USER GUIDE

Administration Portal

Release 9.2-MP3 (October 25, 2019)

StiboSystems
MASTER DATA MANAGEMENT

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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

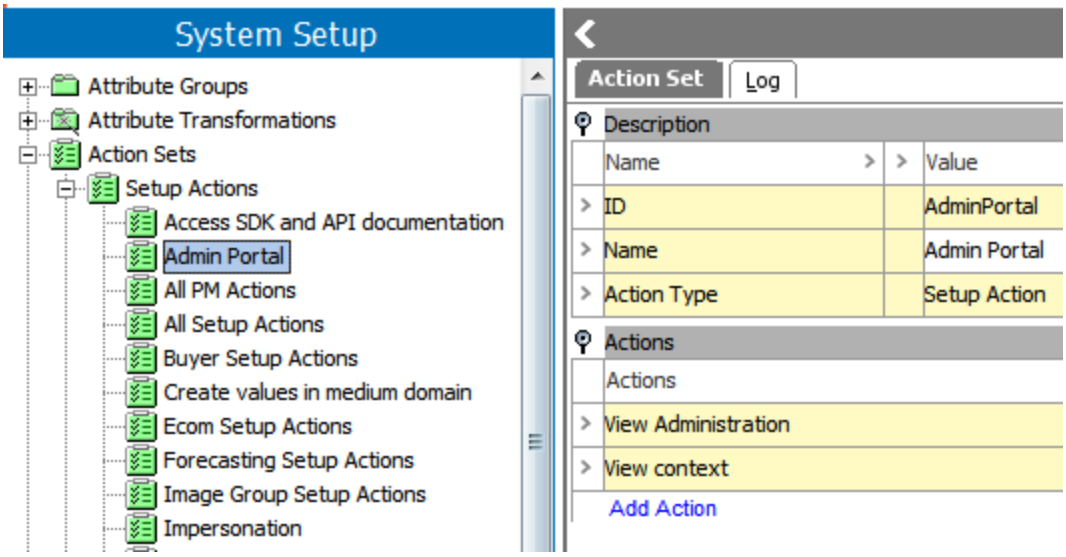
This topic describes how to access the admin portal, including what privileges are required to do so.

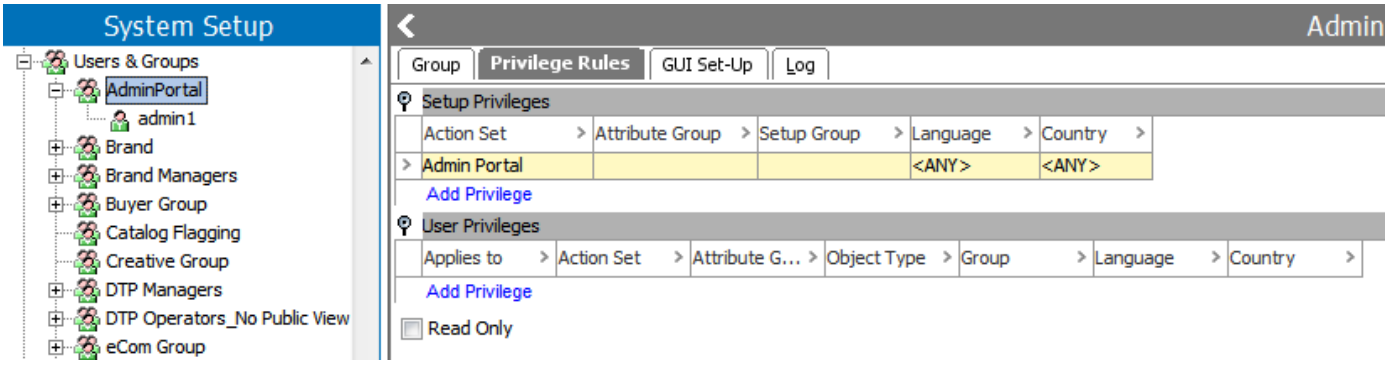
Prerequisites

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:



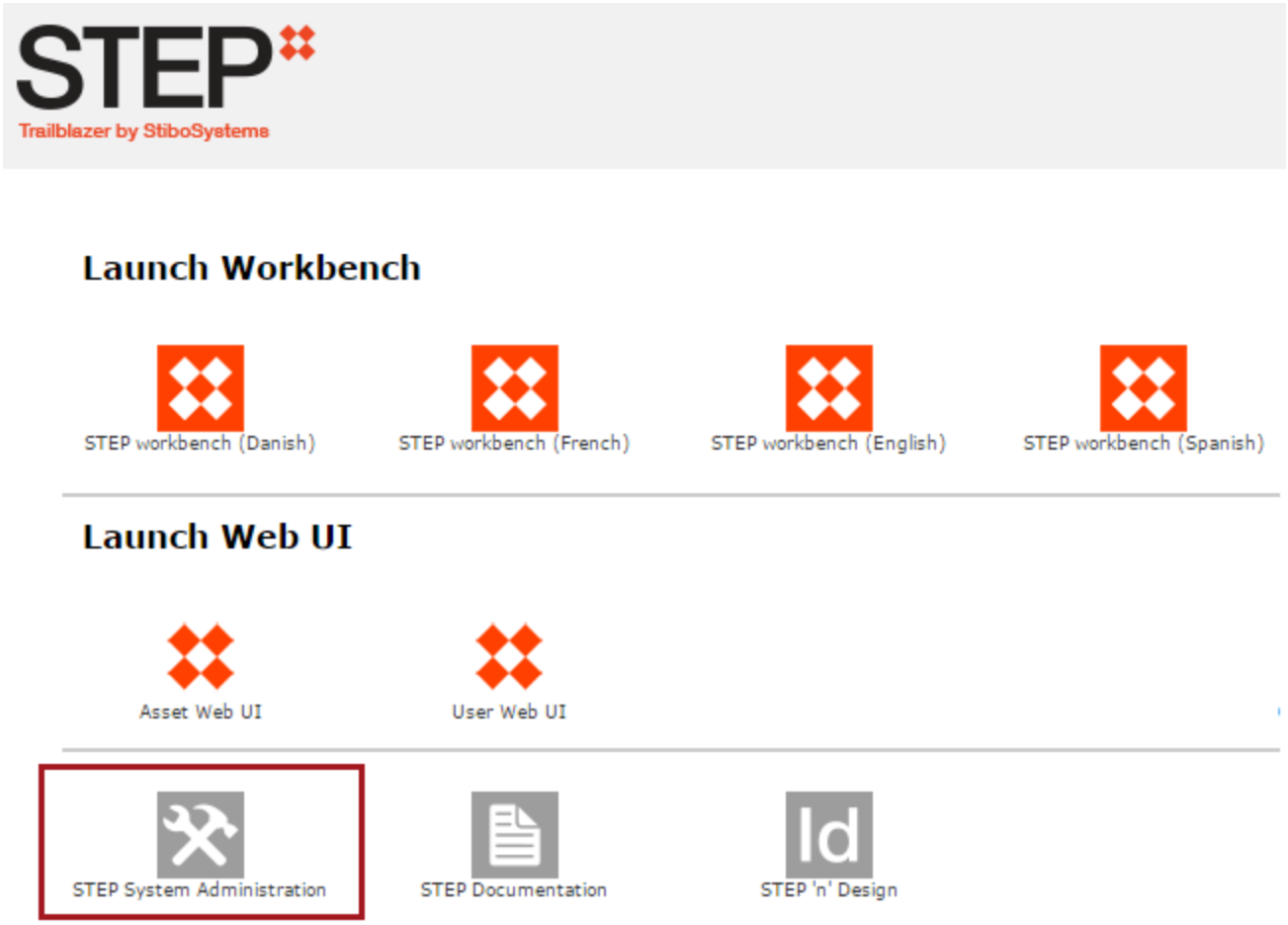


Additional information on Actions, Users, and User Groups can be found in the **System Setup / Super User** documentation, under **Action Sets** and **Users and Groups**, respectively.

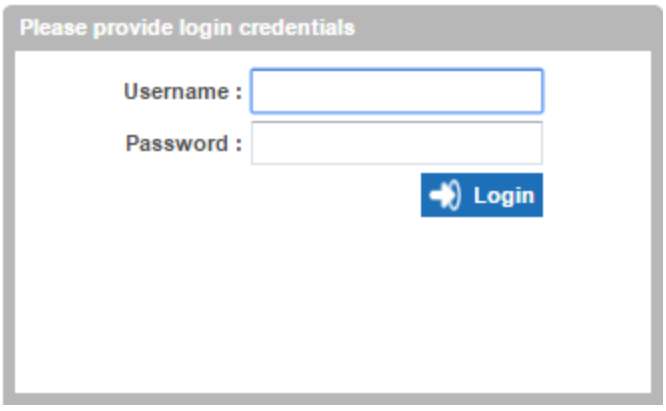
Access

The admin portal can be accessed in two ways:

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



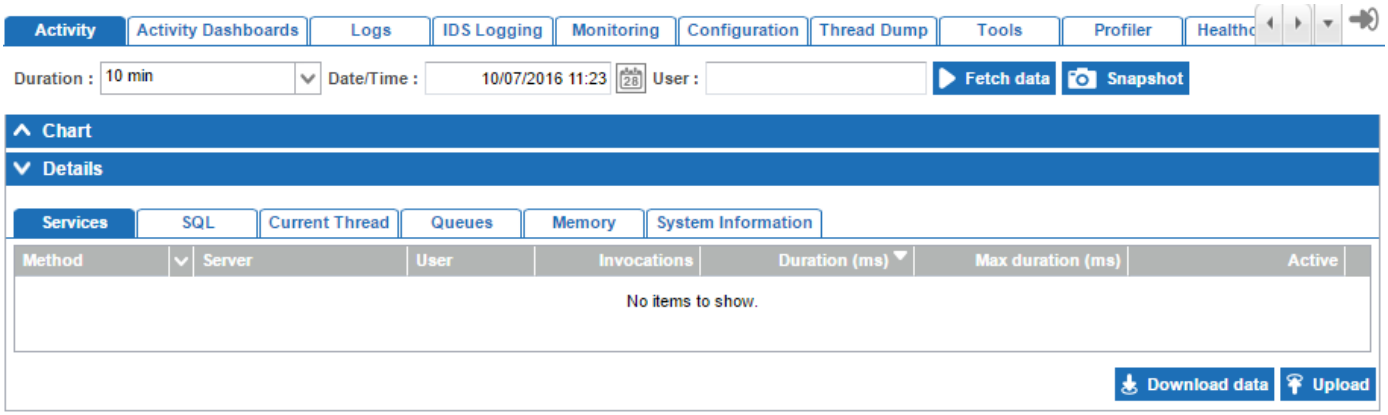
Either access method will yield a login prompt:



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.

Activity

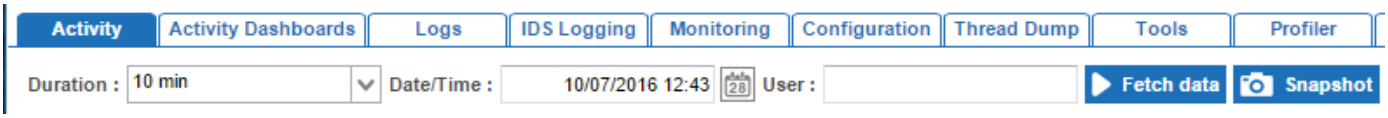
The Activity tab is the first tab in the admin portal and is where users land when first logging in. This tab provides information about the STEP application and application servers without having to log in to any server directly, allowing users to see the information about the activities and processes 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.

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.

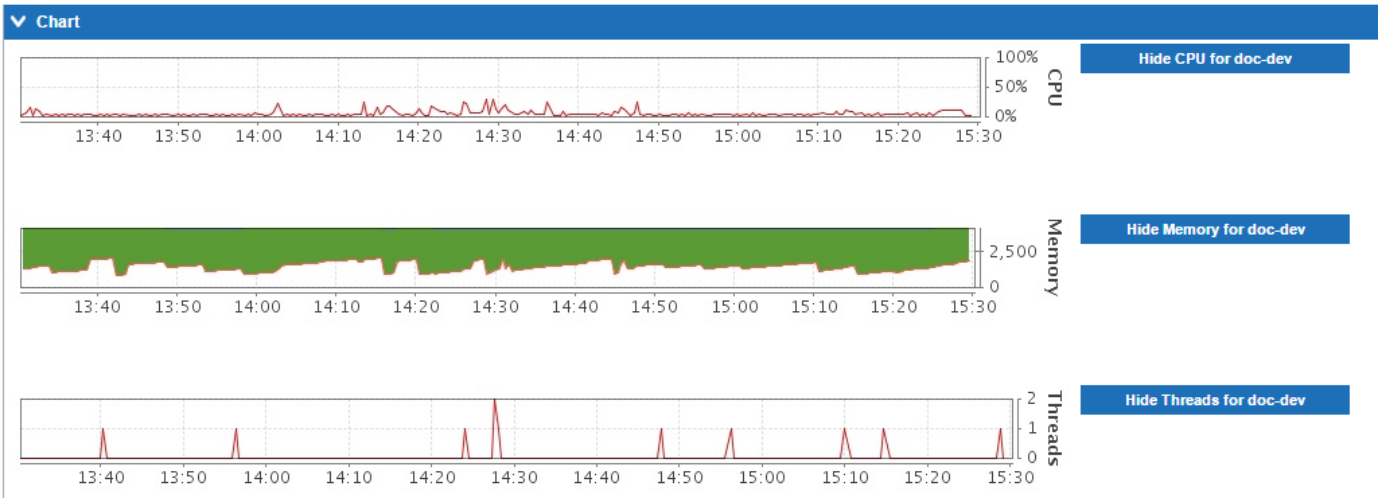
User: Optional parameter used to restrict the displayed data to only that of a single user. If used, the STEP ID of the desired user should be typed directly into the field. If left blank, data for all users will be displayed.

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. See 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.

