels	Frequency Response
Center Speaker	251585	3 in	8 in	4 in	88 dB	88 Hz
Front Left Speaker	251576	6 in	4 in	4 in	65 dB	75 Hz
Front Right Speaker	251577	6 in	4 in	4 in	88 dB	88 Hz
Rear Left Speaker	251579	6 in	4 in	4 in	88 dB	88 Hz
Subwoofer	251590	12 in	12 in	8 in	88 dB	88 Hz

After the transformation is applied, the pink shading is retained in the merged cell, and all merged values now appear in the same column, separated by ' x '. This is due to **Keep localized cell settings from first merged column** being selected and a separator of ' x ' being used as the separator on the **Result** screen of the wizard.



Surround Speaker Type	Model No.	Height x Width x Depth	Decibels	Frequency Response
Center Speaker	251585	3 in x 8 in x 4 in	88 dB	88 Hz
Front Left Speaker	251576	6 in x 4 in x 4 in	65 dB	75 Hz
Front Right Speaker	251577	6 in x 4 in x 4 in	88 dB	88 Hz
Rear Left Speaker	251579	6 in x 4 in x 4 in	88 dB	88 Hz
Subwoofer	251590	12 in x 12 in x 8 in	88 dB	88 Hz

Had **Keep localized cell settings from first merged column** been left unchecked, the pink shading would have been lost and the table would look like this:



Surround Speaker Type	Model No.	Height x Width x Depth	Decibels	Frequency Response
Center Speaker	251585	3 in x 8 in x 4 in	88 dB	88 Hz
Front Left Speaker	251576	6 in x 4 in x 4 in	65 dB	75 Hz
Front Right Speaker	251577	6 in x 4 in x 4 in	88 dB	88 Hz
Rear Left Speaker	251579	6 in x 4 in x 4 in	88 dB	88 Hz
Subwoofer	251590	12 in x 12 in x 8 in	88 dB	88 Hz

Move Units to Header

The **Move Units to Header** transformation enables a header row or header column to be built from unique units that appear on values inside the table. One use for this transformation would be for tables that contain highly technical product information; for example, for electronic components that use units such as Ohms (Ω). Additionally, it helps to save space on column widths or table heights.

The transformation parses through the actual column units of a table and, if all units are the same, a header row or header column is built from the unique unit. When moving the units to the header, either a new header is built using the unique unit, or the unit text is appended to the text of an existing header. In either instance, the units are removed from the values within the table after they are moved to the header.

Prerequisites

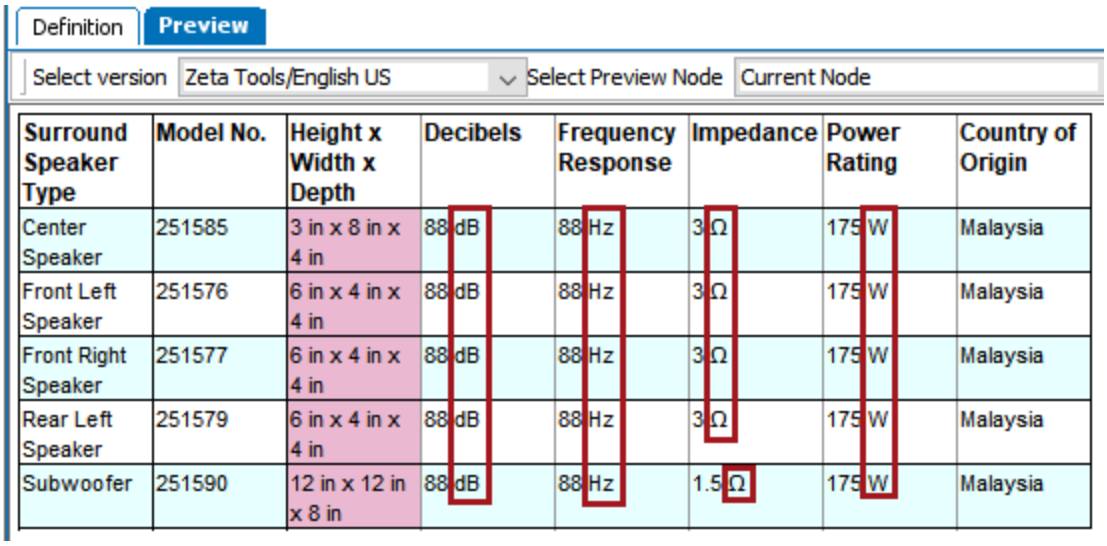
The instructions in this topic assume that you know how to add a transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

The following example uses a table that contains technical specifications about a set of surround speakers. The included units are Decibels (**dB**), Hertz (**Hz**), Ohms (**Ω**), and Watts (**W**). To keep the units from appearing multiple times in the table, they will be moved to the header row. This example uses an existing header and does not create a new one. However, configurations are present in the transformation that can allow for a new header to be created, e.g., if the units should appear in a subheader row.

Before

This is how the table appears before the units are moved to the header row.



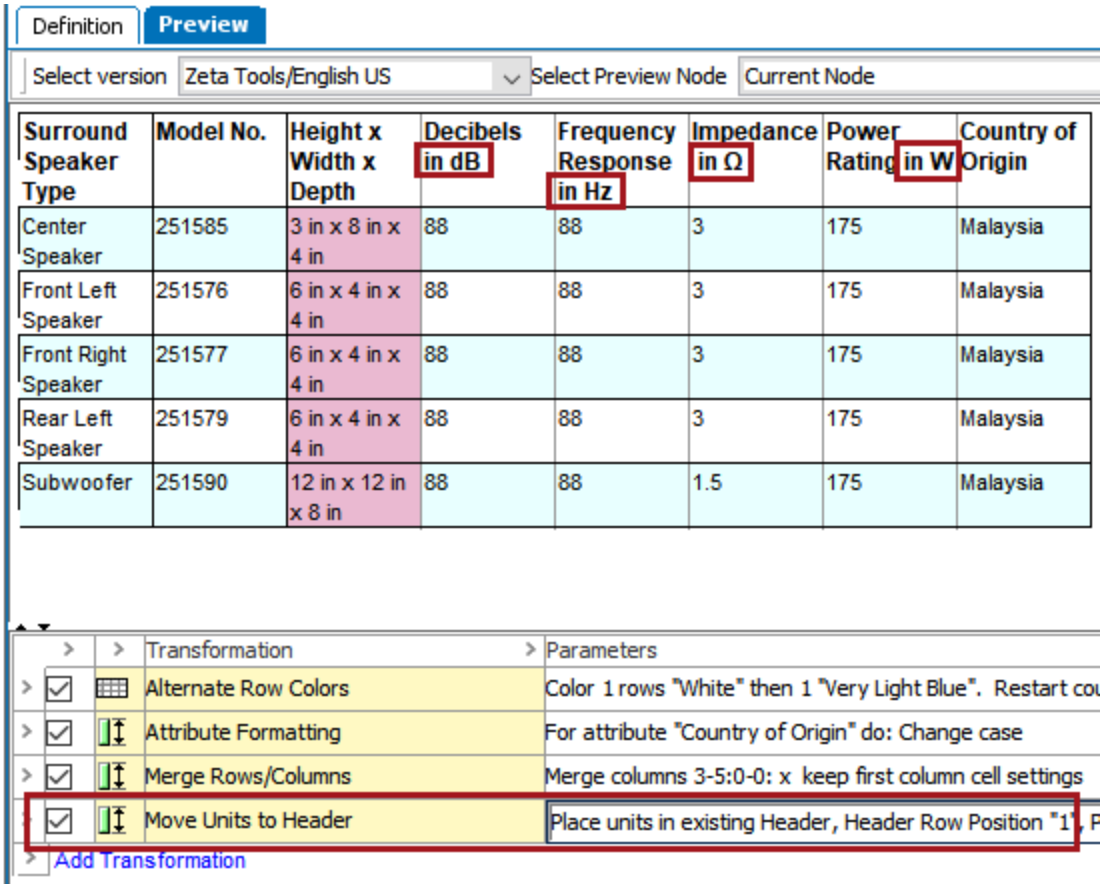
Definition | Preview

Select version: Zeta Tools/English US | Select Preview Node: Current Node

Surround Speaker Type	Model No.	Height x Width x Depth	Decibels	Frequency Response	Impedance	Power Rating	Country of Origin
Center Speaker	251585	3 in x 8 in x 4 in	88 dB	88 Hz	3 Ω	175 W	Malaysia
Front Left Speaker	251576	6 in x 4 in x 4 in	88 dB	88 Hz	3 Ω	175 W	Malaysia
Front Right Speaker	251577	6 in x 4 in x 4 in	88 dB	88 Hz	3 Ω	175 W	Malaysia
Rear Left Speaker	251579	6 in x 4 in x 4 in	88 dB	88 Hz	3 Ω	175 W	Malaysia
Subwoofer	251590	12 in x 12 in x 8 in	88 dB	88 Hz	1.5 Ω	175 W	Malaysia

After

This is how the table appears after. The units are moved to the header and a delimiter of ' in ' is applied so that the header columns read, for example, 'Frequency Response **in** Hz" instead of 'Frequency Response Hz.'



Definition | Preview

Select version: Zeta Tools/English US | Select Preview Node: Current Node

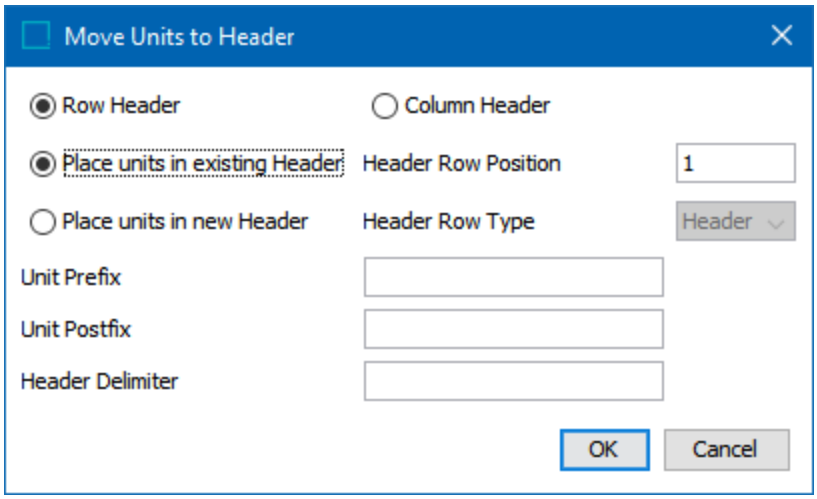
Surround Speaker Type	Model No.	Height x Width x Depth	Decibels in dB	Frequency Response in Hz	Impedance in Ω	Power Rating in W	Country of Origin
Center Speaker	251585	3 in x 8 in x 4 in	88	88	3	175	Malaysia
Front Left Speaker	251576	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Front Right Speaker	251577	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Rear Left Speaker	251579	6 in x 4 in x 4 in	88	88	3	175	Malaysia
Subwoofer	251590	12 in x 12 in x 8 in	88	88	1.5	175	Malaysia

Transformation	Parameters
Alternate Row Colors	Color 1 rows "White" then 1 "Very Light Blue". Restart cou
Attribute Formatting	For attribute "Country of Origin" do: Change case
Merge Rows/Columns	Merge columns 3-5:0-0: x keep first column cell settings
Move Units to Header	Place units in existing Header, Header Row Position "1", P

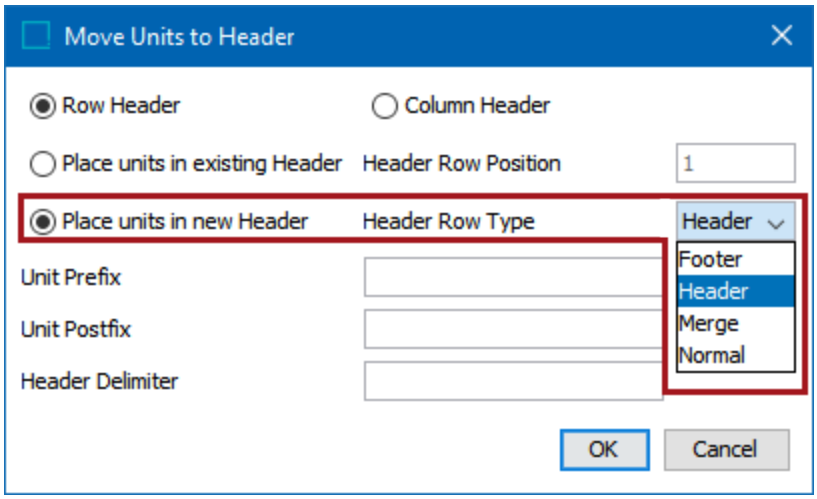
Add Transformation

Steps

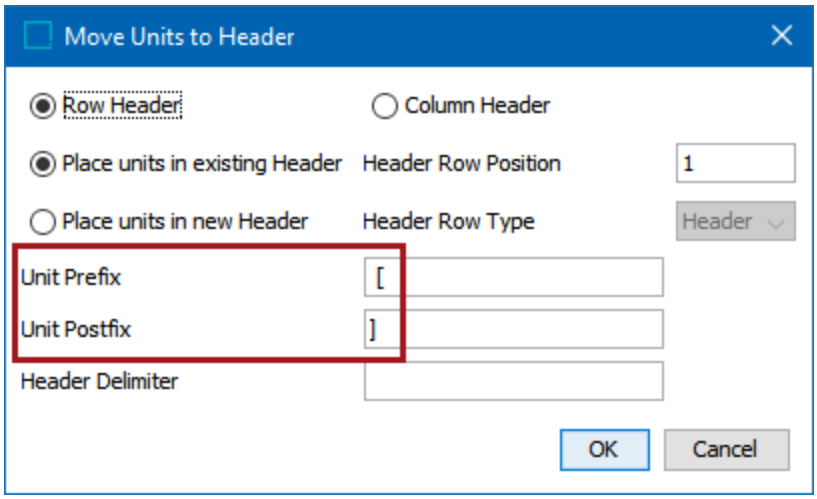
1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Move Units to Header** dialog displays.



2. Select **Row Header** to move the units to a header row. Select **Column Header** to move the units to a header column.
3. Select **Place units in existing Header** to move the units to an existing header row or column, then enter a number in the **Header Row Position** field to specify whether the units should be in the topmost header (1), the second header (2), and so forth. If no value is inserted for Header Row Position, a default header row is calculated to place the units in the last header row above the body rows or the last column row before the body columns.
4. Select **Place units in new Header** to create a new header row or column for the units, then, select a row or column type from the dropdown list. The row or column type can be any row or column type that is legal for the table and does not have to be specified as a Header or Subheader row on the row type or column type in System Setup.



5. Enter a value in the **Unit Prefix** field to add content before the moved unit and enter a value in the **Unit Postfix** field to add content after the moved unit. A value can be placed in both the Unit Prefix and Unit Postfix fields to surround the unit with characters such as brackets. For example, add '**[**' as the prefix and '**]**' as the postfix to form **[**Hz**]**



Decibels [dB]	Frequency Response [Hz]	Impedance [Ω]	Power Rating [W]
88	88	3	175
88	88	3	175
88	88	3	175
88	88	3	175
88	88	1.5	175

6. Enter a value in the **Header Delimiter** field to add text that should separate the header text from the unit. In the example screenshots shown at the beginning of this topic, the text ' in ' has been added (the word 'in' with a space before and after).
7. Click **OK** when complete to apply the transformation.

Pivot Table Transformation

Pivot tables (sometimes referred to as Compact or Compacted Tables), are useful in print applications to display product data in a compact manner. They allow more products and product data to be presented in a smaller physical area than a non-compacted table. Not only does this type of table require less space on a printed page, it also enables the reader to compare similar products. Although it is not always the case, pivot tables usually show more than one product in a single row. In addition to the table's compactness, another purpose of this type of presentation is to allow the reader to view both the common attribute values of similar products as well as their differences.

Pivot tables in STEP are created using the Pivot Transformation. You can apply pivot transformations to any table. However, this transformation does require a high degree of data accuracy and consistency. The following approach is recommended when working with this transformation.

- Create a pivot table type in System Setup if it does not already exist. For more information, refer to **Creating Table Types in System Setup**.
- Create a table on a product in the Tree based on the pivot table type.
- Apply a Pivot Transformation to the table, experimenting with different setups.

This initial approach to learning about pivot transformations should help in understanding the functionality of the transformation. It is very likely that you will need to create new row types and/or column types during your initial experiments, so creating these new row / column types on this new table type will be easier to implement, as opposed to modifying an existing table type. After learning the features and capabilities of the transformation, then you may decide to modify your existing table types accordingly.

Areas of a Pivot Table – Introducing the Table Guide

The following figure shows a pivot table that has been specifically created to show how a pivoted table is built. The different areas of the pivot table are identified by the use of background colors. There are seven areas. This table is the same as that which is displayed in the Pivot Transformation Wizard, and is called the Table Guide. As you progress through each step of the Pivot Transformation Wizard, the Table Guide will help you visually by highlighting the area that will be affected by the options you select.

Ordering Information		Brand	Acme Drill Co.				PSV Co.		More Sizes Available Online	
		Material	HSS		Titanium		Carbide Tipped			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
1.5 mm	12 mm	2	8J5H1	13.99	8J5F4	14.99	8J6S4	16.99	82°	C7
2.0 mm	16 mm		8J5H2	16.99	8J5F5	17.99	8J6S5	18.99		
2.5 mm	20 mm	3	8J5H3	18.99	8J5F6	20.99	8J6S6	21.99		C9
3.0 mm	24 mm		8J5H4	22.99	8J5F7	22.99	8J6S7	22.99	90°	
3.5 mm	28 mm	2	8J5H5	23.99	8J5F8	27.99	8J6S8	24.99		C5
4.0 mm	30 mm		8J5H6	25.99	8J5F9	31.99	8J6S9	25.99		
Quantity = 100/Box		Box Type	Pop-Open Plastic				Wooden Case		??? Call Us	

One of the purposes for presenting information in this manner is to allow the reader to easily compare similar products, viewing both their common specification values and their differences. For example, a reader looking at the first part number in the table (8J5H1), can view that there are some similar products, (8J5F4 and 8J6S4). They have the same specifications for Diameter, Length, # Flutes, Angle, and Grade, but have different specifications for the Material and the Brand Name. Since there are differences between these three products, the Price will usually reflect that by also having a different value.

The different background colors identify seven areas. Each of these areas has a separate setup screen in the Pivot Transformation Wizard. The name and purpose of each of these different areas are defined as follows, in the order that they are presented in the Wizard:

Diameter	Length	# Flutes
1.5	12 mm	2
2.0	16 mm	
2.5	20 mm	3
3.0	24 mm	
3.5	28 mm	2
4.0	30 mm	

The yellow cells denote the **Left Common Values** area. You may define the attributes that are common to all the products in the same row. The attributes will be located on the left side of the table. There is a similar capability to define attributes that should be placed on the right side of the table (in the brown area). If within the Pivot Transformation no attributes are defined in either of these areas (yellow or brown), then table compaction cannot be accomplished. That is, there must be at least one attribute declared as being a 'common value' attribute for the transformation to function. In the Table Guide, the attributes used in this area are: Diameter, Length, and Number of Flutes (# Flutes).

Acme Drill Co.		PSV Co.
HSS	Titanium	Carbide Tipped

The light blue cells denote the **Top Pivotal Values** area. In the Wizard you can identify the attributes to be 'promoted' into one or more header rows and these header rows will be created and placed at the top of the table. There is a similar ability to define one or more attributes to be located in an automatically generated row (or rows) at the bottom of the table, (the dark pink area). For any Pivot Transformation to work, there must be at least one attribute declared as either a Top or Bottom Pivotal Value. In the Table Guide, the 'promoted' attributes in this top area are: Brand and Material.

SKU	Price	SKU	Price	SKU	Price
8J5H1	13.99	8J5F4	13.99	8J6S4	14.99
8J5H2	16.99	8J5F5	16.99	8J6S5	17.99
8J5H3	18.99	8J5F6	18.99	8J6S6	19.99
8J5H4	22.99	8J5F7	22.99	8J6S7	23.99
8J5H5	23.99	8J5F8	23.99	8J6S8	24.99
8J5H6	31.99	8J5F9	31.99	8J6S9	32.99

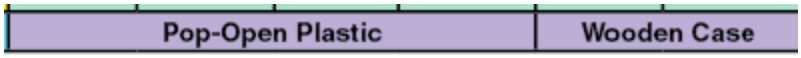
The green cells denote the **Compacted Values** area. In the transformation you can state which attributes should be placed in this area and these attributes will be rearranged so that products with the same common values will be placed on the same row, and that they will be placed in the appropriate column corresponding to the promoted attributes in the header rows. In the Table Guide the attributes that will be used are the SKU and the Price.

		Brand								
		Material								
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade

The dark blue cells denote the **Column Heading** area. In the Table Definition tab a standard setup will have one header row that holds all the column headings for the attributes that are called out in each column. In the Pivot Transformation you can declare certain attributes to use for the table compaction (the 'promoted' attributes), and the system will generate the appropriate number of header rows at the top and/or bottom of the table. In our example, the attributes Brand and Material were the promoted attributes (and Box Type was promoted to the Bottom Pivotal Values area, not shown). Since the cells with the attribute names in the generated top and bottom header rows originated from the first row in the table definition (the column headings row), they are still considered as 'column headings', thus the reason for showing them in their dark blue color. It is easy to suppress these attribute names from appearing.

Angle	Grade
82°	C7
	C9
90°	C5

The brown cells denote the **Right Common Values** area. This is an identical setup to that of the Left Common Values area. In any Pivot Transformation there must be a minimum of one attribute defined in either the Left Common Values or the Right Column Values. If no attributes are defined in either of these areas, (yellow or brown), table compaction cannot be accomplished. In the Table Guide, the attributes used in this area are: Angle and Grade.



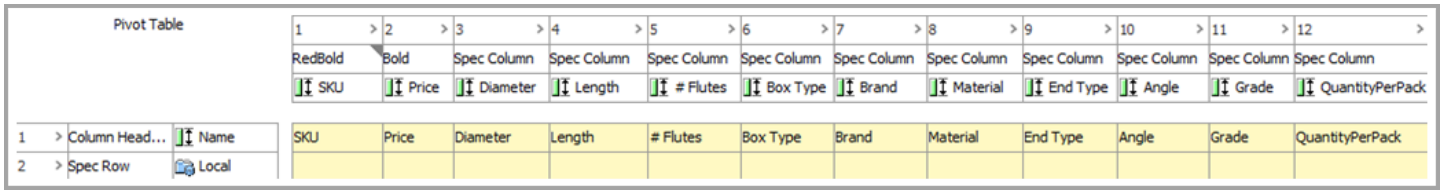
The dark pink cells denote the **Bottom Pivotal Values** area. This is similar to the Top Pivotal values area, with the exception that the system will generate an appropriate number of header rows at the bottom of the table depending on the attributes selected. For any Pivot Transformation to work, there must be at least one attribute declared as either a Top or Bottom Pivotal Value. In the Table Guide, the attribute in this bottom area is: Box Type.

The red cells denote the table's **Corners** area. These areas are really independent of one another and may be used for a variety of purposes. You may enter free text into any of these areas, or you may access attribute values or image references from the original defined table. In the Table Guide, the information in the top left, top right, and bottom right corners are all free text. In the bottom left corner an attribute has been called out to display the 'Quantity per Package type' attribute.

Preparing Tables for Pivot Transformation

The contents of table cells may be free text, product attribute values, product Names or IDs, meta-data, product references, or asset references. In order to simplify this documentation only product attributes and free text are used for the cell contents. But the other cell content types are equally valid and may be used in the Pivot Transformation.

It is recommended that the tables that are going to be involved with pivot transformations are all constructed in a similar manner. That is, products in rows and attributes in columns are shown in the following general example that matches that shown in the Table Guide.



In the example shown, there is only one header row used for the Attribute Names. It is of no use to set up a Table Definition with more than one header row, since it will conflict with the Pivot Transformation. The transformation will create additional header rows according to the setup within the transformation. It will only accept one header row in the original Table Definition.

In the above example, the elements are organized in the following way. The first two columns will be used in the Compacted Values area, the next three columns will be used for the Left Common Values, columns 6, 7, and 8 will be used to generate header rows at the top and bottom of the table, and columns 10 and 11 will be used for the Right Common Values. Column 9 is included in the table definition (attribute = End Type), but if an attribute is not 'mentioned' in the Pivot Transformation then it will be ignored (filtered out) and will not appear anywhere in the resultant transformed table. Thus column 9 is included only to demonstrate that it is not present in the transformed table, regardless of whether or not there are attribute values in that column. As far as the Table Guide is concerned, column 9 is redundant. And as far as the Pivot Transformation is concerned, it does not exist. The attribute in column 12 will be used in the bottom left corner of the pivoted table.

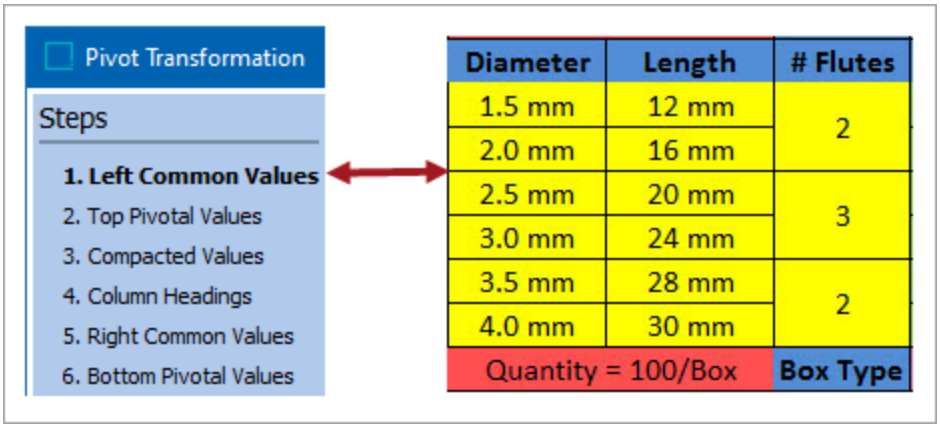
Notes

The product attributes are all called out individually in this table definition, and the content definition of 'Attribute Groups Attributes' has not been used. That option may be used if it is desired that the table is more 'dynamic', and to reduce the number of localized tables. However, the Pivot Transformation does require that you state exactly which attributes are to be used in the different areas of the table, either by attribute, Column Number, or Column Type. So if you do use the 'Attribute Group Attributes' method you must know beforehand which attributes in that group to include within the transformation. Empty attribute columns can be easily discarded either within the Pivot Transformation or via the standard transformation that removes empty columns and rows.

The above setup does make use of the content definition 'SubProducts, Family', so that the number of rows that initially make up the table is dynamically sized according to the number of child products in the product family. If a successful table compaction is done, there will be fewer rows after the pivot transformation.

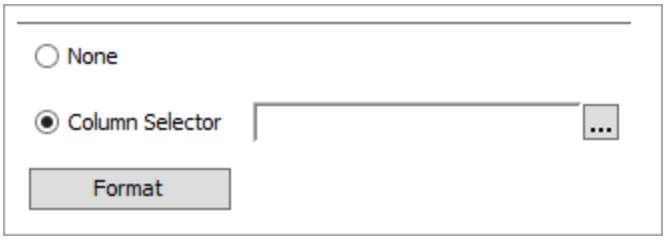
You can create different column types for the different 'areas' in which the attributes will be used. But you should be aware that no matter what you set up in the table definition tab you will still need to declare the different row and column types within the transformation, since during the transformation all the original row and column types are basically 'discarded'. So for the Table Definition, whether or not you organize your tables with different column types is a matter of personal choice. However, there is one major advantage to assigning the column types to match their intended 'area' in the pivoted table, and that will also be explained later in the Working with the Pivot Transformation Wizard.

Pivot Transformation Step 1 Left Common Values



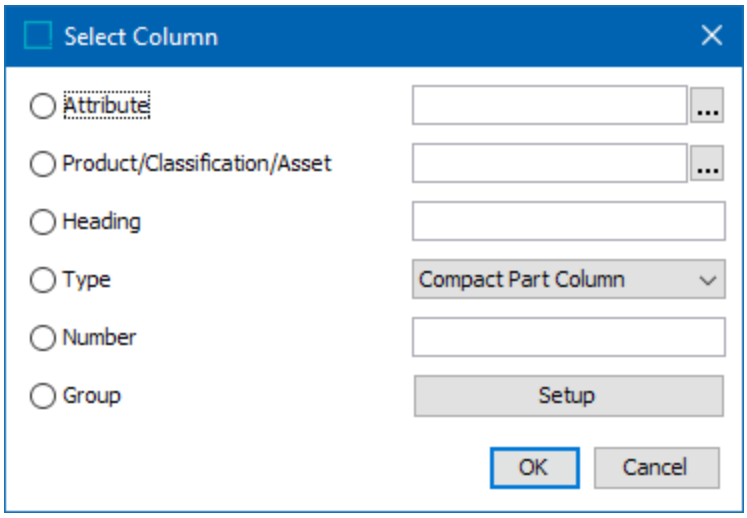
In the Table Guide, the Left Common Values will be the attributes for Diameter, Length, and # Flutes.

Note: The contents of table cells may be free text, product attribute values, product Names or IDs, meta-data, product references, or asset references. But for purposes of simplicity in this document the terms "attribute" and "attributes values" are used when referring to a cell's content.



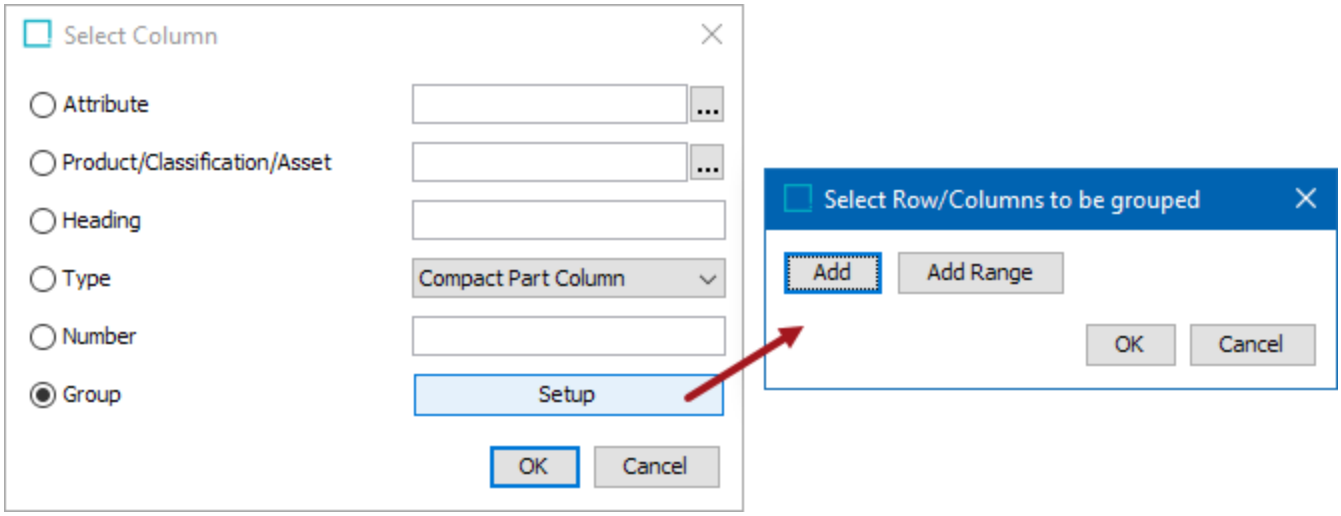
In this step you choose the attributes whose values are common to all the products in the same row and that will be positioned on the left hand side of the table. You have the following options:

- Select **None** if you do not want any attributes in this area. If you choose this option, you will need to define at least one attribute in the Right Common Values area. Otherwise the transformation cannot be accomplished.
- To choose one or more attributes to be placed on the left side of the table, click the ellipsis button (...) to open the window where you will choose those attributes. The **Column Selector** radio button is automatically set and the following screen displays:

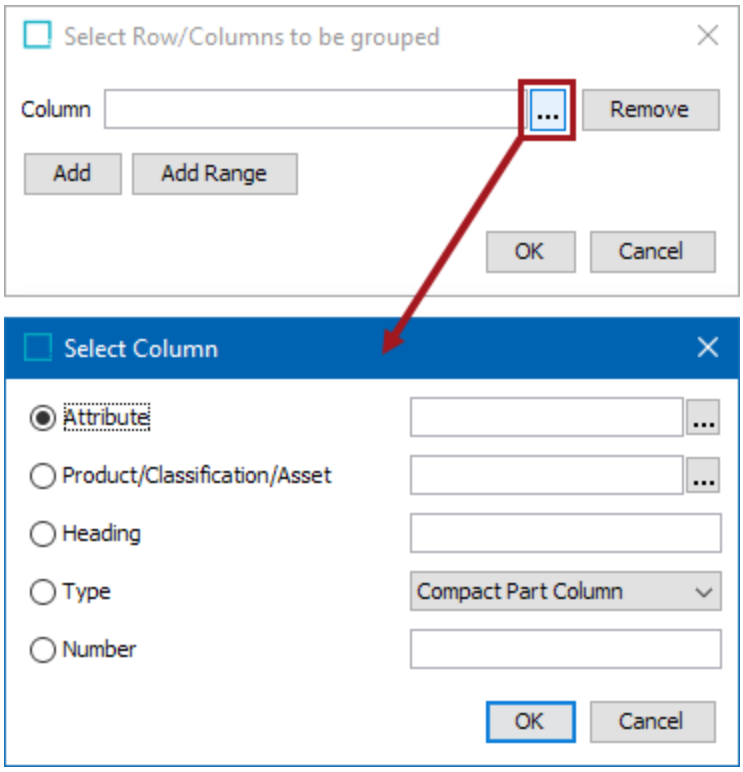


The options in this dialog box should be familiar; they are used for identifying columns or rows of attributes in several other table transformations. If you know that you will be defining more than one attribute in the Left Common Values area, then you should immediately select **Group** > Setup, which launches the 'Select Row/Columns to be Grouped' window.

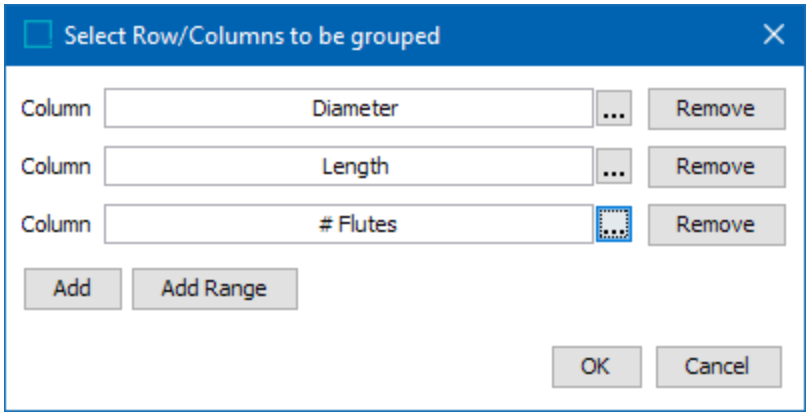
If you know that you will only be defining one single attribute in the Left Common Values area, then you may make your selection in the usual manner from the options provided.



If you have selected **Group** > Setup, then click **Add** on the 'Select Row/Columns to be Grouped' window. Click the ellipsis button (...) by the Column field to launch the 'Select Column' window, then choose the columns that should be in your group. Define as many attributes as needed.

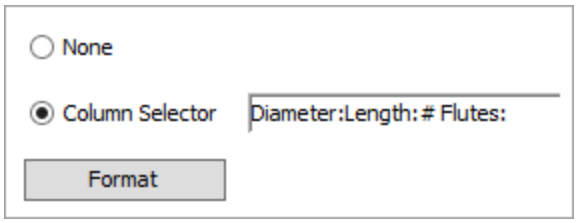


Each time you select the 'Add' button (top picture) you are presented with the options for identifying the attribute to appear on the left side of the table (bottom picture). The attributes display in the pivoted table in the same order they appear in this setup. So, the order in which the columns appear in the Table Definition is irrelevant. It is at this wizard step that you select the order of the columns to be displayed.



The selection of attributes that matches the Table Guide.

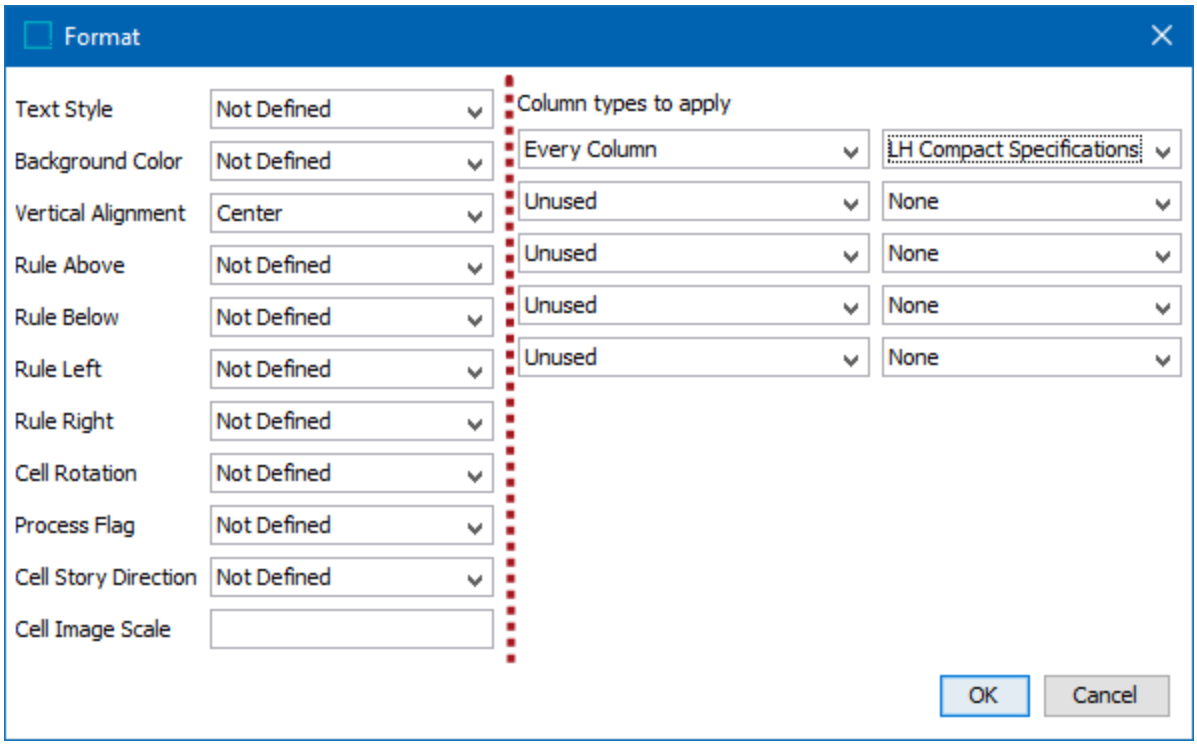
When you are finished with your selections, click OK to return to the main Wizard screen. Your selections will appear in the Column Selector line, similar to the following:



Format Button – Left Common Values

The Format Button is available in seven of the Wizard screens. The options within the Format window are very similar.

