STIBO SYSTEMS
MASTER DATA MANAGEMENT

USER GUIDE

Administration Portal

Release 11.1-MP4 (March 15, 2023)

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Administration Portal

The Administration Portal (commonly referred to as the admin portal) provides a number of useful tools, enabling administrators to support STEP without physical access to the system. Some functions available within the admin portal are useful only for Stibo Systems Technical Support and/or R&D groups, while others are applicable for any system administrators. Specifically, the admin portal allows administrators to:

- View and download information about the system, including activities and processes being performed on the STEP application and their impact on the server(s) via the Activity tab
- View the amount and types of requests made to the system, and how long it takes for the requests to be answered, via the Activity Dashboards tab
- View the number of active and inactive users within a specified time period
- View and download system logs via the Logs tab
- View and download InDesign Renderer logs, and download and upload log configurations
- Monitor servers, events, and components via the Monitoring tab, including providing data for external monitoring systems
- View the system properties configurations (e.g., the properties and values in the system properties files) via the Configuration tab
- Trace business rules, compare system configurations, generate a system snapshot, and test user authentication via the Tools tab
- Perform healthchecks for common system issues via the Healthcheck tab
- Send diagnostics and healthcheck information to Stibo Systems via the Send Diagnostics tab
- Extract static texts for localization of interfaces and import translations via the Localization tab

This guide describes how to access the admin portal, as well as detailing the uses and available functions of the tools that are useful for administrators outside of Stibo Systems.

Accessing the Admin Portal

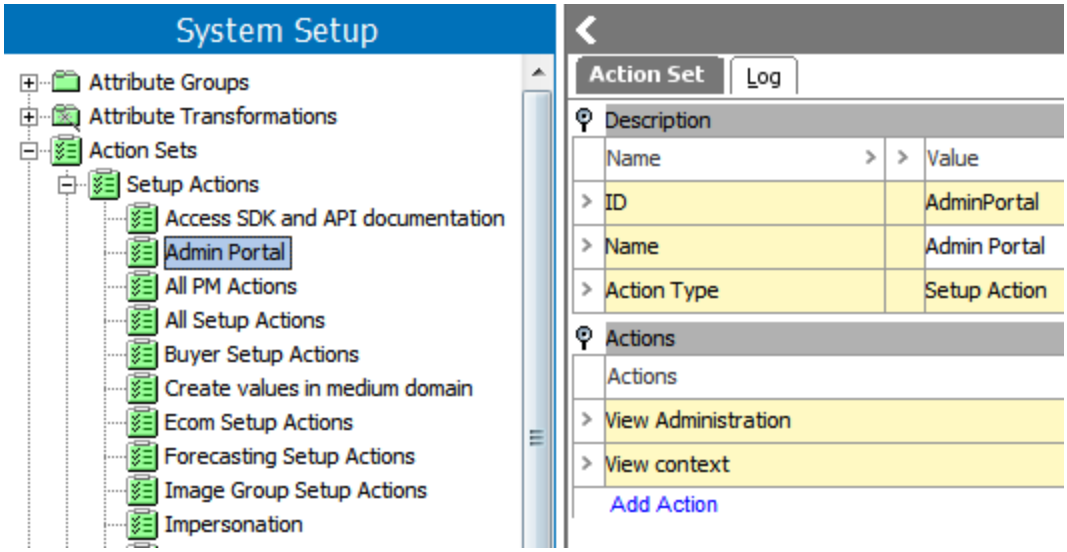
This topic describes how to access the admin portal, including what privileges are required to do so. It also covers how to define the number of minutes that the admin portal is allowed to be idle before timing out and revoking any credentials granted to the current portal user.

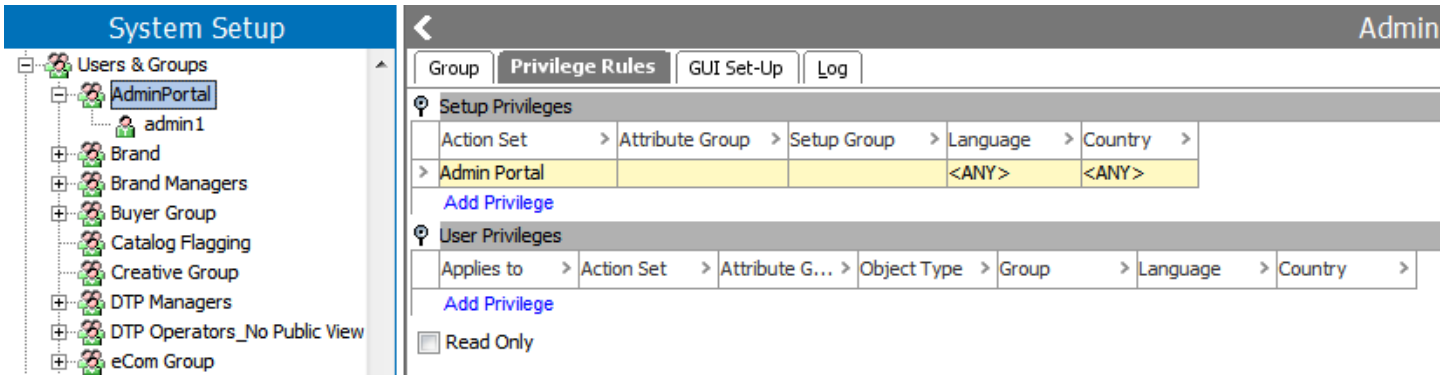
Prerequisites

In order to access the admin portal, the person attempting to log in must have a user created in STEP that is a member of a user group with privileges that include the following setup actions:

- View Administration
- View Context

For example:



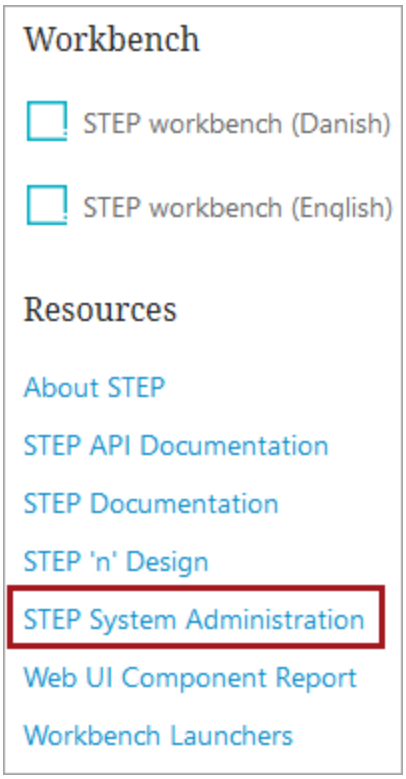


Additional information on Actions, Users, and User Groups can be found in the **System Setup** documentation, under **Action Sets** and **Users and Groups**, respectively.

Access

The admin portal can be accessed by:

- Typing the appropriate URL into any browser: [server name]/adminportal
- Clicking the **STEP System Administration** link from the Resources section of the Start Page



Either access method displays a login prompt:

Valid credentials must be entered for login, as indicated in the Prerequisites section of this topic. Once logged in, the admin portal displayed a series of tabs, with various functions available on each tab. The remainder of this guide provides details on these tabs and functions.

Timeout

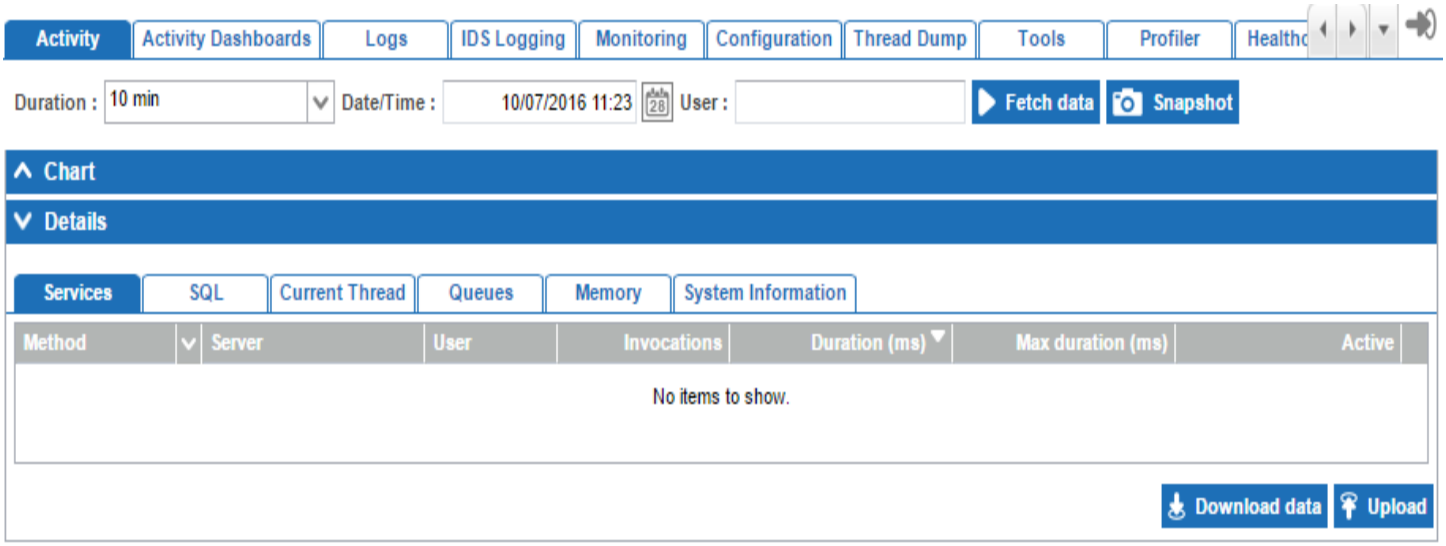
The configuration property `Portal.Timeout` defines the number of minutes that the admin portal is allowed to remain idle before timing out. Upon time out, all credentials granted to the current portal user until the next log in. This property is also used for the timeout of Web UIs.

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

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

Activity

The Activity tab is the first tab in the admin portal and is where users land when first logging in. This tab provides information about the STEP application and application servers without having to log in to any server directly, allowing users to monitor the information about the activities and processes being performed on the STEP application and their impact on the server(s). A variety of information is available that is valuable for general monitoring purposes and/or troubleshooting.

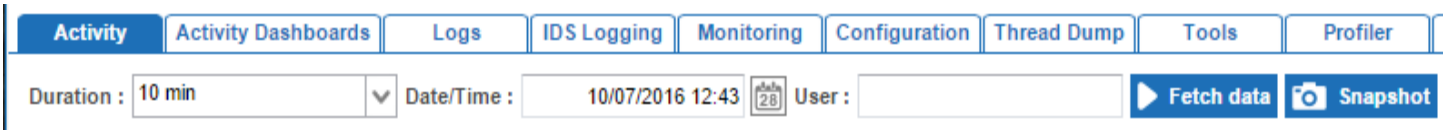


The information is divided into Chart and Details sections, and displays neither by default. This topic addresses how to access data for the tab, as well as providing descriptions for the information that is available via this interface.

For more information, refer to the **Database Long-Lasting SQL Queries** topic or the **DTP Server** topic in the **System Administration** documentation.

Query Parameters and Accessing Data

Before gathering data for the tab, it is important to consider what information is required, and to use the provided parameters to specify this. Once the query parameters have been specified, the **Fetch data** and **Snapshot** buttons can be used to access the information from the system.



Duration: Required parameter to specify the duration of the of time for which activity should be displayed, ending at the time indicated in the Date/Time parameter. Using the above screenshots as an example, data will be displayed for the 12:33 - 12:43 time period.

Note: If 2 or 4 hours is selected for the display, the Details data described below are unavailable and data will only be displayed in the Charts section.

Date/Time: Required parameter to specify the end of the time period for which activity should be displayed. The parameter can be edited using the date picker icon to the right of the field, or by typing in the field directly using the format MM/DD/YYYY HH:mm.

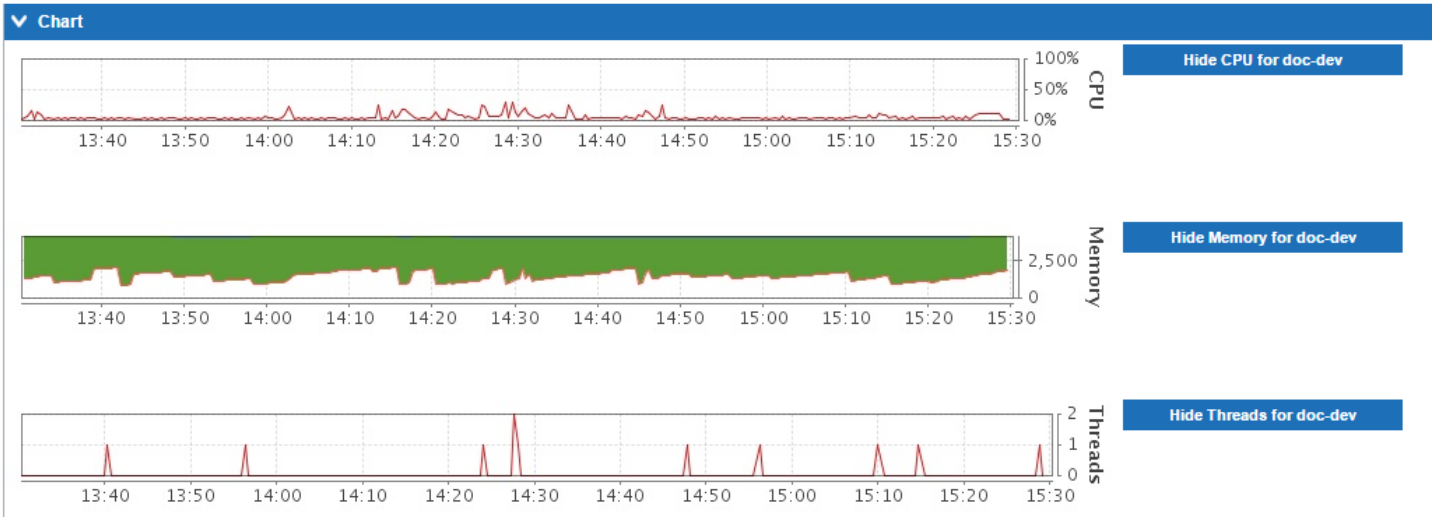
User: Optional parameter used to restrict the displayed data to only that of a single user. If used, the STEP ID of the desired user should be typed directly into the field. If left blank, data for all users will be displayed.

Fetch Data: Data is regularly sent to the application server(s) for profiling, and can be accessed at [STEPHOME]/diag/profiling (e.g., opt/stibo/step/diag/profiling). Clicking Fetch Data collects all profiling data that has been sent previously that meets the criteria defined by the Duration, Date/Time, and User parameters and displays it to the user within the admin portal for viewing and analysis.

Snapshot: Invokes a manual sending of profile data to the application server(s), specific to the time at which the snapshot is requested (e.g., NOT subject to the Duration, Date/Time, or User parameters). This creates a .ZIP file that on the application server at [STEPHOME]/diag/profiling (e.g., opt/stibo/step/diag/profiling). This can be used when the user needs to collect data to send to Stibo Systems Support to assist in system analysis and troubleshooting. However, it is preferred that the Send Diagnostics feature be used in place of this to ensure that the complete set of relevant information is sent. Refer to the Send Diagnostics section of this guide for more information.

Chart Data

The Chart section of the interface displays a graphical representation of the data, per the query parameters. CPU, Memory, and Thread usage are displayed, along with buttons to hide the displays if needed.



CPU: Displays the CPU load over time put on the application server by running STEP. It is not reflective of any processes running on the server outside of STEP.

Memory: Displays the percentage of the memory usage (heap) spent over time by the STEP application, in relation to the maximum limit set up for the application sever process.

Threads : Displays the load put on the system over time in terms of concurrent ongoing active threads.

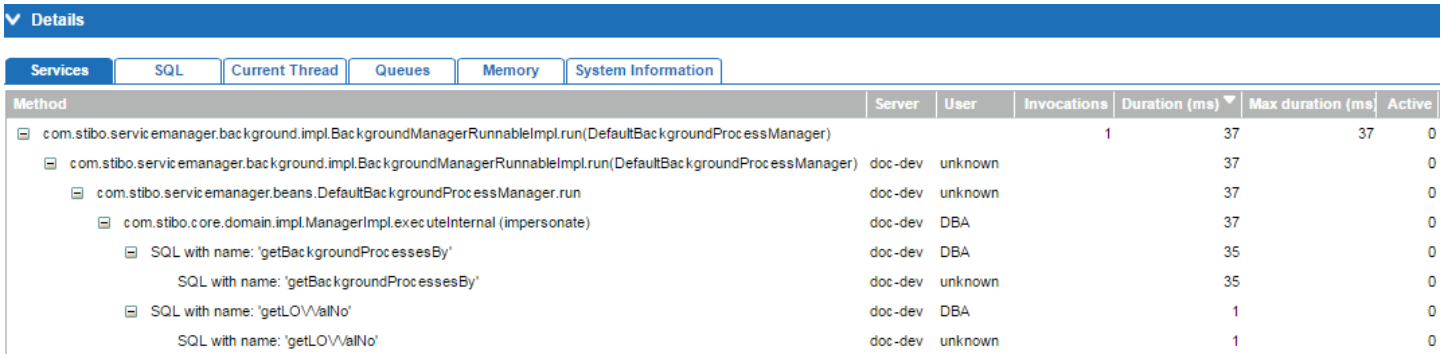
Details Data

When the **Fetch data** action has been used, detailed data is included for system activity, per the provided parameters (Duration, Date/Time, and User). The Details section contains 6 tabs, each of which is described below.

Note: Detailed data is only available when Duration is set to 20 minutes or less.

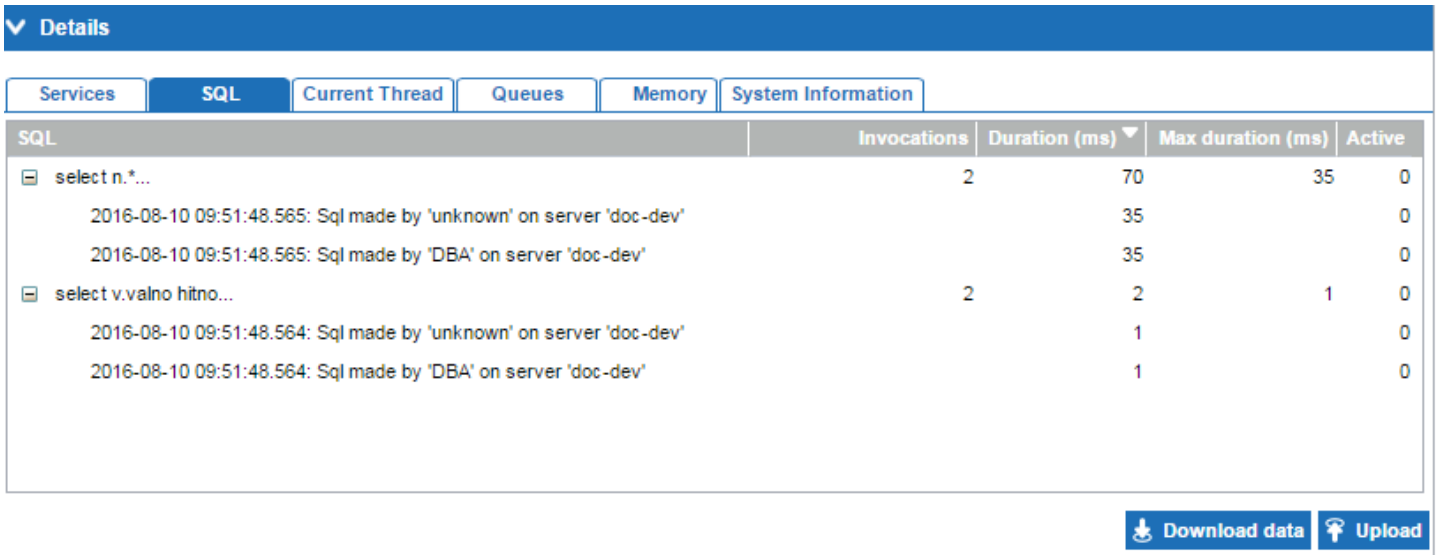
Services

The Services tab details the profiling information gathered from the systems services, allowing users to drill down into different service calls inside the application. By default, method calls are sorted by duration. Therefore, if users are experiencing performance problems, it is possible to identify long running method calls that could be contributing to the issue. Additionally, this information can be used to determine whether it is core STEP functionality or a custom extension that is contributing to the issue. However, some interpretation of the data is required so this information is typically used only by Stibo Systems Technical Support.

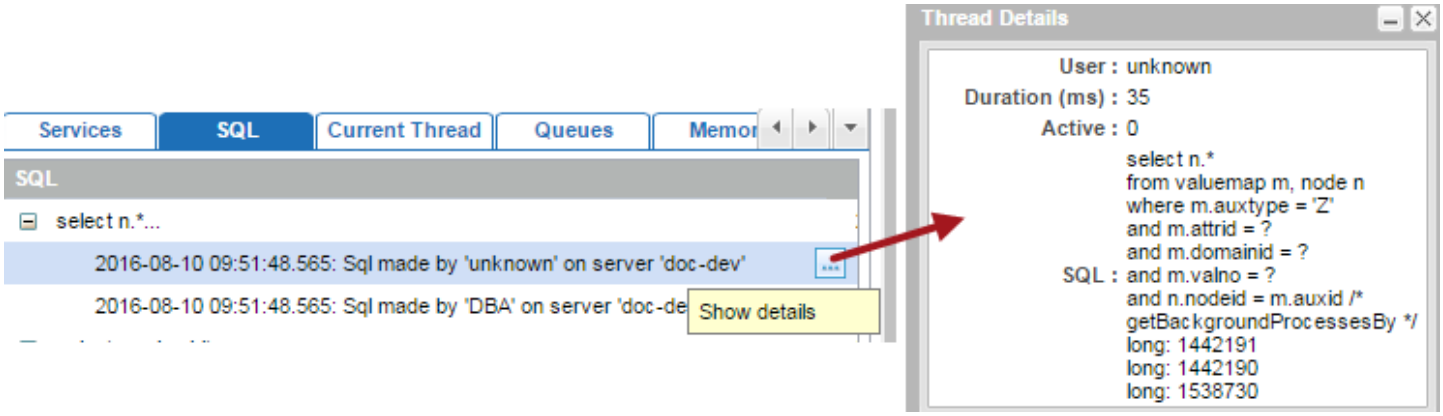


SQL

The SQL tab displays the SQL queries that have been executed by the system services. This is similar to the information shown on the Services tab, but reports on the use of SQL queries rather than standard methods. As with the Services tab, these items are also sorted by duration, which can assist in identifying long running queries that could be causing performance issues. However, the information is typically only used by Stibo Systems Technical Support as some interpretation of the data is required.



Users may hover on a row to expose the ellipsis button (...). When clicked, a Thread Details popup is provided that displays the full SQL statement.



Current Thread

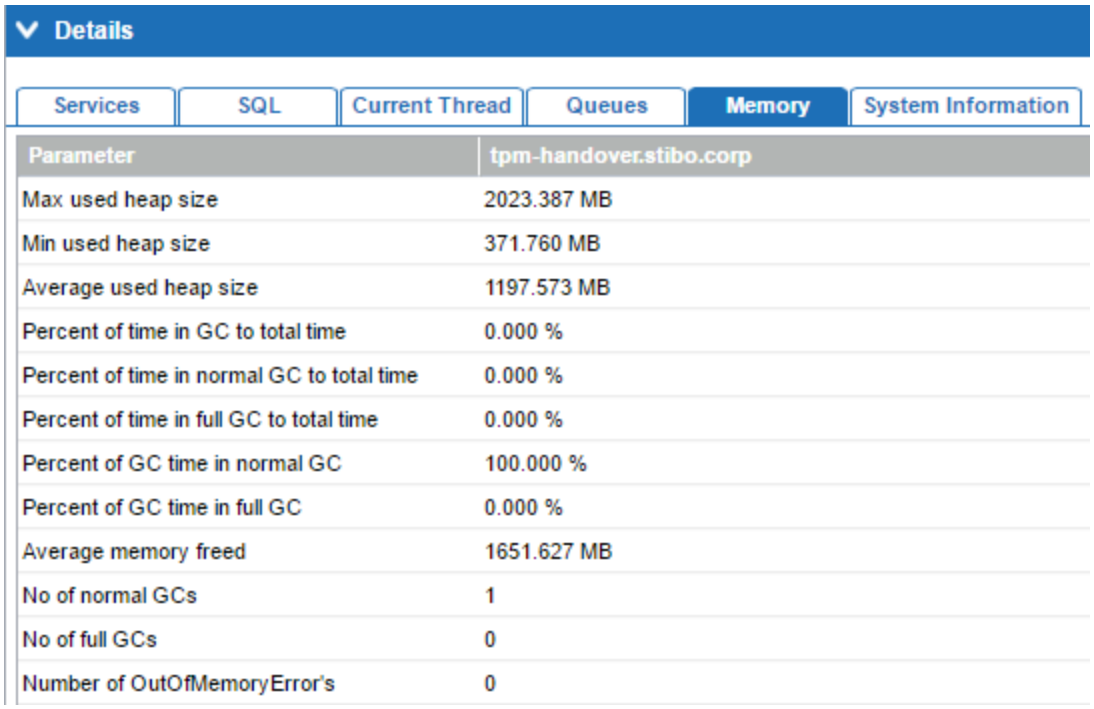
The Current Thread information is recommended exclusively for use by Stibo Systems Technical Support and is therefore not described.