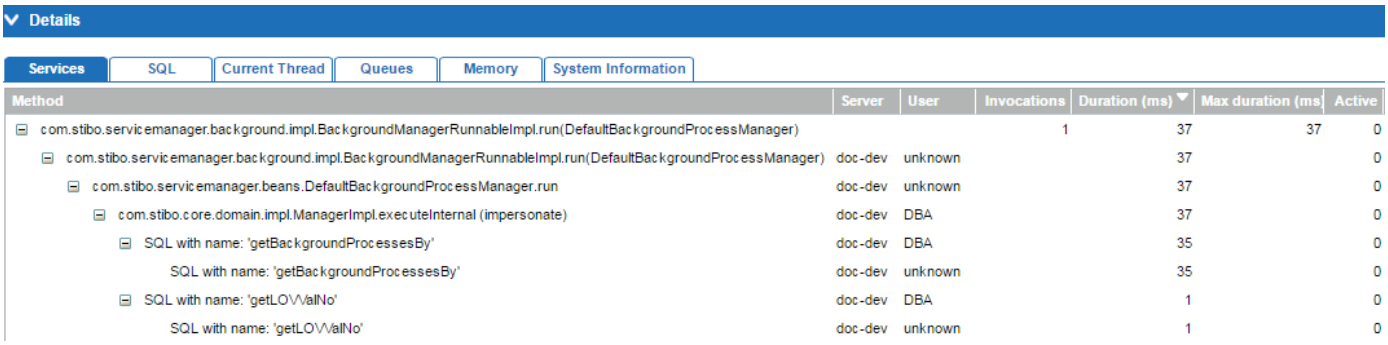
Details Data

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.

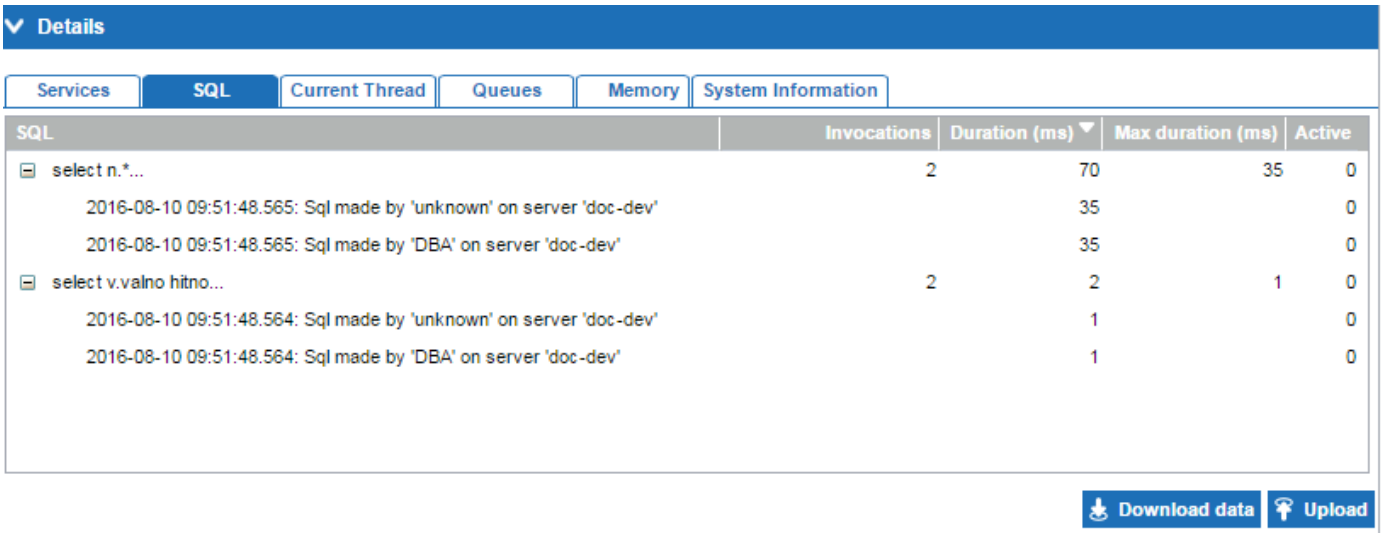
Services

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.

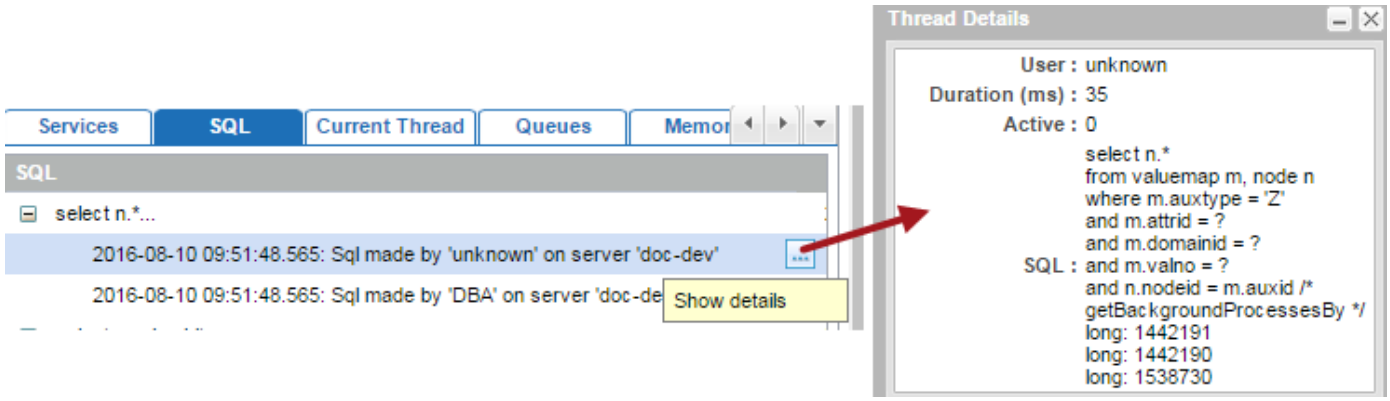


SQL

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

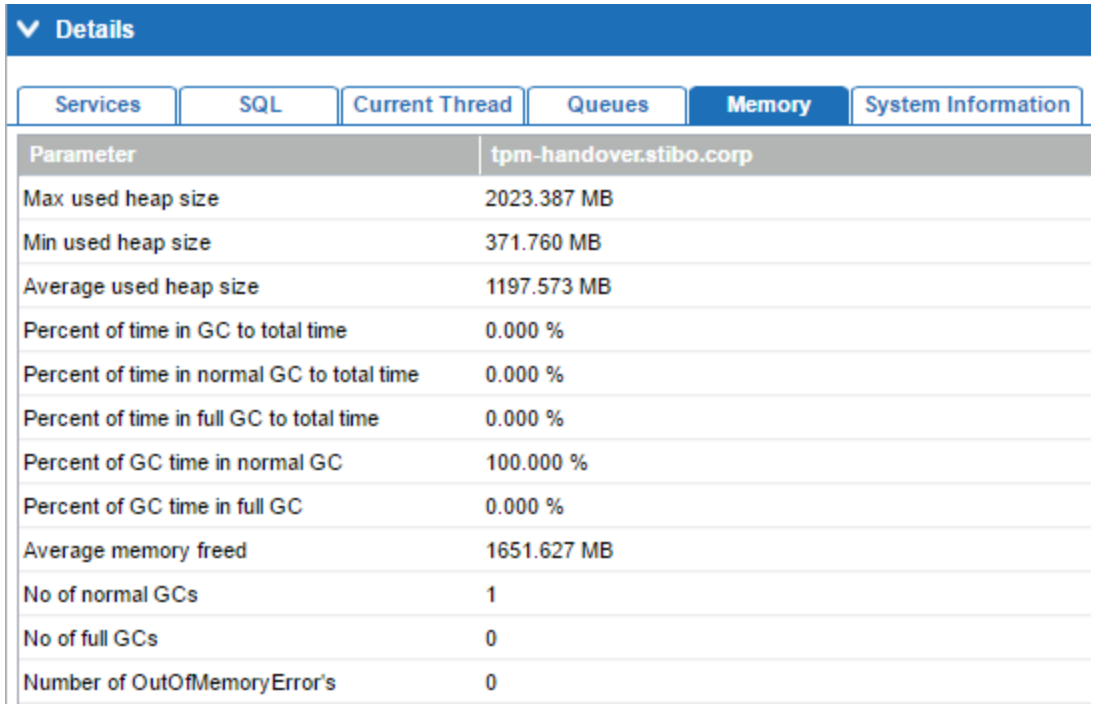
The Current Thread information is recommended exclusively for use by Stibo Systems Technical Support and is therefore not described.

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.

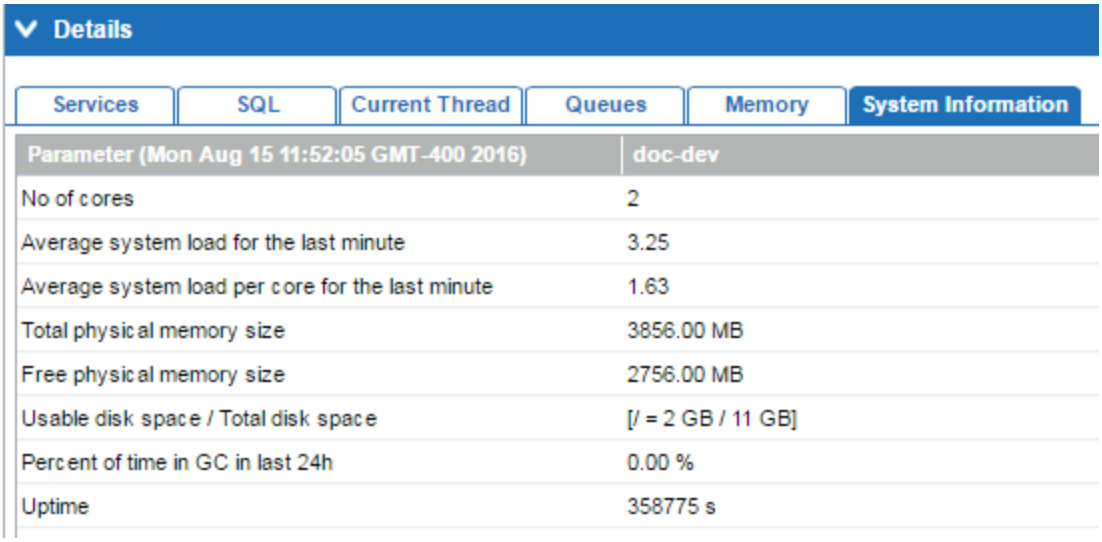


Parameter	tpm-handover.stibo.corp
Max used heap size	2023.387 MB
Min used heap size	371.760 MB
Average used heap size	1197.573 MB
Percent of time in GC to total time	0.000 %
Percent of time in normal GC to total time	0.000 %
Percent of time in full GC to total time	0.000 %
Percent of GC time in normal 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

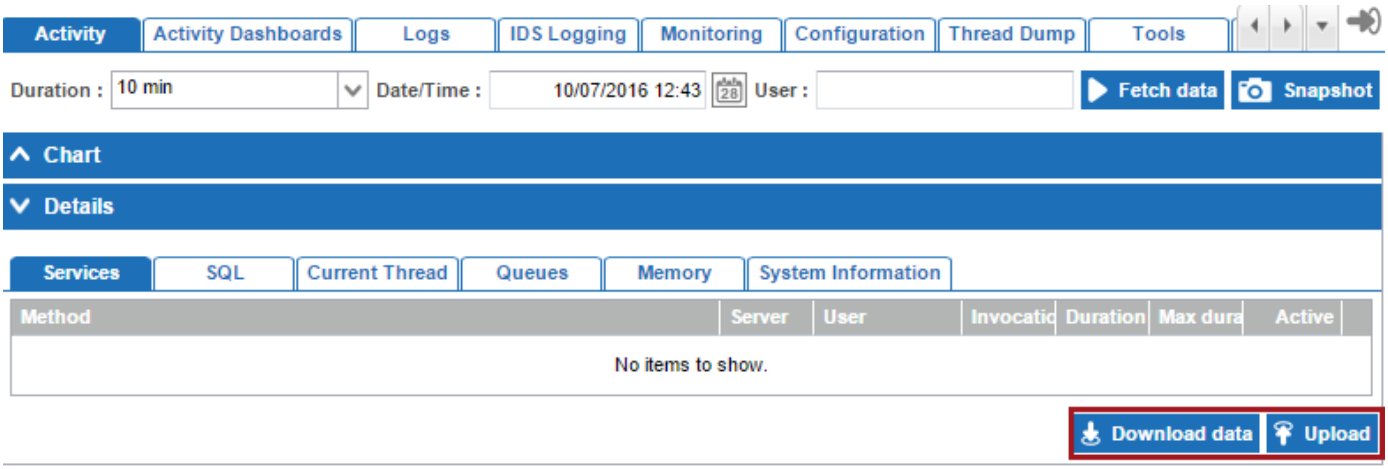
The System Information tab displays basic information about the system being profiled.



Note: System information is automatically included in diagnostics packages sent to Stibo Systems. For more information on sending diagnostics, see 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. See 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.