After making your selections as to which attributes will be placed on the left side of the table you need to define how the attribute values in the newly formed columns should be displayed. If you click the **Format** button, you can control the assignation of all the required Column Types in this area.



The options and selections in this window are the same as those for the Right Common Values.

Note that although the selections in the Format window for the Left Common Values and Right Common Values windows are exactly the same they are completely separate. So when you are in the Left Common Values area you will only be establishing setups for that area and not for the Right Common Values area.

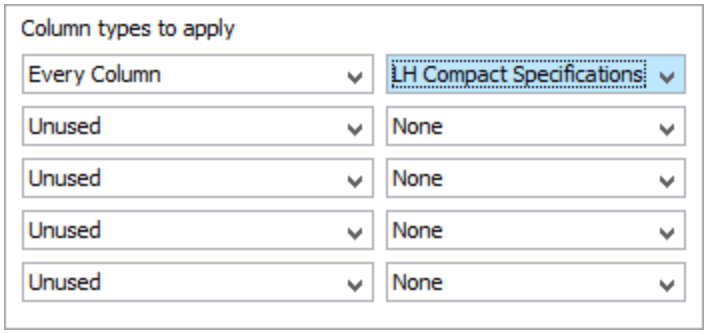
The window is divided into two distinct areas, indicated by the vertical dashed line in the above picture. Over on the right hand side of the Format window you may apply column types to the attributes that you just selected. However, no matter what setups are defined within those Column Types that you have specified, the settings in

the area over on the left hand side of the Format window will override those settings. You can therefore consider the settings on the left side to be 'global overrides'. For more information refer to the section on Priority of Formatting Setups.

For example, in the above screenshot, if there is a Background Color of 'Mango' defined in the Column Type = LH Compact Specification, it will only take effect if there is no Background Color specified on the left.

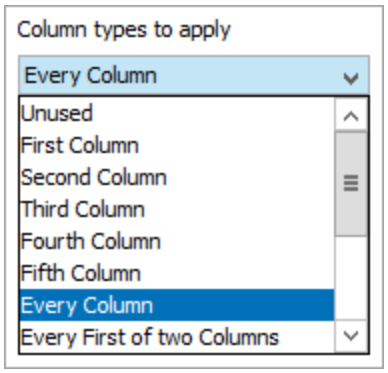
Summary: Any setting that is not defined in the 'global overrides' area will allow the setting from the Column Type (specified on the right side) to take effect. However, there are some additional conditions that will influence this, refer to the section on Priority of Formatting Setups.

Applying Column Types



Up to five 'rules' may be applied when assigning column types. Each rule has the same selection of options.

There are different ways of assigning Column Types since the number of attributes selected in the Left Common Values area may vary from table to table. You have up to five sets of options or "rules" that you can apply to the assignation of the Column Types:



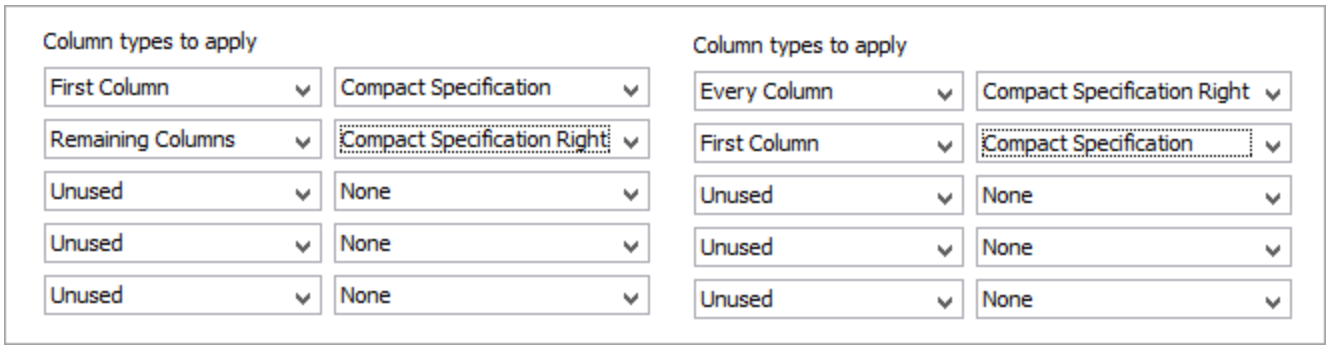
The available selections within each rule.

- **Unused**: No Column Type is defined.
- **First Column**: The specified Column Type will be assigned to the first column in the Left Common Values area.

- **Second Column**: The specified Column Type will be assigned to the second column in the Left Common Values area.
- **Third Column**: The specified Column Type will be assigned to the third column in the Left Common Values area.
- **Fourth Column**: The specified Column Type will be assigned to the fourth column in the Left Common Values area.
- **Fifth Column**: The specified Column Type will be assigned to the fifth column in the Left Common Values area.
- **Every Column**: Every column in the Left Common Values area will be assigned the specified Column Type.
- **Every First of Two Columns**: Starting at the first column in the Left Common Values area, every alternate column will be assigned the specified Column Type.
- **Every Second of Two Columns**: Starting at the second column in the Left Common Values area, every alternate column will be assigned the specified Column Type.
- **Every First of Three Columns**: Starting at the first column in the Left Common Values area, every third column will be assigned the specified Column Type.
- **Every Second of Three Columns**: Starting at the second column in the Left Common Values area, every third column will be assigned the specified Column Type.
- **Every Third of Three Columns**: Starting at the third column in the Left Common Values area, every third column will be assigned the specified Column Type.
- **Remaining Columns**: All columns in the Left Common Values area following the ones affected by the previous rules will be assigned the specified Column Type. For example, if rules have been applied to the first three columns, then from column 4 onwards the specified Column Type will be assigned.
- **Last Column**: The last column in the Left Common Values area will be assigned the specified Column Type.

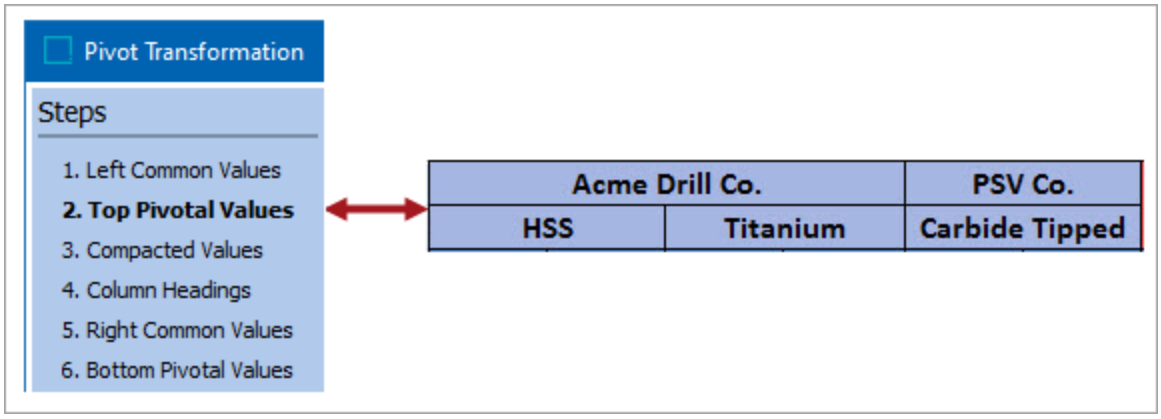
When column types are applied, the rules are applied in the order they are listed, thus a later rule overrides an earlier rule. For example, if the first rule is 'Every Column' and the second rule is 'Third Column', then all columns will be assigned the Column Type defined in the first rule, except the third column, which will be assigned the Column Type defined in the second rule.

Note that as a result of these different options it is possible to achieve the same result in different ways. For example, review the setups in the following picture – they accomplish the same thing:

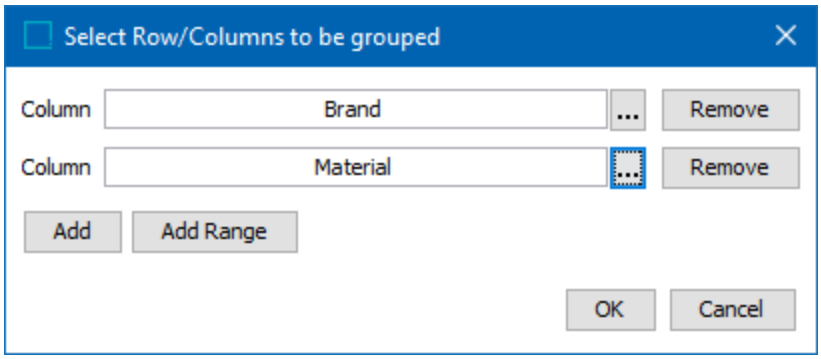

Column types to apply
First Column
Compact Specification
Remaining Columns
Compact Specification Right
Unused
None
Unused
None
Unused
None
Column types to apply
Every Column
Compact Specification Right
First Column
Compact Specification
Unused
None
Unused
None
Unused
None

Pivot Transformation Step 2 Top Pivotal Values

In this Step you choose the attributes that you want the system to promote into the table headers, creating as many header rows as required. The procedure is very similar to **Step 1** with the exception being the formatting options, where instead of Column Types you define the Row Types for the attributes that have been promoted into row headers.



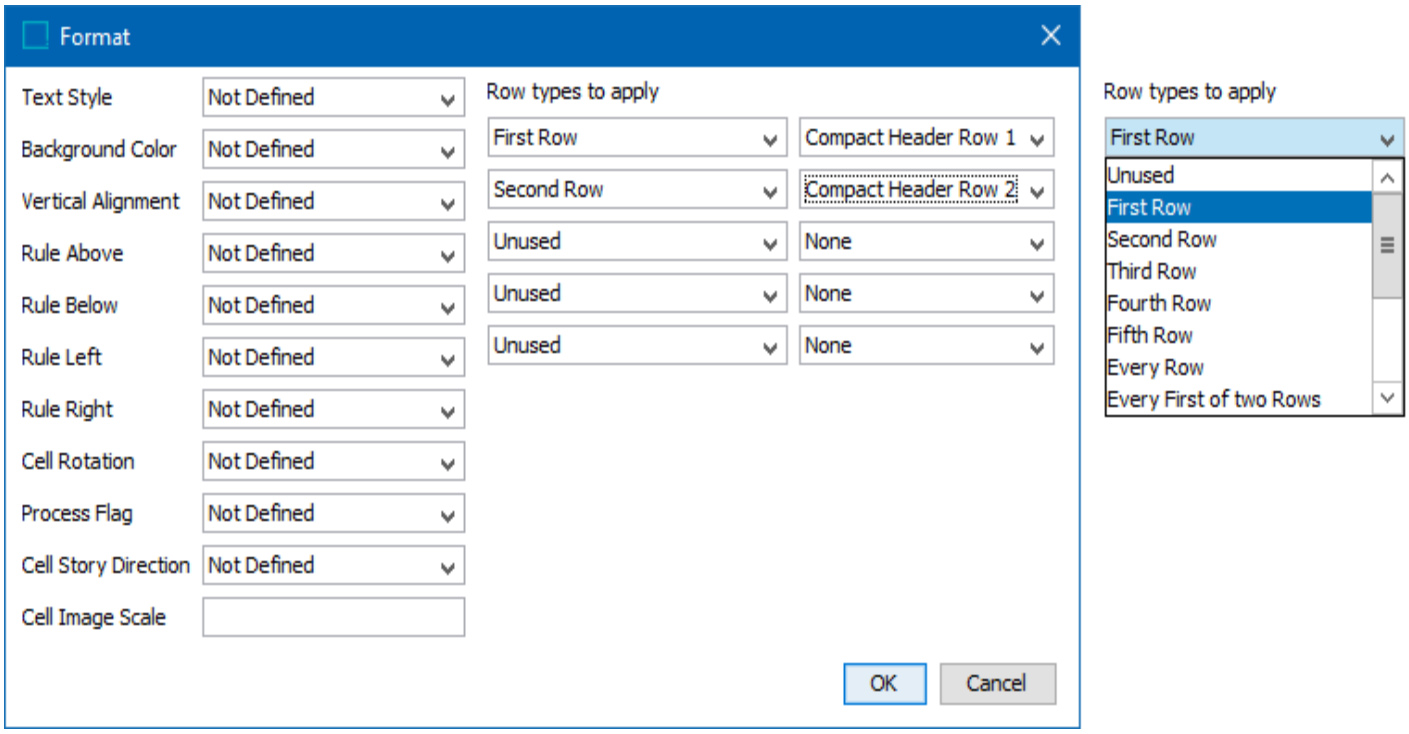
In the Table Guide, the Top Pivotal Values will be the attributes for Brand and Material.



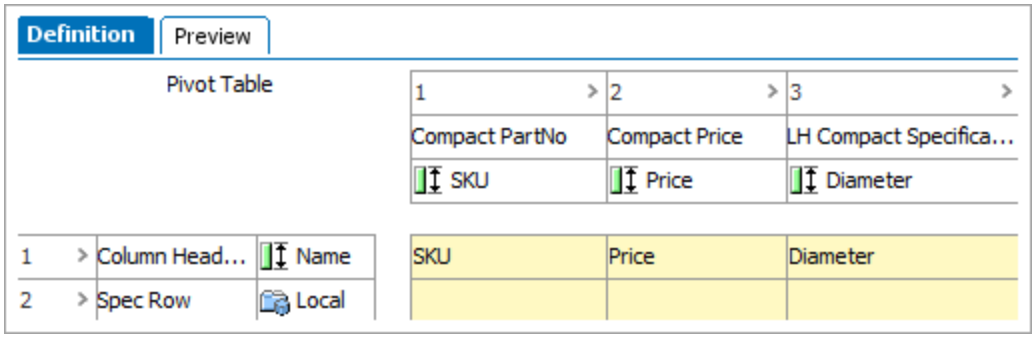
The method of selecting the attributes is identical to that in Step 1. The above selection of the attributes Brand and Material correspond to the attributes shown in the Table Guide.

Format Button

In Step 1 the functionality of the Format button was described in detail. You may refer back to that section for further information. The only difference between the Format window presented and that in Step 1 is that you will select the Row Types for the attributes that you chose to be promoted into header rows. And the options in the 'Row Types to apply' will reflect row numbers, not column numbers. Refer to the following image for reference.

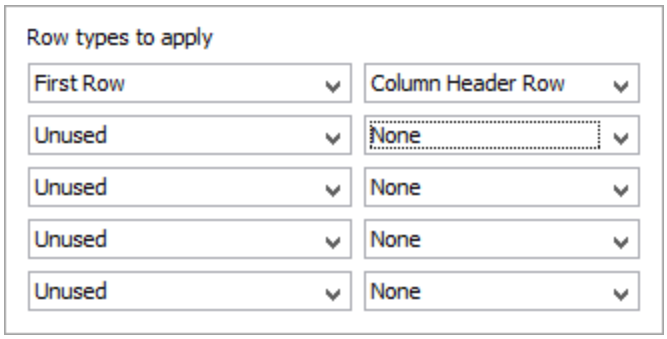


In the Table Guide example two different Row Types have been applied, corresponding to the two attributes Brand and Material that were selected to be promoted into row headers. This would allow for different fonts, point sizes, background colors, etc. to be applied to the attribute values in the header rows. If the two new header rows will have thew exact same specifications, there is no real benefit in assigning two different row types. Note that the row types that you specify may or may not be the same as that of the first row in the Table Definition, they *could* be completely different row types.



A reminder that in our sample table, the row type used for the column headers is 'Column Header Row'. This may or may not be the same row type that is desired for the additional header rows that are created by promoting attributes into those new rows.

If the format specifications will be the same for all header rows, it is perfectly acceptable to apply the row type that is used in the Table Definition (in this case, 'Column Header Row') to all rows in the Top Pivotal Values, thus:



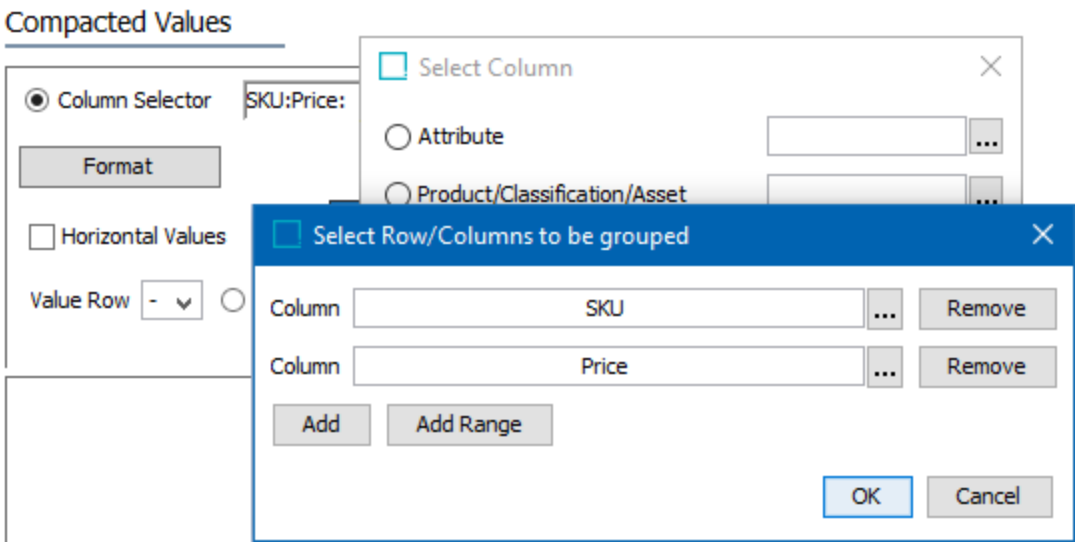
Note that you could also apply setups in the 'global override' area of the Format window. But that does not mean that you can leave the right side 'blank', since as a minimum you do need to tell the system that the rows are header rows and not normal rows. If the table is mounted to a page and the system needs to split the table, then it needs to know what the header rows are so that the appropriate row(s) can be carried over to the next column or page. So as a minimum you need to fill in at least one entry for the Row Types, and that Row Type should have its Header / Footer option set to set to Heading (1). That would be the standard setup.

Note that the options for the Bottom Pivotal Values in step 6 of the Wizard is identical to this one.

Pivot Transformation Step 3 Compacted Values

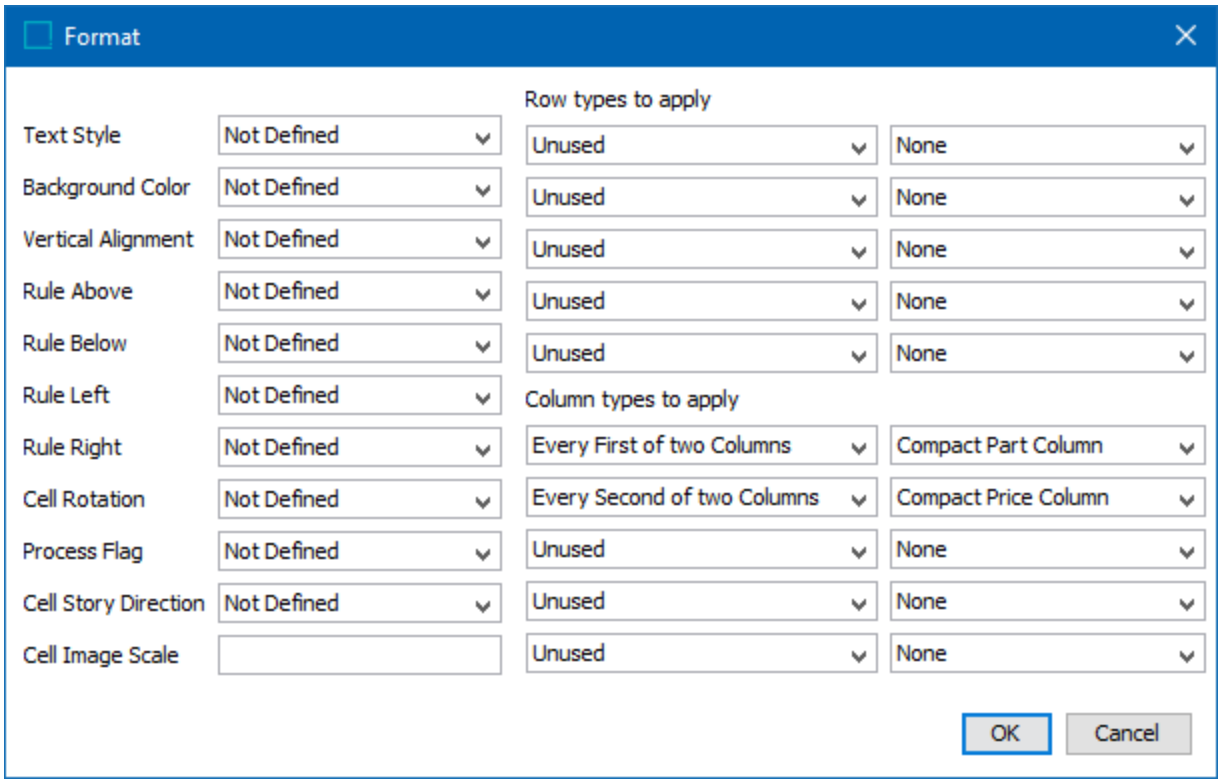
SKU	Price	SKU	Price	SKU	Price
8J5H1	13.99	8J5F4	14.99	8J6S4	16.99
8J5H2	16.99	8J5F5	17.99	8J6S5	18.99
8J5H3	18.99	8J5F6	20.99	8J6S6	21.99
8J5H4	22.99	8J5F7	22.99	8J6S7	22.99
8J5H5	23.99	8J5F8	27.99	8J6S8	24.99
8J5H6	25.99	8J5F9	31.99	8J6S9	25.99

In Step 3, you choose which attributes you want to go into the compacted area. You must select at least one attribute. The method of selecting the attributes is the same as in the prior steps.



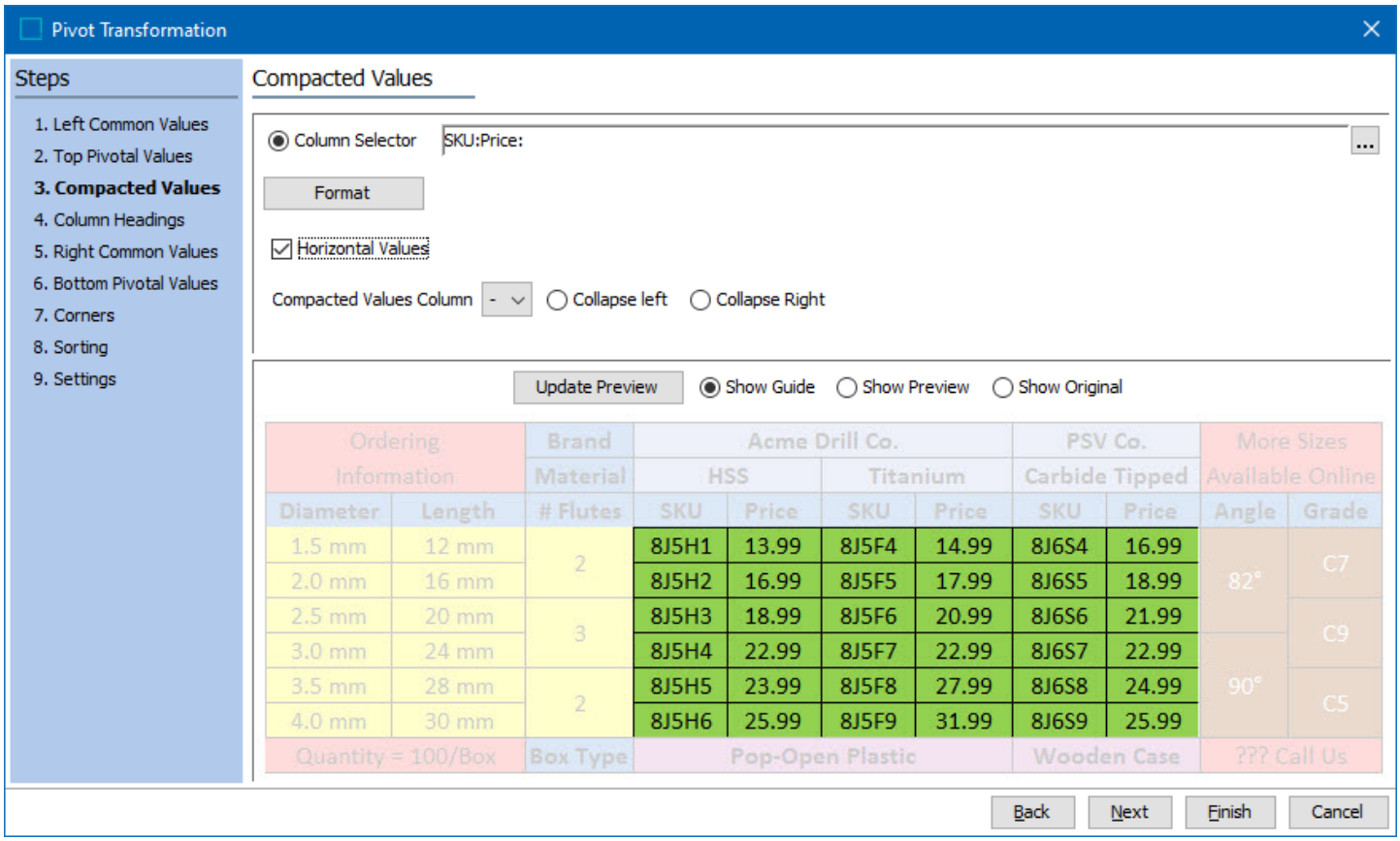
In the Table Guide example the column types of PartNo and Price were selected.

The Format screen dialog is similar to that shown in Step 1 and 2, except you can specify both Row *and* Column Types.



In the above setup each group of compact values will alternatively be assigned the Column Types of Compact Part Column and Compact Price Column. This matches the settings for the Table Guide, where the column types of Part No and Price were defined.

Also, in this step, you determine whether the compacted values will display within that area in a left-to-right manner (as shown in the Table Guide, Price columns next to the SKU columns) or whether the display will show in a top-to-bottom manner (SKU numbers displayed in one row, prices displayed on the next row). You can request the system to further compact this area if, say, all the prices in the first price column are the same as the prices in the second price column. For example, in the Table Guide you can view that all the prices for the HSS and Titanium products are the same, so further compaction is possible. This is accomplished by the Horizontal Values setting and its attendant options.



Effect of the Horizontal Values Setting

This is best shown by pictures. The following picture shows the effect on the display of cell contents within the Compacted Area as a result of selecting the Horizontal Values checkbox. Note that it matches the example of the Table Guide:

SKU	Price	SKU	Price	SKU	Price
8J5H1	13.99	8J5F4	13.99	8J6S4	14.99
8J5H2	16.99	8J5F5	16.99	8J6S5	17.99
8J5H3	18.99	8J5F6	18.99	8J6S6	19.99
8J5H4	22.99	8J5F7	22.99	8J6S7	23.99
8J5H5	23.99	8J5F8	23.99	8J6S8	24.99
8J5H6	31.99	8J5F9	31.99	8J6S9	32.99

The following picture shows the effect on the display of cell contents within the Compacted Area as a result of deselecting the Horizontal Values checkbox:

SKU	8J5H1	8J5F4	8J6S4
Price	13.99	13.99	14.99
SKU	8J5H2	8J5F5	8J6S5
Price	16.99	16.99	17.99
SKU	8J5H3	8J5F6	8J6S6
Price	18.99	18.99	19.99
SKU	8J5H4	8J5F7	8J6S7
Price	22.99	22.99	23.99
SKU	8J5H5	8J5F8	8J6S8
Price	23.99	23.99	24.99
SKU	8J5H6	8J5F9	8J6S9
Price	31.99	31.99	32.99

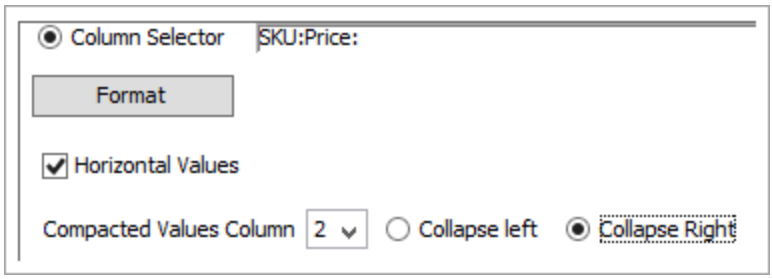
Performing Further Consolidation within the Compacted Area

Consider the following:

SKU	Price	SKU	Price	SKU	Price
8J5H1	13.99	8J5F4	13.99	8J6S4	14.99
8J5H2	16.99	8J5F5	16.99	8J6S5	17.99
8J5H3	18.99	8J5F6	18.99	8J6S6	19.99
8J5H4	22.99	8J5F7	22.99	8J6S7	23.99
8J5H5	23.99	8J5F8	23.99	8J6S8	24.99
8J5H6	31.99	8J5F9	31.99	8J6S9	32.99

Note that the prices are the same in the first two compacted price columns.

Now review the following setting:

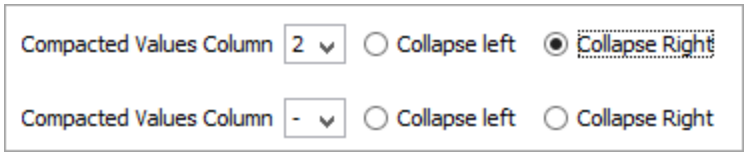


In the Column Selector, the column that held the prices was defined as the second column to compact. By using the setting for the Compacted Values Column (set to 2, referring to the Compact Price column), the transformation can then further consolidate the data, thus:

SKU	SKU	Price	SKU	Price
8J5H1	8J5F4	13.99	8J6S4	14.99
8J5H2	8J5F5	16.99	8J6S5	17.99
8J5H3	8J5F6	18.99	8J6S6	19.99
8J5H4	8J5F7	22.99	8J6S7	23.99
8J5H5	8J5F8	23.99	8J6S8	24.99
8J5H6	8J5F9	31.99	8J6S9	32.99

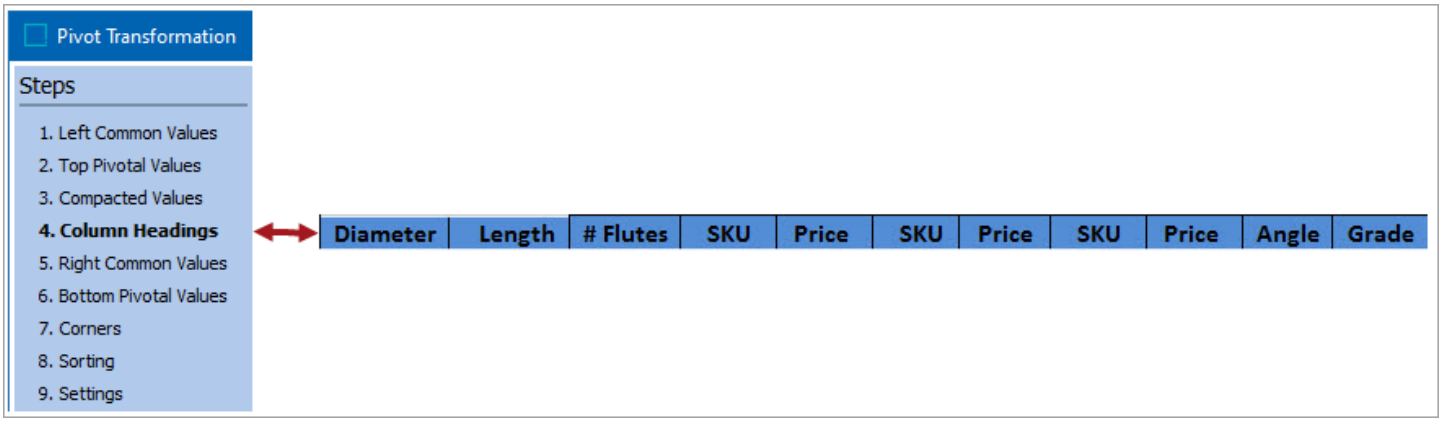
Note that in the setting, 'Collapse Right' was chosen. This indicates (in this case) that the column furthest to the right after the compaction should be used. If in this example 'Collapse Left' had been chosen, the price column would have been positioned between the column starting with part number 8J5H1 and the column starting with part number 8J5F4, since that would be the 'left-most' of the compacted price columns.

Also note that if you have more than just two attributes in the Compacted Area, you can compact those additional attribute values. As you enter a value for one Compacted Values Column the system will automatically add another blank entry for you to make your additional selection. Example:

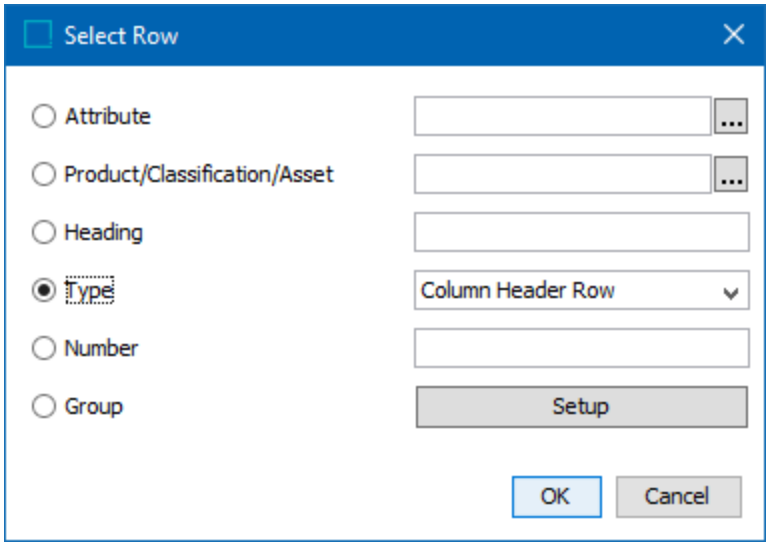


Note: Merging the column headings of 'SKU' into one cell may be done by a subsequent standard transformation.

Pivot Transformation Step 4 Column Headings



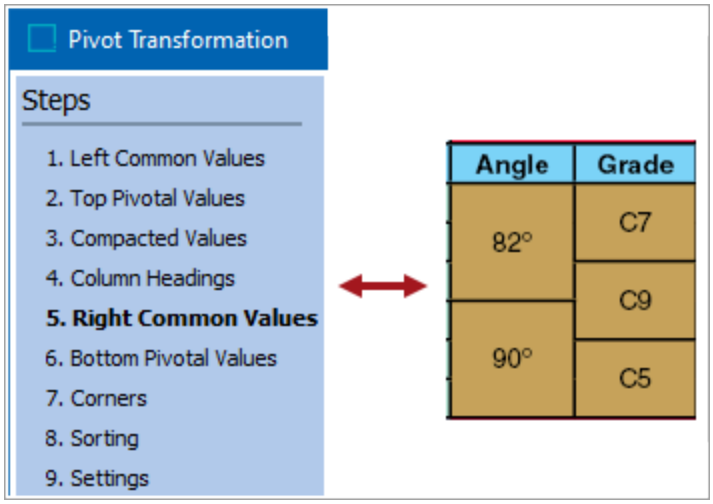
In this step you choose which row in the Table Definition is the one to use for the Column Headings. As usual, you can select that row by specifying the Attribute, Product/Classification/Asset, Heading, Row Type or Row Number. It is expected that in the vast majority of cases the selection will be made either by Row Type or Row Number.



Note that it is not at all common for there to be more than one Column Headings row set up in the Table Definition. Usually, any multi-row table headers are made up of the original header row plus the new header rows that have been generated as a result of promoting attributes into that area (in Step 2 above).

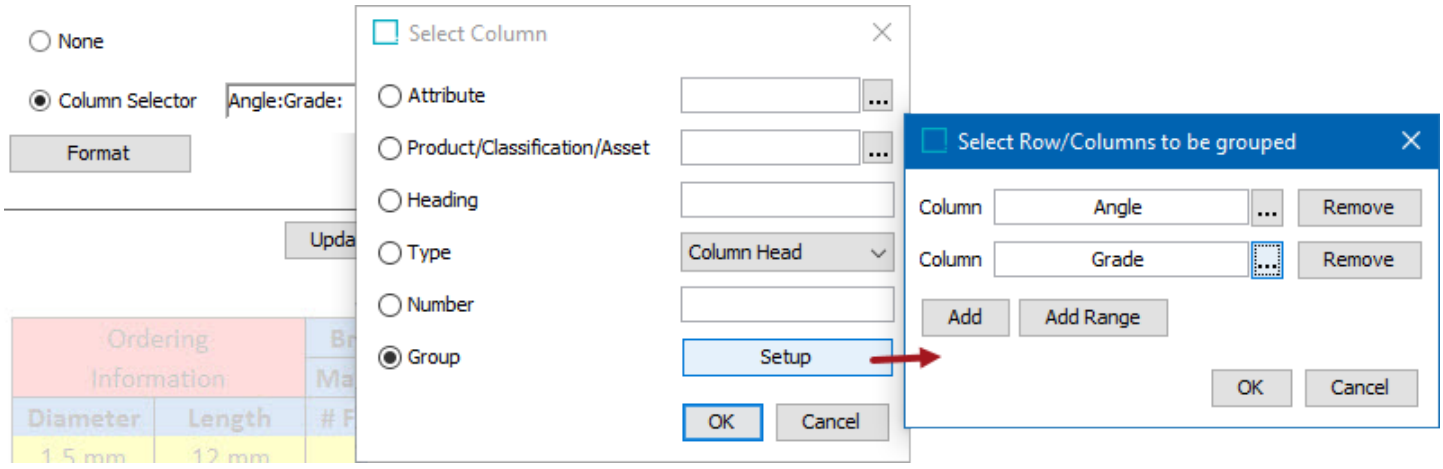
The setup that matches that for the Table Guide.