Queues

The Queues information is recommended exclusively for use by Stibo Systems Technical Support and is therefore not described.

Memory

The Memory tab displays statistics for memory usage and garbage collection (GC), which can be useful in troubleshooting performance issues.

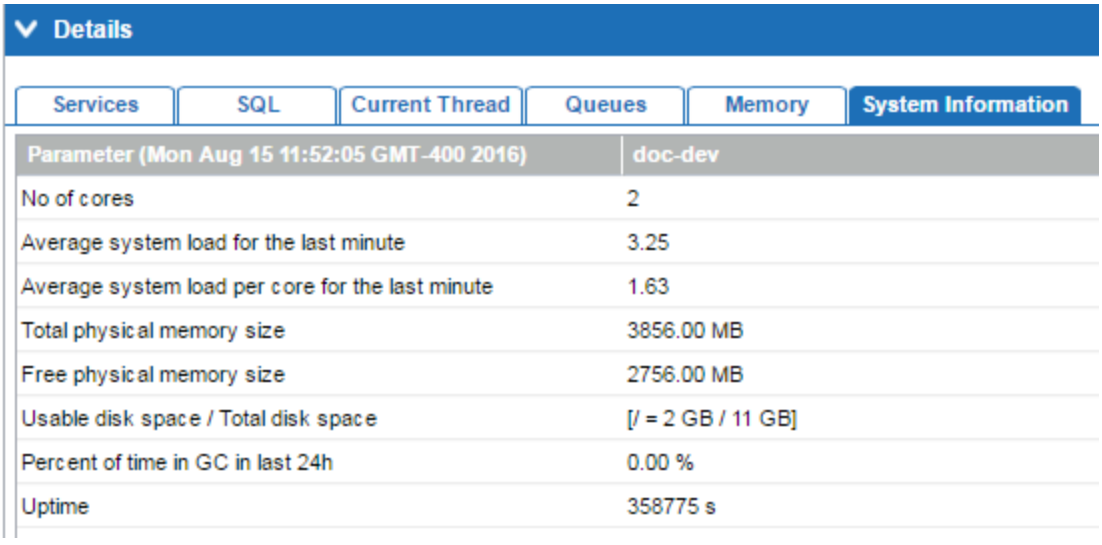


Parameter	tpm-handover.stibo.corp
Max used heap size	2023.387 MB
Min used heap size	371.760 MB
Average used heap size	1197.573 MB
Percent of time in GC to total time	0.000 %
Percent of time in normal GC to total time	0.000 %
Percent of time in full GC to total time	0.000 %
Percent of GC time in normal GC	100.000 %
Percent of GC time in full GC	0.000 %
Average memory freed	1651.627 MB
No of normal GCs	1
No of full GCs	0
Number of OutOfMemoryError's	0

Note: Data is only available on this tab if Java Garbage Collection has been run on the system.

System Information

The System Information tab displays basic information about the system being profiled.

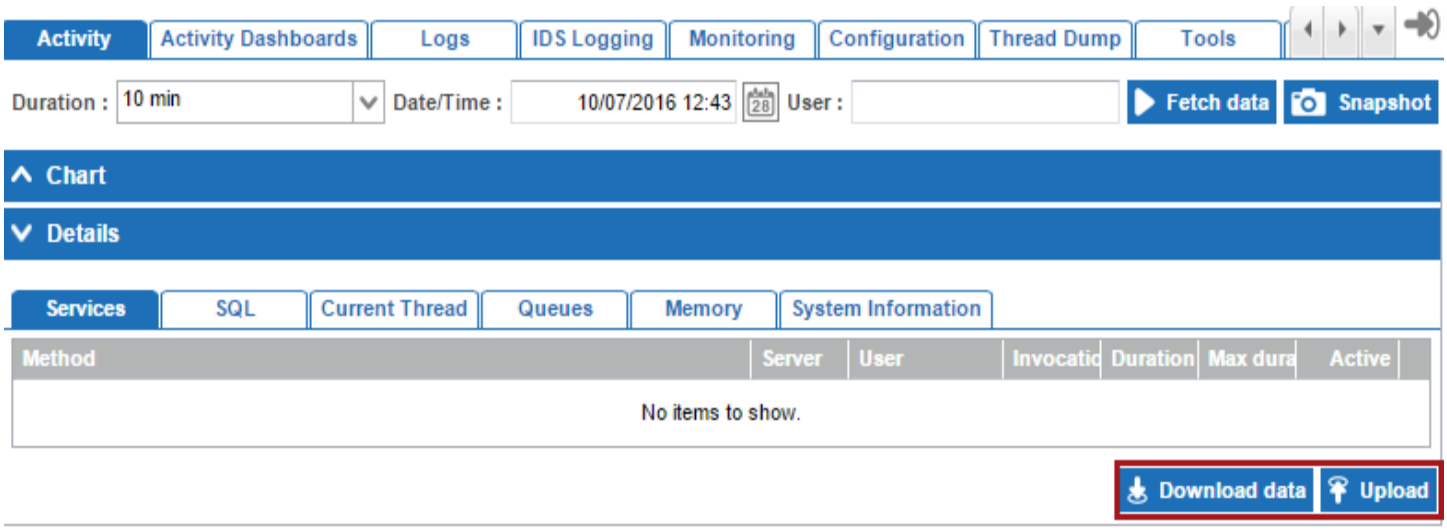


Parameter (Mon Aug 15 11:52:05 GMT-400 2016)	doc-dev
No of cores	2
Average system load for the last minute	3.25
Average system load per core for the last minute	1.63
Total physical memory size	3856.00 MB
Free physical memory size	2756.00 MB
Usable disk space / Total disk space	[/ = 2 GB / 11 GB]
Percent of time in GC in last 24h	0.00 %
Uptime	358775 s

Note: System information is automatically included in diagnostics packages sent to Stibo Systems. For more information on sending diagnostics, refer to the Send Diagnostics section of this guide.

Download / Upload

In the lower right corner of the Details section, **Download data** and **Upload** buttons are available for sending and/or viewing activity information. For example, if Stibo Systems does not have direct access to a system but it is necessary to provide activity data to them for support activities, the data can be downloaded using the **Download data** button. This could then be sent to Stibo Systems, who could upload it to view the data contained in the package. However, as with the Snapshot functionality, it is preferred that the Send Diagnostics feature be used in place of this to ensure that the complete set of relevant information is sent. Refer to the Send Diagnostics section of this guide for more information.



The download function is not specific to the current selection, meaning that all data accessed in the fetch data / snapshot actions is included in the download. The download provides a zipped file containing an XML file with the data, along with an additional zipped file with the system logs from all servers in a clustered environment.

Activity Dashboards

The Activity Dashboards tool measures and displays the amount and types of activities that have been performed by the STEP installation, including requests made to the system and how long it takes for the requests to be answered. This tool plays a vital role in performance management.

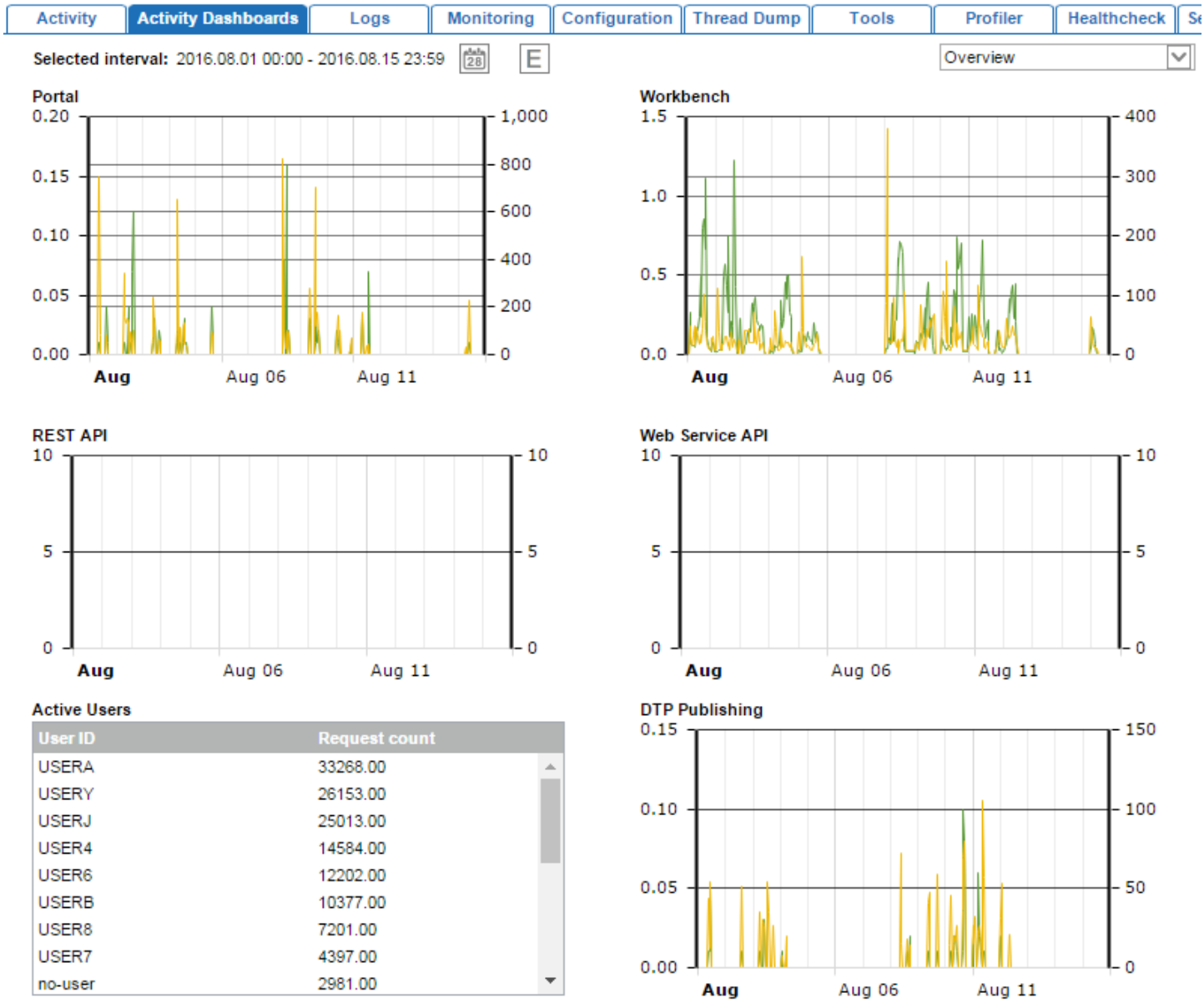
Default Reporting

Monitored events and information captured in the default reporting tools include:

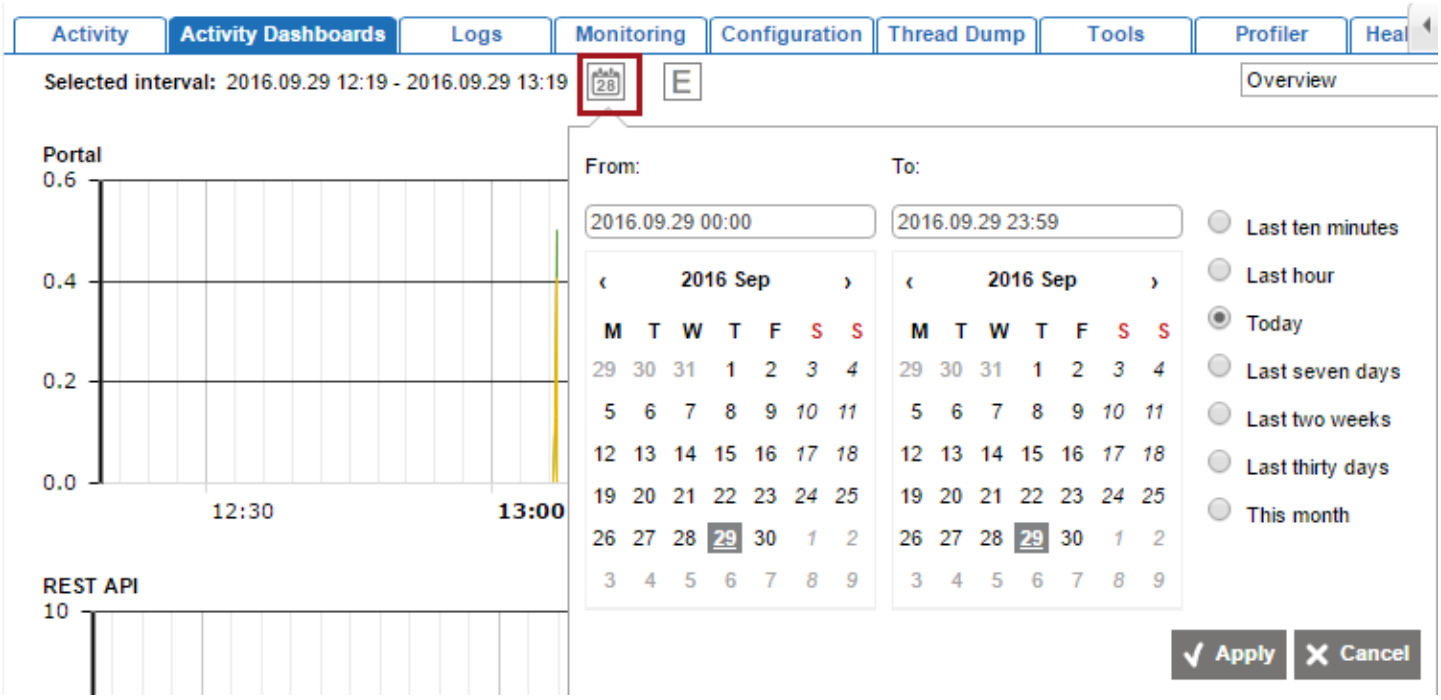
- Requests handled by the STEP application servers from different types of clients, such as the Web UI (Portal) and STEP Workbench clients
- Executions and evaluations of business actions, business conditions, and business functions
- Background process executions
- Metrics such as application server to database latency

As an example, this information can be used to determine which business rule has consumed the most CPU time on a system.

When first accessing the dashboards, an overview is provided displaying requests and response times across various types of clients, as well as requests from active users, as shown below.

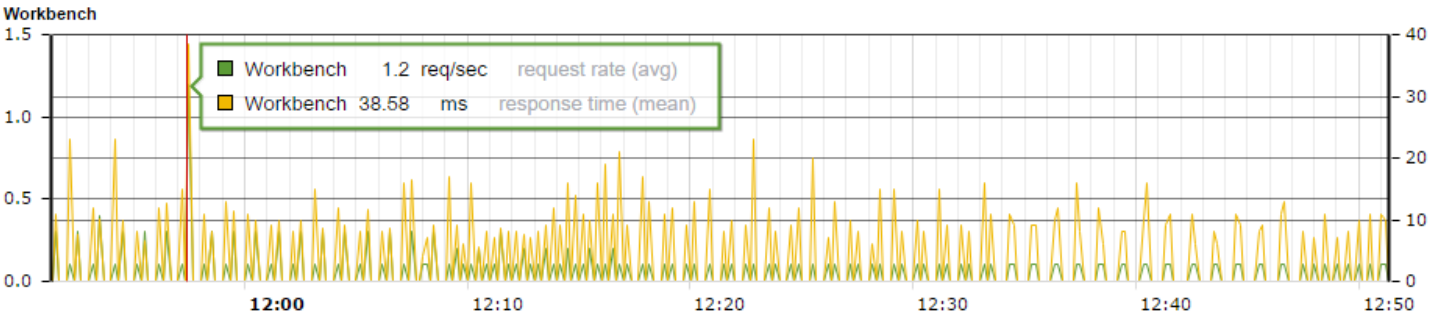


The system defaults to displaying data for the past hour, though the interval can be changed using the date picker icon.The 'no-user' that displays within the Active Users is related to the STEP Application checks that take place while the application is running. The 'no-user' activities are related to a number of things – e.g., ping requests to the Oracle database (i.e., the connection check that the application does), checks for authentication token expiry (in other words, checking if users' sessions have expired), pings to the other nodes within the cluster, and making sure that STEP caching is synchronized.

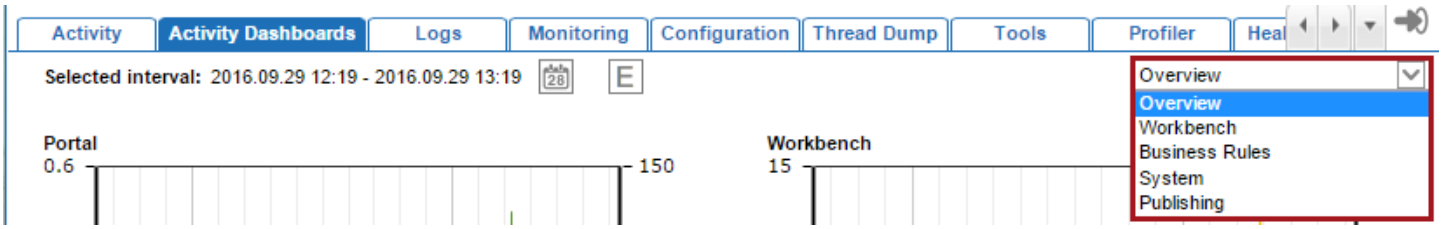


In addition, users can view more detailed information by hovering or adjusting the profile.

Hover over any displayed profile to view data for the request rate and response time at a specific point in the profile.



Adjust the profile using the dropdown in the upper right corner.



This allows users to view more detailed information within the Workbench and Publishing profiles, as well as to access System and Business Rules information that is not exposed in the default rendering. The selected interval is also applied (and can be updated) within any of the detailed profiles. A description of each profile is provided below.

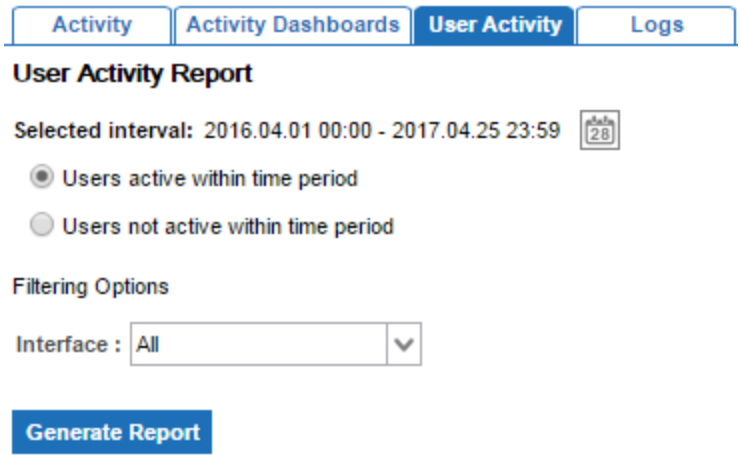
- **Overview:** Default profile displaying the number of requests made via the Web UI (Portal), STEP Workbench, REST API, Web Service API, user actions, and DTP Publishing.
- **Workbench:** Provides more granular information on requests and response times in the workbench, beyond what is included in the overview. Specifically, requests and response times of the Product Editor, Classification Editor, value editing, object approvals, and drill-down searches (e.g., navigation in Tree).
- **Business Rules:** Provides evaluation information for business rules, broken down by individual business rules. For each business rule run during the specified interval, the following metrics are provided: average evaluation time, longest evaluation time, total time spent evaluating the rule, and number of times the rule was evaluated / executed. The rules are automatically sorted with the highest at the top (e.g., longest evaluation time shown first), enabling users to quickly identify long-running and highly used rules.
- **System:** Displays the latency between the application server and the Oracle database. If high latency is shown, this should be addressed with the IT department hosting the server.
- **Publishing:** Provides more granular information on requests and response times between the STEP application server and an InDesign / DTP server, beyond what is included in the overview. The average and maximum duration of calls made to the application server are provided per call and displayed with the longest durations first so that long-running calls can be quickly identified. Additionally, object retrieval rate and duration, object write rate and duration, and other services rates and durations are provided.

Ad Hoc Queries

The Activity Dashboards tab includes ad hoc querying functionality accessible via the **E** button at the top of the tool. However, this functionality is recommended for use only by Stibo Systems Technical Support and is therefore not described.

User Activity

The options available on the User Activity tab make it possible for system administrators to easily gather information about which users have been active and which users have been inactive in the system within a specified time period. This information is extracted by generating and downloading a CSV report.

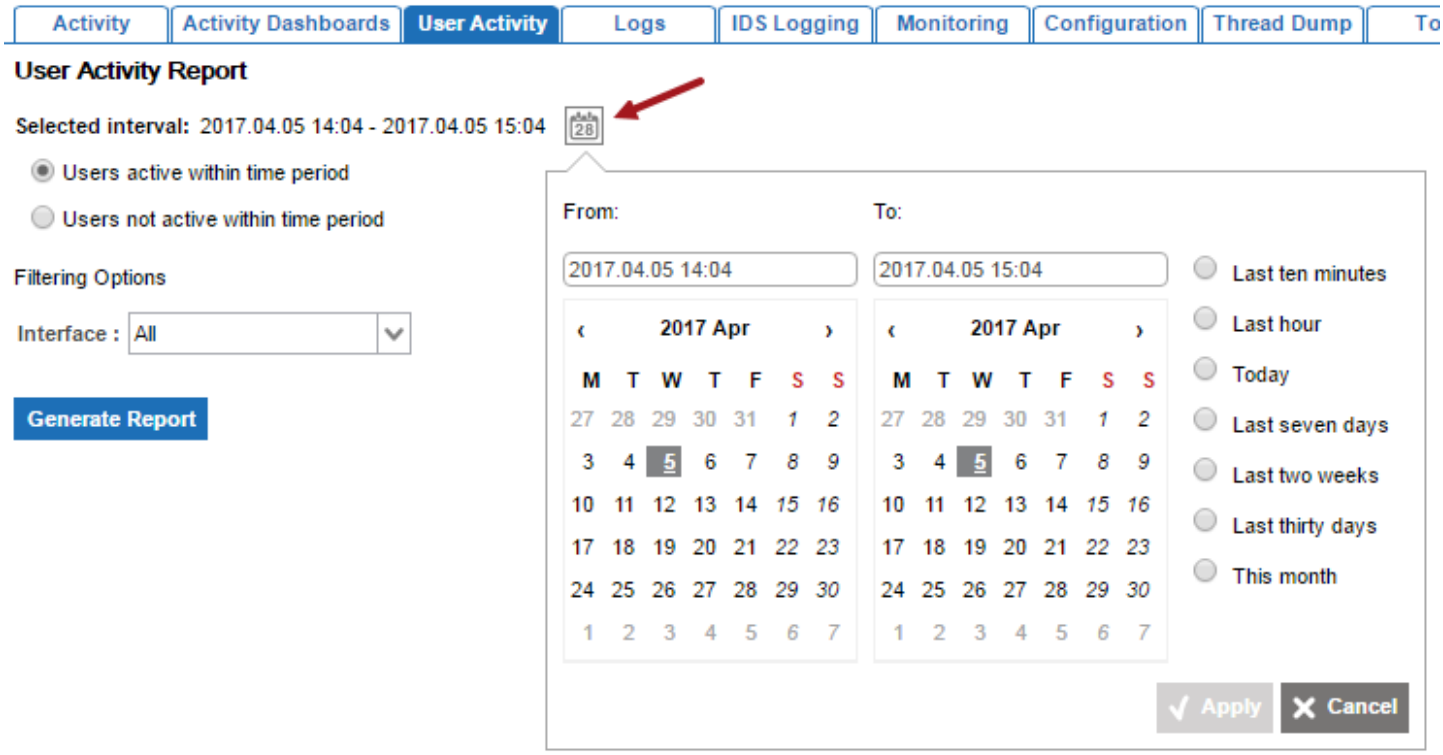


Information on active and inactive users is beneficial for businesses who have a set number of allowed users in the system and need to determine which accounts have been inactive for a prolonged period of time so they can be deleted.