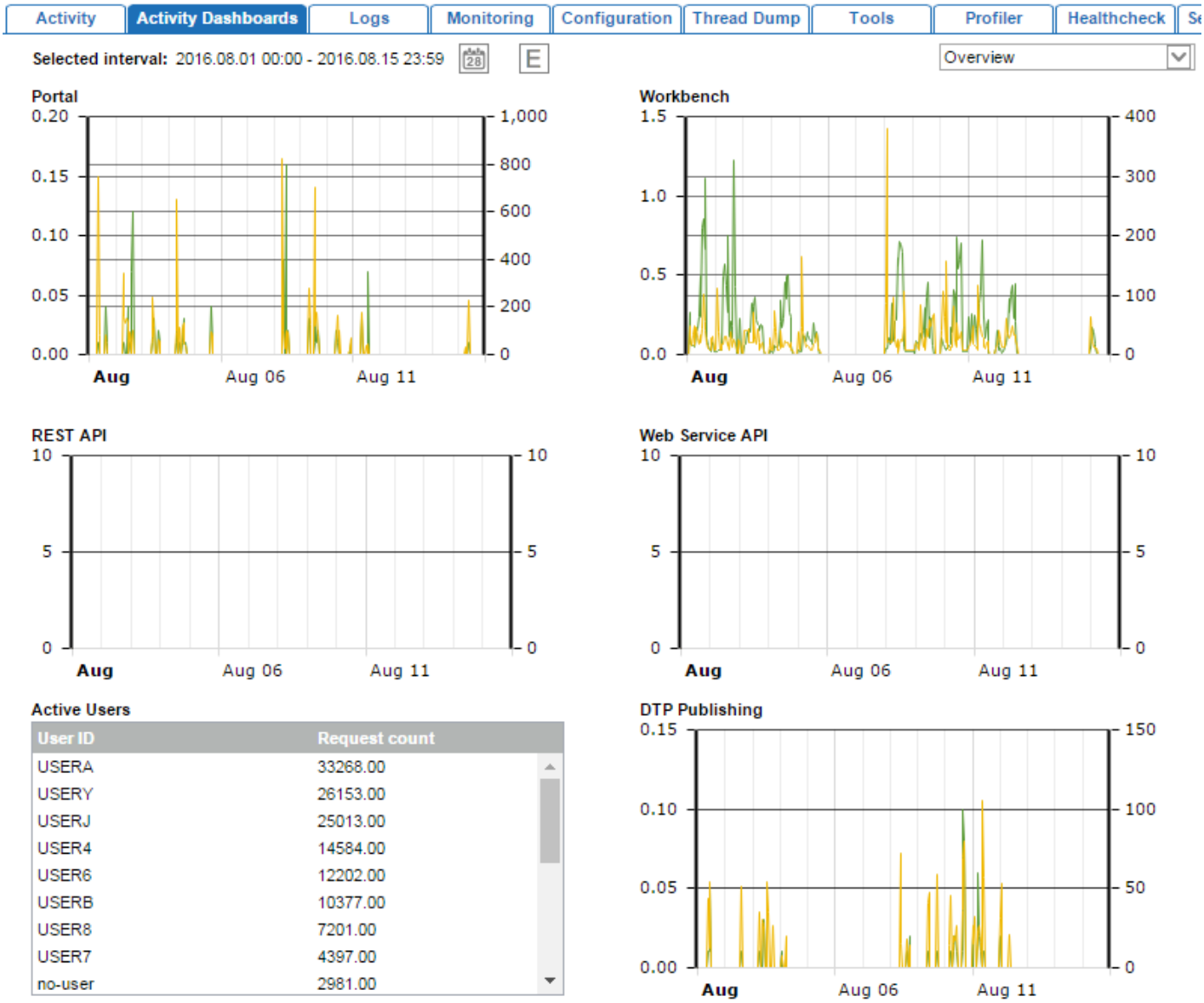
Default Reporting

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

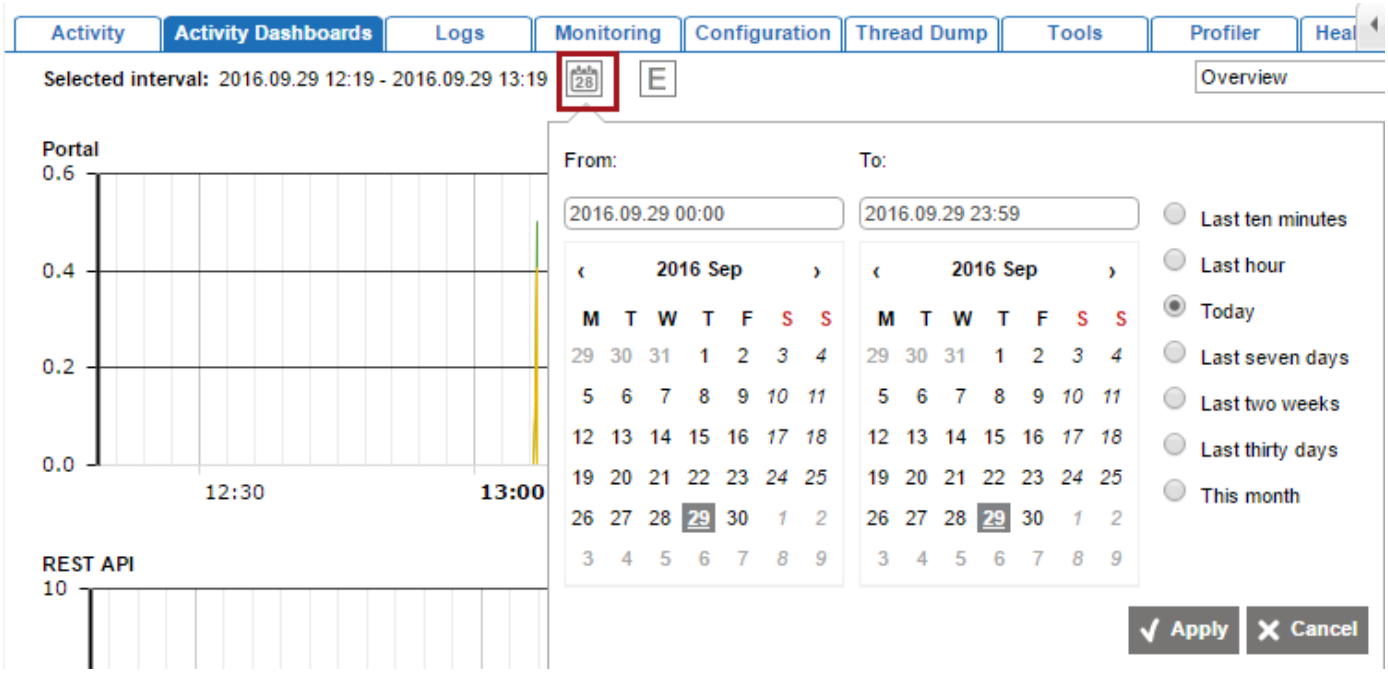
As an example, this information can be used to determine which business rule has consumed the most CPU time on a system.

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.



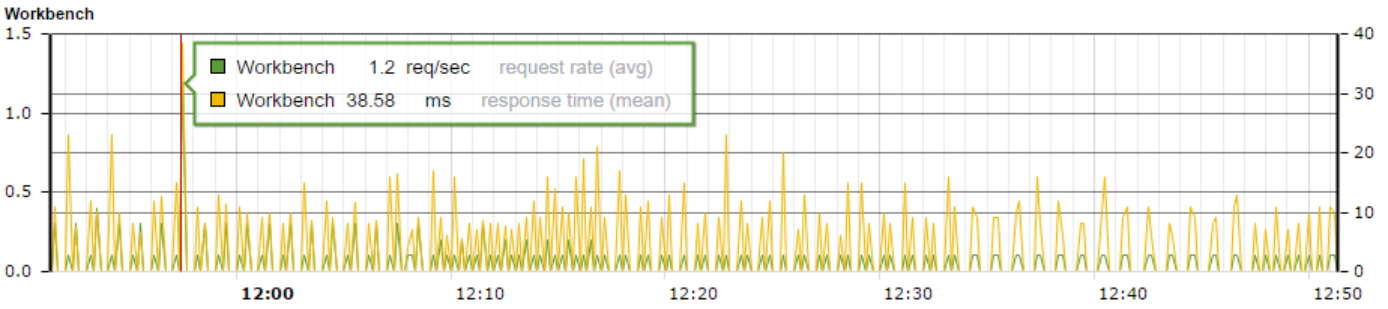
The system defaults to displaying data for the past hour, though the interval can be changed using the date picker icon.

Note: The 'no-user' that you see 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.

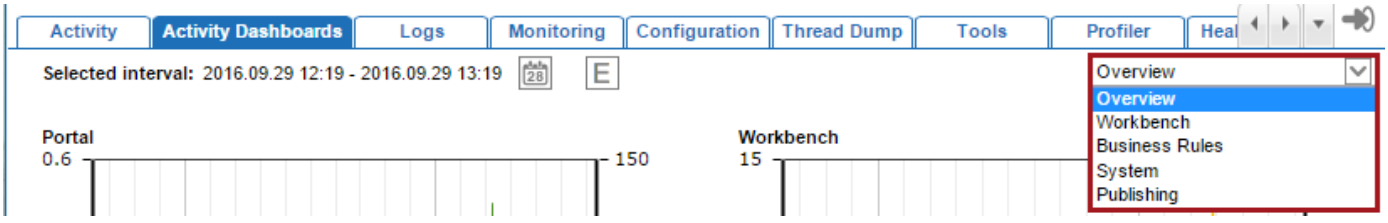


In addition, users can view more detailed information by hovering or adjusting the profile.

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.

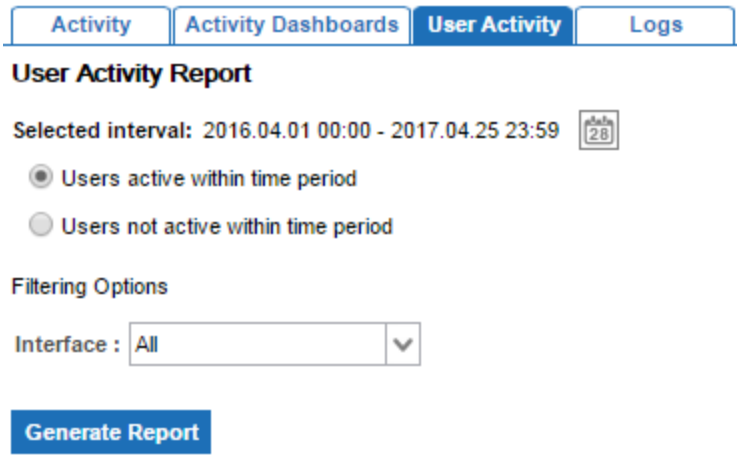
- **Overview:** Default profile displaying the number of requests made via the Web UI (Portal), STEP Workbench, REST API, Web Service API, user actions, and DTP Publishing.
- **Workbench:** Provides more granular information on requests and response times in the workbench, beyond what is included in 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.

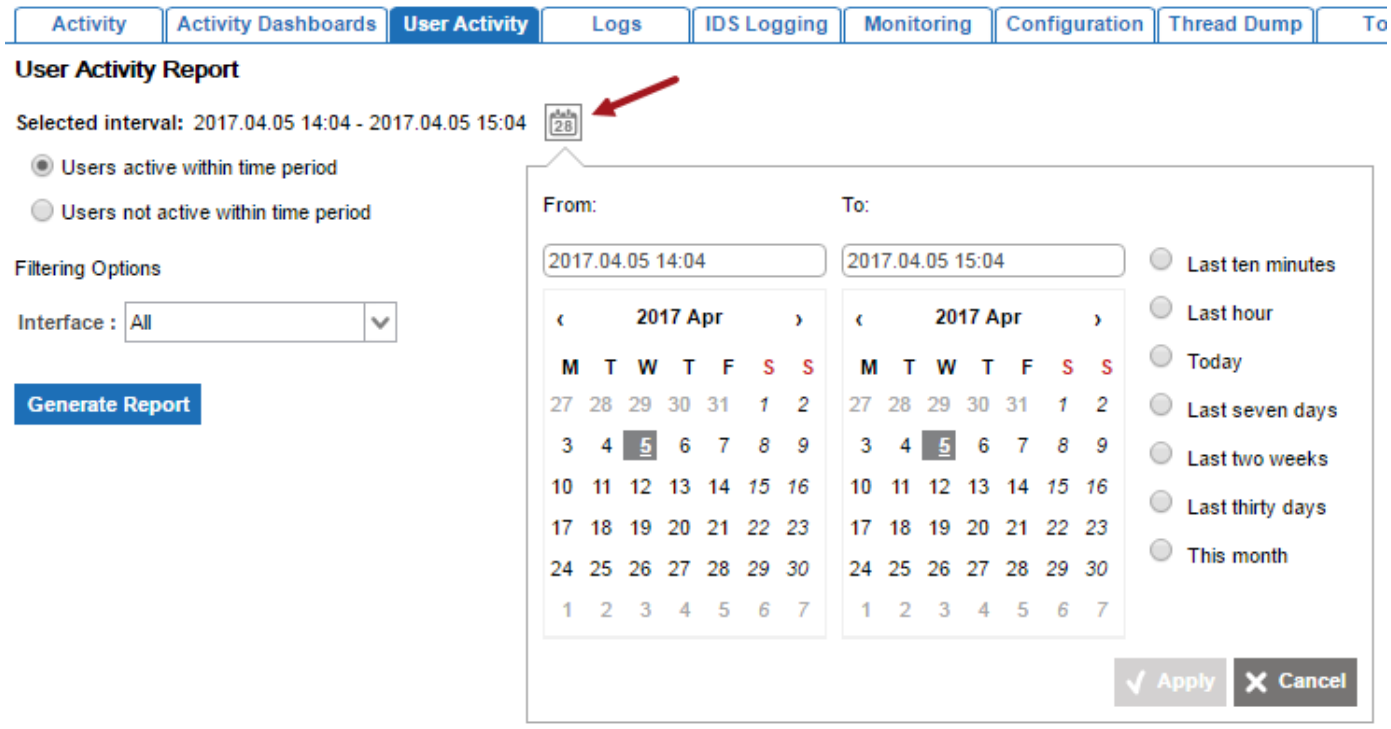


Information on active and inactive users is beneficial for businesses who have a set number of allowed users in the system and need to determine which accounts have been inactive for a prolonged period of time so they can be deleted.

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 STEP sharedconfig.properites file, then the User Activity tab will not be available.

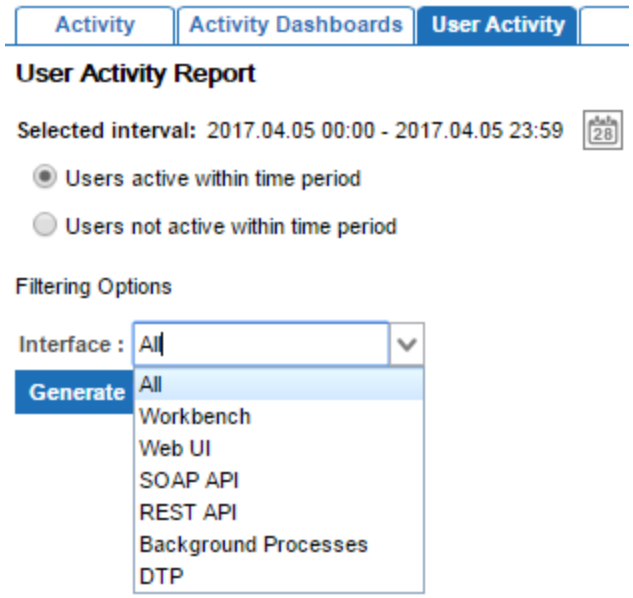
Generating a User Activity Report

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.