Pivot Transformation Step 5 Right Common Values

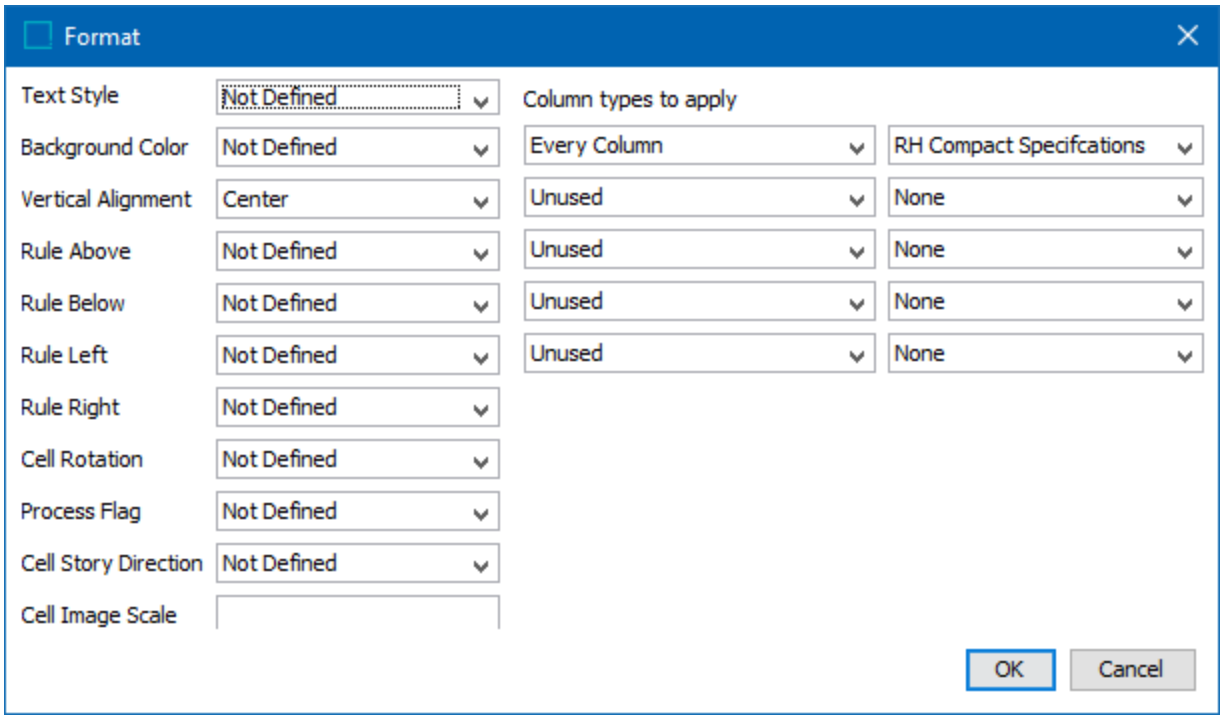


In this step, you choose which attributes that you want to appear on the right hand side of the table, i.e., to the right of the Compacted Values area. The setup method is essentially the same as that described in Step 1, which defined the attributes to the left of the Compacted Values area. Refer to Step 1 for more details. Some screenshots are included showing the setup that corresponds to the Table Guide.

Since any Pivot Transformation requires at least one attribute to be defined either in the Left Common Values area or in the Right Common Values area, then if None was selected in Step 1, you *will* be required to make an entry at this point because the None radio button option will be disabled.



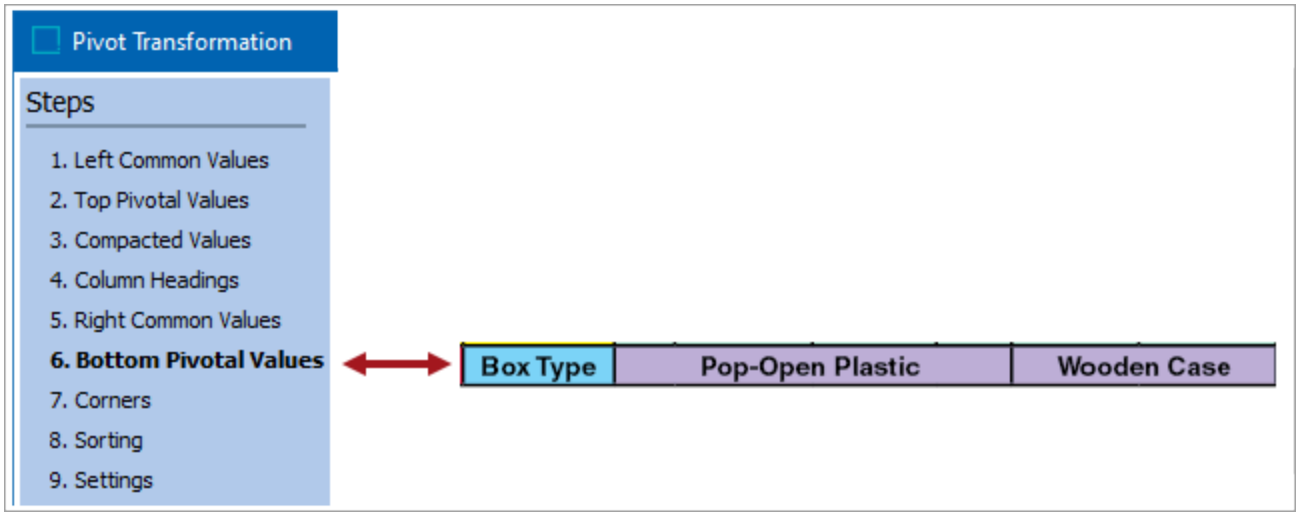
The above picture shows the selection of attributes for the Right Common Values that match the Table Guide.



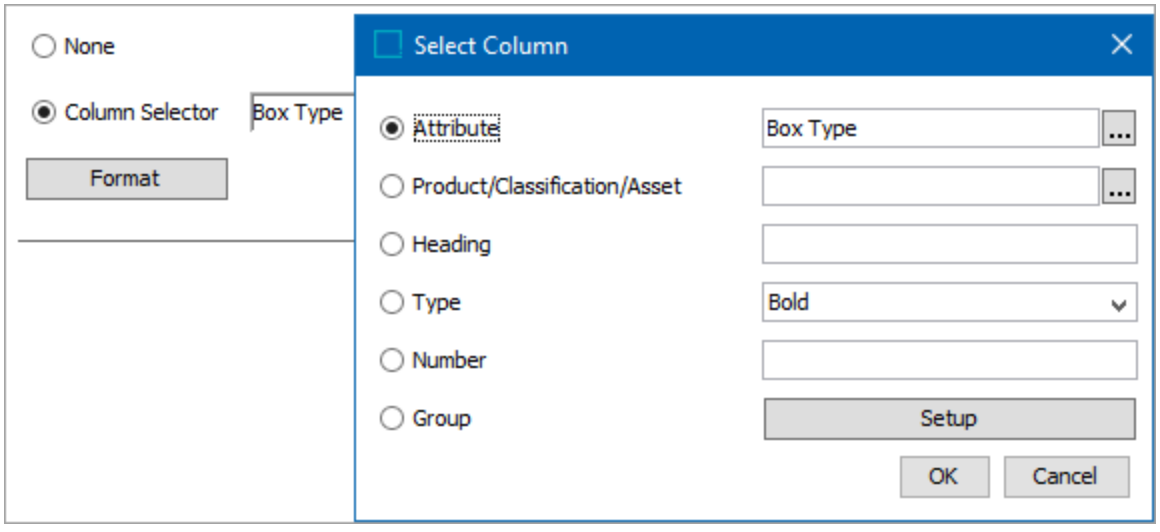
The above picture shows the Format screen with all columns being assigned the column type 'RH Compact Specifications'.

Pivot Transformation Step 6 Bottom Pivotal Values

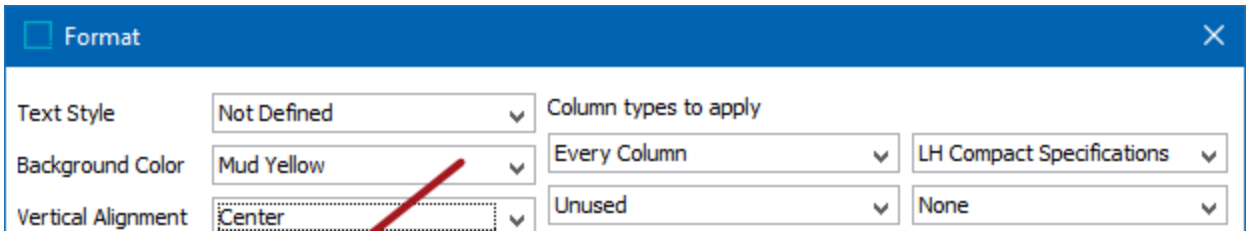
In Step 6, you choose which columns to use for the bottom header rows. The procedure is the same as in Step 2. Any new rows generated as a result of promoting an attribute will be placed at the bottom of the table. Refer to Step 2 for details, some screenshots are included to show the setup that corresponds to the Table Guide.



In the Table Guide example, the attribute Box Type is used to create a bottom header row.



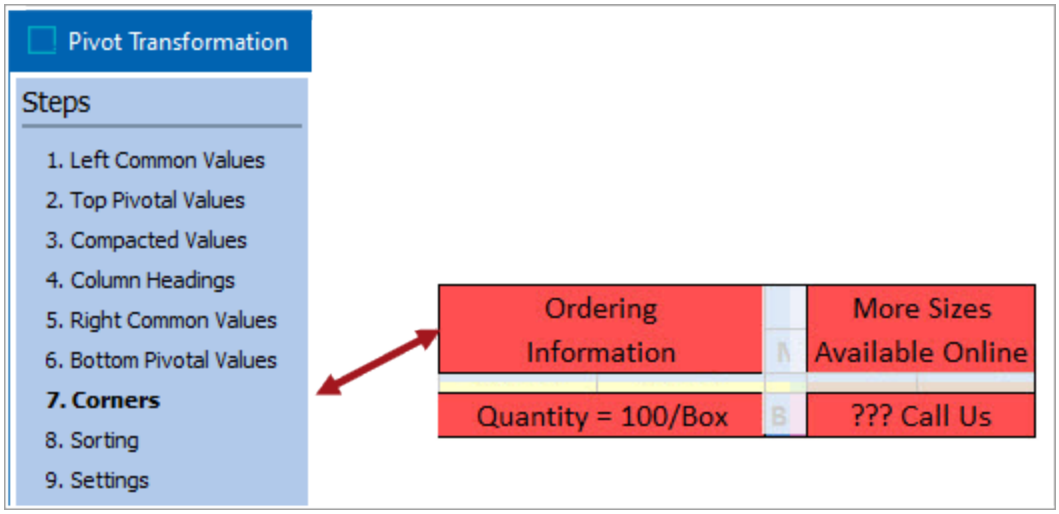
The above image shows the selection of the attribute Box Type. Since only one attribute will be promoted to the Bottom Pivotal Values the group option was not necessary.



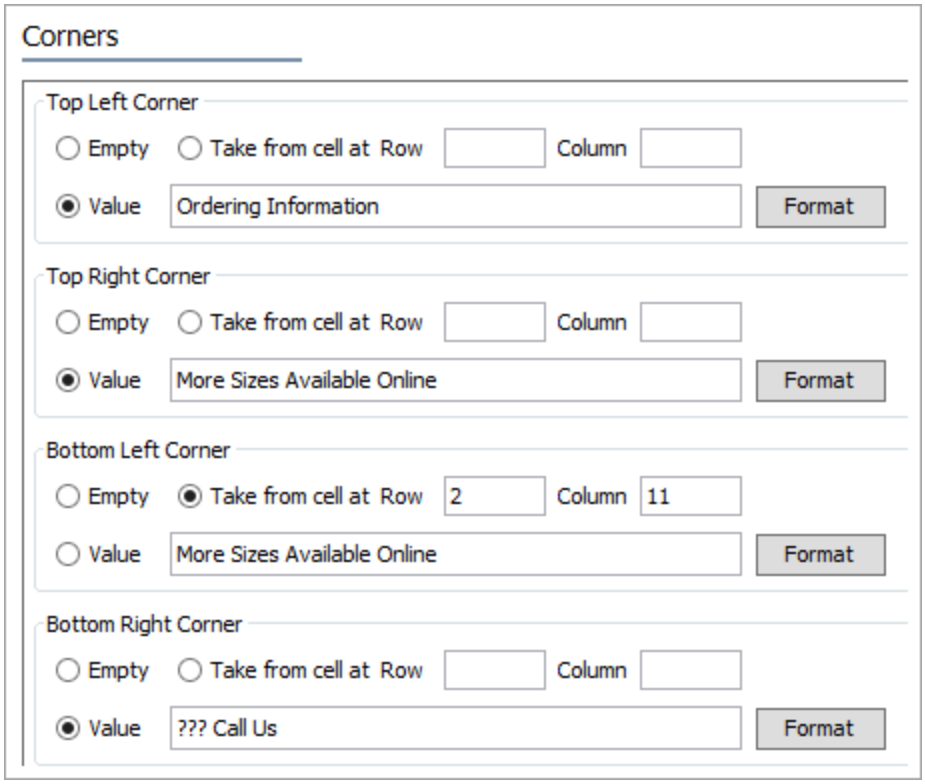
The above shows the setup that matches that for the Table Guide example.

Pivot Transformation Step 7 Corners

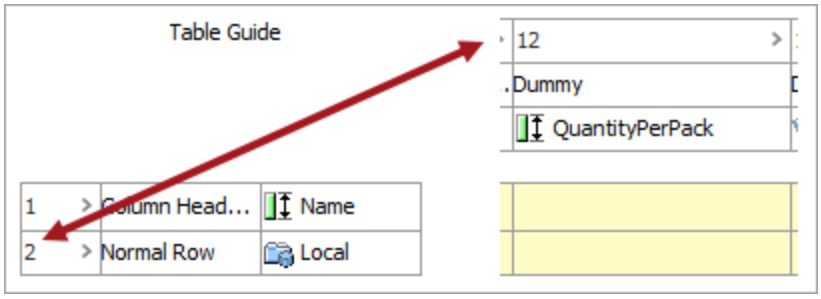
In Step 7, you define the contents of the four corners of the pivot table.



The information specified in each of the four corners are independent of each other.



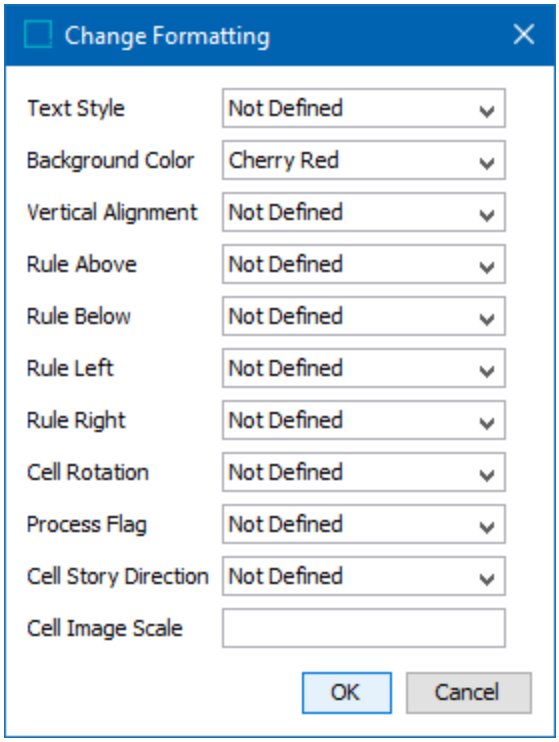
The image above shows the setup that matches the Table Guide example. Note that in the example the top left, top right, and bottom right corner cells will have free text values, and that the bottom left corner cell is set up to reference a row/cell number in the original Table Definition, thus:



For each corner cell, you have the following options:

- Leave the cell empty.
- Retrieve the contents of a specific cell in the original table by specifying the intersecting row and column numbers. The row/column numbers refer to the original table *before* the Pivot Transformation, and the contents of the cell in the Table Definition may be an attribute reference, asset reference or free text.
- Enter the value (including any STEP tags) as free text.

Click the **Format** button to define the formatting of the cell in each corner.



The above picture reflects the setup for the top left corner cell of the Table Guide example.

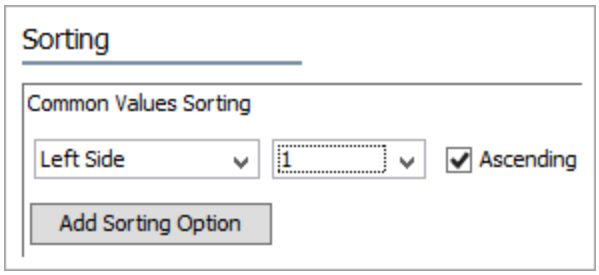
The format of the cells in the corners does not have anything to do with any row or column type formatting. Thus each of the four Format windows allows a different format style to be applied to the four corner cells.

Pivot Transformation Step 8 Sorting

In Step 8, click the **Add Sorting Option** button to define the sorting of the information in the Top or Bottom Pivotal Values area and/or information in the Left or Right Common Values areas.

The sorting mechanism is similar to that of the Table Sorting Options, except that instead of specifying the sort criteria by row / column type or attribute, instead you specify the column number in the Left or Right Common values, or by row number for the columns that are in the Compacted Values area.

Example 1, sorting via the Left Common Values area:

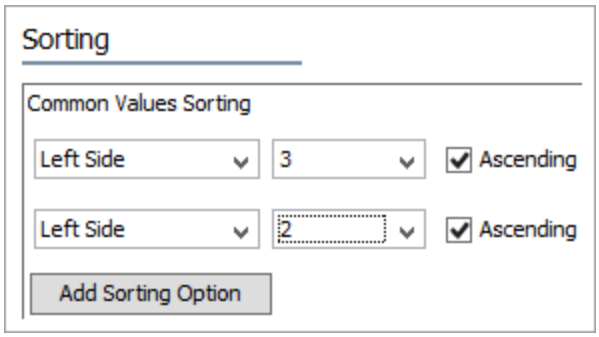


The above setup specifies to sort the 'body' rows of the table (i.e., the non-header rows) according to the values in the second column in the Left Common Values Area, and in descending order. In the Table Guide example the second column is the 'Length'. With this setup, if you have a table that matches the sample Table Guide, it would look like this:

Ordering Information		Brand	Acme Drill Co.				PSV Co.		More Sizes Available Online	
		Material	HSS		Titanium		Carbide Tipped			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
4.0	30 mm	2	8J5H6	31.99	8J5F9	31.99	8J6S9	32.99	90°	C5
3.5	28 mm		8J5H5	23.99	8J5F8	23.99	8J6S8	24.99		
3.0	24 mm	3	8J5H4	22.99	8J5F7	22.99	8J6S7	23.99		C9
2.5	20 mm		8J5H3	18.99	8J5F6	18.99	8J6S6	19.99	82°	
2.0	16 mm	2	8J5H2	16.99	8J5F5	16.99	8J6S5	17.99		C7
1.5	12 mm		8J5H1	13.99	8J5F4	13.99	8J6S4	14.99		
Quantity = 100/Box		Box Type	Pop-Open Plastic				Wooden Case		??? Call Us	

Note that the rows are now sorted according to the descending values of the Length.

Example 2, adding more sort criteria :



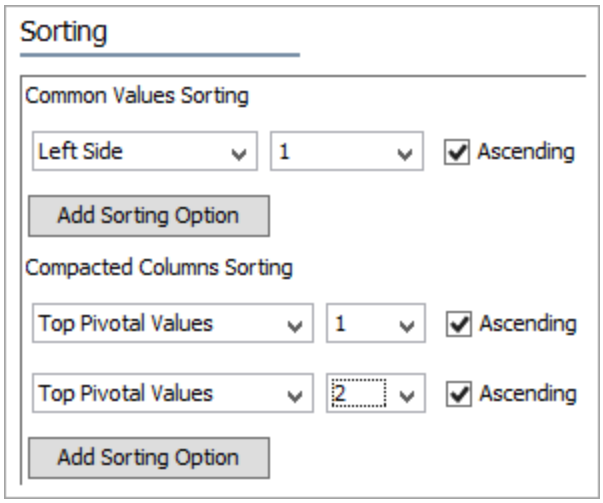
The above setup specifies to sort the 'body' rows, first according to the values in the third column in the Left Common Values Area, then second according to the values in the second column. Both are sorted by ascending values. The third column is '# Flutes', and the second column is the 'Length'. With this setup a table that matches the Table Guide would look like this.

Ordering Information		Brand	Acme Drill Co.				PSV Co.		More Sizes Available Online	
		Material	HSS		Titanium		Carbide Tipped			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
1.5	12 mm	2	8J5H1	13.99	8J5F4	13.99	8J6S4	14.99	82°	C7
2.0	16 mm		8J5H2	16.99	8J5F5	16.99	8J6S5	17.99		
3.5	28 mm		8J5H5	23.99	8J5F8	23.99	8J6S8	24.99	90°	C5
4.0	30 mm		8J5H6	31.99	8J5F9	31.99	8J6S9	32.99		
2.5	20 mm	3	8J5H3	18.99	8J5F6	18.99	8J6S6	19.99	82°	C9
3.0	24 mm		8J5H4	22.99	8J5F7	22.99	8J6S7	23.99	90°	
Quantity = 100/Box		Box Type	Pop-Open Plastic				Wooden Case		??? Call Us	

You may also sort on the Right Side Common Values area, instead of selecting 'Left Side' in the dropdown you would select 'Right Side'. You may specify the desired sorting of the body rows by combining left side and right side sorting options respectively

Common Values Sorting

The Common Values Sorting setup in essence specifies the order in which the **rows** are displayed in the pivoted table. To also specify the order that the **columns** are displayed in the Compacted Area, use the 'Compacted Columns Sorting'. So if, for example, you wanted the columns that have the headings 'Acme Drill Co.' and 'PSV Co.' to display in reverse alphabetical order, and if you then wanted the columns 'HSS' and 'Titanium' to occur in reverse alphabetical order, then the setup would look like this:

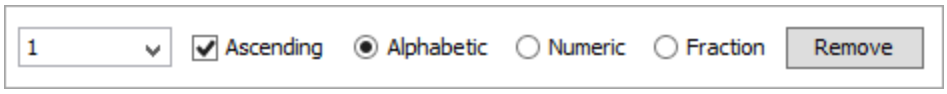


And the resultant table that matches the Table Guide would look like this:

Ordering Information		Brand	PSV Co.		Acme Drill Co.				More Sizes Available Online	
		Material	Carbide Tipped		Titanium		HSS			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
1.5	12 mm	2	8J6S4	14.99	8J5F4	13.99	8J5H1	13.99	82°	C7
2.0	16 mm		8J6S5	17.99	8J5F5	16.99	8J5H2	16.99		
2.5	20 mm	3	8J6S6	19.99	8J5F6	18.99	8J5H3	18.99		C9
3.0	24 mm		8J6S7	23.99	8J5F7	22.99	8J5H4	22.99	90°	
3.5	28 mm	2	8J6S8	24.99	8J5F8	23.99	8J5H5	23.99		C5
4.0	30 mm		8J6S9	32.99	8J5F9	31.99	8J5H6	31.99		
Quantity = 100/Box		Box Type	Wooden Case		Pop-Open Plastic				??? Call Us	

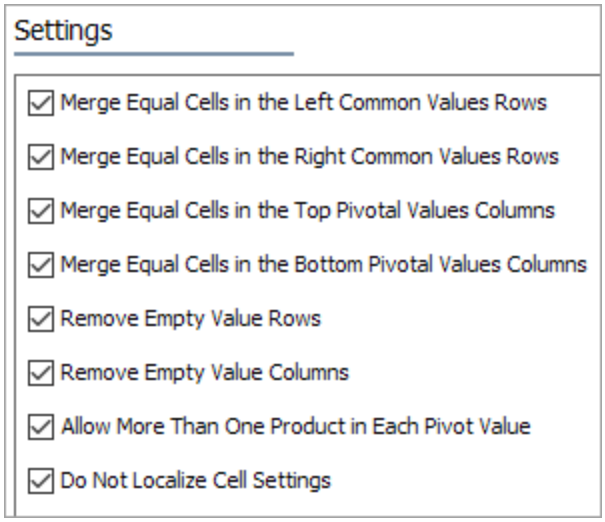
You may also sort on the Bottom Pivotal Values in a similar manner to sorting on the Top Pivotal Values. Instead of selecting 'Top Pivotal Values' in the dropdown you would select 'Bottom Pivotal Values'.

The above examples used only the ascending and descending option (Alphabetic). But you also may also sort on Numeric, and Fraction, thus:



Pivot Transformation Step 9 Settings

In Step 9, you define some general settings.



A number of these options can be explained by referring to the Table Guide:

Ordering Information		Brand	PSV Co.		Acme Drill Co.				More Sizes Available Online	
		Material	Carbide Tipped		Titanium		HSS			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
1.5	12 mm	2	8J6S4	14.99	8J5F4	13.99	8J5H1	13.99	82°	C7
2.0	16 mm		8J6S5	17.99	8J5F5	16.99	8J5H2	16.99		
2.5	20 mm	3	8J6S6	19.99	8J5F6	18.99	8J5H3	18.99		C9
3.0	24 mm		8J6S7	23.99	8J5F7	22.99	8J5H4	22.99	90°	
3.5	28 mm	2	8J6S8	24.99	8J5F8	23.99	8J5H5	23.99		C5
4.0	30 mm		8J6S9	32.99	8J5F9	31.99	8J5H6	31.99		
Quantity = 100/Box		Box Type	Wooden Case		Pop-Open Plastic				??? Call Us	

These options are explained as follows:

- **Merge Equal Cells in the Left Common Values Rows**: The Table Guide shows the effect of this setting. The values in the '# Flutes' column have been merged when consecutive cells have an equal value.
- **Merge Equal Cells in the Right Common Values Rows**: The Table Guide shows the effect of this setting. The values in the cells of the 'Angle' and 'Grade' columns have been merged when consecutive cells have equal values
- **Merge Equal Cells in the Top Pivotal Values Columns**: The Table Guide shows the effect of this setting. The attribute value 'Acme Drill Co.' was merged since consecutive cells had the same value.

- **Merge Equal Cells in the Bottom Pivotal Values Columns**: The Table Guide shows the effect of this setting. The attribute value 'Pop-Open Plastic' was merged since consecutive cells had the same value.
- **Remove Empty Value Rows**: Removes any row in the Compacted Area where all the cells have empty values. This would only take effect if you had deselected the 'Horizontal Values' checkbox in Step 3.
- **Remove Empty Value Columns**: Removes any column in the Compacted Area where all the cells have empty values. This would only take effect if you had deselected the 'Horizontal Values' checkbox in Step 3. So referring to the Table Guide, if in the Compacted Values Area all the Prices were missing for the PSV Co. products, that column would be removed. Thus:

Ordering Information		Brand	PSV Co.	Acme Drill Co.				More Sizes Available Online	
		Material	Carbide Tipped	Titanium		HSS			
Diameter	Length	# Flutes	SKU	SKU	Price	SKU	Price	Angle	Grade
1.5	12 mm	2	8J6S4	8J5F4	13.99	8J5H1	13.99	82°	C7
2.0	16 mm		8J6S5	8J5F5	16.99	8J5H2	16.99		
2.5	20 mm	3	8J6S6	8J5F6	18.99	8J5H3	18.99		C9
3.0	24 mm		8J6S7	8J5F7	22.99	8J5H4	22.99	90°	
3.5	28 mm	2	8J6S8	8J5F8	23.99	8J5H5	23.99		C5
4.0	30 mm		8J6S9	8J5F9	31.99	8J5H6	31.99		
Quantity = 100/Box		Box Type	Wooden Case	Pop-Open Plastic				??? Call Us	

- **Allow More Than One Value in Cells in the Compacted Values Area**: Consider the following table—

Ordering Information		Brand	PSV Co.		Acme Drill Co.				More Sizes Available Online	
		Material	Carbide Tipped		Titanium		HSS			
Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price	Angle	Grade
2.0	16 mm	2	8J6S4 8J6S5	14.99 17.99	8J5F4 8J5F5	13.99 16.99	8J5H1 8J5H2	13.99 16.99	82°	C7
2.5	20 mm	3	8J6S6	19.99	8J5F6	18.99	8J5H3	18.99		C9
3.0	24 mm		8J6S7	23.99	8J5F7	22.99	8J5H4	22.99	90°	
3.5	28 mm	2	8J6S8	24.99	8J5F8	23.99	8J5H5	23.99		C5
4.0	30 mm		8J6S9	32.99	8J5F9	31.99	8J5H6	31.99		
Quantity = 100/Box		Box Type	Wooden Case		Pop-Open Plastic				??? Call Us	

Notice that in the first 'body' row there are cells with two part numbers and prices. However, there is no data in that row or column that distinguishes one product from the other. In other words the reader cannot view any difference between part number 8J6S4 and 8J6S5. The price is different, but there is no supporting data to differentiate between the two products. So all that a reader would view is that part numbers 8J6S4 and 8J6S5 have identical specifications, but one is more expensive than the other. Thus any normal customer would always order the less expensive item. Or they would have to investigate by some other method the difference between the products.

This situation usually occurs when either a) the Table Definition is missing an attribute that would indicate the difference in the products, or b) the data that does distinguish the two products is present in the Table Definition but has not been accounted for in the Pivot Transformation, or c) the actual data is incorrect.

If you were to disable the checkbox 'Allow More Than One Value in the Compacted Area' then only the first entry would be displayed (i.e., 8J6S4). But, if the checkbox is selected, (i.e., it is OK to allow more than one product or value in a cell), then the system will place a Return code between each entry in the cell.

- **Do Not Localize Cell Settings**: Enable if you want the pivot table to build without localized cell-specific formatting, providing a 'blank canvas' to apply cell settings after the transformation.

  When disabled, the behavior of the Pivot Transformation is to rebuild tables cell by cell, applying localized cell properties in the process. Applying another row or column type transformation after a Pivot Transformation (such as 'Assign Row/Column Types to Rows/Columns') does not override all local cell settings, which can make it more challenging to change or remove the formatting that is being inherited from the table rows / columns setup.

Pivot Transformation - Finish

Finishing the Transformation

When you have made all your selections, click the **Finish** button to return to the Table Preview. You could check what the Table Preview would show before you exit the transformation, using the option 'Show Preview', and updating that preview each time you make a change. However, the preview within the transformation will take all transformations that are applied within the table, even if one or more of them were temporarily disabled by deselecting the check box for that transformation. To view the Table Preview with just the transformations that you have selected, exit the Pivot Transformation and view the preview.

Adding Subsequent Transformations

The Pivot Transformation is reasonably tolerant of working together with subsequent transformations, such as creating table subheads from a column, or applying alternate tints on rows, etc. However, because the table has essentially been rebuilt you will not be able to refer to a column by its attribute. The only practical way to refer to a column, for example, is to refer to it either by its subtype or by its column number after the Pivot Transformation.

Priority of Cell Formatting Setups

Throughout the various Steps of the Pivot Transformation Wizard you are presented with options to specify the formatting of the table cells. However, formatting can also be applied via the rows or column subtypes specified in the Table Definition tab, as well as individual cell settings being applied. It is possible to create a setup that would cause a conflict in determining which formatting values to use. Thus the Pivot Transformation uses a strict order of prioritization. This priority is not always easy to determine, so an example is presented as a guide to help with troubleshooting any formatting conflicts.

Format Priority

Determining how a table cell's background color is selected when there are several conflicting setups in place

This example of Format Priority is valid for all the following setups:

- Text Style
- Background Color
- Vertical Alignment
- Rule Above
- Rule Below
- Rule Left
- Rule Right
- Cell Rotation
- Process Flag
- Cell Story Direction

Formatting Priority Synopsis

1. Global Override in the Transformation
2. Cell Setting override in the Table Definition
3. Row Setting override in the Table Definition
4. Row Setting default in the Table Definition
5. Column Setting override, but only if the column type in the Table Definition matches that which is applied in the Transformation
6. Column Setting default, as applied in the Transformation

It is not recommended practice to assign settings in such a way that it is difficult to determine which format setting is actually used. It should be sufficient to make setups such that only one or two levels of priority are necessary.

To apply background colors to alternating rows, it is not advised to use BG colors in any of the row/column settings that will affect 'body' rows (non-header rows). Instead, use the standard transformation to apply those BG colors. That transformation may be applied after the Pivot Transformation.

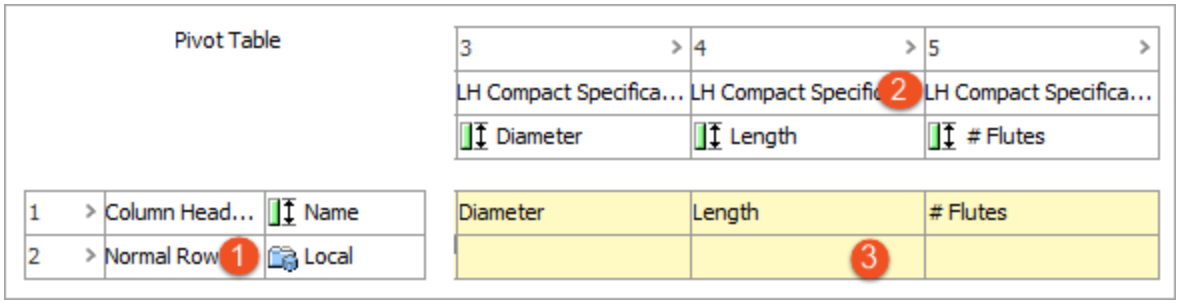
If possible, try to avoid Text Style format setups that will cause a conflict in how the Table Preview can display the text.

Example

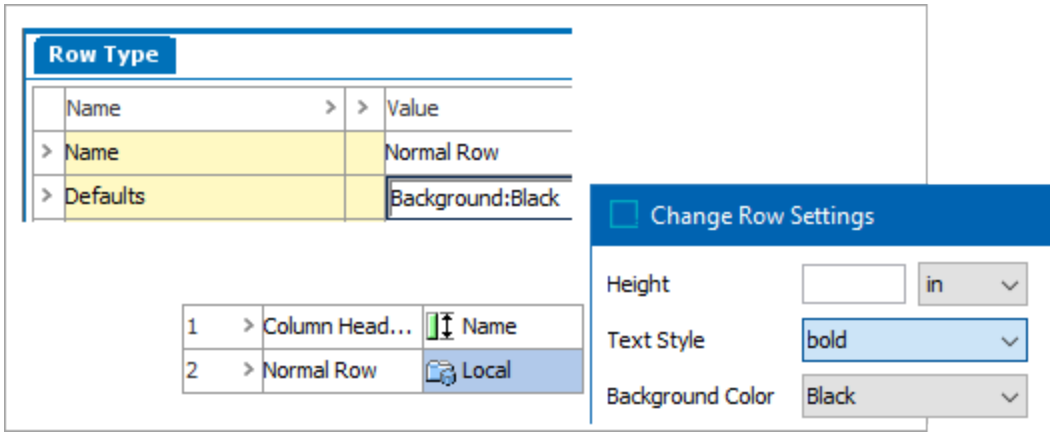
In the Table Guide, consider the cells that hold the values for the attribute Length. That attribute resides in the Left Common Values area of the table.

Diameter	Length	# Flutes
1.5	12 mm	2
2.0	16 mm	
2.5	20 mm	3
3.0	24 mm	
3.5	28 mm	2
4.0	30 mm	

In the Table Definition, assume that there are several setups in effect, as follows:

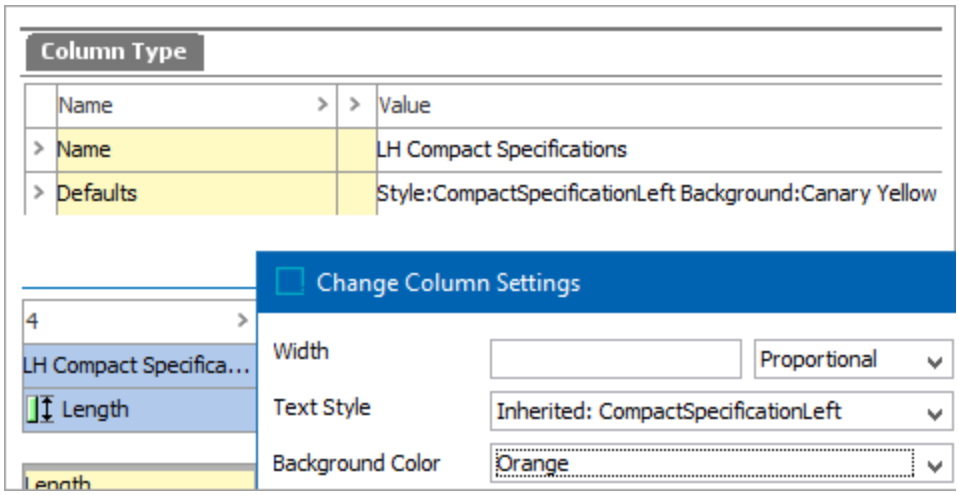


1. Assume that the row type Normal Row has a default BG Color assigned to it (Cyan) and that the BG Color is overridden in the Table Definition on that row with a color of Leaf Green. Refer to the following picture.



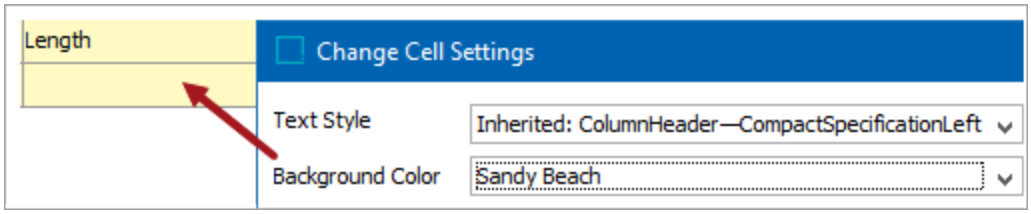
The row type Normal Row has a BG Color of Cyan, but is overridden in the Table Definition with a BG Color of Leaf Green.

2. Assume that the column type LH Compact Specifications has a BG Color assigned to it and that it also has an override BG Color of Orange applied in the Table Definition on the column holding the attribute Length.



The column type LH Compact Specifications has a BG Color of Canary Yellow, but is overridden in the Table Definition with a BG Color of Orange.

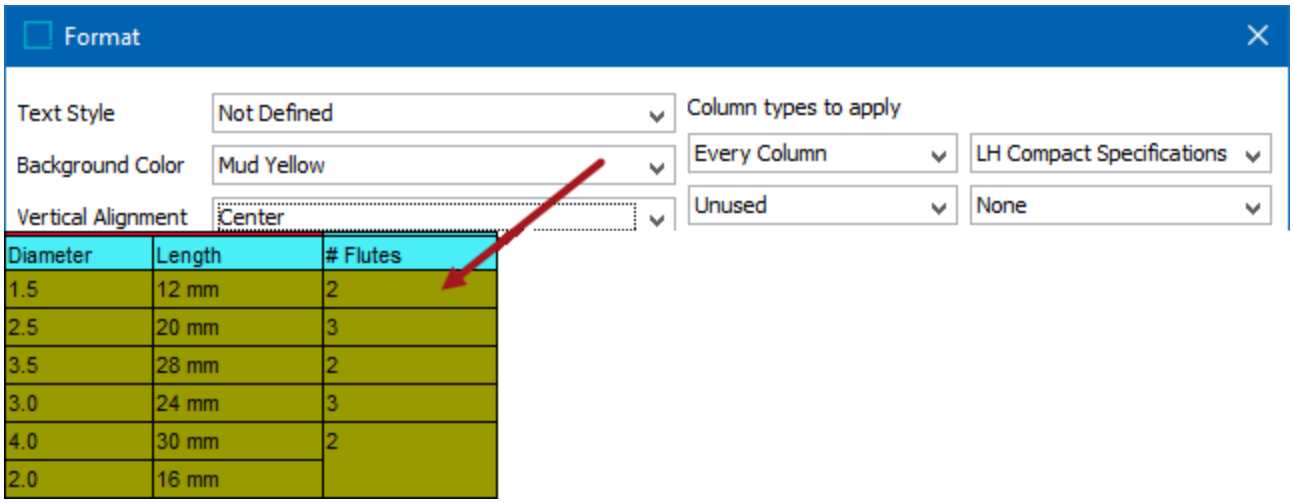
3. Assume that there is a BG Color override applied at the cell level.