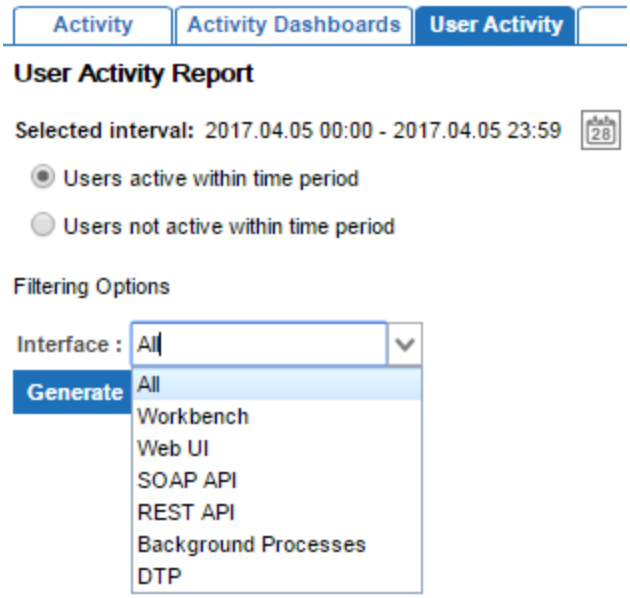
Note: To access this functionality, activity logging must be enabled on your system. By default, the property `ActivityLog.Enabled` is set to 'true.' If the default has been changed to 'false' within the sharedconfig.properites file, then the User Activity tab will not be available.

Generating a User Activity Report

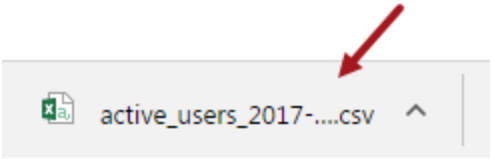
1. After logging in to the Admin Portal, navigate to the **User Activity** tab.
2. Click the Calendar icon to choose a **From** date and **To** date for the user information that should be included in the report. To use a pre-made filter, choose one of the radio buttons along the right side of the calendar dialog. Time frames for these options range from the last 10 minutes to the last 30 days.



3. Once the desired date range has been chosen, click **Apply**.
4. Under the 'Activity Report' header on the left side of the screen, choose whether to view information on users who were **active** or **not active** within the selected time period by selecting the corresponding radio button.
5. In the **Filtering Options** dropdown menu, choose the interface from which to gather user information. The options are:
   - All
   - Workbench
   - Web UI
   - SOAP API
   - REST API
   - Background Processes
   - DTP (if the most recent time a user logged into STEP was from within InDesign)



5. After selecting the interface, click **Generate Report**.
6. When the report has generated, it will automatically display in the browser, as pictured below for Chrome.



The file is named as follows:

- Active users: *active-users-[InterfaceIfNotAll]_[fromISODateTime]-[toISODateTime].csv*
- Inactive users: *inactive-users-[InterfaceIfNotAll]_[fromISODateTime]-[toISODateTime].csv*

Note: For the report to appear once generated, first disable popup blockers for STEP instance's Start Page URL in your browser (for example, http://user-dev).

7. For lists of **active** users, the resulting CSV file includes the following information:
   - User ID – STEP ID of the user
   - User Name – STEP name of the user
   - Interface – The STEP interface where the latest activity occurred for the user (for example, workbench)
   - Latest Activity – Date and time of the latest activity for the user, including the time zone
   - User Group IDs – STEP ID of the user group(s) to which the user belongs. If a user belongs to more than one user group, the additional groups appear as semicolon-separated values.

	A	B	C	D	E
1	User ID	User Name	Interface	Latest Activity	User Group IDs
2	USERJ	User J	workbench	2017-04-25T17:01:18-04:00[America/New_York]	Super Users
3	USER1	User1	restapi	2017-04-21T07:54:41-04:00[America/New_York]	User Group
4	USER4	User 4	dtp	2017-04-25T16:49:24-04:00[America/New_York]	Super Users
5	USERE	User E	workbench	2017-04-24T13:10:38-04:00[America/New_York]	Super Users
6	USERL	User L	workbench	2017-04-25T17:05:05-04:00[America/New_York]	Super Users;Great Goods;Products Galore
7	USER	User	bgp	2017-04-20T08:52:56-04:00[America/New_York]	Super Users;Suppliers;Brand;Merchandisers
8	WEBUSER1	webuser1	web ui	2017-02-22T13:04:26-05:00[America/New_York]	Web UI Group
9	USERM	User M	bgp	2017-04-25T17:11:46-04:00[America/New_York]	Super Users
10	USER7	User 7	workbench	2017-04-24T01:29:16-04:00[America/New_York]	Super Users
11	STEPSYS	stepsys	workbench	2017-04-17T11:28:41-04:00[America/New_York]	Stibo Users
12	WEBUSER	WebUser	web ui	2017-04-11T16:23:19-04:00[America/New_York]	Web UI Group
13	DBA	DBA	workbench	2017-04-11T12:27:46-04:00[America/New_York]	Super Users

active_users_2016-04-01T16-08-0

8. For **inactive** users, the CSV file includes:
   - User ID
   - User Name
   - User Group IDs

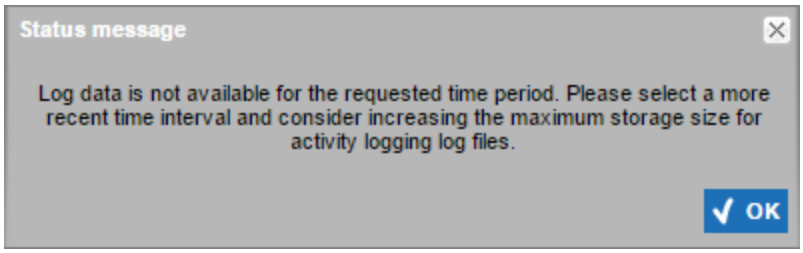
	A	B	C
1	User ID	User Name	User Group IDs
2	ASSETHOTFOLDER	Asset Hotfolder	Stibo Users
3	USER2	User 2	Super Users
4	USERZ1	Johnny Bench	Super Users
5	WAREHOUSE1	warehouse1	Warehouse Group
6	REGULATORY1	Regulatory User 1	Regulatory Group
7	SUPPLIER2	supplier2	Great Goods;Suppliers
8	COPYWRITER1	Copywriter1	Marketing Copy Group;DTP Managers
9	SUPPLIER1	supplier1	Super Users;Products Galore;Suppliers
10	USER5	User 5	Super Users;Suppliers;Acme
11	USER71	User 71	Image Group
12	ECOM1	ecom1	eCom Group
13	USER9	User 9	Super Users

inactive_users_2016-04-02T00-00

Standard STEP users that do not count against the number of licensed users—such as DBA, STEPSYS, SERVICE, and SWADMIN—are not included in the inactive user report.

Considerations

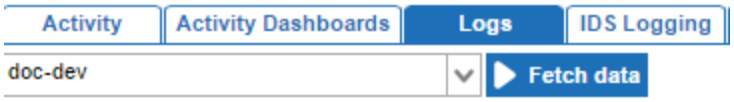
- If data is not available for a selected time period—typically when a 'from' time is entered that is earlier than the earliest system-wide log entry—the system returns a status message advising that log data is not available for the requested time period.



- To keep older activity logs on the system for a longer period of time, storage space should be increased. The default maximum amount allowed for raw log file storage is 1,000 megabytes (`ActivityLog.RawLogs.MaxStoreSize=1000`). This can be overridden by adding the configuration property to the sharedconfig.properties file and changing the 1000 default value.
- Caution should be exercised when making a decision to delete an inactive user. For example, a user may appear inactive in the system but should not be removed because they might be the designated recipient of error messaging from a workflow or integration endpoint. In general, a user should not be deleted if you do not know why the user was originally created.

Logs

The Logs tab provides access for users to view and download the system logs, using the **Fetch data** button to retrieve the information. In a clustered environment, each available server is listed for selection in the dropdown.



Fetching the data displays the most recently accessed log files, followed by drill down options for accessing additional logs.

File name	Description	Tail	View	Download
[recent]				
step.0.log	Main STEP Log file	Tail	View	Download
trace.0.log	Main Business Rule Trace Log file	Tail	View	Download
gc.log	Main Garbage Collection Log file	Tail	View	Download
step.1.log	Previous STEP Log file	Tail	View	Download
old-logs.2020-08-03_12-26-45				
gc.log	Previous Garbage Collection Log file	Tail	View	Download
logs				
trace				
gc-logs				
Spot-logs				
Autoupgrader-logs				

Several properties in the sharedconfig.properties file can be adjusted to control logging functionality. Among other things, these properties allow specifying where to store particular logs on the application server, how many old log files to retain, and the level of logging that should be employed across the system and/or for particular components. The relevant properties are identified by 'Log' and 'Admin' prefixes (e.g., Log.Count, Log.Level, Admin.TailSize, etc).

Note: Log files are automatically included in diagnostics packages sent to Stibo Systems. For more information on sending diagnostics, refer to the **Send Diagnostics** section of this guide.

Log Types

Logs

The logs folder includes the main STEP logs (step.X.log) and the install.log file, which lists all prepared and installed recipes on the system.

File name	Description	Tail	View	Download
[recent]				
logs				
step.0.log	Main STEP Log file	Tail	View	Download
install.log	STEP build install Log file	Tail	View	Download
step.1.log	Previous STEP Log file	Tail	View	Download
step.2.log	Older STEP Log file	Tail	View	Download
step.3.log	Older STEP Log file	Tail	View	Download
step.4.log	Older STEP Log file	Tail	View	Download

The STEP log files are used primarily for system monitoring and troubleshooting and contain a large amount and variety of information, including stack trace information for errors and exceptions not handled by the GUI. The zero log (step.0.log) is the current log, with older log files indicated by incrementing integers.

The install.log is especially useful in determining the current build / patch applied to any system. It contains a list of all recipes that have been applied to the system, in sequential order.

```
2020-04-02-14-01-38     Installed       upgrade.BASELINE_WITHIN_MP.elasticsearch-integration-7.0.9.step-9.3-mp3-2020-04-01-15-44-20
2020-07-07-13-49-16     Prepared        step-10.0-2020-05-20-16-06-02
2020-07-07-14-43-02     Prepared        step-10.0-mp1-2020-07-07-13-55-01
2020-07-07-16-11-52     Installed       step-10.0-mp1-2020-07-07-13-55-01
```

Trace

The trace folder contains the logs for business rules tracing. This functionality is enabled on the Tools tab and is described within the **Tools** topic. The trace files follow the same format as the main STEP logs where the zero log (trace.0.log) is the current log, with older log files indicated by incrementing integers. Note that the zero log will be empty and no additional log files will appear if business rules tracing has not been enabled.

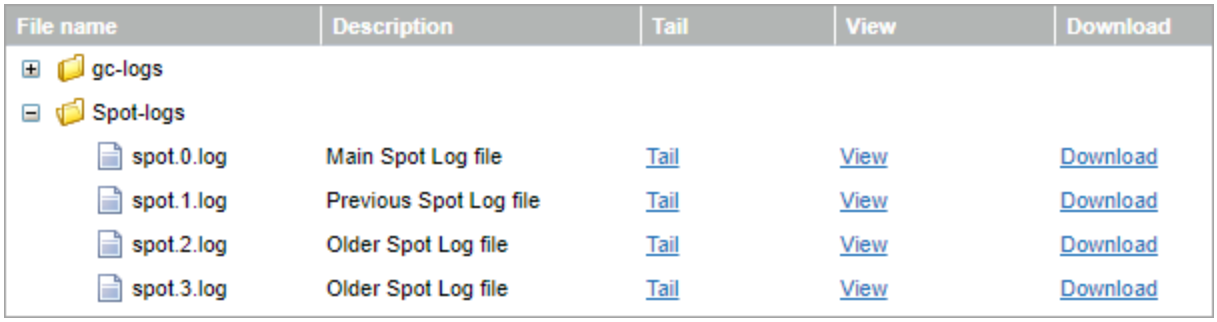
File name	Description	Tail	View	Download
gc-logs				
Spot-logs				
spot.0.log	Main Spot Log file	Tail	View	Download
spot.1.log	Previous Spot Log file	Tail	View	Download
spot.2.log	Older Spot Log file	Tail	View	Download
spot.3.log	Older Spot Log file	Tail	View	Download

GC Logs

The gc-logs folder contains the garbage collection log files, following a similar format as the main STEP logs where the zero log (gc.log.0.current) is the current log, with older log files indicated by incrementing integers. Beyond the current log file, the garbage collection logs are organized in subfolders by date. The garbage collection log files are used primarily when a system is reporting out of memory and/or heapspace errors as it can be useful in these cases to identify where the system is spending time in garbage collection.

SPOT Logs

The Spot-logs folder contains logs with information about patch deployment and start-up. This allows admins to troubleshoot issues when deploying a custom add-on developed using the Extension API.



File name	Description	Tail	View	Download
⊞ gc-logs				
⊟ Spot-logs				
spot.0.log	Main Spot Log file	Tail	View	Download
spot.1.log	Previous Spot Log file	Tail	View	Download
spot.2.log	Older Spot Log file	Tail	View	Download
spot.3.log	Older Spot Log file	Tail	View	Download

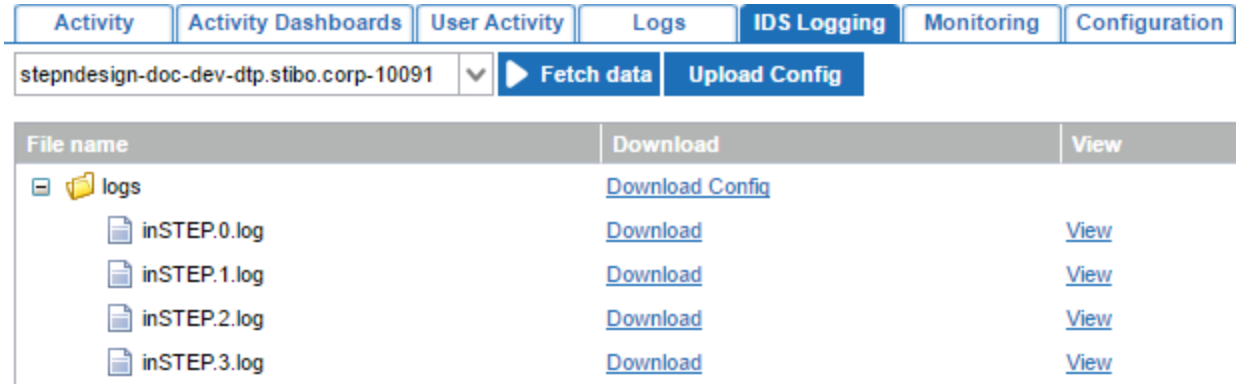
Viewing Options

Users have three options for viewing any of the log files:

- **Tail:** Displays a truncated version of the log file (with only the most recent content) in a new tab in the browser. The amount of data displayed is defined by the Admin.TailSize property in the sharedconfig.properties file (or Admin.TailSizeNoSession property, if applicable).
- **View:** Displays the complete content of the log file in a new tab in the browser.
- **Download:** Downloads the complete file to your local machine. This can be used when the information needs to be sent to Stibo Systems for analysis and troubleshooting on systems to which Stibo Systems does not have direct access. However, log files are also included when using the Send Diagnostics tool, which is the preferred method for sending information to Stibo Systems as it does not require users to determine which individual files are relevant to send. For more information on sending diagnostics, refer to the **Send Diagnostics** section of this guide.

IDS Logging

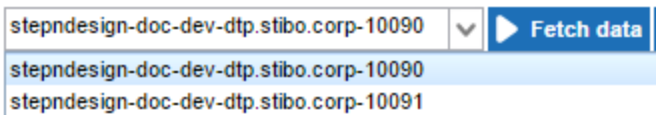
The IDS (InDesign Server) Logging tab allows users to view and download the InDesign server renderer logs, download the DTP log options, and upload DTP log options.



Viewing and Downloading Logs

To view or download the logs for an InDesign server renderer:

1. Select the desired renderer from the dropdown list in the upper left corner of the screen, then click the **Fetch data** button.



2. Once the data has been fetched, the **logs** folder displays. Click the plus icon next to the folder to expand it to display the log files for the renderer (typically inSTEP.0.log, inSTEP.1.log, and so forth).
3. To download the file to your computer, click the **Download** link.
4. To view the file in a separate browser tab, click the **View** link.

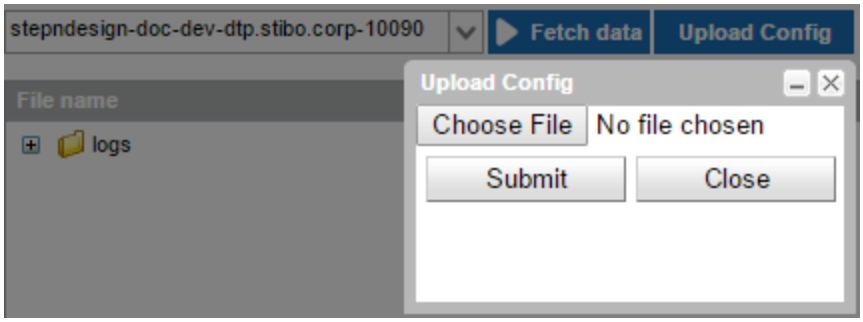
Downloading and Uploading Configurations

The **Download Config** link allows users to download the DTP log options configurations XML file for the renderer, **inSTEPLogOptions.xml**, a snippet of which is shown in the following screenshot. This file is used to configure the level of information shown in the log files as well as the creation and retention settings for these logs on the InDesign server.

```
<dtpLogOptions>
  <dtpLogFile cycle="1" file="E:\step\stepindesign.sidecar\indesign-10091\logs\inSTEP.0.log" history="20" maxsize="10M" targetName="dtpLog" />
  <dtpLogRule category="commsState" level="warning" target="dtpLog" />
  <dtpLogRule category="indtpSTEPUtils" level="warning" target="dtpLog" />
  <dtpLogRule category="logicCmd" level="warning" target="dtpLog" />
  <dtpLogRule category="performance" level="warning" target="dtpLog" />
  <dtpLogRule category="generic\dtpPerformance.cpp" level="warning" target="dtpLog" />
  <dtpLogRule category="dtpXMLActionHandler" level="warning" target="dtpLog" />
  <dtpLogRule category="dtpAutopage" level="warning" target="dtpLog" />
```

To change the DTP log options settings:

1. Download the inSTEPLogOptions.xml file by clicking the **Download Config** link.
2. Open the file in an XML editor, then make the relevant edits. Refer to the following subsection, 'Configuring DTP Log File Settings,' for examples of data that might be changed in the file.
3. Once edits are complete, click the **Upload config** button.
4. In the Upload Config dialog, click **Choose File** to navigate to the file location.
5. Once the file is selected, click **Submit** to upload the edited file to the InDesign server.



Configuring DTP Log File Settings

The first line of the **inStepLogOptions.xml** file consists of the <dtpLogFile/> tag. This tag contains the XML attributes that control the maximum size of log files, how many old log files should be retained, the location on the server where the logs should be stored, and how frequently new log files should be created. These values can be edited in the downloaded file, then re-uploaded to the InDesign server to change the defaults.

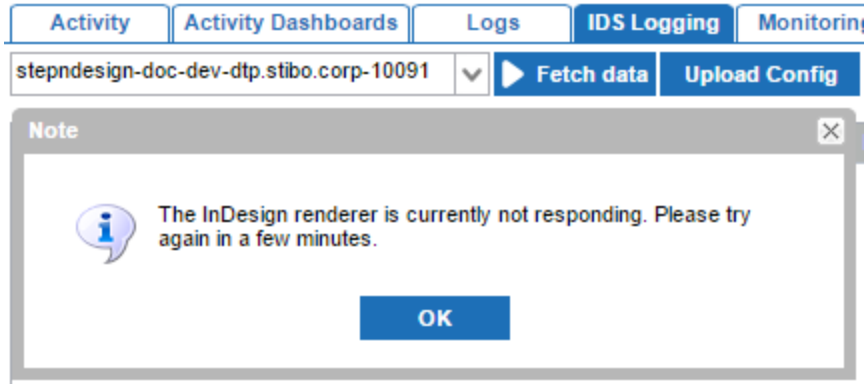
```
<dtpLogFile cycle="1" file="E:\step\stepindesign.sidecar\indesign-10091\logs\inSTEP.0.log" history="4" maxsize="10M" targetName="dtpLog" />
```

1. **Cycle** - If cycle="'1", a new log file will be created every time the renderer is started, i.e., every time a job is sent to the renderer. If cycle="0", or if the cycle attribute is removed altogether, then a new log file will only be created when the current file reaches the maximum file size specified in the 'maxsize' attribute.
2. **File** - This path specifies the location on the InDesign server where the inSTEP log files are stored.
3. **History** - The limit number of history files saved. The name scheme of inSTEP.x.log will max out where X equals the value of **history**. I.e., if history="4", any time a new .0 log is created, the oldest log (.4) will be deleted and the former .3 log will replace the .4 log, leaving one active log (.0) and four historical logs (.1 through .4).

4. **MaxSize** - This value is the limit of each log size. Once this limit is reached, a new log file is created. The newest log is always the '0' log. Older logs are numbered incrementally, one step up. i.e., the second-oldest log is the '1' log, and so forth.

Error Handling

If a renderer is down or is busy and the data cannot be fetched after 60 seconds, an error message will be thrown similar to the one shown in the image below. For a sidecar that is not running, the error reads, 'No items to show. Renderer is offline.' For a sidecar that is busy after 60 seconds, the error reads, 'The InDesign renderer is currently not responding. Please try again in a few minutes.'



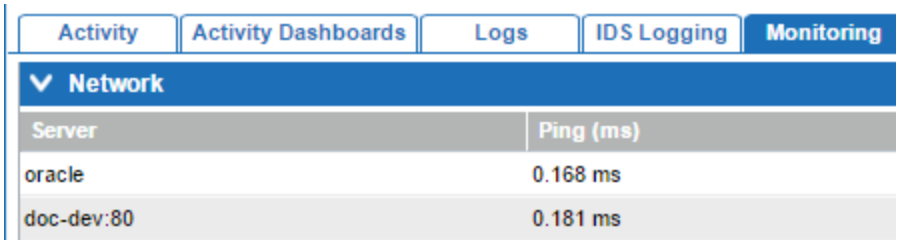
For more information regarding InDesign queues, refer to the **InDesign Queues** section of the **Publisher (Adobe InDesign Integration)** documentation.

Monitoring

The Monitoring tab is used to monitor servers and events and is divided into three sections, each of which is described below.

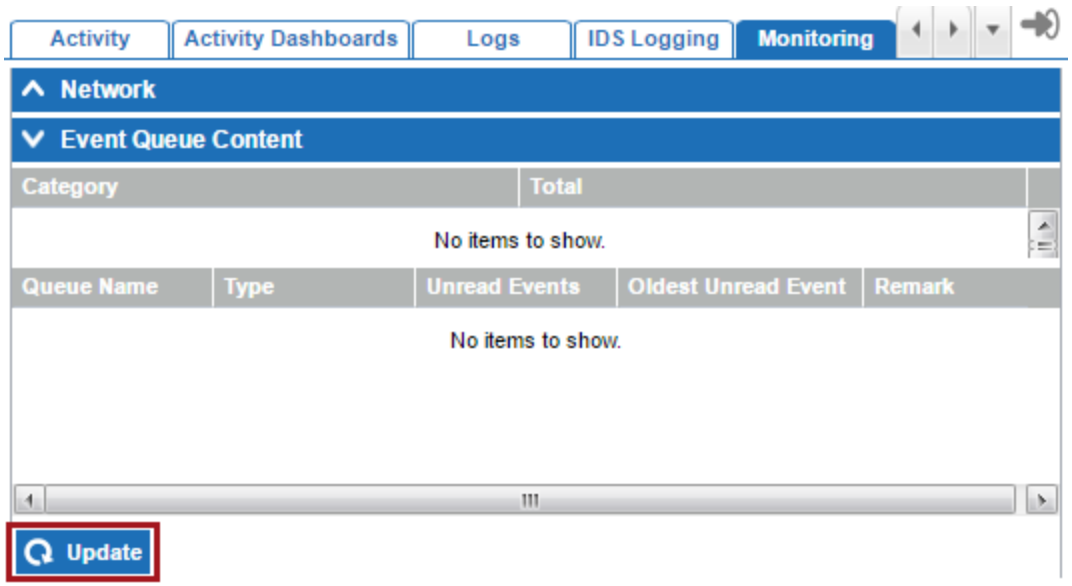
Network

The Network section displays the latency between the servers in a STEP environment, including the database and Oracle servers, which can be useful information when troubleshooting performance issues.



Event Queue Content

The Event Queue Content section displays basic information about the event queues running on the system, accessed by clicking the **Update** button.