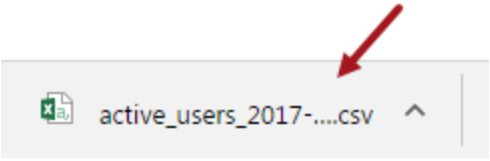


3. Once the desired date range has been chosen, click **Apply**.
4. Under the 'Activity Report' header on the left side of the screen, choose whether to view information on users who were **active** or **not active** within the selected time period by selecting the corresponding radio button.
5. In the **Filtering Options** dropdown menu, choose the STEP 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.



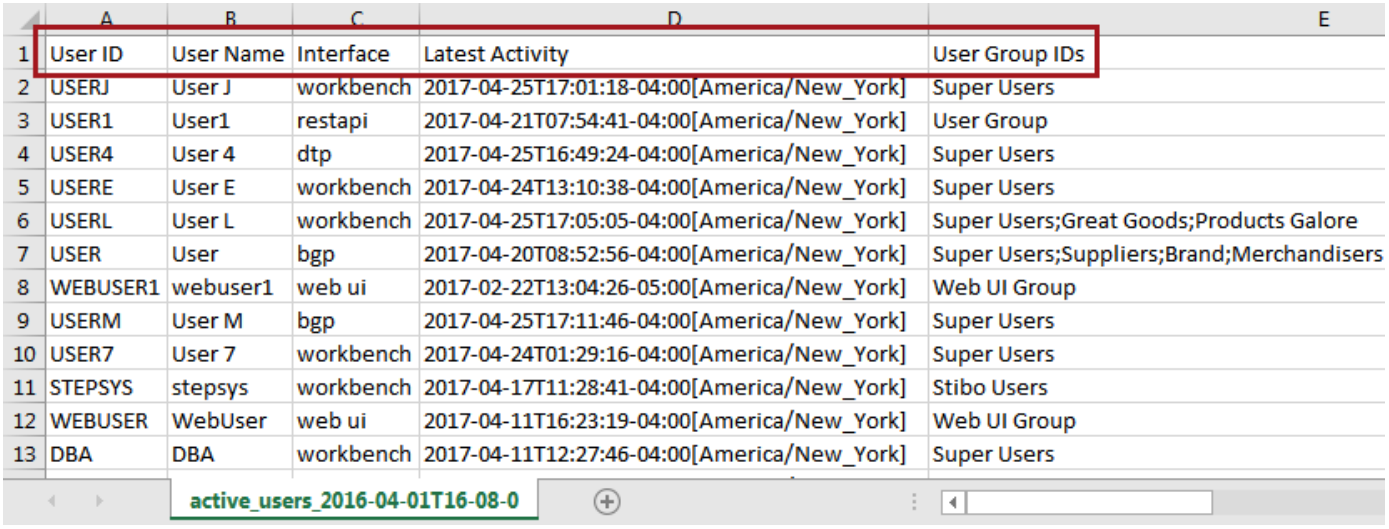
The file is named as follows:

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

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

3. 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.

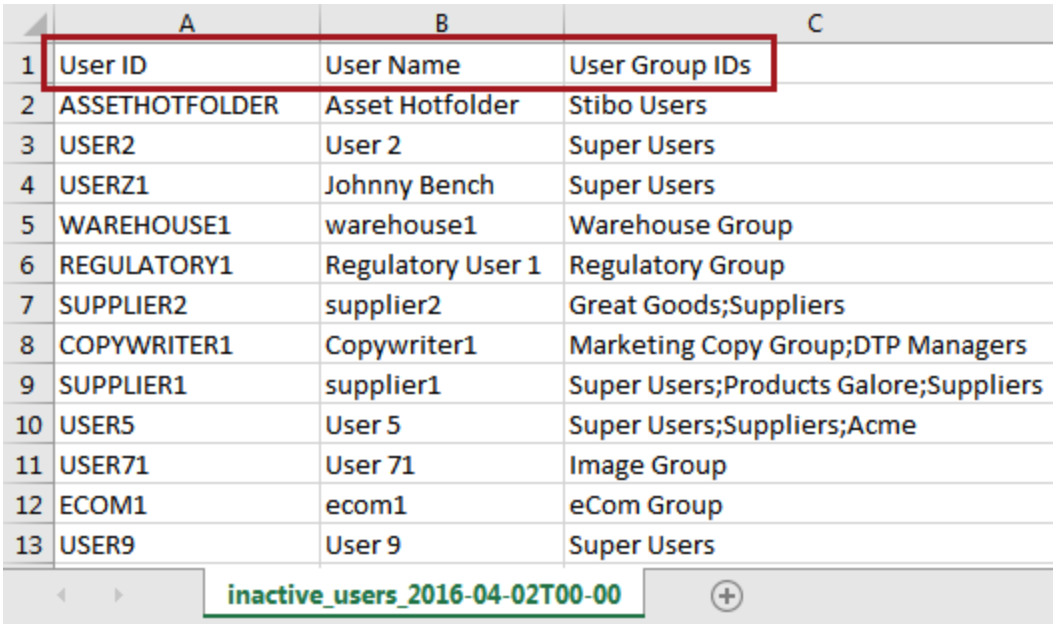


	A	B	C	D	E
1	User ID	User Name	Interface	Latest Activity	User Group IDs
2	USERJ	User J	workbench	2017-04-25T17:01:18-04:00[America/New_York]	Super Users
3	USER1	User1	restapi	2017-04-21T07:54:41-04:00[America/New_York]	User Group
4	USER4	User 4	dtp	2017-04-25T16:49:24-04:00[America/New_York]	Super Users
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

6. For **inactive** users, the CSV file includes:

- User ID
- User Name
- User Group IDs



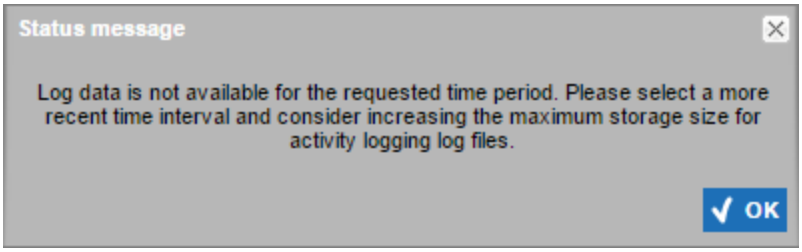
	A	B	C
1	User ID	User Name	User Group IDs
2	ASSETHOTFOLDER	Asset Hotfolder	Stibo Users
3	USER2	User 2	Super Users
4	USERZ1	Johnny Bench	Super Users
5	WAREHOUSE1	warehouse1	Warehouse Group
6	REGULATORY1	Regulatory User 1	Regulatory Group
7	SUPPLIER2	supplier2	Great Goods;Suppliers
8	COPYWRITER1	Copywriter1	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

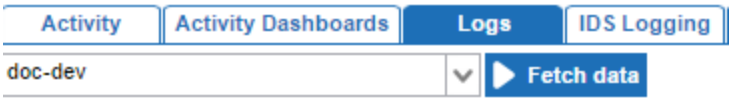
- If data is not available for a selected time period—typically when a 'from' time is entered that is earlier than the earliest system-wide log entry—the system returns a status message advising that log data is not available for the requested time period.



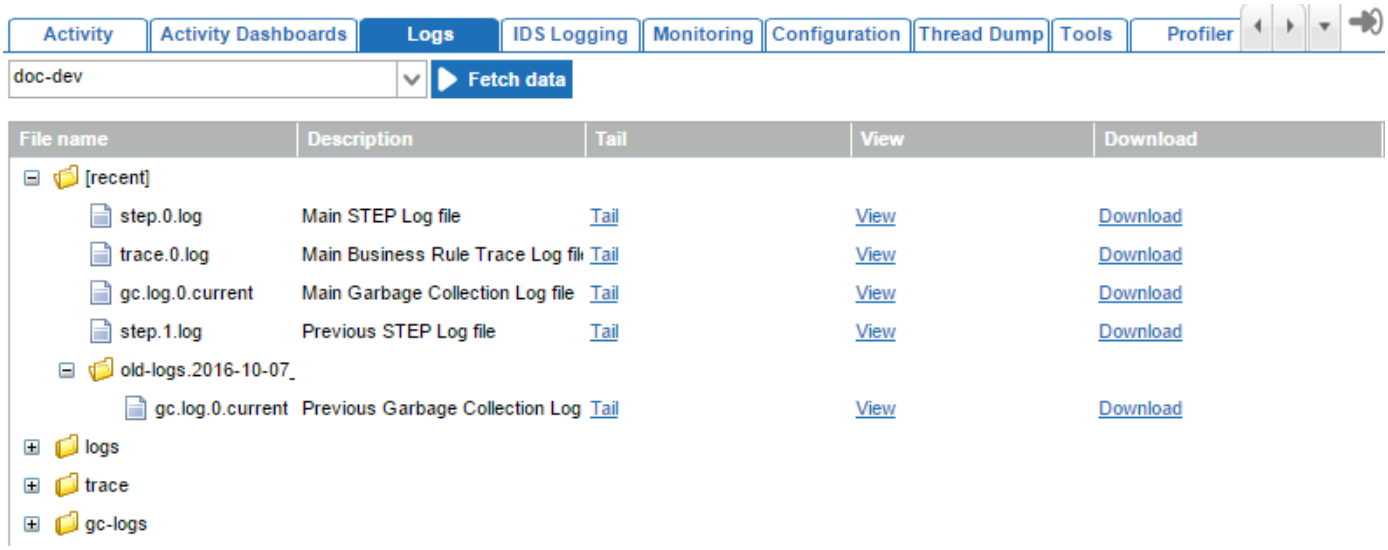
- To keep older activity logs on the system for a longer period of time, storage space should be increased. The default maximum amount allowed for raw log file storage is 1,000 megabytes (`ActivityLog.RawLogs.MaxStoreSize=1000`). This can be overridden by adding the configuration property to the STEP sharedconfig.properites 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.



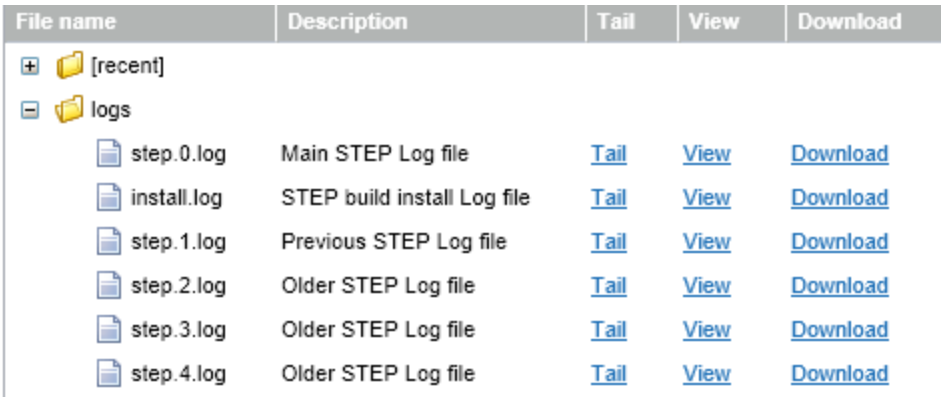
Several properties in the sharedconfig.properties file can be adjusted to control logging functionality. Among other things, these include options to specify where to store particular logs on the application server, how many old log files to retain, and the level of logging that should be employed across the system and/or for particular components. These 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, see 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.



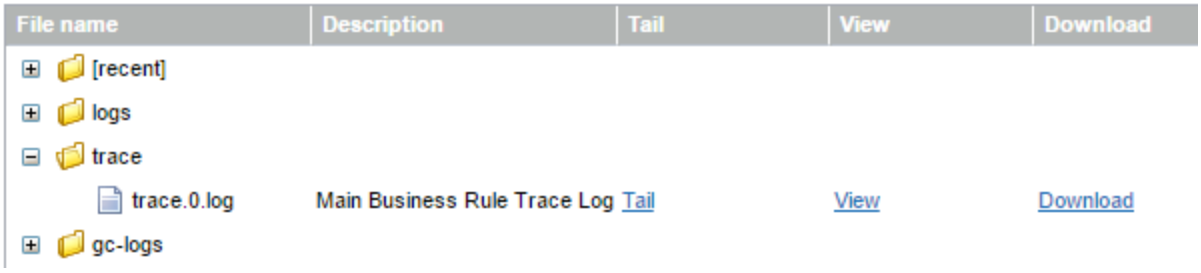
The STEP log files are used primarily for system monitoring and troubleshooting and contain a large amount and variety of information, including stack trace information for errors and exceptions not handled by the GUI. The zero log (step.0.log) is the current log, with older log files indicated by incrementing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

```
2016-12-20-05-45-16   Prepared    step-trailblazer-8.1-mp1-2016-12-21-09-52-59
2016-12-20-05-56-29   Installed   step-trailblazer-8.1-mp1-2016-12-21-09-52-59
2017-02-02-12-30-37   Prepared    step-trailblazer-8.1-mp2-2017-02-03-09-13-01
2017-02-02-12-43-08   Installed   step-trailblazer-8.1-mp2-2017-02-03-09-13-01
```