Consider the Format setup within the Pivot Transformation, and the effect that it has on the output.

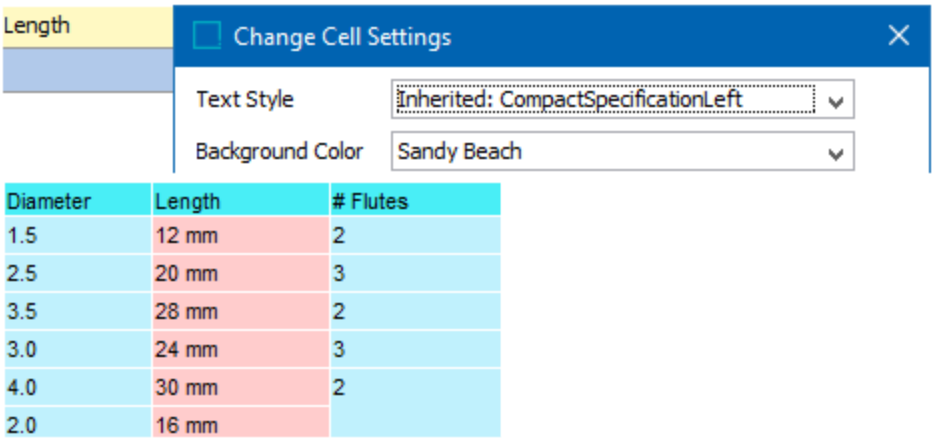
First Priority

This setting takes the **highest priority** for cell formatting—the Global Override setup in the Pivot Transformation. But be aware that this Global Override affects **all** cells in the Left Common Values area, not just the ones for the cells with the attribute values for Length.



Second Priority

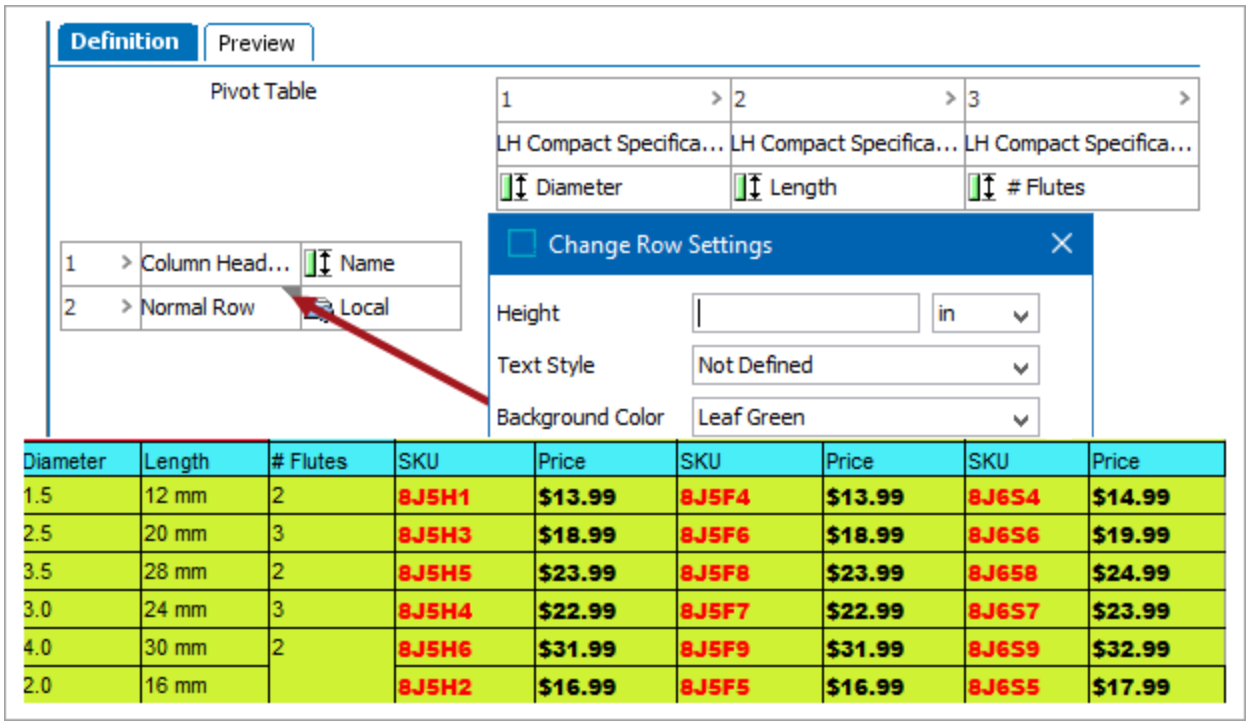
If there is no Global Override for the BG Color, then the next priority goes to the Cell Settings override, thus:



Note that this setup affects only the cells with the attribute value of Length.

Third Priority

If there is no Cell Settings override, then the next priority goes to any localized setting on the row type. So in this case, if a Row Settings override was applied to the Normal Row, the result would be similar to the following:



Diameter	Length	# Flutes	SKU	Price	SKU	Price	SKU	Price
1.5	12 mm	2	8J5H1	$13.99	8J5F4	$13.99	8J6S4	$14.99
2.5	20 mm	3	8J5H3	$18.99	8J5F6	$18.99	8J6S6	$19.99
3.5	28 mm	2	8J5H5	$23.99	8J5F8	$23.99	8J6S8	$24.99
3.0	24 mm	3	8J5H4	$22.99	8J5F7	$22.99	8J6S7	$23.99
4.0	30 mm	2	8J5H6	$31.99	8J5F9	$31.99	8J6S9	$32.99
2.0	16 mm		8J5H2	$16.99	8J5F5	$16.99	8J6S5	$17.99

Notice that the row setting may well affect other cells in the table, not just the ones in the Left Common Values area.

Fourth Priority

If there is no Row Settings override, then the next priority goes to the default setting on the row type. So in this case, if a default setting was applied to the Normal Row, the result would be similar to the following:

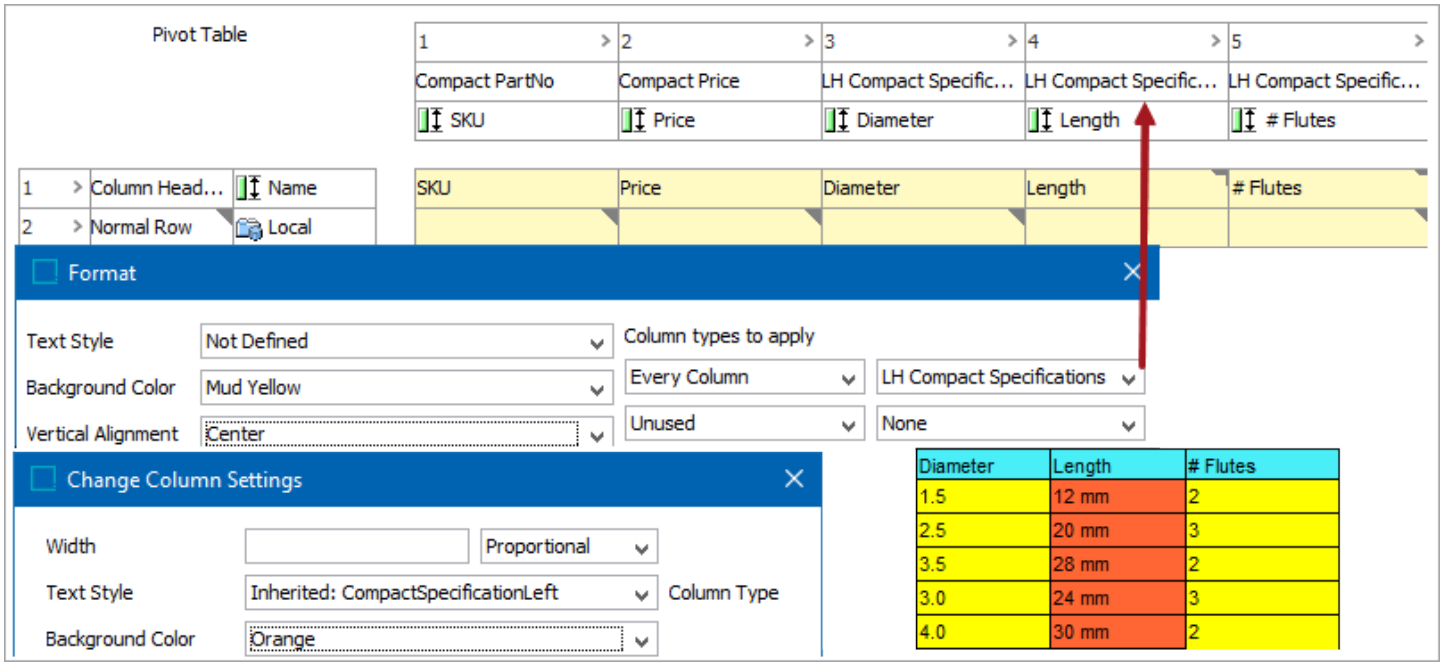
Name	Value
Name	Normal Row
Defaults	Background:Cyan

Diameter	Length	# Flutes	SKU	Price	SKU	Price
1.5	12 mm	2	8J5H1	$13.99	8J5F4	$13.99
2.5	20 mm	3	8J5H3	$18.99	8J5F6	$18.99
3.5	28 mm	2	8J5H5	$23.99	8J5F8	$23.99
3.0	24 mm	3	8J5H4	$22.99	8J5F7	$22.99
4.0	30 mm	2	8J5H6	$31.99	8J5F9	$31.99
2.0	16 mm		8J5H2	$16.99	8J5F5	$16.99

Notice that the row setting may well affect other cells in the table, not just the ones in the Left Common Values area.

Fifth Priority

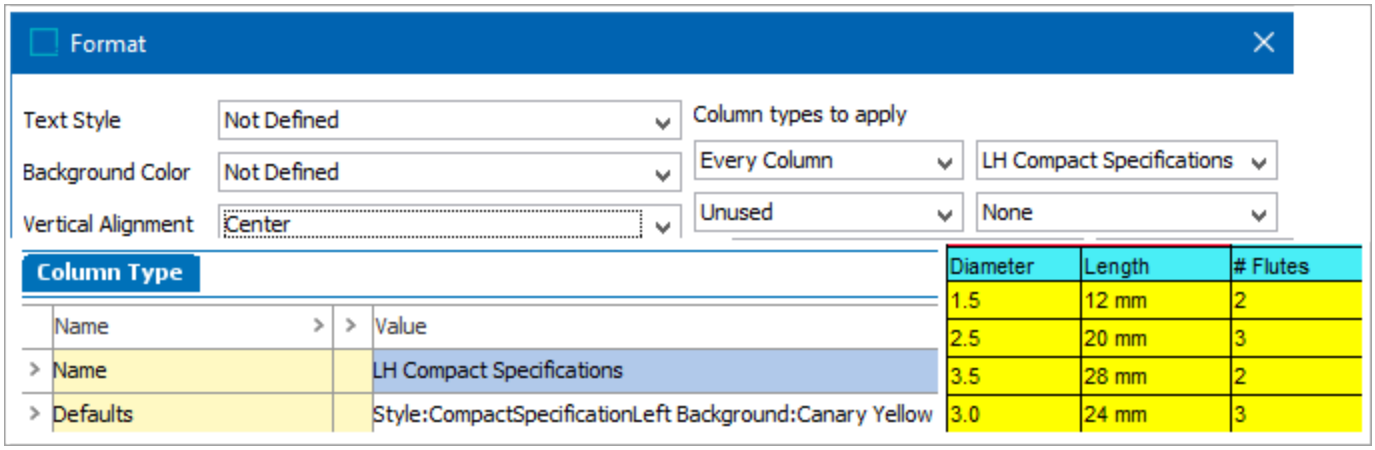
If there is no default setting on the row, the next priority goes to any Column Settings override, but **only if** the column type in the Table Definition is the same as that applied in the Transformation, thus:



If the column type in the Table Definition does **not** match the column type that is applied in the Transformation, then the Column Settings override in the Table Definition **will be ignored**.

Sixth Priority

If there is no Column Settings override, the last priority goes to the default setting in the column type that is assigned in the Transformation, thus:



Remove Attribute Rows/Columns in Group

The **Remove Attribute Rows/Columns in Group** transformation enables you to remove all attributes from the table that belongs to an attribute group. This transformation is useful, for example, when you want to ensure that a specific set of attributes do not appear in the table.

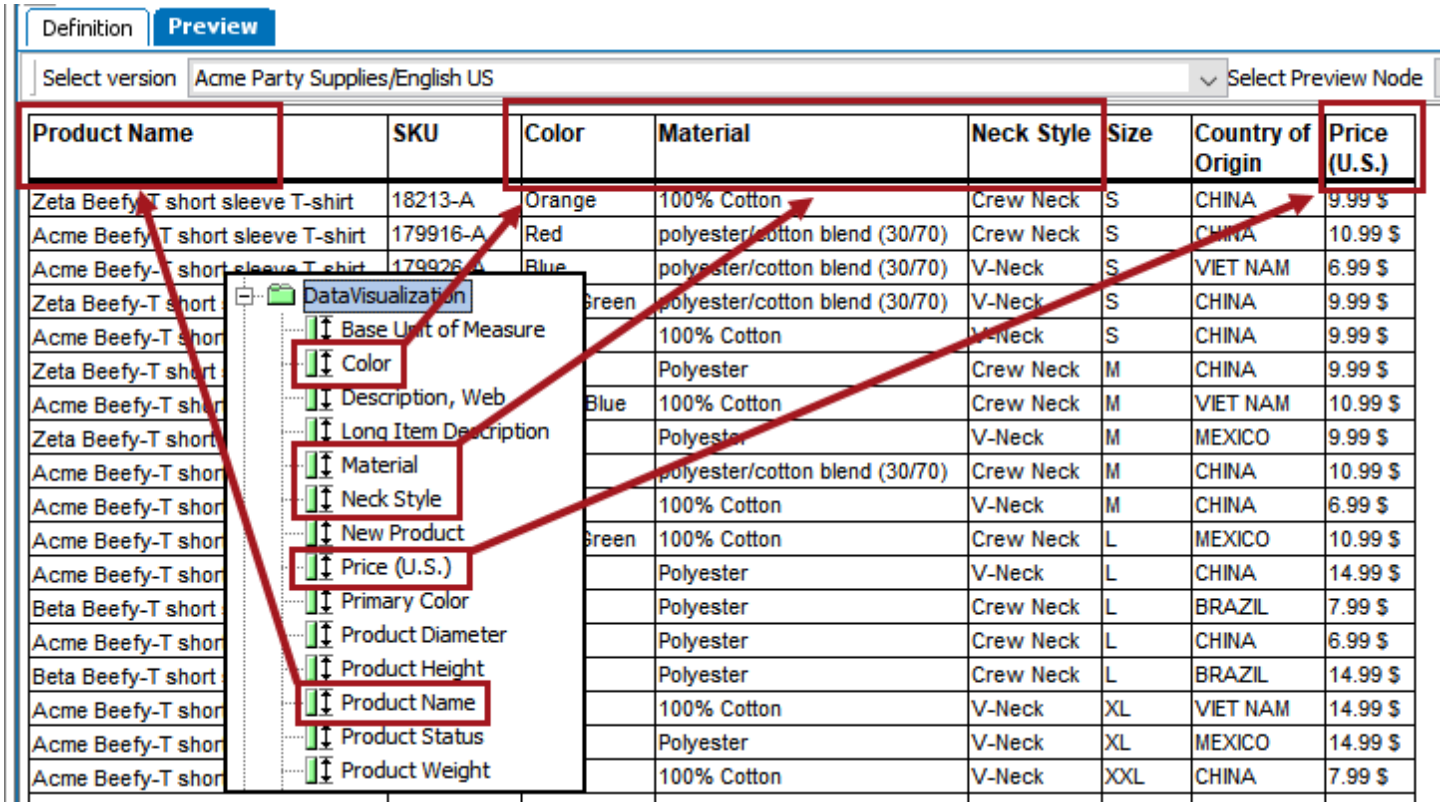
Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

Before

The below table contains five columns built from attributes that appear in the same attribute group (DataVisualization). this is how the table looks **before** the transformation is applied.



Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short		Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T shor			100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short			Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T shor		Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short			Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T shor			polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T shor			100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T shor		Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T shor			Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short			Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T shor			Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short			Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T shor			100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T shor			Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T shor			100% Cotton	V-Neck	XXL	CHINA	7.99 $

After

This is how the table looks **after** the transformation is applied. The five columns are removed.

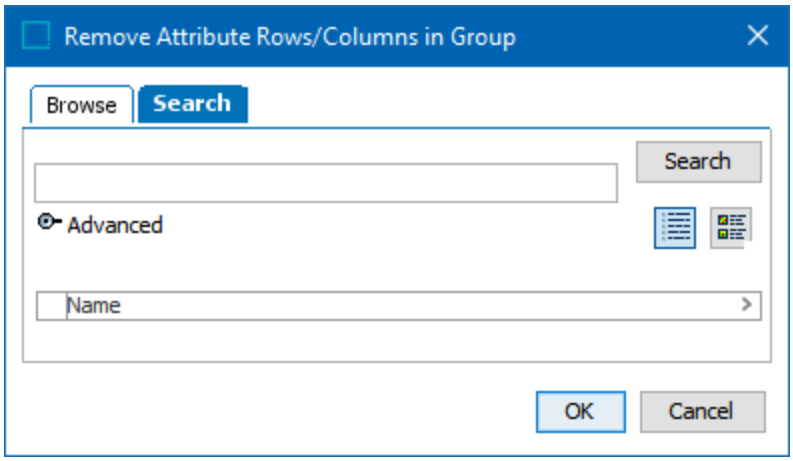
Definition | Preview

Select version | Acme Party Supplies/E

SKU	Size	Country of Origin
18213-A	S	CHINA
179916-A	S	CHINA
179926-A	S	VIET NAM
179927-A	S	CHINA
242727-A	S	CHINA
100812-A	M	CHINA
18216-A	M	VIET NAM
MT18404-A	M	MEXICO
179928-A	M	CHINA
239317-A	M	CHINA
181951-A	L	MEXICO
MT18400-A	L	CHINA
100703-A	L	BRAZIL
MT18403-A	L	CHINA
182922-A	L	BRAZIL
236408-A	XL	VIET NAM
179924-A	XL	MEXICO
18210-A	XXL	CHINA
179925-A	XXL	CHINA
18212-A	XXXL	VIET NAM
181951LB-A	XXXL	MEXICO

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Remove Attribute Rows/Columns in Group** dialog displays.



2. **Search** or **browse** for the relevant attribute group, then click **OK**.
3. When you have selected an attribute group, the transformation is applied to all attributes in the table that belong to the Attribute Group.

Remove Empty Rows/Columns

The **Remove Empty Rows/Columns** transformation removes empty rows or columns from a table. This is useful, for example, if several product ranges use the same table definitions but some attribute columns only apply to a few of the actual tables. Another example is if another transformation is applied to the table that ends up leaving an empty row or column. Removing the row or column helps to de-clutter the table.

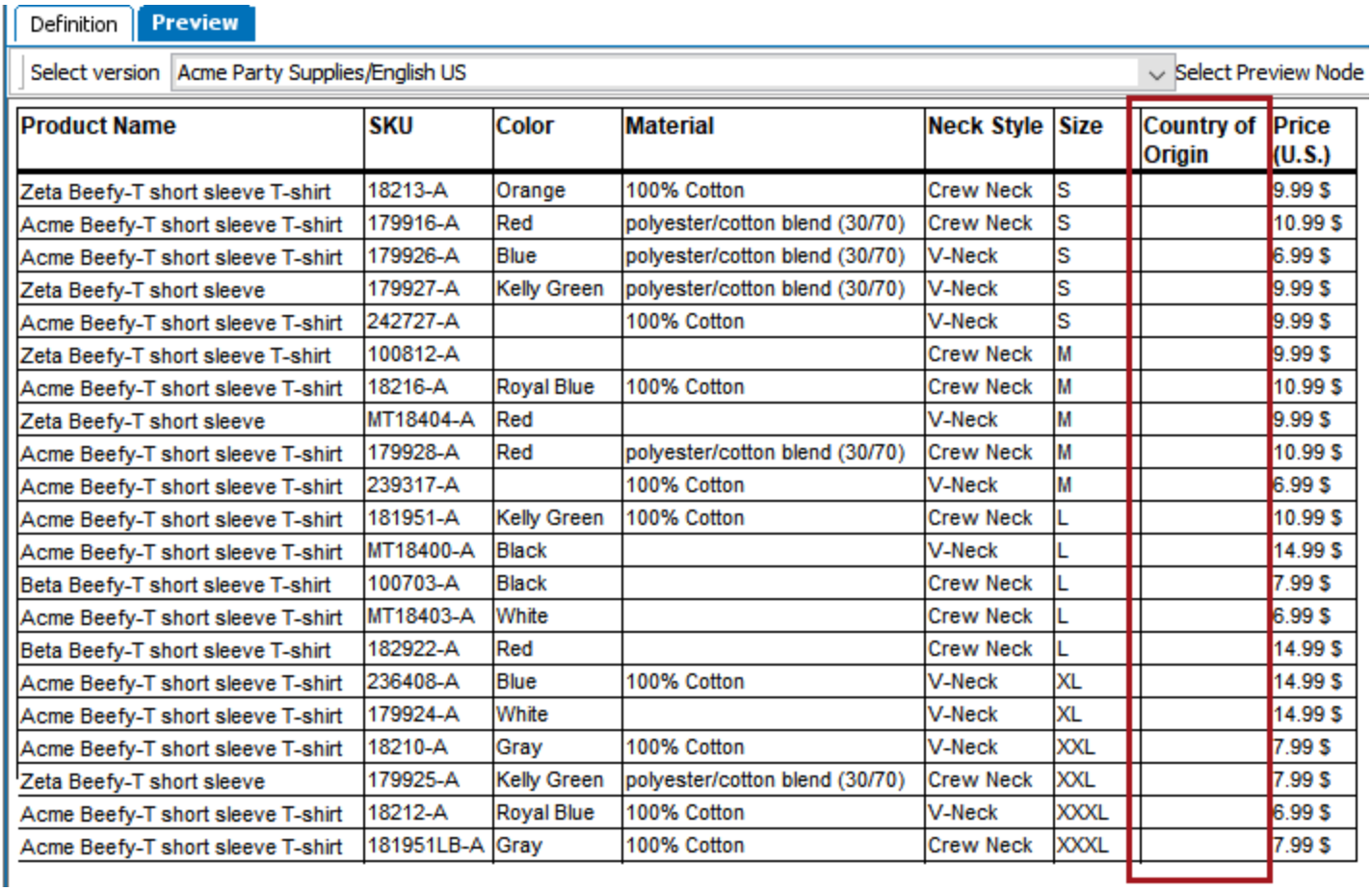
Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

Before

This is how the table appears **before** applying the Remove Empty Rows/Columns transformation. The Country of Origin column is blank, though note that it still has a header.


Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S		9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S		10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S		6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S		9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A		100% Cotton	V-Neck	S		9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A			Crew Neck	M		9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M		10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red		V-Neck	M		9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M		10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A		100% Cotton	V-Neck	M		6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L		10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black		V-Neck	L		14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black		Crew Neck	L		7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White		Crew Neck	L		6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red		Crew Neck	L		14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL		14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White		V-Neck	XL		14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL		7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL		7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL		6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL		7.99 $

After

This is how the table looks after the transformation is applied. The column is removed even though there was a value for the header. This is because **1** was entered in the **Heading Rows** field of the **Remove Empty Rows/Columns** dialog and the **Remove Columns** box was checked. Refer to the below steps for more information.

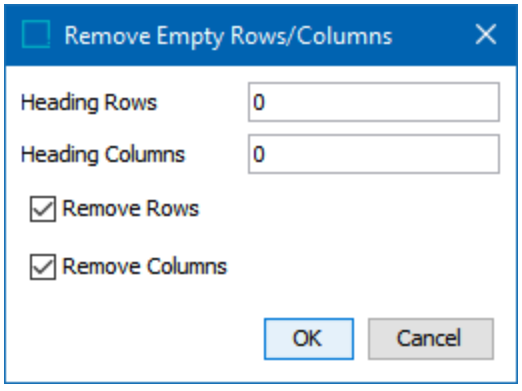
Definition | Preview

Select version: Acme Party Supplies/English US

Product Name	SKU	Color	Material	Neck Style	Size	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A		100% Cotton	V-Neck	S	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A			Crew Neck	M	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red		V-Neck	M	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A		100% Cotton	V-Neck	M	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black		V-Neck	L	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black		Crew Neck	L	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White		Crew Neck	L	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red		Crew Neck	L	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White		V-Neck	XL	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	7.99 $

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (**...**). The **Remove Empty Rows/Columns** dialog displays.



2. In the **Heading Rows** field, enter the number of header and sub-header rows to be removed even if they contain data. Enter **0** to ignore headers, enter **1** to ignore Header (1) rows, and enter **2** to ignore Sub-Header (2) rows.

3. In the **Heading Columns** field, enter the number of header and sub-header columns to be removed even if they contain data. Enter **0** to ignore headers, enter **1** to ignore Header (1) columns, and enter **2** to ignore Sub-Header (2) columns.
4. Select **Remove Rows** to remove empty rows. If this box is checked, rows will be removed if they are empty. If not checked, then rows will be skipped even though they are empty.
5. Select **Remove Columns** to remove empty columns. If this box is checked, columns will be removed if they are empty. If not checked, then columns will be skipped even though they are empty.
6. Click **OK**.

Remove Rows/Columns

The Remove Rows/Columns transformation enables you to remove specified rows and/or columns from the table, whether or not they are empty. For example, when you want to remove an unused row or column from the table, then this transformation can be used.

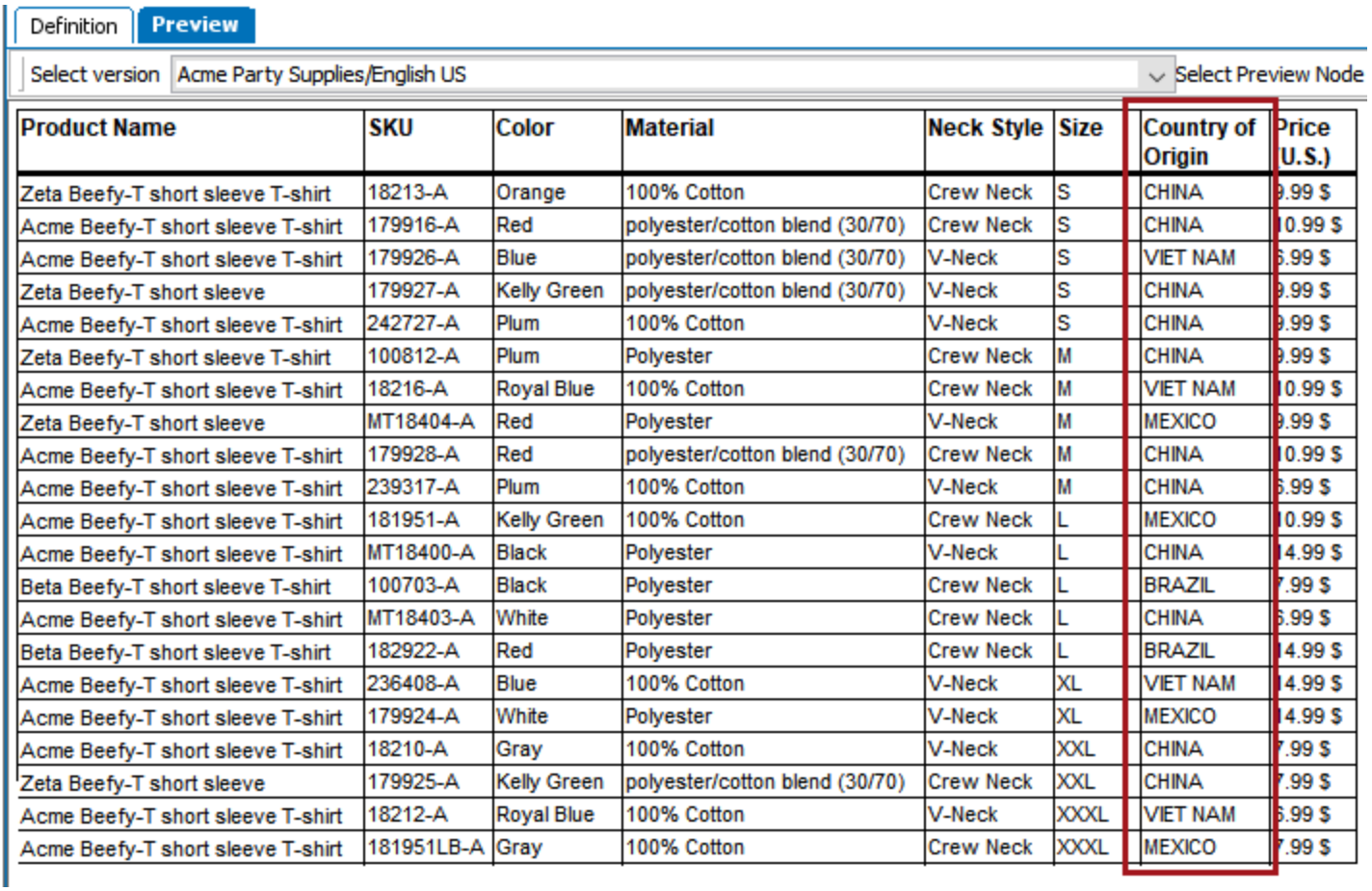
Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

Before

Before the transformation is applied, the 'Country of Origin' column is present.

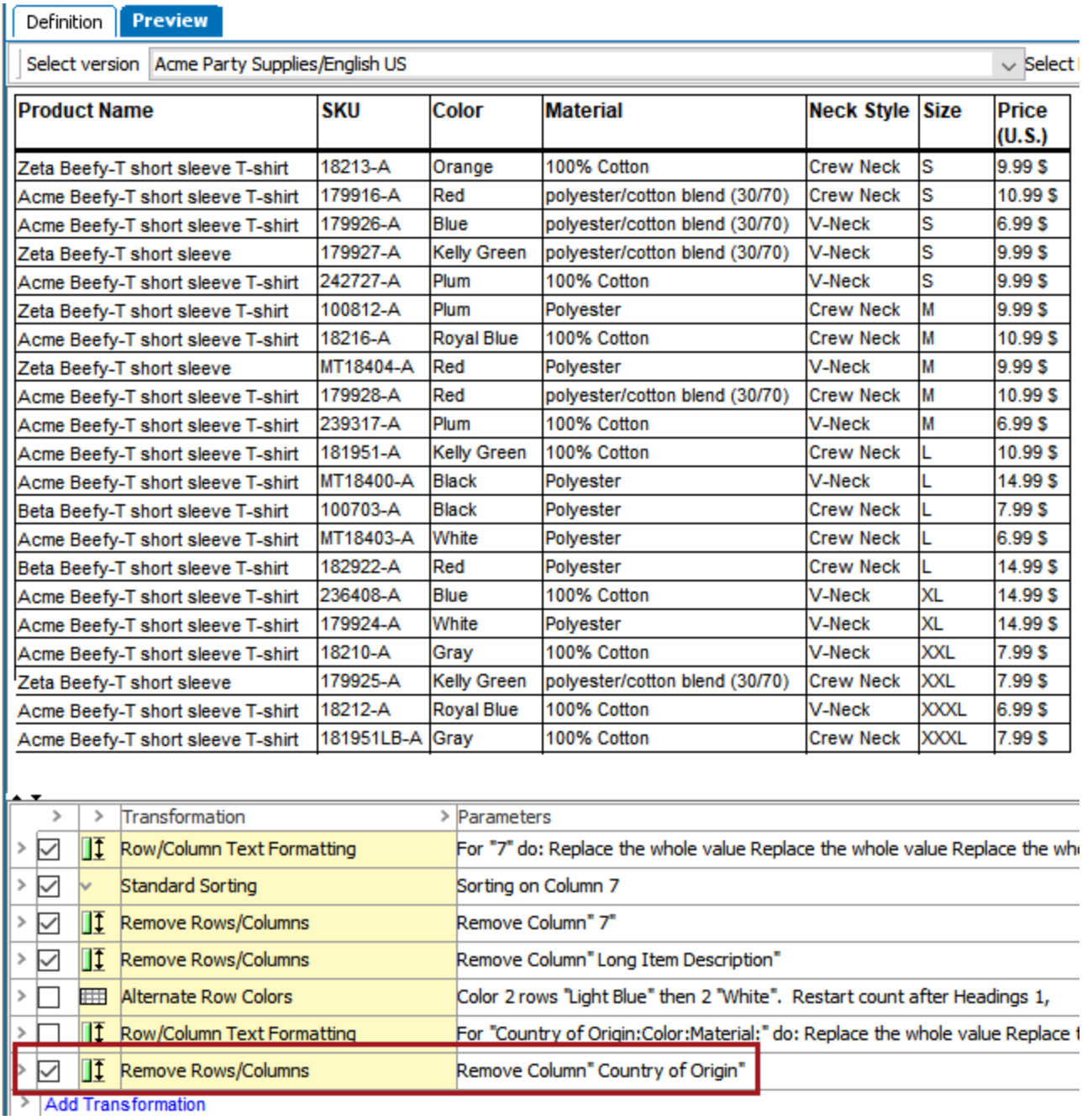

Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

Product Name	SKU	Color	Material	Neck Style	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	MEXICO	7.99 $

After

After applying the transformation, the 'Country of Origin' column is gone.



Definition | Preview

Select version: Acme Party Supplies/English US

Product Name	SKU	Color	Material	Neck Style	Size	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	100% Cotton	Crew Neck	S	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	polyester/cotton blend (30/70)	Crew Neck	S	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	polyester/cotton blend (30/70)	V-Neck	S	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	polyester/cotton blend (30/70)	V-Neck	S	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	100% Cotton	V-Neck	S	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Polyester	Crew Neck	M	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	100% Cotton	Crew Neck	M	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	Polyester	V-Neck	M	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	polyester/cotton blend (30/70)	Crew Neck	M	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	100% Cotton	V-Neck	M	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	100% Cotton	Crew Neck	L	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	Polyester	V-Neck	L	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Polyester	Crew Neck	L	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Polyester	Crew Neck	L	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Polyester	Crew Neck	L	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	100% Cotton	V-Neck	XL	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	Polyester	V-Neck	XL	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	100% Cotton	V-Neck	XXL	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	polyester/cotton blend (30/70)	Crew Neck	XXL	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	100% Cotton	V-Neck	XXXL	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	100% Cotton	Crew Neck	XXXL	7.99 $

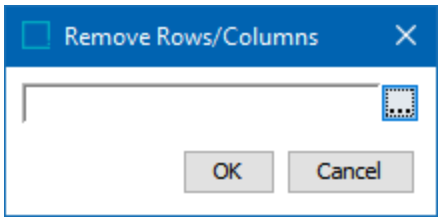
Transformation	Parameters
Row/Column Text Formatting	For "7" do: Replace the whole value Replace the whole value Replace the wh
Standard Sorting	Sorting on Column 7
Remove Rows/Columns	Remove Column" 7"
Remove Rows/Columns	Remove Column" Long Item Description"
Alternate Row Colors	Color 2 rows "Light Blue" then 2 "White". Restart count after Headings 1,
Row/Column Text Formatting	For "Country of Origin:Color:Material:" do: Replace the whole value Replace t
Remove Rows/Columns	Remove Column" Country of Origin"

Add Transformation

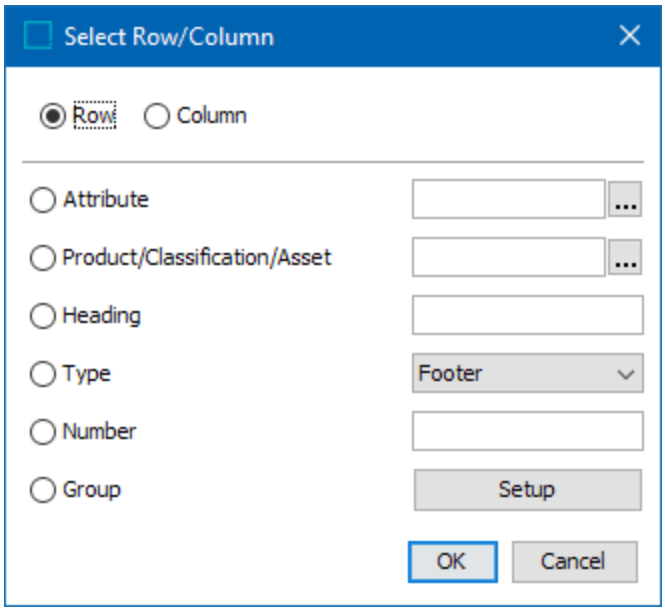
Refer to the **Sorting Transformation** topic for a more complex example which incorporates both a sorting transformation and a row removal transformation.

Steps

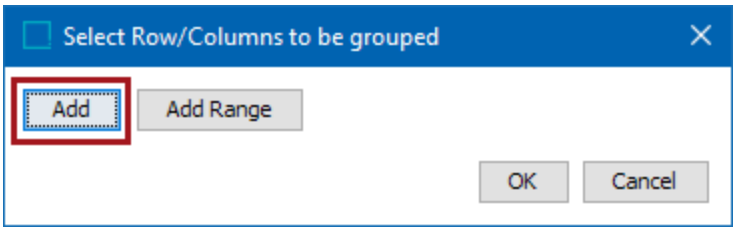
1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Remove Rows/Columns** dialog displays.



