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MERCURY BUSINESS AVAILABILITY CENTER™

Application Administration

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Mercury Business Availability Center

Application Administration

Version 6.1

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Application Administration

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Welcome to Application Administration

This guide provides detailed instructions on how to configure and administer Mercury Business Availability Center applications.

How This Guide Is Organized

The guide contains the following parts:

Part I Dashboard Administration

Describes how to use Dashboard Administration to configure and customize the Dashboard application, and how to install and administer the Deep Transaction Tracing feature.

Part II Service Level Management Administration

Describes how to create service level agreements (SLAs) that represent the formal and informal contracts you have with your service providers and with internal business units.

Part III End User Management Administration

Describes how to configure transaction order and color settings as well as report filters.

Part IV Mercury Business Availability Center for SAP Administration

Describes how to install Mercury Business Availability Center for SAP 6.1, the specific tasks involved in administering Mercury Business Availability Center for SAP, how the SAP discovery package discovers SAP-related CIs and general CIs (such as hosts) that are related to them, and provides

information that can help troubleshooting Mercury Business Availability Center for SAP.

Part V Repositories Administration

Describes how Mercury Business Availability Center's repositories provide definitions for objects in the Mercury Business Availability Center system, and how you can customize many of these definitions as required by your organization.

Part VI Appendix

Describes how to register Mercury Diagnostics with Mercury Business Availability Center and how to integrate Diagnostics with Mercury Business Availability Center.

Who Should Read This Guide

This guide is intended for the following users of Mercury Business Availability Center:

- Mercury Business Availability Center administrators
- Mercury Business Availability Center platform administrators
- Mercury Business Availability Center application administrators
- Mercury Business Availability Center data collector administrators

Readers of this guide should be knowledgeable about enterprise system administration and highly knowledgeable about Mercury Business Availability Center.

Getting More Information

For information on using and updating the Mercury Application Management Documentation Library, reference information on additional documentation resources, typographical conventions used in the Documentation Library, and quick reference information on deploying, administering, and using Application Management, refer to *Getting Started with Mercury Business Availability Center*.

Part I

Dashboard Administration

1

Introducing Dashboard Administration

Dashboard Administration enables you to set up Dashboard so that your users can view significant data about the entire system in the Dashboard application.

Dashboard Administration includes the following chapters:

- Chapter 2, "Configuring KPIs" describes how to edit the Key Performance Indicators (KPIs) attached to a configuration item (CI), and to attach new KPIs to CIs, in the KPIs tab.

  The KPIs you create are displayed in Dashboard to help the user monitor how well the business is achieving its objectives and assess the business impact of problems in the system.

- Chapter 3, "Configuring CI Status Alerts" describes how to create alert schemes and attach them to CIs in a view, and to edit those alert schemes, in the CIs Status Alert tab.

  When an alert occurs, send alert messages (notifications) to the recipients, and executes the actions and executable files defined for the alert scheme.

- Chapter 4, "Configuring the Custom Map" describes how to create an association between a custom image that represents a view and real-time data, in the Custom Map tab.

  The custom map you create allows the user to view real-time data on a map or diagram that represents the view.

- Chapter 5, "Configuring the Geographical Map" describes how to create an association between geographical locations and status indicators using a map applet, in the Geographical Map tab.

The geographical map you create allows the user to view real-time data at the geographical location assigned to each CI.

- Chapter 6, "General Administration for Dashboard" describes some of the settings that can be modified to customize Dashboard and logs that you can use to verify that Dashboard is running properly.
- Chapter 7, "Administering Deep Transaction Tracing" describes how to install and manage Deep Transaction Tracing.

  The Deep Transaction Tracing Monitor feature is a monitoring layer that collects more information about the behavior of Business Process Monitor transactions as they run in an external server.

2

Configuring KPIs

The **KPIs** tab in Dashboard Administration enables you to edit the KPIs attached to a CI, and to attach new KPIs or delete KPIs.

This chapter describes:	On page:
Introducing KPI Configuration	6
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Introducing KPI Configuration

The Dashboard KPIs (Key Performance Indicators) provide quantifiable measurements that help you monitor in real-time how well your business is achieving its objectives. They provide real-time status for the CIs representing your business and processes, enabling you to assess the business impact of problems in the system.

Each KPI works with a predefined set of values, against which the incoming metrics are measured. The resulting measurement for the KPI is translated into a color-coded status indicator, displayed in the Dashboard Console, where the color represents a more desirable or less desirable condition for the KPI. You can learn more about KPI functionality in "How Dashboard KPIs Work" on page 9.

CIs can have multiple KPIs attached. KPIs can be attached to a CI as follows:

- KPIs may be attached to the CI as part of the CI creation.
  - For CIs created by the source adapters in Source Manager, all CIs are automatically assigned default KPIs, according to the nature of the CI. For example, a CI for a Business Process Monitor profile has default KPIs for Availability and Performance. For more information on the source adapters and how they define the default KPIs, see *Source Manager Administration*.
  - CIs that are added manually or by Discovery Manager do not have automatically assigned KPIs. For information on how Discovery Manager creates CIs, see *Discovery Manager Administration*.
- KPIs may be attached to a CI as a result of propagation from child CIs. Most KPIs propagate up through the hierarchy, so that parent CIs have the same KPIs as all their child CIs.
- KPIs may be manually attached to a CI in the Dashboard Administration KPIs tab. You may want to attach new KPIs to a CI, in addition to the default/propagated KPIs, to broaden the information derived from the monitoring measurements. For example, you can add an OT Impact KPI to assess the ongoing cost of an application that is not available.

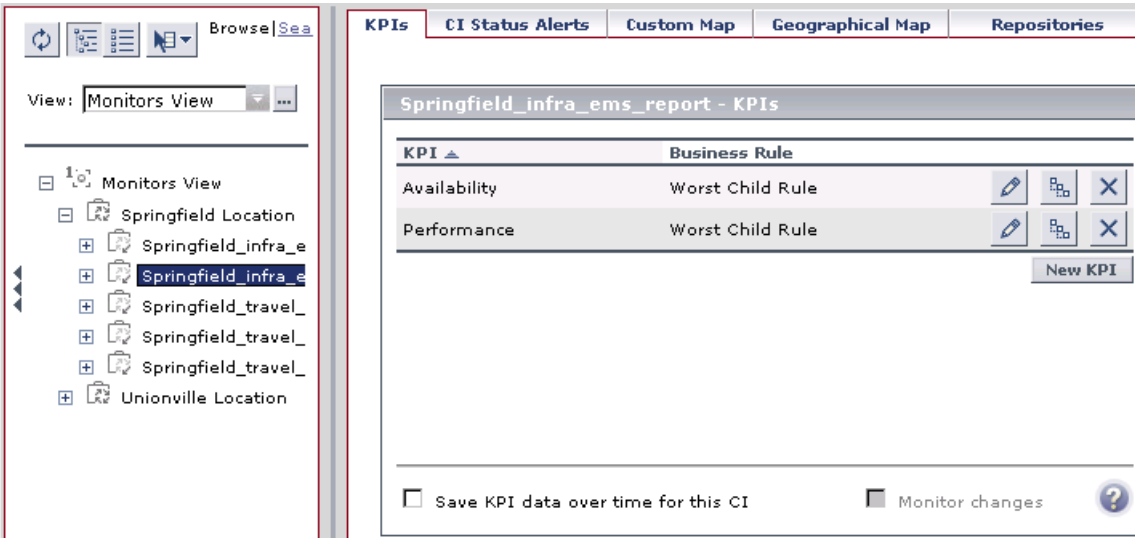
  In the KPIs tab, as well as attaching new KPIs to a CI, you can edit existing KPIs and delete attached KPIs.

Notes and Limitations

- You must create at least one Mercury Business Availability Center profile database in order for Dashboard to receive data samples. For details on how to do this, see "Database Administration" in *Platform Administration*.
- Any change you make to the KPIs for a CI—adding new KPIs, deleting KPIs, or editing KPI properties—will change the CI in the Mercury Universal CMDB, meaning that the changes will be seen in any view that the CI appears.
- There are no restrictions on the type of KPI that can be attached to a CI, or on the type of business rule that you can select from the allowed rules list for a KPI. You must ensure that you select KPIs and business rules that are appropriate for the CI type.
- The Application KPI is only applicable for CIs corresponding to Mercury Diagnostics (and is attached automatically to Mercury Diagnostics CIs when Mercury Diagnostics is supported in Mercury Business Availability Center). For more information, refer to the *Mercury Diagnostics Installation and User's Guide*.
- KPIs that are added to a CI as part of a SLA definition in Service Level Management Administration have no relevance to the Dashboard KPIs and do not appear in the KPIs tab. Conversely, KPIs added to a CI in the KPIs tab have no relevance for the CI when it is included in an SLA, and do not appear for the CI in Service Level Management.
- Deleting a KPI may impact on other KPIs that are dependant on the first KPI. For example, OT Impact is calculated based on the status of another KPI, such as Availability; in this case, deleting the Availability KPI would prevent calculation of OT Impact.
- KPIs that were created for CIs by the source adapter templates, frequently have objective values that differ from the default ones used by the business rule. However, when editing one of these KPIs, if you select a different rule and then revert to the original rule, then the original objective values are replaced with the rule default values.

Working with the KPIs Tab

The right pane of the KPIs tab contains the KPIs table, displaying a list of the KPIs and associated business rules defined for the selected CI.



In order to see the KPI information, you select the required view and then the required CI in the View Explorer in the left pane. (For information on using View Explorer, see "Using View Explorer" in *Working with the CMDB*.)

From the KPIs tab, you can:

- Attach new KPIs to one or more CIs, as described in "Attaching New KPIs to CIs" on page 13.
- Edit an existing KPI for a CI (or for multiple transaction CIs), as described in "Editing KPI Properties" on page 23.
- Delete a KPI attached to a CI, as described in "Deleting KPIs Attached to a CI" on page 31.
- Set Mercury Business Availability Center to save KPI data for CIs, as described in "Saving KPI Data over Time for a CI" on page 32.
- Set Dashboard to monitor (in real-time) changes made to the properties for a selected CI, or to the child CIs for the selected CI, as described in "Real-Time Monitoring of CI Property Changes" on page 36.

Tip: You can sort the information displayed in the KPIs table by clicking on the column header. You can switch the column between ascending and descending order by clicking the header again.

How Dashboard KPIs Work

Mercury Business Availability Center provides a selection of predefined KPIs to work with Dashboard. The templates for the KPIs are defined in an XML file, which contains the default parameters for creating each KPI instance. You can edit the KPI templates, or create customized KPI templates, in the KPIs Repository, as described in Chapter 23, "KPIs Repository."

When a KPI is attached to a CI, a KPI instance is created specifically for the CI, based on the default parameters in the KPI template. The KPI instance generally defines:

- the source for the metrics to be used for the KPI: either from data samples (for monitoring CIs), or from other KPIs.
- the business rule to be used with the collected metrics, to calculate a measurement for the KPI.
- the performance objectives that the calculated measurement is compared against.
- the performance status and color that are allocated to the KPI, depending on how well the measurement met the objectives.
- where and how to display the status indicator for the KPI in Dashboard, and where to store the KPI measurement.

For most KPI types, the KPIs propagate up to all parent CIs (there are exceptions to this, for example, the PNR (Service Level Management) KPI). This means that if you attach a KPI, for example, Volume, to a child CI, then a Volume KPI is also added to each parent CI for that child, up to the top of the subtree.

Each KPI added by propagation has its own KPI instance definition, with its own business rule and properties. For example, the Volume KPI for a child CI may use the RUM Page Monitor Volume Rule, while the Volume KPI for the parent CI (added by propagation from the child CI) may use Worst Child Rule.

The calculations required by the KPI business rule are performed by the Business Logic Engine. When a data sample arrives on the bus and is identified (by means of the KPI selector) as relevant for a specific monitoring CI, the required metrics are passed to the relevant KPI instance for that CI, for example, an Availability KPI. At regular intervals (default 15 seconds) the Business Logic Engine recalculates the measurement for the KPI using the metrics received for the KPI since the last calculation.

If the new measurement causes a change in the status of the KPI, the new status is passed to the parent CIs. The Business Logic Engine then recalculates the measurement for the corresponding KPI of each parent CI, using the new received status information. If the new measurement causes a change in the status for that KPI, the new status is again passed up the hierarchy to the corresponding KPI instances for the parent CIs, and so forth.

Note: You can change the default Business Logic Engine calculation time interval in the Infrastructure Settings page. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Foundations**, select **Online Business Logic Engine**, and locate the **Model calculation interval** entry in the **Calculation Related Settings** table. Edit the value as required.

About Business Rules

A KPI must always have an associated business rule that defines the logic to be performed (by the Business Logic Engine) to calculate the measurement for the KPI. The properties and objectives that are assigned to the KPI depend on the selected rule.

Mercury Business Availability Center provides predefined rules for use with the KPIs. The rules are defined in the Business Rules Repository, where you can edit the rules, or create customized rules. For information on the business rules available in Dashboard, the roles they play, and how to edit them, see Chapter 26, "Business Rules Repository."

Some business rules are specific to a particular KPI, while others can be used for a variety of KPIs. In the KPIs Repository, each KPI has a defined default rule, and a list of rules that can be used with that KPI. (If required, the default rule and the allowed rule list can be modified. For details, see Chapter 2, "Configuring KPIs.")

When a CI is created by the source adapters in Source Manager, it is assigned KPIs and business rules according to the adapter definitions. When a KPI is added manually to a CI in the KPIs tab, it is assigned the default business rule defined for the KPI (the default rule is usually a rule for groups). For example, for the **RT Impact** KPI, there are two applicable rules: **Real Time Impact Rule** and **Sum of Values Rule**. When you add a new RT Impact KPI to a CI, the default rule for the KPI, Sum of Values Rule, is automatically assigned. You can change the assigned rule when adding or editing the KPI in the KPIs tab, by selecting a new rule from the list of allowed rules for the KPI.

There are two categories of business rule, **monitor rules** and **group rules**, as described in the following sections. Most KPIs work with at least one rule from each category.

Monitor Rules

Monitor rules (also called leaf rules) are business rules that are applied to leaf CIs of monitor type. Monitor rules are used to calculate a measurement for the KPI based on original sample data that is caught by the KPI selector. For example, the **RUM Page Monitor Availability Rule** calculates the Availability KPI for RUM Page Monitor CIs, based on the sample data received from Real User Monitor.

A monitoring CI is intended to receive incoming metrics, generally received via one of the data collectors, such as SiteScope, Business Process Monitor, or Real User Monitor. Monitoring CIs are automatically added to the Mercury Universal CMDB by the source adapters in Source Manager, according to the monitoring definitions. These monitoring CIs have default KPIs that use a monitor rule, and predefined selectors.

In general, the leaf CIs in a subtree (the CIs that form the lowest level of the hierarchy) should always be one of the monitoring CIs. When creating new subtrees in your views in IT Universe Manager, you attach monitoring CIs created by the source adapters as leaf nodes, and these CIs then pass KPI status up the hierarchy.

Group Rules

Group rules are business rules that determine KPI status based on data received from other KPIs, rather than from original sample data. The received data may come from the KPIs of child CIs, or from another KPI associated with the same CI.

Note: Even though this category are called *group* rules, some of them are also applicable for monitoring/leaf level CIs. For example, the **Impact Over Time Rule** (used with the **OT Impact KPI**) can be used with a group CI or a monitoring CI. What all rules in this category have in common is that their status calculations are contingent on data received from other KPI instances, rather than from the samples.

The group rules vary in the type of logic they use to arrive at a status result. For example:

- the rule may select a KPI status held by one of the child CIs, and apply that status to the parent, as done by the **Worst Child Rule**.
- the rule may aggregate the received data to calculate a measurement, and compare the measurement with defined objectives, as done by the **Sum of Values Rule**.
- the rule may calculate a measurement based on the status of another KPI for the CI, and compare the measurement with defined objectives, as done by the **Real Time Impact Rule** when receiving status from the **Availability** KPI.

Attaching New KPIs to CIs

You can attach new KPIs to any CI. There can be only one instance of each KPI for a CI. For each new KPI, you define the KPI type and business rule. Where relevant, you also define additional information required by the rule.

Dashboard Administration also gives you the option of attaching a KPI to multiple CIs. The KPI will be added to all CIs that do not already have that KPI attached. All instances of the KPI will have the same defined business rule and properties. The procedure for attaching to multiple CIs is defined on page 19.

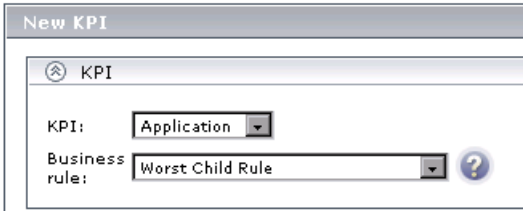
For information on KPI functionality, see "How Dashboard KPIs Work" on page 9.

The actions of attaching a new KPI to a CI, and defining the KPI properties, must be undertaken with care; these actions can result in KPIs that give an inaccurate performance assessment in Dashboard. Please read the "Notes and Limitations" on page 7 before proceeding.

To attach a new KPI to a single CI:

1. Access the **KPIs** tab and select the required CI in View Explorer.
2. Either click the **New KPI** button in the right pane, or right-click the CI in View Explorer and select **Add KPI**. The New KPI window opens, displaying the **KPI** area.

3 In the **KPI** area, select the required options:



- Select a KPI from the **KPI** list. The list contains the names of all available KPIs (KPIs that are already attached to the CI are not included in the list). For an explanation of each individual KPI, see "Dashboard KPIs Details" on page 371.
- After selecting a KPI, the **Business rule** list is automatically updated to display all business rules that are relevant for the selected KPI. Select the required rule from the list. The rule is used to calculate the measurement and status for the KPI. For an explanation of the role of the rules, see "About Business Rules" on page 11. For information on each individual rule, see "Dashboard Business Rules Details" on page 429.

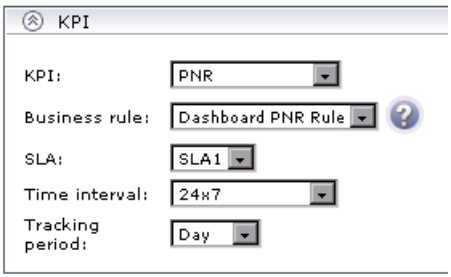


Hold the pointer over the question mark icon to display additional information for the rule.

Note: You should only select a monitor rule if the KPI is attached to a monitoring CI. For more information, see "Monitor Rules" on page 12.

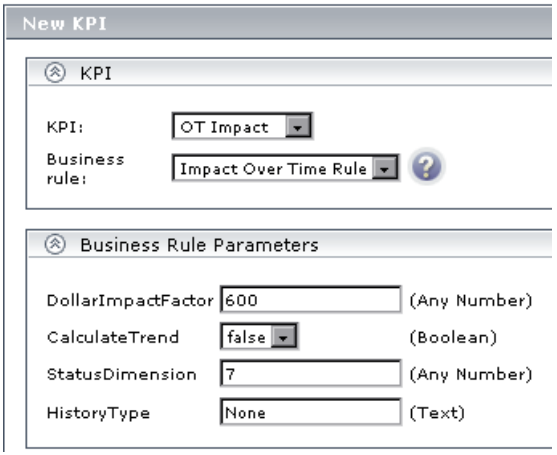
After selecting a rule, the New KPI window is automatically updated to display the areas (**Business Rule Parameters**, **Objectives**, **Selector**) that are relevant for the selected rule.

➤ If you are defining a **PNR** KPI, select the required values from the **SLA**, **Time interval**, and **Tracking period** lists.



For information on defining the PNR KPI, see "Attaching a PNR KPI to a CI" on page 20.

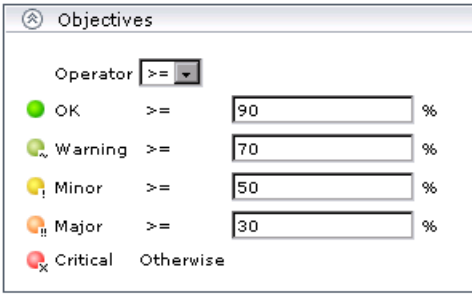
4 Expand the **Business Rule Parameters** area to view the parameters relevant for the selected rule. All parameters have default values.



If required, modify the parameter values by entering a new value in the appropriate boxes. The information after each box directs you as to the type of value that can be entered, for example, **Any Number**, **Text**, or **Boolean**.

For information on rule parameters and possible values, see the section for the relevant rule, as described in Chapter 27, "Dashboard Business Rules Details."

5 If relevant for the selected rule, the **Objectives** area is displayed in the window.



The **Objectives** area define value ranges that will be used to determine status for the KPI. The measurement for the KPI (calculated by the business rule) is compared with the objectives, and a color status assigned accordingly.

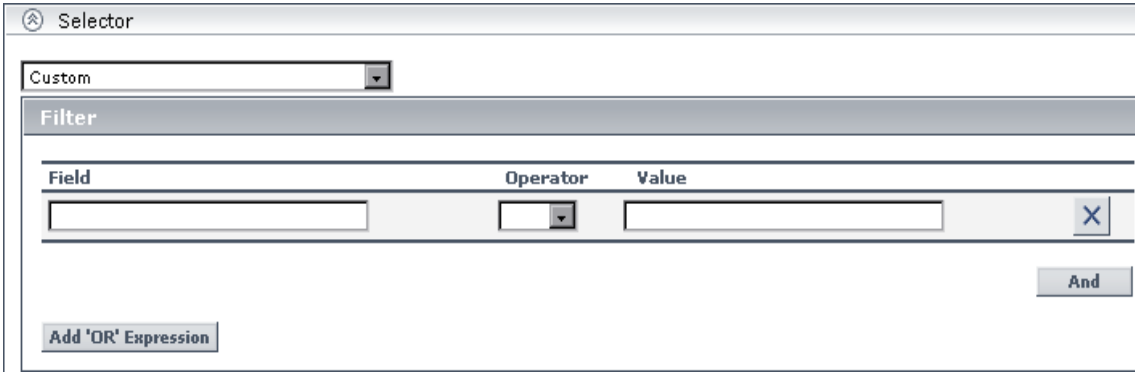
The objectives are defined in a unit of measurement appropriate to the type of data dealt with by the rule. The unit is indicated after the objective value box.

If required, you can modify the default values for the objectives:

- Select the required operator from the **Operator** list. This operator is applied for all objectives.
- Enter the required objective value for each status in the appropriate box. Make sure that the numbers you enter are logically ordered.

For more information on objectives functionality and defining objectives, see “KPI Objectives” on page 38.

6 If relevant for the rule, the **Selector** area is displayed in the window. This area is displayed only for certain monitor rules and for Dynamic Node Factory CIs.



The **Selector** area defines the filter criteria for the KPI. The selector catches data samples from the incoming data that meet the filter criteria. A selector is required for all KPIs (attached to monitoring/leaf CIs) that are intended to calculate a measurement based on original sample data; otherwise no data will be mapped to the KPI and it will remain gray in Dashboard.

Steps 7 to 9 give the basic procedure for defining a selector. For a detailed explanation of selector functionality and defining selectors, see "Selectors for KPIs" on page 46.

Note: If you do not define a selector for the KPI, then after clicking **OK** to close the New KPI window, Mercury Business Availability Center automatically assigns to the KPI the default selector (generally defined for the other KPIs attached to the monitoring CI).

---

7 Selector filters can be manually defined to create a custom filter, or defined using metadata (predefined sample types). If you want to use metadata for the filter, select a sample type from the list at the top of the **Selector** area.



Note: When the list displays **Custom**, the filter is defined manually.

For more information, see "Using Predefined Sample Data for Selectors" on page 51.

8 In the **Filter** area, define selector expressions to create a filter for the selector. Each selector expression defines a required criteria for the new KPI.

Define a single selector expression as follows:

- In the **Field** box, define the name of a reference property contained in the incoming sample.
- Select an option from the **Operator** list.
- Enter the required value for the property in the **Value** box.

For more information, see "Defining Selector Expressions" on page 48.

9 You can define additional selector expressions to build a more complex filter:

- You can attach additional selector expressions to the first selector expression using the **And** button, to create an expression block that narrows the filter.
- You can create additional expression blocks (each containing one or more selector expressions) using the **Add 'OR' Expression** button, to widen the filter.

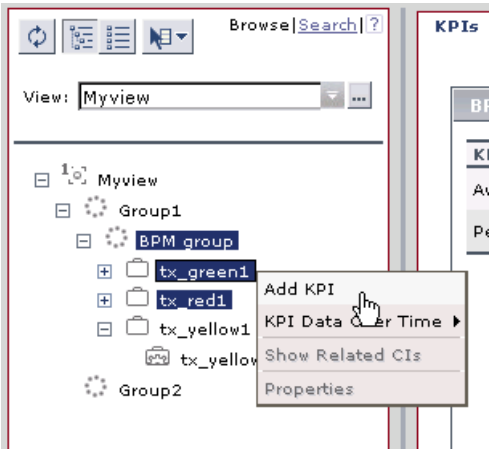
For more details, see "Building Complex Filters" on page 49.

10 Click **OK** to close the New KPI window. The new KPI is added to the KPI list for the CI. If the added KPI is one that propagates up, it is also added to all parent CIs in all subtrees for the original CI.

To attach a new KPI to multiple CIs:

1 Access the **KPIs** tab and select the required CIs in View Explorer using the keyboard CTRL key.

2 Right-click one of the selected CIs in View Explorer and select **Add KPI**.



The Add KPI to Multiple CIs window opens, displaying the **KPI** area.

3 Define KPI details, as described in the procedure for attaching a KPI to a single CI on page 13.

Note: When defining a KPI for multiple CIs, the **KPI** list contains all KPI types.

---

4 Click **OK**. The new KPI is attached to the selected CIs. (If the KPI already exists for a selected CI, the new version is not attached). If the added KPI is one that propagates up, it is also added to all parent CIs in the subtrees for the original CIs.

Attaching a PNR KPI to a CI

The PNR (Point of No Return) KPI enables you to view how well SLA objectives are being met. When the PNR KPI is defined for a CI, a bar is displayed in Dashboard indicating how much more time (in percentages) the CI can be unavailable before the SLA is in breach of contract. For an explanation of unavailability, see "How Dashboard Calculates Unavailability" in *Using Dashboard*.

Perform the following procedure to view Service Level Management data in an information bar in Dashboard.

To set up Dashboard to display Service Level Management data in Dashboard:

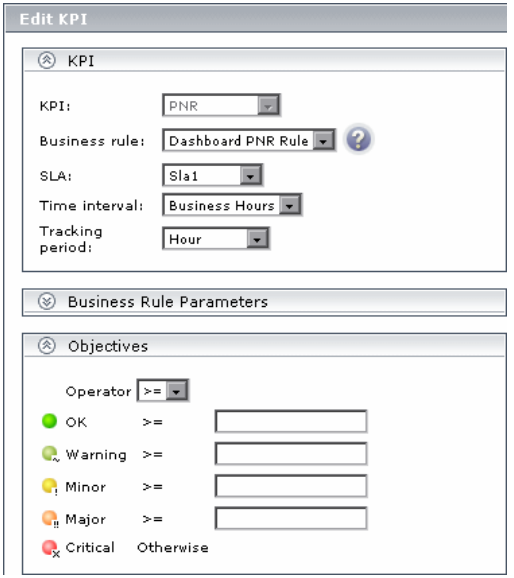
1 Create an SLA. For details, see Chapter 9, "Service Level Agreements (SLAs)." During SLA creation:

- ➤ Add a CI to the SLA.
- ➤ Attach an Availability KPI to the same CI, so that the Dashboard PNR KPI will show data in reports.

Note: An SLA must include a CI with an attached Availability KPI for the Dashboard PNR KPI to show data in reports.

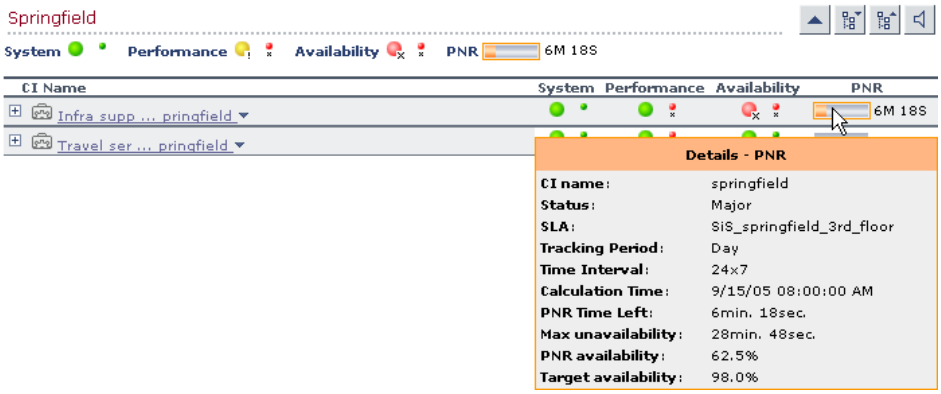
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2 In Dashboard Administration, attach a PNR KPI to the same CI. For details on attaching a KPI, see "Attaching New KPIs to CIs" on page 13. During KPI creation:



- Choose the PNR KPI.
- Select the SLA whose data is to be displayed in Dashboard.
- Select the time interval and tracking period. These parameters are defined when creating the SLA. For details, see "Defining an SLA: Properties" on page 162.
- Add the objective's ranges that Dashboard uses to calculate when unavailability time approaches breach of contract levels.

3 View the results in Dashboard: **Applications** > **Dashboard** > **Console**. Choose the view and select the CI.



For details on the information that Dashboard displays in the Console page, see “Service Level Management Results in Dashboard” in *Using Dashboard*.

Editing KPI Properties

You edit KPI properties for individual KPIs in the Edit KPI window. You can also perform a multiple edit on certain KPI properties for transaction CIs.

Editing KPI properties must be undertaken with care; the changes can result in KPIs that give an inaccurate performance assessment in Dashboard. Please read the "Notes and Limitations" on page 7 before proceeding.

This section contains the following topics:

- "Editing KPI Properties for a CI" on page 23
- "Editing KPI Properties for Multiple Transactions" on page 24

Editing KPI Properties for a CI

You can modify all properties for a defined KPI, whether it is a default KPI for the CI, or a KPI attached by a user.

To edit KPI properties:

1 Access the **KPIs** tab and select the required CI in View Explorer.

2 Click the **Edit KPI** button for the KPI you want to edit.



The Edit KPI window is displayed, containing the properties defined for the KPI.

3 You can modify all properties apart from **KPI**. For details on modifying KPI properties, see the procedure in "Attaching New KPIs to CIs" on page 13.

4 Click **OK** to save your changes.

Editing KPI Properties for Multiple Transactions

The KPIs tab has a multiple edit function, enabling you to modify the Availability or Performance KPIs for all BPM Transaction from Location CIs in a group. This function enables you to define new business rule parameter values and/or objective values for all child transactions CIs that appear in a subtree of a view, in one operation.

You define the new values in the Edit KPI for Child Transactions window. Every new value you define will replace the previous value for that property, for each transaction CI in the subtree. Property boxes left blank in the Edit KPI for Child Transactions window will not affect the CIs.