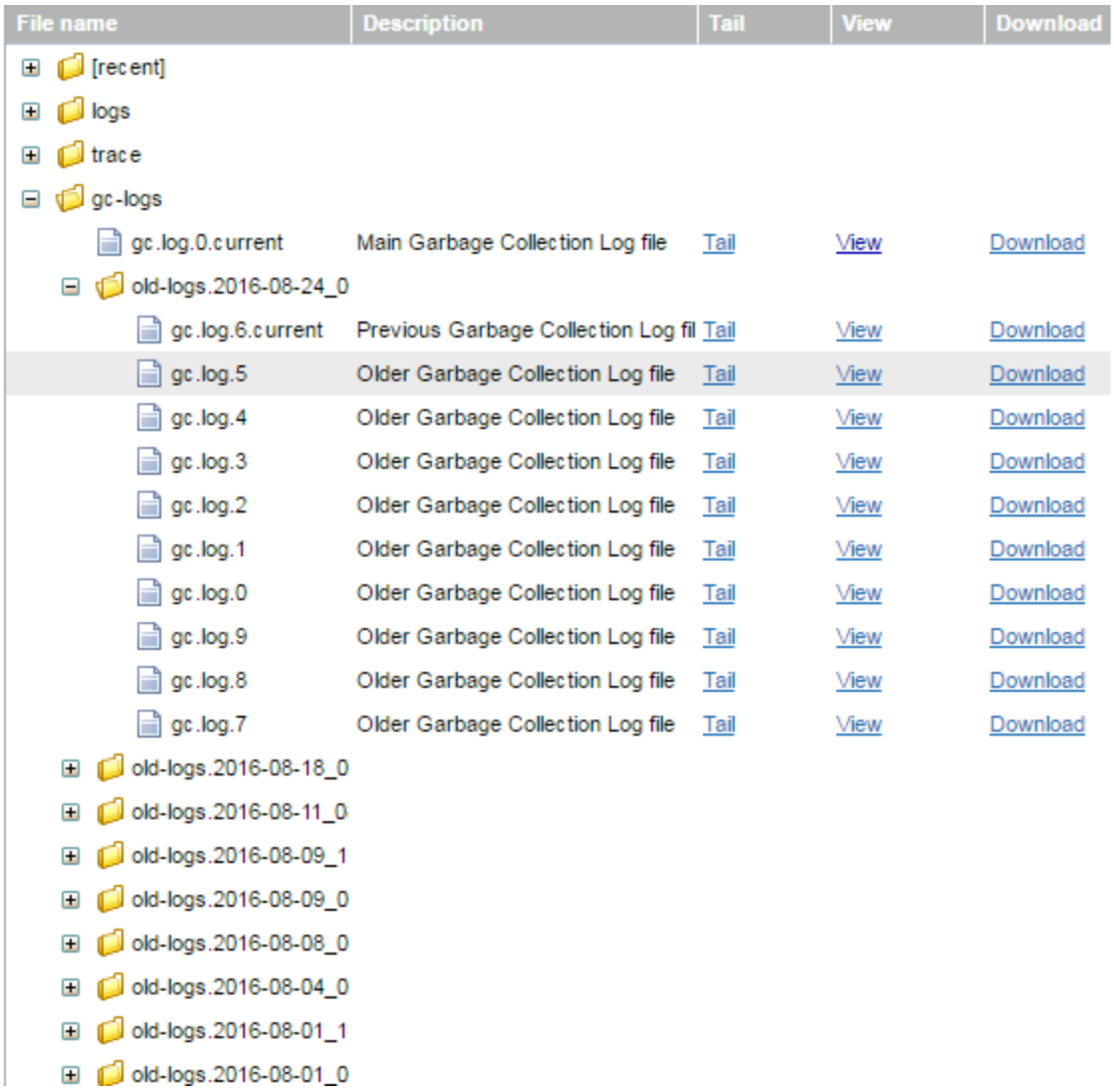
Trace

The trace folder contains the logs for business rules tracing. This functionality is enabled on the Tools tab and is described within that 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.



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.



File name	Description	Tail	View	Download
[recent]				
logs				
trace				
gc-logs				
gc.log.0.current	Main Garbage Collection Log file	Tail	View	Download
old-logs.2016-08-24_0				
gc.log.6.current	Previous Garbage Collection Log fil	Tail	View	Download
gc.log.5	Older Garbage Collection Log file	Tail	View	Download
gc.log.4	Older Garbage Collection Log file	Tail	View	Download
gc.log.3	Older Garbage Collection Log file	Tail	View	Download
gc.log.2	Older Garbage Collection Log file	Tail	View	Download
gc.log.1	Older Garbage Collection Log file	Tail	View	Download
gc.log.0	Older Garbage Collection Log file	Tail	View	Download
gc.log.9	Older Garbage Collection Log file	Tail	View	Download
gc.log.8	Older Garbage Collection Log file	Tail	View	Download
gc.log.7	Older Garbage Collection Log file	Tail	View	Download
old-logs.2016-08-18_0				
old-logs.2016-08-11_0				
old-logs.2016-08-09_1				
old-logs.2016-08-09_0				
old-logs.2016-08-08_0				
old-logs.2016-08-04_0				
old-logs.2016-08-01_1				
old-logs.2016-08-01_0				

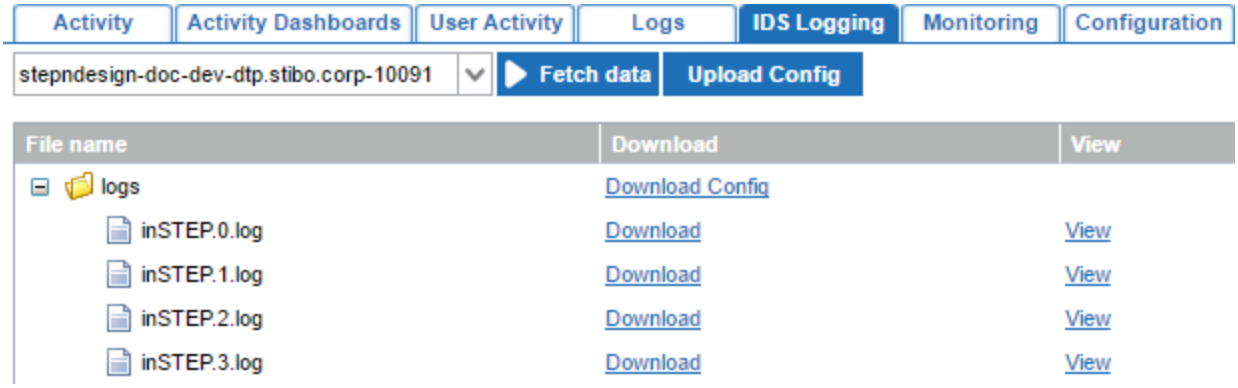
Viewing Options

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, see the **Send Diagnostics** section of this guide.

IDS Logging

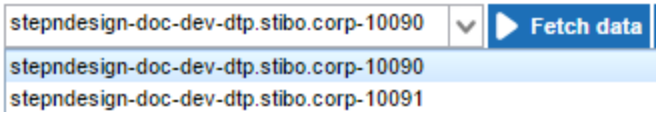
The IDS (InDesign Server) Logging tab allows users to view and download the InDesign server renderer logs, download the DTP log options, and upload DTP log options.



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.

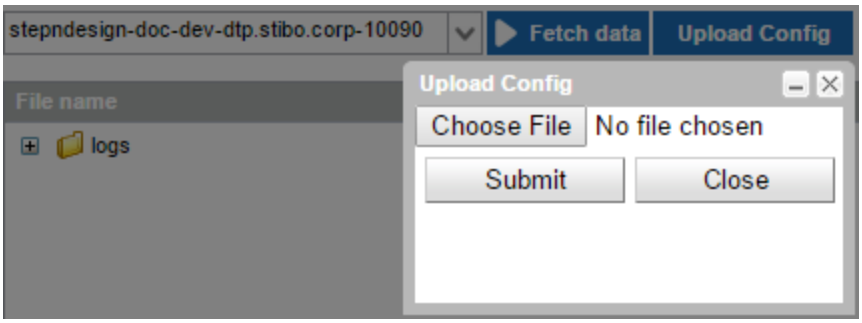
Downloading and Uploading Configurations

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. See 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.

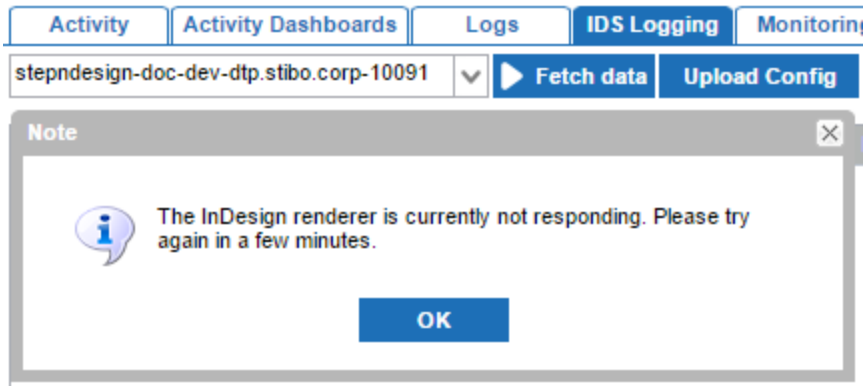
```
<dtpLogFile cycle="1" file="E:\step\stepindesign.sidecar\indesign-10091\logs\inSTEP.0.log" history="4" maxsize="10M" targetName="dtpLog" />
```

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.'



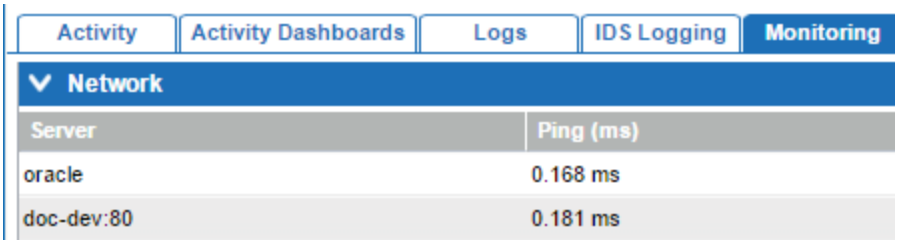
For more information regarding InDesign queues, see the **InDesign Queues** section of the **STEP Publisher** documentation.

Monitoring

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

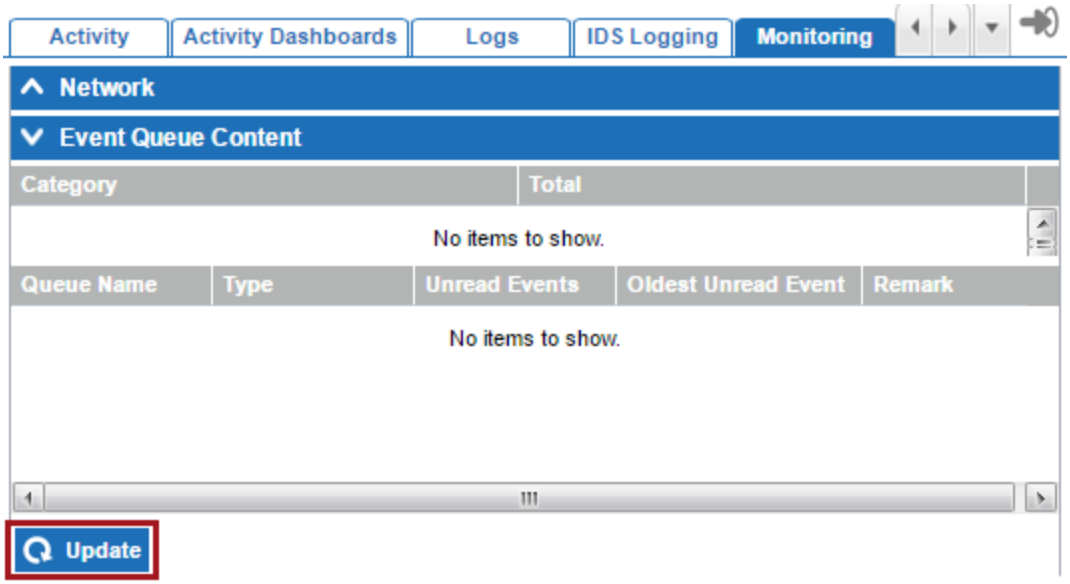
Network

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.

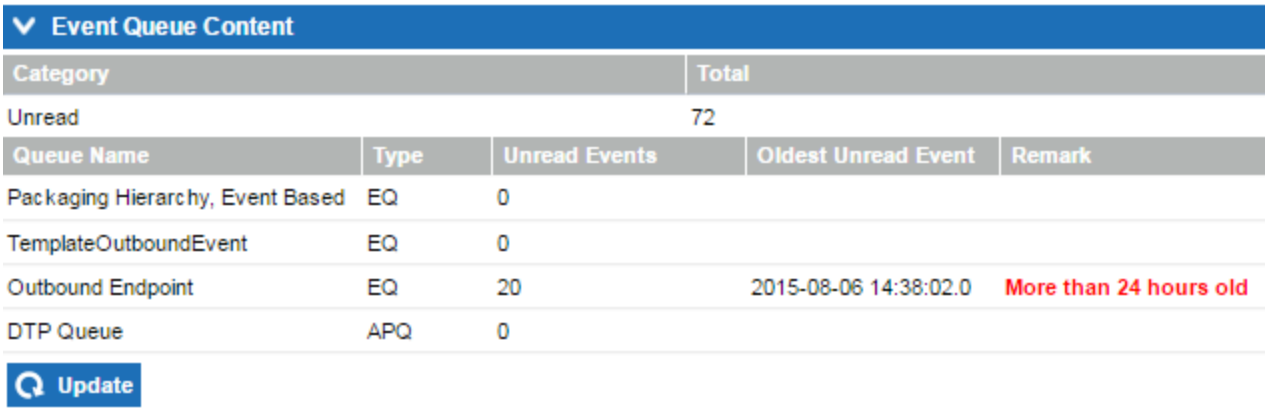


The information retrieved via **Update** is displayed summarily and for individual event queues.

Events are divided into two categories:

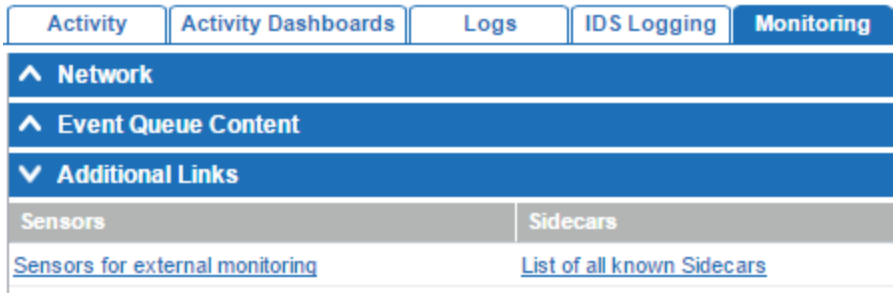
- **Disposable:** Disposable events have been handled in some manner but are still retained for a period of time. If no events fall into this category, it is not displayed in the summary. Events can fall into this category in two ways. 1- Events that have occurred on the system and been processed by 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.