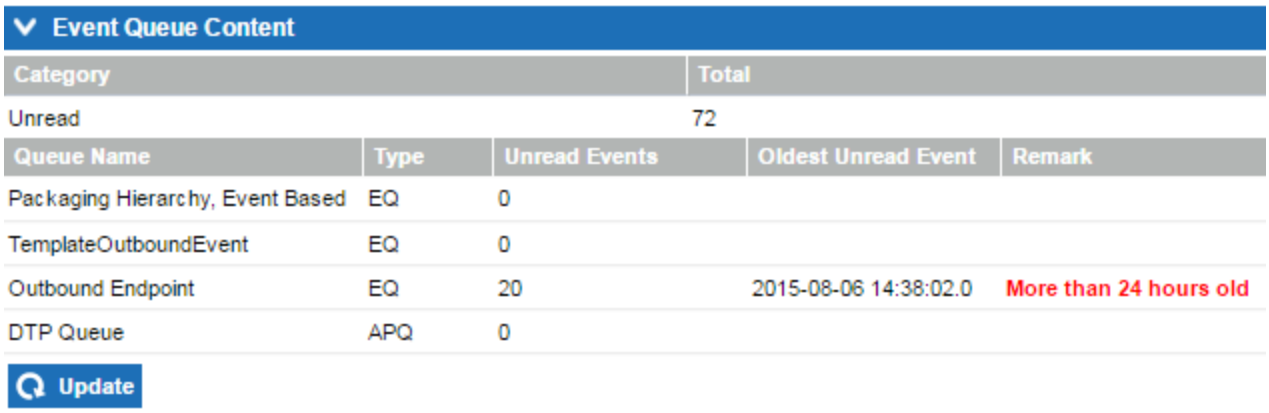


The information retrieved via **Update** is displayed summarily and for individual event queues.

Events are divided into two categories:

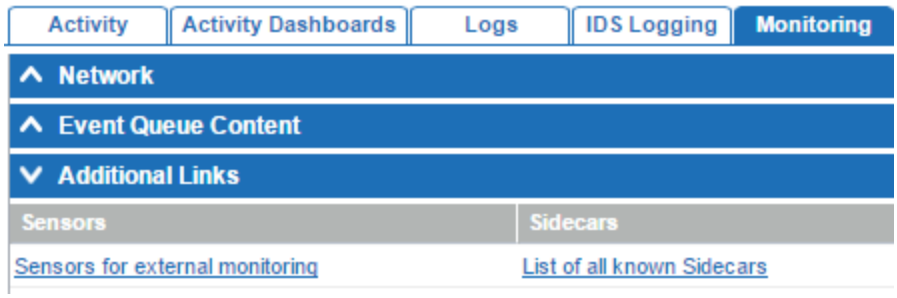
- **Disposable:** Disposable events have been handled in some manner but are still retained for a period of time. If no events fall into this category, it is not displayed in the summary. Events can fall into this category in two ways. 1- Events that have occurred on the system and been processed by an event-based outbound integration endpoint or asset push for which the 'Days to Retain Events' parameter is set at something other than zero. 2- Events that were unread for an event-based outbound integration endpoint or asset push and then forwarded (skipped), but not purged.
- **Unread:** Events that have occurred on the system and are queued for handling by an event-based outbound integration endpoint, event processor, or asset push, but have not yet been processed. Note that events queued for handling by event processors are shown in the summary only, and not in the queued breakdown. Additionally, if event queues have been deleted but are still in the System Setup recycle bin, and had unread events prior to their deletion, those events will also be shown (until the deletion has been approved and/or purged). Therefore the total shown may not match the individual event queue totals if unread event processor events exist.

All event-based outbound integration endpoints (Type=EQ) and asset push event queues (Type=APQ) are displayed, along with the number of unread events for the queue, and the date and time the oldest unread event was generated. Typically event queues are set up to regularly process events rather than storing them on the system. Therefore, a remark is present when events have been unprocessed for more than 4 hours as this could indicate a problem with the queue.



Additional Links

The Additional Links section provides links to sensors and sidecars, described below.



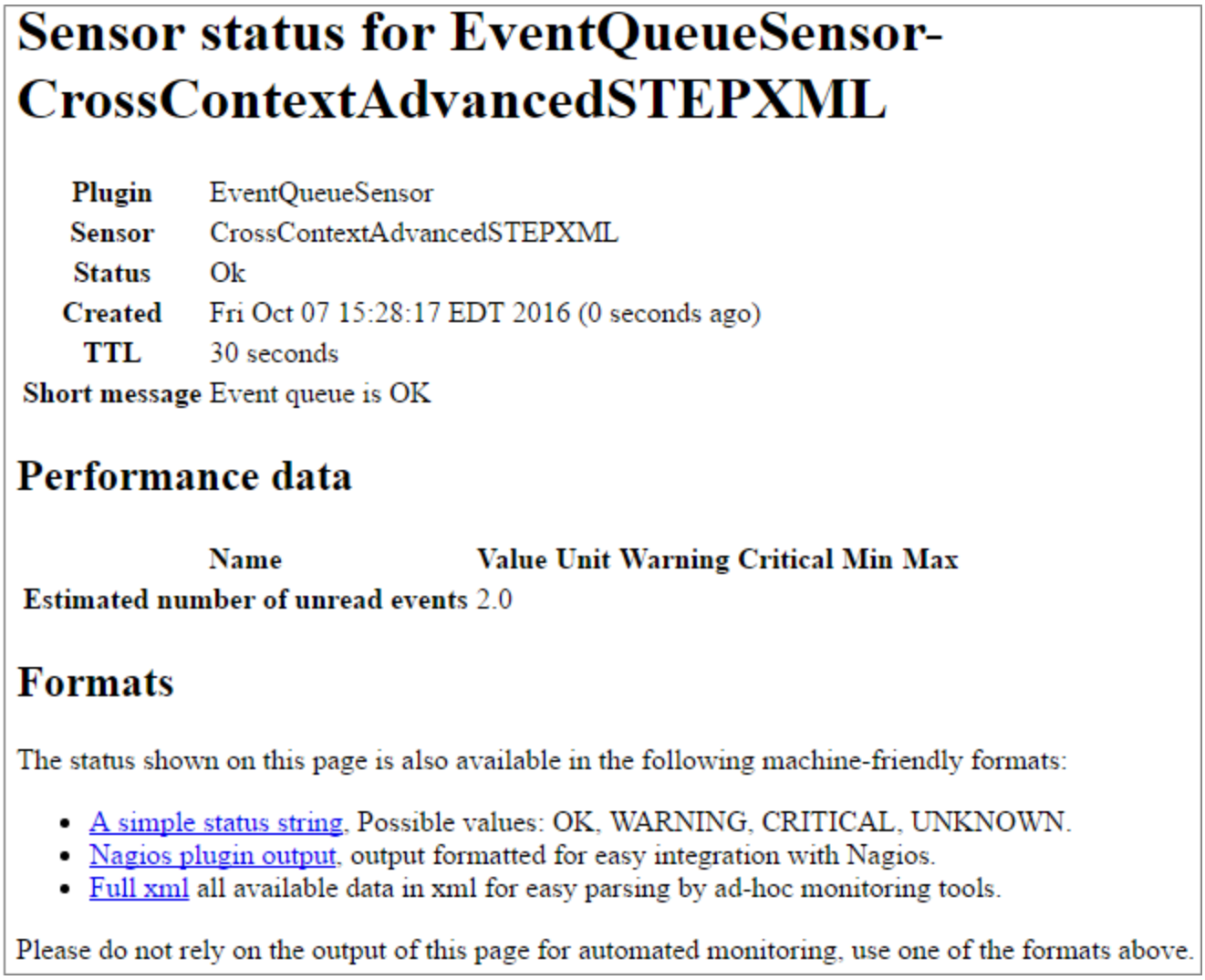
External Monitoring

Clicking the **Sensors for external monitoring link** opens another tab in the browser where all components of the STEP application are displayed. This acts as a landing page for external monitoring systems to check the status of the various components. A small example is shown below.

Sensor	Status	Message
CacheSensor-datacachesize	Ok	Cache size looks good
CacheSensor-querycachesize	Ok	Cache size looks good
EndToEndMetrics-metrics	Ok	Oracle end to end metrics is disabled
EventQueueSensor-BSSSandPkgHierarchyAdvSTEPXML	Ok	Event queue is OK

The available sensors include information on Java heap usage, http (local and remote), event queues, scheduled jobs, web services, security, and more. It is not possible to add additional custom sensors. However, not all sensors need to be monitored and users can choose to monitor only the subset that they are interested in.

Clicking on any of the sensor links provides additional information for that particular component. For example:



Sensor status for EventQueueSensor-CrossContextAdvancedSTEPXML

Plugin	EventQueueSensor
Sensor	CrossContextAdvancedSTEPXML
Status	Ok
Created	Fri Oct 07 15:28:17 EDT 2016 (0 seconds ago)
TTL	30 seconds
Short message	Event queue is OK

Performance data

Name	Value	Unit	Warning	Critical	Min	Max
Estimated number of unread events	2.0					

Formats

The status shown on this page is also available in the following machine-friendly formats:

- A simple status string, Possible values: OK, WARNING, CRITICAL, UNKNOWN.
- Nagios plugin output, output formatted for easy integration with Nagios.
- Full xml all available data in xml for easy parsing by ad-hoc monitoring tools.

Please do not rely on the output of this page for automated monitoring, use one of the formats above.

The links in the Formats section can be used to provide detailed information to an external monitoring system, which needs to call the URL that matches a format understood by the monitoring system. Custom formats can be made if the defaults are not sufficient.

Sidecars Monitoring

Clicking the **List of all known Sidecars** link opens the Known Sidecars page in a new browser tab. This page shows a list of sidecars configured on the system and provides links to the associated jar files, as well as links to additional status information.

For more information, refer to the **Additional Asset Push Sidecar Information** topic in the **Digital Assets** documentation.

Known Sidecars

This page lists all the known sidecar instances.

assetpush

No instances configured.

assetpushqueue

Deployment jar	Service Name	Current Status
assetpushqueue-AssetPush1.jar	Stibo AssetPushQueue (AssetPush1)	running on 10.232.10.195 since 09:37:11 21 Sep 2016 (one hour and 5 minutes ago)
assetpushqueue-AssetPush2.jar	Stibo AssetPushQueue (AssetPush2)	unused on none since 10:42:37 21 Sep 2016 (moments ago)
assetpushqueue-DTPConfiguration.jar	Stibo AssetPushQueue (DTPConfiguration)	running on 10.232.10.196 since 09:37:11 21 Sep 2016 (one hour and 5 minutes ago)
assetpushqueue-test1.jar	Stibo AssetPushQueue (test1)	unused on none since 10:42:37 21 Sep 2016

loqate

Deployment jar	Service Name	Current Status
loqate-payload.jar	Loqate Server Sidecar (loqate-payload)	Offline or outdated sidecar

stepndesign

Deployment jar	Service Name	Current Status
stepndesign-doc-dev-dtp.stibo.corp.jar	Stibo STEPnDesign (doc-dev-dtp.stibo.corp)	running on 10.232.10.196 since 09:37:12 21 Sep 2016 (one hour and 5 minutes ago)

stepxpress

No instances configured.

When a sidecar is first set up, STEP generates a .jar file for it. If the sidecar should be run on another system, the jar file must be downloaded and installed on the system on which it should be run. Clicking on any of the jar file links downloads the .jar file to your local machine so that it can be installed on a secondary system.

Clicking any Current Status link provides details about the sidecar, including the tail of the recent logs for the sidecar. For example:

Status of assetpushqueue-AssetPush1

state	running
id	assetpushqueue-AssetPush1
host-ip	10.232.10.195
directory	/opt/stibo/sidecarAssetPush1
steady-state-since	09:37:11 21 Sep 2016 (one hour and 8 minutes ago)
last-update	10:45:11 21 Sep 2016 (moments ago)
sidecar-version	2011-07-04
host-clock-skew	-26 (ms)
last-client-action	0 seconds ago

Tail of log files

```
Tail of payload0.log
ests: 0 ms, time-save-result: 8 ms, assetIDs: [], statusResults: {}
Sep 21, 2016 10:44:03 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: No events to handle
Sep 21, 2016 10:44:33 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: Fetched 0 requests from server
Sep 21, 2016 10:44:33 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: Handled 0 requests, time-get-requests: 22 ms, time-handle-requests: 0 ms, time-save-result: 7 ms, assetIDs: [], statusResults: {}
Sep 21, 2016 10:44:33 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: No events to handle
Sep 21, 2016 10:45:03 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: Fetched 0 requests from server
Sep 21, 2016 10:45:03 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: Handled 0 requests, time-get-requests: 19 ms, time-handle-requests: 0 ms, time-save-result: 7 ms, assetIDs: [], statusResults: {}
Sep 21, 2016 10:45:03 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: No events to handle

Tail of sidecar0.log
.root=/opt/stibo/sidecarAssetPush1 -Dsidecar.payload.scpl=/opt/stibo/sidecarAssetPush1/.sidecar-cache/assetpushqueue-AssetPush1.scpl -Dsi
Sep 21, 2016 9:37:15 AM com.stibo.sidecar.JavaRunner run
INFO: Payload working dir: /opt/stibo/sidecarAssetPush1
Sep 21, 2016 9:37:20 AM com.stibo.sidecar.JavaRunner run
INFO: Starting payload
```

Sensors for External Monitoring

On the Admin Portal Monitoring tab, the **Sensors for external monitoring** link provides access to the sensors described below. For more information on the functionality, refer to the **Monitoring** topic.

Sensor	Status	Message
CacheSensor-datacachesize	Ok	Cache size looks good
CacheSensor-querycachesize	Ok	Cache size looks good
EndToEndMetrics-metrics	Ok	Oracle end to end metrics is disabled
EventQueueSensor-BSSSandPkgHierarchyAdvSTEPXML	Ok	Event queue is OK

Sensor Name	Baseline	Sensor Description
BackgroundProcessSensor-Number-Of-Active-Background-Processes	Y	Reports the average number of active background processes during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
BackgroundProcessSensor-Number-Of-Queued-Background-Processes	Y	Reports the average number of queued background processes during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
CacheSensor-datacachesize	Y	KODO data cache size should only be modified in cooperation with Stibo Systems but can be set using the configuration property: • Database.DataCache 'Critical' or 'Warning' if the KODO data cache is too small.
CacheSensor-querycachesize	Y	KODO data cache size should only be modified in cooperation with Stibo Systems but can be set using the configuration property: • Database.DataCache 'Critical' or 'Warning' if the KODO query cache is too small.
CpuLoadSensor-JvmCpuAverageLoad	Y	Reports the average CPU load during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime 'Critical' if data cannot be retrieved.

Sensor Name	Baseline	Sensor Description
Database-dbping	Y	'Critical' if greater than 150 ms. 'Warning' if DB SQL Ping response time exceeds 50 ms.
Database-dbpings	Y	'Critical' if greater than 150 ms. 'Warning' if the DB SQL Ping response time for multiple pings exceeds 50 ms.
Database-checkparam	Y	Checks character-sets, sorting, optimizer-parameters, recovery and integrity, block sizes, cache-sizes, etc. 'Critical' if Oracle DB parameters have been incorrectly configured.
EndToEndMetrics-metrics	Y	'Warning' if Oracle End-to-End metrics are configured.
EventProcessorStatus-[ID]	Y	One (1) sensor will be present per event processor. 'Critical' if event processor has failed due to errors. 'Warning' if event processor is running but has errors.
EventQueueSensor-[ID]	Y	One (1) sensor will be present per event queue. 'Critical' if the event consumer background process has failed, been aborted, or if the number of queued events exceeds the number specified with configuration property: • Monitor.EventQueue.NoOfUnreadEvents.Critical'. 'Warning' if there is no active event consumer or if the number of queued events exceeds the number specified with the configuration property: • Monitor.EventQueue.NoOfUnreadEvents.Warning
FullGCSensor-PercentOfTimeInFullGCinLast2minutes	Y	'Critical' if more than 90 percent was spent in full garbage collection (GC). 'Warning' if more than 50 percent of the past two (2) minutes was spent in full GC.
FullGCSensor-PercentOfTimeInFullGCinLast10minutes	Y	'Critical' if more than 90 percent was spent in full garbage collection (GC). 'Warning' if more than 50 percent of the past 10 minutes was spent in full GC.
FullGCSensor-PercentOfTimeInFullGCinLast60minutes	Y	'Critical' if more than 90 percent was spent in full garbage collection (GC). 'Warning' if more than 50 percent of the past 60 minutes was spent in full GC.
GCOverheadSensor-FullGCOverheadLoad	Y	Reports the percentage of time in full garbage collection (GC) during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
GatewayIntegrationEndpointStatus-[ID]	Y	One (1) sensor will be present per gateway integration endpoint. 'Critical' if errors were reported within the last 24 hours.

Sensor Name	Baseline	Sensor Description
		'Warning' if errors were reported.
Http-local	Y	HTTP connection to local host. Always responds with 'OK' if monitoring sensor can be called.
Http-remote	Y	HTTP connection to other nodes in cluster. 'Critical' if one (1) or more nodes in the cluster cannot be reached.
HttpNumberOfRequestsPerSecondSensor-Number-Of-Http-Requests-Per-Second	Y	Reports the average number of HTTP requests per second during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
HttpResponseTimeSensor-Avg-Http-Response-Time	Y	Reports the average request response time during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
ImageCacheCleanupSensor-[pipeline]	Y	One (1) sensor will be present per cached image pipeline. 'Warning' if used cache size exceeds the max cache size specified for the pipeline by configuration property: • ImageCache.Size.[pipeline]
InboundIntegrationEndpointStatus-[ID]	Y	One (1) sensor will be present per inbound integration endpoint (IIEP). 'Critical' if IIEP has failed due to errors. 'Warning' if IIEP is running but has errors.
JVM-heapsize	Y	'Critical' or 'Warning' if the heapsize is too small or to large compared to available physical memory.
JVM-hugepages	Y	'Warning' if hugepages are not configured and OS supports it.
LicenseSensor-some-expires	Y	'Critical' if no valid license. 'Warning' if one (1) or more licenses will expire within the number of days specified with configuration property (default is 21): • Admin.LicenseWillExpire.SensorWarning
LicenseSensor-all-expires	Y	'Critical' if no valid license. 'Warning' if all licenses will expire within the number of days specified with configuration property (default is 21): • Admin.LicenseWillExpire.SensorWarning
MemorySensor-LowMemory	Y	Max percentage of time spent on GC threshold can be modified by Stibo Systems. 'Critical' if too much time is spent on garbage collection (GC).

Sensor Name	Baseline	Sensor Description
NumberOfThreadsSensor-NumberOfThreads	Y	Reports the number of threads during the last three (3) periods specified by configuration properties: • Healthcheck.SystemMetrics.ShortIntervalTime • Healthcheck.SystemMetrics.MediumIntervalTime • Healthcheck.SystemMetrics.LongIntervalTime
OracleAlertLog-last-hour	Y	Monitors the Oracle alert log. 'Critical' if one (1) of the ORA codes specified in the following configuration property has been reported within the last hour: • Oracle.Sensor.AlertLog.Critical 'Warning' if one (1) of the ORA codes specified in the following configuration property has been reported within the last hour: • Oracle.Sensor.AlertLog.Warning
OracleAlertLog-last-day	Y	Monitors the Oracle alert log. 'Critical' if one (1) of the ORA codes specified in the following configuration property has been reported within the last day: • Oracle.Sensor.AlertLog.Critical 'Warning' if one (1) of the ORA codes specified in the following configuration property has been reported within the last day: • Oracle.Sensor.AlertLog.Warning
OutboundIntegrationEndpointStatus-[ID]	Y	One (1) sensor will be present per outbound integration endpoint (OIEP). 'Critical' if OIEP has failed due to errors. 'Warning' if OIEP is running but has errors.
ScheduledBackgroundProcessSensor-[ID]	Y	One (1) sensor will be present per scheduled background process. 'Critical' if the last scheduled background process is failed or aborted.
ScheduledJobs-GatherStatsStatus	Y	'Critical' if the Stibo Systems Oracle stats gathering background job is stopped or has failed. 'Warning' if the Stibo Systems Oracle stats logs have not recently been updated.
ScheduledJobs-GatherStatsRunning	Y	'Critical' if the Stibo Systems Oracle stats gathering background job is not correctly scheduled.
ScheduledJobs-GatherStatsDomain	Y	'Critical' if Oracle itself is running stats and changing execution-plans.
Security-SystemSSL	Y	SSL enables encrypted HTTP traffic (HTTPS). 'Warning' if disabled.
Security-UserWithIdenticalUsernameAndPassword	Y	Database should not contain any user with the same text for username and password. 'Warning' if the username is the same as the password for one (1) or more users.

Sensor Name	Baseline	Sensor Description
Security-SHA512PasswordEncryption	Y	All systems should use SHA512 password encryption to provide the greatest security. 'Warning' if disabled.
Security-LogIpRoute	Y	Reports 'OK' and the value for configuration property: • Security.Log.IpRoute
Security-EnableIpBlocker	Y	The configuration property allows an IP to be blocked after a specific number of invalid login attempts. This prevents brute force login attempts by guessing passwords. **Note:** Do not enable IP-based security unless the network infrastructure supports it. Reports 'OK' and the value for configuration property: • Security.EnableIpBlocker
Security-HttpServletWrapperEnabled	Y	Non-printable ASCII characters are purged from HTTP headers to prevent HTTP header injection. 'Warning' if disabled.
Security-FrameBreakerEnabled	Y	Frames reject embedding in external pages to prevent unauthorized use of the system through external sources. 'Warning' if embedding is allowed.
Security-ResponseHeaderIncludeHttpStrictTransportSecurity	Y	HTTP Strict Transport Security (HSTS) ensures that all HTTP communication is done via SSL (HTTPS). This prevents attacks such as 'downgrade attacks' and 'cookie hijacking.' 'Warning' if disabled.
Security-PasswordEncryptionStopSTEPStartupOnMissingJCE	Y	Reports on the configuration property: • Security.PasswordEncryption.StopSTEPStartupOnMissingJCE 'Warning' if disabled.
Security-EnableCSRFProtectionForGetService	Y	CSRF(Cross-site request forgery) protection prevents one-click attacks and/or session riding. 'Warning' if disabled.
Security.EnableCSRFProtectionForGetService.Exclude	Y	Refer to previous row / row above. Customers can keep the property above then disable specifically for a named service by web path.
Security-IpSessionMapperEnabled	Y	Prevents session hijacking based on client IP address by making a session only valid from the IP that initiated it. Users can still run different sessions from different IP addresses. **Note:** Do not enable IP-based security unless the network infrastructure supports it.

Sensor Name	Baseline	Sensor Description
		Reports 'OK' and the value for configuration property: • Security.IpSessionMapper.Enabled
Security-RemoteDeserializationCheckEnabled	Y	Reports on the configuration property: • Security.RemoteDeserializationCheck.Enabled 'Warning' if disabled.
Security-PasswordEncryptionEnabled	Y	User passwords stored in the database are encrypted to prevent extraction of user passwords in clear text. 'Warning' if disabled.
Sidecar-[sidecar]-[ID]	Y	'Critical' if sidecar is offline or not active.
Sidecar-[sidecar]-[ID]-version	Y	'Critical' if the sidecar version is outdated.
StepFileSystemMonitoring-installhotfolderroot	Y	Time it takes to stat the directory identified by the configuration property: • Install.HotfolderRoot 'Critical' if greater than 150 ms. 'Warning' if greater than 50 ms.
StepFileSystemMonitoring-imagepipelinenative	Y	Time it takes to stat the directory identified by the configuration property: • ImagePipeline.Native 'Critical' if greater than 150 ms. 'Warning' if greater than 50 ms.
StepFileSystemMonitoring-installincidentreportfolder	Y	Time it takes to stat the directory identified by the configuration property: • Install.IncidentReportFolder 'Critical' if greater than 150 ms. 'Warning' if greater than 50 ms.
StepFileSystemMonitoring-installimagecache	Y	Time it takes to stat the directory identified by the configuration property: • Install.ImageCache 'Critical' if greater than 150 ms. 'Warning' if greater than 50 ms.
StepFileSystemMonitoring-installprocessarea	Y	Time it takes to stat the directory identified by the configuration property: • Install.ProcessArea 'Critical' if greater than 150 ms. 'Warning' if greater than 50 ms.
TrafficLight-local	Y	Combined sensor status for local server. Change how the result of individual sensors effect the traffic light using the

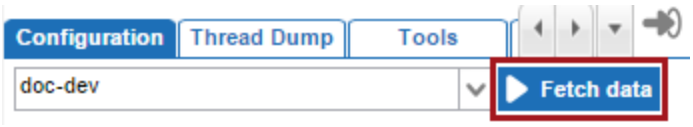
Sensor Name	Baseline	Sensor Description
		configuration properties: • Admin.TrafficLight.Downgrade • Admin.TrafficLight.Ignore
TrafficLight-cluster	Y	Combined sensor status for the cluster. Change how the result of individual sensors effect the traffic light using the configuration properties: • Admin.TrafficLight.Downgrade • Admin.TrafficLight.Ignore
UserLimit-licensed	Y	'Critical' if the number of allowed users has been exceeded. 'Warning' if the number of user accounts is close to exceeding the number of allowed users. Warning threshold is controlled with the configuration property: • Admin.UserLimit.Warning
Webservices-dtp	Y	'Critical' if the DTP SOAP service is not available.
Webservices-api	Y	'Critical' if the core SOAP service is not available.
STEPflow-wfmping	Y	Reports on legacy workflows. No longer used.
ElasticsearchMonitoringSensor-Elasticsearch	N	'Critical' if no connection to Elasticsearch.
OffHeapMemorySensor-Free	N	Off heap memory status. 'Critical' if less than 10 percent free off heap memory. 'Warning' if less than 12 percent free off heap memory.
InMemorySensor-Status	N	Used when the In-Memory component is installed. Reports if In-Memory is enabled.
AuditMessagingSensor-ZookeeperStatus	N	'Critical' if no zoo keeper connections are up. 'Warning' if one (1) or more zoo keeper connections are down but one (1) is up.
AuditMessagingSensor-KafkaStatus	N	'Warning' if a connection cannot be made to Kafka or if one (1) or more topics are not configured in Kafka.
PolicyEvaluationSensor-CheckActivePoliciesLatestScore	N	'Critical' if Customer MDM monitoring policies were not evaluated correctly.
PolicyManagerSensor-CheckLatestDataQualityBGP	N	'Critical' if the latest data quality checker background process contained errors.
DnbSensor-connection-timeout	N	'Critical' if a connection timeout has occurred.
DnbSensor-license-invalid	N	'Critical' if the D&B license is invalid.