Before using the Edit KPIs for Child Transactions function, you should make sure that the planned new values are logical for all transaction CIs in the subtree. You should also review the Notes and Limitations section on page 29.

This section includes the following topics:

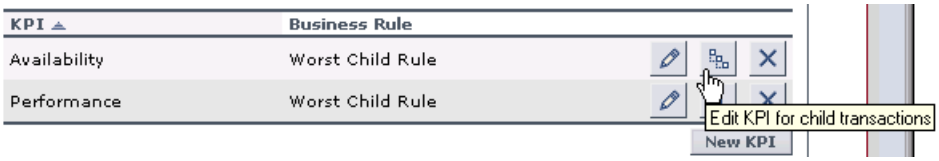
➤ "Example" on page 26

➤ "Notes and Limitations" on page 29

To edit KPI properties for multiple transactions:

1 In the **KPIs** tab, select the required group-level CI in View Explorer.

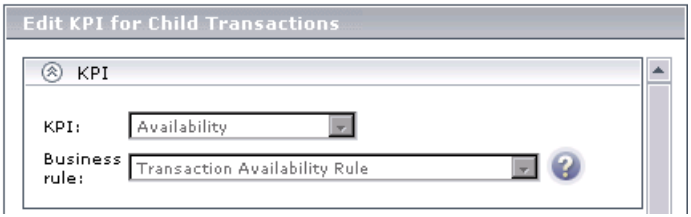
2 Click the **Edit KPI for child transactions** button corresponding to the KPI (**Performance** or **Availability**) that you want to edit.



The Edit KPI for Child Transactions window opens.

3 The Edit KPI for Child Transactions window displays the **KPI**, **Business Rule Parameters**, and **Objectives** areas. The **KPI** area contains the names of the

KPI and the default monitor business rule for the KPI (these properties are read only).



In the **Business Rule Parameters** and **Objectives** areas, the value boxes are empty. Enter the required values in the boxes, or select a different operator for the objectives. Make sure you enter values that apply logically to all transactions in the group.

For information on rule parameters and possible values, see the section for the relevant rule, as described in Chapter 27, "Dashboard Business Rules Details."

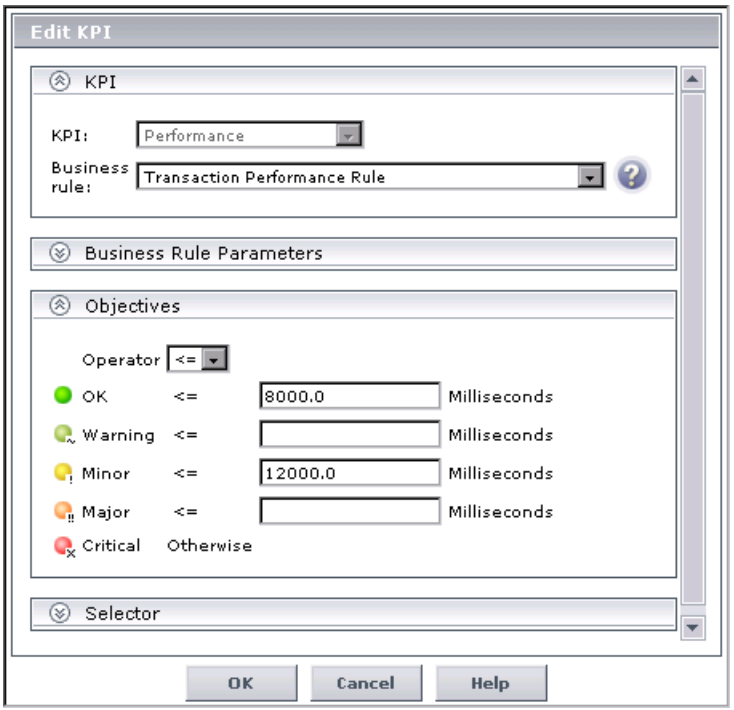
For information on defining objectives, see "KPI Objectives" on page 38.

4 Click **OK**. All transaction CIs in the group are updated with the new defined values.

Example

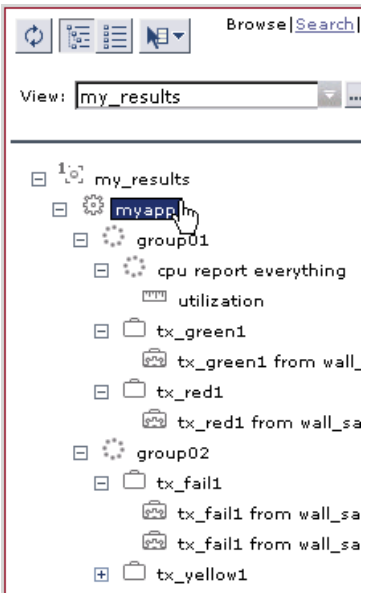
The following example describes editing the objective values for transaction CIs in a subtree.

1 In the **KPIs** tab, the Performance KPI objective values for every transaction CI in the myapp subtree are as follows (displayed by clicking the **Edit KPI** button for any of the transaction CIs):

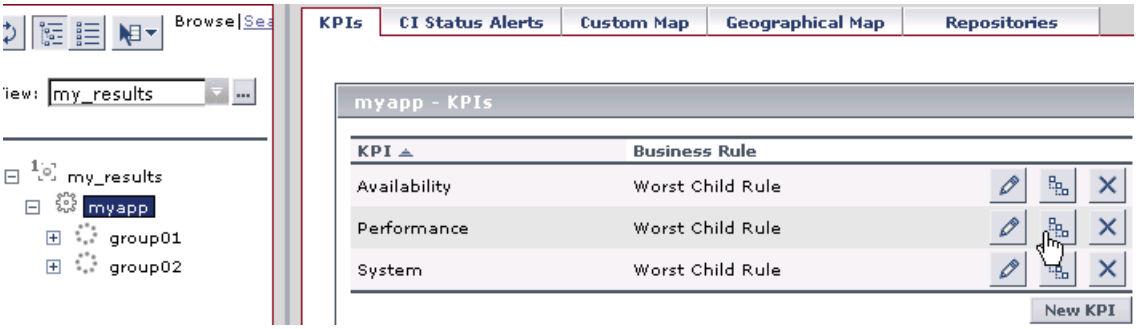


For this example, two additional objective values are added, to include **Warning** and **Major** status levels for each transaction CI, and the **Minor** objective value is modified.

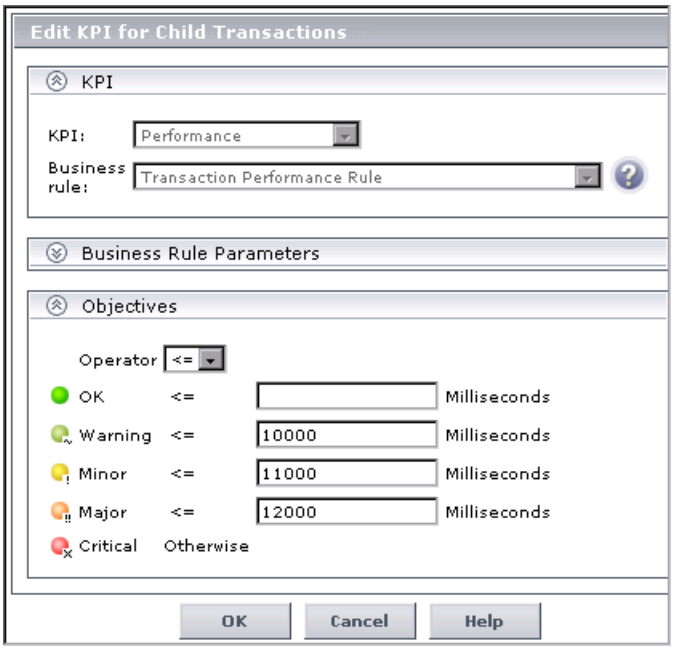
2 In View Explorer, select the parent CI for the subtree—in this case, the Application CI myapp:



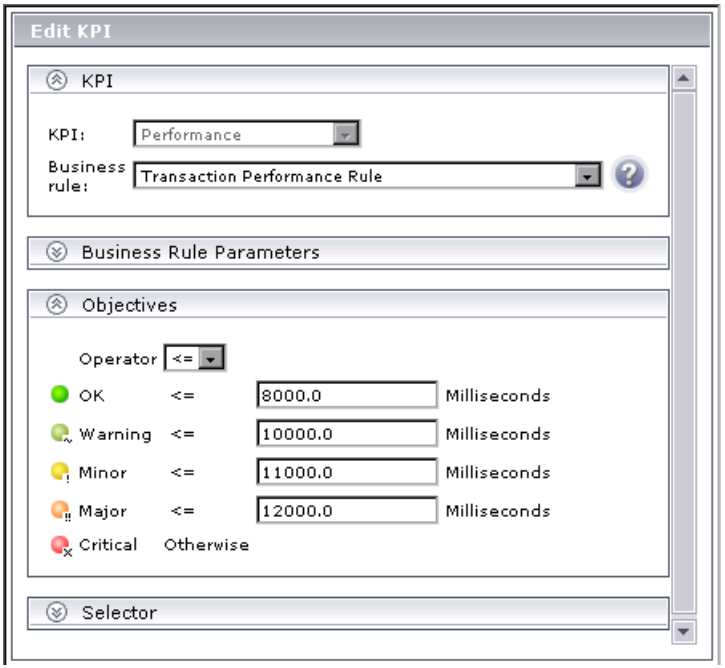
3 In the right pane, click the **Edit KPIs for child transactions** button for the required KPI—in this case, the Performance KPI.



4 In the Edit KPI for Child Transactions window, enter the required values—in this case, 10000 for **Warning** objective, 11000 for **Minor** objective, and 12000 for **Major** objective.



5 After applying the changes, all transaction CIs in the myapp subtree have the following objective values defined:



Notes and Limitations

- The **Edit KPI for child transactions** button is enabled for all KPIs, but:
  - the option does not function for KPIs other than Transaction and Availability (an error message is displayed for other KPIs).
  - for Transaction and Availability KPIs, the option has validity only when there are Business Process Monitor transaction CIs contained in the subtree.

  Changes made in the Edit KPIs for Child Transaction window will have no effect on CIs/KPIs for which the option does not apply.
- After applying the Edit KPI for child transactions option, a **KPI was saved successfully** message is displayed in the top-right corner of the page, even if no changes were made to any CIs.

- If a transaction CI in the subtree is using a business rule other than the default monitor rule for the KPI (Transaction Availability Rule or Transaction Performance Rule), then when you apply the Edit KPI for child transactions option, the existing rule is replaced with the default rule.
- The **Objectives** area in the Edit KPIs for Child Transaction window displays the default **Operator** for the rule. When you apply your changes, the displayed default operator will be updated to all transaction CIs (regardless of which operator they were using previously).

No Data Timeout for Transaction CIs

When a KPI is using a monitor rule (for example, the Transaction Availability Rule), the **Business Rule Parameters** area includes the **No data timeout** property. This property defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out—at which point the KPI changes to decay status (gray).

The default value for the **No data timeout** property is generally taken from the monitor rule definitions (as defined in the Business Rules Repository). However, for Business Process Monitor transaction CIs, Dashboard calculates a new **No data timeout** value, based on the schedule for running the transaction. The calculation takes the schedule interval (defined in Monitor Administration) for the Business Process profile that contains the transaction (default value = 15 minutes) and adds an additional 90 seconds. For example, for a transaction with a schedule interval of 15 minutes, the **No data timeout** value will be 990 seconds. (For details on defining the profile schedule, see "Using the Hosts Tab" in *End User Management Data Collector Configuration*.)

This calculation method means that the timeout value is automatically adjusted to align with changes made to the profile schedule interval in Monitor Administration, so that the KPI is not incorrectly timed out. If there is more than one scheduling scheme in effect, the following rules are used for the calculation:

- If multiple schedules are defined for a profile running on a Business Process Monitor instance, the largest schedule interval is used (all schedules are treated equally, whether they apply to the whole week or part of the week).

➤ If the profile is assigned to several locations, each with a different schedule, then smallest interval from amongst the locations is used (after first applying the rule above).

Deleting KPIs Attached to a CI

You can delete any KPI attached to a CI. When you delete a KPI, it removes the upwards propagation of the KPI to all parent CIs. This means that if you delete a KPI for a CI, and that KPI is not defined for any of the sibling CIs, then it will also be deleted from the parent CI.

Deleting KPIs must be undertaken with care; the changes can impact on the status of other KPIs. Please read the "Notes and Limitations" on page 7 before proceeding.

To delete a KPI:



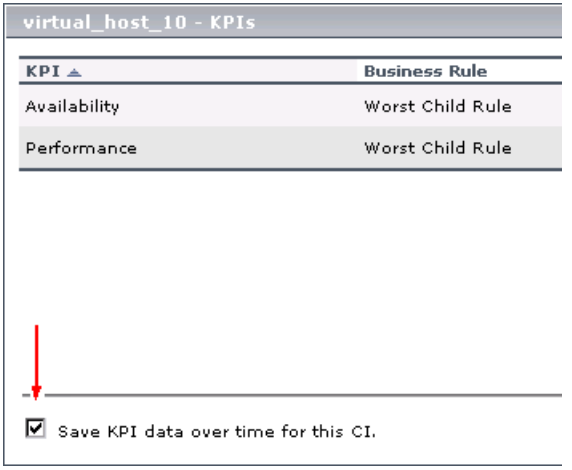
1 In the **KPIs** tab, click the **Delete KPI** button for the KPI you want to remove.

2 Click **OK** in the confirmation box. The KPI is removed from the CI, and, if applicable, from all parent CIs.

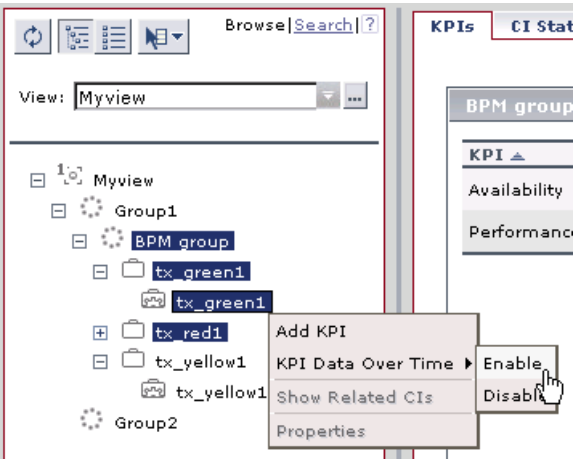
Saving KPI Data over Time for a CI

If required, data on status and measurements over time for a CI can be saved in the database. The persistent data is used to produce KPIs over time reports, as described in "KPIs Over Time Report" in *Using Dashboard*.

In order to save data for a CI, the **Save KPI data over time for this CI** check box must be selected for that CI in the **KPIs** tab.



You can enable/disable this option for multiple CIs by selecting the required CIs in View Explorer (using the keyboard CTRL key) and right-clicking one of the selected CIs.



The **Save KPI data over time for this CI** option is selected by default for CIs of the following types:

- **Business Process**
- **Business Process Group**
- **Line of Business**
- **Application** (logical application)
- **End User Management Application Related Group**

The option is not available (disabled) for monitoring CIs.

When the option is selected, all status changes (for example, from red to green) for all the CI KPIs are written to the database. (If you also want to save data on the actual measurements for the KPIs, you must change the default settings for Dashboard in the Repositories, as described in "Saving Measurements Data" on page 34.)

Saving status (and measurements) data for long periods or for many CIs can occupy a lot of database memory, so this option should be used with care. When you no longer require data to be saved for a CI, deselect the **Save KPI data over time for this CI** check box.

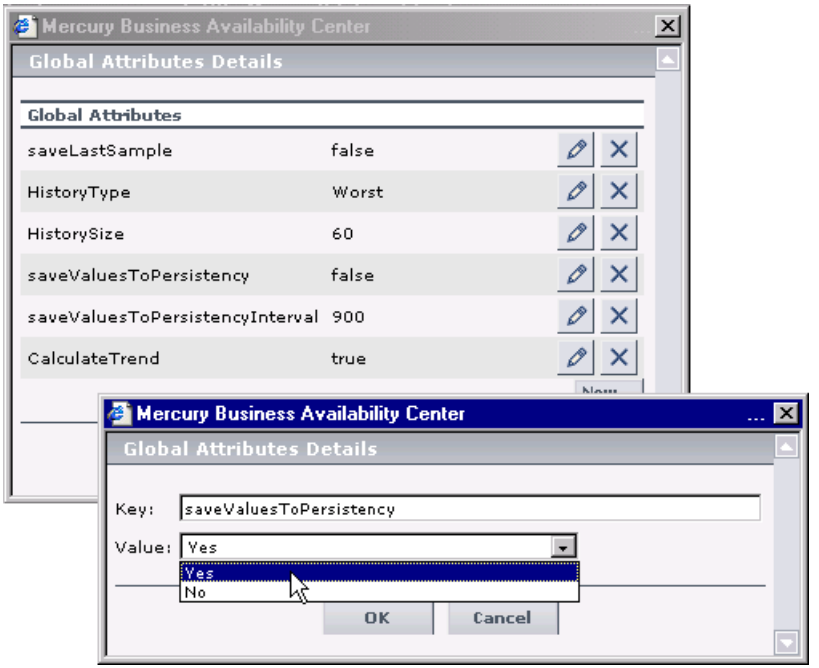
Saving Measurements Data

If required, the **Save KPI data over time for this CI** option can also be used to save the calculated measurement for each of the CI KPIs, at 15 minute intervals (default value). This is done by activating the **saveValuesToPersistency** global attribute in the Rules Repository.

To activate Dashboard to save measurements data:

1. Access the **Dashboard Administration** > **Repositories** > **Business Rules** page.
2. Click **Edit Globals** (in the **Factory Rules** area).
3. In the **Global Attributes** list, click the **Edit** button for **saveValuesToPersistency**.

4 In the displayed Global Attributes Details window, change the **Value** parameter from No to **Yes**.



Click **OK**.

5 If you want to change the default interval (900 seconds) for collecting measurements data, then in the **Global Attributes** list, click the **edit** button for the **saveValuesToPersistencyInterval**, and modify the value.

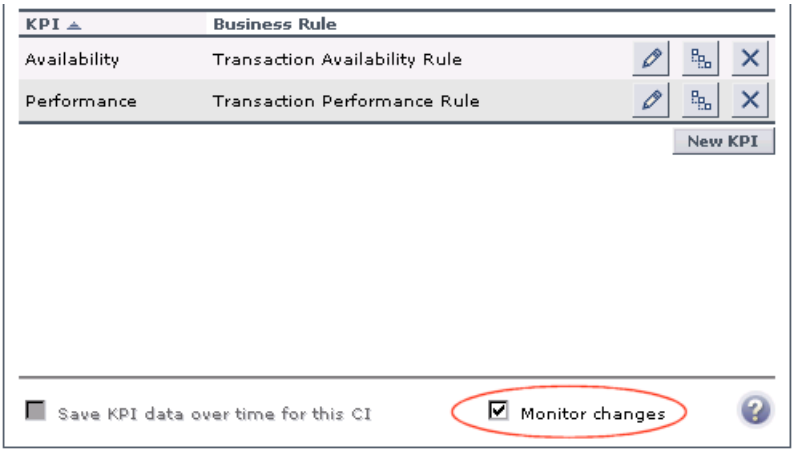
Note: To avoid overloading the database memory, it is recommended that you do not define a shorter default interval value.

Real-Time Monitoring of CI Property Changes

For a limited number of CIs, Dashboard can monitor for changes to the CI properties (or changes to the properties of the CI's child CIs) in real-time.

This information is in addition to the Dashboard Change Report, which shows a historical report on changes to properties for CIs over a period of time. (For details on the Change Report, see "Change Report" in *Using Dashboard*.)

In order to display real-time changes for a CI and its children, the **Monitor changes** check box must be selected for that CI in the **KPIs** tab.



Note: The **Monitor changes** option is only enabled if:

- you are working in a shared CMDB environment.
- you enable change impact monitoring by selecting **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Applications**, select **Dashboard Application**, and locate the **Host name for MAM GUI Web server** entry in the **Change Impact Properties** table. Define the Web server name and restart Mercury Business Availability Center.

You can set the monitor changes option for up to 20 CIs. Once 20 CIs have been configured, a message is displayed when you try to set the option for another CI, stating that the limit has been reached.

If you then deselect the option for one or more of the configured CIs, the option becomes available again for all CIs, until the 20 CIs limit is again reached.

Note: To change the 20 limit, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Applications**, select **Dashboard Application**, and locate the **Maximum monitored CIs** entry in the **Change Impact Properties** table. Modify the value as required. However, change this value with caution to avoid too much load on the system.

When the monitor changes option has been set for a CI, Dashboard continuously monitors that CI and all its child CIs, to see if a change occurs in one of the significant properties defined for the CIs.

The significant properties vary for each CIT, according to the CIT definition in **Admin** > **CMDB** > **CI Type Manager**. In CI Type Manager, in the **Attributes** tab for the CIT, the **Change Monitored** column must be selected for a property, in order for that property to be significant and therefore monitored. For more information on CIT definitions, see "Managing CITs" in *CI Type Manager Administration*.

If a change occurs in one of the significant properties for the CI or the CI children, then an icon is displayed in Dashboard beside the CI name. For more information, see "Viewing Real-Time Changes to CI Properties" in *Using Dashboard*.

After a change occurs, the change icon is displayed for 24 hours (default value). You can change the default value, as described in "Specifying the Changes Period for the Change Report" on page 132.

KPI Objectives

The KPI objectives define the standards for allocating business status to the KPI.

The following sections describe objectives and how to define them for a KPI.

➤ "About Status and Objectives" on page 38

➤ "Defining Logical Objectives" on page 41

➤ "Excluding Statuses" on page 42

➤ "Units of Measurement for Objectives" on page 44

➤ "Example of Defining Objectives" on page 45

About Status and Objectives

The status displayed for a KPI in Dashboard provides an indication of how well a business process or system is meeting your business objectives. Based on traffic light colors (with additions), the Dashboard shows you if the KPI measurement is meeting the objective requirements (green), or is critically failing (red), or is at some business risk level between the two.

Five statuses are available in Dashboard (for active status), each representing a different level of business performance:

➤ **OK** (green)

➤ **Warning** (olive)

➤ **Minor** (yellow)

➤ **Major** (orange)

➤ **Critical** (red)

Depending on the CI and KPI types, active status may be represented in Dashboard using from two to all five of these status levels. In most cases (not for SiteScope measurements), the KPI is assigned a status as follows:

➤ The business rule calculates a measurement for the KPI.

➤ The calculated measurement is compared with defined objective values.

- The KPI is assigned a status according to where the measurement falls within the objectives. For example, a KPI measurement of 50% may fall within the definition for the **Minor** objective, so the KPI is assigned Minor status (yellow).

The objective values used for each KPI can originate from various sources:

- The business rule definitions in the Business Rules Repository provide default objective values for every rule that uses objectives. The business rules generally define different objective values for each of the five statuses used in Dashboard. You can define new default objective values for a business rule, as described in "Specifying the Rule Details" on page 414.
- The source adapter may specify specific objective values to be used with the business rule for a KPI. These values override the values from the Business Rule Repository. You can modify the template for a source adapter to define custom objective values, as described in Chapter 5, "Working with Templates."
- The source adapter may specify reference values for the objective parameters, so that the objective values are taken from the threshold values defined in Monitor Administration. These values override the values from the Business Rule Repository.
- You can modify the objective values for an individual KPI in the Dashboard Administration KPIs tab, while adding or editing a KPI. The new values override values from the source adapter or from the business rule. For details, see "Attaching New KPIs to CIs" on page 13.

SiteScope Monitoring CIs

For SiteScope monitoring CIs, KPI status is based on the status received from SiteScope (calculated according to the thresholds defined in SiteScope). Three status levels are used in Dashboard:

- **OK** (green) in Dashboard – corresponds to **Good** or **OK** status in SiteScope
- **Minor** (yellow) in Dashboard – corresponds to **Warning** status in SiteScope
- **Critical** (red) in Dashboard – corresponds to **Error** status in SiteScope

The SiteScope status definitions cannot be changed in Dashboard, so the business rules for SiteScope KPIs do not include objective values.

End User Monitoring CIs

For end user monitoring CIs (from Business Process Monitor, Client Monitor, Real User Monitor), KPI status is calculated by comparing the KPI measurement with objective values.

- For **Business Process Monitor** and **Client Monitor** transaction CIs, the KPI objective values are either taken from Monitor Administration or the rule definition:
  - For CIs using the **Transaction Performance Rule** (ID# 13), the Business Process Monitoring source adapter references the transaction thresholds defined for the corresponding monitoring object in Monitor Administration. The threshold values map to KPI objective values for three status levels in Dashboard: **OK**, **Minor**, and **Critical**
  - For CIs using the **Transaction Availability Rule** (ID# 5), KPI objectives are taken from the default values for the rule in the Business Rules Repository. The rule defines objective values for all five status levels in Dashboard.
- For **Real User Monitor** monitoring CIs, depending on the rule used, the KPI objective values are taken from the Real User Monitor source adapter, Monitor Administration, or the rule definition. For example:
  - For RUM Application Error Monitor CIs using the **RUM Event Monitor Volume Rule** (ID# 73), the objective values are defined directly in the source adapter. The objective values defined for this rule use four of the Dashboard status levels: **OK**, **Warning**, **Minor**, and **Critical**
  - For RUM Page Monitor CIs using the **RUM Page Monitor Availability Rule** (ID# 49), the source adapter references the **Availability** threshold defined in Monitor Administration for the page. This is a single value, so two status levels are used in Dashboard: **OK** and **Critical**
  - For RUM Sessions Monitor CIs using the **RUM Session Monitor Availability Rule** (ID# 52), the source adapter does not define objective values, so KPI objectives are taken from the default values for the rule in the Business Rules Repository. The rule defines objective values for three Dashboard status levels: **OK**, **Minor**, and **Critical**

For all end user monitoring CIs, you can edit the objective values in the KPIs tab to use as many of the status levels as you require, as described in "Defining Logical Objectives" on page 41.

Warning: KPIs that were created for CIs by the source adapter templates, frequently have objective values that differ from the default ones used by the business rule. However, when editing one of these KPIs in the KPIs tab, if you select a different rule and then revert to the original rule, then the original objective values are replaced with the rule default values.

Defining Logical Objectives

The objectives values for a KPI should cover the whole spectrum of possible measurements for that KPI. (This means active measurements, the objectives do not take into consideration the values given to a KPI for no data, downtime, and so forth.)

The KPI measurement is evaluated against each objective level, starting from **OK** (green), and continuing (in order) to **Critical** (red). This process stops at the first objective level into which the KPI measurement fits.

In order to define where the boundaries of each objective level falls, each objective from **OK** to **Major** is associated with an **Operator**. (The **Critical** objective definition is always **Otherwise**, meaning that this status is applied to all measurements that fall beyond the **Major** objective limit.) You can select the operator that matches your requirements; the same operator is applied to all objective levels.

The available operators are:

>
>=
<
<=

You must make sure that the objectives contain logical values (according to the data type) and are correctly ordered, and that the operator is logical for the order. For example:

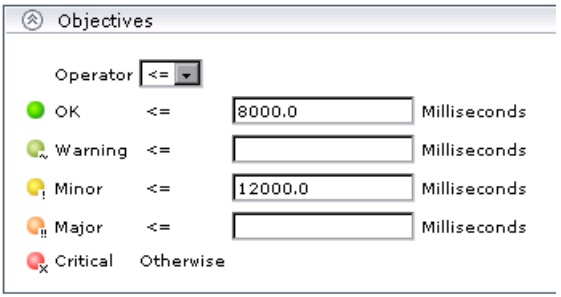
- If you enter descending objective values, such as 70, 55, 40, 20, you must use operator > or >=, so that the **OK** objective will cover all measurements greater than 70.
  For a KPI measurement of 88: **88** >= **70** is true, so assigned status is **OK**.
  For a KPI measurement of 18: evaluation of the KPI measurement against every objective is false, so status will fall into the **Otherwise** category and be assigned status **Critical**.
- If you enter ascending objective values, such as 10, 25, 35, 40, you must use operator < or <=, so that the **OK** objective will cover all measurements less than 10.
  For a KPI measurement of 7: **7** <= **10** is true, so assigned status is **OK**.
  For a KPI measurement of 50: evaluation of the KPI measurement against every objective is false, so status will fall into the **Otherwise** category and be assigned status **Critical**.

Excluding Statuses

Not all the statuses need be used for a KPI; for example, the OT Impact KPI by default uses only **OK** (green) and **Critical** (red) status. There are two methods used in Dashboard to exclude statuses, as described in the following sections.

Blank Objective Value

When the objective value for a status is left blank, Dashboard ignores that status during KPI status calculation. For example, the Performance KPI for a transaction may have the following objectives defined (taken from the threshold settings for the transaction in Monitor Administration):



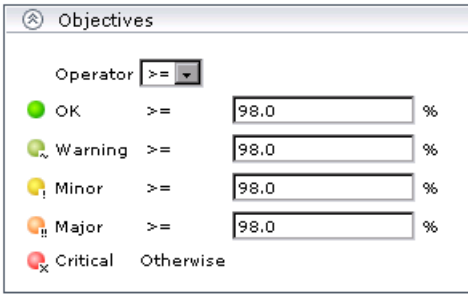
In this case, if the measurement for the KPI does not fall into the **OK** objective level, then **Warning** is skipped and the measurement is evaluated against the **Minor** objective level. If it does not fall into that level, **Major** is also skipped, and the KPI is given **Critical** status.

If you want to exclude statuses when editing the objective values for a KPI, it is recommended that you use this method.

Repeated Objective Value

Dashboard allocates status by starting at **OK** status, and evaluating the KPI measurement against each objective level until the right level is found. When an objective value is repeated for two or more statuses, the repeat occurrences are passed over and those statuses are not used.

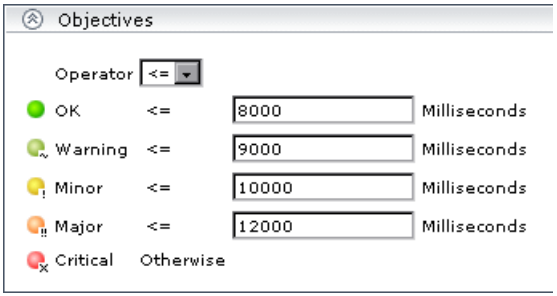
For example, the Availability KPI for a RUM page monitor may have the following objectives defined (by using the Availability threshold setting in Monitor Administration for all four defined objective values):



In this case, if the measurement for the KPI is greater or equal to 98%, then it is given **OK** status. If it is less than 98%, then evaluation against the **Warning**, **Minor**, and **Major** statuses will also not give any result and these statuses will not be used; the KPI will then be given **Critical** status.

Units of Measurement for Objectives

The objectives use a unit of measurement, shown after the objective value box in the KPI **Objectives** area:



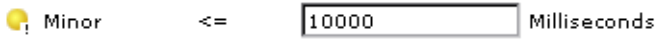
The unit is part of the business rule definition, and indicates the format of the calculated measurement. This format may reflect the units used by the incoming data (for example, **milliseconds** for performance time data), or it may be a new format applied as a result of the business rule calculations (for example, **dollars** for a financial loss calculation). If required, the default unit for a rule can be changed in the rule definition (as described in Chapter 26, “Business Rules Repository.”)