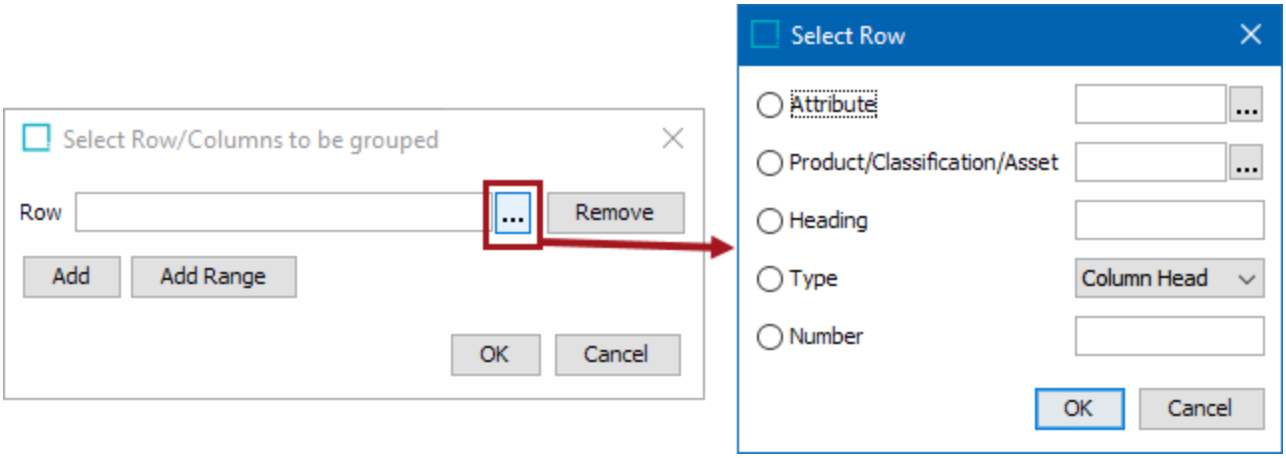
2. Click the ellipsis button (...) to launch the **Select Row/Column** dialog.



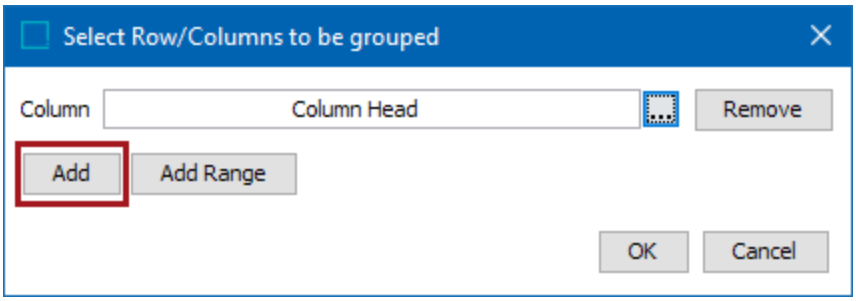
- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.
  - Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



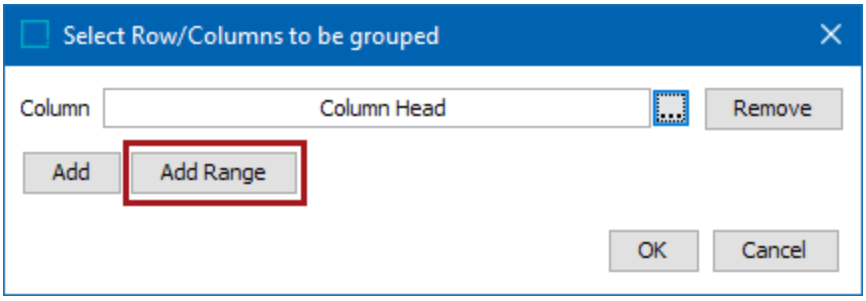
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



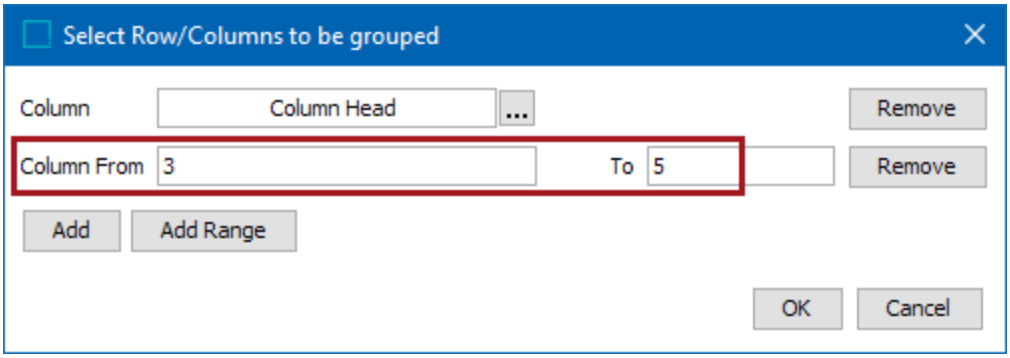
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



- To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.



3. Click **OK**.

Row/Column Consolidation

The **Row/Column Consolidation** transformation consolidates consecutive rows or columns that are identical except for the values in one designated row or column. The values in those cells corresponding to the designated row or column are merged after the rows or columns are consolidated.

Prerequisites

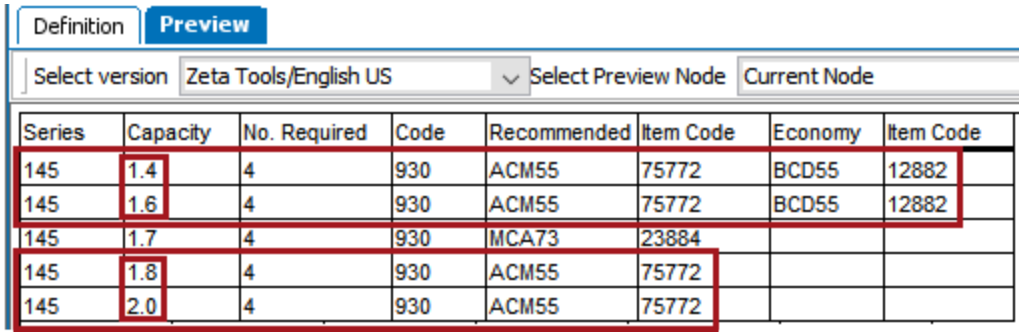
The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example

In the following example, the table has five rows. In the first two rows and the last two rows, all values are identical across every column except for the values in the 'Capacity' column.

Before

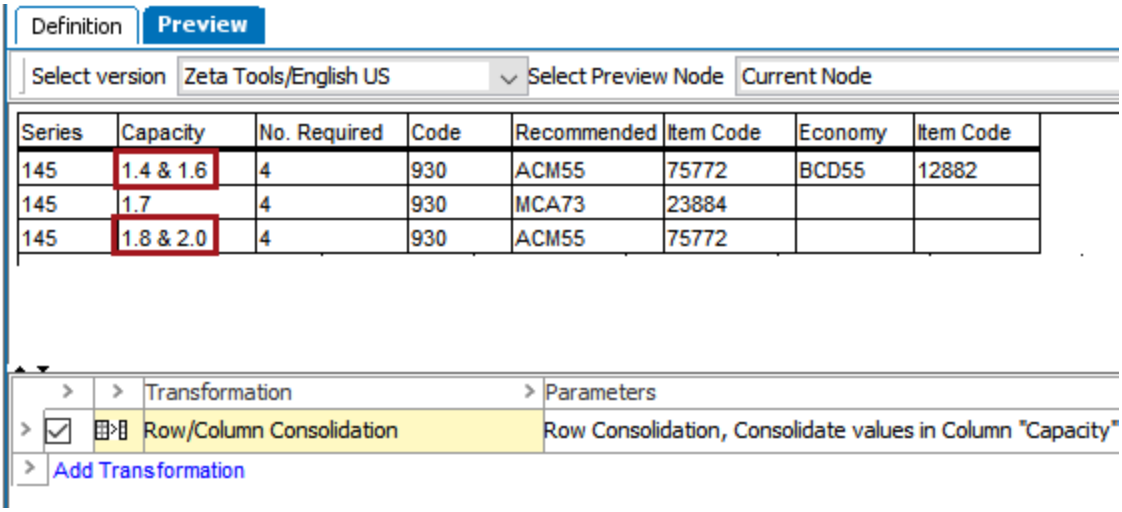
This is how the table appears before the transformation is applied. The rows with identical values are surrounded by a red box, and the different values for Capacity within these rows are similarly highlighted.



Series	Capacity	No. Required	Code	Recommended	Item Code	Economy	Item Code
145	1.4	4	930	ACM55	75772	BCD55	12882
145	1.6	4	930	ACM55	75772	BCD55	12882
145	1.7	4	930	MCA73	23884		
145	1.8	4	930	ACM55	75772		
145	2.0	4	930	ACM55	75772		

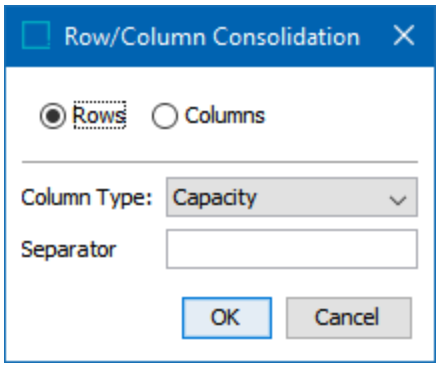
After

This is how the table appears after the transformation is applied. The first two rows are consolidated and the last two rows are consolidated. The different values for 'Capacity' are now merged into a single cell in the first row and a single cell in the last row. More information is provided in the following section on how to configure the transformation to obtain this result.

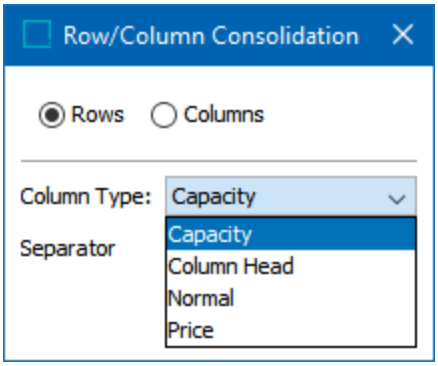


Steps

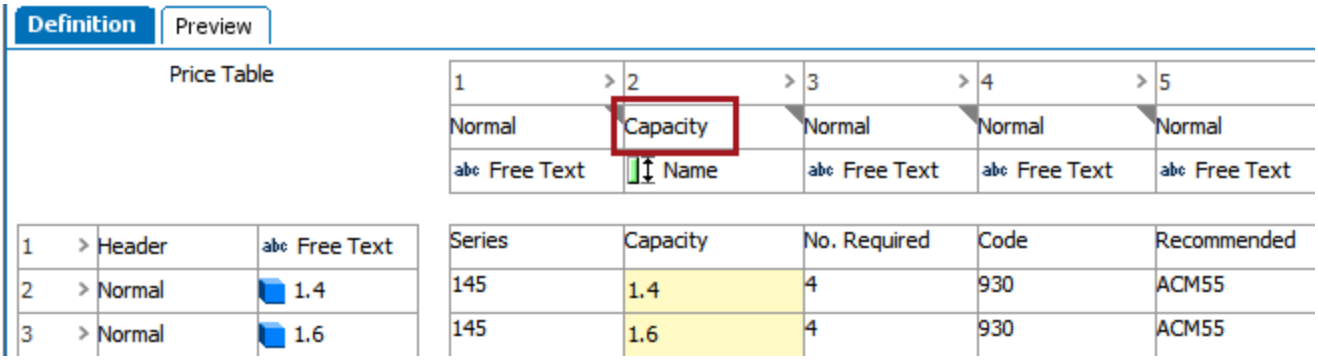
1. After adding the transformation, under **Parameters**, click the ellipsis button (**...**). The **Row/Column Consolidation** dialog displays. Select **Rows** to merge rows, or select **Columns** to merge columns.



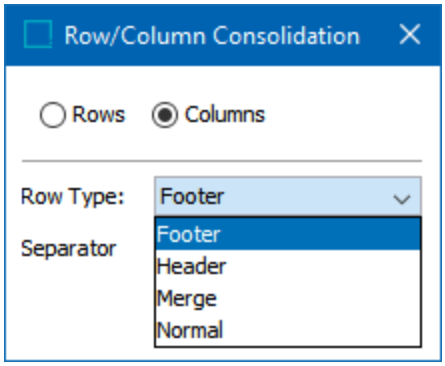
2. If **Rows** is selected, the **Column Type:** label will display in the dialog, and the corresponding dropdown list will contain the column types that are legal for your table.



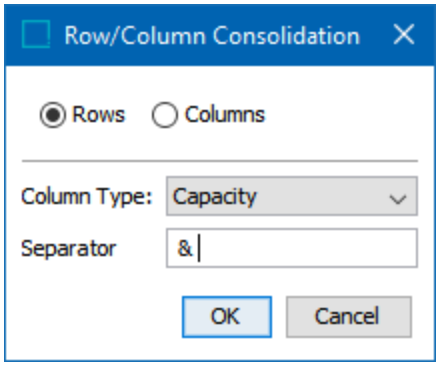
The example shown at the beginning of this topic uses the column type of 'Capacity.'



3. If **Columns** is selected, the **Row Type:** label will display in the dialog, and the corresponding dropdown list will contain the row types that are legal for your table.



5. In the **Separator** field, enter the value that should appear between the merged values in the consolidated column or row. In this example, a separator of ' & ' (an ampersand with a space on either side) is entered.

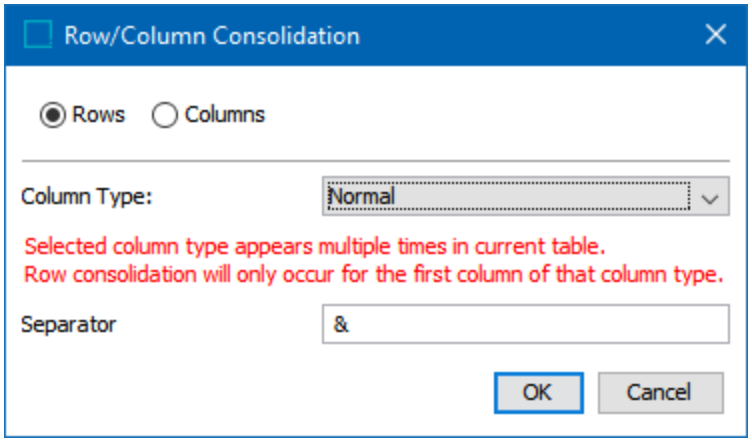


6. Click **OK** to finish.

Error Handling

If the column type or row type that you choose appears more than once in the table, a warning will display in the dialog to ensure that you are aware that only the *first* column or row of this type will be affected by the transformation. To avoid confusion, it is advisable to use a dedicated column type or row type for consolidation

operations.


Row/Column Consolidation
Rows
Columns
Column Type:
Normal
Selected column type appears multiple times in current table.
Row consolidation will only occur for the first column of that column type.
Separator
&
OK
Cancel

Suppress Rows/Columns

The **Suppress Rows/Columns** transformation suppresses rows or columns based on specified matching criteria or whether all values in a specified row or column are equal or non-equal. For example, rows or columns can be suppressed if:

- an exact text string is matched to a value
- a string is detected that matches a specified regular expression
- all values are equal
- all values are different
- all values are equal except for a specified text string or regular expression

In the case of equal values, this transformation may be useful for rendered tables that have retrieved values using the 'Attribute Group Attributes' content definition. In some cases, these values will be the same for all the rendered products. This transformation enables these rows / columns to be suppressed if the values are equal.

Prerequisites

The instructions in this topic assume that you have already added the transformation to your table by following the instructions in the **Add a Transformation to a Table or Table Type** subsection of the **Table Transformations** topic.

Example – Suppression Using a Basic Text String

In the following example, any rows that contain the Color value of Kelly Green will be suppressed. A sample use case could be that this color is only available for spring, but the summer catalog is about to publish. So, shirts of this color will be suppressed in the table so they do not appear in the summer catalog. They can be unsuppressed later for next spring's catalog.

Before

This is how the table appears before the suppression of the Kelly Green shirt rows.

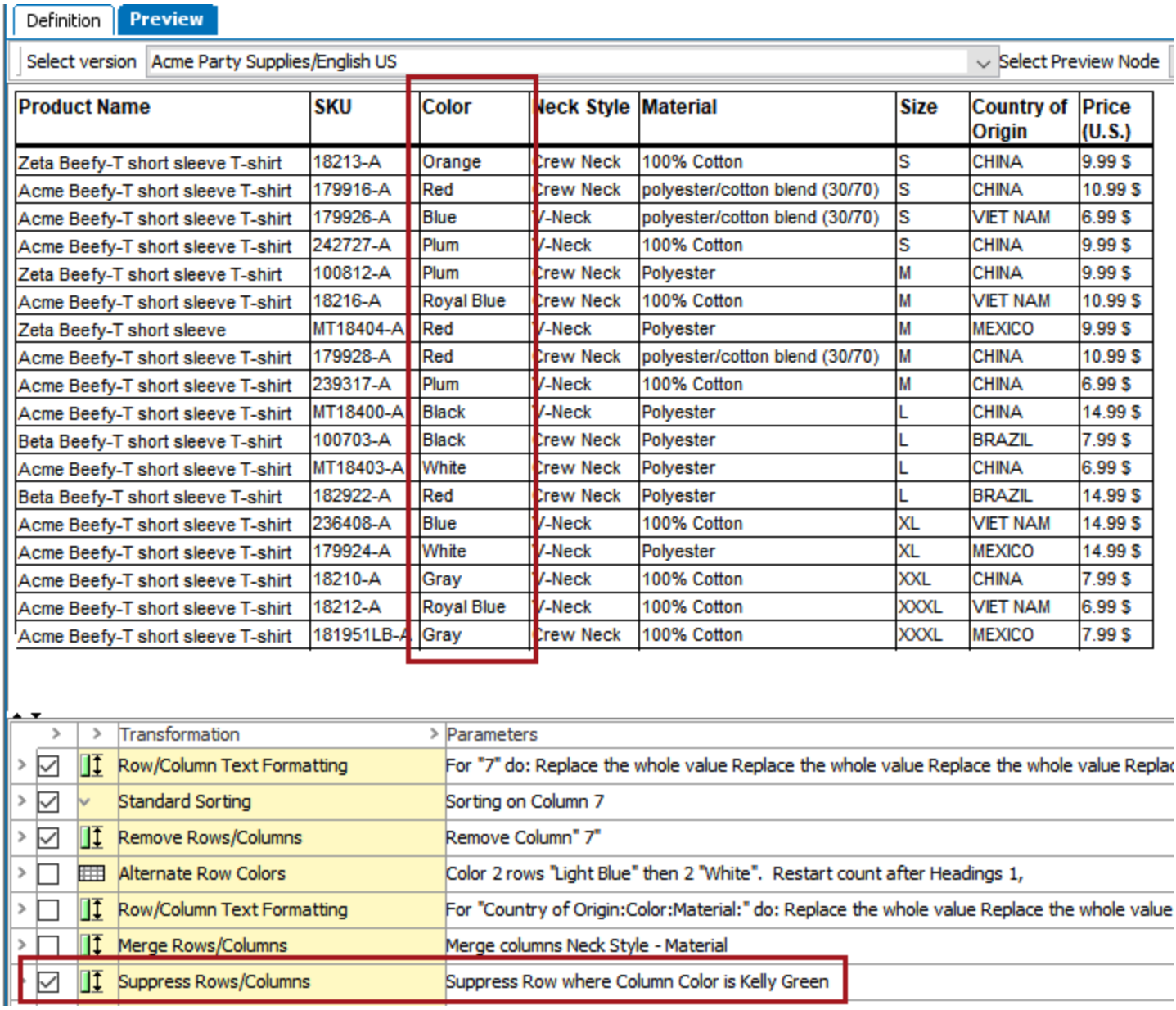
Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

Product Name	SKU	Color	Neck Style	Material	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
Zeta Beefy-T short sleeve	179927-A	Kelly Green	V-Neck	polyester/cotton blend (30/70)	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	181951-A	Kelly Green	Crew Neck	100% Cotton	L	MEXICO	10.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
Zeta Beefy-T short sleeve	179925-A	Kelly Green	Crew Neck	polyester/cotton blend (30/70)	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $

After

This is how the table appears after. The Kelly Green T-Shirts no longer appear.



Definition | Preview

Select version: Acme Party Supplies/English US — Select Preview Node

Product Name	SKU	Color	Neck Style	Material	Size	Country of Origin	Price (U.S.)
Zeta Beefy-T short sleeve T-shirt	18213-A	Orange	Crew Neck	100% Cotton	S	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	179916-A	Red	Crew Neck	polyester/cotton blend (30/70)	S	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	179926-A	Blue	V-Neck	polyester/cotton blend (30/70)	S	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	242727-A	Plum	V-Neck	100% Cotton	S	CHINA	9.99 $
Zeta Beefy-T short sleeve T-shirt	100812-A	Plum	Crew Neck	Polyester	M	CHINA	9.99 $
Acme Beefy-T short sleeve T-shirt	18216-A	Royal Blue	Crew Neck	100% Cotton	M	VIET NAM	10.99 $
Zeta Beefy-T short sleeve	MT18404-A	Red	V-Neck	Polyester	M	MEXICO	9.99 $
Acme Beefy-T short sleeve T-shirt	179928-A	Red	Crew Neck	polyester/cotton blend (30/70)	M	CHINA	10.99 $
Acme Beefy-T short sleeve T-shirt	239317-A	Plum	V-Neck	100% Cotton	M	CHINA	6.99 $
Acme Beefy-T short sleeve T-shirt	MT18400-A	Black	V-Neck	Polyester	L	CHINA	14.99 $
Beta Beefy-T short sleeve T-shirt	100703-A	Black	Crew Neck	Polyester	L	BRAZIL	7.99 $
Acme Beefy-T short sleeve T-shirt	MT18403-A	White	Crew Neck	Polyester	L	CHINA	6.99 $
Beta Beefy-T short sleeve T-shirt	182922-A	Red	Crew Neck	Polyester	L	BRAZIL	14.99 $
Acme Beefy-T short sleeve T-shirt	236408-A	Blue	V-Neck	100% Cotton	XL	VIET NAM	14.99 $
Acme Beefy-T short sleeve T-shirt	179924-A	White	V-Neck	Polyester	XL	MEXICO	14.99 $
Acme Beefy-T short sleeve T-shirt	18210-A	Gray	V-Neck	100% Cotton	XXL	CHINA	7.99 $
Acme Beefy-T short sleeve T-shirt	18212-A	Royal Blue	V-Neck	100% Cotton	XXXL	VIET NAM	6.99 $
Acme Beefy-T short sleeve T-shirt	181951LB-A	Gray	Crew Neck	100% Cotton	XXXL	MEXICO	7.99 $

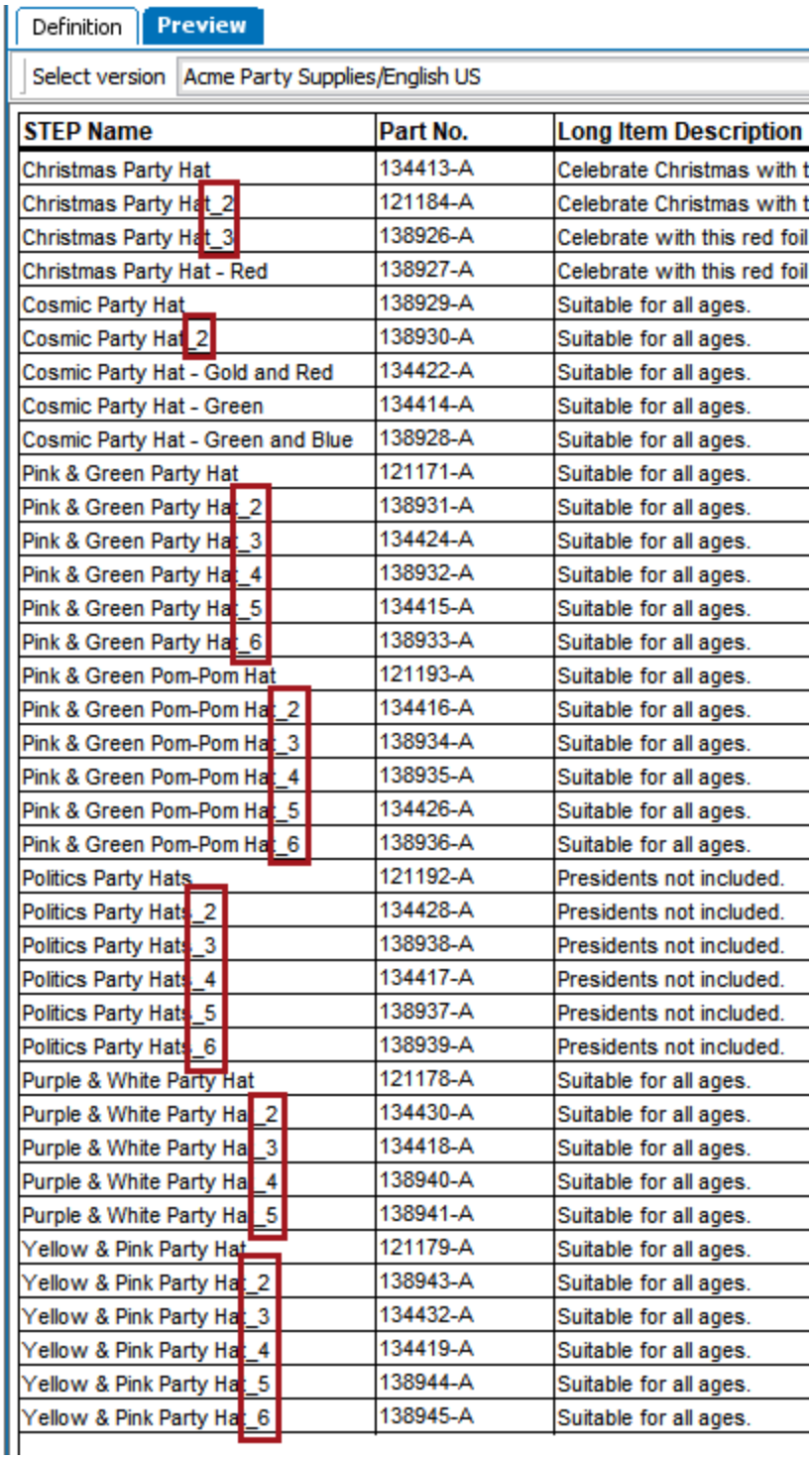
Transformation	Parameters
Row/Column Text Formatting	For "7" do: Replace the whole value Replace the whole value Replace the whole value Replac
Standard Sorting	Sorting on Column 7
Remove Rows/Columns	Remove Column" 7"
Alternate Row Colors	Color 2 rows "Light Blue" then 2 "White". Restart count after Headings 1,
Row/Column Text Formatting	For "Country of Origin:Color:Material:" do: Replace the whole value Replace the whole value
Merge Rows/Columns	Merge columns Neck Style - Material
Suppress Rows/Columns	Suppress Row where Column Color is Kelly Green

Example – Suppression Using a Regular Expression

The following example uses an *extremely* basic regular expression that suppresses rows by matching on a single character. For more detailed information about regular expressions, refer to the **Regular Expression** section of the **Resource Materials** online help.

Before

Before applying the transformation, the table is very tall and contains what appear to be duplicate products, which have an underscore and number at the end of their STEP Names, e.g., Christmas Party Hat_2, Christmas Party Hat_3, and so forth.

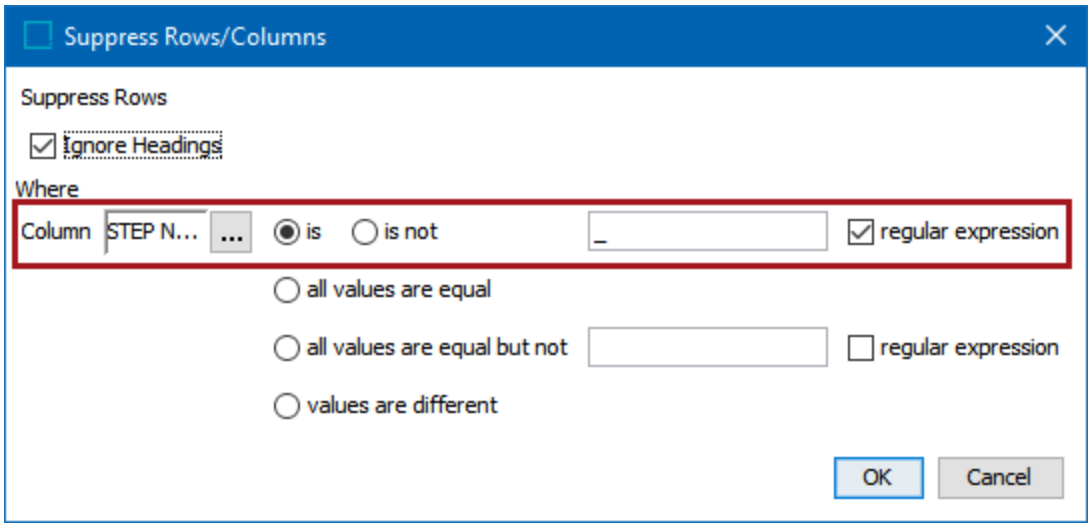


Definition | Preview

Select version: Acme Party Supplies/English US

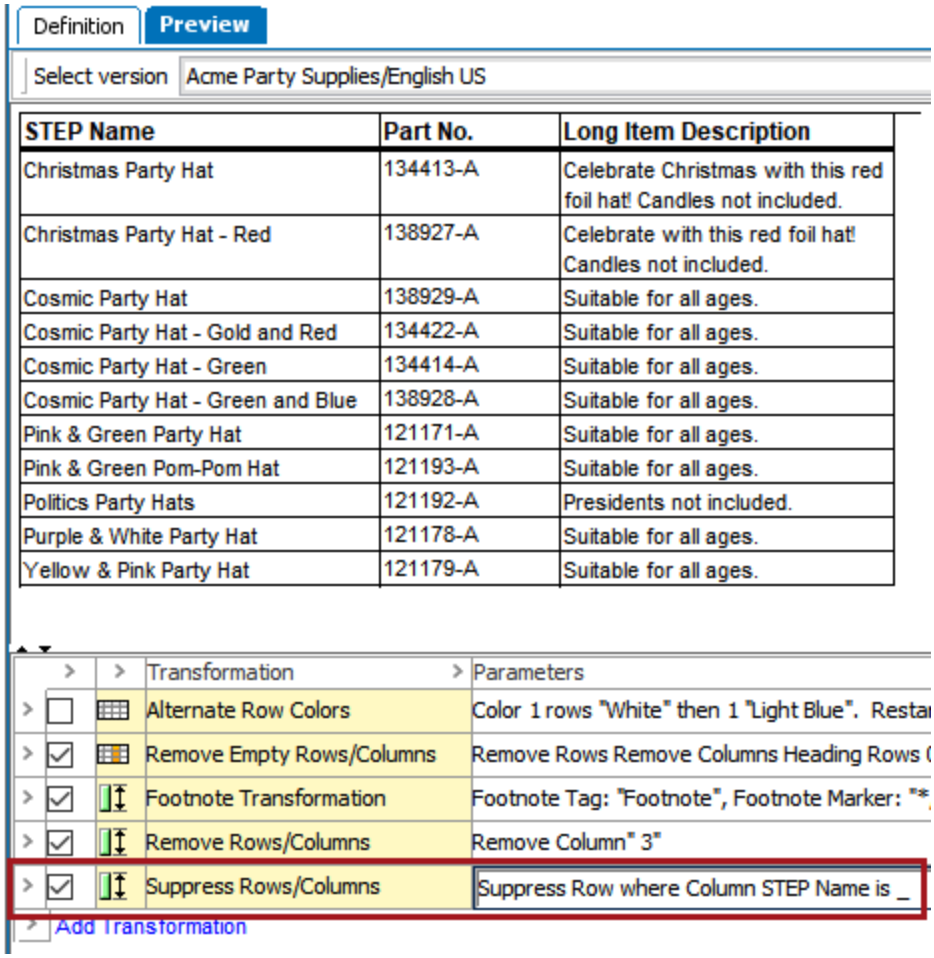
STEP Name	Part No.	Long Item Description
Christmas Party Hat	134413-A	Celebrate Christmas with t
Christmas Party Hat_2	121184-A	Celebrate Christmas with t
Christmas Party Hat_3	138926-A	Celebrate with this red foil
Christmas Party Hat - Red	138927-A	Celebrate with this red foil
Cosmic Party Hat	138929-A	Suitable for all ages.
Cosmic Party Hat_2	138930-A	Suitable for all ages.
Cosmic Party Hat - Gold and Red	134422-A	Suitable for all ages.
Cosmic Party Hat - Green	134414-A	Suitable for all ages.
Cosmic Party Hat - Green and Blue	138928-A	Suitable for all ages.
Pink & Green Party Hat	121171-A	Suitable for all ages.
Pink & Green Party Hat_2	138931-A	Suitable for all ages.
Pink & Green Party Hat_3	134424-A	Suitable for all ages.
Pink & Green Party Hat_4	138932-A	Suitable for all ages.
Pink & Green Party Hat_5	134415-A	Suitable for all ages.
Pink & Green Party Hat_6	138933-A	Suitable for all ages.
Pink & Green Pom-Pom Hat	121193-A	Suitable for all ages.
Pink & Green Pom-Pom Hat_2	134416-A	Suitable for all ages.
Pink & Green Pom-Pom Hat_3	138934-A	Suitable for all ages.
Pink & Green Pom-Pom Hat_4	138935-A	Suitable for all ages.
Pink & Green Pom-Pom Hat_5	134426-A	Suitable for all ages.
Pink & Green Pom-Pom Hat_6	138936-A	Suitable for all ages.
Politics Party Hats	121192-A	Presidents not included.
Politics Party Hats_2	134428-A	Presidents not included.
Politics Party Hats_3	138938-A	Presidents not included.
Politics Party Hats_4	134417-A	Presidents not included.
Politics Party Hats_5	138937-A	Presidents not included.
Politics Party Hats_6	138939-A	Presidents not included.
Purple & White Party Hat	121178-A	Suitable for all ages.
Purple & White Party Hat_2	134430-A	Suitable for all ages.
Purple & White Party Hat_3	134418-A	Suitable for all ages.
Purple & White Party Hat_4	138940-A	Suitable for all ages.
Purple & White Party Hat_5	138941-A	Suitable for all ages.
Yellow & Pink Party Hat	121179-A	Suitable for all ages.
Yellow & Pink Party Hat_2	138943-A	Suitable for all ages.
Yellow & Pink Party Hat_3	134432-A	Suitable for all ages.
Yellow & Pink Party Hat_4	134419-A	Suitable for all ages.
Yellow & Pink Party Hat_5	138944-A	Suitable for all ages.
Yellow & Pink Party Hat_6	138945-A	Suitable for all ages.

To suppress all rows that contain these products, the Column 'STEP Name' is chosen for Column; the 'is' radio button is selected; an underscore character is entered into the text field; and 'regular expression' is checked.



After

After applying the transformation, the table looks like this. All rows are removed where the STEP Name value contained an underscore.



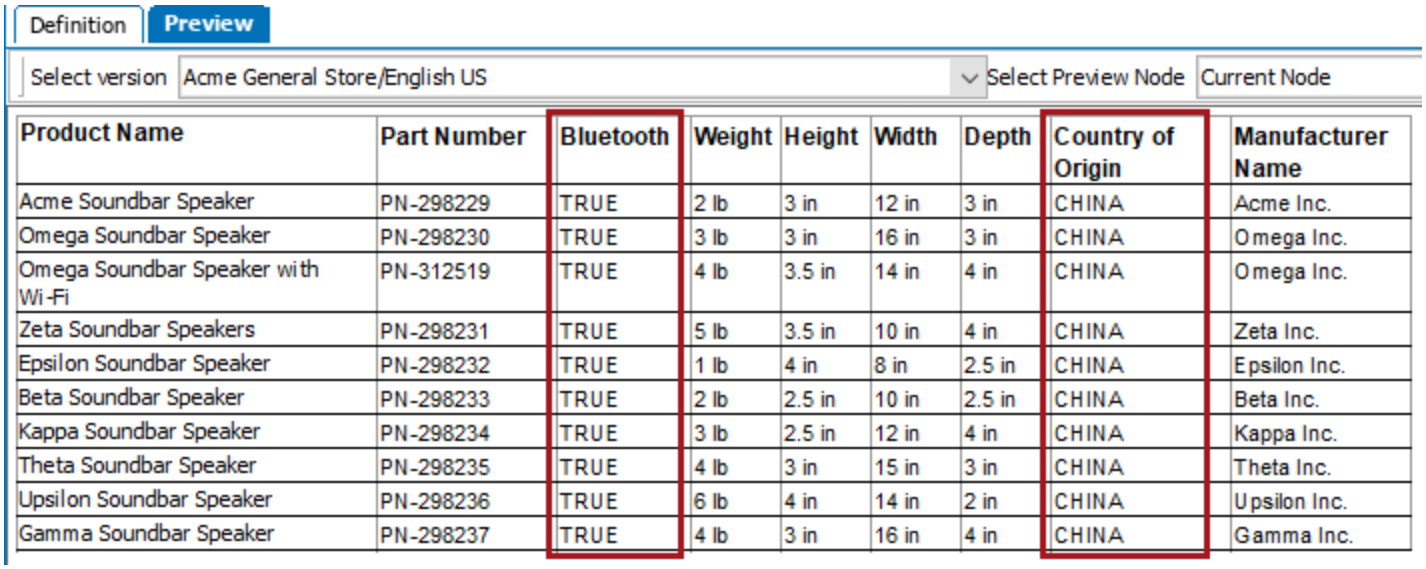
STEP Name	Part No.	Long Item Description
Christmas Party Hat	134413-A	Celebrate Christmas with this red foil hat! Candles not included.
Christmas Party Hat - Red	138927-A	Celebrate with this red foil hat! Candles not included.
Cosmic Party Hat	138929-A	Suitable for all ages.
Cosmic Party Hat - Gold and Red	134422-A	Suitable for all ages.
Cosmic Party Hat - Green	134414-A	Suitable for all ages.
Cosmic Party Hat - Green and Blue	138928-A	Suitable for all ages.
Pink & Green Party Hat	121171-A	Suitable for all ages.
Pink & Green Pom-Pom Hat	121193-A	Suitable for all ages.
Politics Party Hats	121192-A	Presidents not included.
Purple & White Party Hat	121178-A	Suitable for all ages.
Yellow & Pink Party Hat	121179-A	Suitable for all ages.

Example – Suppressions Using Equal and Non-equal Values

The following example shows how two tables can be derived from the same product family, with one table holding only the *common* values for the children and the second holding only the *different* values for the children. Both tables start with an identical setup, loaded with the same data.