Sensor Name	Baseline	Sensor Description
DnbSensor-unknown-service-error	N	'Critical' if an unknown service error has occurred.
DnbSensor-dnb-service-error	N	'Critical' if a D&B service error has occurred.
HipaaQueueSensor-waiting	N	Used when HIPAA logging is enabled. 'Warning' if STEP has waited for insertion into the HIPAA log during the last number of seconds specified by the configuration property: • HipaaQueueSensorWaitThresholdSec
HipaaQueueSensor-dropped	N	Used when HIPAA logging is enabled. 'Critical' if STEP has dropped log messages for insertion into the HIPAA log during the last number of seconds specified with configuration property: • HipaaQueueSensorDroppedThresholdSec
HipaaQueueSensor-delivery	N	Used when HIPAA logging is enabled. 'Critical' if STEP has been unable to deliver log messages during the last number of seconds specified with configuration property: • HipaaQueueSensorDroppedThresholdSec

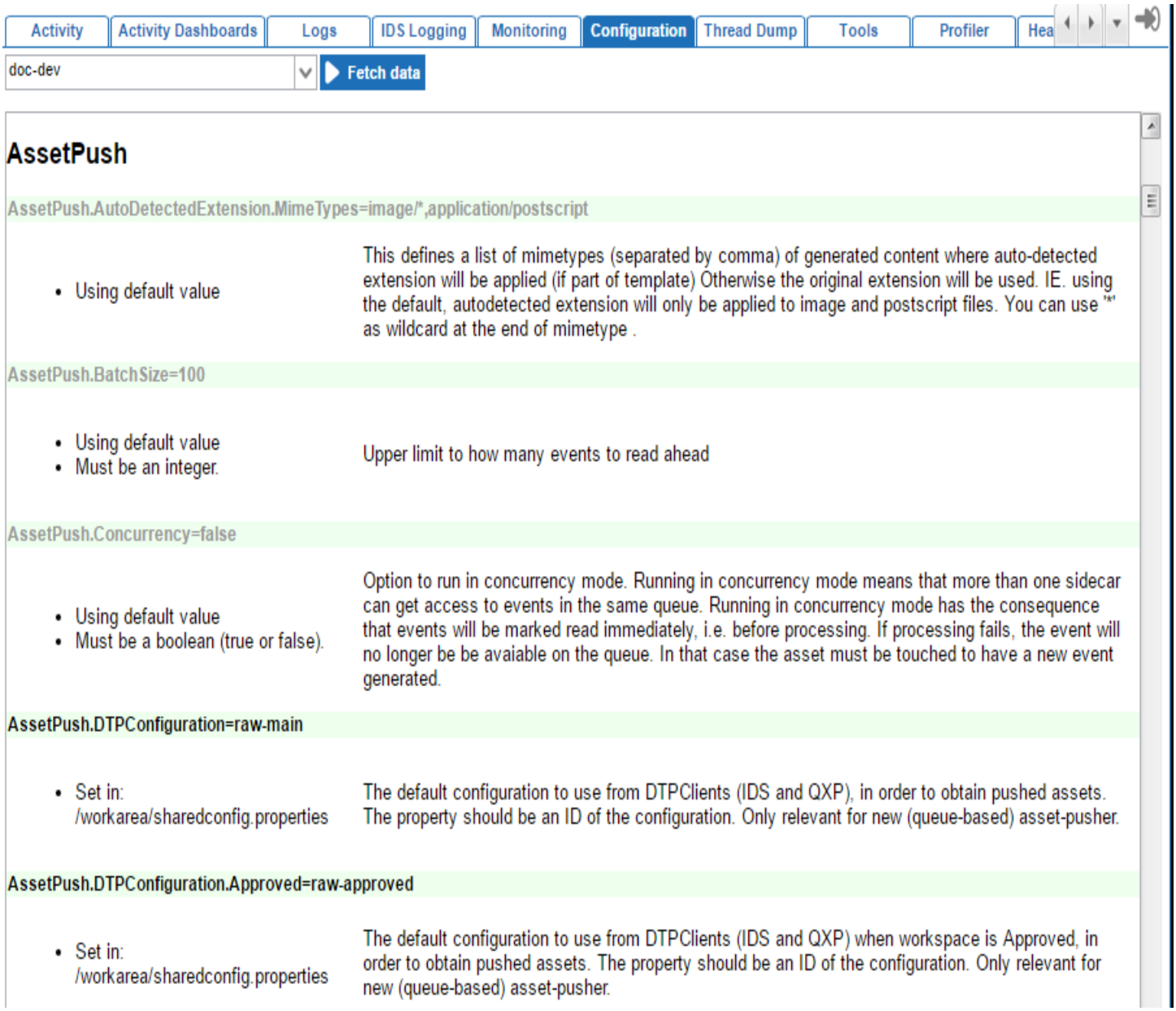
Configuration

The Configuration tab in the admin portal provides a view of all configuration properties on the system, including a description of each property, information on how to set it, and the current value being used. Most properties have a default value and do not need to be set unless a change to the default is required.

In a clustered environment, the relevant system can be selected from the dropdown. Clicking the **Fetch data** button retrieves the properties from the selected system (only one will be available in non-clustered environments so selection is not required).



Properties are grouped into categories to aid in navigation, though the simplest way to interact is generally via search (Ctrl + F). Properties that have been explicitly set are shown in bold, while those using system defaults are dimmed. A sampling of properties displaying both default and manual settings is below.



Note: Properties must be changed on the application server(s) via the relevant properties file and cannot be changed within the admin portal.

Understanding config.properties Settings

Configuration properties provide system administrators with options for controlling system behavior, logging, processing, storage of information on the application server(s), and many other things. Configuration properties are specified in the config.properties or sharedconfig.properties files on the application server(s). There is one config.properties file per application server so a clustered environment may have multiple config.properties files, with each containing settings local to a particular application server.

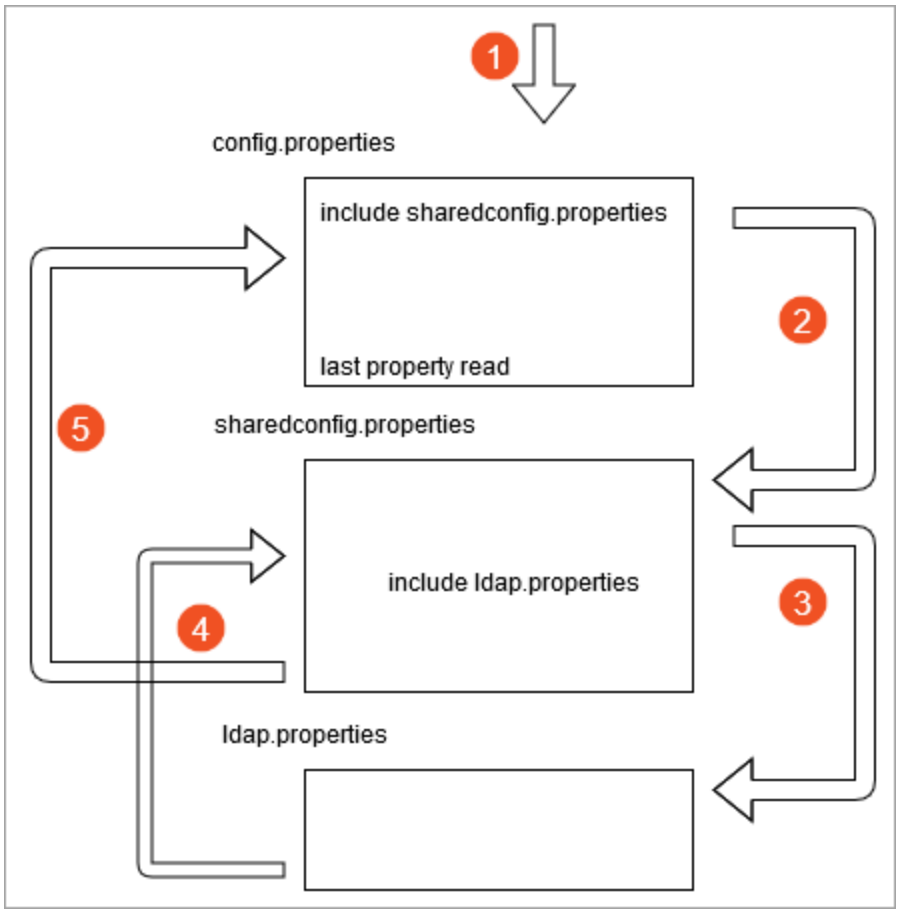
Conversely, the sharedconfig.properties file is global so there will be only one file per setup, with all settings being applicable to all application servers. Most properties are set in the sharedconfig.properties file, with the config.properties file being used only for those properties that expressly require it.

The config.properties file is read first, line-by-line, until the first 'include' statement—typically the sharedconfig.properties file as shown below.

```
#================================================================================#
# Include other config files
#================================================================================#
@include /workarea/sharedconfig.properties

#================================================================================#
# StandAlone Settings (Application Server)
# NOTE: Only used if ApplicationServer.Type = standalone
#================================================================================#
ApplicationServer.Type = standalone
```

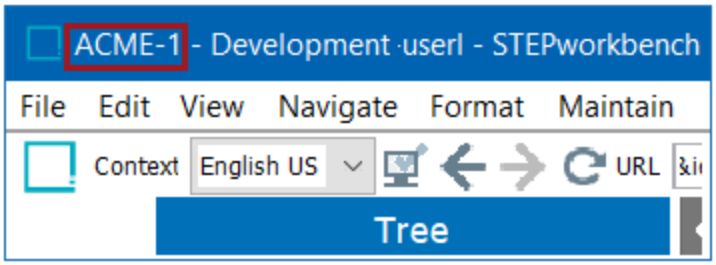
When an 'include' statement is found, the included file is read line-by-line (and any 'include' statements in those files are also read) before reading is continued in the config.properties file. A property can exist more than once in the properties files and the last value read is the only active value. This allows properties in the config.properties that come after an 'include' statement to overwrite the same properties in the sharedconfig.properties file.



Configuration properties to identify system name and environment

Two essential configuration properties used within the sharedconfig.properties file are the **System.Name** and **System.Display.Type**.

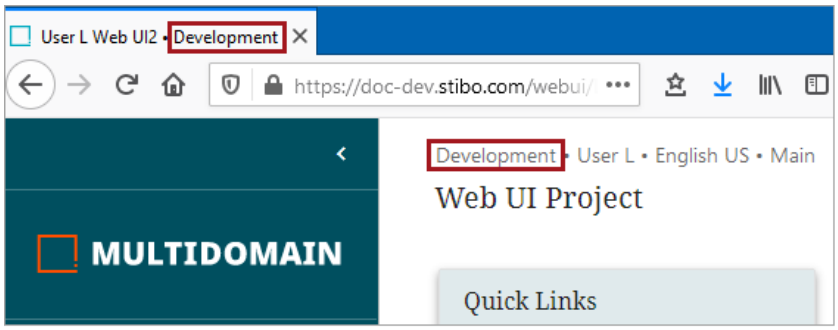
The configuration property **System.Name** is used to display the globally unique name of the system. The name is used for human-readable IDs and file names, making it imperative that the given name is readable on all operating systems. Once this globally unique name within Stibo Systems has been applied, it cannot be changed, or it will not be recognized by the server or other operating system. Additionally, the name can only contain letters, numbers, underscores, and dashes. No spaces are allowed in the name. The name of the system displays on the Start Page, on the title bar of the workbench, and in various Stibo-global ID strings.

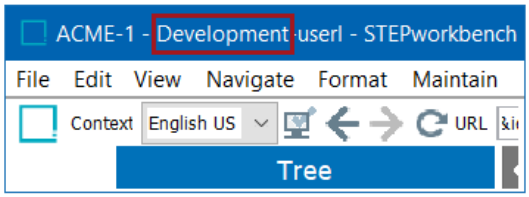


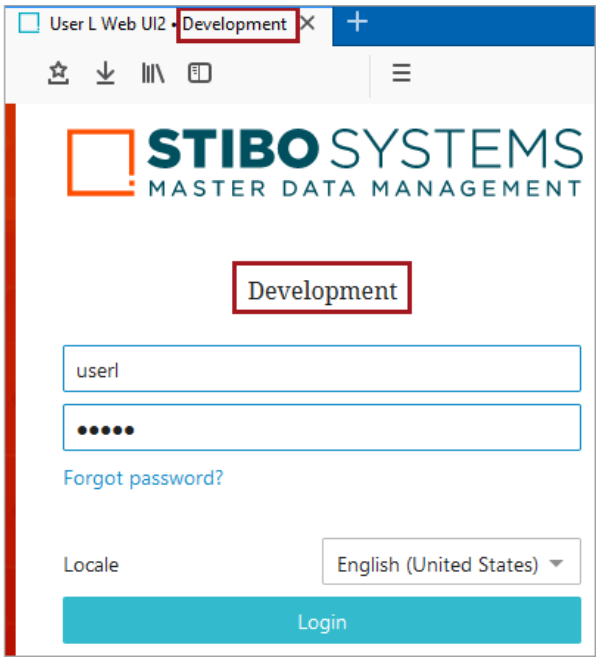
The type of environment, such as Development, QA, Production, etc., is identified by the **System.Display.Type** configuration property. While this name can be changed without affecting the system, it can only contain letters, numbers, underscores, and dashes. No spaces are allowed in the name. This identification will display on all Web UIs and each workbench context located on the server in the following locations:

- On the Start Page
- On the Web UI tab

- On the Web UI login page
- Inside Web UI next to the current user, context, and workspace
- On the workbench title bar

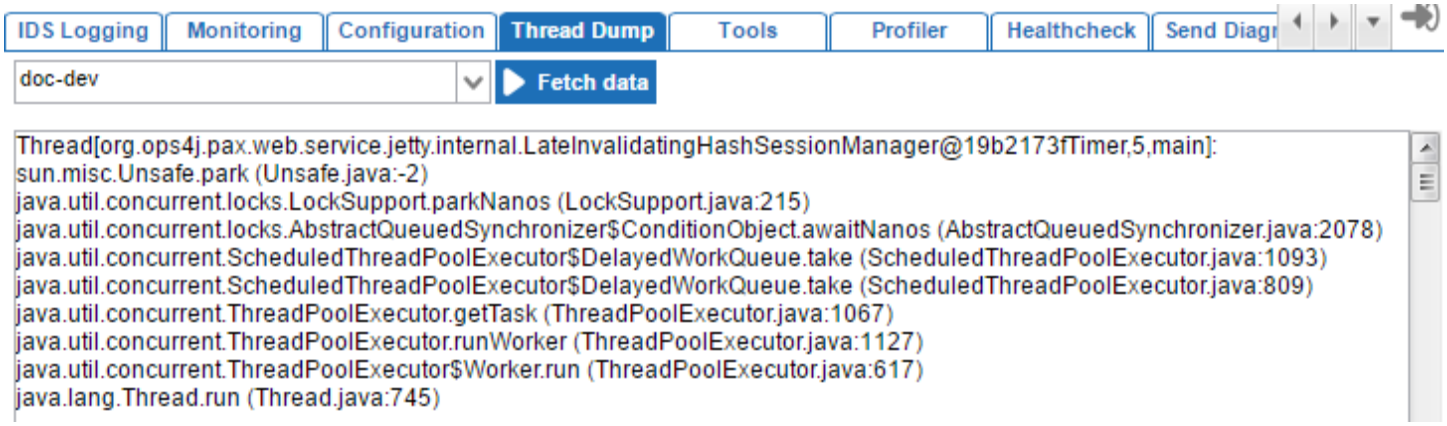

User L Web UI2 • Development
https://doc-dev.stibo.com/webui/
MULTIDOMAIN
Development • User L • English US • Main
Web UI Project
Quick Links


ACME-1 - Development - userl - STEPworkbench
File Edit View Navigate Format Maintain
Context English US
URL
Tree


User L Web UI2 • Development
STIBO SYSTEMS
MASTER DATA MANAGEMENT
Development
userl
Forgot password?
Locale
English (United States)
Login

Thread Dump

This page contains information related to thread dumps in the system, accessed via the **Fetch data** button. However, interpretation of the results requires a deep understanding of Java and internal STEP code. Therefore, this tab is recommended for use only by Stibo Systems Technical Support and is not further described.

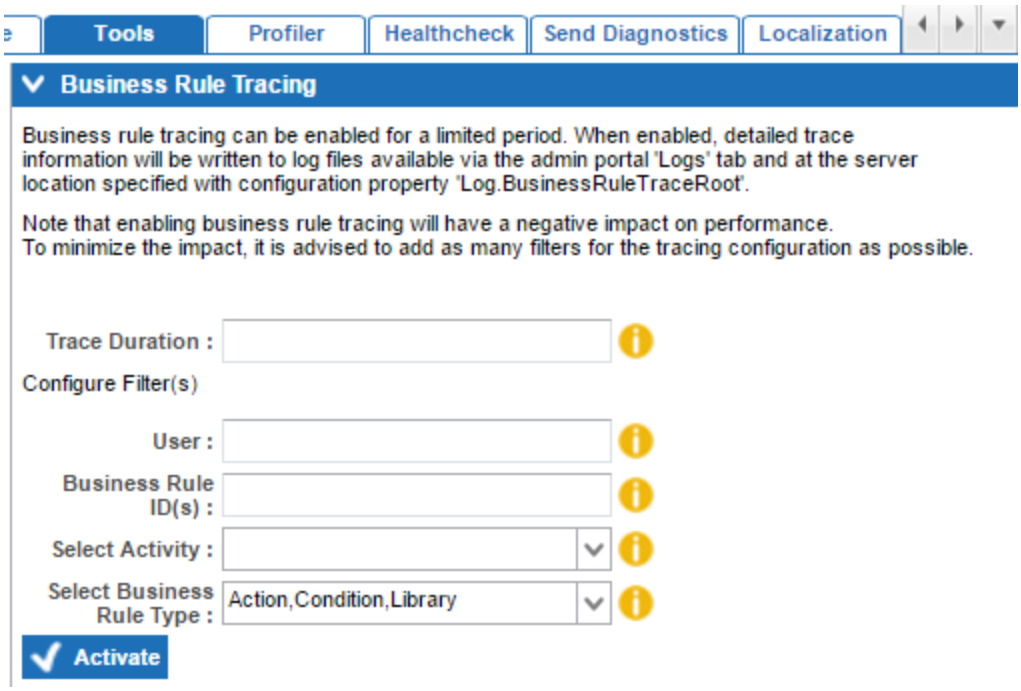


Tools

The Tools tab contains tools for general use, as well as for Stibo Systems internal use only, divided into three sections. Each is described below, as appropriate for the intended use.

Business Rule Tracing

The functionality of the Business Rule Tracing section of the Tools tab is described within the interface itself. It is important to read the provided overview and to heed the advisement regarding filters and performance.

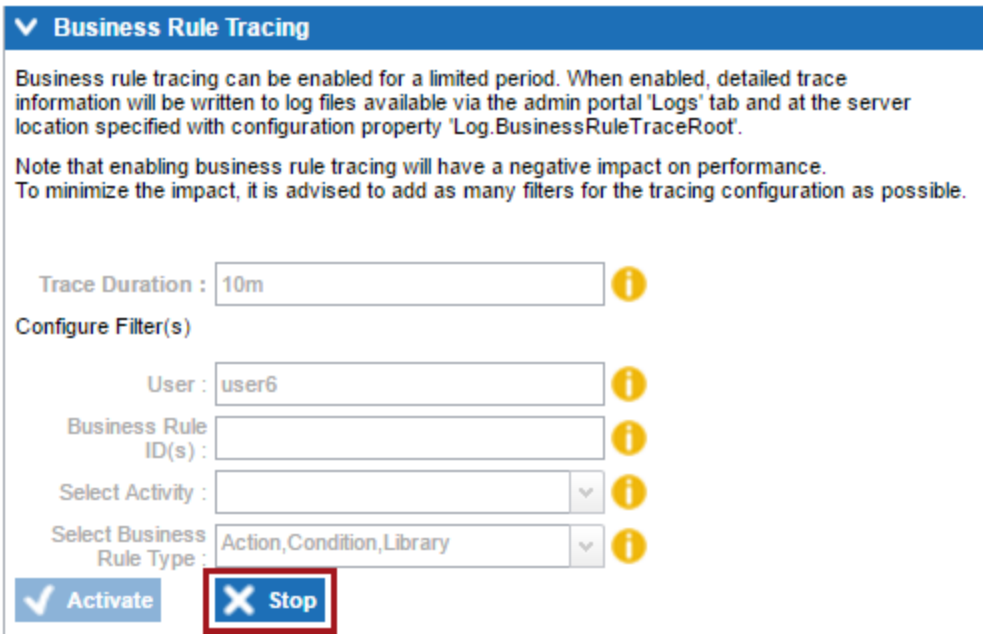


Click the yellow information icon next to each parameter for a complete description of the parameter / filter and any relevant information for populating it.

When the necessary information has been added, click the **Activate** button to begin tracing.

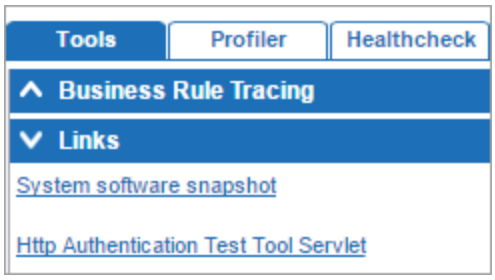
Note: Once tracing has been activated, the relevant business rule(s) must be triggered in STEP within the time frame defined in the Trace Duration parameter so that the rule is active for tracing. Furthermore, if the system is stopped or restarted, any tracing that was in progress will also be stopped.

Tracing will stop automatically when the specified duration has expired. Alternatively, users can click the **Stop** button (available only when tracing is in progress) at any time to kill the trace prior to completion of the duration.



Links

The Links section of the Tools tab provides links to two tools, each of which is described in detail below.



System Software Snapshot

Snapshots can be used to synchronize all of the software in one STEP installation with another STEP installation, so an identical clone can be made. Synchronizing from one STEP system to another is very useful, especially in cases where a problem found on one system needs to be reproduced on another or when an implementation has been tested on a QA server and is ready to move to a Production system. However, note that the database also needs to be synchronized (e.g., using STEP datapump or RMAN duplicate) to complete a

full system clone. Further information about alignment of STEP databases using STEP datapump or RMAN duplicate can be obtained by contacting Stibo Systems Technical Support.

In normal operation, the Stibo Patch Operations Tool (SPOT) automatically uploads the latest snapshot to a Stibo Systems-specific email address when a system is patched or started, so this functionality is only needed if an additional snapshot is required locally (e.g., *not* for diagnostics by Stibo Systems), or if the system in question does not have access to the Stibo Systems updates server.

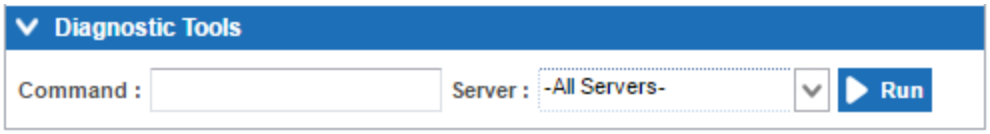
Clicking the **System software snapshot** link downloads an .spr file with the server name and date and time of the extraction included in the file name.

Http Authentication Test Tool Servlet

The **Http Authentication Test Tool Servlet** link is used to check whether or not the user logged into the admin portal is automatically authenticated, which makes it possible to test new or alternative SSO and LDAP configurations without affecting the running STEP system or its configurations. Complete documentation of this tool is included in the **STEP Authentication Guide** available in the **Miscellaneous** section of the **STEP API Documentation**, available on the Start Page.