The following default units are used:

- **Percentage (%)** – used for business rules that handle availability over time data for a transaction, for example, the Transaction Availability Rule, and for the PNR Rule, where the KPI measurement represents percentage of time remaining for CI unavailability before the SLA is in breach of contract.



- **Milliseconds** or **Seconds** – used for business rules that handle performance time data for a transaction or monitor, for example, the Transaction Performance Rule or RUM Page Monitor Performance Rule.



- **Financial ($)** – used for business rules that determine financial loss for a CI, for example, the Impact Over Time Rule.



- No unit is displayed after the objective value box for business rules that handle volume, where the KPI measurement represents a simple numerical count. For example, this is the case for the RUM Transaction Monitor Volume Rule.



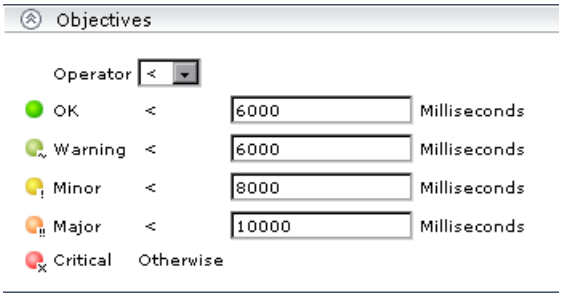
Example of Defining Objectives

A specific transaction monitor CI is using the Transaction Performance Rule. For this transaction, the required objectives are as follows:

- The objective for acceptable performance time is under 6000 milliseconds. An average performance time that reaches 6000 milliseconds is already of concern.
- Performance time of 8000 milliseconds is considered seriously problematic.
- Performance time of 10000 milliseconds is considered critical.

In addition, **Warning** status is not required for this KPI.

In the Edit KPI window for the transaction's **Performance** KPI, the objective levels and operator are modified as follows:



When a measurement is calculated for the KPI from the incoming performance data, the measurement is compared with the objectives assigned to the KPI as follows:

- For a measurement under 6000 milliseconds, status = **OK**
- For a measurement of 6000 milliseconds or more, but under 8000 milliseconds, status = **Minor**
- For a measurement of 8000 milliseconds or more, but under 10000 milliseconds, status = **Major**
- For a measurement of 10000 milliseconds or more, status = **Critical**

Selectors for KPIs

When a monitoring (leaf) CI has a KPI and associated business rule that are intended to be applied to actual data samples, the KPI properties include a **selector**. A selector is a filter definition that defines which samples are relevant for the KPI.

The following sections describe selectors and how to define them for a KPI.

- "Role of the Selector" on page 47
- "Defining Selector Expressions" on page 48
- "Using Predefined Sample Data for Selectors" on page 51

➤ "Manually Defining Custom Selectors" on page 54

➤ "Notes and Limitations" on page 55

For information on editing selector definitions in the source adapters, see "Selector Definitions" in *Source Manager Administration*.

Note: Selectors are also defined for Dynamic Rule Factory CIs, but directly as part of the CI definition, not in a KPI. The selector used by a Dynamic Node Factory can be defined and/or edited in the IT Universe Manager tab of CMDB Administration, as described in "Working with Dynamic Node Factory" in *IT Universe Administration*. The functionality and definitions for a Dynamic Rule Factory selector are the same as for a KPI selector, as described in this section.

Role of the Selector

Monitoring CIs are CIs that are intended to receive real-time data from the data samples sent by the external system (purely logical CIs do not receive data samples). The data samples, containing information collected by a monitoring system (either Mercury or third-party), are supplied to Mercury Business Availability Center over the Bus.

The Business Logic Engine filters the data samples arriving on the Bus using selectors, which are set using Dashboard Administration. A selector is defined as part of the monitor rule for a KPI attached to a monitoring CI. The selector identifies and catches the data that is relevant for the CI and the KPI.

A different selector may be used by each KPI with an associated monitor rule, enabling (when required) the use of different samples for each KPI. When a monitoring CI is added to the Mercury Universal CMDB by a monitoring adapter (as described in *Source Manager Administration*), a selector is automatically defined for each of the default KPIs for the CI.

If required, you can edit the default KPI selectors in the KPIs tab. You can also attach new KPIs to a monitoring CI, assign a monitor rule and manually define the selector.

Defining Selector Expressions

In the selector **Filter** area, you define selector expressions to filter the data samples, in order to target only those samples that are relevant for the KPI. A selector expression requires a **Field**, an **Operator**, and a **Value**, defined in that order. (For an explanation of these expression parameters, see "Selector Expression Parameters" on page 48.)

There are two methods for defining selector expressions:

- **Using predefined sample parameters** – you define the selector expressions by selecting from metadata—predefined sample types and sample parameters in the database. For more information, see "Using Predefined Sample Data for Selectors" on page 51.
- **Manually, to build a custom selector** – you define the selector expressions by manually defining the sample type and sample parameters. You can build a custom selector using any field name, and, if required, can combine fields from two or more data types. For more information, see "Manually Defining Custom Selectors" on page 54.

Note: You can have Mercury Business Availability Center automatically assign the default selector for the monitoring CI, by leaving the selector expressions blank in the New KPI/Edit KPI window. After clicking **OK** to close the window, Mercury Business Availability Center assigns the KPI the default selector for the CI, as used by the default KPIs attached to the CI.

A selector filter may consist of a single simple expression, or you can build more complex filters containing blocks of selector expressions. For more information, see "Building Complex Filters" on page 49.

Selector Expression Parameters

Selectors use Boolean expressions to evaluate sample properties.

When the values for the Field and Value properties are defined manually, they must be entered precisely as used in the data samples from the data source, or the selector will fail.

For explanations of the data samples and their fields, see "Samples" in *Reference Information*.

For each selector expression, you must define the following:

- **Field** – the reference property that the selector expression checks in the data samples sent from the data source.
- **Operator** – the relational operator that the selector expression uses when comparing the actual value for the property against the value defined in the selector. The expression gives a result of TRUE or FALSE for each data sample.

  The following operators are available:

  - **==**
  - **!=**
  - **>**
  - **>=**
  - **<**
  - **<=**
  - **in**
  - **notIn**
  - **like**
- **Value** – the property value that the expression compares with the value in the data sample. Note that the value must be in numeric format if a numeric operator is selected, or must be entered between quotation marks if a text string operator is selected.

Building Complex Filters

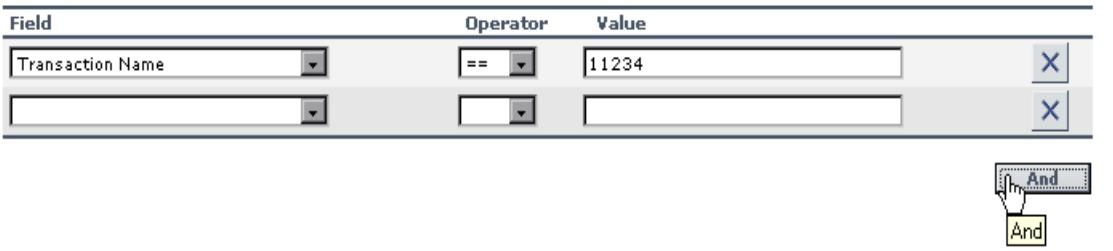
You can build more complex filters for a KPI, by defining blocks of selector expressions that together form a complex logical expression:

- You can narrow the filter by using a logical "And" operator to attach additional selector expressions to an expression block.

➤ You can widen the filter by using a logical "Or" operator to add alternative expression blocks (each containing one or more selector expressions).

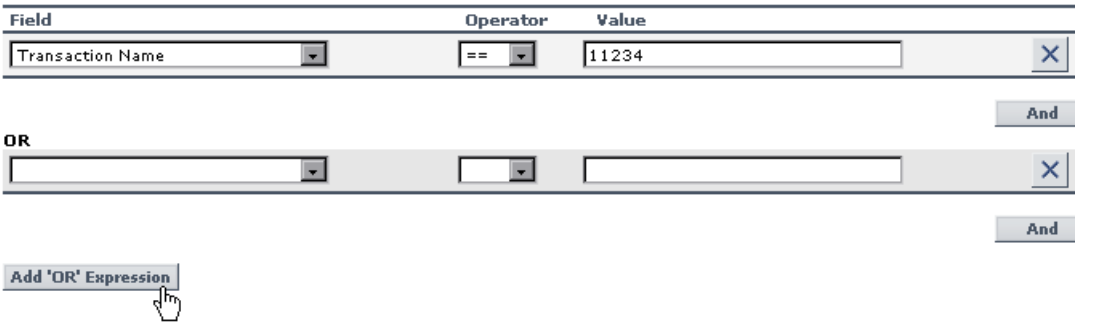
You can define as many selector expressions and blocks of selector expressions as required:

➤ To define an additional selector expression within a block, click the **And** button for that block. An additional empty selector expression row is displayed in the block.



For example, you can define a filter that looks for transaction samples that contain both profile name X *and* transaction name Y.

➤ To define an alternative expression block, click the **Add 'OR' Expression** button. A new block is created, with an empty selector expression row.

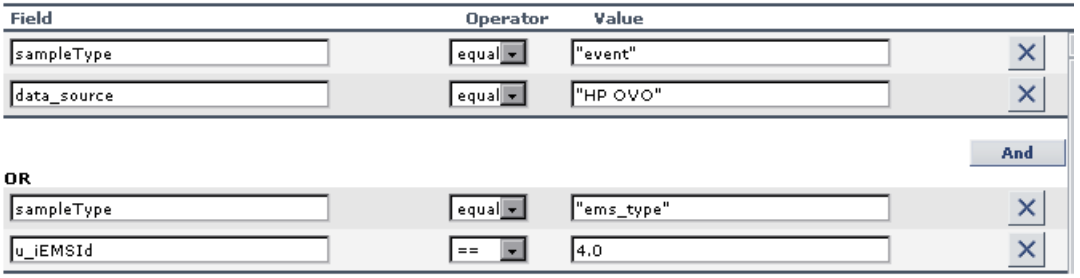


For example, you can define a filter that looks for transaction samples that contain either transaction name X *or* transaction name Y.

You can add additional selector expressions to the new block using the **And** button for the block.

A data sample qualifies for the selector if all the selector expressions in a single expression block are TRUE for the data sample. For example, either selector expressions **a** and **b** and **c** in block 1 are all TRUE, or selector expressions **d** and **e** and **f** in block 2 are all TRUE.

Example of selector with two expression blocks.



Using Predefined Sample Data for Selectors

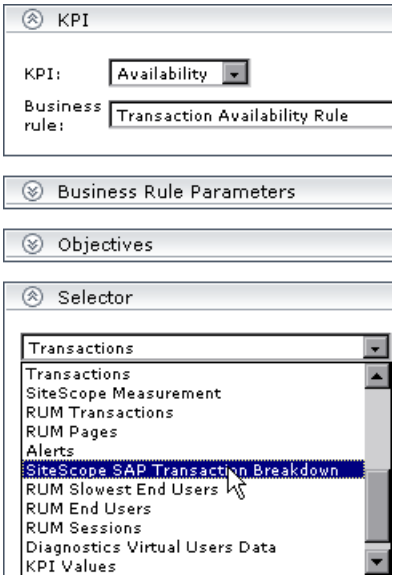
When defining or editing a selector using predefined sample data, you have the option to select **Field** and **Operator** values from predefined lists. This definition method validates the field names and operators, and prevents errors that may occur when manually entering field names. It also simplifies the process of defining a selector.

The predefined fields use metadata, information on sample types collected from data samples arriving from various data sources (including Mercury data collectors and third-party data sources) and stored in the database. For explanations of the data samples and their fields, see "Samples" in *Reference Information*.

You can use metadata to build a complex filter with multiple selector expressions, just as with manually defined filters. For more information on defining selector expressions and building complex filters, see "Defining Selector Expressions" on page 48.

To define a selector expression using metadata:

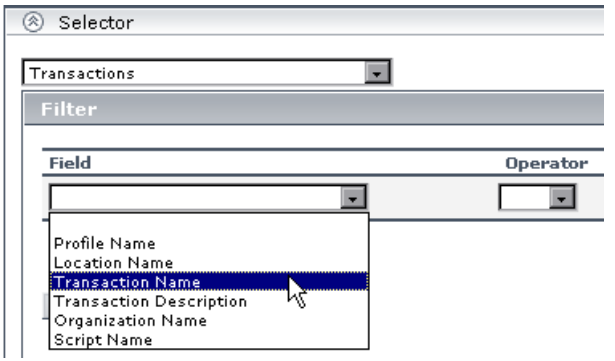
1 First define the sample type that applies for this KPI. You select the sample type from the list at the top of the **Selector** area in the New KPI or Edit KPI window. The list is based on the sample types currently in the database.



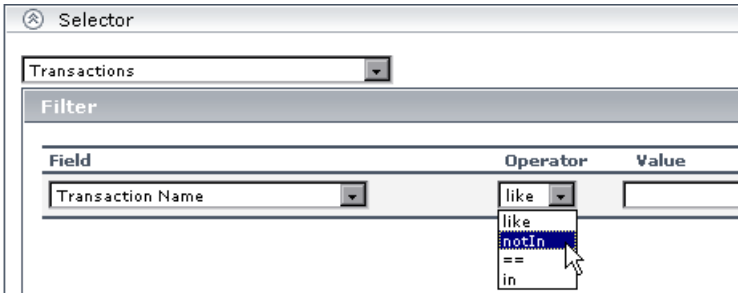
For example, for a KPI that relates to transaction measurements, you select sample type **Transactions** from the list.

When you select a sample type from the list, all previously defined expressions for the selector are overridden, so the contents of the **Filter** box are automatically deleted.

2 After selecting a sample type, the **Field** box in the first selector expression converts to a dropdown list, containing all valid options for the selected sample type. The **Field** box defines the required reference property in the data samples.



3 After selecting an option from the **Field** list, the **Operator** list is automatically updated so that it contains only those operators that are valid for the selected field. For example, if the selected field always contains a text string, then only the operators that are used with text are included in the list, such as **like**, **notIn**, ==, **in**.

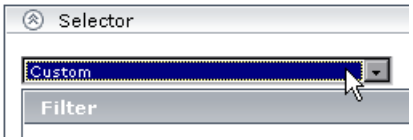


4 The required value for the selected field must be entered manually in the **Value** box.

Note: The **Value** property is case sensitive and must be entered precisely as used in the data samples from the data source, or the selector will fail. The recommended method is to take the values from the samples published on the Bus, as described in "Selector Expression Parameters" on page 48.

Manually Defining Custom Selectors

When defining or editing a selector, you can build a custom selector by manually defining all information for the selector. To do this, you must make sure that no sample type is defined in the list at the top of the **Selector** area in the New KPI or Edit KPI window (the box should display **Custom**).



If a sample type was previously selected in the list, and you then select **Custom**, all previously defined expressions for the selector are overridden and the contents of the **Filter** box are automatically deleted.

Every selector must include the definition of the sample type required for the KPI, so when manually defining a selector, at least one selector expression must contain this information. For example, for a KPI that relates to transaction measurements, the selector must "catch" transaction samples, which are defined by the sample type **"trans_t"** in the selector.



Note: The **Field** and **Value** properties are case sensitive and must be entered precisely as used in the data samples from the data source, or the selector will fail. The recommended method is to take the values from the samples published on the Bus, as described in "Selector Expression Parameters" on page 48.

To define a custom selector expression:

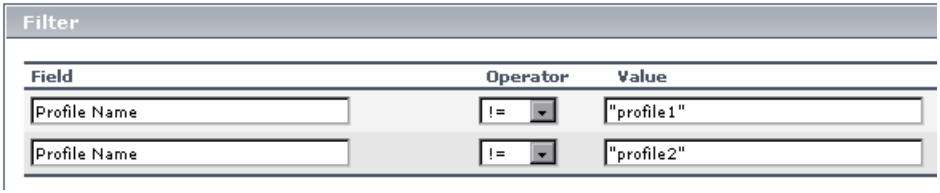
1. Enter the required reference property directly in the **Field** box.
2. Select an operator from the **Operator** list. You can select from any of the operators used in Dashboard.
3. Enter the required value for the property directly in the **Value** box.

Notes and Limitations

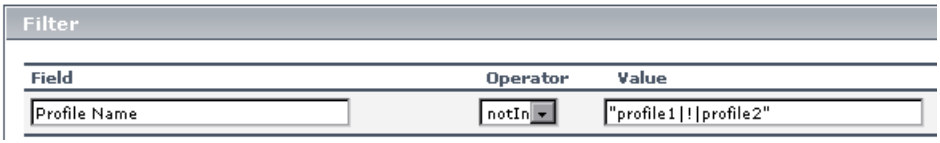
- The sample type must be appropriate for the rule you selected for the KPI. For example, samples of type "**ss_monitor_t**" (**SiteScope Measurement** in the predefined sample type list) have no relevance for the **Transaction Performance Rule** defined for a **Performance** KPI.
- If you define *only* a sample type (either as part of a custom selector expression, or by selecting one of the predefined sample types) and do not define anything else for the filter, the KPI will receive *all* samples for that sample type category.
- You should define the selector parameters in the order **Field**->**Operator**->**Value**.
- When manually defining the properties for a custom selector with multiple blocks of selector expressions, every block must contain a **sample type** selector to identify the relevant data source, for example, sampleType == "trans_t" for a Business Process Monitor transaction. A different sample type can be defined for each expression block.

  When using metadata for a selector, only one sample type can be selected for the whole selector.

➤ Do not repeat the same key and operator combination within a logical expression block; otherwise, the KPI will not receive samples. For example, do not use the following combination:



Instead of this format, use, for example, the **notIn** operator in place of **!=**. You can use this method to avoid almost any repeated key/operator scenario.



KPIs for User Modes

Mercury Business Availability Center provides the option to define Dashboard KPIs for two different user types (modes): **operations** and **business**. This option enables the creation of two versions of a single KPI, where each KPI version is geared towards the particular viewing requirements of one of the user types.

For example: You might want to create two versions of the Availability KPI, so that the Availability KPI for an operations user shows Critical status (red) when transaction availability is below 30%, and the Availability KPI for a business user shows Critical status when transaction availability is below 20%.

Each user type sees the appropriate version of the KPI in the Dashboard views.

This section includes the following topics:

- "Setting Up User Mode Functionality" on page 57
- "Example Scenario of KPI Versions for User Modes" on page 62
- "Notes and Limitations" on page 61

Setting Up User Mode Functionality

You set up user mode functionality in Mercury Business Availability Center by defining the mode for users, defining the KPI versions for each mode, and attaching the KPI versions to the CIs.

This section includes the following topics:

- "Assigning a User Mode" on page 58
- "Defining KPI Versions for the User Modes" on page 58
- "Attach KPI Versions to CIs" on page 59
- "Result in Dashboard" on page 60
- "Notes and Limitations" on page 61

Assigning a User Mode

There are two ways to assign a user mode to a user:

- The system administrator, when defining new users in the **Admin** > **Platform** > **Users and Permissions** > **User Management** page, can set **User Mode** to **Undefined**, **Operations User**, or **Business User**. By default, all new/existing users are set as **Unspecified** (meaning that they see KPIs for both modes in Dashboard).
- Users can change their own user mode in the **Admin** > **Personal Settings** > **General Settings** page. In the **User Mode** area, select the required mode from the **Select user mode** list.

  After changing the mode in the General Settings page, you must log out of Mercury Business Availability Center and log in again to see the mode filtering work.

Defining KPI Versions for the User Modes

The following steps describe how to define different versions of a KPI to use with each user mode.

To define KPI versions for user modes:

1. Access the **Admin** > **Dashboard** > **Repositories** > **KPIs** page.
2. Define the business user version of the KPI:
   - Clone the KPI.
   - Open the copy for editing.
   - In the KPI Details window, rename the copy by adding the suffix "**_biz**" (for example, Availability_biz).
   - Select **Business** in the **Applicable for User Mode** list.
3. Define the operations user version of the KPI:
   - Override the KPI.
   - Open the new version for editing.
   - In the KPI Details window, rename the new KPI by adding the suffix "**_ops**" (for example, Availability_ops).
   - Select **Operations** in the **Applicable for User Mode** list.

Note: The overridden version of the KPI replaces the original KPI throughout Dashboard, so all CIs that are assigned the original CI (for example, Availability) are automatically updated to the new version (for example, Availability_ops).

For more information on cloning and overriding KPIs, see Chapter 23, "KPIs Repository."

4 Edit the details for each KPI version, according to your requirements. For example, you may want different business rules to apply to each version. For more information, see "Specifying the KPI Details" on page 359.

5 If you want to use a different version of a business rule with each KPI version, then you must define the rule versions in the Business Rules Repository. For example, for two versions of the Availability KPI, you may require two versions of the Transaction Availability Rule, each with different default objective values.

For details on defining business rules, see Chapter 26, "Business Rules Repository."

Attach KPI Versions to CIs

You manually attach the KPI versions to the CIs to which you want them to apply. If the original KPI was already attached to CIs (for example, the Availability KPI is automatically attached to transaction CIs), then the KPI version that overrode the original (for example, Availability_ops) is automatically attached to the CIs instead. You then manually attach the second KPI version (for example, Availability_biz).

To attach the KPI versions to CIs:

1 In the **Admin** > **Dashboard** > **KPIs** page, add the KPI versions to each CI where they are required, so that the CIs have both versions of the KPI. You can add the KPI to multiple CIs in one operation. For more information, see "Attaching New KPIs to CIs" on page 13.

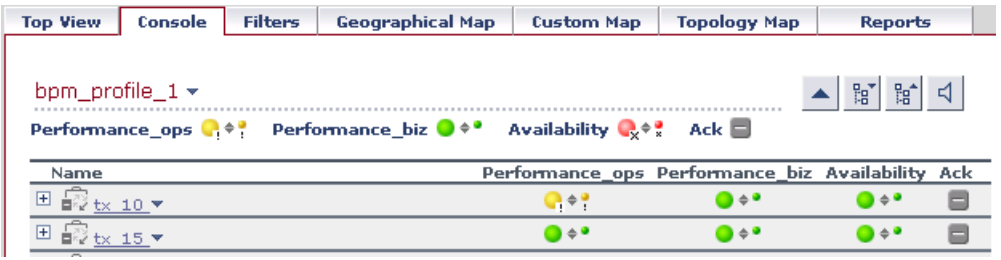
2 Edit the KPI properties as required in the New KPI/Add KPI to Multiple CIs window. For example, you may want to define different objective values for the KPI.

3 For KPIs that require selectors: Do not define anything in the **Selector** area, leave the selector expressions empty. After you click **OK** to add the KPI to the CI(s), Mercury Business Availability Center automatically replaces each blank selector with the default selector defined for the other KPIs attached to each CI.

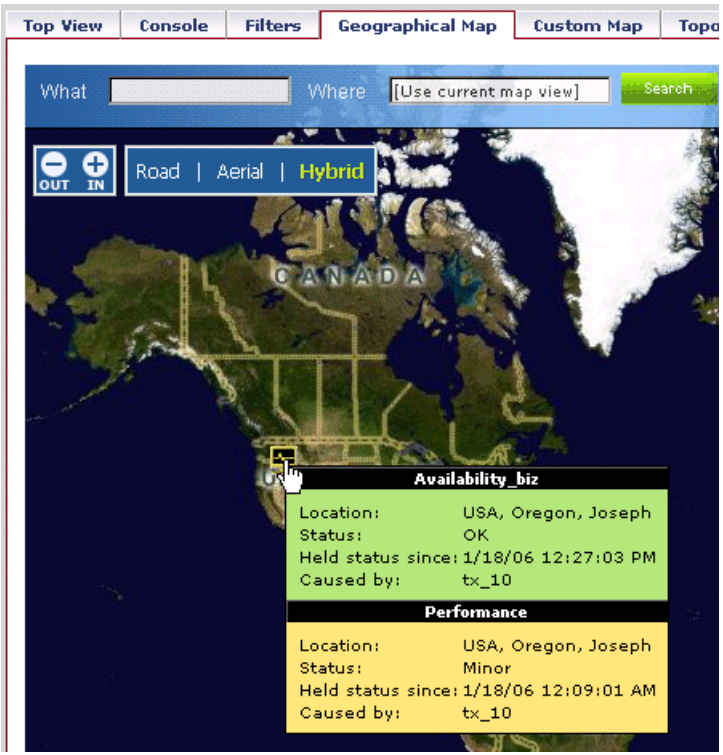
4 Click **OK** to save the KPI details. The KPI version is added to each selected CI, and propagates up the hierarchy to the parent CIs.

Result in Dashboard

Each user type sees in Dashboard the appropriate KPI version for their assigned user mode (operations or business user), for all KPIs that are defined as specific to a user mode. Users who are not assigned a user mode (undefined) see KPIs for both modes, as do system administrators:



In the Geographical Map and Custom Map tabs, status at a location is based on whichever KPI versions the user sees in Dashboard:



Notes and Limitations

- If the business and operations versions of the KPI are only required for a small proportion of the CIs that use the KPI, then you may prefer to use the following set up:
  - In the **Admin** > **Dashboard** > **Repositories** > **KPIs** page, leave the original KPI as it is. Make two clones of the KPI, one for business and one for operations.
  - In the **Admin** > **Dashboard** > **KPIs** page, for every applicable CI, delete the original KPI and instead attach the business and operations versions.
- If you define different versions of a KPI, and another KPI is dependant on that KPI, then you must also define versions for the dependant KPI.

For example, a CI has attached Availability and OT Impact KPIs, where OT Impact is based on Availability status. If you change Availability to **Availability_biz** and **Availability_ops**, then in order to have OT Impact function for both user modes, you must have two versions of the OT Impact KPI defined in the KPI Repository: **OT Impact_biz** and **OT Impact_ops**.

In the **Admin** > **Dashboard** > **KPIs** page, both Availability KPI versions and both OT Impact KPI versions must be attached to each applicable CI. Each OT Impact version must have the appropriate KPI ID defined in the **StatusDimension** parameter.

Example Scenario of KPI Versions for User Modes

In the following example scenario, two versions of the Availability KPI are set up, one for each user mode. The Availability_ops version uses the default objective values; however, when the Availability_biz version is attached to CIs, different objective values are defined.

To set up and use Availability KPI versions for user modes:

1 Access the **Admin** > **Dashboard** > **Repositories** > **KPIs** page.

2 In the **Factory KPIs** area, select the check box for the **Availability** KPI and click **Clone**. The cloned KPI is displayed in the **Custom KPIs** area.

Custom KPIs

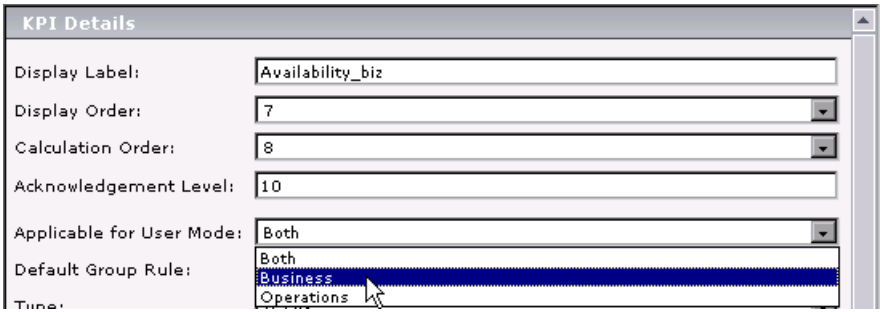
	Id	Display Label	Applicable Sections	Display Order	Acknowledgement Level	Default Group Rule	Calculation Order	A
☐	2000	Availability	Dashboard	7	10	Worst Child Rule	8	



3 Click the **Edit** button for the cloned KPI. In the displayed KPI Details window, edit the KPI properties as follows:

➤ In the **Display Label** box, add the suffix **_biz** to the **Availability** label.

➤ Select **Business** in the **Applicable for User Mode** list.



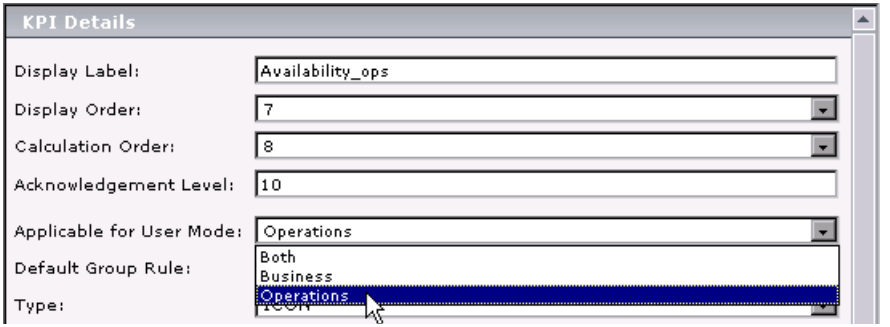
➤ Click **OK**.

4 In the **Factory KPIs** area, select the check box for the **Availability** KPI and click **Override**. The old Availability KPI is shown as overridden, and the new version of the KPI is displayed in the **Custom KPIs** area.

5 Click the **Edit** button for the new KPI. In the displayed KPI Details window, edit the KPI properties as follows:

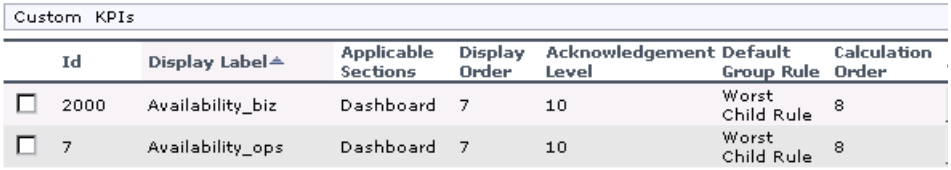
➤ In the **Display Label** box, add the suffix **_ops** to the **Availability** label.

➤ Select **Operations** in the **Applicable for User Mode** list.

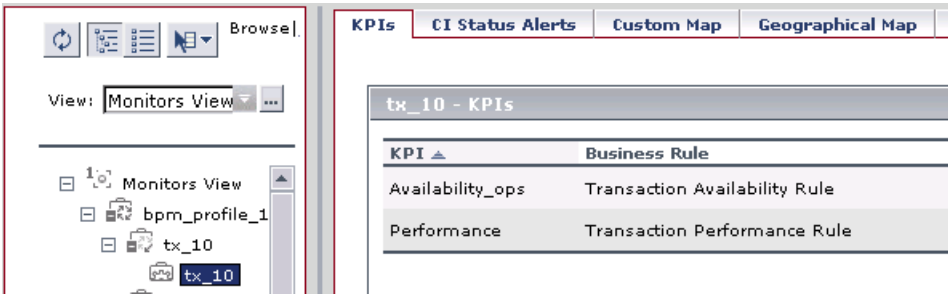


➤ Click **OK**.