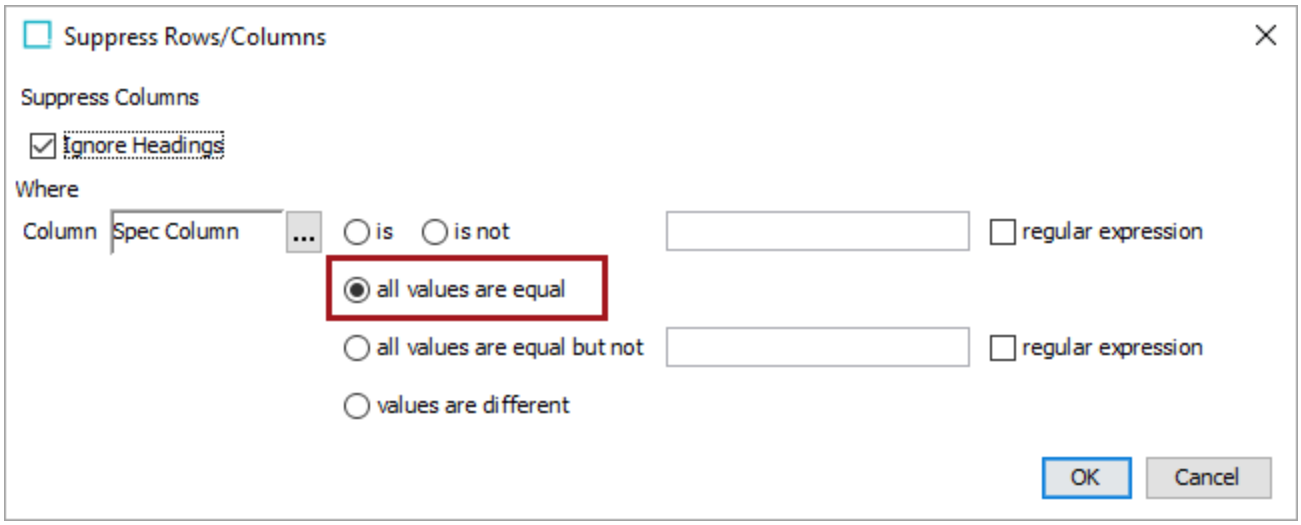
Before

The below screenshot shows how both tables look originally. All columns have different values for the children except for the 'Bluetooth' and 'Country of Origin' columns, which have identical values for each child. All columns in the table are a normal column type (Spec Column) except for the 'Product Name' column, which is a column header.



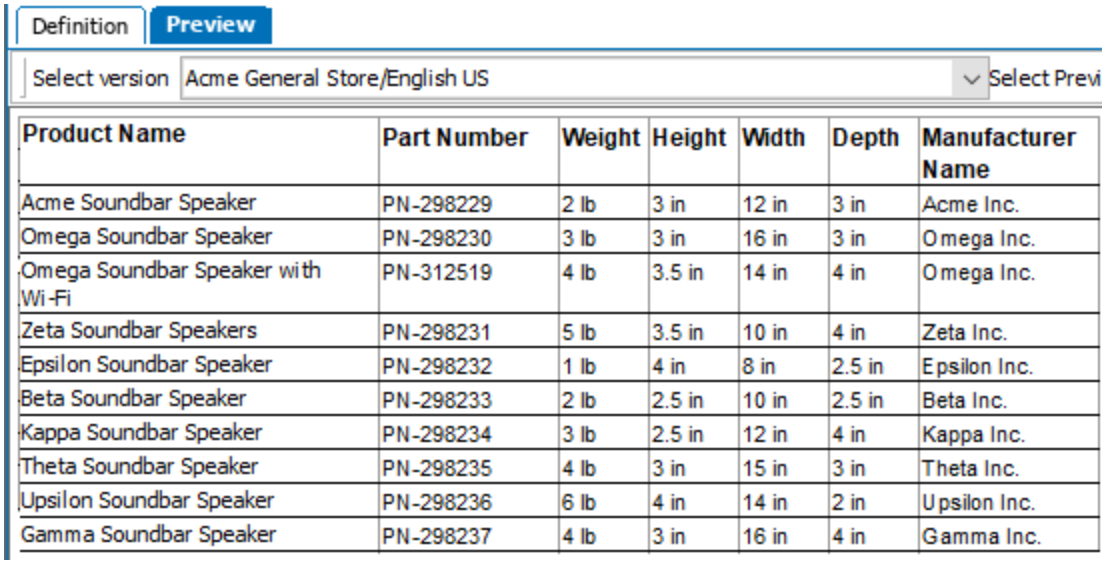
Product Name	Part Number	Bluetooth	Weight	Height	Width	Depth	Country of Origin	Manufacturer Name
Acme Soundbar Speaker	PN-298229	TRUE	2 lb	3 in	12 in	3 in	CHINA	Acme Inc.
Omega Soundbar Speaker	PN-298230	TRUE	3 lb	3 in	16 in	3 in	CHINA	Omega Inc.
Omega Soundbar Speaker with Wi-Fi	PN-312519	TRUE	4 lb	3.5 in	14 in	4 in	CHINA	Omega Inc.
Zeta Soundbar Speakers	PN-298231	TRUE	5 lb	3.5 in	10 in	4 in	CHINA	Zeta Inc.
Epsilon Soundbar Speaker	PN-298232	TRUE	1 lb	4 in	8 in	2.5 in	CHINA	Epsilon Inc.
Beta Soundbar Speaker	PN-298233	TRUE	2 lb	2.5 in	10 in	2.5 in	CHINA	Beta Inc.
Kappa Soundbar Speaker	PN-298234	TRUE	3 lb	2.5 in	12 in	4 in	CHINA	Kappa Inc.
Theta Soundbar Speaker	PN-298235	TRUE	4 lb	3 in	15 in	3 in	CHINA	Theta Inc.
Upsilon Soundbar Speaker	PN-298236	TRUE	6 lb	4 in	14 in	2 in	CHINA	Upsilon Inc.
Gamma Soundbar Speaker	PN-298237	TRUE	4 lb	3 in	16 in	4 in	CHINA	Gamma Inc.

The desired result for 'Table 1' is to only show the child values that are *different*. So, the Suppress Rows/Columns transformation is applied to remove all columns where the values in that column are the *same* (equal).



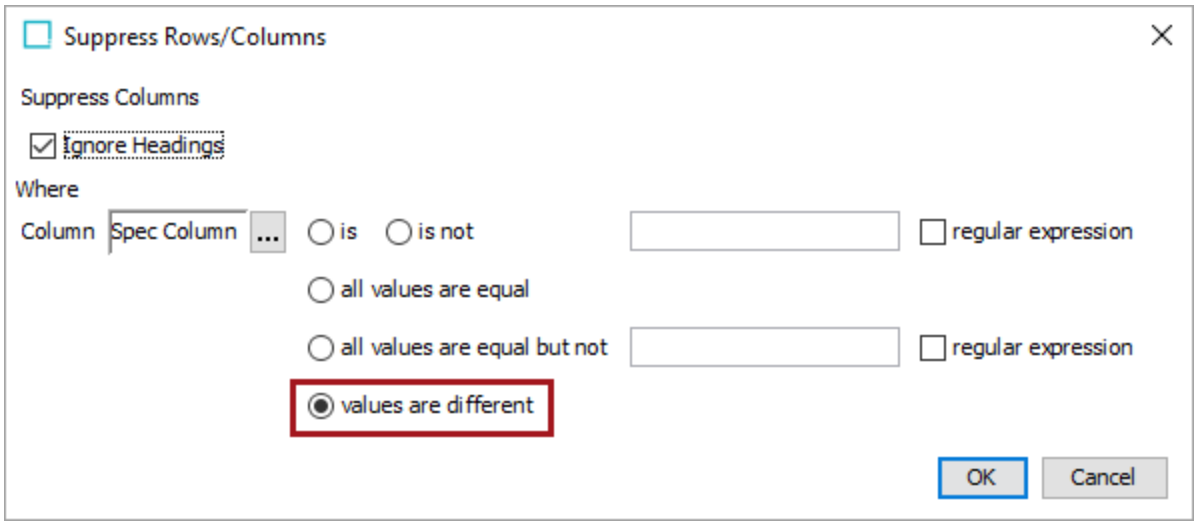
After

Once applied, the 'Bluetooth' and 'Country of Origin' columns are removed.



Product Name	Part Number	Weight	Height	Width	Depth	Manufacturer Name
Acme Soundbar Speaker	PN-298229	2 lb	3 in	12 in	3 in	Acme Inc.
Omega Soundbar Speaker	PN-298230	3 lb	3 in	16 in	3 in	Omega Inc.
Omega Soundbar Speaker with Wi-Fi	PN-312519	4 lb	3.5 in	14 in	4 in	Omega Inc.
Zeta Soundbar Speakers	PN-298231	5 lb	3.5 in	10 in	4 in	Zeta Inc.
Epsilon Soundbar Speaker	PN-298232	1 lb	4 in	8 in	2.5 in	Epsilon Inc.
Beta Soundbar Speaker	PN-298233	2 lb	2.5 in	10 in	2.5 in	Beta Inc.
Kappa Soundbar Speaker	PN-298234	3 lb	2.5 in	12 in	4 in	Kappa Inc.
Theta Soundbar Speaker	PN-298235	4 lb	3 in	15 in	3 in	Theta Inc.
Upsilon Soundbar Speaker	PN-298236	6 lb	4 in	14 in	2 in	Upsilon Inc.
Gamma Soundbar Speaker	PN-298237	4 lb	3 in	16 in	4 in	Gamma Inc.

The desired result for 'Table 2' is to only show the values that are the *same* for the children. So, the Suppress Rows/Columns transformation is applied to remove all columns where the values in the column are *different*.



Once applied, *only* the 'Bluetooth' and 'Country of Origin' columns remain. (The 'Product Name' column remains because it is a header column type, and the transformation has been configured to 'Ignore Headings.')

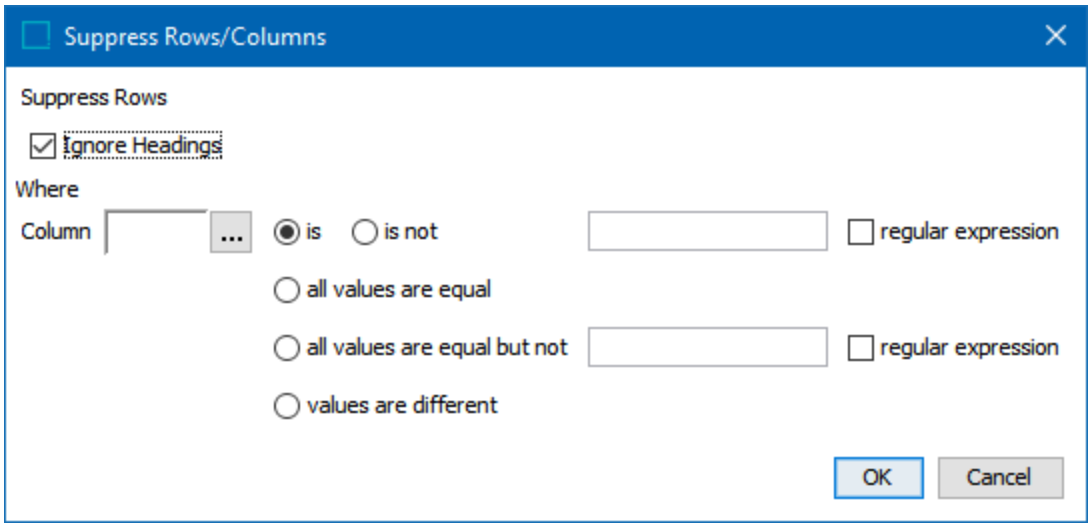
Definition | Preview

Select version: Acme General Store/English US

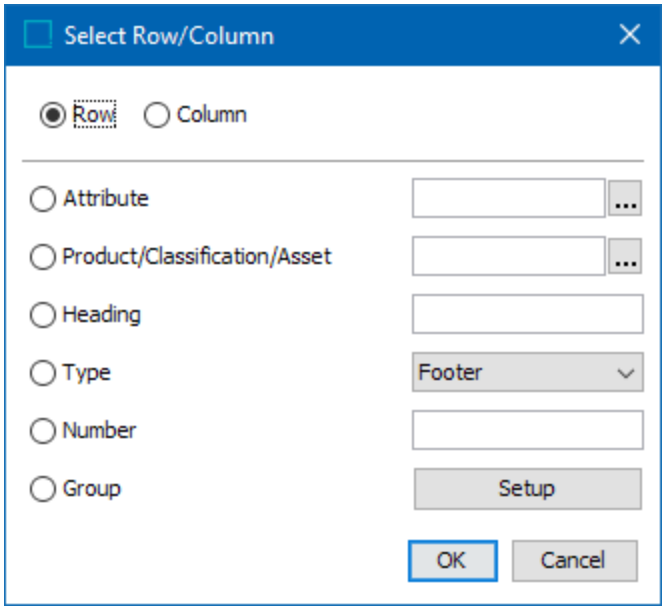
Product Name	Bluetooth	Country of Origin
Acme Soundbar Speaker	TRUE	CHINA
Omega Soundbar Speaker	TRUE	CHINA
Omega Soundbar Speaker with Wi-Fi	TRUE	CHINA
Zeta Soundbar Speakers	TRUE	CHINA
Epsilon Soundbar Speaker	TRUE	CHINA
Beta Soundbar Speaker	TRUE	CHINA
Kappa Soundbar Speaker	TRUE	CHINA
Theta Soundbar Speaker	TRUE	CHINA
Upsilon Soundbar Speaker	TRUE	CHINA
Gamma Soundbar Speaker	TRUE	CHINA

Steps

1. After adding the transformation, under **Parameters**, click the ellipsis button (...). The **Suppress Rows/Columns** dialog displays.

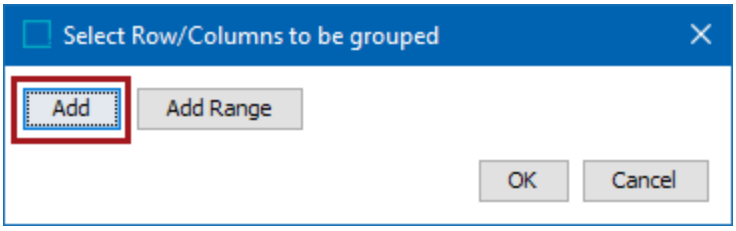


2. Select **Ignore Headings** if you do not want to apply the transformation to headings.
3. In the 'Where' section, click the ellipsis button (...) in the **Column** or **Row** field to display the **Select Row/Column** dialog. Select **Row** to suppress rows and **Column** to select columns.

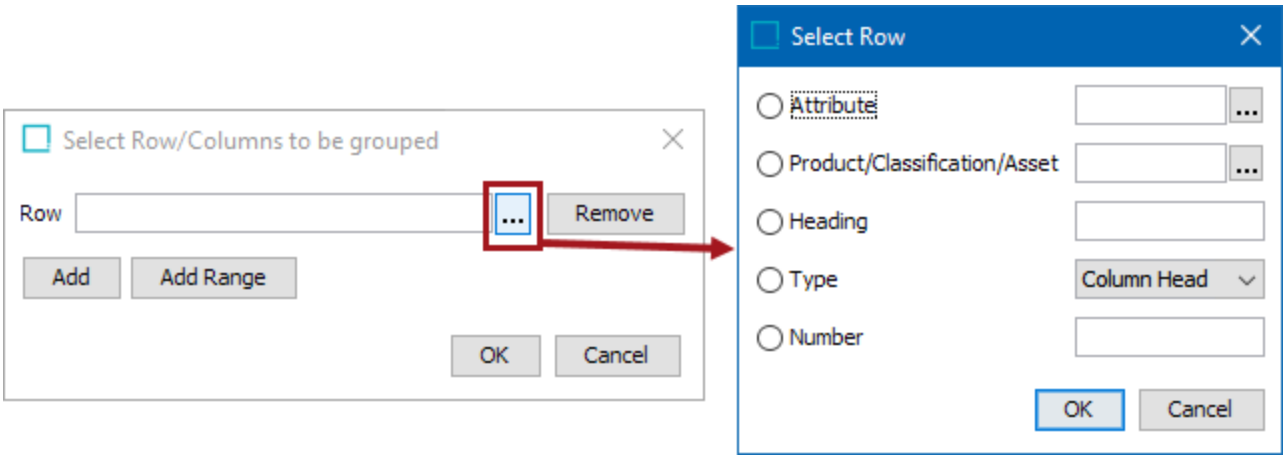


- Select **Attribute** to apply the transformation to the row or column that contains the specified attribute. Click the ellipsis button (...) to search or browse for the relevant attribute.
- Select **Product/Classification/Asset** to apply the transformation to the row or column that contains the specified object. Click the ellipsis button (...) to search or browse for the relevant object.
- Select **Heading** to identify the row or column by typing the header text of the relevant row or column.
- Select **Type** to choose a specific row or column type from the dropdown list.

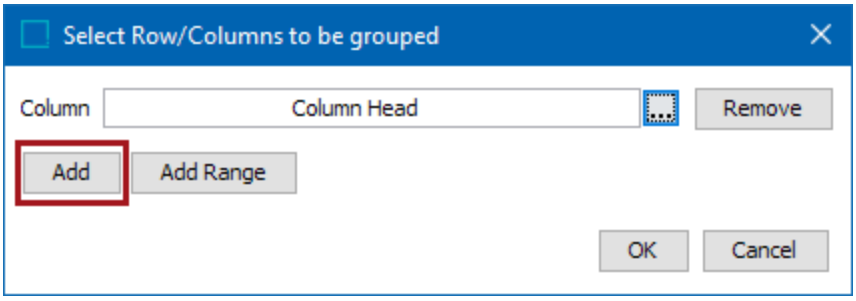
- Select **Number** to identify the row or column by entering the sequence number. For example, to apply the transformation to the third column, type 3.
- Select **Group** to apply the transformation to a group of rows / columns and/or a range of row / columns, then click the **Setup** button.
  - Click **Add** in the **Select Row/Columns to be grouped** dialog to add rows or columns to the group individually.



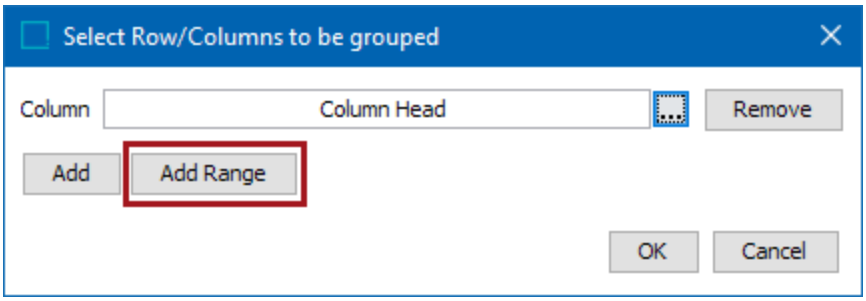
After clicking **Add**, either a Row or Column field displays, depending on whether you are selecting a row or column. Click the ellipsis button (...) to launch another **Select Row/Column** dialog. This is identical to the previous 'Select Row/Column' dialog, except without the Group option. Click **OK** after making your selection.



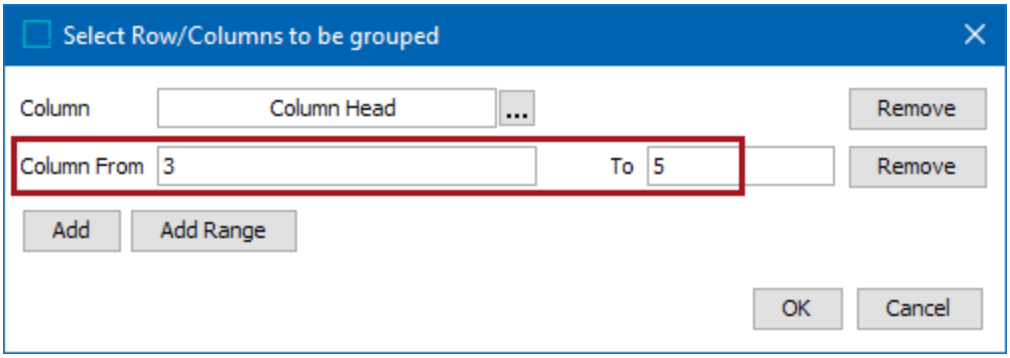
Click **Add** again on the 'Select Row/Columns to be grouped' dialog to repeat the previous steps and add more columns to the group. Click **OK** when done.



  - To add a **Range** of columns to the group, click **Add Range**.



Enter the starting and ending column numbers in the **Column From** and **To** fields, then click **OK** when done. To enter a range that will contain the remainder of the table if rows or columns are added later, enter a large number in the 'To' field such as 5999. **Note** that these fields can only contain integer values.



4. After making the selections from the Select Row/Column dialog, choose one of the following 'Where' options:
   - Select **is** or **is not** to suppress rows / columns that match a certain text string. To match on exact text, enter the text value in the text field. To use a regular expression, check the **regular expression** box and enter a regular expression in the text field.
   - Select **all values are equal** to suppress rows or columns in which all values are equal within the specified row or column.
   - Select **all values are equal but not** to suppress rows or columns in which all values are equal except for a specified text string or regular expression.
   - Select **values are different** to suppress rows or columns in which all values are different within the specified row or column.
5. Click **OK** to finish configuring the transformation.

Header Repeating Pagination Plugin

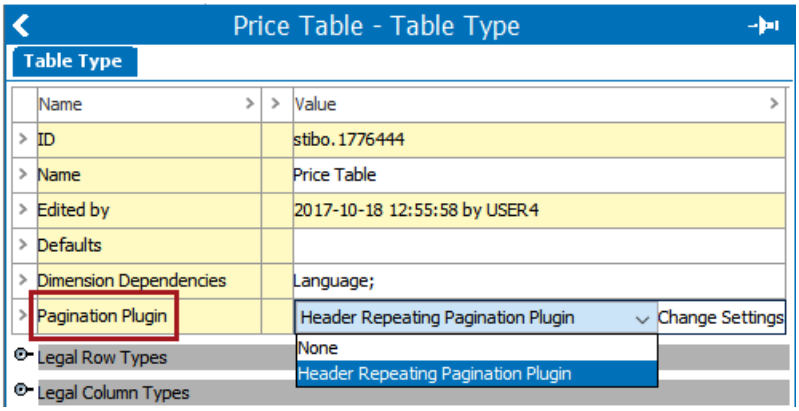
The **Header Repeating Pagination Plugin** is accessible on **Table Type** objects. The settings available in this 'plugin' allow more control over the behavior of tables—specifically related to the behavior of repeated header and footer rows—when lengthy tables split across columns or pages.

Though the settings contained within this 'plugin' are not transformations, they are designed to work along with transformations, or in some cases, in place of them. For example, the Alternate Row Colors transformation may be sufficient for simple, smaller tables, but for lengthy tables that split, more control is needed in how the alternate row colors are calculated when headers split across pages. In this instance, the Header Repeating Pagination Plugin would be used instead of the Alternate Row Colors transformation.

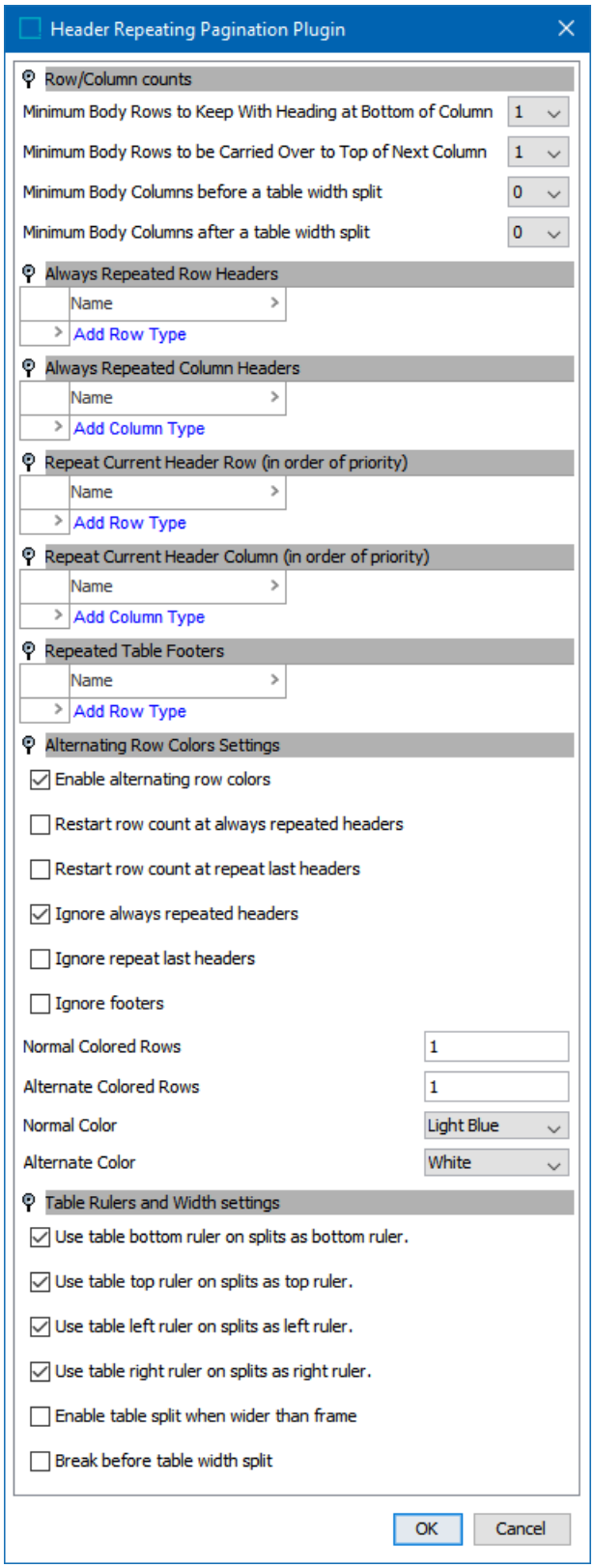
Note that all settings are not necessary for all tables. The specific combinations chosen are dependent on the unique requirements for the table type being configured.

To configure the Header Repeating Pagination Plugin, follow these steps.

1. In **System Setup**, expand **Table**, then expand **Table Types**.
2. Expand the **Table Type Group** that contains the table type that you would like to configure, then select the relevant table type.
3. On the **Table Type** tab, click in the **Pagination Plugin** field and select **Header Repeating Pagination Plugin**. ('None' will appear as the default selection.)



4. Click on **Change Settings**, which appears directly to the right of the dropdown list. The **Header Repeating Pagination Plugin** displays.



5. In the **Row/Column counts** area, make the following selections as needed:

- In **Minimum Body Rows to Keep With Heading at Bottom of Column**, select a number from the dropdown list. Numbers range from 0 to 10.

  For example, while doing pagination, if your table is placed at the bottom of the page and continues to the next page or column, this checks for the minimum number of rows to be placed *before* splitting the table.

- In **Minimum Body rows to be Carried Over to Top of Next Column**, select a number from the dropdown list. Numbers range from 0 to 10.

  For example, while doing pagination, if your table is placed at the bottom of the page and continues to the next page or column, this checks for the minimum number of rows to be placed *after* splitting the table.

- In **Minimum Body Columns before a table width split**, select a number from the dropdown list. Numbers range from 0 to 10.
- In **Minimum Body Columns after a table width split**, select a number from the dropdown list. Numbers range from 0 to 10.

6. In the **Always Repeated Row Headers** area, click **Add Row Type** to choose the heading and/or subheading row types that must always be repeated when a table is split. This will repeat the row header when the table is continued from one page / column to another.

Product Name	Part No.	Price	Product Name	Part No.	Price
Christmas Party Hat	121184-A	$7.99	Yellow & Green Party Hat	134416-A	$4.79
Cosmic Party Hat	134413-A	$3.99	Glitter Party Hat	138934-A	$3.99

7. In the **Always Repeated Column Headers** area, click **Add Column Type** to choose the heading and/or subheading column types that must always be repeated when a table is split.
8. In the **Repeat Current Header Row (in order of priority)** area, click **Add Row Type**, then select the heading and/or subheading row types where only the last row of that type will be repeated when a table is split.
9. In the **Repeat Current Header Column (in order of priority)** area, click **Add Column Type**, then select the heading and/or subheading column types where only the last column of that type will be repeated when a table is split.
10. In the **Repeated Table Footers** area, click **Add Row Type** to select the footer row types that must be repeated at the bottom of a column or page when a table is split.
11. In the **Alternating row colors settings** area, make selections only if you are not already using the Alternate Row Colors transformation.
    Though the Alternate Row Colors transformation adds color shading to alternating table rows, the transformation offers no additional control over the alignment of shaded rows when a table splits across a column or a page.

    Using alternate row color settings in the Header Repeating Pagination Plugin provides a more complex level of control over the appearance of split tables with multiple repeated headers. The following screenshot shows neatly aligned row colors in a table split across two columns, accomplished by applying alternate row coloring using the Header Repeating Pagination Plugin.

Product Name	Part No.	Price
Christmas Party Hat	121184-A	$7.99
Cosmic Party Hat	134413-A	$3.99
Pink & Green Party Hat	134420-A	$4.79
Pink & Green Pom-Pom Hat	138925-A	$3.99
Christmas Party Hat	138926-A	$2.99
Purple & White Party Hat	138927-A	$2.99
Glitter Party Hat	121177-A	$3.99
Purple Foil Party Hat	134414-A	$2.99
Yellow & Pink Party Hat	134422-A	$2.99
Yellow & Green Party Hat	138928-A	$2.99
Ice Princess Party Hat	138929-A	$2.99
Fairy Princess Party Hat	138930-A	$2.99

Product Name	Part No.	Price
Yellow & Green Party Hat	134416-A	$4.79
Glitter Party Hat	138934-A	$3.99
Political Party Hat	138935-A	$4.79
Birthday Party Hat	134426-A	$3.99
1st Birthday Party Hat	138936-A	$2.99
2nd Birthday Party Hat	121192-A	$2.99
3rd Birthday Party Hat	134417-A	$3.99
Sweet 16 Party Hat	134428-A	$2.99
Over the Hill Party Hat	138937-A	$2.99
Fringe Party Hat	138938-A	$3.99
Political Party Hat	138939-A	$2.99
Purple & White Party Hat	121178-A	$4.79

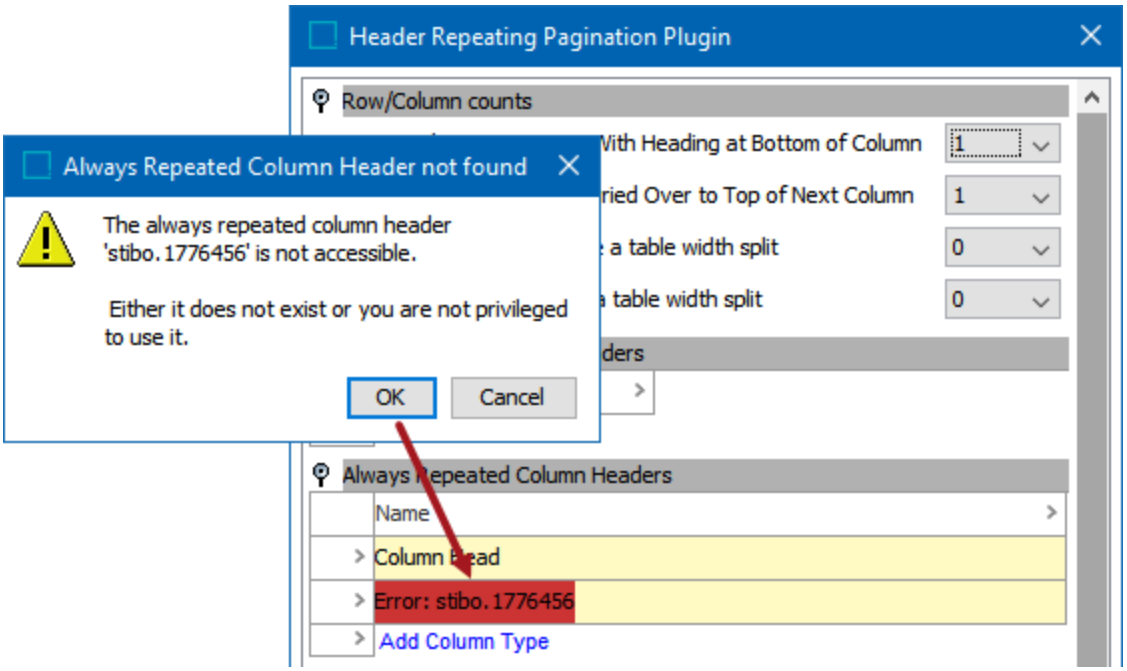
- First, check the **Enable alternating row colors** box to activate the rest of the options in this area.
- Next, check the following boxes as needed to control where alternate row coloring should and/or should not appear:
  - Restart row count at always repeated headers
  - Restart row count at repeat last headers
  - Ignore always repeated headers
  - Ignore repeat last headers
  - Ignore footers
- Enter the number of **Normal Colored Rows** and **Alternate Colored Rows** in the text boxes
- Select the **Normal Color** and **Alternate Color** from the dropdown lists. Selections are populated by colors created in System Setup under Table > **Colors**

For more information on the Alternate Row Colors transformation, refer to **Table Layout Transformations** in the **Tables** documentation.

12. In the **Table Rulers and Width settings** area, check the necessary boxes to determine which table rules must be added to split tables and to fine-tune when tables split based on their width:
    - Use table bottom ruler on splits as bottom ruler.
    - Use table top ruler on splits as top ruler.
    - Use table left ruler on splits as left ruler.
    - Use table right ruler on splits as right ruler.
    - Enable table split when wider than frame
    - Break before table width split

Error Handling - Missing Configurations

If any column types, row types, or colors have been removed from STEP since the last time the Header Repeating Pagination Plugin was configured, a warning message will display when opening the plugin. The plugin will open after clicking OK on the error message, but the missing configuration will display in a red highlighted cell. To correct the error, either remove or re-add the missing configuration.


Header Repeating Pagination Plugin
Row/Column counts
With Heading at Bottom of Column
1
ried Over to Top of Next Column
1
a table width split
0
table width split
0
ders
Always Repeated Column Headers
Name
Column Head
Error: stibo.1776456
Add Column Type
Always Repeated Column Header not found
The always repeated column header 'stibo.1776456' is not accessible.
Either it does not exist or you are not privileged to use it.
OK
Cancel

Exporting and Importing Tables

Table exports and imports cover two sets of definitions: table *types* in System Setup, and table *definitions* that are created on the Tables tab of product, classification, or product-override objects in the Tree. Table definitions are further broken down into two areas—local table definitions, and definitions for resolved tables, i.e., tables that contain data and can be previewed on the selected product, classification, or product-override object.

The topics in this section explain how to export and import STEP tables in the STEP Workbench. Tables are exported and imported in the **STEPXML** format and, depending on what options are chosen in the Export Manager, information about table types, table definitions, and resolved tables can be included in table exports. To narrow down the amount of information included in the export file, the **Advanced STEPXML** format can also be used.

This documentation section covers the following topics:

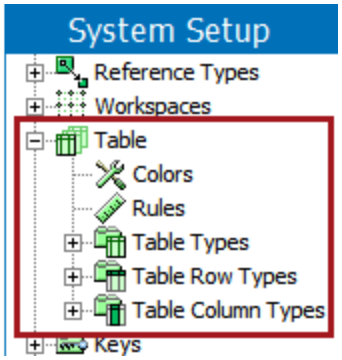
- Exporting Table Types
- Exporting Table Definitions
- Exporting Resolved Tables
- Importing Tables

Exporting Table Types

This topic explains how to export table type objects from System Setup.

Table types are exported in the STEPXML format by selecting **Include Table Types** in the Export Manager when configuring the export. The resulting file contains the following information, which allows for a complete table types hierarchy to be built on a target system on import:

- Table colors and table rules
- Table type groups, column type groups, and row type groups
- Table types, row types, and column types
- Default table transformations
- Table pagination plugins
- Table type dimension dependencies
- Heading / footer information and valid publication types for row and column types



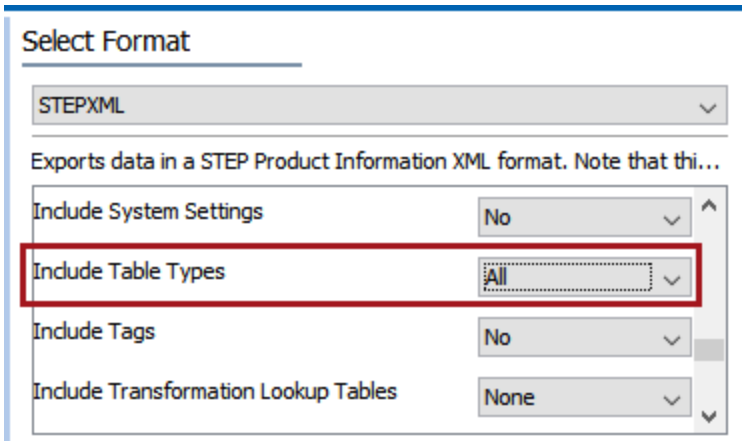
Full details of the contents of the file are explained in the 'Contents of Table Types Export File' subsection below. For recommended practices and considerations when *importing* table types, refer to the **Importing Tables** topic.

Exporting the Table Types STEPXML File

The overall steps to export table types in the STEPXML format using the Export Manager are the same as those used when exporting any other type of data from STEP. The following steps provide a general overview in the context of configuring a table type–specific export.

1. To initiate the export, follow the initial steps outlined in the **Creating a Data Export** topic in the **Export Manager** documentation.
2. On the Select Format screen of the Export Manager, select **Include Table Types** from the outbound parameters under the 'Configuration' section. Select 'All' if you would like to export all table objects from System Setup. If any product and/or classification objects were included in the Select Objects screen, choose 'Minimum' to only include the table type objects that are used on those objects.

Note: Note that Colors and Rules will always be included in the export, regardless of whether All or Minimum is selected. Since colors / rules may be referenced by transformations, pagination plugins, and so forth, there is no way to determine which plugins reference which colors / rules.



3. Click **Finish** to complete the configuration, as all options on the Advanced screen may be ignored.
4. Finish the export as you would any other data export by retrieving the file from the Background Processes tab.

Exporting Table Types Using Advanced STEPXML

Table types may also be exported using the **Advanced STEPXML** format. Using Advanced STEPXML allows for the use of an XML file snippet instead of having to make selections from the STEPXML outbound parameter dropdowns. Advanced STEPXML is also recommended if you want to export only the table type objects associated with the tables defined on a particular product / classification *and* exclude the extraneous information about the product / classification that would typically be included in a standard STEPXML export, such as attribute links, product override links, asset references, classification references, product references, and metadata attribute values.

To export table types in Advanced STEPXML, follow the same steps outlined in the previous section, but choose Advanced STEPXML on the Select Format screen of the Export Manager instead of STEPXML.