Diagnostic Tools

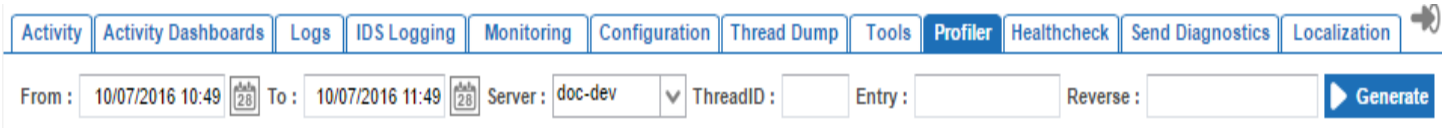
The Diagnostic Tools section allows users to execute a Stibo Systems proprietary command and select a server (or all servers) on which it should be run.



This tool is used primarily by Stibo Systems Technical Support and R&D groups for doing detailed inspections of the state of systems using the In-Memory component. If it is required for this to be run on a customer system, Stibo Systems will provide the specific commands to be executed. As this tool should only be used by or under the direction of Stibo Systems, the available commands are not made public.

Profiler

The Profiler tab is the primary tool used by Stibo Systems Technical Support and R&D groups to investigate performance issues as it provides visibility into what percent of time is spent executing various code paths in STEP. A variety of parameters can be entered and results are produced accordingly by clicking **Generate**.



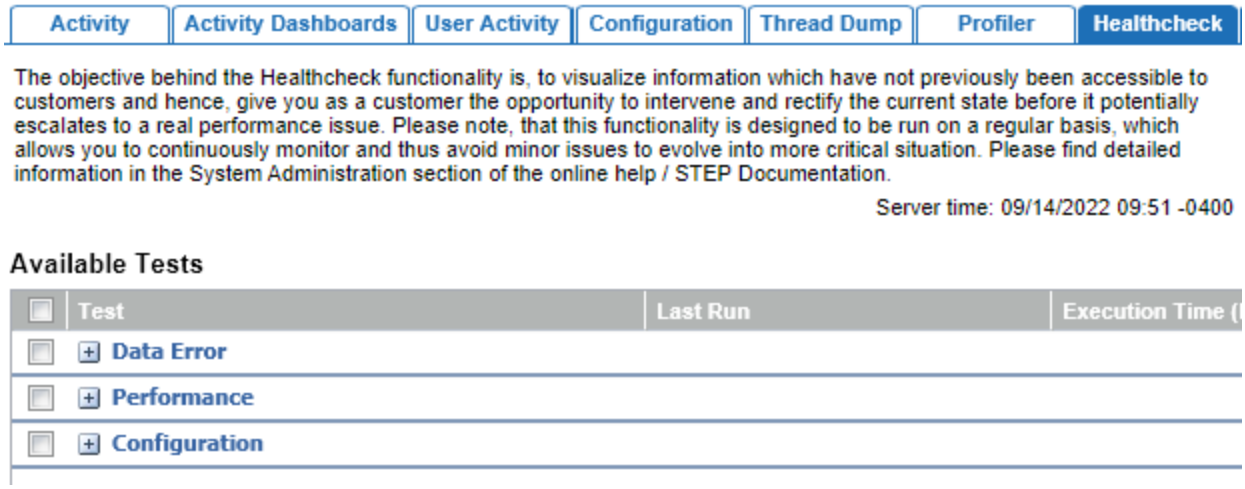
Determination of appropriate parameter values and interpretation of the results requires extensive knowledge of the STEP code base. Therefore, this tab is intended for use by Stibo Systems only and no further description is provided.

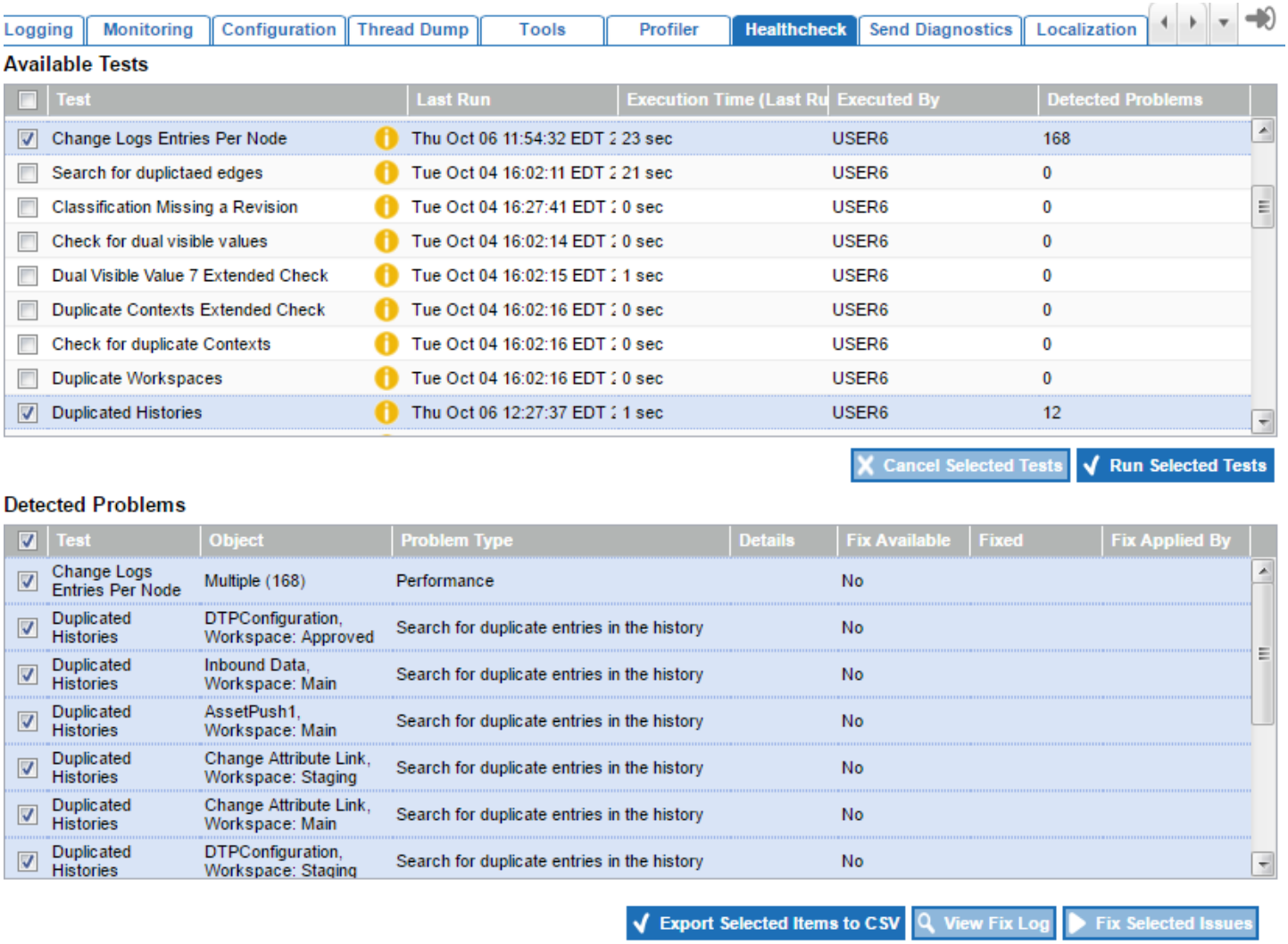
Healthcheck

The Healthcheck tab is intended to assist users on an ad hoc basis to identify and resolve system and performance issues. A set of standard tests are available, and Stibo Systems may add additional tests as needed. The upper portion of the screen allows users to select health checks to be run, while the lower portion provides results for the checks.

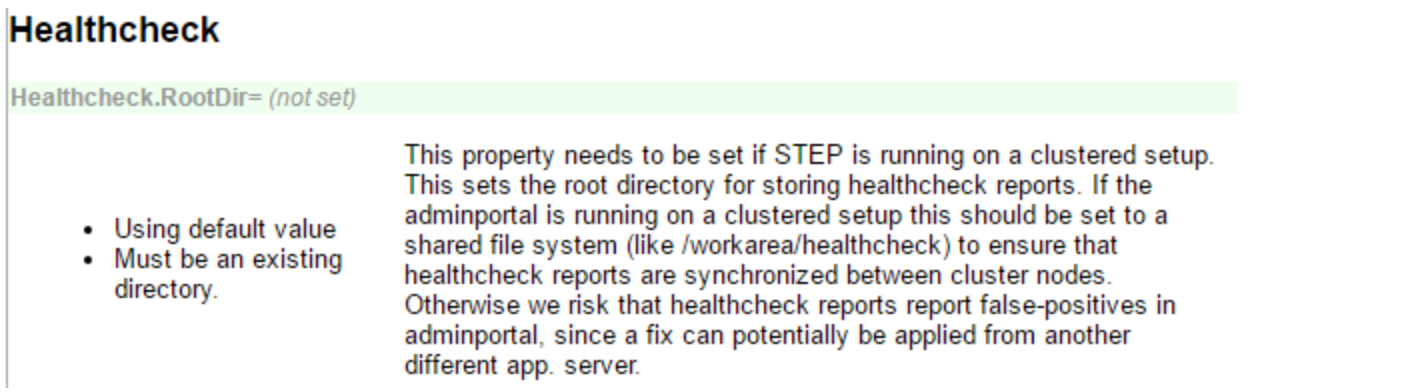
Note: Scheduled healthchecks and the statistics for previous automated healthchecks can be accessed via the STEP Performance Analysis tools. For more information, refer to the **STEP Performance Analysis Tools** documentation.

Users can select the tests to be run and view a list of issues if any are found. In some cases, fixes are made available. As fixes should only be applied only under the direction of Stibo Systems, applying a fix requires a password that must be obtained from Stibo Systems Support. However, some issues identified may be solvable by administrators and the tool serves merely to bring them to light. In addition, it provides a way to aid Stibo Systems in resolving reported issues. If a system is having performance issues, administrators should run the available health checks and send them to Stibo Systems using the Send Diagnostics tool described in the **Send Diagnostics** section of this guide.





Note: Use of this functionality on a clustered environment requires that the Healthcheck.RootDir configuration property be set to a shared path to ensure that the healthcheck reports are available, regardless of the application server node that the admin portal is accessed from.



Running Health Checks

A list of available checks to run on an as needed basis is populated in the upper half of the tab. Additional checks can be provided by Stibo Systems Support as needed, and new default checks may be added regularly. Clicking the yellow information icon available in the **Test** column provides a detailed description of each test, as well as considerations for running it.

For a list of all health checks, including both manually run and scheduled health checks, refer to the **Healthcheck Test Index** topic.

Important: Some checks may be time consuming to run and/or may impose a load on system resources when running. It is important to read the considerations provided in the yellow information icon prior to running any tests so that they can planned for accordingly.

Run health checks

1. Use the row checkboxes to select one or more tests to be run. This enables the **Run Selected Tests** button.

   Important: Do not run all checks at once. Review the details of the checks before running to limit degraded performance.

2. Click the **Run Selected Tests** button to begin execution of the selected test(s).
3. Watch for the **Last Run** field to update, indicating completion of the test.
4. View the **Detected Problems** column. A zero (0) value indicates no problems have been found. A non-zero value indicates the number of issues identified from the check.
5. Check the row box for any tests with problems to view results. Only the tests that are checked in the upper half of the screen will display results in the lower half so this can be used to filter large result sets.

Refer to the **Healthcheck Results** section below for more information on the results of the tests and available actions.

Healthcheck Results

When a test has completed with one or more problems detected, the lower half of the screen displays one row for each detected problem (or set of problems) for the tests that are selected. In addition, healthcheck information is also stored on the application server at [STEPHOME]/diag/healthcheck (e.g., opt/stibo/step/diag/healthcheck), and is automatically included when a diagnostics package is sent to Stibo Systems Support. More information on sending diagnostics can be found in the **Send Diagnostics** section of this guide.

Note: The upper and lower portions of the screen interact. To refer to results for any test in the lower half, the corresponding checkbox in the upper portion of the screen must be checked for that test. Therefore, this is also a means of filtering the result set if multiple tests have been run. To display results for only a single test, uncheck the other tests in the upper half of the screen.

Many detected problems are manually solvable by system administrators. Others may be common issues for which Stibo Systems has developed an automatic fix that can be applied. In these cases, the 'Fix Available' column displays 'Yes' and a yellow information icon displays that provides additional information about the available fix. Automatic fixes should be applied with care and only under the direction of Stibo Systems. Therefore, a password is required to access automatic fixes. Additionally, some problems may require the assistance of Stibo Systems to resolve manually. In any case where administrators cannot resolve the identified issues, contact Stibo Systems Support for assistance. Note that for any cases where assistance is required, it is important that a diagnostics package be sent to Stibo Systems with the request so that all information to aid in resolution of the issue is made readily available.

Actions can be taken on the detected problems, which are applied only to the row(s) selected via the row checkboxes. The available actions are:

- **Export Selected Items to CSV:** Exports the selected results to a CSV file. Many detected problems can be manually corrected by administrators, which can be facilitated by providing an export of the result set to work from.
- **View Fix Log:** If an automatic fix for a particular problem has been applied, this displays a pop-up with information about the fix. This button is only enabled when a single result is selected for which a fix has already been applied.
- **Fix Selected Issues:** This button is only enabled when all selected rows have fixes available. Note that information about the fix is available by clicking the yellow information icon (available in the 'Fix Available 'column whenever it is populated with 'Yes'). Clicking the 'Fix Selected Issues' button opens a dialog with a password field as automatic fixes should be applied only with the guidance of Stibo Systems Support. To request a password, contact Stibo Systems Support. When a password has been obtained and accepted in the dialog, fixes will be attempted for all selected rows.

When taking action on the selected results, it is important to be aware of how the results are displayed. Some tests are able to report a series of nodes individually for results, while others are only able to report a count (without individual nodes). These are referred to as Result Type of 'Node' or 'Group,' respectively. Some problems have fixes available, while others do not. When fixes are available, sometimes they can be applied to nodes individually, while other times they can only be applied to the full problem set at once. Furthermore, for usability, result sets over 50 are grouped in the results interface, but details on individual nodes can be accessed via export if the result type supports it. Therefore, it may be possible in some cases to examine individual results only in an export, or to take action only on a group, even when individual results are available via export. The below table outlines the behavior of the display and the available actions.

Result Type	Result Size	Fix Available	Display	Export
Node	< 50	No	Nodes	Nodes
Node	> 50	No	Group	Nodes
Node	< 50	Group	Group	Nodes

Result Type	Result Size	Fix Available	Display	Export
Node	> 50	Group	Group	Nodes
Node	< 50	Individual	Nodes	Nodes
Node	> 50	Individual, but fixes in this category will always be implemented as a group as individual nodes are not selectable	Group	Nodes
Group	N/A	No	Group	Group
Group	N/A	Group	Group	Group

Each column in the results table is described below:

- **Test**: The name of the test that identified the problem. The results table can be filtered using the checkboxes in the upper portion of the screen (only those checked will display results).
- **Object:** The ID of the object in the database for which the problem was detected, and other identifying information if applicable (e.g., Workspace).
- **Problem Type:** Description of the type of problem discovered.
- **Details:** Displays samples and approximate timestamps.
- **Fix Available:** Displays 'Yes' or 'No,' indicating whether or not a fix is available. If a fix is available, a yellow information icon is present that can be clicked to display a description of the fix, which can then be executed by checking the applicable result row and clicking the **Fix Selected Issues** button and providing an appropriate password, as described above.
- **Fixed:** Displays date and time the fix was completed, when applicable.
- **Fix Applied By:** Displays the user who executed the fix, when applicable.

Healthcheck Test Index

Healthchecks assist users to identify and resolve configuration and data issues that can negatively affect system performance.

Healthchecks are executed or skipped based on the database in use and/or if in-memory is enabled on the STEP system, so not all health checks will run on every system. As available, healthchecks can be reviewed and run from the following locations:

- In the Admin Portal on the **Healthcheck** tab, users can run tests and review detected problems as needed. For more information on the Admin Portal Healthcheck tab, refer to the **Healthcheck** topic.
- For on-premise systems, healthcheck information is stored on the application server at [STEPHOME]/diag/healthcheck (for example, opt/stibo/step/diag/healthcheck). This information is automatically included when sending a diagnostics package to Stibo Systems Support.
- From the Start Page, the **STEP Performance Analysis** link displays 12 weeks of results from all scheduled healthcheck results. Some unscheduled healthchecks are long-running or are only useful for Stibo Systems Support, and so they are not available in the Performance Analysis tools.

Healthcheck Tests

The following tables include all available Configuration, Data Error, and Performance healthchecks.

Note: Not all healthchecks are applicable for all STEP systems. On your system, only the healthchecks that are valid are displayed in the Admin Portal, on the application server, and in the Performance Analysis tools.

- The 'Automated Fix' column indicates if a script is available to resolve the reported issue. To apply a scripted fix, contact Stibo Systems Support for assistance. If no automated fix is available, manually update the reported data or configuration.
- The 'Runs on Schedule' column indicates that the test is run on the schedule defined in the sharedconfig.properties file on the application server, as defined in the **STEP Performance Analysis** topic.

The information in the tables below is best viewed online.

Performance Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Change Log Entries Per Node	Low	When modifying certain objects in STEP, a change is written to the change log of the object. You can set event queues in STEP to monitor on these events and via, for example, an integration endpoint, information about the change can be	Yes, in most cases	No

Performance Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
		exported. An event is put the queue for each interested event queue. Every time you modify an object that generates an event, STEP tries to limit the number of log entries for that object. If more than 20,000 changes are logged for the object, it attempts to delete the old events. However, the attempt only succeeds if there are no event for the change. If you have more than 20,000 change log entries for an object, determine why the events are not being processed.		
Change Log Total Size	Critical	Checks if the change log has grown too large. This can cause Oracle to perform poorly. The maximum number of rows allowed in the table is 100,000,000.	Yes	No
Check for Common Web UI Configuration Errors	Medium	Checks Web UI for some of the most common configuration errors that can cause performance problems.	No	No
Hard Evicts	High	A hard evict is a forced attempt to remove persistent objects from their cache. Hard evicts can happen when a task is holding many persistent objects for a long time without committing the transaction. In such a case, a hard evict may be executed to make room for caching other persistent objects. This can negatively affect performance since the cache of persistent objects may become less effective. A cause of hard evicts could be one or more business rules accessing too many objects.	No	Yes
Large Commit	High	For Cassandra systems, large commits decrease system performance and increase the risk of concurrency problems. Very large commits may fail.	No	Yes
Leaked Changelog Rows	High	Checks if there are leaked rows in the change log table. If there are many leaked data rows, performance will be negatively affected.	Yes	Yes
Optimistic Lock Recovery	High	Reports that optimistic locking errors were detected when flushing to the data store. This indicates that some objects were concurrently modified in another transaction, or a constraint error occurred. This can negatively impact performance. Repeated occurrences of this may cause the transaction to eventually fail. Resolve this by avoiding and/or minimizing concurrent modifications of the same data.	Yes	Yes

Performance Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Too Many Associated Objects	High	When there are too many associated objects, degradation of performance is possible because the amount of data exceeds the threshold for caching the given relation. This could be due to too many children, references, referenced by values, or multi-valued attributes.	No	Yes
Too Many Attributes Linked (Directly Not Via Inheritance) to a Product/Classification	Medium	Finds all products / classifications that are directly linked (not inherited) to more than 1,000 valid attributes. More than 1,000 links can cause performance issues when opening the References Editor in workbench.	No	Yes
Too Many Background Processes for an Integration Endpoint	High	Checks if there are too many background processes for an integration endpoint. Too many BGPs for an IEP can degrade performance. Clean-up of old BGP files and folders is required to resolve this issue.	No	Yes
Too Many Manually Sorted Attribute Groups	Medium	Checks that no manually sorted attribute group has more than 10,000 children. Only the front revisions are considered and children in all workspaces are counted.	No	Yes
Too Many Manually Sorted Products and Classifications	Medium	Checks that no manually sorted attribute group has more than 10,000 children. Only the front revisions are considered and children in all workspaces are counted.	No	Yes
Too Many Qualifier Relations	Low	Find all qualifiers that are used in too many pseudo qualifiers. Performance problems can result from having a large number of pseudo qualifiers if a real qualifier is linked to large number of pseudo workspaces because, by default, the application cache only caches 10,000. Refer to the property: Install.DataCache.MaxRelationSize=10000. This plugin cannot remove the duplicates, but another plugin can remove the unused pseudo qualifiers.	No	No
Too Many Revisions for a Node	High	Checks if there are too many revisions for an object. More than 10,000 revisions can cause performance issues because the amount of data exceeds the threshold for caching.	No	Yes
Too Many Valid Values for List of Values	Medium	Checks that no list of values has more than 5,000 valid values. Large lists of values (LOVs) make it difficult to find, search, select, and filter on values.	No	No
Too Many Values for a	Medium	Checks if there are nodes with too many values,	No	Yes

Performance Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Node		which can cause performance issues.		
Too Many Workspace Relations	Low	Finds all workspaces are used in too many pseudo workspaces. If, for example, a node is visible in the Main, Approved, and Staging workspaces, a pseudo workspace representing these three workspaces is created. Performance problems can result from having a large number of pseudo workspaces if a real workspace is linked to large number of pseudo workspaces. The application cache, by default, only caches 10,000 pseudo workspaces. Refer to the property: Install.DataCache.MaxRelationSize=10000. While this plugin cannot remove the duplicates, another plugin can remove the unused pseudo workspaces.	No	No
Unused Pseudo Qualifiers	Low	Finds all pseudo qualifiers that are not used. Performance problems can result from having a large number of pseudo qualifiers if a real qualifier is linked to large number of pseudo qualifiers. The application cache, by default, only caches 10,000. Refer to the property: Install.DataCache.MaxRelationSize=10000. Missing qualifiers are only reported when at least 5,000 unused qualifiers exist.	Yes	No
Unused Pseudo Workspaces	Low	Finds all pseudo workspaces that are not used. If, for example, a node is visible in the Main, Approved, and Staging workspaces, a pseudo workspace representing these three workspaces is created. If you create new workspaces, many new pseudo workspaces can display many combinations of data. In this case, the result is a lot of pseudo workspaces, while any of these combinations are not always used. Performance problems result from having a large number of pseudo workspaces if a real workspace is linked to large number of pseudo workspaces. The application cache, by default, only caches 10,000 of these. Refer to the property: Install.DataCache.MaxRelationSize=10000.	Yes	No

Data Error Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Assets Without a History	Medium	Assets cannot be found or viewed in the workbench	No	No

Data Error Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Entry		or in Web UI because there are no visible entries in the history.		
Attributes / Products Which Cannot Be Approved	Medium	These attributes and/or products cannot be approved.	No	Yes
Attributes That Have Both Revised and Not Revised (Externally Maintained / Not Externally Maintained)	Medium	Finds attribute values where the workspaces are not in agreement. For example, attribute values that are visible in all workspaces and are not externally maintained, or attribute values that are not visible in all workspaces and are externally maintained.	Yes	Yes
Background Processes Incorrectly Linked to Integration Endpoint	High	Verifies if BGPs are correctly linked to an integration endpoint. If not correctly linked, this can cause multiple pollers to be started for IEPs which can cause issues.	Yes	Yes
Check LOV Used for Status by BGPs	High	Checks for duplicate values in the LOVs used for the status of BGPs. Duplicates can cause locking errors when setting the status of the BGP.	Yes	Yes
Check Sequences	High	Identifies when a production database has been incorrectly copied to a Test / QA system, without including Oracle sequences. Other elements like views might also be missing.	No	No
Cycles in a Translation Graph	Medium	Finds nodes where the translations are caught in an infinite loop, like when the source and target of the translation are the same language.	Yes	Yes
Dual Visibility Values With Different Values	Low	Generates a list which can help to decide which values should be deleted / kept. Same as 'Values with Dual Visibility' except only duplicates with different values are listed. This list should be viewed by the customer before deletions.	No	No
Duplicated Contexts	Low	Finds duplicated contexts.	Yes	No
Duplicated Contexts, Their Matching Names and Workspaces	Low	Finds duplicated contexts, including their names / IDs, and workspaces. It can be time-consuming to include the names and workspaces.	No	No
Duplicated Edges	Medium	Searches for duplicated references / links with identical parents and children in the same context.	No	Yes
Duplicated History Entries	Medium	Checks if there are duplicated entries in the history table.	No	No
Duplicated	Critical	Finds Privilege Rules that are erroneously shared	Yes	No