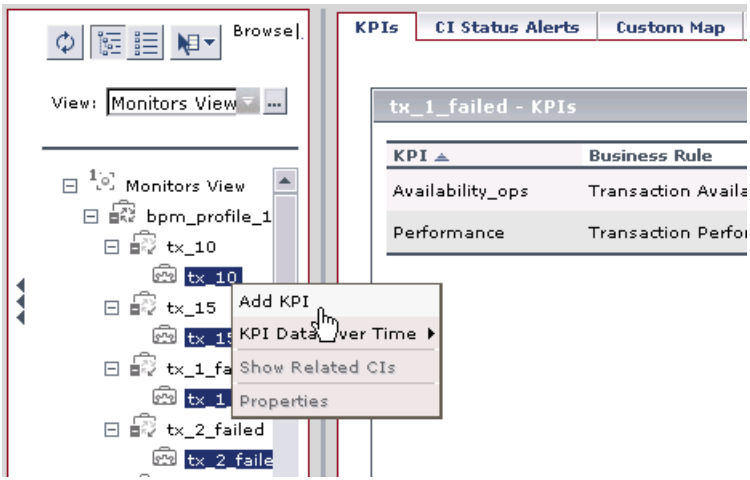
The KPI names are displayed in the **Custom KPIs** area.



6 Access the **Admin** > **Dashboard** > **KPIs** page and open the **Monitors View**. For all BPM Transaction from Location CIs, the Availability KPI has been replaced with the Availability_ops KPI.



7 Add the Availability_biz KPI to all BPM Transaction from Location CIs. Use the keyboard CTRL key to select all the CIs, then right-click on one of the selected CIs and select **Add KPI**.

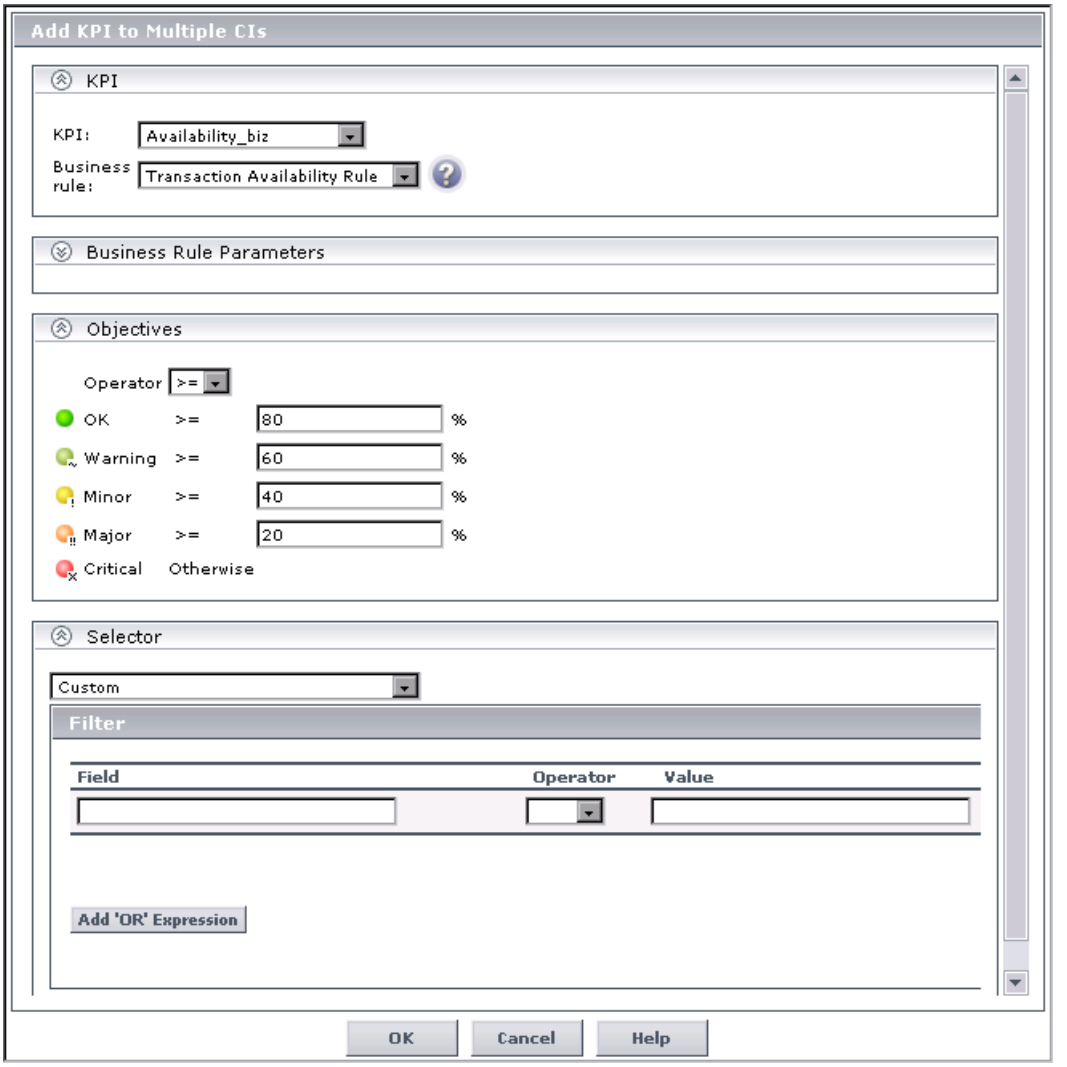


The Add KPI to Multiple CIs window opens.

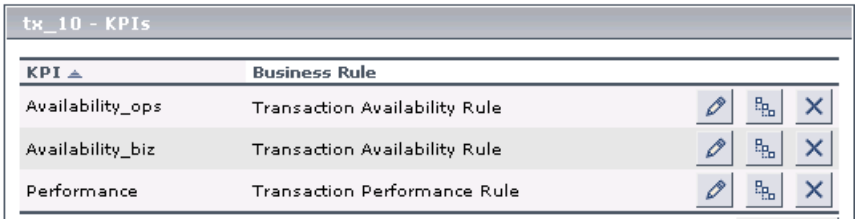
8 Edit the properties in the Add KPI to Multiple CIs Window as follows:

- Select **Availability_biz** in the **KPI** list.
- Select **Transaction Availability Rule** in the **Business rule** list.
- In the **Objectives** area, enter the objective values required for Availability KPI in business user mode: 80, 60, 40, 20.

➤ Leave the selector expressions empty.

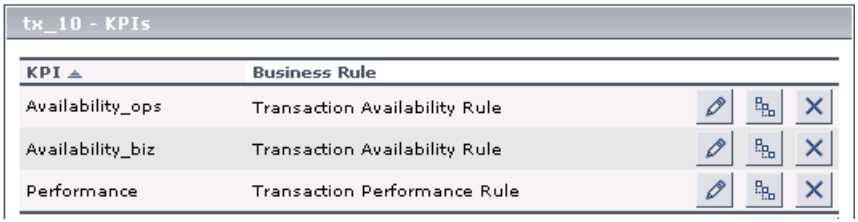


➤ Click **OK**. The Availability_biz KPI is added to the KPIs list for each selected CI.



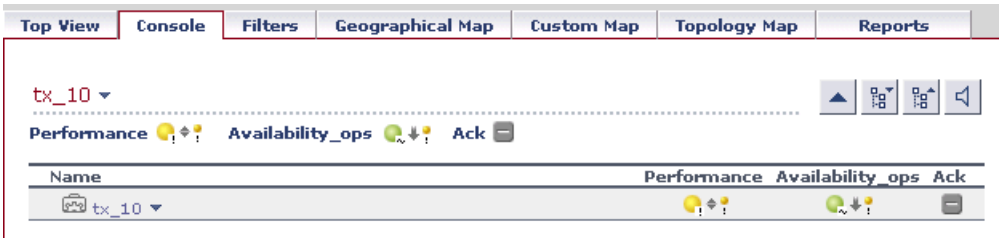
The appropriate selector is automatically defined for each new KPI, by copying the selector definitions for the other KPIs attached to the BPM Transaction from Location CI. (You can click the **Edit** button for the Availability_biz KPI to view the selector.)

The Availability_biz KPI also propagates up to the CI parents, using the default group rule for the KPI.

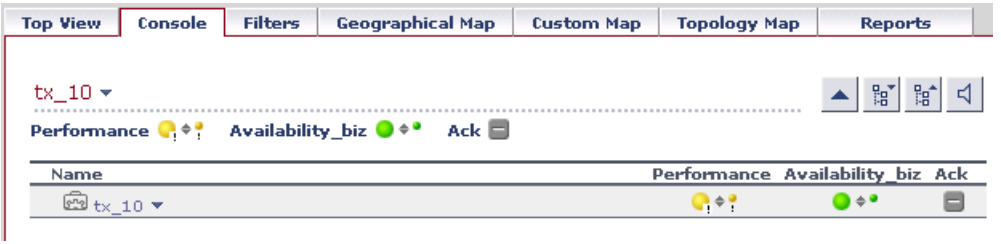


9 In the **Applications** > **Dashboard** > **Console** page, you can see the Availability KPI versions as follows:

➤ For users assigned **Operations** mode:



➤ For users assigned **Business** mode:



A CI may display different status for each Availability KPI version (although each KPI has the same Availability score), due to the different objective levels that are defined for each version.

3

Configuring CI Status Alerts

The CI Status Alerts tab in Dashboard Administration enables you to create alert schemes and attach them to CIs in a view, and to edit those alert schemes.

This chapter describes:	On page:
Introducing CI Status Alerts	70
Creating an Alert Scheme and Attaching it to a CI	71
Specifying a Notification URL	77
Modifying the Default Centers Server URL	79
Creating an Executable File	79
Configuring an SNMP Trap	82
E-Mail, SMS, and Pager Message Templates	85
Viewing the Alerts	90
Administering Alert Schemes	91
Searching for Specific CI Alert Schemes in the Current View	93

Introducing CI Status Alerts

Note: It is recommended to use the new CMDB-based alerting mechanism under **Admin** > **Dashboard** > **CI Status Alerts**, which provides greater granularity and flexibility for configuring alerts. The existing alerting mechanism under **Admin** > **Platforms** > **Alerts and Recipients** will be gradually phased out in future Mercury Business Availability Center versions.

Mercury Business Availability Center alerts proactively inform you when predefined performance limits are breached. To instruct Mercury Business Availability Center under what conditions to send alerts, you create alert schemes using a wizard.

Two types of alerts are available:

- **monitor alerts** – you can create monitor alert schemes in **Admin** > **Platform** > **Alerts and Recipients.** For details, see Alerts Management in *Platform Administration*.
- **Configuration Item Status alerts** – you create CI Status alert schemes, and attach those alert schemes to KPIs or CIs in the CI Status Alerts tab accessed by selecting **Admin** > **Dashboard**. The decision to send an alert is handled by the rules. The alert engine sends alert messages (notifications) to the recipients, and executes the actions and executable files defined for the alert. The Configuration Item Status alerts are triggered by the Business Logic Engine.

You can use the CI Status Alerts tab in Dashboard Administration to:

- create a CI Status alert scheme and attach it to a CI in a view. The rules attached to the CI's KPIs are used to trigger the alert(s).
- define the CI Status alert to apply to a specific KPI or to all the KPIs attached to the CI, so that any change to the status of one KPI triggers the alert. For details, see "Specifying the Alert Scheme General Information" on page 72.
- attach more than one CI Status alert to a CI.

- send the same CI Status alert notification to different recipients according to the CI status. For details, see "Administering Alert Schemes" on page 91.
- share the same CI Status alert scheme definition between several CIs. For details, see "Specifying the Related Configuration Items" on page 73.

Any changes you make to the alert schemes for a CI—adding new alert schemes, deleting alert schemes, or editing alert scheme properties—changes the CI in the Mercury Universal CMDB, so the changes are propagated to any view that includes the CI.

When an alert is triggered, it sends a pre-defined notification (via e-mail, SMS, or Pager) to a pre-defined recipient. Whenever a notification is sent, information related to the notification is logged into the CMDB. You can view the log in the Alert report. For details, see "Configuration Item Status Alerts" in *Using Dashboard*.

When an alert is triggered, the alert engine receives the message, gets the alert details from the CMDB, parses the alert messages, and sends the notification. The alert engine publishes the messages containing the information regarding the alert that was sent and the notifications. The Loader receives the alert and notification messages and inserts them into the CMDB database. The alert engine is persistent; if the process is restarted or crashes while an alert is being sent, it will resume as soon as the process is restarted. The messaging system supports guaranteed delivery.

Mercury Diagnostics – You can create CI status alerts on Diagnostics entities. For details, see this chapter and refer to *Mercury Diagnostics Installation and User's Guide*.

Creating an Alert Scheme and Attaching it to a CI

You can create new alert schemes and attach them to any CI. You can attach more than one alert scheme to a CI, and you can attach the same alert scheme to more than one CI.

An alert attached to a CI in a view is attached to the CI in any view where the CI is included.

You can attach an alert scheme to a CI using a wizard that takes you through the following steps:

- "Specifying the Alert Scheme General Information" on page 72
- "Specifying the Related Configuration Items" on page 73
- "Specifying Templates and Recipients" on page 75
- "Specifying the Actions to be Triggered by the Alert" on page 76
- "Displaying the Alert Summary" on page 77

Specifying the Alert Scheme General Information

Use this step to define the alert scheme general information.

To specify the alert scheme general information:

1. Select **Admin** > **Dashboard**.
2. Click the **CI Status Alerts** tab to open the Configuration Item Status Alerts page.
3. Click **New Alert** to open the alert wizard General page.
4. In the **Name** box, enter the name of the alert scheme.
5. In the **Description** box, enter the alert scheme's description.
6. In the **Alert type** area, select:
   - **All KPIs** if you want the alert to be triggered by the specified status change in any of the KPIs attached to any of the selected CIs
   - **Selected KPIs** if you want the alert to be triggered by the specified status change in the selected KPIs attached to any of the selected CIs

     You select CIs and KPIs in the next step of the wizard. For details, see "Specifying the Related Configuration Items" on page 73.
7. In the **Condition** area, select one of the following options:
   - **Send alert once status worsens (not including "No Data" and "Downtime")** to trigger the alert when the current status of the KPI(s) is worse than the previous status. The **No Data** and **Downtime** statuses are not taken into consideration.

For example, the alert is triggered when the status changes from Warning to Minor.

- **Send alert once status improves (not including "No Data" and "Downtime")** to trigger the alert when the current status of the KPI(s) is better than the previous status. The **No Data** and **Downtime** statuses are not taken into consideration.

  For example, the alert is triggered when the status changes from Warning to OK.

- **Send alert if status value was changed from** to set the appropriate conditions for sending an alert. Select the appropriate status in the **from** box, and in the **to** box. The available statuses are: **critical, major, minor, warning, OK, no data, downtime, stop, and uninitialized.** For details, see "KPI Objectives" on page 38.

8 In the **Notification frequency** area, select one of the following options:

- **Send alert for every trigger occurrence** to send an alert notification every time an alert is triggered
- **Send no more than one alert per <time_period>** and specify the time period and unit to send an alert notification every time period

9 Click **Next** to open the **Related Configuration Items** page.

Specifying the Related Configuration Items

Use this step to specify the CIs and KPIs to which you want to attach to the alert scheme.

If you selected **All KPIs** in the **General** page (see step 6), then in the Related Configuration Items page, select the CIs to which you want to attach the alert scheme. The alert is triggered by the specified status change in any of the KPIs attached to any of the selected CIs.

If you selected **Selected KPIs** in the **General** page (see step 6), then in the Related Configuration Items page, select the CIs to which you want to attach the alert scheme. You must also select one or more of the KPIs that are listed in the KPIs area. The KPIs area lists all the types of KPIs that are attached to the selected CIs. The alert is triggered by the specified status change in the selected KPIs attached to any of the selected CIs.

You can share the same CI Status alert scheme definition between several CIs when you select more than one CI in the Related Configuration Items page.

To specify the related configuration items:

1 Access the Related Configuration Items page.

2 Select the CI(s) to which you want to attach the alert scheme from the View Explorer (you can expand the View Explorer if needed), and click the right arrow button to move your selection(s) to the **Selected Configuration Items** list. You can select multiple CIs using the CTRL key.



To deselect a CI, click it in the **Selected Configuration Items** list and click the left arrow button.



The alert is triggered by any change in any of the KPIs attached to the CI the alert scheme is assigned to.

3 If you selected **Selected KPIs** in the **General** page (see step 6), select the KPI(s) whose change of status will trigger the alert.





4 Click the **Properties** button to display the CI General Properties page. For details, see "Attaching Existing CIs" in *IT Universe Administration*.

5 Click **Next** to open the Templates and Recipients page.

Specifying Templates and Recipients

Use this step to define the alert recipients and templates. When an alert is triggered, an e-mail, SMS message, or Pager message is sent to a pre-defined recipient. The e-mail, SMS message, or Pager messages have a pre-defined templates. For details, see "E-Mail, SMS, and Pager Message Templates" on page 85.

To specify notification templates and recipients:

1 Access the Templates and Recipients page.

➤ **E-mail message template**. Choose between:

- Short HTML e-mail message, short text e-mail message – These messages include the change in status only.
- Long HTML e-mail message, long text e-mail message – These messages include a subject line and body.

➤ **SMS or pager template**. SMS and pager messages are sent via e-mail to the service provider. The pager messages use the same templates as the SMS messages.

The e-mail address is:
<SMS provider access number>@<SMS provider e-mail address>
or
<Pager provider access number>@<Pager provider e-mail address>.

Choose between:

- Long SMS/Pager message – The message includes the change in status and information about the SLA.
- Short SMS/Pager message – The message includes the change in status only.

For details on modifying the message character set, and about the structure of the e-mail, SMS, and Page message templates, see "E-Mail, SMS, and Pager Message Templates" on page 85.

2 In the **Available recipients** list, select the recipient(s) to whom you want notifications sent, and click the right arrow button to move your selection(s) to the **Selected recipient** list. You can select multiple recipients using the CTRL key. To deselect a recipient, click it in the **Selected recipient** list and use the left arrow button.





To define a new recipient, click **New Recipient.** For details, see "Configuring and Selecting Recipients" in *Platform Administration*.

The notification method that is used to notify a recipient depends of the recipient definition.

Note: You cannot use customized templates for e-mails, SMS messages, or Pager messages with the CI Status alerts.

---

3 Click **Next** to open the Actions page.

Specifying the Actions to be Triggered by the Alert

Use this step to define the user-defined alert handlers (actions) that will be triggered by the alert – for more information, see "Specifying a Notification URL" on page 77 and "Creating an Executable File" on page 79.

To specify the actions to be triggered by the alert:

1 Access the Actions page.

2 Choose from the following options:

- To open a URL when the alert is issued, click **New URL** to open the **Create New URL** page. For details, see "Specifying a Notification URL" on page 77.
- To execute an executable file when the alert is issued, click **New Executable File** to open the **Create Executable File** page. For details, see "Creating an Executable File" on page 79.
- To send an SNMP trap when the alert is issued, click **New SNMP Trap** to open the Create New SNMP Trap page. For details, see "Configuring an SNMP Trap" on page 82.

3 Click **Next** to open the Summary page.

Displaying the Alert Summary

The last step of the wizard displays a summary of the alert scheme definition.

To display the alert summary:

1 Access the Summary page to display the details of the alert scheme you created.

2 You can now:

- ➤ click **Back** to go back to the previous wizard pages to modify the alert scheme definition
- ➤ click **Finish** to save the new alert scheme
- ➤ click **Cancel** to cancel the alert scheme definition

3 If you click **Finish**, the following message is displayed: **Alert was successfully saved**. Click **Close** to close the wizard and return to the Configuration Item Status Alerts page where the new alert scheme is displayed.

Specifying a Notification URL

You can create a notification URL to attach to an alert. This notification URL is used to pass alert information to external systems such as a customer Web application.

You can embed pre-defined alert parameters in the notification URL. The parameters are used as placeholders when the message is formatted.

To create a notification URL:

1 Access the **Create New URL** dialog box. For details on accessing this dialog box, see the Actions page in "Creating an Alert Scheme and Attaching it to a CI" on page 71.

2 In the **Field** list, select the name of the field and click **Insert Field**. The field appears between double angle-brackets in the **Enter URL** box.

The field values represent:

- **CI Name** – the name of the CI.
- **Alert Name** – the name of the alert scheme.
- **Trigger Time** – the time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>].
- **Previous Status** – the previous status of the KPI(s).
- **Current Status** – the current status of the KPI(s).

  The change from previous status to current status triggers the alert.
- **KPI Name** – the name of the KPI.
- **KPI Value** – the result of the calculation performed by the rule attached to the KPI. This is the result that triggered the alert.

3 Enter the URL in the **Enter URL** box.

4 Click **OK** to save the new URL.

Example: Creating a URL

To include the name of the CI and the current status of the CI in the URL proceed as follows:

1 Enter the following string in the **Enter URL** box:
http://dogbert.com/myjsp?entityname=

2 Select **CI Name** in the **Field** box and press **Insert Field** to insert the <<**CI Name**>> variable.

The string in the **Enter URL** box is now:
http://dogbert.com/myjsp?entityname=<<Entity Name>>

3 At the end of the string in the **Enter URL** box, enter severity=

4 Select **Current Status** in the **Field** box and press **Insert Field** to insert the <<**Current Status**>> variable.

The string in the **Enter URL** box is now:
http://dogbert.com/myjsp?entityname=<<Entity Name>> severity=
<<Current Status>>

Modifying the Default Centers Server URL

You can modify the default URL that appears in the notifications. This URL represents the URL of the Mercury Business Availability Center Centers server.

To specify the default Centers server URL:

1. Select **Admin** > **Platform**.
2. Click **Setup and Maintenance**.
3. Click **Infrastructure Settings**.
4. Select **Foundations**.
5. Select **Alerting**.
6. Scroll down to the **Alerting - Triggered alerts** area.
7.  Click the **Edit** button for the **Notification URL** parameter to open the **Notification URL** dialog box, enter the URL in the <processing_server> **Value** box, and click **Save** to save the changes. The <processing_server> is the name of the server where you are changing the Infrastructure Settings.

Creating an Executable File

Only users with administrative privileges can create an executable file to be run when the alert it is attached to is triggered. For details, see "Setting the Appropriate Administrative Privileges" on page 81. The executable file writes information in special logs or inserts information into external databases.

Note to Mercury Managed Services customers: To create an executable file, contact Mercury Managed Services Support.

This section includes the following topics:

➤ "Creating an Executable File" on page 80

➤ "Example: Creating An Executable File" on page 81

➤ "Setting the Appropriate Administrative Privileges" on page 81

Creating an Executable File

You can create an executable file and embed pre-defined alert parameters in the file. The parameters are used as placeholders when the message is formatted.

To create an executable file:

1 Access the **Create New Executable File** dialog box. For details on accessing this dialog box, see the Actions page in "Creating an Alert Scheme and Attaching it to a CI" on page 71.

2 In the **Field** list, select the name of the field and click **Insert Field**. The field you selected appears between double angle-brackets in the **Enter command** box. The field values represent:

- **CI Name** – the name of the CI.
- **Alert Name** – the name of the alert.
- **Trigger Time** – the time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>]
- **Previous Status** – the previous status of the KPI(s).
- **Current Status** – the current status of the KPI(s).

  The change from previous status to current status triggers the alert.
- **KPI Name** – the name of the KPI.
- **KPI Value** – the value of the KPI.

3 Enter the command in the **Enter command** box.

4 Click **OK** to save the new command.

Example: Creating An Executable File

To include the name of the CI in the command proceed as follows:

1. Enter the following string in the **Enter command** box:
   \\servername\myfolder\run.exe -name
2. Select **CI Name** in the **Field** box and press **Insert Field** to insert the <<**CI Name**>> variable.

   The string in the **Enter command** box is now:
   \\servername\myfolder\run.exe -name <<Entity Name>>

Setting the Appropriate Administrative Privileges

You can set the appropriate administrative privileges to create a command that can be attached to an alert scheme.

To set the appropriate administrative privileges:

1. Select **Admin** > **Platform**.
2. Click **Users and Permissions**.
3. Select **Permissions Management**.
4. Choose the **Monitors** context.
5. Click **Alerts - Run executable file**.
6. Select the **Operations** tab.
7. Set the permissions to **Change.** For details, see "Configuring User Permissions" in *Application Administration*.

Configuring an SNMP Trap

You can create an SNMP trap to attach to an alert. This SNMP trap is sent when the alert criteria is met. The alert notice can be viewed via any SNMP management console in the organization.

Note: Mercury Business Availability Center supports only SNMP V1 traps.

To enable alerts via SNMP trap, it is recommended that you configure your SNMP management console to read the Alerts MIB. For details, see "Configuring the Alerts MIB" in *Platform Administration*. This enables you to see names, rather than Object IDs (OIDs), when working in the management console.

Note: Mercury Business Availability Center uses the AM alerts MIB 5.0 by default and supports SNMPv1.

This section includes the following topics:

- "Creating an SNMP Trap" on page 83
- "Editing an SNMP Trap" on page 83
- "Specifying the Default SNMP Trap Host Address" on page 84

Creating an SNMP Trap

To create an SNMP trap, access the Create New SNMP Trap dialog box and specify the host address.

To create an SNMP trap:

1 Access the Create New SNMP Trap dialog box. For details on accessing this dialog box, see the Actions page in "Creating an Alert Scheme and Attaching it to a CI" on page 71.

2 Enter the host address in the **Enter destination host** box. You can use different formats:

- <target_host_name|target_host_IP_address>
- <target_host_name|target_host_IP_address>[:<port_number>]

3 Click **OK** to save the new SNMP trap.

Editing an SNMP Trap

To edit an SNMP trap, access the Create New SNMP Trap dialog box and specify the host address.

To create an SNMP trap:

1 Access the SNMP Trap dialog box. For details on accessing this dialog box, see the Actions page in "Creating an Alert Scheme and Attaching it to a CI" on page 71.

2 Modify the host address in the **Enter destination host** box. Select one of the following options:

- If you work with Alerts for profiles, use the following format:
  - <target_host_IP_address>
  - <target_host_IP_address>[:<port_number>]
- If you work with CMDB, use the following format:
  - <target_host_name|target_host_IP_address>
  - <target_host_name|target_host_IP_address>[:<port_number>]

3 Click **OK** to save the new SNMP trap.

Specifying the Default SNMP Trap Host Address

You can specify a default host address: IP address, server name, and/or port number in the Alerting - Triggered Alerts area of the Infrastructure Settings. The default host address appears automatically in the **Enter host destination** box in the Create New SNMP Trap or in the Edit SNMP Trap dialog box.

If, when you create or edit an SNMP trap, you select the default host address and then modify the default host address in the Infrastructure Settings, the address in the SNMP trap you created is updated to the new default. Any alert that is sent causes the SNMP trap to be sent to the new default address.

To specify the default SNMP trap host address:

1. Select **Admin** > **Platform**.
2. Click **Setup and Maintenance**.
3. Click **Infrastructure Settings**.
4. Select **Foundations**.
5. Select **Alerting**.
6. Scroll down to the **Alerting - Triggered alerts** area.
7. If you are working with Alert for profiles (for details, see "Creating Alert Schemes" in *Platform Administration*) you can specify the default host address for all the customers as follows:



➤ Click the **Edit** button for the **Legacy SNMP Target Address** parameter to open the **Legacy SNMP Target Address** dialog box, enter the IP address in the **Value** box, and click **Save** to save the changes.



➤ Click the **Edit** button for the **Legacy SNMP Port** parameter to open the **Legacy SNMP Port** dialog box, enter the port number in the **Value** box, and click **Save** to save the changes

8 If you are working with CMDB, you can specify the default host address as follows:



➤ Click the **Edit** button for the **Default SNMP Target Address** parameter to open the **Default SNMP Target Address** dialog box, enter the IP address or the server name in the **Value** box, and click **Save** to save the changes.



➤ Click the **Edit** button for the **Default SNMP Port** – parameter to open the **Default SNMP Port** dialog box, enter the port number in the **Value** box, and click **Save** to save the changes.

E-Mail, SMS, and Pager Message Templates

Select the appropriate format for the notification(s) you want to send to the recipient(s). You can select any combination of e-mails, SMSs, or pager messages. This section details the structure of each format of e-mail, SMS, and Pager message templates.

Note: You cannot edit the e-mail, SMS, and Pager message templates.

This section includes the following topics:

➤ "Message Syntax" on page 86

➤ "E-mail Message Templates" on page 87

➤ "SMS and Pager Message Templates" on page 89

➤ "Modifying the Message's Character Set" on page 89

Message Syntax

Select the e-mail template you want to use in the **E-mail message template** list. The message is displayed as a table or as text. The syntax can be a subset of one of the following:

- table format:

ci-name status has changed to *current-status*

Trigger TIme:	*trigger-time*
alert-name:	*alert-value*
KPI value:	*KPI-value*
Previous status:	*previous-status*
Alert name:	*alert-name*
Alert Description:	*alert-description*
URL:	*URL*

For more details login into Mercury Business Availability Center: *machine-address*

- text format:

ci-name status has changed to *current-status*.
Trigger Time: *trigger-time* KPI Name: *KPI-name* KPI value: *KPI-value* Previous status: *previous-status* Alert name: *alert-name* (Long text) Alert Description:
alert-description

For more details login into Mercury Business Availability Center: *URL*

where:

- **ci-name** – the name of the CI whose change of status triggered the alert.
- **current-status** – the new status of the CI.

- **trigger-time** – the time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>]
- **KPI-name** – the name of the KPI.
- **KPI-value** – the value of the KPI.
- **previous-status** – the previous status of the CI.
- **alert-name** – the name of the alert.
- **alert-description** – the description of the alert.
- **machine-address** – the URL of the machine where the status change occurred.
- **URL** – the URL of the Centers server. For details, see "Modifying the Default Centers Server URL" on page 79.

E-mail Message Templates

Select the e-mail template you want to use in the **E-mail message template** list.

- **Long text e-mail message**

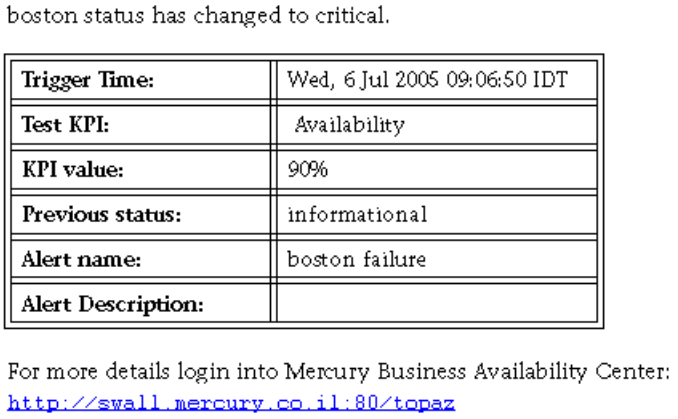
  For example:

boston status has changed to critical.
Trigger Time: Wed, 6 Jul 2005 09:06:50 IDT Stam Test KPI Name: Availability KPI value: 90% Previous status: informational Alert name: boston failure (Long text) Alert Description:

For more details login into Mercury Business Availability Center: http://swall.mercury.co.il:80/topaz

➤ **Long HTML e-mail message**

For example:



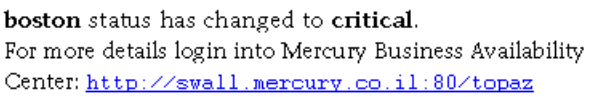
boston status has changed to critical.