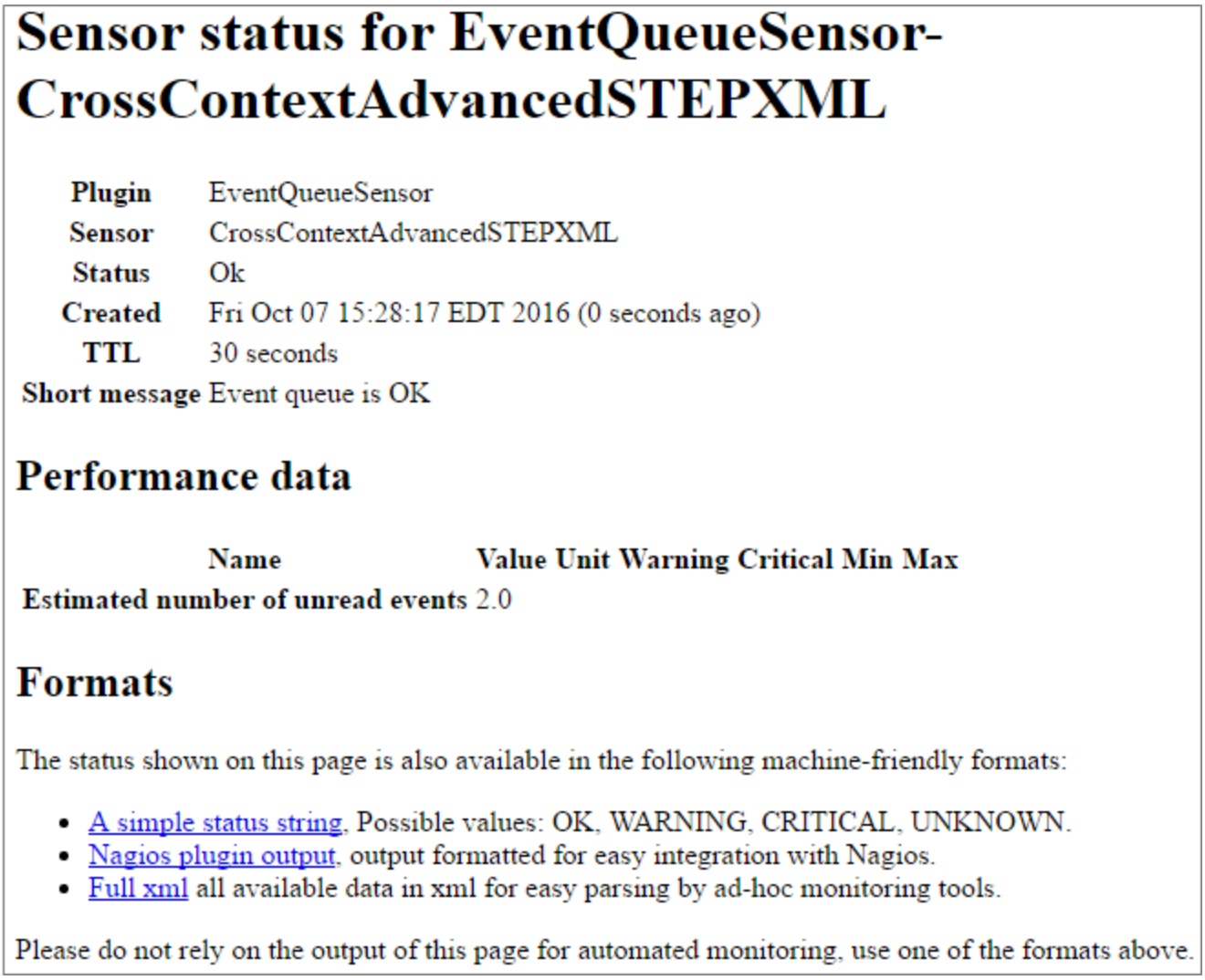
External Monitoring

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, see 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