All Table Type Definitions (System Wide)

To export **all** table types from System Setup (and not just those associated with a selected product or classification), replace the preexisting information in the **Template** field with the following code snippet:

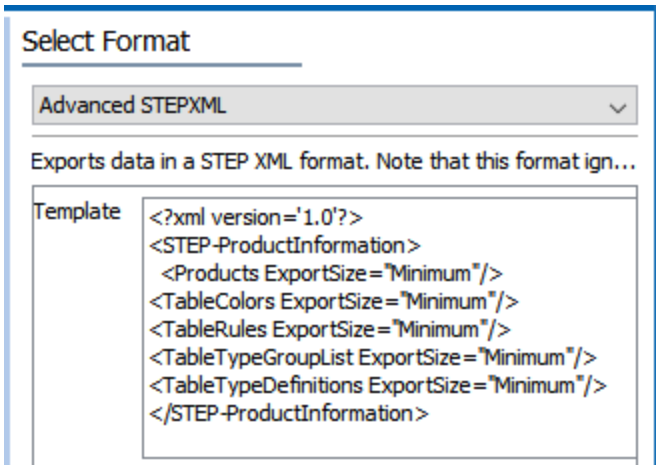
```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <TableColors ExportSize="All"/>
 <TableRules ExportSize="All"/>
 <TableTypeGroupList ExportSize="All"/>
```

```
 <TableTypeDefinitions ExportSize="All"/>
</STEP-ProductInformation>
```

Specific Table Type Definitions From Products

To export specific table type objects associated with the locally defined (not inherited) tables on a selected product only, use a template similar to the following.

```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <Products ExportSize="Minimum"/>
 <TableColors ExportSize="Minimum"/>
 <TableRules ExportSize="Minimum"/>
 <TableTypeGroupList ExportSize="Minimum"/>
 <TableTypeDefinitions ExportSize="Minimum"/>
</STEP-ProductInformation>
```



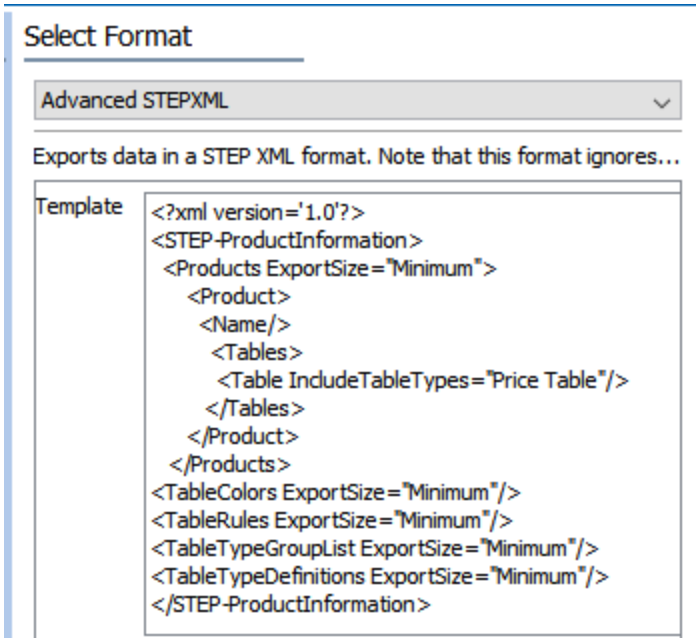
Specified Table Type Definitions Only

To export specific table type objects associated with a **specific** table on a selected product, use a template similar to the following.

Note: Table types are designated by STEP **name**, not ID, in the Advanced STEPXML format template.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
 <Products ExportSize="Minimum">
  <Product>
  <Name/>
    <Tables>
      <Table IncludeTableTypes="Price Table"/>
    </Tables>
  </Product>
```

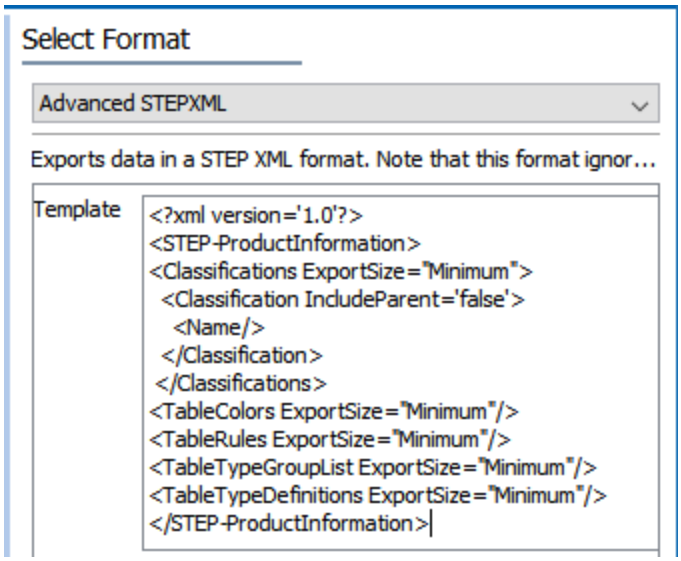
```
 </Products>
 <TableColors ExportSize="Minimum"/>
 <TableRules ExportSize="Minimum"/>
 <TableTypeGroupList ExportSize="Minimum"/>
 <TableTypeDefinitions ExportSize="Minimum"/>
</STEP-ProductInformation>
```



Specific Table Type Definitions From Classifications

To export specific table type objects associated with the tables defined on a selected classification only, use a template similar to the following.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
  <Classifications ExportSize="Minimum">
    <Classification IncludeParent='false'>
      <Name/>
    </Classification>
  </Classifications>
 <TableColors ExportSize="Minimum"/>
 <TableRules ExportSize="Minimum"/>
 <TableTypeGroupList ExportSize="Minimum"/>
 <TableTypeDefinitions ExportSize="Minimum"/>
</STEP-ProductInformation>
```



Contents of the Table Types Export File

The following subsections show samples from a STEPXML Table Types export file, followed by a listing of the tags and their descriptions.

Colors and Rules

```
<TableColors>
  <TableColor Name="Cyan" Color="6750156"/>
  <TableColor Name="Blue" Color="6724095"/>
  <TableColor Name="Black" Color="0"/>
  <TableColor Name="Red" Color="13369395"/>
 </TableColors>

<TableRules>
  <TableRule Name="0.5 pt" Width="1" Color="Black"/>
  <TableRule Name="1 pt" Width="1" Color="Black"/>
  <TableRule Name="2 pt" Width="2" Color="Black"/>
  <TableRule Name="Black Dashed 1 pt" Width="1" Color="Black"/>
 </TableRules>
```

Tag	Description
<TableColors>	Parent tag for <TableColor>
<TableColor>	Returns the following information:

Tag	Description
	• Name: The STEP name of the color • Color: The RGB definition of the color in integer form
<TableRules>	Parent tag for <TableRule>
<TableRule>	Returns the following information: • Name: The STEP name of the rule • Width: The width of the rule, in points • Color: The STEP name of the color used for the rule

Group Types

```
<TableTypeGroupList>
<RowColumnTableGroup ID="stibo.2176972">
  <Name>Specifications Tables</Name>
</RowColumnTableGroup>
<RowColumnTableGroup ID="stibo.1776440">
  <Name>Price Tables</Name>
</RowColumnTableGroup>
</TableTypeGroupList>

<ColumnTypeGroupList>
<RowColumnTableGroup ID="stibo.2197593">
  <Name>Spec Table Columns</Name>
</RowColumnTableGroup>
<RowColumnTableGroup ID="stibo.1776452">
  <Name>Price Table Columns</Name>
</RowColumnTableGroup>
</ColumnTypeGroupList>

<RowTypeGroupList>
<RowColumnTableGroup ID="stibo.1776450">
  <Name>Price Table Rows</Name>
</RowColumnTableGroup>
<RowColumnTableGroup ID="stibo.2197597">
  <Name>Spec Table Rows</Name>
</RowColumnTableGroup>
</RowTypeGroupList>
```

Tag	Description
<TableTypeGroupList>	Parent tag for table type groups tag (<RowColumnTableGroup>)
<ColumnTypeGroupList>	Parent tag for column type groups tag (<RowColumnTableGroup>)
<RowTypeGroupList>	Parent tag for row type groups tag (<RowColumnTableGroup>)
<RowColumnTableGroup>	Tag used to return the STEP ID of the table type group, column type group, or row type group, depending on which of the above three tags it is nested in
<Name>	Nested within <RowColumnTableGroup>; returns the STEP name of the table type group, column type group, or row type group

Table Types

```
<TableTypes>
  <TableType ID="stibo.1776444" ParentID="stibo.1776440" TextStyle="Normal_L"
  BackgroundColor="Light Blue" VerticalAlignment="1" RuleAbove="1 pt" RuleBelow
  ="1 pt" RuleLeft="1 pt" RuleRight="1 pt" CellRotation="0"
  CellVerticalStoryDirection="false" CellImageScale="20" Width="4.0" WidthUnit=
  "unece.unit.INH" TableOrientation="Horizontal">
    <Name>Price Table</Name>
    <UserTypeLink UserTypeID="ItemFamily"/>
    <UserTypeLink UserTypeID="ItemFolder"/>
    <ColumnType ID="stibo.1776454" ParentID="stibo.1776452" VerticalAlignment=
    "1" HeadingLevel="0">
    <RowType ID="stibo.1776464" ParentID="stibo.1776450" VerticalAlignment="-1"
     RuleBelow="0.5 pt" KeepWithNext="false" HeadingLevel="0">
    <DimensionLink DimensionID="Language"/>
    <TableTransformation ID="AlternateRowColorsTransformation">
      <Configuration>
      H4sIAAAAAAAAAF2NTQrCMBCF954izAXUvRGqUBRKF0VwPdJpGhgzMBnr9U1cFHT3eN/7OTRspA
      mNBnmfhUXzTTHlSfSJFiW5Xvqq+QtpLLHsYQ/FX6v/aKBsqNaKXgjHmEIlzUMW6mgh9rCr9XXU
      w32ORuB+Bz10MczmTvwq7BpS+WhFSqS8TMiZYHvcfAAfUV+KwQAAAA==</Configuration>
    </TableTransformation>
    <TablePaginationPlugin ID="HeaderRepeatingPaginationPlugin"/>
  </TableType>
</Tabletypes>
```

Tag	Description
<TableTypes>	Parent tag for <TableType>

<TableType>	Returns the following information:
	• ID: The STEP ID of the table type
	• ParentID: The ID of the table type group to which the table type belongs
	If default settings have been applied to the table type, the following XML elements are also included, if applicable:
	• TextStyle: The default text style
	• BackgroundColor: The default background color
	• VerticalAlignment: The default vertical alignment of text. Valid values are:
	  ○ No tag: Top (default alignment)
	  ○ 1: Center
	  ○ 2: Bottom
	  ○ 3: Justify
	  ○ 0: Not defined
	• RuleAbove: The default rule for the top of the table
	• RuleBelow: The default rule for the bottom of the table
	• RuleLeft: The default rule for the left side of the table
	• RuleRight: The default rule for the right side of the table
	• CellRotation: The default orientation of cell contents
	• CellVerticalStoryDirection: The default direction of cell contents (horizontal or vertical)
	• CellImageScale: The default size of images linked into the cell
	• Width: The width of the table
	• WidthUnit: Unit used for the table width. Valid units are:
	  ○ in = unece.unit.INH
	  ○ mm = unece.unit.MMT
	  ○ pica = unece.unit.R1
	  ○ pt = unece.unit.N3
	  ○ proportional = std.proportional
	• Table Orientation: The orientation of the table. Valid values are Horizontal and Vertical. This XML element will not be present for table types with an orientation setting of Automatic.

Tag	Description
	For more information on table type defaults, refer to the **Configuring Settings for Table Types and Tables** topic.
<Name>	STEP name of the table type
<UserTypeLink>	Object types for which the table type is resolvable
<ColumnType>	Default column type for the table. For more information on column types, refer to the 'Column Types' subsection below.
<RowType>	Default row type for the table. For more information on row types, refer to the 'Row Types' subsection below.
<DimensionLink>	Returns the DimensionID (dimension dependency) of the table type. Possible values are 'Language' or 'Country.'
<TableTransformation>	Returns the STEP ID of the default table transformation(s) applied to the table.
<Configuration>	Nested within the <TableTransformation> tag; contains the configuration of the transformation in an encoded internal format.
<TablePaginationPlugin>	Returns the STEP ID of the pagination plugin used for the table, which will always be HeaderRepeatingPaginationPlugin, unless a custom plugin is in use.

Column Types

```
<ColumnTypes>
  <ColumnType ID="stibo.4645492" ParentID="stibo.4645484" HeadingLevel="1">
    <Name>Header Column</Name>
    <TableTypeLink TableTypeID="stibo.4645484"/>
    <PublicationTypeValidity IsInNewPublicationTypes="false">
      <IncludedPublicationType PublicationTypeID="Default publication
      type"/>
    </PublicationTypeValidity>
  </ColumnType>
  <ColumnType ID="stibo.4118466" ParentID="stibo.2197593" TextStyle=
  "Normal_L" BackgroundColor="Yellow" RuleLeft="0.5 pt" RuleRight="0.5 pt"
   HeadingLevel="0">
    <Name>Price Column</Name>
    <TableTypeLink TableTypeID="stibo.4117215"/>
    <PublicationTypeValidity IsInNewPublicationTypes="false">
      <IncludedPublicationType PublicationTypeID="Default publication
      type"/>
    </PublicationTypeValidity>
  </ColumnType>
</ColumnTypes>
```

Tag	Description
<ColumnTypes>	Parent tag for <ColumnType>

<ColumnType>	Returns the following information:
	• ID: The STEP ID of the column type
	• ParentID: The ID of the column type group to which the column type belongs
	• HeadingLevel: The heading level of the column. Possible values are:
	  ○ 0: Normal
	  ○ 1: Heading
	  ○ 2: Subhead
	  ○ -1: Footer
	Also included are any default settings applied to the column type, if applicable. The attributes are the same as those used for table types (TextStyle, Background Color, etc.). For more information on column type defaults, refer

Tag	Description
	to the **Configuring Settings for Column Types and Columns** topic.
<Name>	STEP name of the column type
<TableTypeLink>	TableTypeID: Returns the STEP ID(s) of the table type(s) for which the column type is valid
<PublicationTypeValidity>	IsInNewPublicationTypes: Returns a value of 'true' or 'false' depending on whether the column type will be included in publication types created after the column type was created
<IncludedPublicationType>	PublicationTypeID: Returns the publication types for which the row type is valid

Row Types

```
<RowTypes>
  <RowType ID="stibo.1776464" ParentID="stibo.1776450" VerticalAlignment=
  "-1" RuleBelow="0.5 pt" KeepWithNext="false" HeadingLevel="0">
    <Name>Normal</Name>
    <TableTypeLink TableTypeID="stibo.1776444"/>
    <TableTypeLink TableTypeID="stibo.4645484"/>
    <PublicationTypeValidity IsInNewPublicationTypes="false">
      <IncludedPublicationType PublicationTypeID="Default publication
      type"/>
    </PublicationTypeValidity>
  </RowType>
  <RowType ID="stibo.4118474" ParentID="stibo.2197597" TextStyle=
  "CompactHeaderRow2" BackgroundColor="Light Blue" RuleAbove="0.5 pt"
  RuleBelow="0.5 pt" KeepWithNext="false" HeadingLevel="1">
    <Name>Compact Header Row 2</Name>
    <TableTypeLink TableTypeID="stibo.4117215"/>
    <PublicationTypeValidity IsInNewPublicationTypes="false">
      <IncludedPublicationType PublicationTypeID="Default publication
      type"/>
    </PublicationTypeValidity>
  </RowType>
 </RowTypes>
```

Tag	Description
<RowTypes>	Parent tag of <RowType>
<RowType>	Returns the following information: • ID: The STEP ID of the row type • ParentID: The ID of the row type group to which the row type belongs • HeadlingLevel: The heading level of the row. Possible values are the same as those listed above for column type. • KeepWithNext: Whether the row should always remain with the next row on a mounted InDesign page. Value is either 'true' or 'false.' Also included are any default settings applied to the row type, if applicable. The attributes are the same as those used for table types (TextStyle, Background Color, etc.). For more information on row type defaults, refer to the **Configuring Settings for Row Types and Rows** topic.
<Name>	STEP name of the row type
<TableTypeLink>	TableTypeID: Returns the STEP ID(s) of the table type(s) for which the row type is valid
<PublicationTypeValidity>	IsInNewPublicationTypes: Returns a value of 'true' or 'false' depending on whether the row type will be included in publication types created after the row type was created
<IncludedPublicationType>	PublicationTypeID: Returns the publication types for which the row type is valid

Exporting Table Definitions

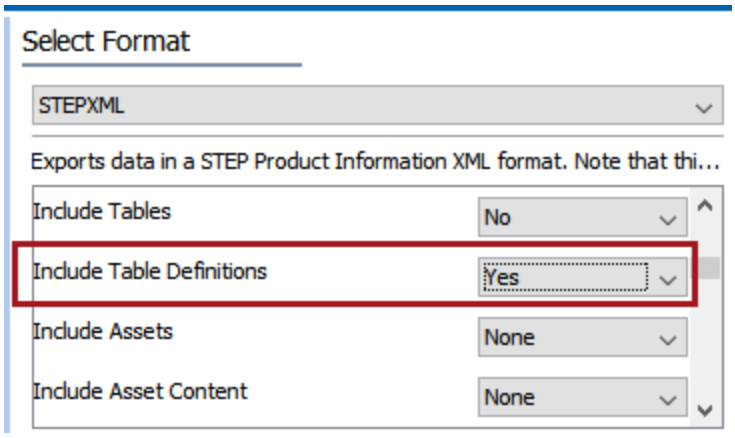
This topic explains how to export local and inherited table definitions from tables defined on product, classification, or product-override objects in the Tree.

Table definitions are exported in the STEPXML format by selecting **Include Table Definitions** in the Export Manager when configuring the export. The resulting file contains all of the required information to transfer table definitions from one STEP instance to another. Additionally, this option allows for table definitions to be exported from a product or classification object on which a table has been defined but is not necessarily resolved. This is useful because table definitions are often built at a higher level of a hierarchy for inheritance purposes and resolved on lower levels.

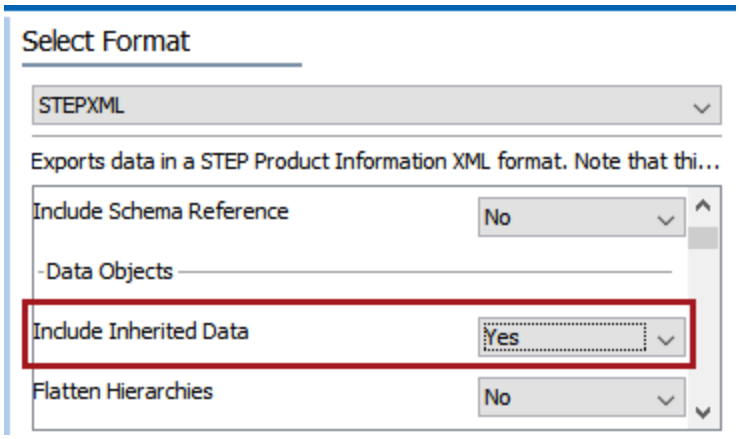
Exporting the Table Definitions STEPXML File

The overall steps to export table definitions in the STEPXML format using the Export Manager are the same as those used when exporting any other type of data from STEP. The following steps provide a general overview in the context of configuring a table-type–specific export.

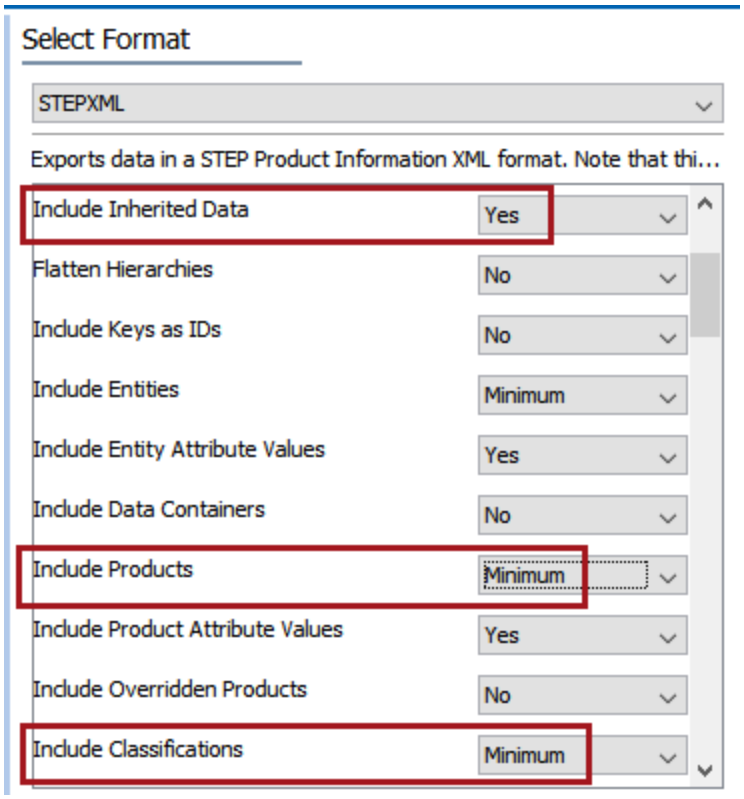
1. To initiate the export, follow the initial steps outlined in the **Creating a Data Export** topic in the **Export Manager** documentation.
2. On the Select Objects screen, add the product and/or classification object(s) from which you would like to export the table definitions. The steps are outlined in the **Export Manager - Select Objects** topic in the **Export Manager** documentation. You can also initiate the export by right-clicking on the relevant product or classification object and selecting 'Export Data Below.'
3. On the Select Format screen of the Export Manager, select **Include Table Definitions** from the outbound parameters under the 'Data Objects' section, then choose 'Yes.'



To include inherited table definitions, also choose 'Yes' for **Include Inherited Data**.



To export table definitions from products where the table definition is inherited from the classification structure, then **Include Classifications** should also be selected (in addition to **Include Products**) and set to 'Minimum.'



Note: If there are two (or more) classifications with different table definitions, but the same product is linked into both classifications, the table definition exported with the product is chosen at random. When this file is imported into the target system, the table definition will be local on the product. I.e., all objects that have a table definition in the STEPXML file will become a local table on the import system.

4. Click **Finish** to complete the configuration, as all options on the Advanced screen may be ignored.
5. Finish the export as you would any other data export by retrieving the file from the Background Processes tab.

Exporting Table Definitions Using Advanced STEPXML

Table definitions may also be exported using the **Advanced STEPXML** format. Using Advanced STEPXML ensures that the file does not contain extra information that is unrelated to the table definition. Advanced STEPXML also allows for specific table types to be exported, whereas *all* locally defined tables on a product or classification are exported when using standard STEPXML.

With standard STEPXML, even when all outbound parameters are set to 'No' or 'None' on the Select Format screen in the Export Manager, the export still contains information about the product and/or classification such as attribute links, product override links, asset references, classification references, product references, and metadata attribute values. If this information is not removed from the XML file before it is used to import table definitions onto another system, unwanted changes could occur on the target system. For example, a product could be inadvertently linked to a classification, or a metadata attribute value could be changed. Using an Advanced STEPXML template when configuring the export ensures that this extra information does not appear in the file to start with.

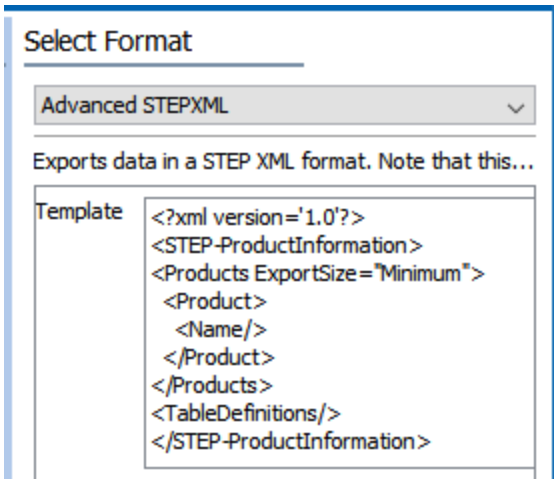
To export table definitions in Advanced STEPXML, follow the same steps outlined in the previous section, but choose Advanced STEPXML on the Select Format screen of the Export Manager instead of STEPXML.

Tables on Products

Locally Defined Table Definitions

In the **Template** field, replace the preexisting information with a code snippet similar to the following.

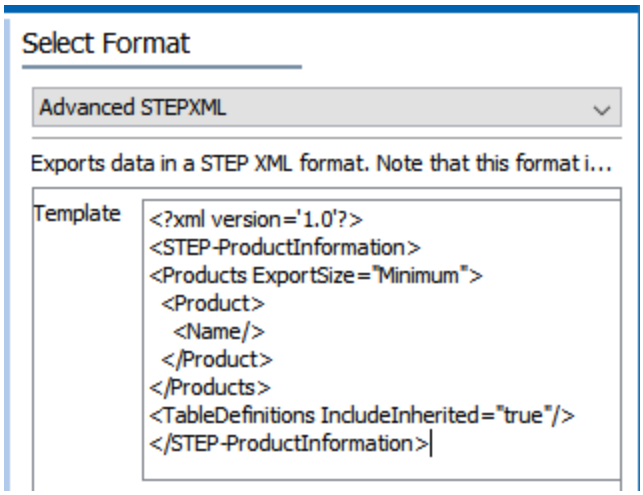
```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <Products ExportSize="Minimum">
  <Product>
    <Name/>
  </Product>
 </Products>
<TableDefinitions/>
</STEP-ProductInformation>
```



Local and Inherited Table Definitions

To include **inherited** table definitions, use a snippet similar to the following.

```
<STEP-ProductInformation>
 <Products ExportSize="Minimum">
  <Product>
    <Name/>
  </Product>
 </Products>
<TableDefinitions IncludeInherited="true"/>
</STEP-ProductInformation>
```

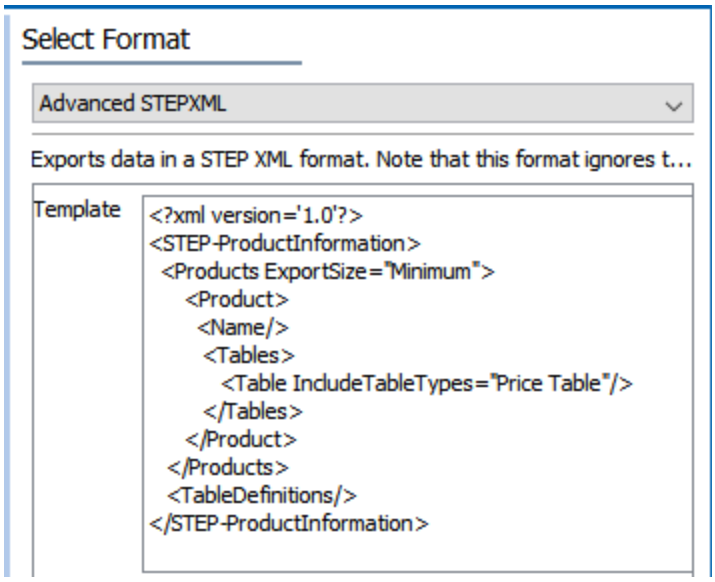


Definitions From Specified Table Types Only

To export definitions from a **specified table type** only, replace the preexisting information with a code snippet similar to the following.

Note: Table types are designated by STEP **name**, not ID, in the Advanced STEPXML format template.

```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <Products ExportSize="Minimum">
  <Product>
    <Name/>
    <Tables>
      <Table IncludeTableTypes="Price Table"/>
    </Tables>
  </Product>
 </Products>
<TableDefinitions/>
</STEP-ProductInformation>
```



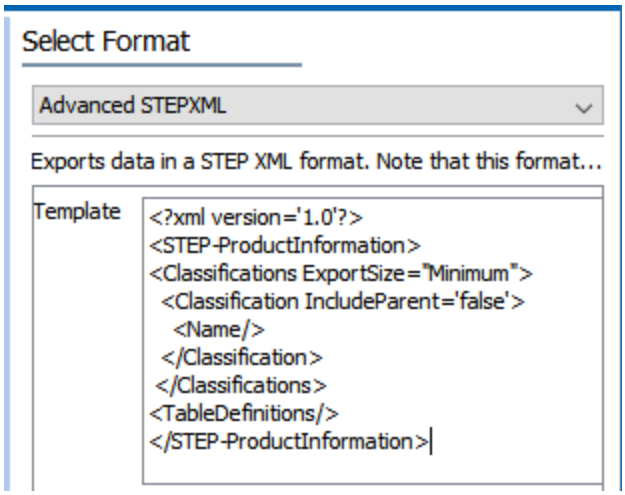
Tables on Classifications

Locally Defined Table Definitions

In the **Template** field, replace the preexisting information with a code snippet similar to the following.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
 <Classifications ExportSize="Minimum">
  <Classification IncludeParent='false'>
    <Name/>
  </Classification>
 </Classifications>
```

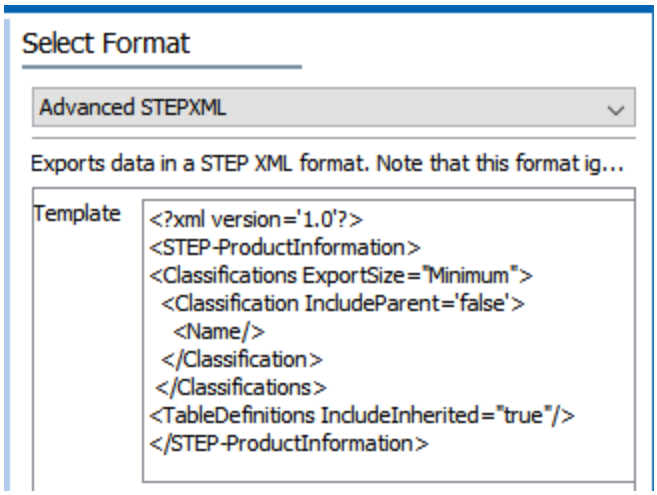
```
 <TableDefinitions/>
</STEP-ProductInformation>
```



Local and Inherited Table Definitions

To include **inherited** table definitions, use a snippet similar to the following.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
  <Classifications ExportSize="Minimum">
    <Classification IncludeParent='false'>
      <Name/>
    </Classification>
  </Classifications>
 <TableDefinitions IncludeInherited="true"/>
</STEP-ProductInformation>
```

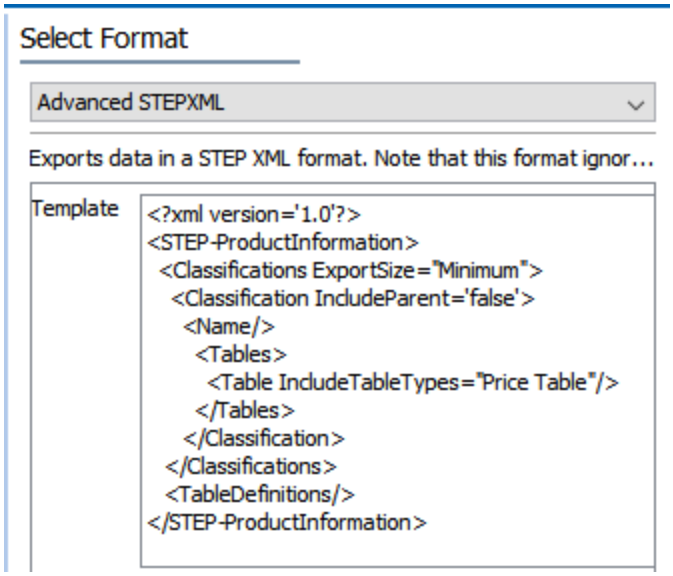


Definitions From Specified Table Types Only

To export definitions from a **specified table type** only, use a template similar to the following.

Note: Table types are designated by STEP **name**, not ID, in the Advanced STEPXML format template.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
  <Classifications ExportSize="Minimum">
   <Classification IncludeParent='false'>
    <Name/>
      <Tables>
        <Table IncludeTableTypes="Price Table"/>
      </Tables>
    </Classification>
  </Classifications>
 <TableDefinitions/>
</STEP-ProductInformation>
```



Contents of the Table Definitions Export File

The configuration of table definitions and table free text is an internal format, which prevents users from making modifications to the definitions before importing the file into STEP. Thus, the file serves solely as a way to transfer table definitions from one system to another.

```
<Product ID="121189" UserTypeID="ItemFolder">
  <Name>Pet Hats</Name>
  <Tables>
    <TableDefinition>
      <TableXML ID="stibo.1776444">
        <Configuration>
        H4sIAAAAAAAAAL1W31PiMBB+96/I9P2gFaQ6Y53hhwzMcOgBp49OaBfIXZp00lTF
        v95NW0oryHnK3QNTdrPZ/Xbz7SaXMzrn0JHBmvSlCqm+AxUzKTzr1CJjeNZ9BTDD
        77DnWU6zeeG4tnveajmudXVCyGW6fSgWsp6KXcmTUJDsM1tHYLbFms1lzXHdVvOs
        aZF7FugV+q/ZJBHgQy0RTNeG44FFJgmHCVuuNMYikU5DoNe21orNEw1T4OBrqUih
        Mf4LwUHnK6pn8jbh3lMaFunBgiZcl7WOlUGtZyD/FrbzFdgGwfWzBiUoNyFmKoEq
        /YppHKFVh541MuObdLgZr8OlwBh9KdEEoyzKl/ROZqjavB2vTl4BivwRlUgKAAA=
        </Configuration>
      </TableXML>
      <TableFreeTextXML ID="stibo.1776444">
        <Configuration>
        H4sIAAAAAAAAALMJSa0oKVZwyy/KTSwJSy0qzszPs1Uy1DNUsuNSULABySp4ugBF
        TEwsDc0NzC3MzAwslewCEotKFPzy9Wz0QSpwKjUEGuOZm5ieqpACUwmhi+24ADx8
        tGZ6AAAA</Configuration>
      </TableFreeTextXML>
    </TableDefinition>
```

The following table lists the tags contained within the export file and their descriptions. Since the majority of the information within the file is encoded, few tags appear.

Tag	Description
<Product>	Parent tag that contains information about the product object. Tables information is nested within the <Product> tag. If table definitions have been pulled from a classification object, the <Classification> tag will appear instead.
<Name>	STEP name of the product or classification object
<Tables>	Parent tag for <TableDefinition>
<TableDefinition>	Parent tag for <TableXML>
<TableXML>	Returns the ID of the table type(s) defined on the product or classification object
<Configuration>	Contains all information about the table definitions within an encoded string
<TableFree TextXML>	Returns the ID of the table type(s) defined on the product or classification object
<Configuration>	Contains all information about the table free text within an encoded string

Exporting Resolved Tables

This topic explains how to export resolved tables that are defined on product, classification, or product-override objects in the Tree. Resolved tables are exported in the STEPXML format by selecting **Include Tables** in the Export Manager when configuring the export.

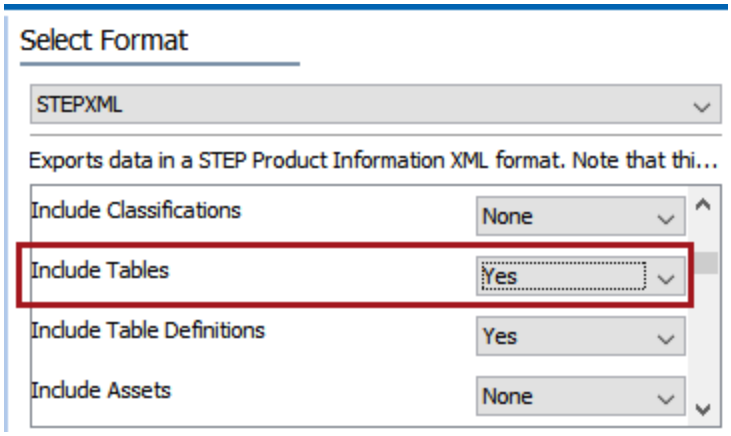
Note: Files containing resolved tables cannot be imported into STEP. They can be used for downstream purposes, such as translation of free text contained within table cells, but serve no purpose for STEP imports. Importing a file containing table definitions (obtained by selecting **Include Table Definitions** in the Export Manager) will dynamically create resolved tables in the target system.

Exporting the Resolved Tables STEPXML File

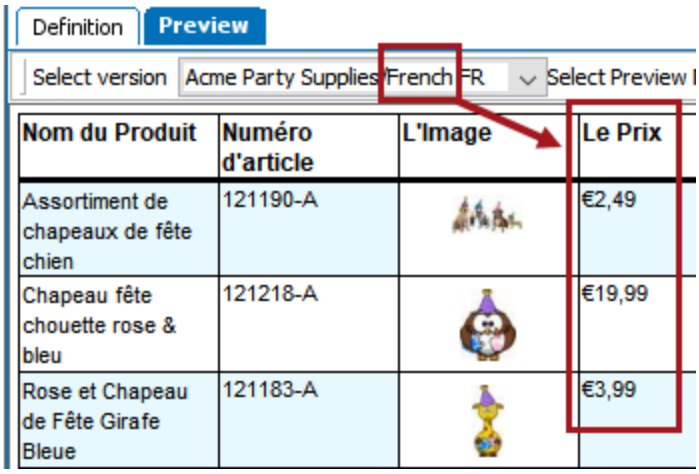
The overall steps to export resolved tables in the STEPXML format using the Export Manager are the same as those used when exporting any other type of data from STEP. The following steps provide a general overview in the context of configuring a table-type–specific export.

Important: If your table contains dimension-dependent content, such as attribute values or free text, make sure that you have the correct context selected in STEP before initiating the export.

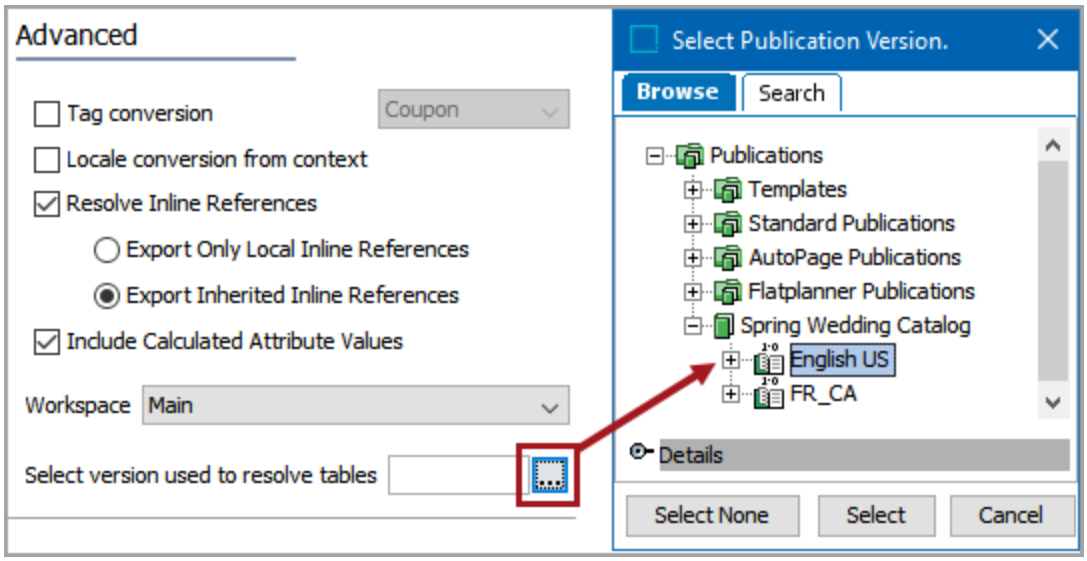
1. To initiate the export, follow the initial steps outlined in the **Creating a Data Export** topic in the **Export Manager** documentation.
2. On the Select Objects screen, add the product and/or classification object(s) from which you would like to export the resolved tables. The steps are outlined in the **Export Manager - Select Objects** topic in the **Export Manager** documentation. You can also initiate the export by right-clicking on the desired product or classification object and selecting 'Export Data Below.'
3. On the Select Format screen of the Export Manager, select **Include Tables** from the outbound parameters under the 'Data Objects' section. Choose 'Yes,' then click **Next**.



4. If your table contains content relevant to a particular publication (such as column or row types that are only valid for certain publication types) or a publication version (such as commercial data), you will need to select a publication version on the Advanced screen. The following screenshot shows a sample resolved table where this feature might be used, which contains a column with country-specific commercial data (prices in Euros, for France).



Click the ellipsis button (...) next to the **Select version used to resolve tables** field, then browse to or search for the relevant publication version in the 'Select Publication Version' dialog. Click **Select** to choose the version and close the dialog.



For more information on publication versions, refer to the **Publication Versions** topic in the **Publication Maintenance** documentation.

5. Click **Finish** to complete the configuration.
6. Finish the export as you would any other data export by retrieving the file from the Background Processes tab.

Exporting Resolved Tables Using Advanced STEPXML

Resolved tables may also be exported using the **Advanced STEPXML** format. Using Advanced STEPXML allows for specific table types to be exported, whereas *all* resolved tables on a product or classification are exported when using standard STEPXML.

Additionally, standard STEPXML exports may contain information about the product and/or classification such as attribute links, product override links, asset references, classification references, product references, and metadata attribute values, which may need to be removed before the file can be used for downstream purposes. Using an Advanced STEPXML template when configuring the export ensures that this extra information does not appear in the file to start with.

To export table definitions in Advanced STEPXML, follow the same steps outlined in the previous section, but choose Advanced STEPXML on the Select Format screen of the Export Manager instead of STEPXML.

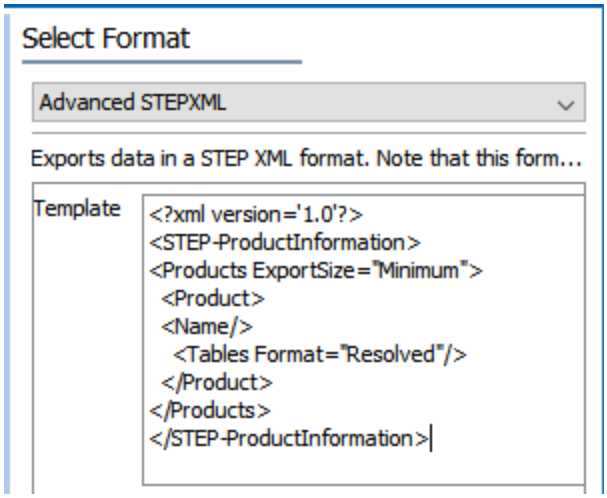
Resolved Tables on Products

All Resolved Tables

In the **Template** field, replace the preexisting information with a code snippet similar to the following.

Note: All resolved tables will be exported, whether they are defined locally or inherited from a higher node.