Trigger Time:	Wed, 6 Jul 2005 09:06:50 IDT
Test KPI:	Availability
KPI value:	90%
Previous status:	informational
Alert name:	boston failure
Alert Description:	

For more details login into Mercury Business Availability Center:
http://swall.mercury.co.il:80/topaz

➤ **Short HTML e-mail message**

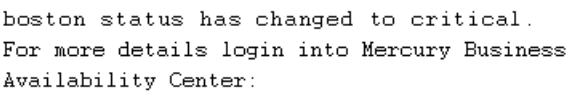
For example:



boston status has changed to **critical**.
For more details login into Mercury Business Availability Center: http://swall.mercury.co.il:80/topaz

➤ **Short Text e-mail message**

For example:



```
boston status has changed to critical.
For more details login into Mercury Business
Availability Center:
```

SMS and Pager Message Templates

Select the SMS or Pager template you want to use in the **SMS template** list.

- **Long SMS/Pager message** – Use the same template as the long text e-mail message. For details, see "E-mail Message Templates" on page 87.
- **Short SMS/Pager message** – Use the same template as the short text e-mail message. For details, see "E-mail Message Templates" on page 87.

Modifying the Message's Character Set

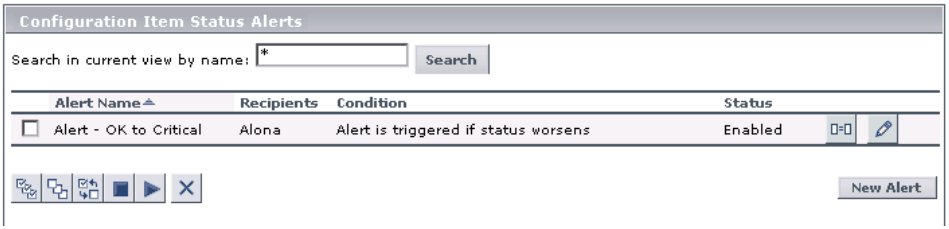
You can select one of the following character sets: **UTF-8** (default) or **ISO-2022-JP** for the e-mail, SMS, or Pager messages.

To modify the message's character set:

1. Select **Admin** > **Platform**.
2. Click **Setup and Maintenance**.
3. Click **Infrastructure Settings**.
4. Select **Foundations**.
5. Select **Alerting**.
6. Scroll down to the **Alerting - Triggered alerts** area.
7. To change the e-mail, SMS, or Pager alert character set, click the **Edit** button for the relevant parameter: **Email alerts charset**, **SMS alert charset**, or **Pager alert charset**.
8. In the page that opens, in the **Value** list, select the appropriate character set: **UTF-8** (default) or **ISO-2022-JP**.

Viewing the Alerts

After you complete defining an alert scheme, it is listed in the CI Status Alerts tab.



The Configuration Item Status Alerts page displays the following information:

Field	Description
Alert Name	The name of the alert scheme.
Recipients	The name(s) of the recipient(s).
Condition	A description of the condition.
Status	Indicates if the alert scheme is enabled or disabled.

You can perform the following actions:

- You can attach a new alert scheme to a CI. For details, see "Creating an Alert Scheme and Attaching it to a CI" on page 71.
- You can duplicate and edit an existing alert scheme. For details, see "Administering Alert Schemes" on page 91.
- You can delete an existing alert scheme. For details, see "Administering Alert Schemes" on page 91.
- You can enable or disable an alert scheme. For details, see "Administering Alert Schemes" on page 91.



Note: To make your selections, you can also use the buttons at the bottom of the page for, **Select All**, **Clear All**, and **Invert Selection**.

Administering Alert Schemes

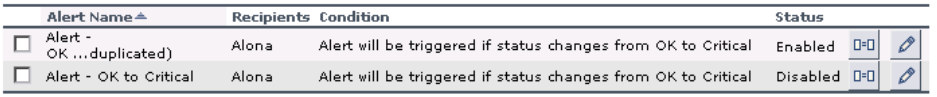
You administer existing alert schemes by duplicating a scheme and customizing it, deleting a scheme that is no longer needed. You can also enable alert schemes so that they send notifications to the recipients when the appropriate KPI(s) status changes, or you can disable them. By default, alert schemes are enabled.

To duplicate alert schemes:

1 Access the Configuration Item Status Alerts page.



2 Click the **Duplicate** button next to the alert you want to duplicate. The duplicated alert scheme is listed under the first alert and the note **(Duplicated)** appears underneath the duplicated alert scheme as follows:



	Alert Name	Recipients	Condition	Status		
☐	Alert - OK ...duplicated)	Alona	Alert will be triggered if status changes from OK to Critical	Enabled		
☐	Alert - OK to Critical	Alona	Alert will be triggered if status changes from OK to Critical	Disabled		



3 Click the **Edit** button to edit the duplicated alert scheme. The Alert wizard opens. For details, see “Creating an Alert Scheme and Attaching it to a CI” on page 71.

To delete alert schemes:

1 Access the Configuration Item Status Alerts page.



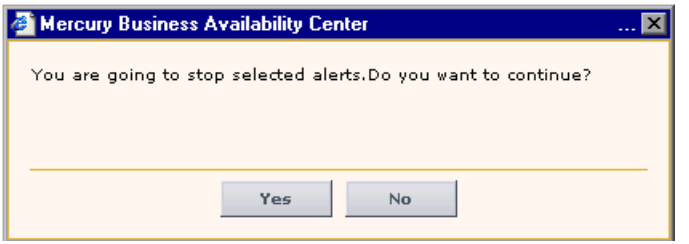
2 Select the alert scheme(s) you want to delete and click the **Delete** button.

The alert scheme is removed from the list.

To disable alert schemes:

1 Access the Configuration Item Status Alerts page.

2 Select the appropriate alert scheme(s) and click the **Click to disable selected alerts** button. A popup message is issued.



The status of the alert scheme changes to **Disabled** as follows:



To enable alert schemes:

1 Access the Configuration Item Status Alerts page.

2 Select the appropriate alert scheme(s) and click the **Click to enable selected alerts** button.

The status of the alert scheme changes to **Enabled** as follows:



Searching for Specific CI Alert Schemes in the Current View

You can search for specific alert schemes assigned to a CI in the current view using the search feature. The search feature works only on alert scheme names.

You can, for example, search for all the alert schemes whose names include the string OK so that you can change their conditions.

To search for specific CI alert scheme(s):

1. Access the Configuration Item Status Alerts page.
2. In the **Search in current view by name** box, enter the string that you want to use to search for specific alert schemes.

   You can use the asterisk wildcard (*) to represent a string of characters and the question mark wildcard (?) to represent one character.
3. Click **Search** to display the alert schemes whose name correspond to the string.

4

Configuring the Custom Map

The Custom Map tab in Dashboard Administration enables you to create an association between a custom image that represents a view and real-time data.

This chapter describes:	On page:
Overview of Custom Maps in Dashboard	95
Configuring a Custom Map	97

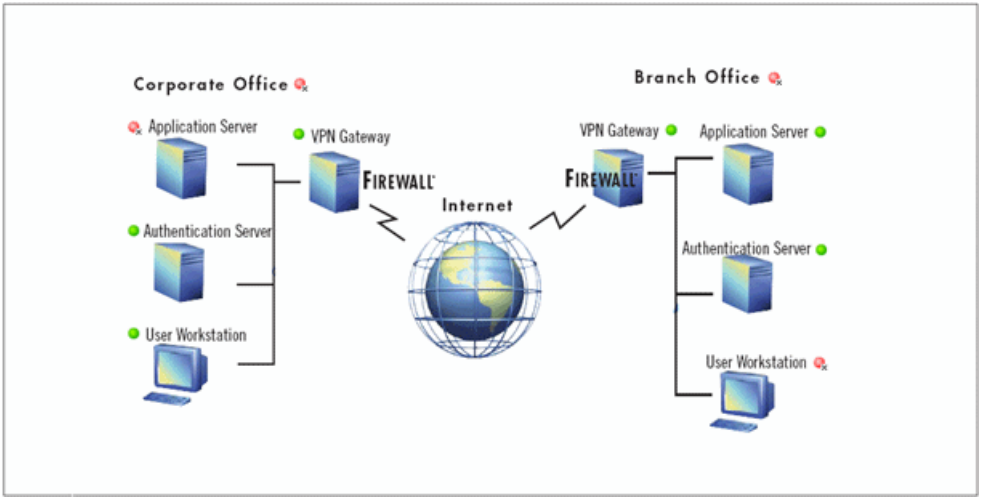
Overview of Custom Maps in Dashboard

The Custom Map feature allows you to associate a view's CIs and a custom image that describes the real world that your view represents.

You create a custom map by adding CI icons from the view and associating them with elements of the custom image.

In Dashboard, the custom map will display the CI icons as real-time status indicators – for details, see "Dashboard Custom Map" in *Using Dashboard*.

For example, you might associate a graph representing your company's network with real-time data coming from the different parts of the network.



One custom map can be defined for each view. If you do not define a custom map for a view, users accessing the Custom Maps tab, when that view is active, will see a message stating that there is no defined image.

In a custom map, you can use, as an image, any diagram or picture, created using any tool, provided that the format is supported by the Mercury Business Availability Center browser. It is recommended to use one of the following formats: **.gif**, **.jpg**, or **.png**

You can then add the view's CIs to the custom map, at the appropriate location. The status indicator shows the worst status (worst of all KPIs) for that CI.

Note: When a CI is removed from the IT universe model, the corresponding CI icon (in Dashboard Administration) and the corresponding status indicators (in Dashboard) are automatically removed from the relevant custom maps.

Configuring a Custom Map

To configure a custom map, select a view and specify the URL of the image you want to use for the view.

You can add CI icon(s) where appropriate on the image, to create an association between the image and the view.

Once you have created a custom map, you can delete CI icons from the diagram, revert to the previous custom map, delete the entire custom map, refresh the image, or move a single CI icon to a new location.

This section includes the following topics:

- "Creating a Custom Map for a View" on page 97
- "Removing All the CI Icons from a Custom Map" on page 99
- "Reverting to the Previous Custom Map" on page 100
- "Deleting the Image and the CI Icons of a View" on page 100
- "Refreshing the Image" on page 100
- "Moving a CI Icon" on page 101
- "Hints and Tips" on page 101

Creating a Custom Map for a View

You create a custom map by selecting a view and attaching the URL of the custom image to that view.

To create a custom map for a view:

1. Select **Admin** > **Dashboard**.
2. Click the **Custom Map** tab to open the Custom Map Administration page.
3. Select the appropriate view in the View Explorer.
4. In the **Image URL** box, enter the URL of the diagram that will be used for the view. Click the **Refresh** button to display the diagram.



The image URL can use HTTP or HTTPS, but must be in the format: **http:**//*hostname*/*path_to_image*

If you would like to use a local machine as the location of the image, enter the URL with the following format:
file:///*path_to_image*

This results in an image that cannot be displayed for a user working outside the local network.

You can also use a file-sharing path as follows:
*server**path_to_image*

Any type of image that can be displayed by the browser can be loaded from any URL the user can access (including HTTP protocol and HTTP authentication). You must make sure that the URL is available at all times.



Tip: You can use the **Refresh** button at any time to reload the diagram (for example, if changes have been made to the source file). Reloading the diagram will not affect the position of the item indicators.

---

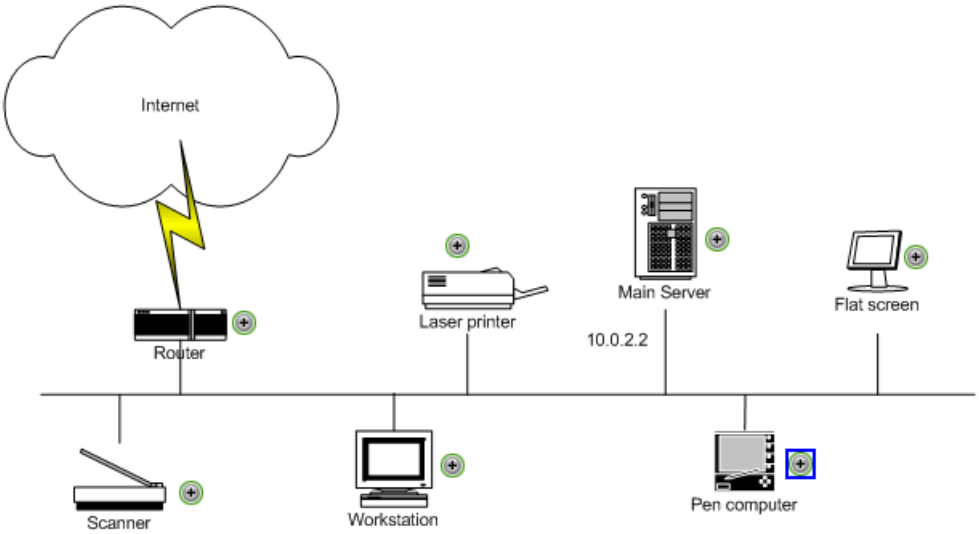
5 For each CMDB CI that you want to associate with a location in the diagram:

- ➤ Select the CI in the View Explorer.
- ➤ Click **Add CI Icon.** The CI icon is displayed in the left top corner of the diagram. The CI icon you just added is shown with a blue outline.
- ➤ Drag the CI to the required location in the diagram.



The CI icon is set at that position.

For example:



6 When you have added the required CI icons, click **Save** to save the changes.

Removing All the CI Icons from a Custom Map

You can remove all the CI icons from a custom map.

To remove all CI icon(s) from a custom map:

1 Select **Admin** > **Dashboard**.

2 Click the **Custom Map** tab to open the Custom Map Administration page.

3 Select the appropriate view in the View Explorer.

4 Click **Clear CI Icons**. A confirmation message is issued: **You are about to clear all nodes from the view. Are you sure?**

5 Click **OK** to delete all the CI icons.

Reverting to the Previous Custom Map

If you have made changes to a custom map, you can revert to the last saved configuration before you save the changes.

To revert to the previous custom map:

1. Select **Admin** > **Dashboard**.
2. Click the **Custom Map** tab to open the Custom Map Administration page.
3. Select the appropriate view in the View Explorer.
4. Click **Revert**. The diagram reverts to the situation at the last **Save**.

Deleting the Image and the CI Icons of a View

You can delete the image and all the CI icons associated with a view.

To delete the image and the CI icons of a view:

1. Select **Admin** > **Dashboard**.
2. Click the **Custom Map** tab to open the Custom Map Administration page.
3. Select the appropriate view in the View Explorer.
4. In the **Custom Map** tab, click **Delete Image**.
5. Click **OK**. The image and CI icons are removed from the page.

Refreshing the Image

You can refresh the image after it has been modified.

To refresh the image:

1. Select **Admin** > **Dashboard**.
2. Click the **Custom Map** tab to open the Custom Map Administration page.
3. Select the appropriate view in the View Explorer.
4.  Click the **Refresh** button to refresh the image. The CI icons are not removed or moved.

Moving a CI Icon

You can move a CI icon to another location in the custom map.

To move a CI icon:

1. Select **Admin** > **Dashboard**.
2. Click the **Custom Map** tab to open the Custom Map Administration page.
3. Select the appropriate view in the View Explorer.
4. Click the appropriate CI icon. The CI icon you just added is shown with a blue outline.
5. Drag it to the new location.

Hints and Tips

CI icons should not overlap otherwise you will see only the top status indicator in the custom map.

After setting a CI icon on the diagram, you can move the cursor over it to display the CI name in a tooltip – for details about the tooltip, see "CI Status Indicator Tooltip" in *Using Dashboard*.

5

Configuring the Geographical Map

The Geographical Map tab enables you to create an association between geographical locations and status indicators using a maps applet, Google Earth, or Virtual Earth.

This chapter describes:	On page:
About Configuring the Geographical Map	103
Selecting the Type of Display Used for Geographical Maps	104
Assigning a Geographical Map to a View	106
Working with the Maps Applet Geographical Maps	108
Working with Virtual Earth Geographical Map	112
Working With Google Earth	117

About Configuring the Geographical Map

In Dashboard, a geographical map is associated with a view. If you have specified locations for the view's CIs, real-time status indicators representing the CIs statuses are displayed on the map at those geographical locations.

To determine the status of a location, Dashboard takes the worst status for all KPIs relevant for each CI, for all CIs that are attached to the location.

In Dashboard Administration, in the geographical map, you can shift the map's focus and enlarge or shrink the map to fit the view it represents. This modified map will automatically be displayed when you select the view in the Geographical Map tab in Dashboard – for details, see "Dashboard Geographical Map" in *Using the Dashboard*.

You can select one of the following technologies to display the map:

- a maps applet – for details, see "Working with the Maps Applet Geographical Maps" on page 108.
- Virtual Earth – for details, see "Working with Virtual Earth Geographical Map" on page 112. This is the default.

You can also display a map using Google Earth – for details, see "Working With Google Earth" on page 117.

For details on how to select the type of display, see below.

Selecting the Type of Display Used for Geographical Maps

By default the technology used to display geographical maps is Virtual Earth. You can change the default and select to work with the maps applet or with Google Earth.

If you want to work with Google Earth (only available for administrators) you must specify that you want to display the **Export to Google Earth** button in the Geographical Map tab in Dashboard Administration.

This section includes the following topics:

- "Selecting the Technology to Be Used to Display Geographical Maps" on page 105
- "Specifying That you Want to Display the Export to Google Earth Button" on page 106

Selecting the Technology to Be Used to Display Geographical Maps

By default the technology used to display geographical maps is Virtual Earth (the **Use Virtual Earth** parameter is set to **true**). You can change the default and select to work with the maps applet or with Google Earth (the **Use Virtual Earth** parameter is set to **false**).

To select the technology to be used to display geographical maps:

1. Select **Admin** > **Platform**, click the **Setup and Maintenance** tab, and click **Infrastructure Settings**.
2. Select the **Applications** context, and the **Dashboard Applications** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4.  Click the **Edit** button for the **Use Virtual Earth** parameter to open the Use Virtual Earth page.
5. Select one of the following options:
   - **true** – to use Virtual Earth geographical map. By default, Virtual Earth is enabled. Use this option if the user has an Internet link.

     For details on Virtual Earth, see "Working with Virtual Earth Geographical Map" on page 112
   - **false** – to use the maps applet or Google Earth. Use this option if the user does not have an Internet link.

     For details on the maps applet, see "Working with the Maps Applet Geographical Maps" on page 108. For details on Google Earth, see "Working With Google Earth" on page 117.
6. Click **OK** to save the changes.

Specifying That you Want to Display the Export to Google Earth Button

You can also specify that you want to display the **Export to Google Earth** button in the Geographical Map tab in Dashboard Administration.

To specify that you want to display the Export to Google Earth button:

1. Select **Admin** > **Platform**, click **Setup and Maintenance**, click **Infrastructure Settings**.
2. Select **Dashboard Application** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4. Click the **Edit** button corresponding to the **Enable Export to Google Earth button** and select one of the following:
   - **true** – to display the **Export to Google Earth** button in the Geographical Map tab in Dashboard Administration. This is the default.
   - **false –** to hide the **Export to Google Earth** button.

Note to Mercury Managed Services: The **Export to Google Earth** button is not available when working with Mercury Managed Services.

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5. Click **OK** to save the changes.

Assigning a Geographical Map to a View

Once you have selected the technology to display the geographical map, you must assign a map to a view. You can then adjust the map focus and magnification until you have the required display.

If you assigned geographical location to a view's CIs, the corresponding status indicators are displayed on the map as soon as you assign a map to the view. For details on how to define a CI's geographical locations, see "Configuration Item Properties" in *IT Universe Administration*.

To remove CI icons from the map, you must delete their geographical location.

The city names use UTF8 format. If Mercury Business Availability Center is working with MS-SQL Server, or with an Oracle Server that is not configured for UTF8 support, then when the name of a city includes non-English characters (for example, é), these characters are displayed as empty square brackets [ ].

You assign a map to a view by selecting a view in the Geographical Map and saving the map.

To assign a geographical map to a view:

1 Select **Admin** > **Dashboard**.

2 Click the **Geographical Map** tab to open the Geographical Map Administration page.

3 Select the appropriate view in the **View** list in View Explorer.

4 You can then:

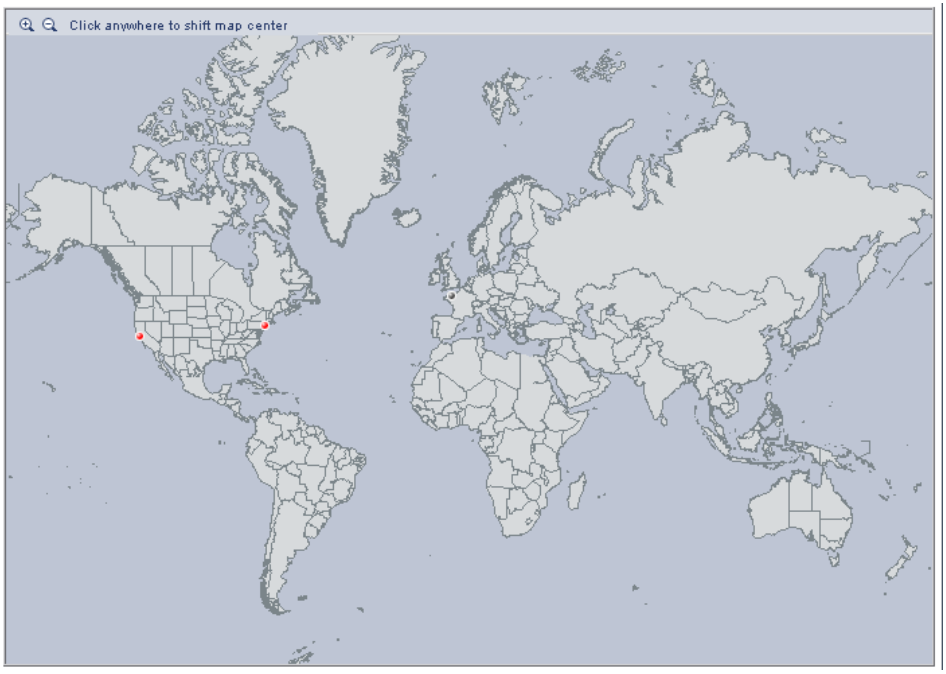
- shift the map focus and magnification to create the map display for the view – how to do that depends on the type of display you selected. You can also do that at a later time.
- click **Revert** to go back to the previously saved geographical map
- click **Zoom Out** to go back to displaying the complete map
- click **View in Google Earth** to display the map in 3D if you set the **Use Virtual Earth** parameter to **false** – for details, see "Working With Google Earth" on page 117

5 Click **Save** to save your changes.

Working with the Maps Applet Geographical Maps

The map applet present a flat geopolitical view of the planet. When you magnify the view, the main cities appear for the part of the map that is displayed on the screen.

You can use the maps applet to display the geographical map of a view. The map displays the worst status at each geographical location and detailed information about the CI's KPIs.



Note: The maps applet requires that Sun JRE plug-in 1.4.2_08 or later be installed on the client machine. If an earlier version is installed, then Mercury Business Availability Center will automatically try to download JRE 1.4.2_08 when you access the maps applet.

Once you have assigned a geographical map to a view (for details, see "Assigning a Geographical Map to a View" on page 106) you can adjust the map and modify its settings.

This section includes the following topics:

- "Viewing More Information about a CI" on page 109
- "Adjusting a Map Applet" on page 109
- "Modifying the Map Applet Settings" on page 110

Viewing More Information about a CI

Tooltips provide the overall status for each KPI associated with the location, and how long the KPI has been at that status – for more details, see "Geographical Map Tooltips" on page 71.

Adjusting a Map Applet

For each view, you can set a default focus area and magnification to adjust the map to the view. You can:

- click the area that interests you. The map shifts to make the location you clicked the new center of the map.



- use the **Zoom In** and **Zoom Out** buttons in the top-left corner of the map pane to enlarge or shrink the map.

Click **Save** to save the map magnification and focus. Those settings become the default settings for the user's map.

Modifying the Map Applet Settings

To work with the map applet geographical map, you must set the **Use Virtual Earth** parameter to **false** – for details, see "Selecting the Type of Display Used for Geographical Maps" on page 104.

You can also modify the refresh rate of the geographical map, and the maximum number of tooltips per location. You can also specify whether you want to display the **Export to Google Earth** button in the geographical map.

This section includes the following topics:

- "Specifying the Map Refresh Rate" on page 110
- "Specifying That you Want to Display the Export to Google Earth Button" on page 106
- "Specifying the Maximum Number of CIs Displayed in a Location's Tooltip" on page 111

Specifying the Map Refresh Rate

You can modify the default of the map refresh rate. The default is 30 seconds.

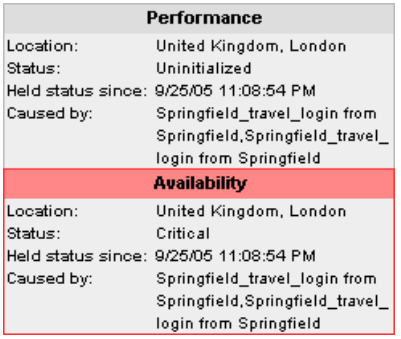
To specify the map refresh rate:

1. Select **Admin** > **Platform**, click **Setup and Maintenance**, click **Infrastructure Settings**.
2. Select **Dashboard Application** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4. Click the **Edit** button corresponding to the **Maps Applet Refresh Rate** and enter the new refresh rate.
5. Click **OK** to save the changes.

Specifying the Maximum Number of CIs Displayed in a Location's Tooltip

You can specify the maximum number of CIs that can be displayed in the tooltip for a location in the Geographical Map. The default is 10.

Do not make this value too large, as it represents the number of CIs shown in the **Caused by** section of the tooltip.



To specify the maximum number of CIs displayed in a location's tooltip:

1. Select **Admin** > **Platform**, click **Setup and Maintenance**, click **Infrastructure Settings**.
2. Select **Dashboard Application** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4. Click the **Edit** button corresponding to the **Maximum CIs in tooltip for location** and enter the new maximum.
5. Click **OK** to save the changes.

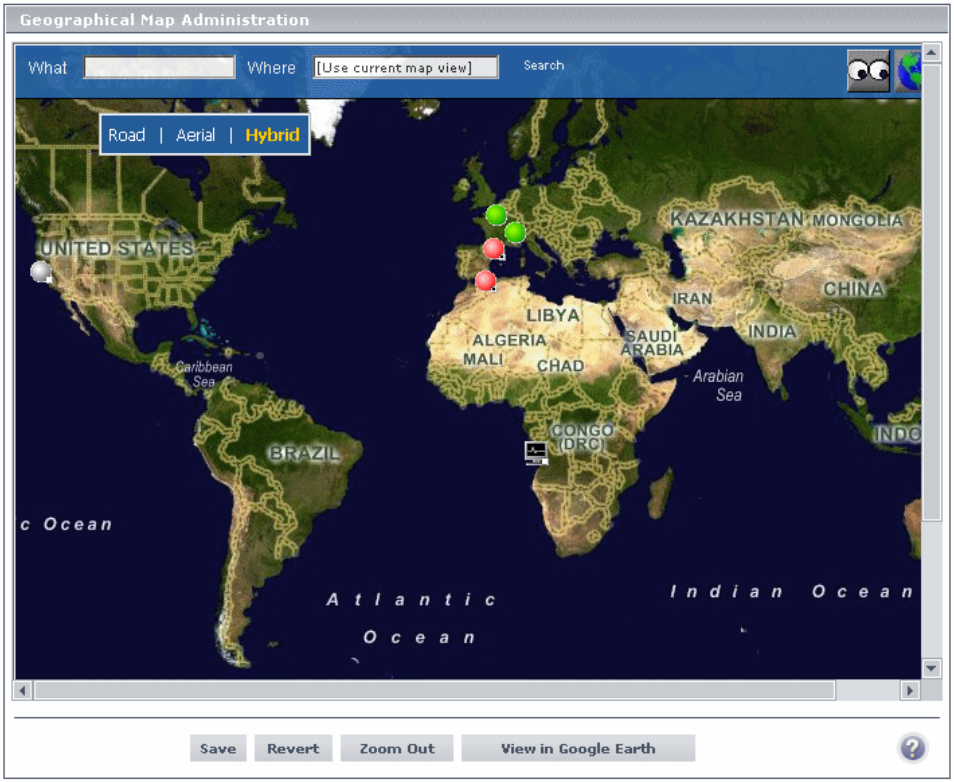
Working with Virtual Earth Geographical Map

The Virtual Earth geographical map presents a flat geopolitical view of the planet where you can display only the country borders, only the geographical features, or both.

When you magnify the view, the main cities appear for the part of the map that is displayed on the screen.

You can use Virtual Earth to display a geographical map of a view. If the view's CIs are assigned geographical locations, real-time status indicators are displayed on the map at those geographical locations.

Virtual Earth geographical maps are MSN-based and use dynamic HTML.



This section includes the following topics:

- "Viewing More Information About the CI" on page 113
- "Adjusting a Virtual Earth Map" on page 113
- "Modifying Virtual Earth Settings" on page 113
- "Modifying the Virtual Earth Map Display" on page 116

Viewing More Information About the CI

Double-click a status indicator to open the KPIs Over Time report for the CI – for details about the KPIs Over Time report, see "KPIs Over Time Report" in *Using Dashboard*.

Adjusting a Virtual Earth Map

For each view, you can set a default focus area and magnification to adjust the map to the view. You can:



- click the eyes button to shift center of map to the nearest CI.
- double-click on the map to zoom in.



- click the globe button to zoom out completely.
- click on map and drag to move the map in the window.

Click **Save** to save the map magnification and focus. Those settings become the default settings for the user's map.

Modifying Virtual Earth Settings

To work with Virtual Earth geographical map, you must set the **Use Virtual Earth** parameter to **true** – for details, see "Selecting the Type of Display Used for Geographical Maps" on page 104.

You can also specify the size of the indicators, whether to ignore gray statuses, and the time delay between the completion of new location download from the server and the display of the information by Virtual Earth.

This section includes the following topics:

➤ "Specifying the Size of the Indicators" on page 114

➤ "Specifying the Statuses to Be Displayed" on page 114

➤ "Specifying the Time Delay" on page 115

Specifying the Size of the Indicators

You can modify the default size (19 pixels) of the indicators that are displayed on the Virtual Earth map.

To specify the size of the indicators:

1. Select **Admin** > **Platform**, click the **Setup and Maintenance** tab, and click **Infrastructure Settings**.
2. Select the **Applications** context, and the **Dashboard Applications** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4. Click the **Edit** button for the **Indicator size in Virtual Earth** parameter to open the Indicator Size in Virtual Earth page.
5. Enter the size (in pixels) of the indicator in the **Value** field. The default is 19.
6. Click **OK** to save the changes.

Specifying the Statuses to Be Displayed

You can select the statuses you want to display in the Virtual Earth map.

To specify the statuses to be displayed:

1. Select **Admin** > **Platform**, click the **Setup and Maintenance** tab, and click **Infrastructure Settings**.
2. Select the **Applications** context, and the **Dashboard Applications** in the **Applications** list.
3. Scroll down to the **Dashboard Application - Maps Management Properties** area.
4. Click the **Edit** button for the **Ignore gray statuses** parameter to open the Ignore Gray Statuses page.