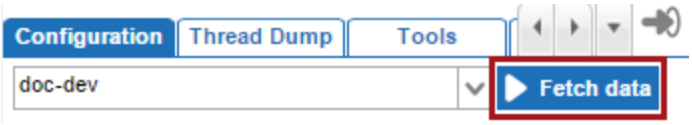
```
Tail of payload0.log
ests: 0 ms, time-save-result: 8 ms, assetIDs: [], statusResults: {}
Sep 21, 2016 10:44:03 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: No events to handle
Sep 21, 2016 10:44:33 AM com.stibo.assetpushclient.AssetPushQueueWorker run
INFO: Fetched 0 requests from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

Configuration

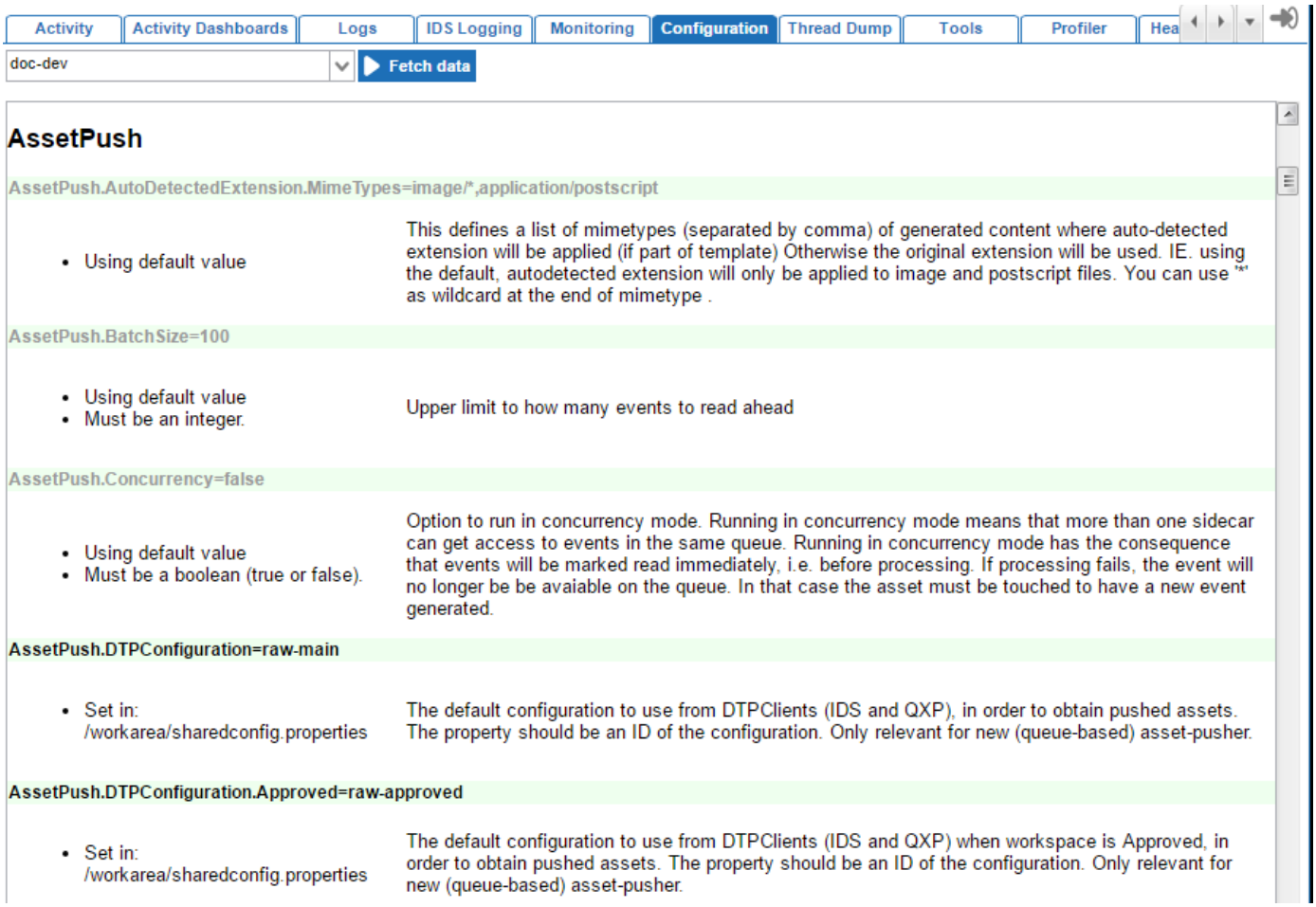
Configuration properties provide system administrators with options for controlling system behavior, logging, processing, storage of information on the application server(s), and many other things. Configuration properties are specified in the config.properties or sharedconfig.properties files on the 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 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).



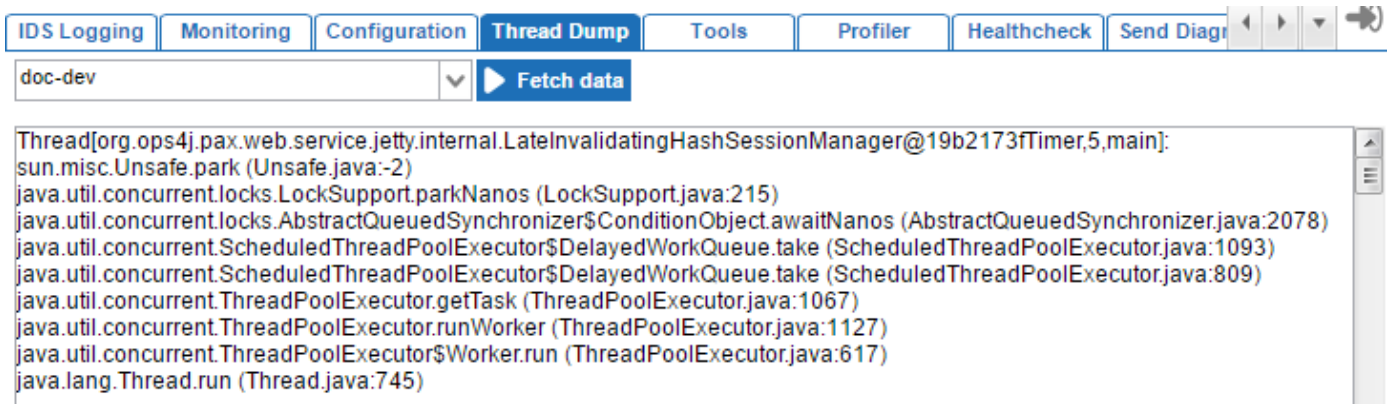
Properties are grouped into categories to aid in navigation, though the simplest way to interact is generally via search (Ctrl + F). Properties that have been explicitly set are shown in bold, while those using system defaults are dimmed. A sampling of properties displaying both default and manual settings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



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

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.

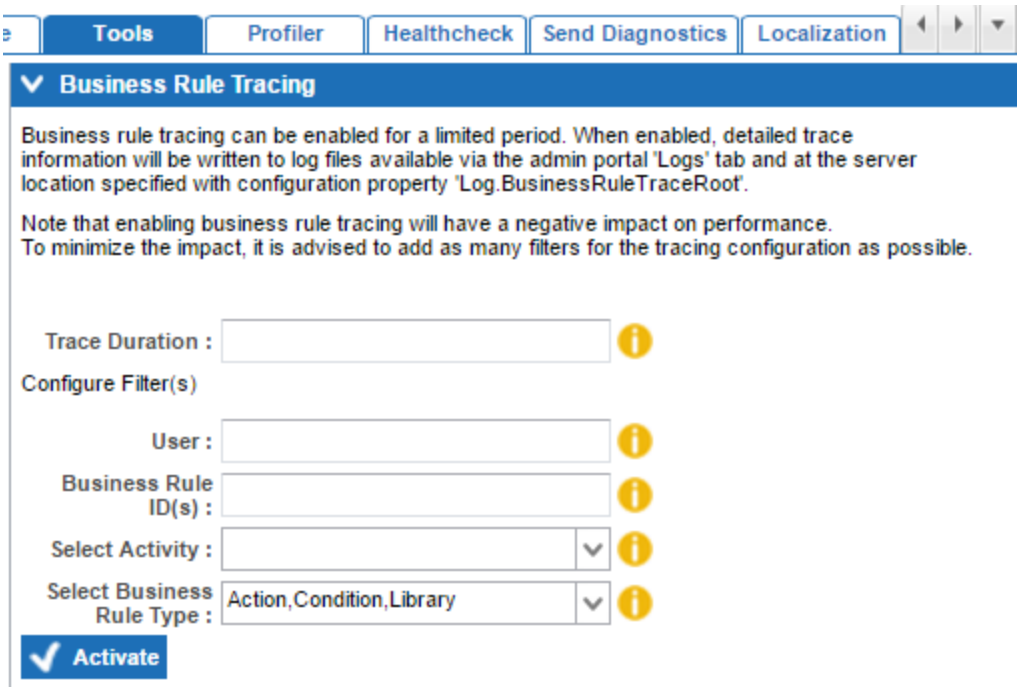


Tools

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.

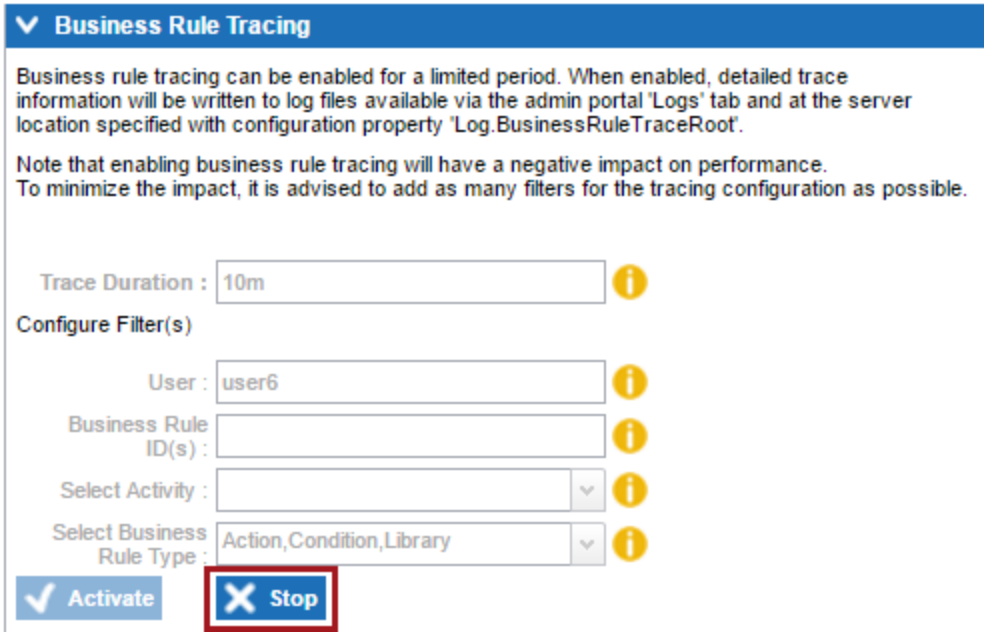


Click the yellow information icon next to each parameter for a complete description of the parameter / filter and any relevant information for populating it.

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

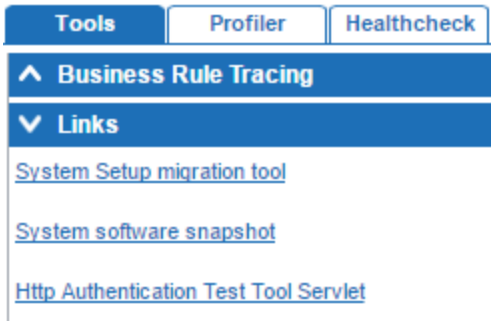
Note: Once tracing has been activated, the relevant business rule(s) must be triggered in STEP within the time frame defined in the Trace Duration parameter so that the rule is active for tracing. Furthermore, if the system is stopped or restarted, any tracing that was in progress will also be stopped.

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 three tools, each of which is described in detail below.

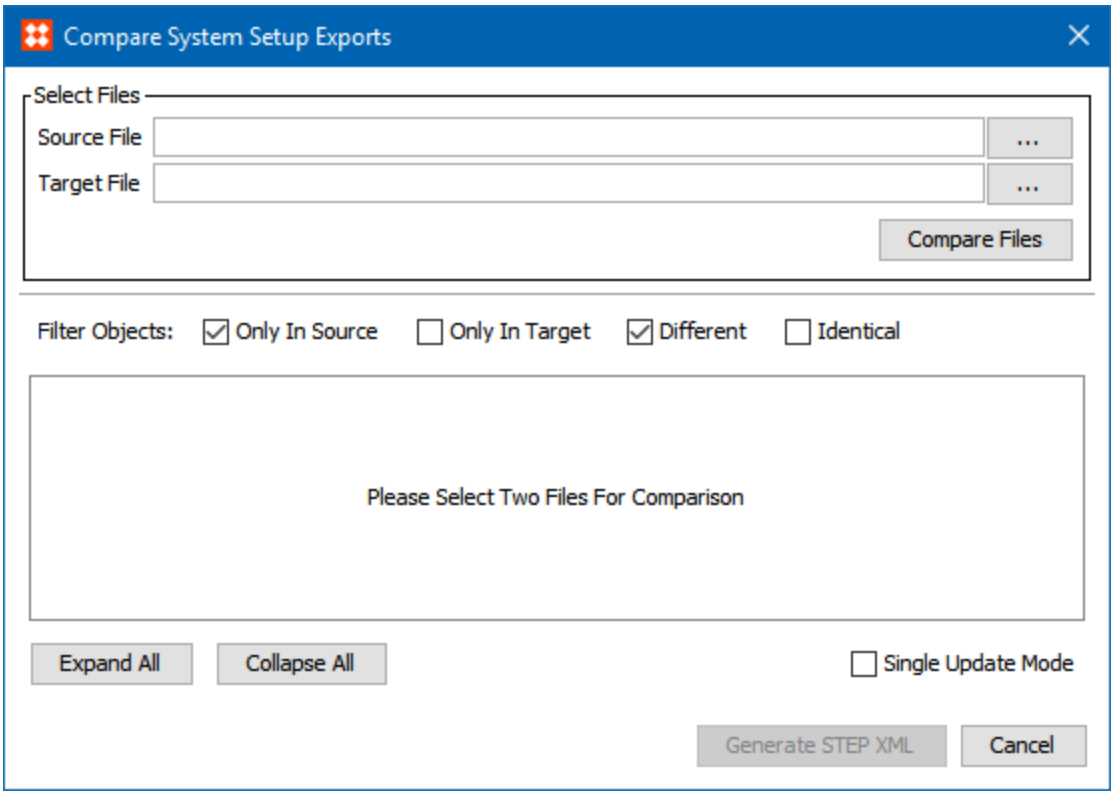


System Setup Migration Tool

Note: The System Setup Migration Tool has been superseded by the change packages functionality available in STEP Workbench and therefore may be removed in a future release. It is recommended that users transition to using change packages, which are described in the **Change Packages** section of the **Configuration Management** documentation.

STEP has the ability to export and import system setup objects in STEPXML, which can be used to migrate system setup configurations from one system to another (e.g., a source system and a target system). However, it may be useful for administrators to compare the configurations of systems prior to loading and/or overwriting a configuration. The System Setup Migration Tool assists administrators in making this comparison by identifying differences and similarities between configuration export files from a source system and a target system. Following comparison, the tool can be used to generate a STEPXML to apply all changes from the source system to the target system, or to apply only a selected subset of changes.

Clicking the **System Setup migration tool** link downloads a systemsetup-migration.jnlp file. Opening the file launches a standard STEP login dialog where the user must enter STEP login credentials. Successful login opens the Compare System Setup Exports dialog.



The complete documentation for this tool is located in the **STEPXML Comparison Tool** section of the **Configuration Management** documentation.

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 seen 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.

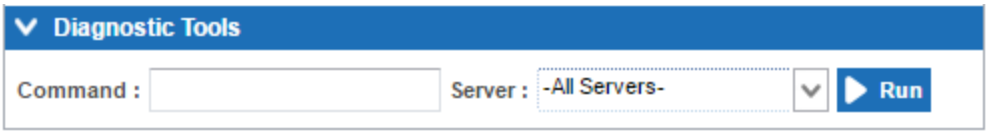
Clicking the **System software snapshot** link downloads an .spr file with the server name and date and time of the extraction included in the file name.

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 STEP Start Page.

Diagnostic Tools

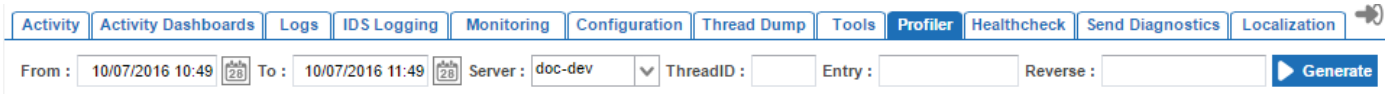
The Diagnostic Tools section allows users to execute a Stibo Systems proprietary command and select a server (or all servers) on which it should be run.



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**.

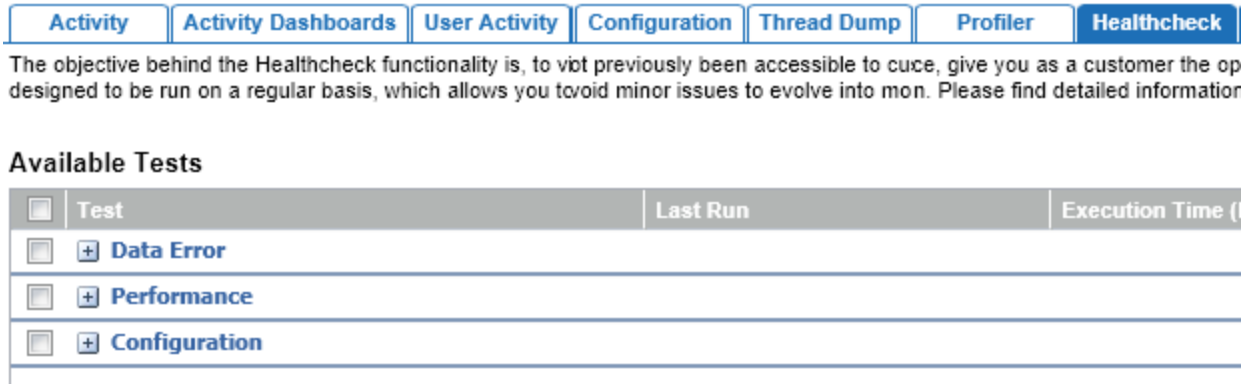


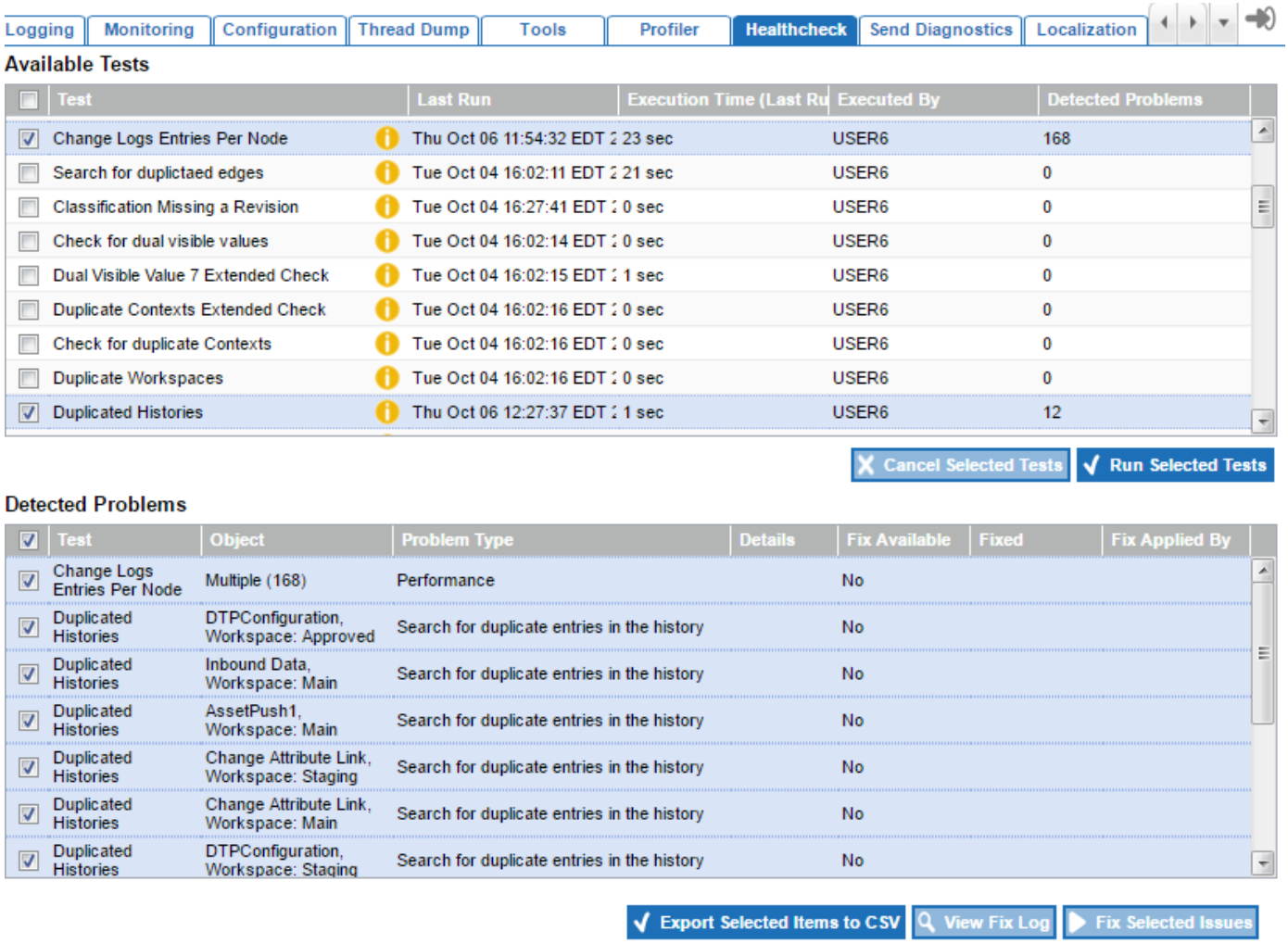
Determination of appropriate parameter values and interpretation of the results requires extensive knowledge of the STEP code base. Therefore, this tab is intended for use by Stibo Systems only and no further description is provided.