Data Error Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
PrivilegeRule Ownership		between multiple User Groups. Inconsistent behavior can result when editing the Privilege Rule and it prevents In-Memory system from starting up.		
Duplicated Workspaces	High	Finds all pseudo workspaces that are duplicated. If, for example, a node is visible in the Main, Approved, and Staging workspaces, a pseudo workspace representing these three workspaces is created. However, if another pseudo workspace represents the same three workspaces, it is a duplicate. Performance problems can result from having a large number of pseudo workspaces if a real workspace is linked to a large number of pseudo workspaces. The application cache, by default, only caches 10,000. Refer to the property: Install.DataCache.MaxRelationSize=10000. While this plugin cannot remove the duplicates, another plugin can remove the unused pseudo workspaces.	No	No
Edges With Invalid Revisability	Medium	Finds link types that are marked as revisable but where unrevised links exist or link types that are marked as unrevised but where revisable links exist.	Yes	No
GDSN Subscription Not Linked to a Datapool	High	Checks if there are subscriptions that are not linked to a datapool.	No	No
GDSN Subscription With Invalid GPC	High	Checks if there are subscriptions with invalid GPC codes. For example, GPC codes for which there is no matching classification in STEP.	No	No
Invalid Previous and Maximum History Revisions	Medium	Finds history rows where previous max of new revision row is not equal max revision of previous revision row. On Cassandra systems, this health check identifies data inconsistency issues. Data inconsistency can be caused by JavaScript that catches exceptions but does not rethrow the exception to handle the exception properly, causing partially committed actions writing to the database instead of being rolled back. Contact Refer to health check 'Javascript catch without rethrow' for possible identified issues.	No	Yes
Invisible Deleted Products Where the Deletion Cannot be Approved	Medium	Identifies when there is a mismatch between two internal tables in STEP for history and references / links. If there is a mismatch, approval will fail and a message such as 'Cannot subtract Main from PWSpace...local to 203, pseudo does not contain the workspace.' is displayed.	No	Yes

Data Error Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Node Collections From Missing Parents	Medium	Finds collections that are missing a link to the parent. This issue has been found with temporary collections that are used by BGPs. When the user attempts to delete the BGP, files are out of sync and an error is thrown.	Yes	Yes
Nodes Having Multiple Parents	Medium	Identifies nodes with multiple parents.	Yes	No
Orphan Products	Medium	Finds products that exist outside of the product hierarchy.	Yes	No
Packaging Hierarchy Loop	Critical	Identifies when a circular reference is created in the packaging hierarchy, which can cause performance issues or throw an unhandled exception. This report identifies where the user can correct the data issue, preventing future performance issues.	No	Yes
Pollers Started by a Different User Than the One Configured in the IEP	High	Checks if there are pollers started by a different user than the one configured in the IEP. This can cause new revisions being generated each time the IEP is invoked, which can in turn cause performance problems.	Yes	No
Revised Node Missing a Front Revision	Medium	Finds all revised attributes that have unrevised values. This occurs when an attribute is changed and the update to values is interrupted, leaving some values revised and other values unrevised.	Yes	No
Revised Values Should be Unrevised	High	Finds all revised attributes that have unrevised values. This occurs when an attribute is changed and the update to values is interrupted, leaving some values revised and other values unrevised.	Yes	Yes
Search for Duplicated Qualifiers	Critical	Searches for duplicated qualifiers for modified values used for export and/or publication. If the value inconsistency exists for a long period of time, data can become corrupt.	No	Yes
Softvalues With Dual Visibility	Medium	Searches for duplicated softvalues.	No	No
The Object Has One or More (LOV) Attribute Values in a Deleted Context	Medium	Searches for objects with LOV attribute values present in a context that has been deleted. This may cause an approval to fail.	No	Yes
The Object Has One or More Attribute Values in a Deleted Context	Medium	Searches for objects with attribute values present in a context that has been deleted. This may cause an approval to fail.	No	Yes

Data Error Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
The Object Has One or More Dimension Dependent Attribute Values in a Deleted Context	Medium	Searches for objects with dimension dependent attribute values present in a context that has been deleted. This may cause an approval to fail.	No	Yes
The Object is Named in a Deleted Context	Medium	Searches for objects with name(s) present in a context that has been deleted. This may cause an approval to fail.	No	Yes
Unrevised Values should be Revised	High	Finds all unrevised attributes that have revised values. This occurs when an attribute is changed and the update to values is interrupted, leaving some values unrevised and other values revised.	Yes	Yes
Value Link With No Owner	Medium	A data inconsistency for values using either List Of Values validation or older soft values, such as some used for system attributes. Applying the fix deletes value links that have a non-existing node. The fix operation does not support fixing individually selected problems - all fixable problems are fixed if the fix is started regardless of which problems are selected.	Yes	Yes
Value Link With No Value Model	Medium	A data inconsistency for values using either List Of Values validation or older soft values, such as some used for system attributes. Objects with this problem fail to load. Applying the fix recreates the missing value model objects where possible. The fix operation does not support fixing individually selected problems - all fixable problems are fixed if the fix is started regardless of which problems are selected.	Yes	Yes
Value Missing Content	Medium	This check finds and fixes problems with missing entries in BLOB tables.	Yes	Yes
Values Have Not Been Marked Correctly Deleted	Low	Finds all nodes / attribute combinations with values that are marked as deleted but that are still visible.	Yes	No
Values With Dual Visibility	High	Identifies if some of the duplicates have different values which can lead to unexpected behavior in the workbench or Web UI. The two values are randomly displayed and STEP appears unstable.	No	No

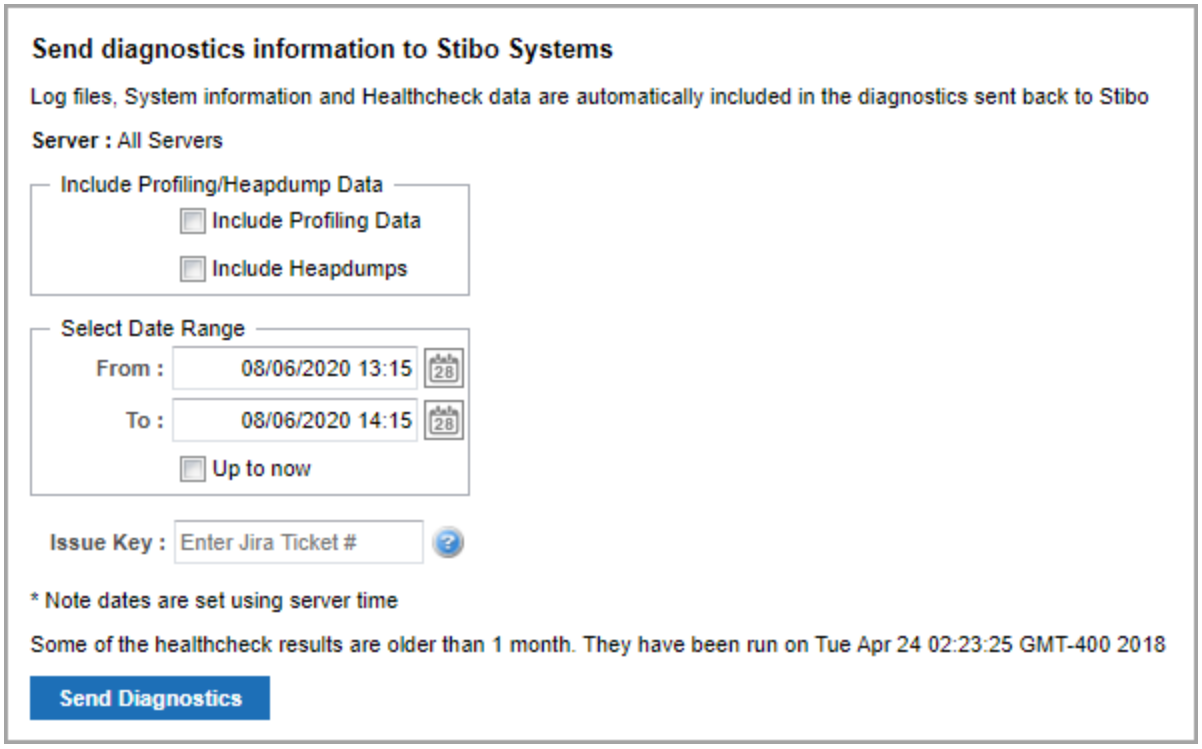
Configuration Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
Hidden Oracle Parameters With Non-Default Values	Medium	Lists hidden Oracle parameters with a changed default value. The default value of a hidden parameter should only be changed when recommended by Oracle or Stibo Systems Support.	No	No
JavaScript Catch Without Rethrow	High	Identifies business rules that do not correctly handle exceptions in try-catch statements. When catching an exception in JavaScript business rules using try-catch, only checked exceptions that have been declared in the Stibo Systems Scripting API are safe to catch without a rethrow of the same or another exception. All runtime exceptions should be rethrown. For some runtime exceptions, this will be strictly enforced so that if the business rule completes successfully, the exception will be rethrown by the framework when omitted in JavaScript. This protects against possible database inconsistencies that occur when the rethrow is omitted. If an API method partially completed a change when the exception occurred, the database transaction needs to roll back by letting the exception fall through the execution scope of the transaction. When issues are reported in this healthcheck, the system-detected missing rethrow(s) and the reported business rule(s) need to be revised to include a rethrow of the same or another exception.	No	Yes
Non-Compacted Attributes	Medium	Identifies attributes that are not using the compact storage model. Compacted attributes (excluding LOVs) take up less storage space than non-compacted attributes, which results in reduced I/O during read and write, improving response-time of the system. Additionally, for customers migrating to Stibo Systems SaaS (Cassandra), it is a prerequisite and may take multiple days to complete. When issues are detected in this healthcheck, review the attributes reported and start the migration to compact soft values, or convert the	No	Yes

Configuration Healthcheck Name	Severity	Description	Automated Fix	Runs on Schedule
		attributes to LOVs, where feasible (many usages and few distinct values). Refer to the **Attribute Value Migration** topic for prerequisites and technical migration details.		
Residual Events for a Queue	Medium	Identifies event queues with events not being processed. When a queue-based event processor or outbound integration endpoint is set to 'Read events' but is not enabled, or is stopped in error, or is enabled without a schedule being run, large numbers of events can build up, which can negatively affect performance. If this issue is detected, inspect the objects in the report and make configuration changes to either consume the events or discard them.	No	Yes

Send Diagnostics

The Send Diagnostics tab allows users to send system information to Stibo Systems. As this information is often necessary for Stibo Systems to assist in troubleshooting and support situations, it is a convenient way to send all necessary data without having to find the individual files on the application server(s).

Important: Anytime an issue is sent to Stibo Systems Support regarding general system troubleshooting, performance issues, or for assistance resolving problems detected via healthchecks, a diagnostics package should also be sent to Stibo Systems to ensure that the proper information is captured and reported at the time when the issue is occurring.



Log files, system information, and healthcheck data are always included in the diagnostic package if available. Profiling and heapdump data can be quite large and are therefore not included by default. However, these can be selected for inclusion using the **Include Profiling Data** and **Include Heapdumps** checkboxes.

The **From** and **To** fields specify the interval for which the diagnostic data should be sent. It defaults to one hour prior to the current time, which is generally a good interval to use. Care should be taking in not selecting an excessively large interval due to the amount of data that would be sent.

The **Issue Key** field is optional and can be used to specify a Jira issue that the diagnostic data is relevant for by typing an exact match to an existing Jira issue. This is only applicable for systems with a connection to the STEP updates server and does not attach any diagnostics data to the specified issue. Instead, it essentially provides tracking for packages sent directly to Stibo Systems so they can be quickly associated with a relevant Jira issue.

To send diagnostics to Stibo Systems, make the appropriate selections in the available parameters and click **Send Diagnostics**. For systems with a connection to the STEP updates server, this will send the information directly to Stibo Systems. Systems without a connection to the STEP updates server will receive a message that the file has been generated and a link to **Download diagnostics output file** will be available. The downloaded file can then be attached to the relevant Jira issue.

Localization

The Localization tab provides a tool to support the translation of static text strings in the STEP user interfaces (workbench and Web UI), such as titles, labels, and dialog text. The tool enables administrators to generate a translation file that contains the texts that need translation. Translation files are in XML format and are intended to be sent to an outside agency for translation of the text strings in the file. Once the file is returned from the translation agency, it can be converted into system resource files that can be applied to the system so that users may view the STEP interfaces in the translated language(s).

This document is not intended to act as a standalone set of instructions for implementation of UI localization. Instead, it is strictly a guide to some basic localization concepts and instructions for using the localization tool.

Localization Frameworks

STEP has both a key-based and an annotation-based framework for localization.

Key-based framework for Web UI

This section describes the legacy way of localizing static text strings in the Web UI. The framework for this is based on using localization keys as opposed to the annotation-based framework.

A localization key (sometimes referred to as 'i18n' keys) is basically a value-pair. The key ID always starts with 'i18n' and the value is the actual text string that will be presented in the Web UI (Portal).

For example, i18n.stibo.portal.server.components.value.ApproveActionServerComponent.default.button.Label = Save & Approve

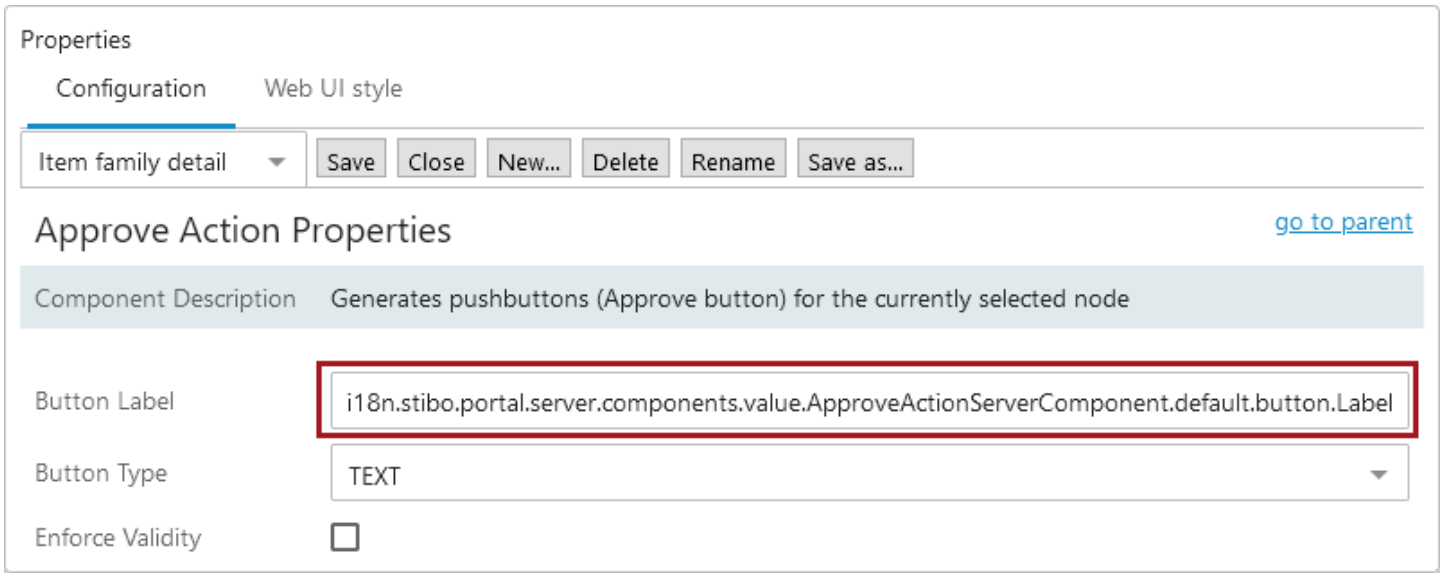
In the above example, the localization key ID is 'i18n.stibo.portal.server.components.value.ApproveActionServerComponent.default.button.Label' and the value 'Save & Approve' is the text string that displays to the end user in Web UI.

The localization keys are stored in resource files that can either be part of the Web UI code or be placed on the file system on the application server. On a given STEP system, you will be able to examine the list of localization keys via this URL: [system name]/webui/docs

For example, http://mysystem.acme.corp/webui/docs

This will provide a web page with descriptions of the portal components available on the given system as well as a list of localization keys and values shown at the bottom.

In the Web UI designer tool displays the localization key used for a specific text.



The above example shows the Approve Action properties in the Web UI designer. The label on the button is defined by the localization key 'i18n.stibo.portal.server.components.value.ApproveActionServerComponent.default.button.Label.' The default English value for that localization key is 'Save & Approve' and the button will be rendered like this for the English locale:

In some cases you may want to overwrite the standard value for a localization key, thus changing the default text. This requires that you add the given translation key with the new value to a 'portalmessages' property file and place that file on the application server. The file can be placed on the file system in any directory as long as the directory is pointed out in the sharedconfig.properties file using the 'Portal.Localizer.Folder' property.

For example, Portal.Localizer.Folder = [STEPHOME]/PortalLocales (e.g., opt/stibo/step/PortalLocales)

Note: The naming convention for the 'portalmessages' file is: portalmessages_[ISO country code].properties. Example: portalmessages_en.properties. Also, region codes can be added as a postfix to the country code. Example: portalmessages_en_US.properties

For instance if you want to change the English default text on the SaveApproveButton to 'Verified', the following will have to be in place:

- A directory on the application server has been appointed to house the 'portalmessages' property files.
- The 'Portal.Localizer.Folder' property in the sharedconfig.properties file points out the above mentioned directory.
- A 'portalmessages' property file for English is placed in the directory. The file must be named 'portalmessages_en.properties.'

- The 'portalmessages_en.properties' file must include the translation key for the SaveApproveButton and it must specify the new English text:
  i18n.stibo.portal.server.components.value.ApproveActionServerComponent.default.button.Label = Verified

Localizing text for React-based components

When localizing Web UI components developed using the React JavaScript library (e.g., ui-basket, ui-search, pds, cmdm, plm), some additional steps must be taken to ensure the translation is successful.

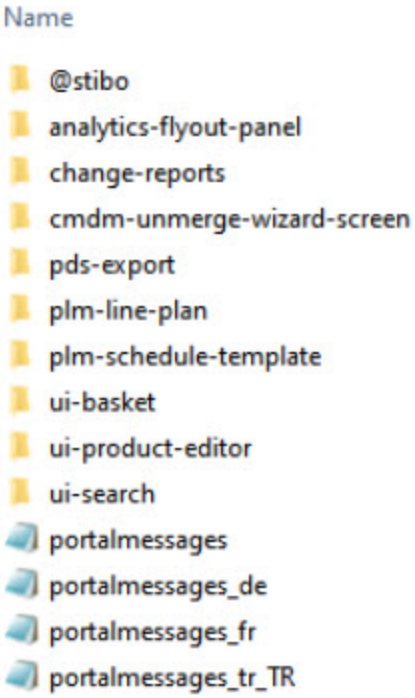
After extracting the translation resource files, additional folders containing json property files will display under the translation resource folders. As an example, we will use the ui-search component. Files like the ones shown in the screenshot below will display at this location:
/shared/workarea/localization/com.stibo.ui.search/localization

Inside the 'ui-search' folder, a .json property file will display. If the json property file follows a naming convention like this example, "translations.[2-letter country code]_[two letter language code].json", as in "translations.fr_FR", then the following steps must be taken:

1. Duplicate the .json property file.
2. Rename it and remove the underscore and the two-letter all-caps language code so it displays as "translations.fr". There will be two .json property files in the folder.
3. Copy the entire "ui-search" folder to the "Portal" folder location.
4. The translation now works on the Web UI.

Additionally, if the .json file in the 'ui-search' folder (continuing with this example) is named like this example, "translations.fr.json", then the following steps must be taken:

1. Copy the entire "ui-search" folder displaying under the "com.stibo.ui.basket" folder.
2. Place this folder under the path that is defined in property Portal.Localizer.Folder. For example, if the property is set to point to the path, /shared/workarea/localization/Portal, then this folder has to be copied to this location as well, as shown in the screenshot below:



Key-based framework for STEP Workbench

Localization of texts in STEP Workbench is based on a 'GUI bundle' system. A GUI bundle is a java.properties file which maps localization keys to text strings to be used in the UI. The developer provides a default English text in a file called 'something.properties.' Translations to other languages exist as files called 'something_ language.properties.' The code retrieves the texts based on the keys and the framework takes care of first looking up the translated text in the 'something_language.properties' file and then in the 'something.properties' file. All the properties files involved are included in the jar files that make up the application and cannot be changed by the users.

Annotation-based localization framework

The localization framework offers a bundle-based approach to localization of STEP code. Basically it means that user facing static text strings must be annotated as localizable in the code and a default (English) text is provided. This is valid for both STEP Workbench and Web UI.

A class annotated with @Localizable represents a string that can be localized with a Localizer. The annotated class makes up the ID of the string. The annotation contains the default source translation (in English).

The bundle translations can be overridden by custom translations placed as properties files on the STEP server. The STEP server is configured to look for localizable artifacts by setting the configuration property ‘Install.ExternalLocalizationDir’ to point to the folder where the files are stored.

Localization Tool

The Localization tool supports system administrators in the process localization, using either the annotation-based localization, or key-based annotation in Web UI.

Important: The localization tool does not support key-based localization in STEP Workbench.

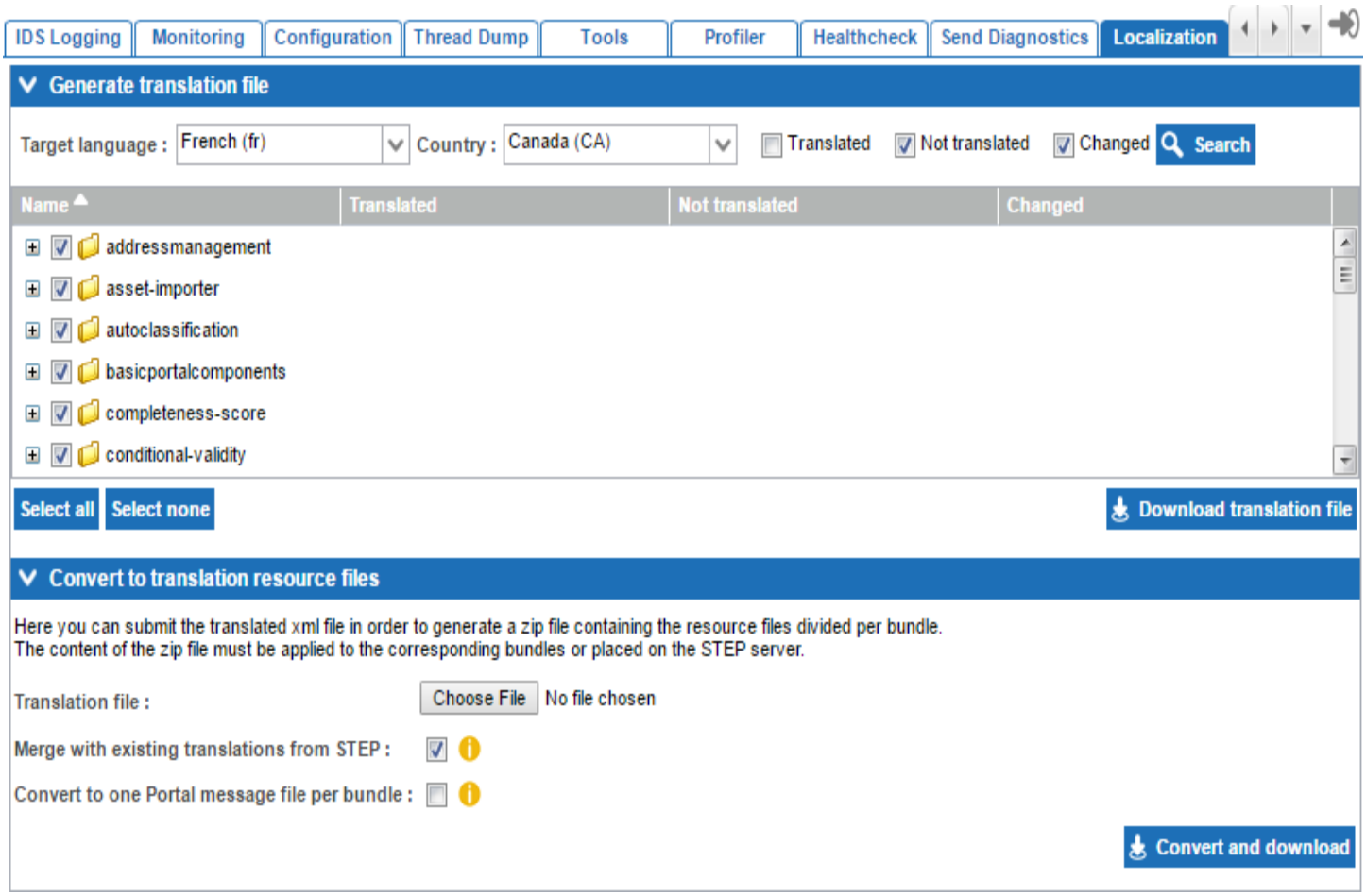
For more information on annotation-based localization or key-based annotation in Web UI, refer to the **Localization** topic in this **Administration Portal** documentation.

The localization tool assists administrators in translating static text strings in the UI, such as titles, labels, and dialog text as it generates a translation file that contains the texts that need translation. These generated files are in XML format and are intended to be sent to an outside agency for translation of the text strings in the file. Once the file is returned from the translation agency, it can be converted into system resource files that can be applied to the system so that users may view the STEP interfaces in the translated language(s).

The Localization tool is intended to be used by system administrators only, and the involvement of a Stibo Systems developer or partner may be required as part of the initial implementation of the functionality.

Overview of the Tool

The Localization tab is split into two functional areas: file generation and file conversion.