5 Select one of the following options:

- **ALL** – locations with gray statuses (downtime, stopped, no data and uninitialized) are not displayed on the map.
- **NO** - locations with gray status are displayed on the map.
- **UNINITIALIZED** - locations with gray statuses (downtime, stopped, and no data) are displayed on the map, locations with uninitialized status are not displayed.

6 Click **OK** to save the changes.

Specifying the Time Delay

You can modify the default time delay between the completion of new location download from the server and the display of the information by Virtual Earth (in seconds). Use larger values if user has slower connection.

To specify the time delay:

1 Select **Admin** > **Platform**, click the **Setup and Maintenance** tab, and click **Infrastructure Settings**.

2 Select the **Applications** context, and the **Dashboard Applications** in the **Applications** list.

3 Scroll down to the **Dashboard Application - Maps Management Properties** area.



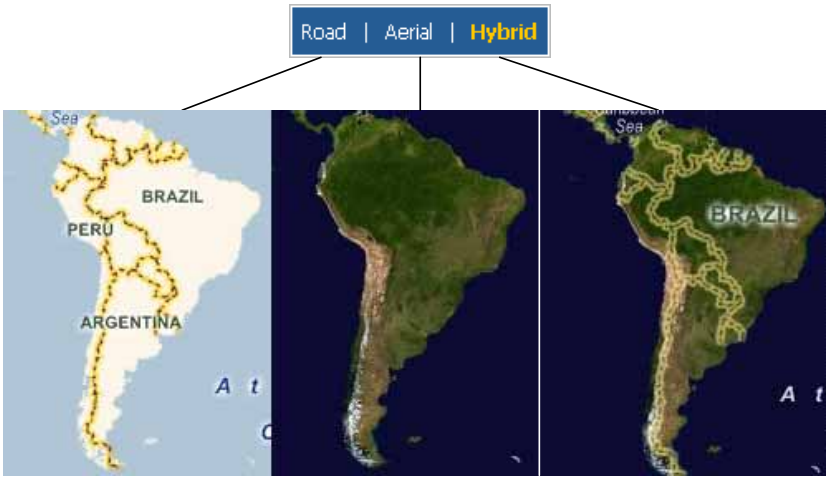
4 Click the **Edit** button for the **Wait after getting data** parameter to open the Wait After Getting Data page.

5 Enter the delay (in seconds) in the **Value** field. The default is 4.

6 Click **OK** to save the changes.

Modifying the Virtual Earth Map Display

To help you when you create a geographical map, you can select different types of display. You cannot save the selected display. The same tools are available to the user in Dashboard.



- click **Road** – to display the map with country borders
- click **Aerial** – to display the map with topographical features
- click **Hybrid** – to display the map with both country borders and topographical features

Working With Google Earth

Note to Mercury Managed Services: This feature is not available when working with Mercury Managed Services.

You can view the geographical map information in a three-dimensional map using the Google Earth feature. This feature is available only to the administrator.

Note: The integration of CI locations with your Google Earth installation is at the beta stage.

This section includes the following topics:

- "Importing Location Status into Google Earth" on page 117
- "Setting the Refresh Rate for the View" on page 119
- "Viewing Connecting Lines" on page 121

Importing Location Status into Google Earth

You can import the location status information shown in the geographical map for the current view into a local Google Earth application. After importing the information, Google Earth displays all the CI status indicators in the appropriate geographical locations.

To have all the views you created listed in the same folder, create, for example, a Mercury Business Availability Center folder in the **Places** folder in Google Earth and then add to that folder all the views you create.

You create a view in Google Earth by creating a network link using the view's URL. This creates a container folder and a sub-folder.

To import location status into Google Earth:

1. If you have not already installed Google Earth on your local computer, open the Google Earth site (http://earth.google.com/) and download the application.
2. Open the Google Earth application.
3. Click the **My Places** directory in the **Places** area.
4. Select **Add** > **Network Link**.

   The **Google Earth - New Network Link** dialog box opens.
5. Enter the view name in the **Name** box.
6. Copy the URL displayed in the **Integration with Google Earth** page to the **Location** box.

Note: This URL creates a container folder called by the name you specified in the **Name** box, and a sub-folder called by the name of the view.

---

7. If this is the first time you are creating a view in Google Earth, in the **Create In** area, click **New Folder** and enter **Mercury Business Availability Center** to create a new folder called Mercury Business Availability Center.

   If the Mercury Business Availability Center folder already exists in the **Create In** area tree: select the folder (you can also set the cursor on that folder before you select **Add** > **Network Link** in step 4).
8. Click **OK** to close the New Network Link dialog box.

The Google Earth page displays the Mercury Business Availability Center folder in the Places area.



Open that directory to list the views you have added.

Setting the Refresh Rate for the View

You set the refresh rate of the view sub-folder.

To set the refresh rate for the view:

1 Right-click the view sub-folder.

2 Select **Edit**.

3 Select **Refresh Parameters** to open the **Time-Based Refresh** area.

4 In the **Time-Based Refresh** area, select **Periodically** from the **When** list and select **1** minute.

5 Click **OK**.

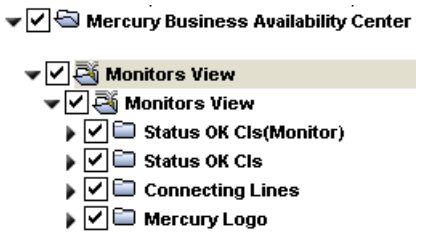
Viewing Indicators by Status

You can filter the status indicators that are displayed in Google Earth to include specific statuses.

To view the indicators by status:

1 In the **Places** area, expand the **Mercury Business Availability Center** folder.

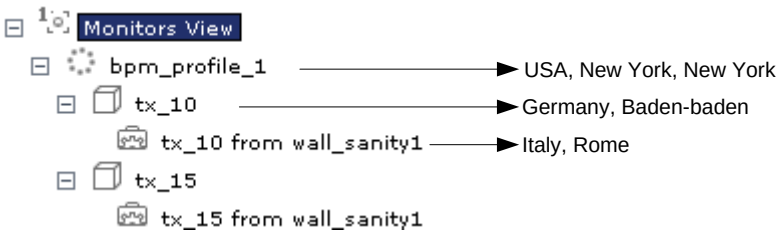
2 Select the view you want to display. The folder displays the list of statuses of the CIs in the view.



3 Select one or more of statuses to filter out the CIs that do not have the selected statuses. Only the CIs with the selected statuses will be displayed in Google Earth.

Viewing Connecting Lines

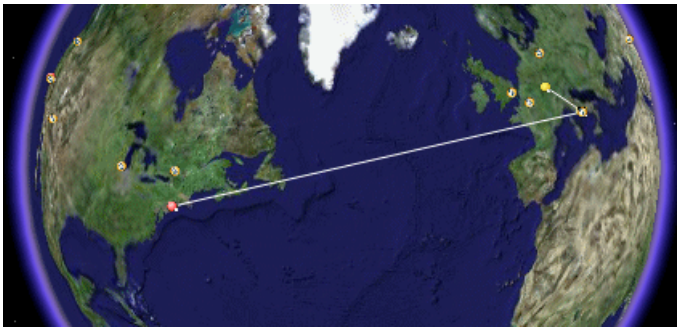
Different locations are connected with a line when you specify different geographical locations for monitor CIs and non-monitor CIs that are monitored by the monitor CI in the view. For example:



To view the connecting lines:

1 In Google Earth, select the view you want to display.

2 Select **Connecting Lines** in your view folder to display the connecting lines in Google Earth:



If you select **Connecting Lines** in more than one view, you will see all the lines of all the selected views at the same time.

6

General Administration for Dashboard

This chapter describes some of the settings that can be modified to customize Dashboard and logs that you can use to verify that Dashboard is running properly.

This chapter describes:	On page:
About General Customization Options for Dashboard	124
Specifying the URL to Be Opened from Top View	125
Customizing the Layout of the Hierarchy in Top View	127
Enabling Chinese or Japanese Characters in Top View	130
Modifying the Number of Levels in the Console Tab	130
Sound Alert for Critical Status in the Console and Filter Tabs	131
Hiding or Showing the Ack Column	131
Specifying the Changes Period for the Change Report	132
Specifying the Number of CIs that Can Be Monitored for Change in Real-Time	133
Monitoring Usage in the System	134
Dashboard Administration Logs	134

Note: Only the administrator or users with the appropriate permissions can modify the infrastructure settings.

About General Customization Options for Dashboard

This chapter describes some of the elements of Dashboard that you can customize to your specifications in Infrastructure Settings in Platform Administration.

You can:

- specify the URL of an external application to be opened from Top View – for details see "Specifying the URL to Be Opened from Top View" on page 125
- specify the layout of the hierarchy in Top View – for details see "Customizing the Layout of the Hierarchy in Top View" on page 127
- enable the display of Chinese or Japanese characters in Top View – for details see "Enabling Chinese or Japanese Characters in Top View" on page 130
- modify the number of levels displayed in the Console tabs – for details see "Modifying the Number of Levels in the Console Tab" on page 130
- modify the sound alert for Red Status in the Console and Filter tabs – for details see "Sound Alert for Critical Status in the Console and Filter Tabs" on page 131
- hide or show the Ack column – for details see "Hiding or Showing the Ack Column" on page 131
- modify the Change History Period for the Change report – for details see "Specifying the Changes Period for the Change Report" on page 132
- specifying the number of CIs that can be monitored for change in real-time – for details see "Specifying the Number of CIs that Can Be Monitored for Change in Real-Time" on page 133

Specifying the URL to Be Opened from Top View

You can configure Dashboard Top View so that a user can open an external application. You do that by specifying the URL for the external application on the Infrastructure Settings page.

Specifying a URL automatically adds the **Open in New Window** option to the right-click menus in Top View. By default, no URL is specified and the **Open in New Window** option does not appear in the right-click menus in Top View.

You can also use a dynamic URL that can be used to integrate external tools with Mercury Business Availability Center for example – for details, see "Creating a Dynamic URL" on page 126.

To specify the URL of an external application:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Select the **Applications context**, and select **Dashboard Application** in the Applications context list.
3. Scroll down to the **Top View Properties** area.
4. Click the **Edit** button to the right of the **Top View URL to Open** property to open the Top View URL to Open window.
5. Enter the URL in the **Value** box and click **Save**.

   If you want to reset the URL to the default (empty), click **Default**.

Note:

- The change takes place immediately.
- The user must disable his browser's popup blockers to open a window with the external application.

Creating a Dynamic URL

You can also create a dynamic URL using the following syntax (HTTP GET format):

```
http://<URL>?nodeName=NODE.NAME&nodeId=NODE.ID
&nodeStatus=NODE.STATUS&nodeParentId=NODE.PARENTID
&nodeChildId=NODE.CHILDIDS
```

Use only the parameters you need in any combination. For example: http://<URL>?nodeName=NODE.NAME&nodeParentId=NODE.PARENTID adds the CI name and the ID of the parent CI to the URL.

When the user clicks the **Open in New Window** option, Top View calls the URL in another window and supplies it with the values of the parameters you specified in the URL. The URL page uses the values of the parameters to display what is necessary.

The following constants will be replaced by the corresponding values:

- **NODE.NAME** - the name of the CI. When the URL is executed, **NODE.NAME** is replaced by the name of the CI from which you want to open the URL The page specified in the URL opens and is filtered so that it displays only information related to the CI.
- **NODE.ID** - the ID number of the CI. When the URL is executed, **NODE.ID** is replaced by the ID number of the CI from which you want to open the URL The page specified in the URL opens and is filtered so that it displays only information related to the CI.
- **NODE.STATUS** - the status of the CI. When the URL is executed, **NODE.STATUS** is replaced by the status of the CI from which you want to open the URL The page specified in the URL opens and is filtered so that it displays only information related to the status. The available statuses are:
  - **-4** – downtime
  - **-3** – stop
  - **-2** – no data
  - **-1** – uninitialized
  - **0** – critical

- **5** – major
- **10** – minor
- **15** – warning
- **20** – OK

- **NODE.PARENTID** - the ID of the parent CI. When the URL is executed, **NODE.PARENTID** is replaced by the ID of the parent of the CI from which you want to open the URL The page specified in the URL opens and is filtered so that it displays only information related to the parent CI.
- **NODE.CHILDIDS** - the ID number of the CI's children. When the URL is executed, **NODE.CHILDIDS** is replaced by a list of the IDs of the children of the CI from which you want to open the URL. The page specified in the URL opens and is filtered so that it displays only information related to the children CI.
- **NODE.NAME** – the name of the node
- **NODE.ID** – the ID number of the node
- **NODE.STATUS** – if you want to filter by status, use NODE.STATUS.
  NODE.PARENTID – the ID of the parent CI
- **NODE.CHILDIDS** – the ID number of the CI's children

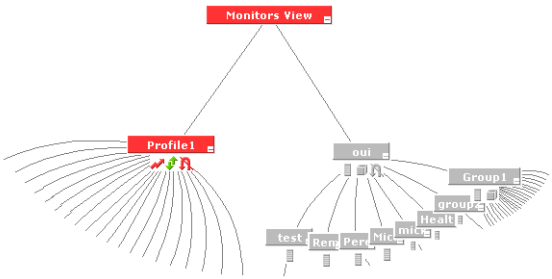
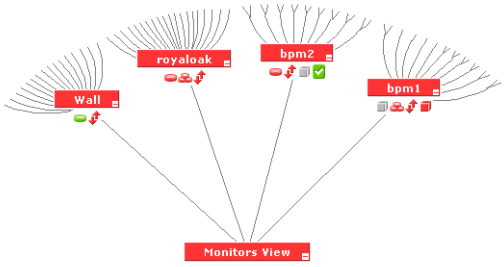
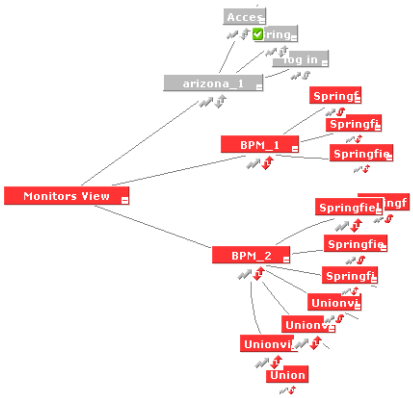
Customizing the Layout of the Hierarchy in Top View

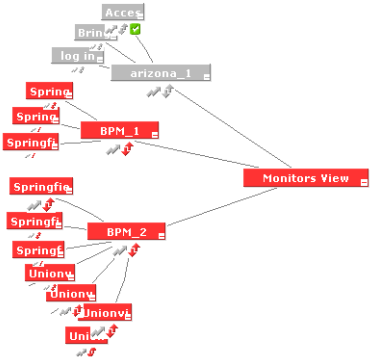
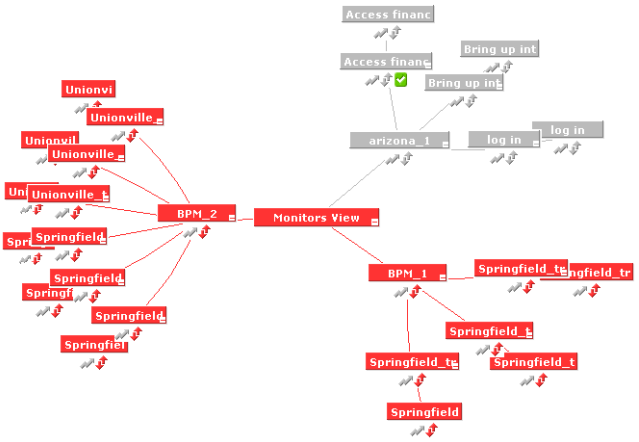
You can customize the layout of the hierarchy in the Top View page. By default, the parent CI is displayed above the child CIs and the child CIs are close to the bottom part of the Top View tab

To set the layout of the hierarchy:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Click **Applications context**, select **Dashboard Application**, and locate the **Top View Graph Layout** in the Top View Properties area.

3 Modify the type of layout:

Value	Resulting Display
BOTTOM – default. The parent CI is above the child CIs and is centered on the page.	
TOP – the parent CI is under the child CIs and is centered on the page.	
RIGHT – the child CIs are to the right of the parent CI and the parent CI is centered on the page.	. 

Value	Resulting Display
LEFT – the child CIs are to the left of the parent CI and the parent CI is centered on the page.	. 
RADIAL – the second level of the tree is distributed around the parent and the parent is centered on the page.	. 

4 Click **Save**.

Note: The change takes place immediately.

Enabling Chinese or Japanese Characters in Top View

The Top View tab can display Chinese or Japanese characters if you set the **Top View Font Name** setting to: Arial Unicode MS. You must also have installed the Chinese or Japanese packages – for details, see "Working in an I18N Environment" in *Working in an I18N Environment*.

To enable the display of Chinese or Japanese characters:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Click **Applications context**, select **Dashboard Application**, and locate the **Top View Font Name** in the Top View Properties area.
3. Enter **Arial Unicode MS** in the **Value** box.
4. Click **OK** to save the change.

Modifying the Number of Levels in the Console Tab

You can modify the number of levels displayed in the Console tab under each parent. The default is 2. If you specify 1 only the parent CIs are displayed.

To modify the number of levels in the Console tab:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Click **Applications context**, select **Dashboard Application**, and locate the **Business Console - Number of display levels** in the Dashboard Layout Properties area.
3. Enter the required number of levels in the **Value** box.
4. Click **OK** to save the change.

Sound Alert for Critical Status in the Console and Filter Tabs

Dashboard provides the option to have a sound play when a CI changes status to **Critical** (red), to provide an aural notification of the change in status. This feature appears in the Dashboard application in the Console and Filter tabs and in the Mercury Dashboard Ticker.



The Sound On/Off button is displayed in the top right corner of the Console tab. The user can click the button to toggle the sound on or off.

To modify the alert sound:

If you want to use another alert sound for Dashboard, access **<Mercury_Business_Availability_Center_server_root_directory>\AppServer\webapps\site.war\bam\pages\sounds** and replace the **ding.wav** file with your own .wav file (you must rename your file **ding.wav**).

Note: The change takes effect immediately.

Hiding or Showing the Ack Column

The acknowledge utility enables the user to track performance problems identified in the system and network infrastructure by keeping a record of when the problem was acknowledged and by which user. The user can access the utility using right-click options or by clicking the **Ack** icon that is displayed in an **Ack** column in some of the Dashboard tabs.

You can show or hide the Ack column in the Dashboard application.

To hide or show the Ack column:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Click **Applications context**, select **Dashboard Application**, and locate the **Show CI Acknowledgment column** in the **Business Console** area.
3. Select:

- **false** in the **Value** list to hide the **Ack** column
- **true** in the **Value** list to display the **Ack** column

4 Click **Save**.

Note: The change takes effect immediately.

Specifying the Changes Period for the Change Report

The Change report enables you to view the changes made to CI's properties for all properties that were selected to keep this information. The report shows change information for the last time period that is specified in the **Change period** parameter. You can modify the default time period (set at 1440 minutes (24 hours)).

For details about the Change report, see "Change Report" in *Using Dashboard*.

To specify the Change History period:

1 Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

2 Click **Applications context**, select **Dashboard Application**, and locate the **Changes period** in the **Change Impact Properties** area.

3 Enter the time period (in minutes) in the **Value** box. The recommended value is the default: 1440 minutes.

4 Click **Save**.

Note: The change takes effect after the server has been restarted.

Specifying the Number of CIs that Can Be Monitored for Change in Real-Time

A limited number (twenty by default) of CIs (and their children) can be monitored for real-time changes at any one time. This number can be customized.

For details about real-time monitoring for change, see "Viewing Real-Time Changes to CI Properties" in *Using Dashboard*.

Note: You can increase the default number of CIs that can be monitored but be aware that this might overload Mercury Business Availability Center.

To specify the number of CIs that can be monitored for change in real-time:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.
2. Click **Applications context**, select **Dashboard Application**, and locate the **Maximum monitored CIs** in the **Change Impact Properties** area.
3. Enter the number of CIs in the **Value** box. The recommended value is 20.
4. Click **Save**.

Note: The change takes effect after the server has been restarted.

Monitoring Usage in the System

You can monitor usage of the Dashboard application in a sessions log file. A line is added to the **<Mercury Business Availability Center server root directory>\log\EJBContainer\bam.sessions.log** file for every 6-, 12-, and 24-hour period, stating the number of Dashboard users during that time period. If a user accesses Dashboard, then closes Mercury Business Availability Center, then accesses the Dashboard application again, this counts as two user sessions in the log file.

To change the time period, open the **<MercuryAM>\conf\settings\BACAppSettings.xml** file, look for the keys: **session.log.interval.0**, **session.log.interval.1**, or **session.log.interval.2**. Change the key to match the required time period as follows:

- **session.log.interval.0** – represents a 6 hour period
- **session.log.interval.1** – represents a 12 hour period
- **session.log.interval.2** – represents a 24 hour period

Dashboard Administration Logs

To facilitate the creation of troubleshooting logs, you must enable Debug mode. For details, see "Mercury Business Availability Center Logs" in *Reference Information*. The logs are located in the **<Mercury Business Availability Center home>\log\EJBContainer** folder:

- **bam.app.rules.log** – To verify the status of a KPI, scan the log file manually or via a script for errors in the rule calculations. The log should not contain any errors such as Java exceptions.
- **TrinitySamples.log** – To verify that samples have reached the Mercury Business Availability Center Bus, scan the log file manually or via a script for samples coming from SiteScope or Business Process Monitor.

A utility called BusDiscovery can be activated to search for samples transmitted on the Bus. The utility is available under the **<Mercury Business Availability Center home folder>\tools\BusDiscovery** directory. Below is a sample command line that causes the utility to dump the arriving samples into **D:\Temp\drv.log**:

sprinter -dc_attach localhost -dc_print_format sample_per_line -drv_log_file D:\Temp\drv.log

7

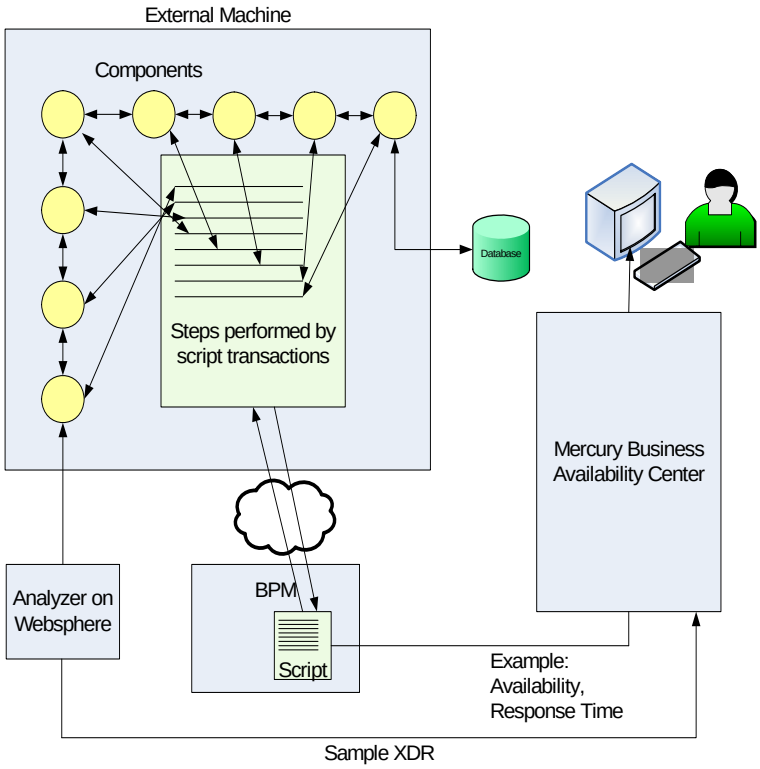
Administering Deep Transaction Tracing

This chapter describes the specific tasks involved in administering the Deep Transaction Tracing feature. Deep Transaction Tracing provides a monitoring layer for collecting information about the behavior of Business Process Monitor transactions within the target machine, achieved through integration with Bristol's TransactionVision application.

This chapter describes:	On page:
Deep Transaction Tracing Architecture	138
Deployment and Set Up for Deep Transaction Tracing	139
Enabling Deep Transaction Tracing for Transaction Monitors	141
Activating Deep Transaction Tracing in TransactionVision	142

Deep Transaction Tracing Architecture

The following diagram illustrates the path of the Deep Transaction Tracing data.



When Business Process Monitor runs a script (transaction monitor), the transactions in the script performs specific tasks in the components of the target (external) machine. The Deep Transaction Tracing feature tracks the behavior of the transactions as they flow through the target machine via each component.

The TransactionVision sensors collect data on transaction traffic inside the target machine while the transaction is running, and pass it to the analyzer service (the logic engine), installed on a server that is running the WebSphere application. The analyzer performs calculation and analysis of the data.

A data sample containing information about the behavior of the transactions inside each component of the target machine is sent to Mercury Business Availability Center using the Extensible Data Representation (XDR) format. The samples are caught on the Mercury Business Availability Center bus by a special Dynamic Node Factory, and are used to create new Deep Transaction Tracing Monitor CIs, and to set KPI status for the CIs.

Deployment and Set Up for Deep Transaction Tracing

In order to view Deep Transaction Tracing data in Mercury Business Availability Center, you install Bristol TransactionVision, and deploy the Deep Transaction Tracing package.

You must also modify the Service Level Report and Tracking Report context menu items in Mercury Business Availability Center to point to the TransactionVision machine.

This section includes the following topics:

➤ "Deploying Deep Transaction Tracing" on page 139

➤ "Configuring the URL to Open Reports in TransactionVision" on page 140

Deploying Deep Transaction Tracing

TransactionVision is installed on a separate machine in your environment, and the Deep Transaction Tracing package is installed on the Mercury Business Availability Center to integrate the TransactionVision data into Mercury Business Availability Center.

Installing the Deep Transaction Tracing package creates:

➤ the Deep Transaction Tracing view – for details, see "Working With Deep Transaction Tracing" in *Using Dashboard*.

➤ the Deep Transaction Tracing Monitor CIT in the CMDB.

➤ the Dynamic Node Factory that creates Deep Transaction Tracing CIs from the incoming samples.

To deploy the Deep Transaction Tracing package:

1. Install Bristol's TransactionVision application on a separate machine, using WebSphere as the application server. For installation instructions and system requirements, refer to the TransactionVision documentation.
2. On the Mercury Business Availability Center Data Processing Server, copy the **DeepTransactionTracing.zip** file from:

   <Mercury Business Availability Center server root directory>\mam_lib\packages_extension

   to:

   <Mercury Business Availability Center server root directory>\mam_lib\packages
3. Deploy the Deep Transaction Tracing package using the JMX console. Follow the instructions for deploying Mercury Business Availability Center packages given in "Deploying, Removing, and Displaying Deployed Packages Using the JMX Console" in *Discovery Manager Administration*.

Configuring the URL to Open Reports in TransactionVision

The Deep Transaction Tracing context menu, used with Deep Transaction Tracing Monitor CIs in Dashboard, contains options to open two dynamic reports in TransactionVision for the selected transaction: **Tracking Report** and **Service Level Report**.

In order to open the reports, the URL for these menu options must be configured to point to the TransactionVision machine. You edit the context menu options in the Context Menu Items Repository.

For more detailed information on editing context menu items, see "Context Menu Items Repository" on page 605.

To configure the URL for reports:

1. Access the **Admin** > **Dashboard** > **Repositories** > **Context Menu Items** page.
2. Select the **Tracking Report** and **Service Level Report** context menu items in the **Factory** area, and click **Override**.
3. In the **Custom** area, click the **Edit** button for **Tracking Report**. The Context Menu Item Details window opens.

4 In the **Pre-processor Parameters** area, click the **Edit** button for **URL**. The Pre-processor Parameter Details window opens.

5 In the **Value** box, replace **TV_HOST_NAME** in the URL with the actual host name of the TransactionVision machine:
http://<host_name>:9080/tv/ViewServlet

Click **OK** to save the changes.

6 Click **OK** in the Context Menu Item Details window.

7 Repeat steps 3 through 6 for the **Service Level Report** context menu item.

Enabling Deep Transaction Tracing for Transaction Monitors

To view Deep Transaction Tracing data correlated with Business Process transactions in Dashboard, a link must be made between the two. This is done in Monitor Administration by enabling the breakdown data flag for a transaction monitor, so creating a mapping for the transaction monitor to the TransactionVision application.

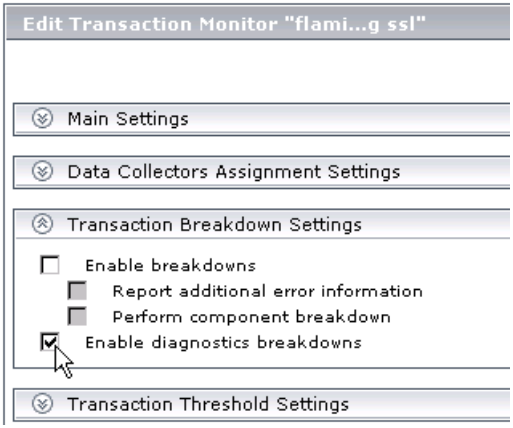
To enable Deep Transaction Tracing for a Transaction Monitor:

1 Open the **Admin** > **Monitors** page.

2 In the **Monitors** tab, right-click the required transaction monitor, and select **Edit**.

3 In the right pane, expand the **Transactions Breakdown Settings** area.

4 Select the check box for **Enable diagnostics breakdowns**.



5 Click **OK** to save the changes.

Activating Deep Transaction Tracing in TransactionVision

In the TransactionVision application, you must activate the **Mercury BAC** job by pointing to the Mercury Business Availability Center server and starting the job. You must also configure the transactions on the TransactionVision side.

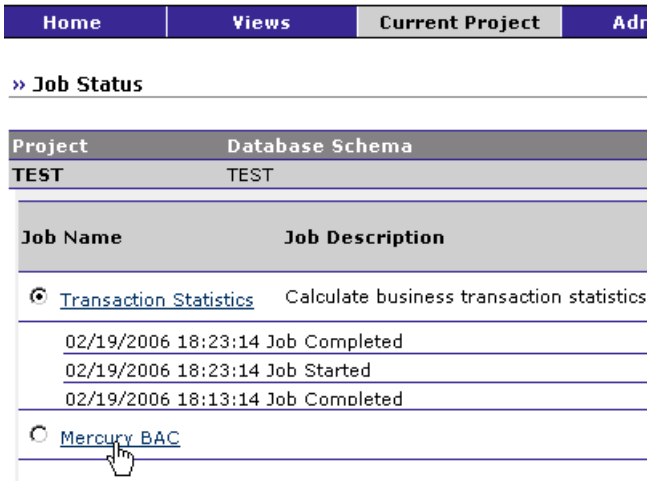
After activating the job and configuring transactions, TransactionVision sends samples for Deep Transaction Tracing to Mercury Business Availability Center.