```
<?xml version='1.0'?>
<STEP-ProductInformation>
  <Products ExportSize="Minimum">
    <Product>
      <Name/>
    <Tables Format="Resolved"/>
  </Product>
 </Products>
</STEP-ProductInformation>
```

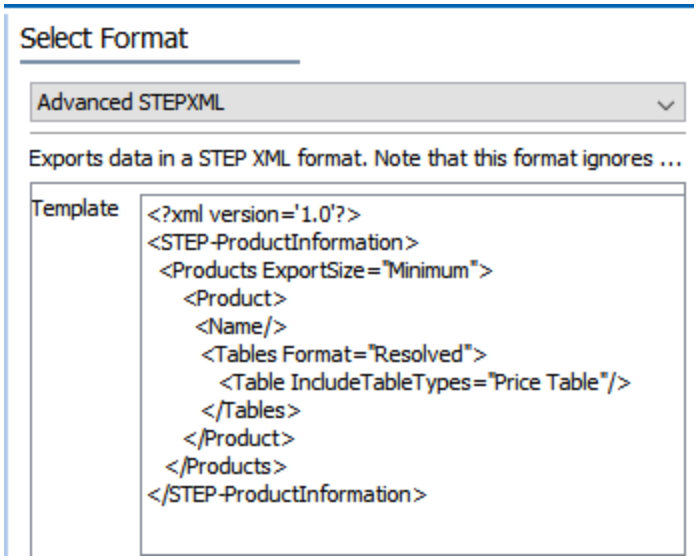


Resolved Tables of Specified Table Types Only

To export resolved tables from a **specified table type** only, replace the preexisting information with a code snippet similar to the following.

Note: Table types are designated by STEP **name**, not ID, in the Advanced STEPXML format template.

```
<?xml version='1 .0'?>
<STEP-ProductInformation>
 <Products ExportSize="Minimum">
  <Product>
  <Name/>
    <Tables Format="Resolved">
      <Table IncludeTableTypes="Price Table"/>
    </Tables>
  </Product>
 </Products>
</STEP-ProductInformation>
```



Resolved Tables on Classifications

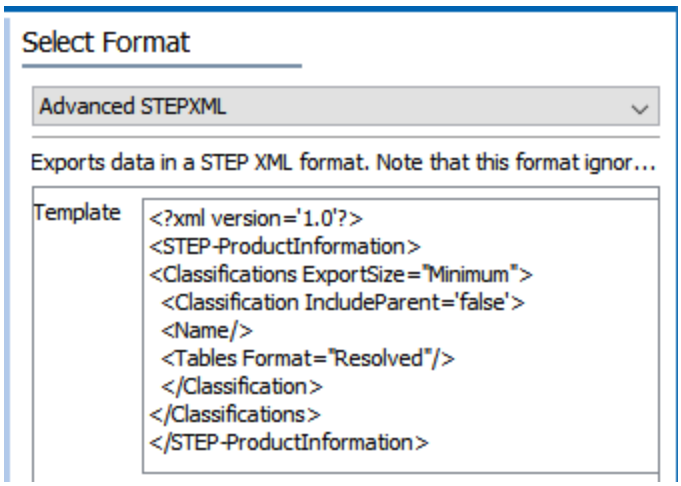
All Resolved Tables

In the **Template** field, replace the preexisting information with a code snippet similar to the following.

Note: All resolved tables will be exported, whether they are defined locally or inherited from a higher node.

```
<?xml version='1.0'?>
 <STEP-ProductInformation>
```

```
  <Classifications ExportSize="Minimum">
    <Classification IncludeParent='false'>
      <Name/>
    <Tables Format="Resolved"/>
  </Classification>
 </Classifications>
</STEP-ProductInformation>
```



Resolved Tables of Specified Table Types Only

To export resolved tables of a **specified table type** only, replace the preexisting information with a code snippet similar to the following.

Note: Table types are designated by STEP **name**, not ID, in the Advanced STEPXML format template.

```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <Classifications ExportSize="Minimum">
  <Classification IncludeParent='false'>
  <Name/>
    <Tables Format="Resolved">
      <Table IncludeTableTypes="Price Table"/>
    </Tables>
  </Classification>
 </Classifications>
</STEP-ProductInformation>
```

Select Format

Advanced STEPXML

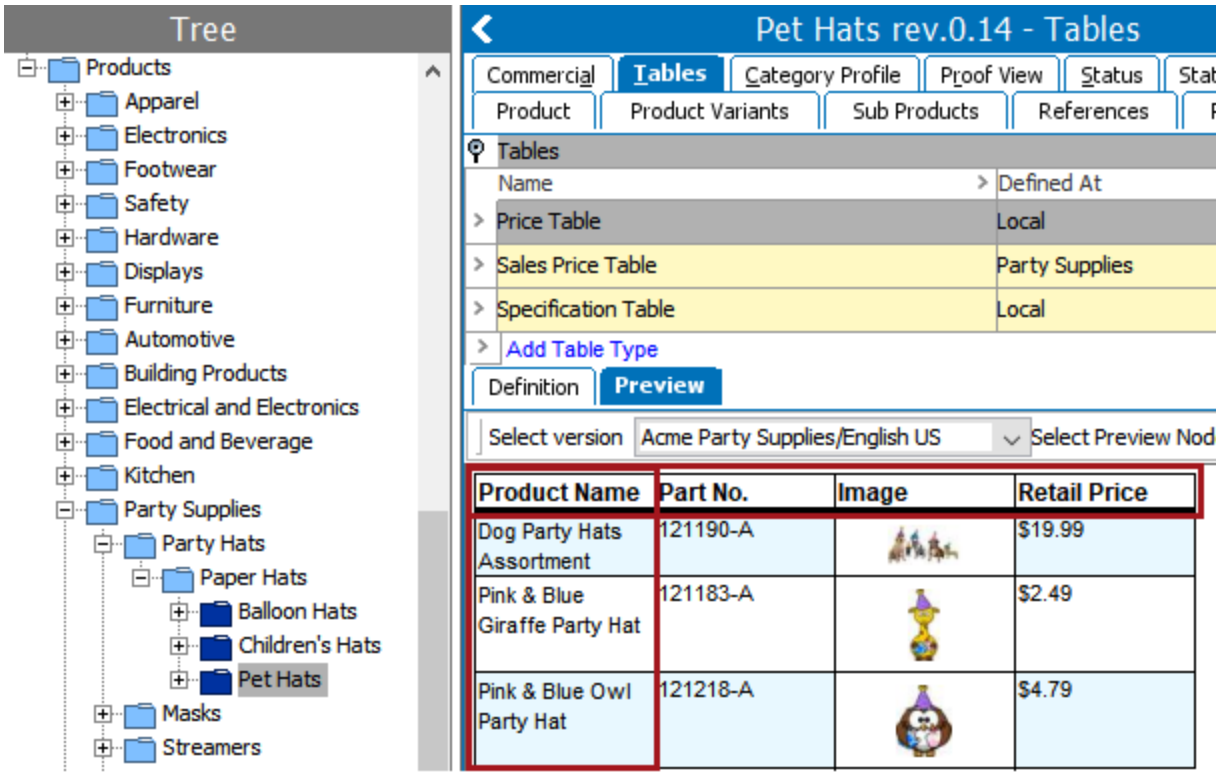
Exports data in a STEP XML format. Note that this format igno...

Template

```
<?xml version='1.0'?>
<STEP-ProductInformation>
 <Classifications ExportSize="Minimum">
  <Classification IncludeParent='false'>
   <Name/>
    <Tables Format="Resolved">
     <Table IncludeTableTypes="Price Table"/>
    </Tables>
   </Classification>
 </Classifications>
</STEP-ProductInformation>
```

Contents of the Tables Export File

The first screenshot below shows a simple resolved table (Price Table) on a product object (Pet Hats) in the Tree. The second screenshot shows a partially opened example of the STEPXML export file of the table, showing four columns and four rows.



```
<Product ID="121189" UserTypeID="ItemFolder" ParentID="121169">
    <Name>Pet Hats</Name>
    <Tables>
        <Table TableTypeID="stibo.1776444">
            <Column ColumnTypeID="stibo.1776454" RuleLeft="0.5 pt"
            RuleRight="1 pt">
            <Column ColumnTypeID="stibo.1776454" RuleRight="1 pt">
            <Column ColumnTypeID="stibo.1776454" RuleRight="1 pt"
            CellImageScale="25"/>
            <Column ColumnTypeID="stibo.1776456" RuleRight="0.5 pt"/>
            <Row RowTypeID="stibo.1776462" Height="0.3 unece.unit.INH"
            RuleBelow="2 pt" TextStyle="bold" BackgroundColor="White">
            <Row RowTypeID="stibo.1776464" TextStyle="Normal L"
            BackgroundColor="Light Blue">
            <Row RowTypeID="stibo.1776464" TextStyle="Normal L"
            BackgroundColor="White">
            <Row RowTypeID="stibo.1776464" TextStyle="Normal L"
            BackgroundColor="Light Blue">
        </Table>
```

The following subsections provide more details about the file pulled from the example table, along with a listing of the STEPXML tags and their descriptions. All possible XML tags are not covered; for a full list of available tags, refer to the XSD file available in the STEP API Documentation, which is accessed from the Start Page.

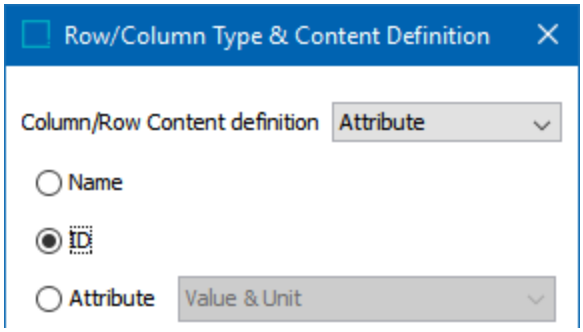
Product and Table Information

```
<Product ID="121189" UserTypeID="ItemFolder" ParentID="121169">
    <Name>Pet Hats</Name>
    <Tables>
        <Table TableTypeID="stibo.1776444">
```

Tag	Description
<Product>	Parent tag that contains information about the product object. Tables information is nested within the <Product> tag. If table definitions have been pulled from a classification object, the <Classification> tag will appear instead.
<Name>	STEP name of the product or classification object
<Tables>	Parent tag of <Table>
<Table>	Returns the STEP ID of the table type (TableTypeID)

Column Information

```
<Column ColumnTypeID="stibo.1776454" RuleLeft="0.5 pt" RuleRight="1 pt">
    <Origin AttributeID="ProductName" Pull="ValueUnit"/>
</Column>
<Column ColumnTypeID="stibo.1776454" RuleRight="1 pt">
    <Origin Pull="ID"/>
</Column>
<Column ColumnTypeID="stibo.1776454" RuleRight="1 pt" CellImageScale="25"/>
<Column ColumnTypeID="stibo.1776456" RuleRight="0.5 pt"/>
```

Tag	Description
<Column>	Returns the STEP ID of the column type (ColumnTypeID) and any settings applied to the column, if applicable The attributes for settings are the same as those used for column types (TextStyle, Background Color, etc.). Refer to the 'Contents of the Table Types Export File' subsection of the **Exporting Table Types** topic for more information.
<Origin>	Returns the following information: • AttributeID: The STEP ID of the attribute, if the column / row definition is configured to pull information from an attribute • Pull: If 'Attribute' is chosen for the column's content definition, the 'Pull' attribute returns the aspect. Possible values include Name, ID, and ValueUnit. Refer to the **Content Definitions** topic for more information. 

Row and Cell Information

```
<Row RowTypeID="stibo.1776464" TextStyle="Normal_L" BackgroundColor=
"Light Blue">
    <ProductOrigin ID="121190"/>
    <Cell Column="0" attributeID="ProductName" TextStyle="Normal_L"
    BackgroundColor="Light Blue" RuleAbove="2 pt" RuleBelow="0.5 pt"
    RuleLeft="1 pt" RuleRight="1 pt" VerticalAlignment="1" CellRotation=
    "0" CellVerticalStoryDirection="false" CellImageScale="20">
        <Text>Dog Party Hats Assortment</Text>
    </Cell>
    <Cell Column="1" TextStyle="Normal_C" BackgroundColor="Light Blue"
    RuleAbove="2 pt" RuleBelow="0.5 pt" RuleLeft="1 pt" RuleRight="1 pt"
     VerticalAlignment="1" CellRotation="0" CellVerticalStoryDirection=
    "false" CellImageScale="20">
        <Text>121190-A</Text>
    </Cell>
    <Cell Column="2" TextStyle="Normal_C" BackgroundColor="Light Blue"
    RuleAbove="2 pt" RuleBelow="0.5 pt" RuleLeft="1 pt" RuleRight="1 pt"
     VerticalAlignment="1" CellRotation="0" CellVerticalStoryDirection=
    "false" CellImageScale="25">
        <Text>
            <Image AssetID="121200"/>
        </Text>
    </Cell>
    <Cell Column="3" TextStyle="Normal_C" BackgroundColor="Light Blue"
    RuleAbove="2 pt" RuleBelow="0.5 pt" RuleLeft="1 pt" RuleRight="1 pt"
     VerticalAlignment="2" CellRotation="0" CellVerticalStoryDirection=
    "false" CellImageScale="20">
        <Text>$19.99</Text>
    </Cell>
</Row>
```

Tag	Description
<Row>	Returns the STEP ID of the row type (RowTypeID) and any settings applied to the row, if applicable The attributes for settings are the same as those used for row types (TextStyle, Background Color, etc.). Refer to the 'Contents of the Table Types Export File' subsection of the **Exporting Table Types** topic for more information.
<ProductOrigin>	ID: The STEP ID of the product from which values are pulled in the table row

Tag	Description
<Cell>	Returns the following information: • Column: The number of the column in which the cell appears (0, 1, 2, 3, etc.) • attributeID: The attribute from which the information in the cell is pulled Also included are any settings applied to the cell, if applicable. The attributes for settings are the same as those used for row, column, and table types (TextStyle, Background Color, etc.). Refer to the 'Contents of the Table Types Export File' subsection of the **Exporting Table Types** topic for more information.
<Text>	Returns the text content of the cell
<Image>	If an image appears in the cell instead of text, the <Image> tag is nested in the <Text> tag and the STEP ID of the asset is returned (AssetID).

Importing Tables

Table type structures and table definitions can be created in STEP through STEPXML imports. However, table import files are primarily intended to transfer tables from one STEP instance into another, not to build table objects and tables anew. The recommended steps for using STEPXML files to import tables are as follows:

1. Manually create and configure table type objects and table definitions on a STEP test environment
2. Export these table types and table definitions in STEPXML. It is recommended to export the table types and table definitions in separate files.
3. Import the table types file into the STEP production environment
4. Import the table definitions file into the STEP production environment

The export and import process itself is straightforward, but multiple considerations must be taken into account to ensure that the import is successful. For example, since tables are defined on product / classification hierarchies, the same product / classification object types and hierarchies that are present on the source system must also be present on the target system. This also applies to attributes, assets, transformations, commercial terms, publication versions, contexts, and so forth. As such, this topic does not address the actual import process, but provides information on the prerequisites for a successful import and how to troubleshoot any errors that may occur with an import.

Importing the Files

Two types of files containing tables information can be imported into STEP: those containing System Setup table types, which are exported by selecting **Include Table Types** in the Export Manager; and those containing table definitions from product and classification objects in the Tree, which are exported by selecting **Include Table Definitions** in the Export Manager.

Files that contain tables information are imported into STEP like any other STEPXML file, either through the Import Manager or through an Inbound Integration Endpoint. For more information, refer to the **Import Manager** and **Inbound Integration Endpoints** sections of the **Data Exchange** documentation.

Note: Files containing resolved tables, which are exported by selecting **Include Tables** in the Export Manager, cannot be imported into STEP. They can be used for downstream purposes, such as translation of free text contained within table cells, but serve no purpose for a STEP import, as importing table *definitions* dynamically creates resolved tables.

Considerations and Limitations for Tables Imports

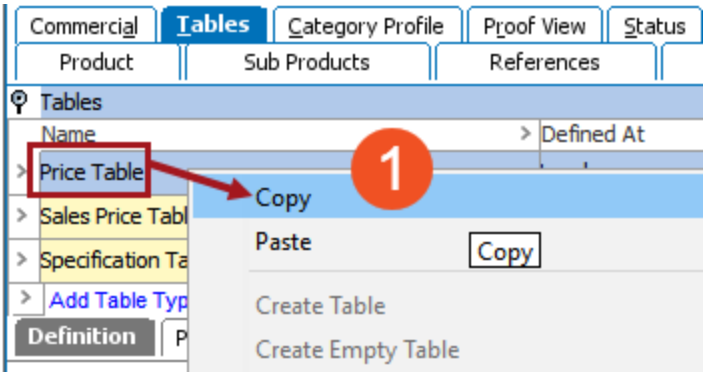
General

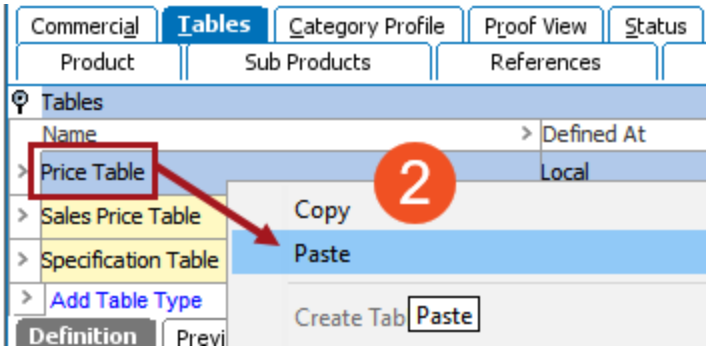
Both the target and source systems must be on the same version of STEP, and both systems must be on version STEP 8.3 or above.

Duplicate Data Setups

The setup data should be identical across test, QA, and production STEP systems when tables are being exported from one system and imported onto another. Considerations for mismatched setups are as follows:

- **Object types (product and/or classification)**: Table object types must be resolvable on at least one product or classification object type. If these object types are missing in the target system, the table object types can still be created, but they will not be resolvable on any product / classification objects until those objects are created in the target system.
- **Product and/or classification object hierarchy:** It is recommended to use a dedicated 'test' node (or nodes) to define tables on the source system, then use an identical node on the target system, which uses the same STEP IDs, to import the definitions into. Once the definitions are applied to the dedicated node on the *target* system, the definitions can be copied from this node and pasted onto the table definition on another node in the same target system.





- **Assets:** Must have the same IDs and be linked to product objects using the same asset reference types on both source and target system.
- **Contexts / dimensions:** Since table types can be dimension dependent, for the purpose of free text, if a context does not exist on the target system, an error occurs on import. Table definitions themselves are context independent, so this is not a concern for definitions only, but if a context is present in the import file that does not exist in the target system, an error will still be thrown on import.
- **Table types**, **row types**, and **column types** should have the same ID on the source and target systems. If these types already exist on the target system, care must be taken before importing to ensure that the

settings for these table type objects are the same in the import file, as the settings on the target system will be overridden and could potentially cause existing table layouts to be destroyed.

- **Attributes**, **attribute transformations**, and **lookup tables** must exist on both systems and have the same IDs.
- **Table Transformations:** The same table transformations should be present on both systems. A custom transformation on a source system cannot be created on a target system through import. If the transformation does not exist on the target system, an error will be raised in the background process execution report.

Table Type Imports

- It is not recommend to change column and row type IDs manually in the exported XML file since there are numerous places within the file where the ID must be changed.
- A table types import file should not be edited to create new **colors**. However, if a color already exists in the target system with the same name, the number associated with the color (the RGB definition of the color in integer form) will overwrite the color's RGB definition on the target system.

```
<TableColors>
  <TableColor Name="Cyan" Color="6750156"/>
  <TableColor Name="Blue" Color="6724095"/>
  <TableColor Name="Black" Color="0"/>
  <TableColor Name="Red" Color="13369395"/>
 </TableColors>
```

- Since **rules** do not use IDs, if there is a difference in width or color for a table rule with the same name on the source and target system, the incoming rule definitions will overwrite those on the target system.

Table Definitions Imports

Table definitions files cannot be edited by users, since all table configurations in a tables definitions file are contained in encoded strings.

> **Note:** Table Type, Row Type, and Column Type definitions cannot be imported into STEP via Advanced STEPXML.

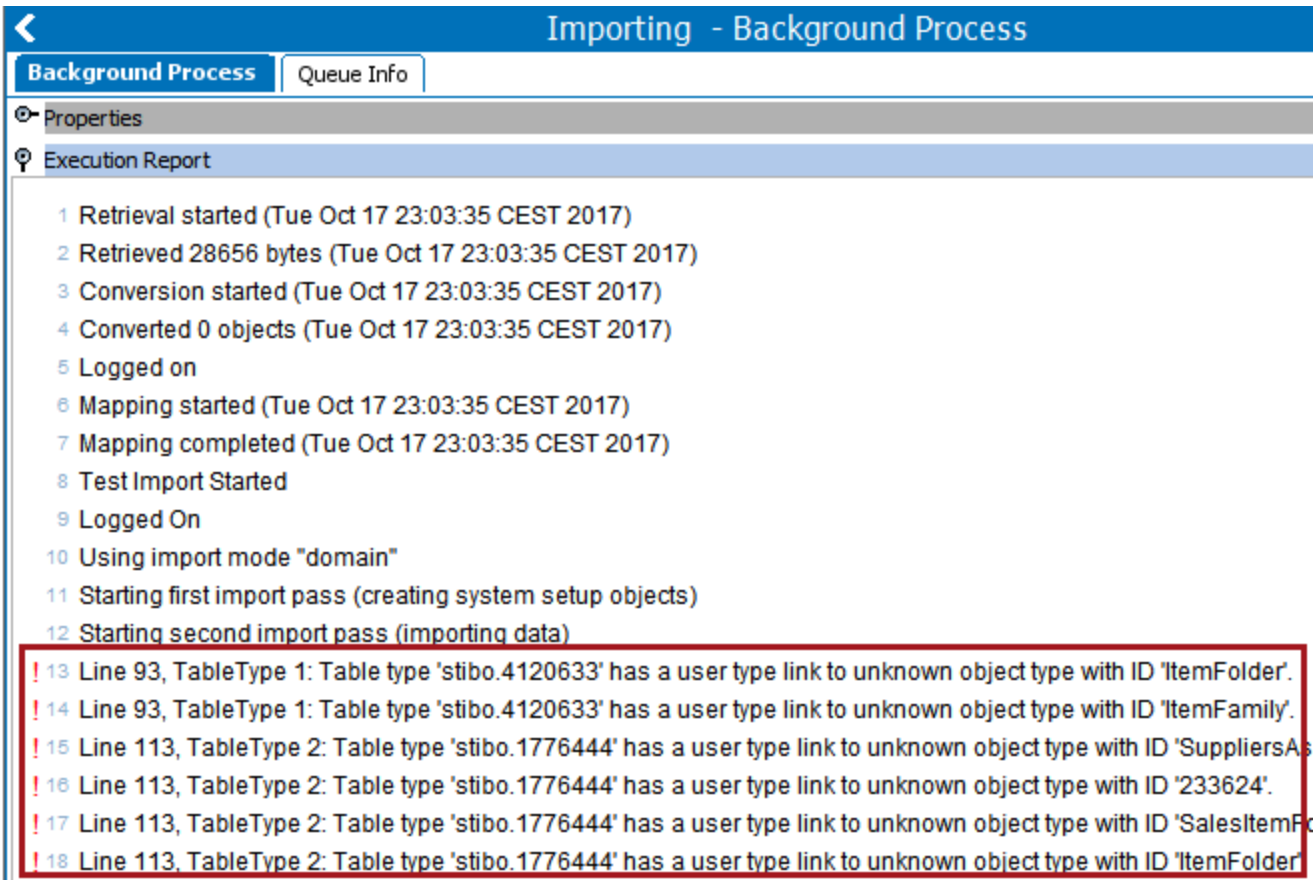
Error Handling

Even if some objects, attributes, transformations, and so forth are missing on a target system, an import of table types and/or table definitions can be successful, but with errors. Some errors will display in the Execution Report of the completed background process on the BGProcesses tab. In other instances, a table definition can import with no errors appearing in the BGP execution report, but the errors will be visible when viewing the table definition and/or preview on the product or classification object in the Tree.

This section shows a few common examples of errors that can occur with the import of table types and table definitions and how to troubleshoot them, but it is not a comprehensive list of every potential error. It is recommended to always run an import of table types and table definitions in test mode first to catch errors in the BGP Execution Report.

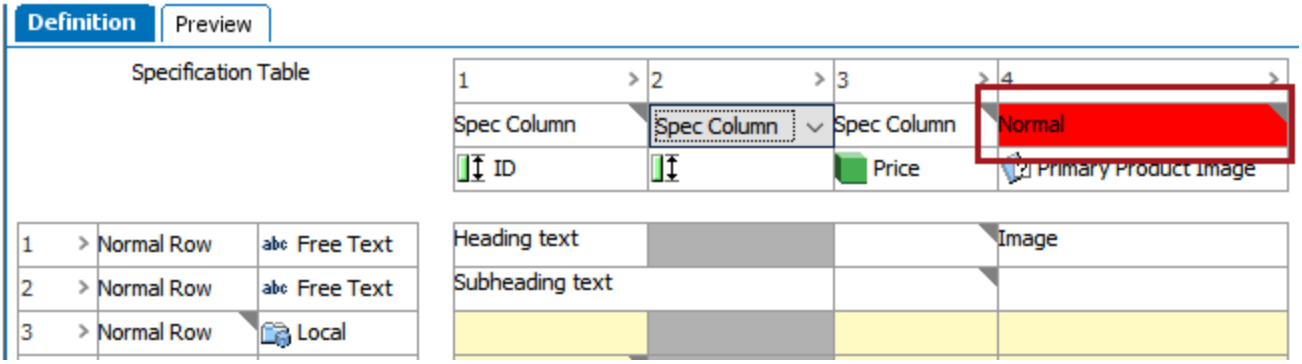
Errors Displayed in Background Processes

The following screenshot shows an example of errors thrown in a table types import that had table types that were resolvable (valid) on object types that are not present in the target system. The table types were created in the target system, but the errors inform users that these object types must be created in the target system before the configurations of the table types will match that of the source system.



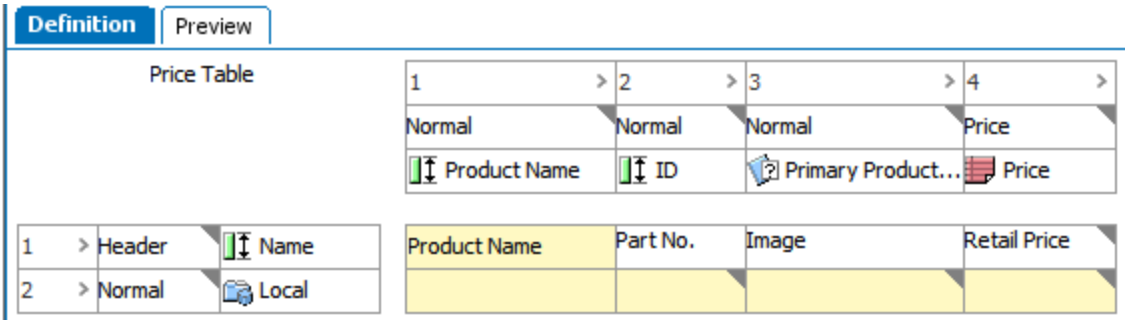
Errors Displayed in Table Definitions and Previews

This example shows the display of an imported definition where a column type is not valid for the table type. the column type has been applied, but it is in red since it is not valid for this table type. Either the column type must be made valid for the table type, or another column type must be used.



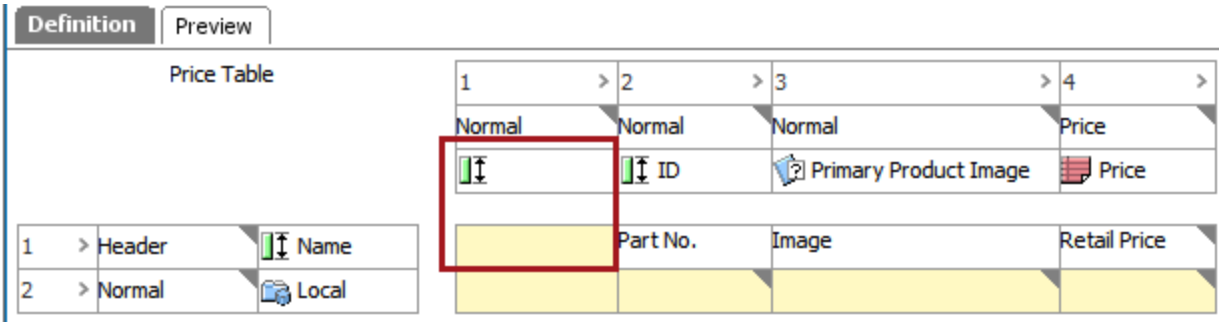
The following screenshots show another set of errors, using before and after examples. The import was successful overall, but a few items were missing on the target system that required troubleshooting to correct.

Source Definition

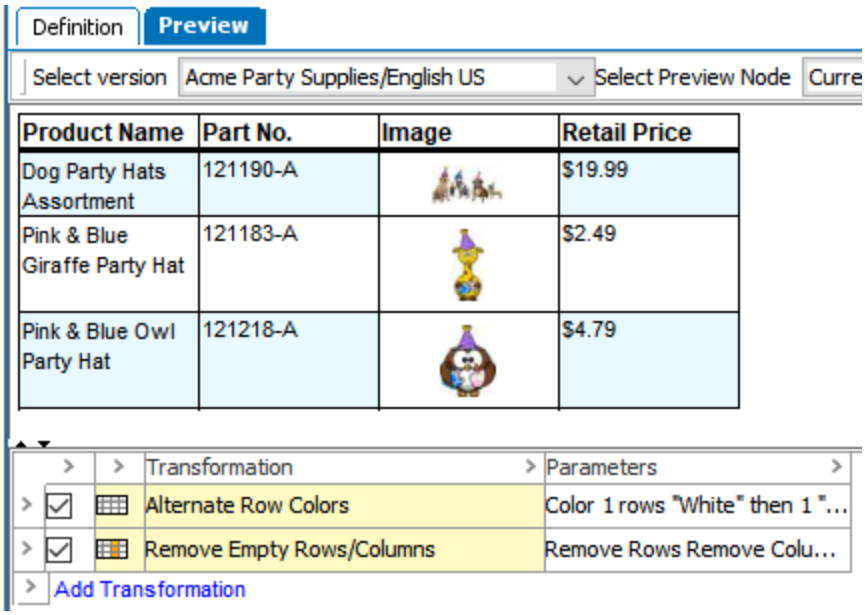


Target Definition

In the target system, the table definition has been mostly recreated by the import of the definitions, but an attribute that was present in the source system (Product Name) is missing in the target system.

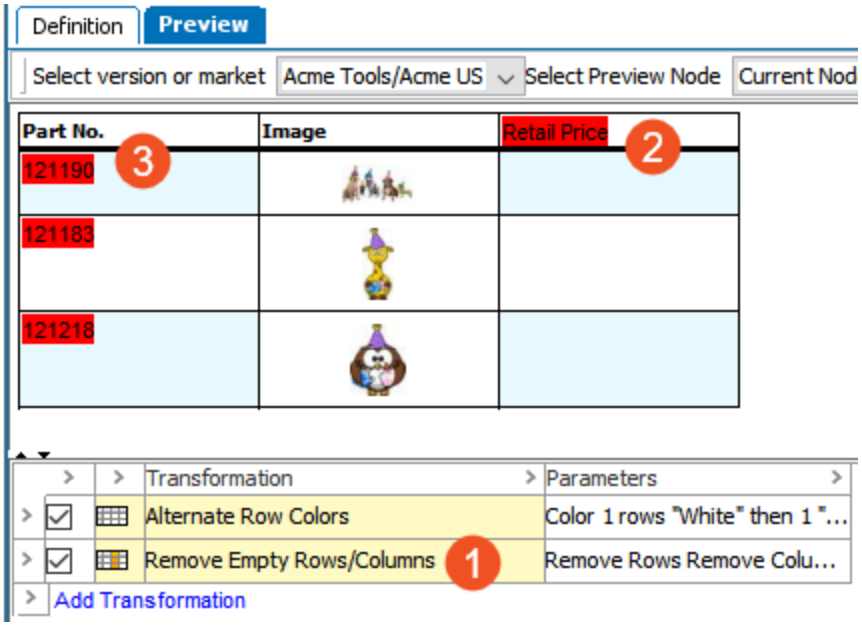


Source Preview

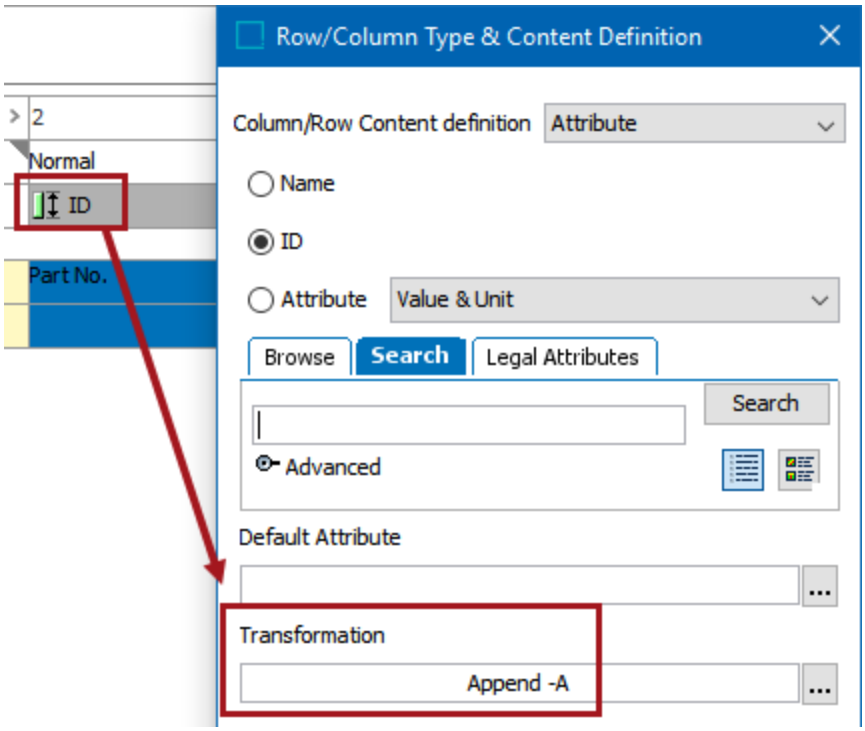


Target Preview

When viewing the table preview in the target system, additional errors are noticeable. The numbers in the screenshot correspond with the errors listed in the numbered list below the image.



1. The first column of the table is missing because of the missing 'Product Name' attribute. Since the column is empty, the 'Remove Empty Rows/Columns' transformation has removed the column altogether, so now the first column in the table is 'Part No.'.
2. 'Retail Price' is highlighted in red because the commercial terms list from the source table is missing on the target system.
3. Even though the IDs display in the Part No. column, the values do not match those in the source table due to a missing attribute transformation that appends '-A' to the ID.


2
Normal
ID
Part No.
Row/Column Type & Content Definition
Column/Row Content definition
Attribute
Name
ID
Attribute
Value & Unit
Browse
Search
Legal Attributes
Search
Advanced
Default Attribute
Transformation
Append -A