Healthcheck

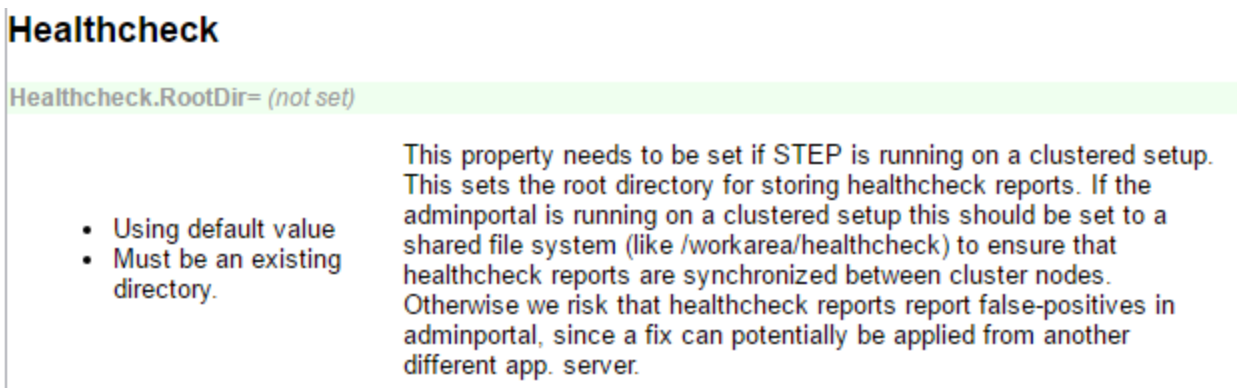
The Healthcheck tab is intended to assist users in identification and resolution of system and performance issues. A set of standard tests are available and Stibo Systems reserves the right to add additional tests as a need for them is identified. The upper portion of the screen allows users to select health checks to be run, while the lower portion provides results for the checks.

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 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.

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 for which you wish 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.

See 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 see 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 see 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 see 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
Node	> 50	Group	Group	Nodes

Result Type	Result Size	Fix Available	Display	Export
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

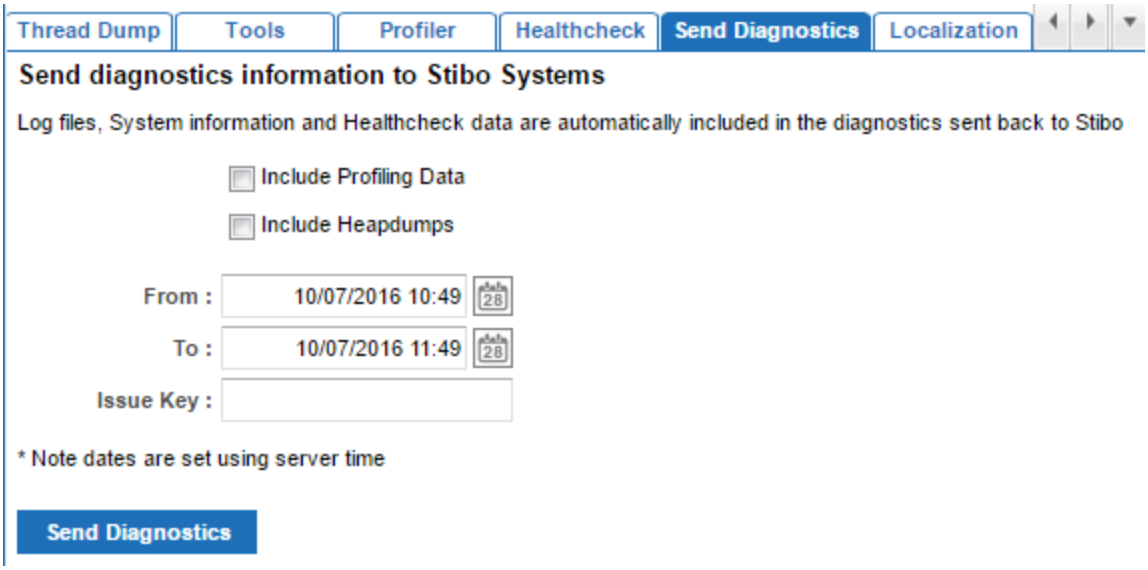
Each column in the results table is described below:

- **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.
- **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.

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.

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 see 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 (STEP 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

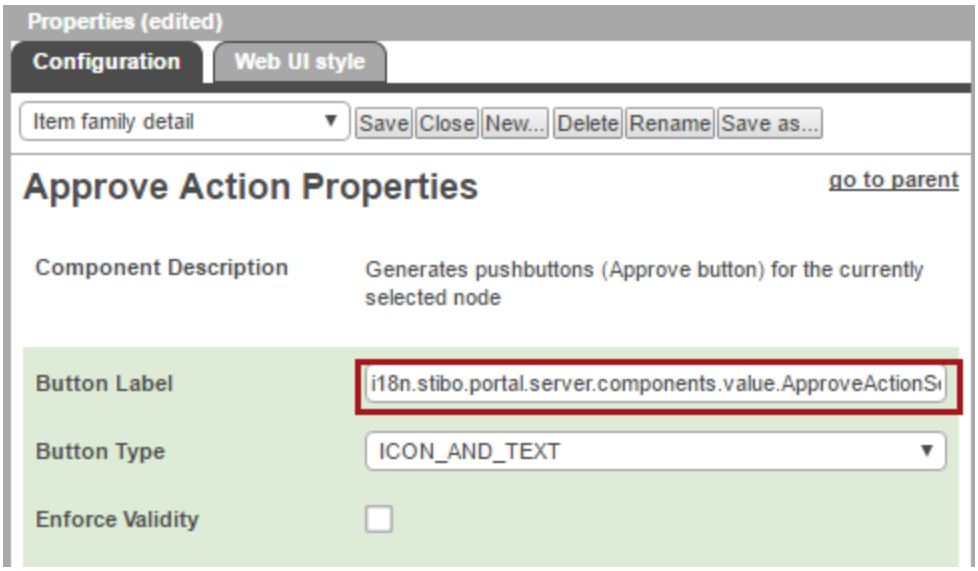
In the above example, the localization key ID is 'i18n.stibo.portal.server.components.value.ApproveActionServerComponent.default.button.Label' and the value 'Save & Approve' is the text string that the end user will see in the Web UI.

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 see the list of localization keys via this URL: [system name]/webui/docs

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

This will provide a webpage 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 you will be able to see 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

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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

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.

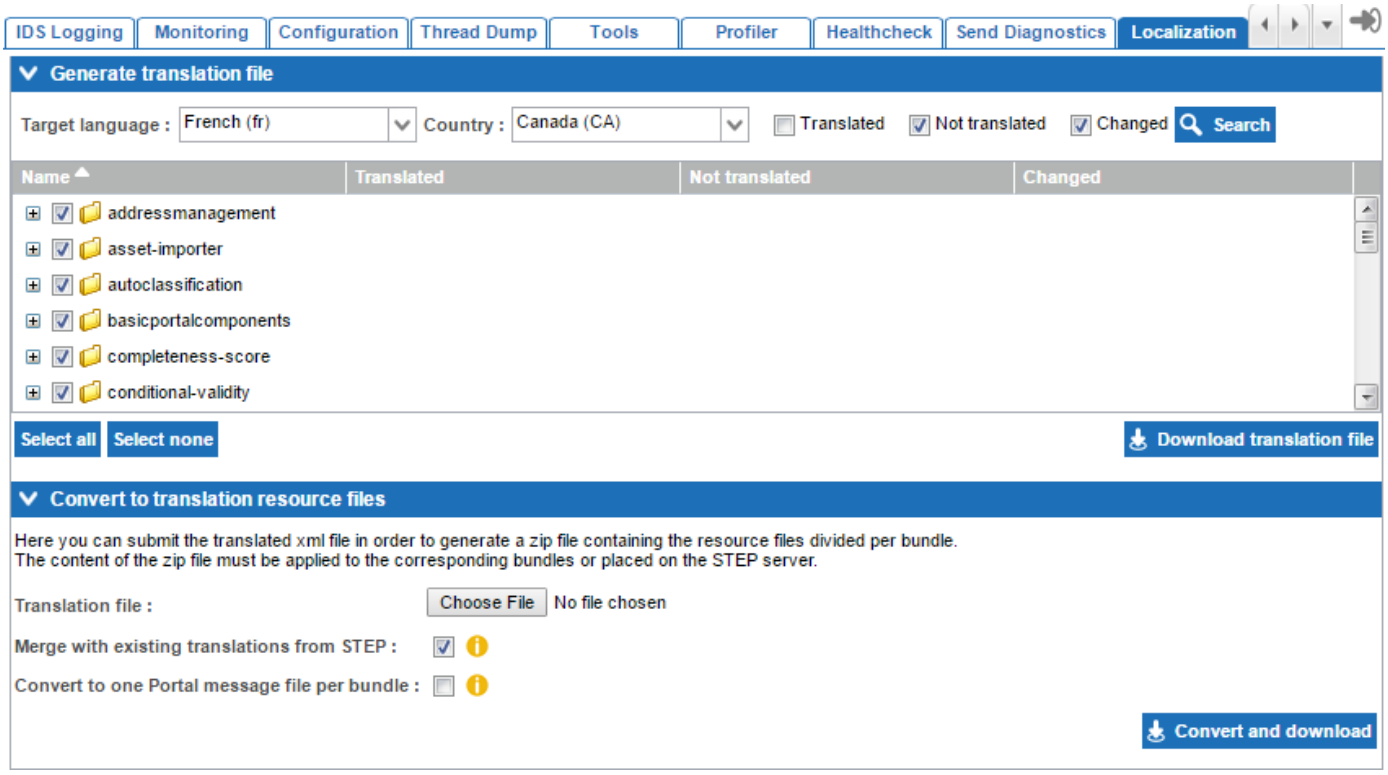
Important: The localization tool does not support key-based localization in STEP Workbench.

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 STEP 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

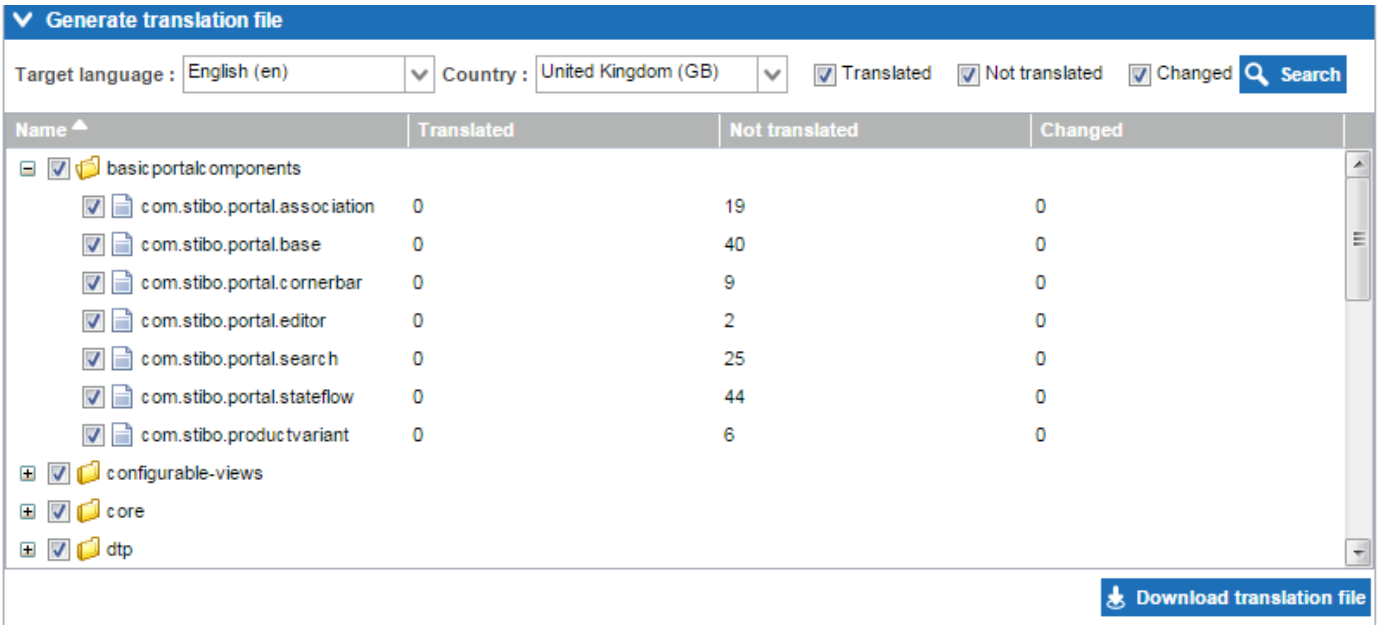
For some languages it is possible to specify a country version of the language. Country should only be specified if the translation is specific to a particular regional dialect.

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.

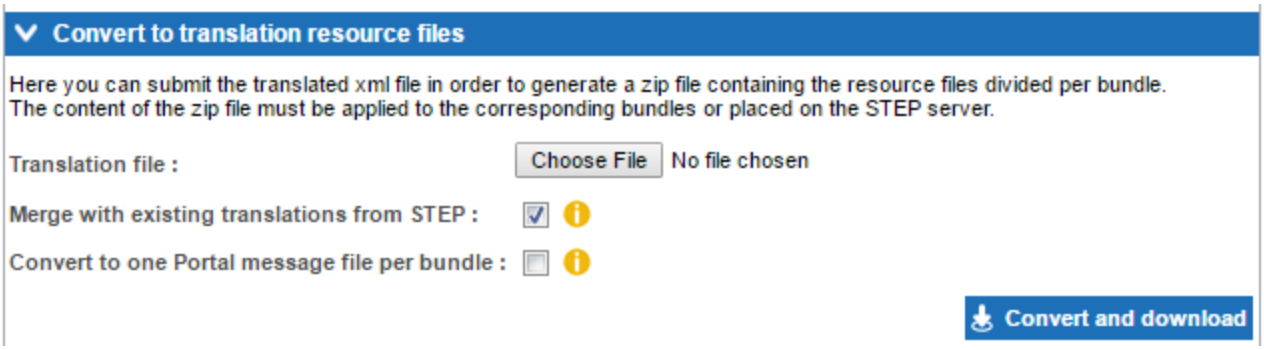
Convert Translation File

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 WebUI, the following parameters must be set in the sharedconfig.properties:

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

For the WebUI: 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=de:STEP Werkbank auf deutsch provides the following option on the Start Page.

Assuming that corresponding German (de) resource files are available, users logging in via this link will view a German-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.

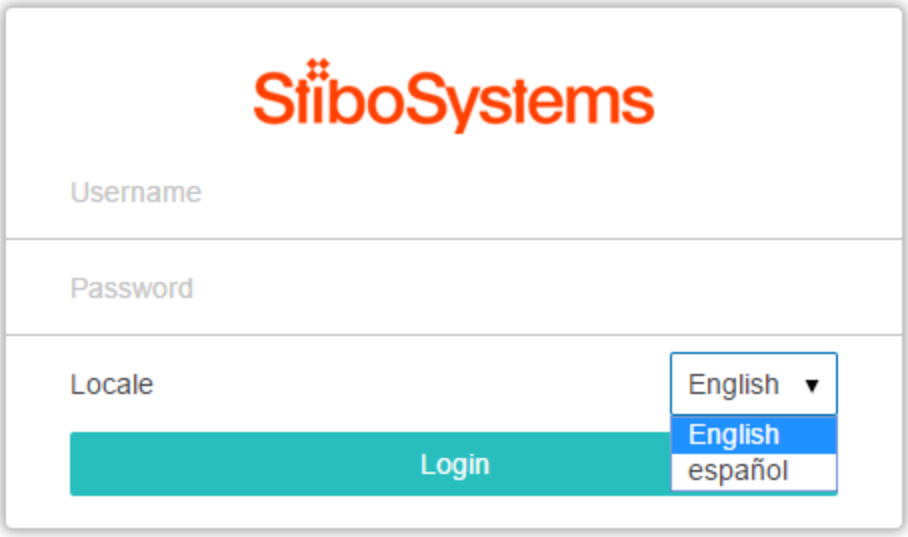
Limitations

- 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
- STEP Workflow state and Workflow Transition names are not localizable
- Texts that are presented on the basis of Business Rules are not localizable

End User Access of Translated UIs

Regardless of the framework used for the translation, end user access for translated interfaces is the same.

Translated STEP Web UIs are accessed via the Locale selector on the login page, as shown below. Note that the locales available to the end user are configurable via the Web UI designer. However, in the designer, the list of locales is determined by the portalmessages files available on the application server. So if 'portalmessages_en.properties' and 'portalmessages_es.properties' files are available on the application server, then the Portal Designer will only list English and Spanish.



Note: A property can be added to the sharedconfig.properties file to force a locale—even if the browser prefers a different language. For example, to force English, the property is WebUI.OverrideBrowserPreferredLocale=en. Setting the locale via the login screen's locale selector, as described above, will overrule this property.

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=de:STEP Werkbank auf deutsch;en: Launch STEP Workbench