To activate Deep Transaction Tracing in TransactionVision:

1 Log into TransactionVision.

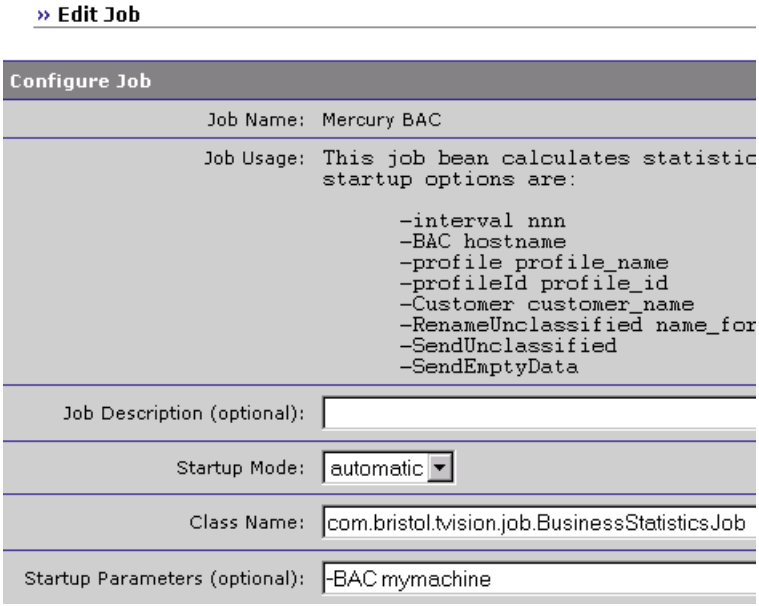
2 In the top menu, select **Current Project** > **Job Status**. The **Job Status** page opens.

3 Click the **Mercury BAC** link.



The **Edit Job** page opens.

4 In the Startup Parameters (optional) box enter **-BAC <Mercury Business Availability Center Core Server host name>**. For example:
-BAC mymachine



Click **Finish**.

5 On the **Job Status** page, click the **Start Job** button to start the Mercury BAC job.

6 For each transaction monitor set for Deep Transaction Tracing in Mercury Business Availability Center, you must configure the equivalent transaction on TransactionVision (you will need the exact name of the transaction monitor). For details, refer to the TransactionVision documentation.

Part II

Service Level Management Administration

8

Introduction to Service Level Management Administration

A Service Level Management administrator defines service level agreements (SLAs) that represent the formal and informal contracts you have with your service providers and with internal business units. This chapter describes the administrative tasks you perform to enable Service Level Management to compare the KPIs of availability percentages and performance times with service levels, and to display the results in reports.

This chapter describes:	On page:
Introducing Service Level Management	148
Setting Up Service Level Management	148
Six Sigma Reporting	150
Customizing Reports	150
Editing Settings with the Infrastructure Settings Manager	151
The Audit Log	152
Data Purging	152
Upgrading SLAs to Work with Mercury Business Availability Center 6.1	152
Viewing PNR Data for Service Level Management in Dashboard	153
Monitoring Events on Other Systems	154
Importing SiteScope Data into Service Level Management	155

Introducing Service Level Management

Service Level Management determines compliance with your service level agreements by measuring your business applications. The data produced by these measurements helps you determine whether the availability and performance requirements of users and infrastructure are being met.

You begin by examining performance trends and setting baselines for a variety of business processes. These baselines in turn enable you to establish realistic service level objectives for availability percentages and performance times, for the different subsidiaries, geographical locations, or organizations that you serve.

To access Service Level Management administration pages:

Select **Admin** > **Service Level Management**.

To access Service Level Management reports:

Select **Applications** > **Service Level Management**. For details on reports, see *Using Service Level Management*.

Note: Mandatory fields in the Service Level Management application are marked with an asterisk (*****).

Setting Up Service Level Management

Before defining SLAs, verify that views and KPIs have been set up:

Views – During SLA definition, you choose CIs that have been associated with Views. For details on views, see "Getting Started with IT Universe Manager" in *IT Universe Administration*.

KPIs – Service Level Management includes default KPIs that are attached automatically to the SLAs you define. You can also associate further KPIs or edit existing KPIs. For details on Service Level Management KPIs, see Chapter 15, "Repositories." Note that Service Level Management uses its own KPIs, and not those of Dashboard.

Users – After you define an SLA, the Mercury Business Availability Center administrator must give users permissions to work with the SLA. Users with view permission can view or generate reports for their SLAs. For details, see "Granting and Removing Permissions" in *Platform Administration*.

The Service Level Management administration pages include the following tabs:

- "Service Level Agreements (SLAs)" on page 149
- "Time Intervals" on page 149
- "Downtime Events" on page 150
- "SLA Status Alerts" on page 150
- "Recalculation" on page 150
- "Repositories" on page 150

Service Level Agreements (SLAs)

You define SLAs that reflect actual agreements you have with your service providers or with internal business units. The SLAs enable you to build reports showing the level of service management. For details, see Chapter 9, "Service Level Agreements (SLAs)."

Note to Mercury Managed Services customers: By default, you can create up to ten service level agreements. To increase this number, contact Mercury Managed Services Support.

Time Intervals

Time intervals specify periods during which objectives must be checked. Service Level Management provides two default time intervals (**24x7** and **Business Hours**); you can define more time intervals if needed. For details, see Chapter 10, "Time Intervals."

Downtime Events

You can define downtime or incidents that represent actual event occurrences that may skew results and which you may want to exclude from reports. For details, see Chapter 11, "Downtime Events."

SLA Status Alerts

You can create alerts to notify you if an SLA is not reaching the target you set for it, or if its status is changing for the worse. For details, see Chapter 12, "SLA Status Alerts."

Recalculation

You can run recalculations on an SLA, usually after making retroactive changes. For details, see Chapter 13, "Recalculation."

Repositories

For a list of Service Level Management KPIs and business rules (also known as business logic), see the following chapters:

- Chapter 25, "Service Level Management KPI Repository"
- Chapter 28, "Service Level Management Business Rules Repository"

Six Sigma Reporting

You can produce certain reports that show data from a Six Sigma perspective. This is on condition that you associate a Six Sigma KPI with the SLA. For details, see page 170.

Customizing Reports

You can generate reports automatically or manually and you can specify a header and a footer for a report. For details, see "Customizing Reports" in *Platform Administration*.

Editing Settings with the Infrastructure Settings Manager

Caution: Many of the settings in the Infrastructure Settings Manager should not be modified without first consulting Mercury Customer Support, Mercury Managed Services Support, or your Mercury Services representative. Modifying certain settings can adversely affect the performance of Mercury Business Availability Center.

Administrators with an advanced knowledge of Mercury Business Availability Center can customize certain Service Level Management settings, such as the first day of the week, the number of CIs that can be displayed in a tree, and the types and contents of the default KPIs that are associated with SLAs.

To access the Infrastructure Settings Manager, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**. Select the Applications context and choose **Service Level Management** from the list.

When editing XML files in the Infrastructure Settings Manager, you can comment out lines using the regular HTML comment tag: **<!-- comment out this line -->**.

For SLA Status alerts, the administrator can define a default SNMP trap destination. Select the Foundations context and choose **Alerting** > **Alerting - Triggered Alerts**.

For details on editing infrastructure settings, see "Editing Infrastructure Settings" in *Platform Administration*.

The Audit Log

You use the Audit Log to track configuration changes to the SLAs and services. The audit log displays all configuration changes that can affect reports, including changes to the SLA.

As the audit log can become very long, you can use filters to display only those SLAs and services in which you are interested.

The Audit Log tracks the following changes:

- creation or deletion of an SLA
- any changes made to an SLA
- a configuration item's (CI) addition to, or removal from, an SLA
- any changes made to a CI
- any changes to downtime or event scheduling, including the creation, editing, and removal of SLM and BPM events
- any changes to the time intervals
- any changes to user permissions

For details on using the Audit Log, see "Using the Audit Log" in *Platform Administration*.

Data Purging

Note to Mercury Managed Services customers: Mercury Operations administers this functionality and the interface is hidden from your view.

Data collection tables can grow to a very large size, and thus need occasional purging. These tables include those that contain SiteScope data. For details on managing historical data and the Purging Manager, see "Purging Historical Data from Profile Databases" in *Platform Administration*.

Upgrading SLAs to Work with Mercury Business Availability Center 6.1

For details of the upgrade procedure for SLAs created in Mercury Business Availability Center version 5.x, see Chapter 16, "Upgrading Service Level Management to Mercury Business Availability Center 6.1" or refer to *Upgrading Mercury Business Availability Center* available from the **Deployment_Documentation** directory on the Mercury Business Availability Center 6.1 Setup CD-ROM.

Viewing PNR Data for Service Level Management in Dashboard

You can view PNR (point of no return) data for SLAs in Dashboard. For details on configuring the PNR KPI, see "Attaching a PNR KPI to a CI" on page 20.

Note: You view Service Level Management KPIs in Service Level Management reports only, except for the PNR KPI which you view in Dashboard.

Monitoring Events on Other Systems

Data samples are sent to Mercury Business Availability Center from other systems such as EMS applications. To monitor activity on those systems, you configure Mercury Business Availability Center to display external source data.

To display external source data in Service Level Management reports:

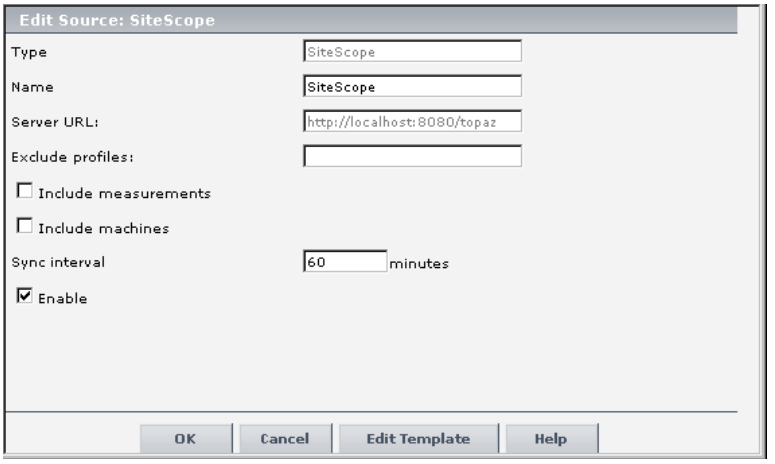
1. Create a measurement filter. For details, see "Defining Measurement Filters" in *Platform Administration*.
2. Create a view that includes a monitor configuration item type (CIT) called **UDX Measurement Filter**. For details, see "Defining View Properties to Create Views" in *View Manager Administration*.

   Mercury Business Availability Center automatically adds the measurement filter you created in step 1 to the CIT as a configuration item (CI). For details on adding CIs to the IT Universe, see "Creating a New CI" in *IT Universe Administration*.
3. Create an SLA. For details, see Chapter 9, "Service Level Agreements (SLAs)." During SLA creation, choose the view that you created in step 2, and add its CI to the SLA. For details, see "Defining an SLA: Configuration Items" on page 165.
4. View a Service Level Management report for the SLA. For details, see *Using Service Level Management*.

Importing SiteScope Data into Service Level Management

Note the following limitation when setting up SiteScope to send data to Service Level Management:

You can configure the SiteScope adapter to generate the SiteScope hierarchy with or without measurements. To display the Edit Source window, select **Admin** > **CMDB** > **Source Manager**. Locate the SiteScope source and click its **Edit** button:



For an explanation of this window, see "SiteScope" in *Source Manager Administration*.

9

Service Level Agreements (SLAs)

Before your users begin viewing Service Level Management reports, you must create service level agreements (SLAs) that represent contracts entered into by your department with service providers and internal business units.

For a checklist of all Service Level Management functionality, see "Setting Up Service Level Management" on page 148.

This chapter describes:	On page:
The Service Level Agreements Page	158
SLA Definition Workflow	160
Defining an SLA: Begin	161
Defining an SLA: Properties	162
Defining an SLA: Configuration Items	165
Defining an SLA: KPIs	168
Defining an SLA: Outages	171
Defining an SLA: Weights	172
Defining an SLA: Finish	174
Defining an SLA: Grant Permissions to Users	174
Editing and Adding KPIs and Objectives	175
Editing an SLA	179
Cloning an SLA	180
Deleting an SLA	181

Note to Mercury Managed Services customers: By default, you can create up to ten SLAs. To increase this number, contact Mercury Managed Services Support.

Note: If you change a user's permissions for a specific SLA, the user must log out and log in again to view the changes.

The Service Level Agreements Page

You use this page to create SLAs or to perform actions on existing SLAs. Service Level Management displays those SLAs which you, the logged-in user, have permissions to change or delete.

Note: The Service Level Agreements page displays SLAs compatible with Mercury Business Availability Center version 6.1. For details of the upgrade procedure for SLAs created in previous versions (Topaz version 4.5 or Mercury Business Availability Center version 5.x), see Chapter 16, "Upgrading Service Level Management to Mercury Business Availability Center 6.1" or refer to *Upgrading Mercury Business Availability Center* available from the **Deployment_Documentation** directory on the Mercury Business Availability Center 6.1 Setup CD-ROM.

The page includes the following components:

Name – The name of the SLA. For a long name, hold the cursor over the name to view it in full in a tooltip.

Description – The description of the SLA. Hold the cursor over the description to view the complete text in a tooltip.

Start date – The date and time when Service Level Management begins calculating the SLA. Note that this date is not the SLA's creation date.

End date – The date and time on which the SLA should stop. You can enter an end date that is in the past, but the date cannot be earlier than the start date.

State – The state of an SLA can be:

- **Preliminary**: The SLA has not begun running. You can change any properties of the SLA. Note that you must start the SLA (that is, click the **Start** button) for Service Level Management to calculate the SLA.
- **Pending**: The SLA has been started, but its start date is in the future. You can terminate a pending SLA (click the **Stop** button).
- **Running**: The SLA begins collecting data. You cannot change the start date and time zone, but you can change the end date to any future end date. That is, the end date cannot be in the past. You can terminate a running SLA (click the **Stop** button).
- **Terminated**: The SLA finishes running and no longer collects data. A terminated SLA cannot be restarted. (However, you can clone a terminated SLA. For details, see "Cloning an SLA" on page 180.) An SLA is terminated in two ways, either by manually stopping it (that is, by clicking the **Stop** button), or when its end date has passed. The SLA terminates on the next hour after you stop it.

Creator – The user name of the person who created the SLA.

Actions – You can start/stop, edit, clone, or delete an SLA by clicking the appropriate button.



For details see "Editing an SLA" on page 179, "Cloning an SLA" on page 180, and "Deleting an SLA" on page 181.

New SLA button – To define an SLA, click this button. For details, see the next section.

You can sort the list by any column: An arrow next to a title shows by which column the SLAs are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

Start, Stop, and Delete buttons – To perform an action on more than one SLA simultaneously, select the check boxes of the SLAs you want to start, stop, or delete. Click the relevant button.



SLA Definition Workflow

You create service level agreements by extracting information from actual service agreements and duplicating the information in Service Level Management.

You perform the following steps to define an SLA:

- Use the SLA Wizard to define an SLA. For details, see "Defining an SLA: Begin" on page 161.
- Set the SLA's properties, that is, name, description, and so forth. For details, see "Defining an SLA: Properties" on page 162.
- Choose the CIs to add to the SLA. For details, see "Defining an SLA: Configuration Items" on page 165.
- Choose the KPIs to associate with the CIs. For details, see "Defining an SLA: KPIs" on page 168.
- Give a weight to each configuration item (CI). For details, see "Defining an SLA: Weights" on page 172.
- Verify that all SLA parameters are correct on the Summary page. For details, see "Defining an SLA: Finish" on page 174.
- Grant permissions to users to work with the SLA. For details, see "Defining an SLA: Grant Permissions to Users" on page 174.

Note: When defining a new SLA, you click the **Next** button on each page to proceed to the next page. You click the **Finish** button only after you have completed the SLA definition. When editing an SLA, once you have made changes, you can click the **OK** button on any page.

Mandatory fields in the Service Level Management application are marked with an asterisk (*****).

Defining an SLA: Begin

You use the SLA Wizard to define service level agreements (SLAs).

To create an SLA:

1 Select the **Service Level Agreements** tab to open the Service Level Agreement page (**Admin** > **Service Level Management**). The page shows a list of existing SLAs, organized alphabetically.

For a description of this page, see "The Service Level Agreements Page" on page 158.

Note: If no default profile database has been set, Service Level Management cannot display this page. For details on setting profile databases, see "Database Administration" in *Platform Administration*.

---

2 Click **New SLA** to open the SLA Wizard at the Welcome page.

3 Click **Next** to begin creating an SLA.

The first stage in the procedure is to name the new SLA. Continue to the next section.

Defining an SLA: Properties

The first stage in the procedure is to define the SLA's properties, such as name and description.

To define the SLA properties:

1 Fill in the following fields:

Name – The name of the SLA must be unique and must not be longer than 100 characters.

Description – Enter a description to appear in Service Level Management reports.

Start Date – By default, the start date is the current date and time. To change the date, click the date link to open a calendar.

End Date – By default, the end date shown is one year after the current date and time. To change the date, click the date link to open a calendar.

Time zone – Specify the time zone of the SLA. Service Level Management calculates reports according to this time zone, so that data is linked to the appropriate time interval.

Type – Choose the type of agreement:

- OLA (Operational Level Agreement): An internal agreement covering the delivery of services which support the IT organization in their delivery of services. OLA is usually used to indicate that the contract addresses system hardware (machines, routers, and so forth).
- SLA (Service Level Agreement): Written agreement between a service provider and the customer(s), that documents agreed service levels for a service. SLA is usually used to indicate that the contract addresses services (applications, services, business processes, and so forth).
- Underpinning contract: A contract with an external supplier covering delivery of services that support the IT organization in their delivery of services.

Classification – Choose between **External** and **Internal**. You would choose External when classifying an SLA for a contract with a customer and Internal when classifying an OLA for a contract with someone within your organization.

Maintainer, Customer, Provider – Use these fields to enter additional information about the SLA. They can be left empty.

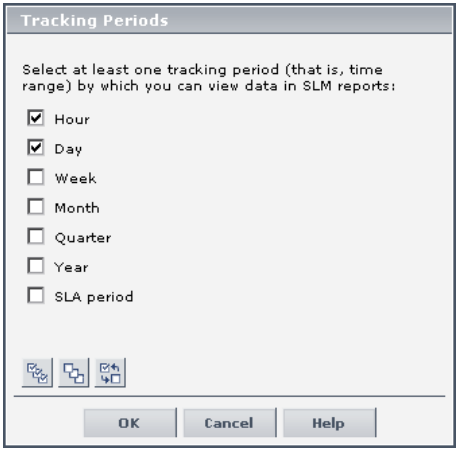
Creator – Displays the user name with which you logged in.

Time intervals – Click the link to choose which time intervals are to be monitored by the SLA. (A time interval is the actual period of time for which Service Level Management calculates data.) You can create time intervals (up to three per SLA) and you can edit the default time intervals (**24x7** and **Business Hours**). For details, see Chapter 10, "Time Intervals." You can add time interval descriptions to Service Level Management reports. For details, see "Adding Descriptions to Reports" in *Using Service Level Management*.

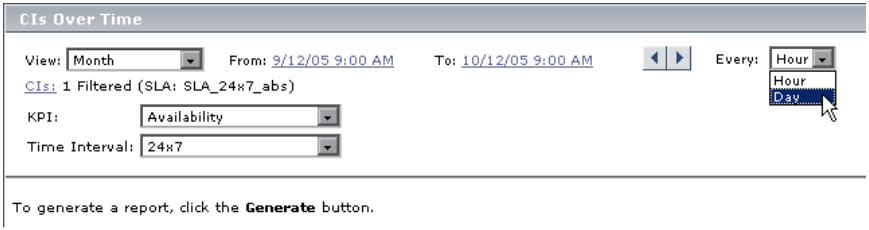
Tracking periods – Click the link to choose by which tracking periods (that is, time periods) you can view data in Service Level Management reports.

To enable users to view reports that include data from the start date of the SLA till the present, select **SLA period**.

The tracking periods that you select here for the SLA define which granularities are available in reports. For example, say you select the **Hour** and **Day** tracking periods:



A user chooses to view a report with a **Week** time period and a **Day** granularity (chosen in the **Every** box in the Over Time report). Because you did not select the **Week** tracking period, the **Week** granularity does not appear in the **Every** box:



Targets – Click the link to choose which targets are to be available when adding KPIs to the SLA. For details on defining objective targets, see page 178. Target descriptions are displayed as legends in Service Level Management reports.

Status	Color
Exceeded	Green
Met	Olive green
Minor Breached	Yellow
Breached	Orange
Failed	Red

Administrators with an advanced knowledge of Mercury Business Availability Center can change the target names in the Infrastructure Settings Manager page. For example, to change the default name of **Breached SLA** to **Contravened SLA**, change:

```
<Target Color="ff3333" Default="true" Id="0" Name="settings.slm.tar-
gets.def.target.breached.text"/>
```

to:

```
<Target Color="ff3333" Default="true" Id="0" Name="Contravened SLA"/>
```

For details, see "Editing Settings with the Infrastructure Settings Manager" on page 151 and "Infrastructure Settings" in *Platform Administration*.

2 Click **Next** to continue.

The next stage in the procedure is to select configuration items (CIs). Continue to the next section.

Defining an SLA: Configuration Items

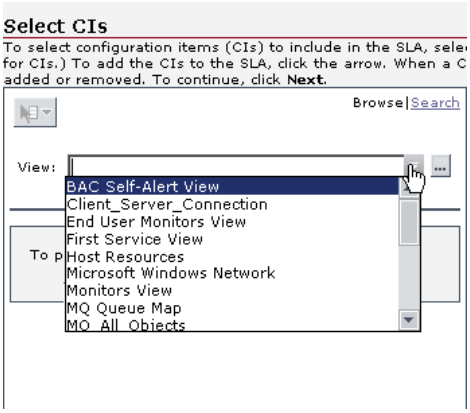
The next stage in the procedure is to select the configuration items (CIs) that are to be included in the SLA. CIs are organized into views in IT Universe. You can select CIs from more than one view to include in the same SLA.

For details on the View Explorer, where you search for CIs, see "Using View Explorer" in *Working with the CMDB*. For details on the IT universe, see *IT Universe Administration*.

Note to Mercury Managed Services customers: By default, you can define up to 500 CIs. To increase this number, contact Mercury Managed Services Support.

To select CIs:

1 Display the CIs you want to include in the SLA. You do this by displaying a view that includes the CIs or by searching for the CIs (if you do not know in which view they are included).



Note: Service Level Management displays only those CIs that belong to a configuration item type (CIT) defined as persistent. Non-persistent CITs cannot be added to SLAs. You define non-persistent CITs in the Infrastructure Settings Manager page. For details, see “Editing Settings with the Infrastructure Settings Manager” on page 151 and “Infrastructure Settings” in *Platform Administration*.

Persistent data refers to data that is stored in the database. Non-persistent data, by comparison, is data that is reported only to the Bus on the Core Server.

---

2 To display a view, choose the view from the list, or click the button to open the Select View window (where views are organized in folders). Choose the view you want to display and click **OK**, or click **Cancel** to close the window without choosing a view.

The CIs are displayed below the View list.



To display all the actions you can perform on a selected CI, select the CI and click the **Actions** button. For example, to view the properties of a CI, select the CI, click the **Actions** button, and choose **Properties** from the menu to open the General Properties window. You can also display the actions by right-clicking a CI.

Continue to step 5.

3 To search for any CI that can be added to the SLA, click the **Search** link. For details on searching, see "Using View Explorer" in *Working with the CMDB*.

4 To add the CI to the SLA, locate and right-click the CI. Choose **Locate Element in View** from the menu to return to the Browse pane.

5 In the Browse pane, select the CIs you want to assign to the SLA. If you select a parent CI, all descendants are automatically selected. (This is known as recursive selection.)

You can select multiple CIs to assign to the SLA by holding down the CTRL key and selecting adjacent or non-adjacent CIs.

6 To move the CIs to the Selected CIs list, use the upper arrow. All descendants are automatically added to the SLA.

To remove CIs from the Selected CIs list, select the CIs and use the lower arrow.

7 **Automatically define default KPIs for new CIs** – select this check box to add KPIs to all CITs.

8 To make changes to the KPIs or weights, click **Next** to continue to the next stage in the procedure. Continue to the next section.

To save the SLA with default KPIs and weights, click **Finish**. Service Level Management displays the Summary page. For details, see "Defining an SLA: Finish" on page 174.

Defining an SLA: KPIs

This section explains how to attach a KPI to a CI in the SLA. To enable maximum flexibility in planning your SLAs, you can attach a KPI to any CI, at any level in the SLA hierarchy.

Service Level Management automatically associates default availability and performance KPIs with Business Process Monitor, SiteScope, Host, Application, and Group CITs. This is on condition that you select **Automatically define default KPIs for new CIs** in the Select CIs page (for details, see page 165).

The information on default KPIs is stored in the Infrastructure Settings Manager. For details, see "Editing Settings with the Infrastructure Settings Manager" on page 151 and "Infrastructure Settings" in *Platform Administration*.

For the list of KPIs that Service Level Management uses, see Chapter 25, "Service Level Management KPI Repository."

To add outage definitions to the SLA, see "Defining an SLA: Outages" on page 171.

To continue to the next stage of SLA definition, without changing any KPI parameters and without adding outage definitions, click **Next** in the Define KPIs page. For details on the next stage, see "Defining an SLA: Weights" on page 172.

To make changes to the KPIs associated with the SLA or to add further KPIs, see the following sections:

- filter the list of CIs – for details, see page 169
- edit KPIs or objectives associated with the SLA – for details, see page 169
- associate other KPIs with the SLA – for details, see page 170
- define a Six Sigma KPI – for details, see page 170
- remove a KPI from the SLA – for details, see page 170
- define KPIs and outages for multiple CIs in a single definition – for details, see page 171

To filter the list of CIs:

You use Search to filter the list of CIs that Service Level Management displays. This is useful if you want to locate a specific CI in a lengthy list. The list displays the CIs that are already associated with the current SLA.

1 To search for any CI in the SLA, click the **Search** link.

2 Enter the name of the CI (or part of the name) in the **Search for** field. Click the **Search** button to display the results below.

You can also search for CIs using the **Related to** or **Type** fields. **Related to** searches for CIs that are related to the selected CI, and **Type** searches for CITs. Select the check box and click the button to open the Select Configuration Item (or Select Configuration Item Type) window. In the Select Configuration Item window, choose the CI you want to display; in the Select Configuration Item Type window, choose the CIT. Click **OK**, or click **Cancel** to close the window without choosing a CI or CIT. In the Search pane, click the **Search** button to display the results below.

3 To manage the CI's KPI, locate and right-click the CI. Choose **Locate Element in View** from the menu to return to the Browse pane.

4 In the Browse pane, select the CI.

To display all the actions you can perform on a selected CI, select the CI and click the Actions button. For example, to view the properties of a CI, select the CI, click the Actions button, and choose Properties from the menu to open the General Properties window. You can also display the actions by right-clicking a CI.

To refresh the list of CIs, click the **Refresh** button.

Note: At this stage, you have not yet added the CI to the SLA, so the information in the right pane is not yet up to date. To update the SLA information, save the SLA by clicking the **Finish** or **Next** button.

---

5 Continue with the procedure. For details, see:

- "Editing and Adding KPIs and Objectives" on page 175
- "Defining an SLA: Outages" on page 171

To edit KPIs or objectives associated with the SLA:



1 Click the **Edit** button to open the KPI window.

2 Make any necessary changes to the KPI (for details, see "Editing and Adding KPIs and Objectives" on page 175) and click **Save**.

For details on setting up a PNR KPI for Service Level Management, see "Attaching a PNR KPI to a CI" on page 20.

3 Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

To associate other KPIs with the SLA:

1 Click **Add KPI** to open the KPI window. For details on adding a KPI to the CI, see "Editing and Adding KPIs and Objectives" on page 175.

2 Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

To define a Six Sigma KPI:

Service Level Management includes two Six Sigma KPIs: **Availability Six Sigma** and **Performance Six Sigma**.

1 Click **Add KPI** to open the KPI window.

2 Choose **Availability Six Sigma** or **Performance Six Sigma**. For details on Six Sigma KPIs, see page 175.

3 Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

To remove a KPI from the SLA:



To remove one KPI, click the KPI's **Delete** button.



To remove more than one KPI, select their check boxes and click the **Delete** button.

Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

To define KPIs and outages for multiple CIs in a single definition:

You can make changes to the associated KPIs or outages for multiple CIs with one procedure.

1. To display the Global Settings pane, click one CI, hold down CTRL, and click each additional CI.
2. Click the relevant button to attach or edit a KPI, to remove a KPI, or to update the outage definition.
3. Continue with the procedure. For details, see:
   - ➤ "Editing and Adding KPIs and Objectives" on page 175
   - ➤ "Defining an SLA: Outages" on page 171
4. Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

Defining an SLA: Outages

You can define outages and outage conditions and criteria. Outages are periods of time during which measurements fail. Service Level Management considers a CI to have failed if it does not meet the criteria defined in the business rule. For example, a CI can fail because the failure has a duration of at least the minimum duration defined in the outage. A CI can also fail if a minimum number of failures has been reached.

You can associate one outage only for each CI.

To define an outage:

1. Click **Add Outage** to open the Add Outage window.
2. Choose the business rule that you want to associate with the KPI.

   For a short explanation of the business rule and its parameters, place the cursor over the question mark or over a field name.
3. Make any necessary changes to the rule parameters.

   For details on the business rule and its parameters, see "Outage Business Rules" on page 525.

4 Choose the category that will be associated with the outage in Service Level Management outage reports.

If you leave the outage undefined at this stage, you can add a category to the outage in the Outage Summary report page (for details, see "Outage Summary Report" in *Using Service Level Management*). However, it is recommended to categorize outages at this stage. For details on defining categories, see "Outage Categories" on page 221.

5 Click **OK**.

6 Click **Next** to continue to the next stage of the procedure. For details, see "Defining an SLA: Weights" on page 172.

Note: Any changes made to a KPI associated with a specific SLA do not affect the KPI when it is associated with other SLAs.

You can view PNR (point of no return) data for SLAs in Dashboard. For details on configuring the PNR KPI, see "Attaching a PNR KPI to a CI" on page 20.

Defining an SLA: Weights

The next (optional) stage in the procedure is to define weights. CIs are given a default weighting of 1, but you can change the weight of each CI and of each of its descendants to reflect their relative importance in the SLA. Service Level Management takes weighting into consideration when calculating the KPIs.

For example, say you create a KPI that includes two Business Process Monitor CIs. One CI simulates a user buying a product at one location and the other CI simulates a user at a second location. You decide that availability and performance at the first location are more important than at the second, and so you give the CIs weights of 2 and 1. When Service Level Management calculates availability and performance, CI 1 is awarded two thirds of the overall score and CI 2 is awarded one third.

When weighting CIs, it may be helpful to consider the percentage weight you want to give each CI. For example, say you have two CIs and you think one should carry 40% of the weight and the other 60%, you could set their weights at 40 and 60 respectively.

To define weights:

1. Display the CIs whose weights you want to change. You can search for specific CIs. For details, see page 169.
2. Select the SLA or any of its CIs. The CI's descendants are displayed in the CI pane.
3. In the CI pane, enter a new weighting value for those CIs that have greater importance.

   Alternatively, if all CIs must have the same weight, enter the value in the **All CIs** row, and click **Apply**.
4. Click **Next** to continue.