Generate Translation File

The Localization tool is able to extract both the localization keys (often referred to as 'i18n keys') used by Web UIs, as well as the text strings in the code base that are annotated as localizable. The latter is used by both Web UIs and STEP Workbench. In order to generate the translation file, the system administrator must first select the data to be included.

Target Language

The target language the file should be generated for must be specified. The selected target language is added to the XML translation file so that the language indicator is available to the system when the translated file is returned.

Country

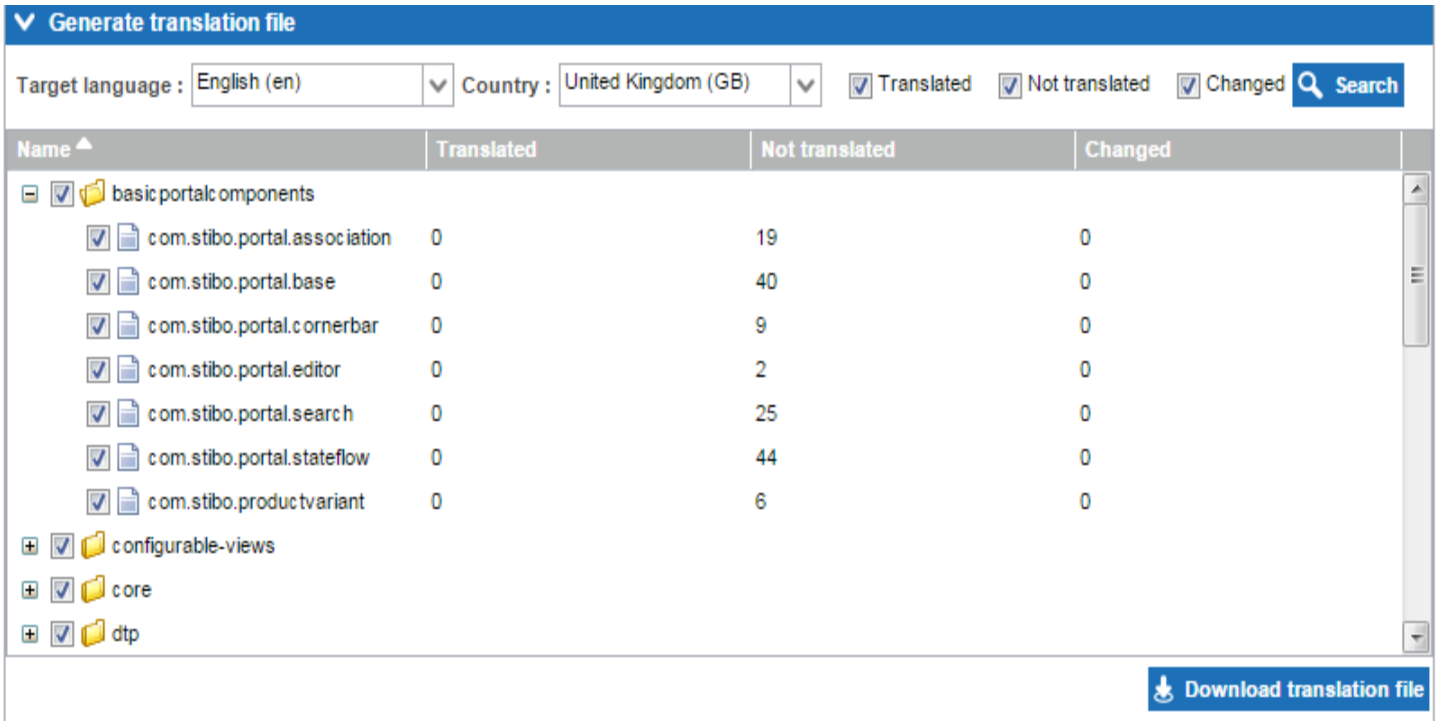
For some languages it is possible to specify a country version of the language. Country should only be specified if the translation is specific to a particular regional dialect.

Translation Status

Translation status selections may be made to reduce the size of the translation XML file, if desired. This is especially useful on previously translated systems where only untranslated and/or changed (delta) content in the selected language should be submitted for translation.

- Translated: All text that has been previously translated into the target language by the Localization tool
- Not translated: All text that has never been translated into the selected target language by the Localization tool
- Changed: All text that has already been translated into the selected target language by the Localization tool, but has since had the default English texts updated

Once the administrator has made the appropriate filtering selections, they must click **Search** to generate the list of bundles and translation status.



The data to be extracted can be further refined by selection / deselection of the particular component bundles to be included. Administrators may select all (as is defaulted) or may select only a subset for extraction. In the latter case, a Stibo Systems developer should be consulted to ensure that the correct bundles are extracted to meet the translation requirements. One example could be that only the texts related to matching should be translated, thus only the bundle related to matching needs to be selected.

Once all file generation selections have been made, the administrator clicks **Download translation file**. The file can then be submitted to a translation agency.

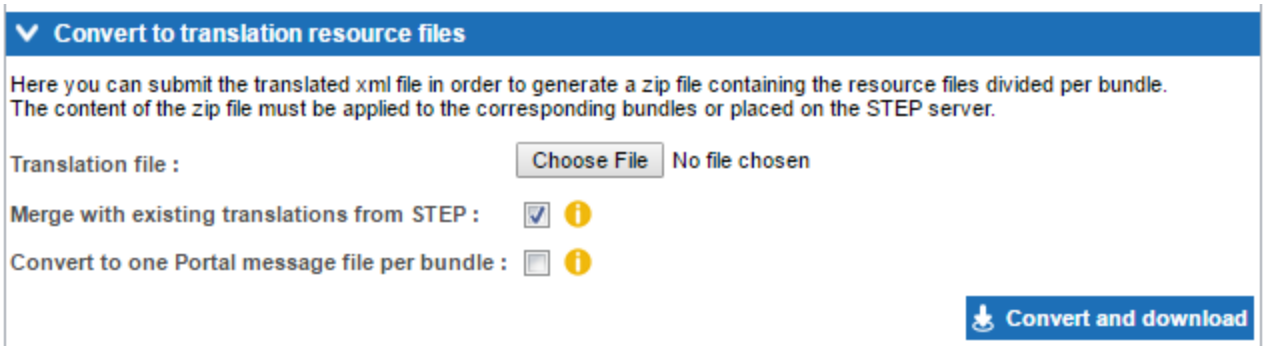
Convert Translation File

When a generated file has been translated, the conversion functionality in the localization tool must be used to convert the XML file into a system resource file.

First, the administrator must select the translated XML file from their local machine using the **Choose File** button.

The **Merge with existing translations from STEP** option may be checked if the resource files are intended to replace only a small subset of existing translations on the system.

The **Convert to one Portal message file per bundle** selection applies to Web UIs only. Check this option if the generated resource files will be placed on the STEP application server. This option should be left unchecked if the resource files should be placed within the code.



When the translation file and any additional options have been selected, the **Convert and download** button should be clicked to generate the resource files.

Deploying the Resource Files

The resource files are delivered in a zipped file which contains a number of folders that are structured and named in a way that the STEP installation will be able to recognize. The entire file structure that is included in the zipped file must be added to the STEP installation.

Converted files may be delivered to STEP via addition to the code base or via placement on the application server.

Addition to the code base requires a Stibo Systems developer and is typically used when the translations are to be used as part of the standard STEP distribution.

Placement of the files on the STEP application server can be done by any STEP administrator with access to the application server and the sharedconfig.properties file. This option is typically used when the core translations of texts must be overwritten using the newly generated resource file content. Note that this option requires population of the 'Install.ExternalLocalizationDir' property in the sharedconfig.properties file with the path of the folder on the application server in which the localization files are stored. One file per locale per bundle may be stored in this location.

Properties To Be Set

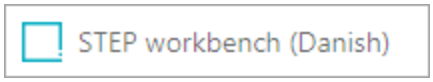
For the workbench and the Web UI, the following parameters must be set in the sharedconfig.properties:

For the workbench: Install.ExternalLocalizationDir=/workarea/localization

For the Web UI: Portal.Localizer.Folder= [STEPHOME]/PortalLocales

The system administrator must also verify the Webstart.Locales property in the sharedconfig.properties file. This property is populated with locales and their Start Page translations in the following format: [locale1]:[start page text];[locale2]:[start page text]

For example: Webstart.Locales=da: STEP workbench (Danish) provides the following option on the Start Page.



Assuming that corresponding Danish (da) resource files are available, users logging in via this link will view a Danish-translated workbench.

Stibo Systems can provide translations of STEP Workbench and Web UI for the following languages:

- Portuguese
- Spanish
- Chinese (simplified)
- Danish
- English
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Norwegian
- Swedish

> **Note:** The STEP server must be restarted to clear the cache and allows the translations to become active.

Limitations

- The localization tool can only be used to translate text into standard STEP languages (those supported server side, such as French, German, etc.)
- Only text strings that are annotated as localizable or have a translation key (used by Web UIs) can be extracted by the localization tool

- Data content in STEP is not influenced by the localization tool
- Workflow state names and events as well as business rule messages are not localizable using the same XML translation file based process. For more on how to translate workflow sate names and events, refer to the **Localizing Workflow State Names and Events** topic in the **Advanced Workflow Topics** section of the **Workflows** documentation. For more on translating business rule messages, refer to the **Adding a Localized Business Rule Message** topic in the **Business Actions** section of the **Business Rules** documentation.

End User Access of Translated Workbench UIs

Translated workbenches are accessed via the appropriate Start Page links. The available Start Page links are defined by the 'Webstart.Locales' property that can be specified in the sharedconfig.properties file.

Example: Webstart.Locales=da:STEP workbench (Danish);fr:STEP workbench (French);sp:STEP workbench (Spanish);en:STEP workbench (English)

Setup and User Access of Translated Web UIs

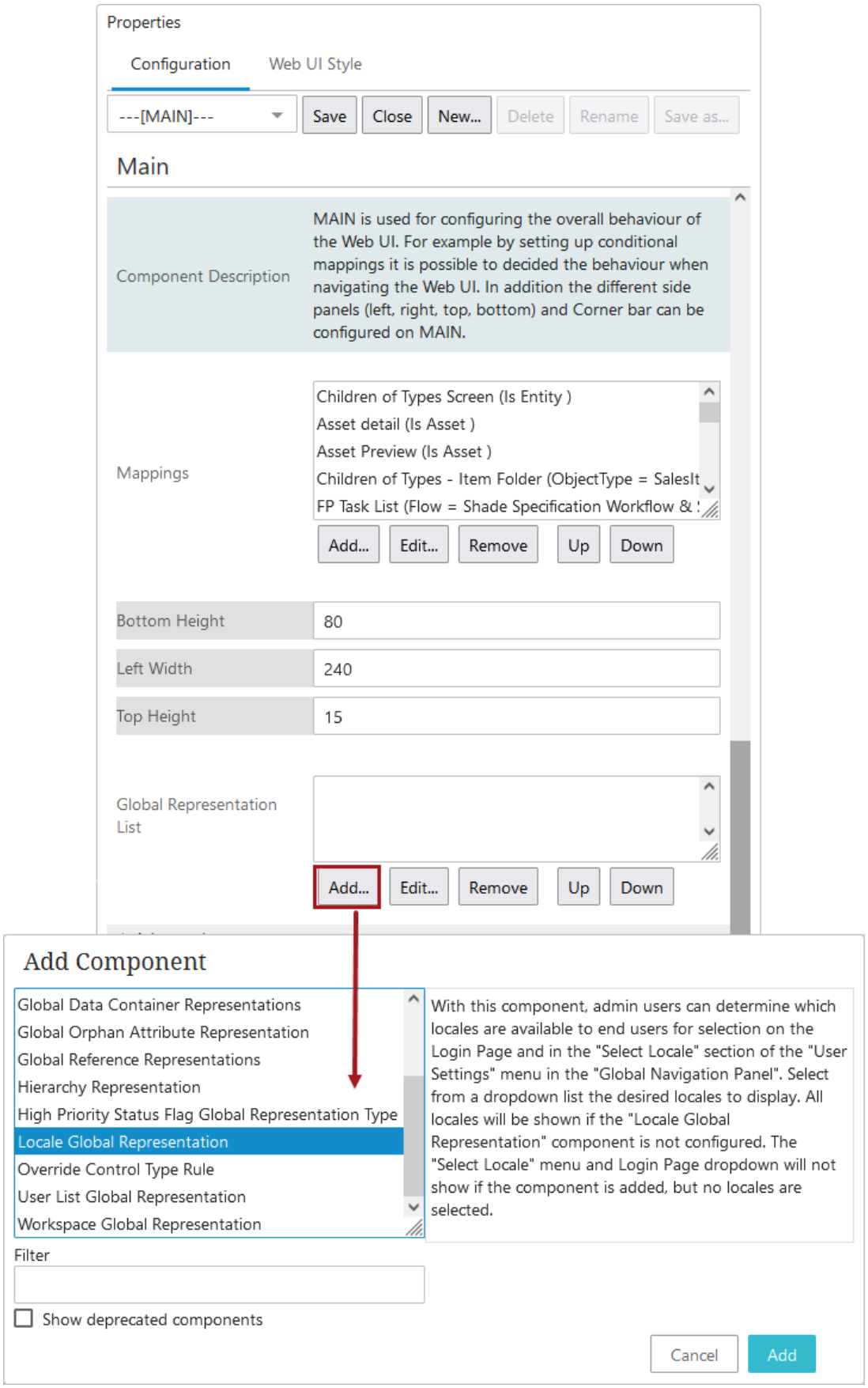
Translated Web UIs can be accessed in one of two ways: via the Locale selector on the login page, or once logged into Web UI, going to the Select Locale section in the User Settings menu on the Global Navigation Panel. There are thirteen locales that come standard with each Web UI: Danish, German, English, Spanish, French, Italian, Norwegian, Portuguese, Finnish, Swedish, Chinese (simplified), Japanese, and Korean. Both locale access options are described in further detail below.

For more information on Localization or using the Localization Tool, refer to the **Localization** topic and the **Localization Tool** topic in this **Administration Portal** documentation.

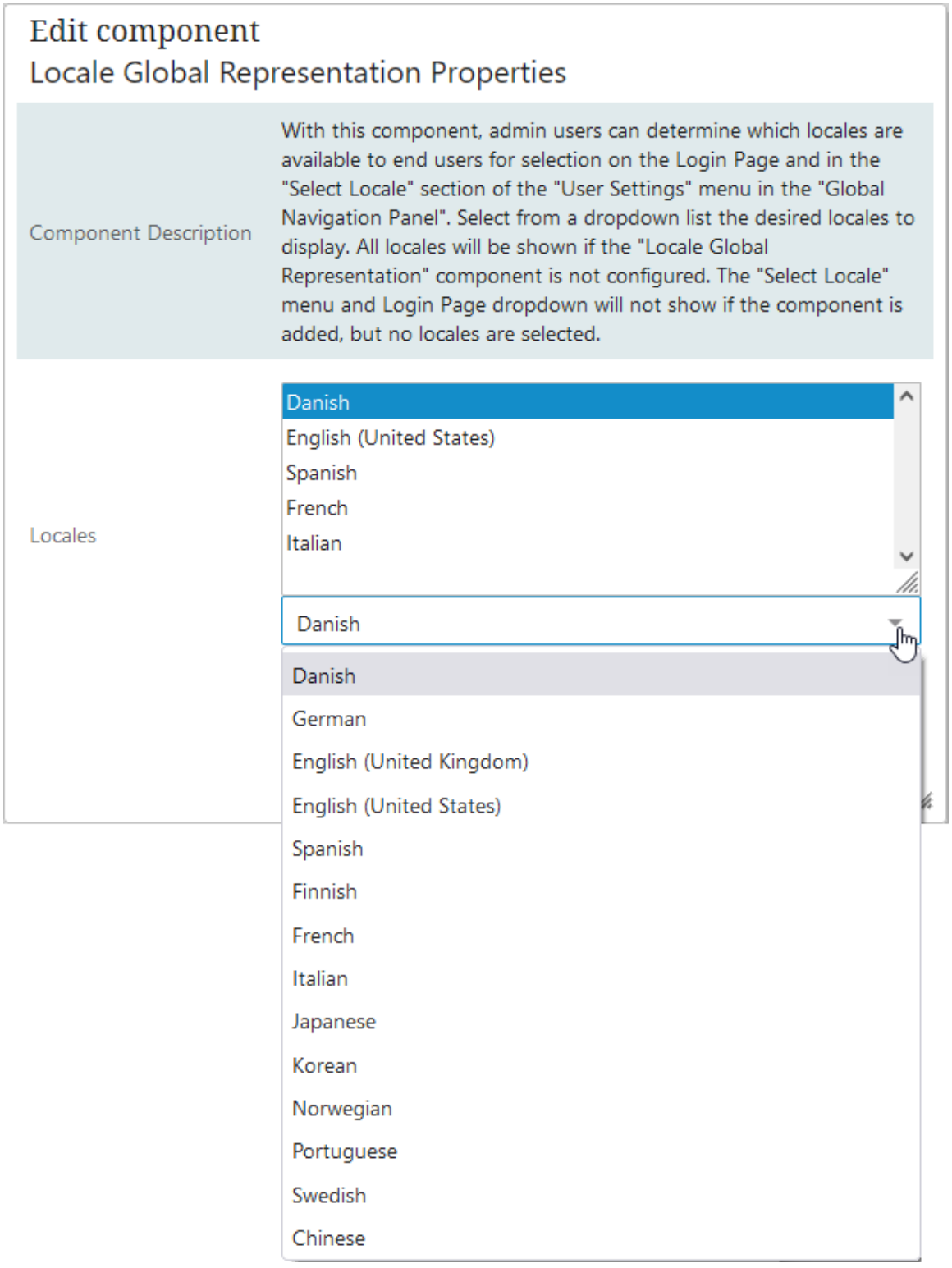
Note: A property can be added to the sharedconfig.properties file to ensure a specific locale displays even if the browser prefers a different language. For example, to force display of the English locale, the property called is WebUI.OverrideBrowserPreferredLocale=en can be set. Setting the locale via the Login Screen's Locale selector or the Global Navigation Panel will overrule this property.

If only a select few locales need to be shown, the **Locale Global Representation** component can be configured to limit the available locales on the Web UI Login Screen and on the Select Locale section of the User Settings menu on the Global Navigation Panel. To do so, follow the directions outlined below:

1. Log into Web UI.
2. Open the designer.
3. Go to --[MAIN]-- > Global Representation > and add the **Locale Global Representation** component.


Properties
Configuration
Web UI Style
---[MAIN]---
Save
Close
New...
Delete
Rename
Save as...
Main
Component Description
MAIN is used for configuring the overall behaviour of the Web UI. For example by setting up conditional mappings it is possible to decided the behaviour when navigating the Web UI. In addition the different side panels (left, right, top, bottom) and Corner bar can be configured on MAIN.
Mappings
Children of Types Screen (Is Entity)
Asset detail (Is Asset)
Asset Preview (Is Asset)
Children of Types - Item Folder (ObjectType = SalesIt
FP Task List (Flow = Shade Specification Workflow &
Add...
Edit...
Remove
Up
Down
Bottom Height
80
Left Width
240
Top Height
15
Global Representation List
Add...
Edit...
Remove
Up
Down
Add Component
Global Data Container Representations
Global Orphan Attribute Representation
Global Reference Representations
Hierarchy Representation
High Priority Status Flag Global Representation Type
Locale Global Representation
Override Control Type Rule
User List Global Representation
Workspace Global Representation
With this component, admin users can determine which locales are available to end users for selection on the Login Page and in the "Select Locale" section of the "User Settings" menu in the "Global Navigation Panel". Select from a dropdown list the desired locales to display. All locales will be shown if the "Locale Global Representation" component is not configured. The "Select Locale" menu and Login Page dropdown will not show if the component is added, but no locales are selected.
Filter
Show deprecated components
Cancel
Add

4. Once added, double click on **Locale Global Representation** component to open the Locale Global Representation Properties.
5. Add the desired locales from the dropdown list, and click **Save**.

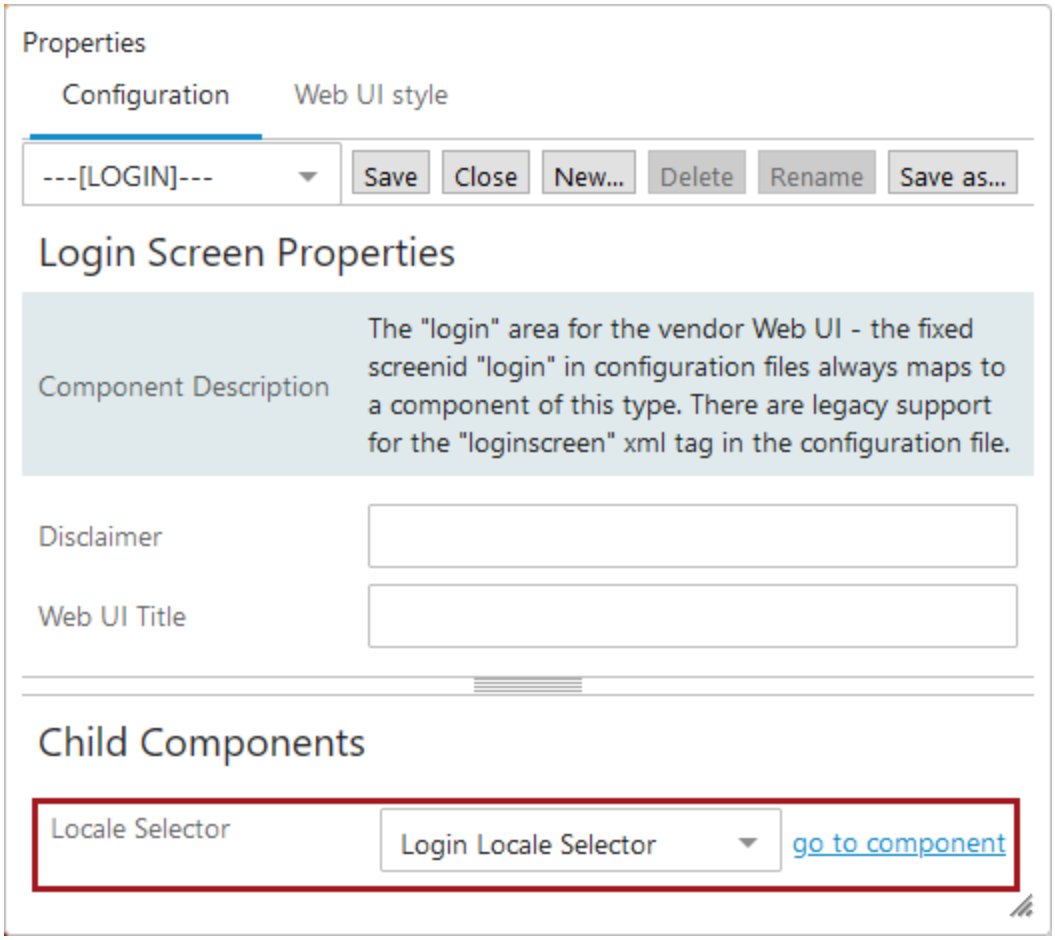


Important: If the Locale Global Representation component is added, but no locales are added to the component, the system will not display the Locale dropdown on the Login Screen, and it will not display any locales on the Select Locale section of the User Settings menu in the Global Navigation Panel. If the Locale Global Representation component is not added, all thirteen locales will display.

Backward Compatibility

For backward compatibility in older STEP systems, the Locale Selector child component on the Login Screen will remain ONLY if it was configured prior to 10.3, and will behave in the following ways:

- If the Locale Selector child component and the Locale Global Representation component are **BOTH** added, the Locale Global Representation component and its behaviors will take precedence.
- If the Locale Selector child component is added and configured, but the Global Representation component is **NOT** added, then the Locale dropdown on the login screen will display the configured locales, but the Select Locale section of the User Settings menu in the Global Navigation Panel will display all thirteen locales.
- If the Locale Selector child component is selected but no locale values have been configured, and the Locale Global Representation is **NOT** added, then both the Locale dropdown on the login page and the Select Locale section of the User Settings menu in the Global Navigation Panel will display all thirteen locales.



Login Screen Dropdown Locale

To select a particular locale on the Login Screen, select the dropdown menu from the Locale parameter and enter in user login credentials. Click **Login**.

Select Locale via the Global Navigation Panel

Users are able to select locale through the Global Navigation Panel. This way of selecting locale enables users who normally bypass the Web UI login screen, such as for systems configured with Single Sign On (SSO), to select a locale different from the browser's preferred language. The selected locale will be highlighted, and each time a new locale is selected, the Web UI will refresh, signaling that the new locale has taken effect.

The locale selection under the Select Locale section of the User Settings menu in the Global Navigation Panel will display all thirteen translations as options, unless otherwise configured in the Web UI designer to only display a select few.

To access the locale selection in the Web UI, follow the directions bellow:

1. In Web UI, go to the Global Navigation Panel.
2. Click on User Settings.

3. Scrolling down to the Select Locale section of the User Settings column and select the desired locale.