   The last stage in the procedure is to verify that all the SLA details are correct and to save the SLA. For details, see "Defining an SLA: Finish" on page 174.

Notes and Limitations

- Weight values can be between zero and 100 inclusive, with up to three digits after the decimal point.
- The weight of a CI is calculated in the same way for all KPIs, time intervals, and tracking periods.
- If you set all weights to zero, KPIs are marked with a hyphen for all calculated reports.
- Weighting is reflected in Service Level Management reports that are dependent on the defined business logic (for example, average availability).
- By default, Six Sigma calculations do not take weighting into account.
- Versions previous to 5.1 SP1 weighted transactions according to the number of samples they received. From version 5.1 SP1 onwards, weighting is calculated for each CI.

Defining an SLA: Finish

The last stage in the procedure is to verify that the details you entered are correct, to save the SLA, and to begin running it.

You can display the information on this page in Service Level Management reports, on condition that you enable its display. For details, see "Adding Descriptions to Reports" in *Using Service Level Management*.

To verify details and save the SLA:

1. Read through the summary and verify that the details are correct.

   To make changes to SLA parameters, click **Back**.

2. **Start SLA** – Select this check box for Service Level Management to begin running the SLA immediately. If you clear this check box, Service Level Management marks the SLA's state as preliminary, and you can run the SLA at a later time. For details on SLA states, see page 159.

3. Click **OK**. You are returned to the Service Level Agreements page.

   Verify that users are granted permissions to work with the SLA. For details, see the next section.

Defining an SLA: Grant Permissions to Users

You must now ensure that users are granted permissions for the SLA you just created, otherwise they will not be able to work with the SLA. Click the link at the bottom of the Service Level Agreements page to access the Platform Administration page. Set permissions for Service Level Management and choose the user and SLA for which you want to configure permissions. For details, see "Granting and Removing Permissions" in *Platform Administration*.

Editing and Adding KPIs and Objectives

You can edit KPIs that are already associated with the CI and you can add further KPIs to a CI. Each CI may have only one KPI associated with it and each KPI must include at least one objective.

This section contains the following topics:

- Associating KPIs with an SLA
- Defining Objectives

Associating KPIs with an SLA

For the list of KPIs, business rules, and business logic parameters that Service Level Management uses, see Chapter 15, "Repositories."

To associate a KPI:

1 In the Define KPIs page, select the CI to which you want to add a KPI.

If you selected **Automatically define default KPIs for new CIs** in the Select CIs page, the CI and its direct children already have KPIs attached to them, that is, if the CI is related to Business Process Monitor or SiteScope measurements. For other measurements, Service Level Management automatically defines KPIs if the measurement has been so configured. For details on working with the Infrastructure Settings Manager, see "Editing Settings with the Infrastructure Settings Manager" on page 151.

2 Click **Add KPI** to open the KPI and Objectives window.

3 Select a KPI from the list.

Service Level Management displays only those KPIs that have not yet been associated with the CI.

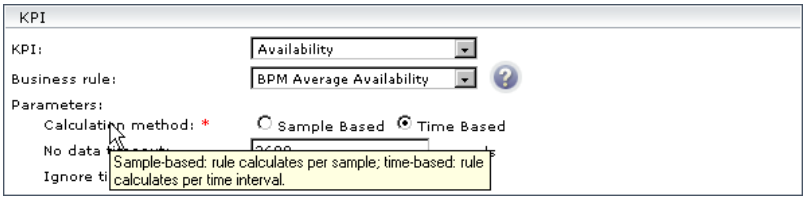
To produce reports that show data from a Six Sigma perspective, choose the **Availability Six Sigma** or **Performance Six Sigma** KPI.

You can enter a Six Sigma condition value between 0 and 6 with up to three decimal points.

- **Availability Sigma** – the sigma value against which Service Level Management measures the time that a business application or a service is up and running. For example, if you set a sigma of 4, you are expecting that for every million opportunities (CIs), not more than 6,210 will fail.
- **Performance Sigma** – the objective against which Service Level Management measures the time taken to execute a CI. For example, if you set a sigma of 3, you are expecting that for every million opportunities (CIs), less than 66,800 will **not** meet the target performance goal.

4 Select the business logic to be used when Service Level Management calculates the objectives.

For a short explanation of the business logic and its parameters, place the cursor over a field name:



5 Enter the parameter values (where these exist).

A red asterisk after a parameter signifies that the parameter is mandatory.

6 Define the objectives for the KPI. For details, see the next section.

7 Click **Save** to save the KPI details and return to the Define KPIs page.

Defining Objectives

You define CI objectives for availability percentages and performance times that reflect the terms of the SLA. For example:

- a Business Process Monitor CI that measures the time taken to add a purchase to a shopping cart
- a SiteScope CI that measures runtime for a servlet on a WebLogic 6.x application server

➤ a UDX (custom data) CI that monitors the accessibility of an HP OVO server

Performance objectives also measure other metrics such as percentiles, for example, that disk space must be at least 40% empty.

Extracting Objectives from a Service Level Agreement

The following is an example of clauses in a service level agreement:

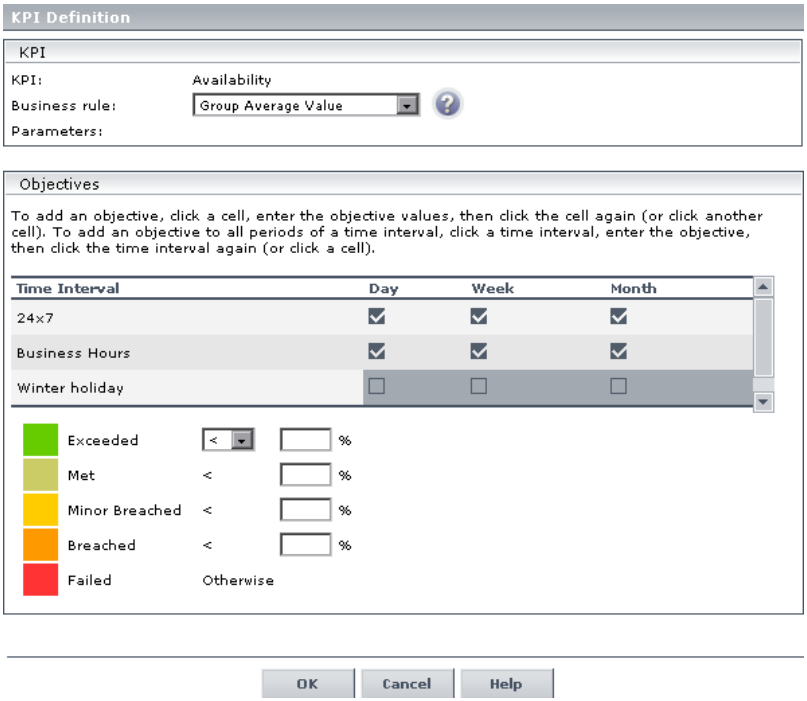
> Users will be able to access the Mercury Web site within 8 seconds for 98% of the time during West Coast business hours. After business hours, they will be able to access the site within 12 seconds for 95% of the time.
> ...
> The average round-trip transmission between a UUNET-designated Hub Router in the Sunnyvale metropolitan area and a UUNET-designated Hub Router in the Chicago metropolitan area will take 120 milliseconds or less during business hours and 150 milliseconds or less after business hours.

When defining objectives, you would interpret these clauses as follows (for previously created Business Process Monitor, Client Monitor, and SiteScope CIs):

Term	During Business Hours	After Business Hours
Time Interval	9 AM to 5 PM, Monday to Friday PST	5 PM to 9 AM, Monday to Friday PST 5 PM Friday to 9 AM Monday PST
CI 1 (measures availability objective)	98%	95%
CI 2 (measures performance objective)	Home page must download within 8 seconds.	Home page must download within 12 seconds.
CI 3 (measures network performance)	120 milliseconds from hub router in Sunnyvale to hub router in Chicago	150 milliseconds from hub router in Sunnyvale to hub router in Chicago

To define objectives:

The units that appear here are defined in the Rule Detail page. (Access **Repositories** > **Rules**. Locate the business logic and click the **Edit Globals** button.)



1 To add an objective to a time interval, click a time interval cell, enter the objective value ranges in the target boxes, then click the cell again. The cell's tooltip changes to **Defined**.

   To add one objective to all periods of a time interval, click the time interval name, enter the objective values in the target boxes, then click the time interval again (or click any cell).

   The objective targets displayed here are selected in the Define SLA Properties page. For details, see "Defining an SLA: Properties" on page 162.

2 Click **Save** to save the KPI details and return to the Define KPIs page.

Note: If you do not define objectives, Service Level Management still performs calculations for the SLA and reports include data. However, reports do not show status by colors.

Editing an SLA

You can access any page in the SLA wizard directly through the left menu.

To edit an SLA:

1. In the Service Level Agreements page (**Admin** > **Service Level Management** > **Service Level Agreements**), locate the SLA that you want to edit, and click its **Edit** button to open the Edit SLA page.
2. In the left menu, click the name of the step you want to edit to display that page.
3. Make any necessary changes, as described in "SLA Definition Workflow" on page 160.
4. Click **Finish** to save the SLA.

Note:

- If the SLA to be edited is not in a preliminary state, the SLA start date and time zone cannot be changed and the SLA end date can be changed only to a future date.
- If the SLA to be edited is in a running state, historical data is not updated with the changes you make. To update historical data, you must run the recalculation process. Furthermore, if the changes you make to the SLA affect historical data, you must run the recalculation process. For details, see Chapter 13, "Recalculation."

Cloning an SLA

You can clone an existing SLA. The cloned SLA inherits all the properties of the existing SLA, including CIs, KPIs, and objectives. The creator of the new SLA is the user who cloned it.

To clone an SLA:

1 Locate the SLA in the Service Level Agreements page (**Admin** > **Service Level Management** > **Service Level Agreements**), click its **Clone** button, and answer **Yes** to the message.

Service Level Management adds a copy of the SLA to the list of SLAs, renames the clone **Copy of <name>**, and changes its start date to the present date and time.

If the start and end dates of the original SLA are no longer valid (for example, the SLA terminated a week ago or the start date falls before the allowed start date of the cloned SLA), Service Level Management sets the following default dates: the start date is the original start date or three months before the current date and the end date is the original end date.

2 To rename and edit the SLA, click the **Edit** button.

Note: You can clone an SLA on condition that you are an administrator or have been given change permissions on the SLA.

Deleting an SLA

To delete an SLA, locate the SLA in the Service Level Agreements page (**Admin** > **Service Level Management** > **Service Level Agreements**), and click its **Delete** button. Answer **Yes** to the question that is displayed.



To delete several SLAs simultaneously, select their check boxes, and click the **Delete** button. Answer **Yes** to the question that is displayed.



Note: You change an SLA's state (for example, from running to terminated) in the Service Level Agreements page. For details, see "The Service Level Agreements Page" on page 158.

10

Time Intervals

This chapter explains how to define time interval schedules. The Service Level Management reports organize results according to time intervals. A time interval is the actual period of time for which Service Level Management calculates data.

This chapter describes:	On page:
Time Intervals Overview	184
The Time Intervals Page	184
Defining a Time Interval	185
Editing a Time Interval	187
Cloning a Time Interval	188
Deleting a Time Interval	188

Time Intervals Overview

In your organization, the same service levels are probably not required at all times of the day or night, or during all days of the week or year. For example, performance and availability are more crucial to a Web retailer during a busy shopping period before a holiday. Likewise, resource allocators in an ERP system must have 99% availability every working morning, whereas at other times 97% might be acceptable.

To monitor your business processes at these crucial times, you define time intervals that span the period you want to monitor. This is the time range that Service Level Management checks for compliance to the SLA. Service Level Management includes two default time intervals: **24x7** and **Business Hours**.

The Time Intervals Page

You use this page to create time intervals or to edit or delete existing time intervals. The page includes existing time intervals and the following components:

Name – The name of the interval.

Period Type – Time intervals can be weekly, yearly, or compound. For details on these period types, see page 185.

Description – The description of the interval.

Actions – You can edit, clone, or delete a time interval. For details, see "Editing a Time Interval" on page 187, "Cloning a Time Interval" on page 188, and "Deleting a Time Interval" on page 188.

New Time Interval Button – Click this button to define a new time interval. For details, see the next section.

Defining a Time Interval

You use the Time Interval wizard to define time interval schedules.

To define a time interval:

1. Select the **Time Intervals** tab to open the Time Interval wizard (**Admin** > **Service Level Management** > **Time Intervals**). The page shows a list of existing time intervals. For details on this page, see "The Time Intervals Page" on page 184.
2. Click **New Time Interval** to open the Time Interval wizard.
3. Give a name to the time interval.

   The name should not be longer than 50 characters and can consist of any characters (including special characters) and spaces.
4. Enter a description.

   The description should not be longer than 500 characters and can consist of any characters and spaces.
5. Choose the time interval scheme:

   Weekly – The time interval is based on a weekly cycle, for example, every Sunday from 1:00 AM to 3:00 AM. Continue to the next step.

   Yearly – The time interval is based on a yearly cycle, for example, the month of December or annual vacations. Continue to the next step.

   Compound – The time interval combines existing time intervals. For example, say one yearly time interval monitors January to October, and a weekly time interval monitors business hours. You could combine the two time intervals to create a time interval that monitors business hours from January to October. Skip to step 8.
6. Click **Next** to continue to the next page.

7 If you selected **Weekly** on the previous page, the time grid displays the days of the week.

If you selected **Yearly** on the previous page, the time grid displays the months of the year.

To add a time or date to the time interval, click a cell. To remove the time or date, click the cell again. (Active cells are shown in red and free cells in gray.)

To enter a range, select the times or dates in the lower table and click **Add**.

To remove part of a time interval, select the range in the lower table and click **Clear**. For example, to quickly create a time interval that spans the whole week, apart from work days, select a start time of 12 AM and an end time of 12 AM. Select all the days of the week. Click **Add**. Select a start time of 9 AM and an end time of 5 PM. Select Monday to Friday. Click **Clear**.

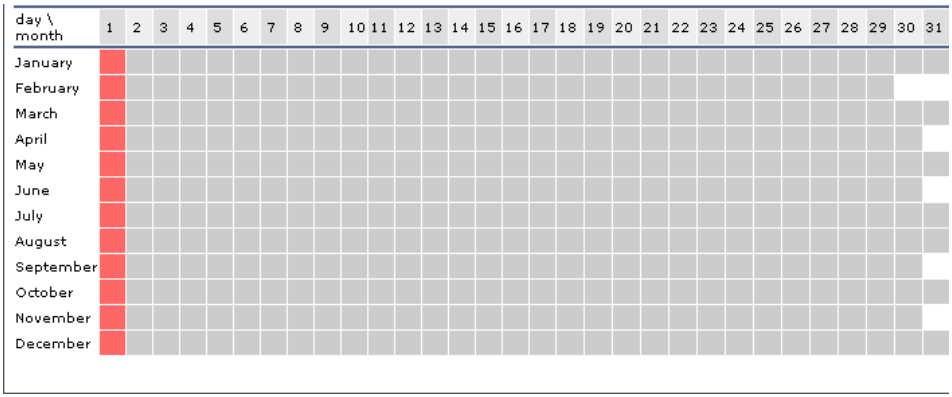
To remove all active times from the grid, click **Clear All**.

8 If you chose **Compound** in the previous page, you must now choose which time intervals to include in the new time interval.

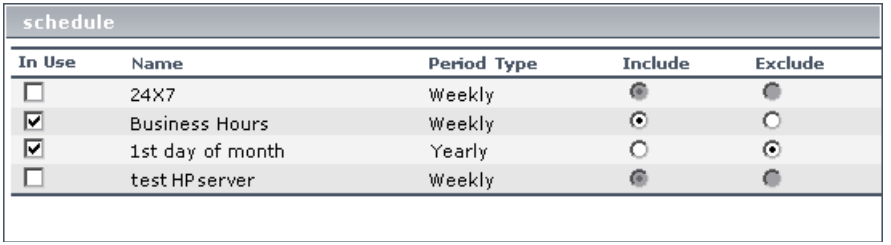
Locate the time intervals to add to the new time interval, and select their **In Use** check box.

You use the **Include** and **Exclude** buttons when you want to use an existing time interval but without all its components.

For example, say you want to define a time interval that monitors business hours but does not include the first day of the month. You define a yearly time interval (called **1st day of month**) that includes only the first day of each month:



Next, you define a **Compound** type time interval where you include the Business Hours time interval and exclude the **1st day of month** time interval.



In this example, **24x7** and **test HP server** are irrelevant to the compound time interval being defined and are not selected.

Note: If you update one of the time intervals included in a compound time interval, the compound time interval itself is also updated.

---

9 Click **Finish** to continue to the next page.

Service Level Management confirms that your settings have been saved successfully.

10 Click **Close** to close the Time Interval Wizard and return to the Time Interval page. The new time interval is displayed in the list.

Editing a Time Interval

You can make changes to an existing time interval.

To edit an existing time interval:

1 Select the **Time Intervals** tab (**Admin** > **Service Level Management** > **Time Intervals**). Locate the time interval you want to edit and click its **Edit** button.

2 Make any necessary changes, by continuing with the procedure for defining a time interval. For details, see page 185.

Cloning a Time Interval

You can clone a time interval to define a similar schedule.

To clone an existing time interval:

1 Select the **Time Intervals** tab (**Admin** > **Service Level Management** > **Time Intervals**). Locate the time interval you want to clone and click its **Duplicate** button.



The cloned time interval is displayed in the list as copy of <time interval name>.

2 Click the **Edit** button to open the Properties page and change the name.

3 Make any necessary changes to the time interval. For details, see "Defining a Time Interval" on page 185.

Deleting a Time Interval

Note: You cannot delete a time interval if it is associated with an SLA.

Select the **Time Intervals** tab (**Admin** > **Service Level Management** > **Time Intervals**). Locate the time interval you want to delete and click its **Delete** button. Answer **Yes** to the question that is displayed.



11

Downtime Events

This chapter explains how to define events that represent actual event occurrences such as downtime, that may skew results and that you may want to exclude from reports.

This chapter describes:	On page:
The Downtime Events Page	190
Defining a BPM or SLA Event	190
Editing a Downtime or Scheduled Event	194
Deleting a Downtime or Scheduled Event	195
Event Examples	196

The Downtime Events Page

You use this page to create events or to edit or delete existing events. The page includes existing events and the following components:

Name – The name of the event.

Start Date – The date and time when the event begins running.

End Date – The date and time when the event terminates. If there is no end date, the event is considered **unbound**.

Scheduling – The frequency of the event, either **single**, that is, a one-time event, or **recurring**, that is, daily, weekly, monthly, yearly, or compound.

Type – The type of event, either BPM event or SLA event.

Impact – The CIs that are affected by the event.

Actions – You can edit or delete an event. For details, see "Editing a Downtime or Scheduled Event" on page 194 and "Deleting a Downtime or Scheduled Event" on page 195.

New BPM Event and New SLA Event Buttons – Click this button to define an event. For details, see the next section.

Defining a BPM or SLA Event

You can define BPM and SLA events. You use BPM events when adding an event to Business Process Monitor data, and SLA events when adding an event to SLAs. You can define an event retroactively and you can define a recurring event. For examples of event definitions, see "Event Examples" on page 196.

You define an event for a specific SLA.

Note: You can create events only for existing SLAs. For details on defining an SLA, see Chapter 9, "Service Level Agreements (SLAs)."

To define an event:

1 Select the **Events** tab (**Admin** > **Service Level Management** > **Events**). Service Level Management lists events already defined.

2 Click **New BPM Event** or **New SLA Event** to open the Downtime/Event Schedule window.

- choose **New BPM Event** when adding an event to Business Process Monitor data
- choose **New SLA Event** when adding an event to an SLA

3 Enter the name of the new event and a description—to appear in Service Level Management reports—that describes the downtime or scheduled event.

You include the event description in reports, by selecting the **Advanced options** link in the report page. For details, see "Adding Descriptions to Reports" in *Using Service Level Management*.

4 To exclude data such as scheduled maintenance periods, select **Exclude data reported during event**.

5 Define the time periods during which data is affected. You can define a one-time event (**Once**) or a recurring event (**Daily**, **Weekly**, **Monthly**, or **Yearly**; for examples, see "Event Examples" on page 196):

Note: Dates are specified according to the user's time zone.

- **Once** – To change the start date, click the date and time to make changes in the calendar. Choose either an end date (select **End time**) or the duration of the event in days, hours, and minutes (select **Event duration**).
- **Daily** – Select how often the event is to run.

  Set the duration and recurrence range: To change the start date, click the date and time to make changes in the calendar. Choose the duration of the event in hours and minutes.

  For the event to be open-ended (unbound), select **No end date**. To limit the event, select **End time** and click the date and time to make changes in the calendar.

- **Weekly** – Choose the frequency at which the event is to occur. For example, select **3** for the event to occur every third week. Select the days of the week on which the event is to occur.

  Set the duration and recurrence range: To change the start date, click the date and time to make changes in the calendar. Choose the duration of the event in hours and minutes.

  For the event to be open-ended, select **No end date**. To limit the event, select **End time** and click the date and time to make changes in the calendar.

- **Monthly** – Choose the frequency at which the event is to occur. For example, you could choose the 10th day of every month, the first Sunday of every fourth month, or the last day of every sixth month.

  Set the duration and recurrence range: To change the start date, click the date and time to make changes in the calendar. Choose the duration of the event in hours and minutes.

  For the event to be open-ended, select **No end date**. To limit the event, select **End time** and click the date and time to make changes in the calendar.

- **Yearly** – Choose the frequency at which the event is to occur. For example, you could choose the 4th of every July or the last Sunday in November.

  Set the duration and recurrence range: To change the start date, click the date and time to make changes in the calendar. Choose the duration of the event in hours and minutes.

  For the event to be open-ended, select **No end date**. To limit the event, select **End time** and click the date and time to make changes in the calendar.

Note: This page may display incorrectly when viewed with Microsoft Internet Explorer.

---

6 In the Event Schedule Action section, select the SLA from the list.

Note: The SLA list includes only those SLAs that you have permissions to change.

---

7 To select specific CIs that will be affected by the event:

a Click **CI Filter** to open the CIs Selection window. Service Level Management displays a list of:

- End User monitors, if you are defining a BPM event
- the SLA tree, if you are defining an SLA event

b Locate the CIs that will be affected, select their check boxes, and click **OK**.

Note: The descendants of the selected CIs are also affected by this event.

---

c To search for CIs, click the **Search** link.

- Enter the name of the configuration item (CI), or part of the name, in the **Search for** field. Click the **Search** button to display the results below.

  You can also search for CIs using the **Related to** or **Type** fields. **Related to** searches for CIs that are related to the selected CI, and **Type** searches for CITs. Select the check box and click the button to open the Select Configuration Item (or Select Configuration Item Type) window. In the Select Configuration Item window, choose the CI you want to display; in the Select Configuration Item Type window, choose the configuration item type (CIT). Click **OK**, or click **Cancel** to close the window without choosing a CI or CIT. In the Search pane, click the **Search** button to display the results below.

- To add the CI to the event, locate and right-click the CI. Choose **Locate CI in View** from the menu to return to the Browse pane.

- For SLA events only, locate the CIs that will be affected, select their check boxes, and click **OK**.
- For BPM events only, locate the CI that will be affected, select it and click **OK**.

8 Click **OK**.

Note:

➤ From version 5.0 FP1, the maximum duration for an event (not including a one-time event) is 23 hours and 59 minutes. If you have created events in previous versions of Mercury Business Availability Center that are longer than this duration, Service Level Management shortens the event to 23 hours and 59 minutes.

➤ If an event is defined for an SLA after the SLA has started running, the event affects data received after the event is defined. To affect data retroactively, Service Level Management must recalculate the SLA. For details, see Chapter 13, "Recalculation."

Editing a Downtime or Scheduled Event

You can make changes to existing events. Changes affect reports retroactively. For example, if you change the event frequency, data may now be included in reports that was previously excluded. Once the changes are saved, any generated reports include the updated event.

Note: For events to affect reports retroactively, you must recalculate the SLA.

To edit a downtime or scheduled event:

1 Select the **Events** tab (**Admin** > **Service Level Management** > **Events**). Service Level Management lists events already defined.



2 Locate the event that you want to change and click the **Edit** button to open the Downtime/Event Schedule window.

3 Make any required changes to the event general properties and event scheduling parameters (you cannot change the SLA or the CIs). For details, see "Defining a BPM or SLA Event" on page 190.

4 Click **OK**.

Deleting a Downtime or Scheduled Event

You can delete existing events. Any reports generated from this time will reflect the deletion. Service Level Management also updates the Audit Log (for details, see "The Audit Log" in *Application Administration*).

Note: For a deleted event to affect reports retroactively, you must recalculate the SLA. For details, see Chapter 13, "Recalculation."

To delete an existing downtime or scheduled event:

1 Select the **Events** tab (**Admin** > **Service Level Management** > **Events**). Service Level Management lists events already defined.



2 Locate the event that you want to change and click its **Delete** button. Click **OK** to confirm deletion.

Event Examples

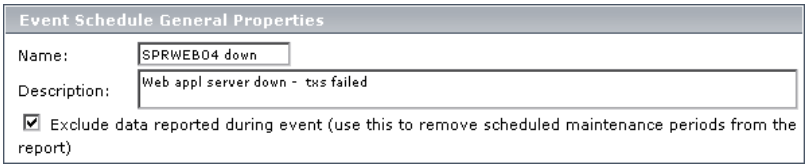
This section provides examples of events for all scheduling periods, and contains the following topics:

- Once
- Daily
- Weekly
- Monthly
- Yearly

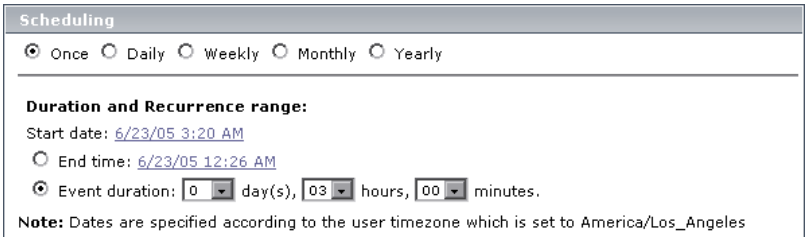
Once

Every morning the VP of eBusiness looks through the previous day's SLAs Summary reports. One morning, she realizes that due to maintenance in the Springfield office, the Web applications server had been down for three hours and all Business Process Monitor CIs from that location have failed. She needs to define a retroactive downtime event and adjust the reports to reflect the downtime.

- She accesses the Events tab and creates a new Business Process Monitor event by clicking the **New BPM Event** button.
- She enters a name and description for the downtime. She leaves the **Exclude data reported** check box selected.



➤ In the Scheduling section, she chooses the **Once** option and enters the start date, time, and duration of the server downtime.



➤ In the Event Schedule Action section, she selects one of the SLAs that cover the Springfield office contracts (she must create an event for each SLA).



➤ She clicks **CI Filter** to select the SLA.

➤ She selects the relevant SLA and then clicks **CI Filter** to select the Springfield location.

➤ She saves the event.

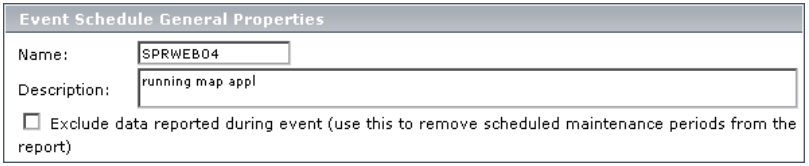
➤ She recalculates the SLA over the relevant period of time.

➤ She next accesses the SLAs Summary page, generates reports for relevant KPIs, and verifies that during this time, the data is ignored and the status of the SLA is **downtime**.

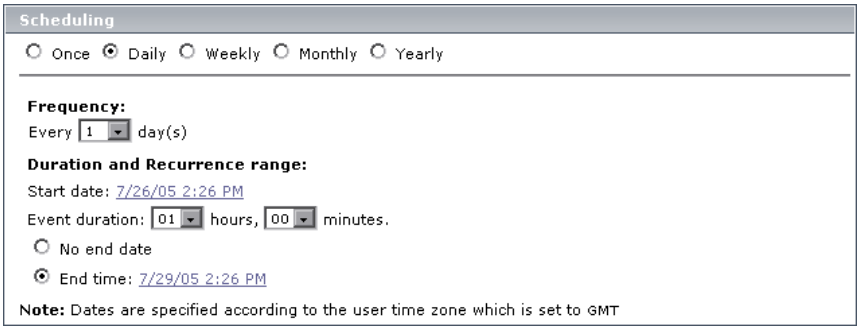
Daily

The operations support engineer is told that a server's graphics card is being upgraded for a new map application. A slowdown of the server may be expected for three days beginning today, while the R&D team tests the new application. To minimize problems, the team will be running tests for one hour each day. All SLAs that monitor this server will be affected, and he should define an event to appear in reports to explain the slowdown.

➤ He defines a new SLA event, and enters a name and detailed description for the downtime (each SLA needs its own event). He clears the **Exclude data reported** check box.



➤ In the Scheduling section, he chooses the **Daily** option and enters a frequency of 1 day (the default). In the Duration and Recurrence range, he chooses today's date and time from the calendar. He chooses a duration of 1 hour, and the end date and time for three days' hence.



➤ In the Event Schedule Action section, he selects the relevant SLA, clicks **CI Filter**, and selects the server.

➤ He saves the event.

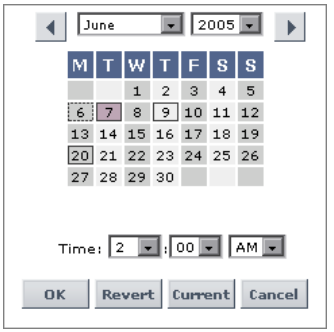
➤ He accesses the CIs Over Time report (**Applications** > **Service Level Management** > **Over Time Reports**) and clicks the Advanced Options link. He selects the **Downtime Event Description** check box.

➤ The next day he generates a CIs Over Time report and verifies that the event appears in the report.

Note: The operations support engineer has no need to recalculate the SLA, since the **Exclude data reported** check box was not selected.

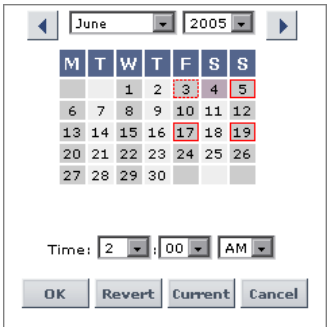
Weekly

Example 1: You define an event to occur once every two weeks (**2**) with a start date of Tuesday, 7 Jun 05. For calculation purposes, the first week runs from Monday, 6 Jun 05 till Monday, 13 Jun 05.



- If the event is to occur every second Tuesday, the first occurrence of the event will be on Tuesday, 7 Jun 05.
- If the event is to occur every second Thursday, the first occurrence of the event will be on Thursday, 9 Jun 05.
- If the event is to occur every second Monday, the first occurrence of the event will be on Monday, 20 Jun 05.

Example 2: You define a recurring event that occurs every second week on a Friday and a Sunday, to begin on a Saturday. In the first week, the event will run only on Sunday. In the second week, the event does not run. In the third week, the event runs on Friday and on Sunday, and so forth.

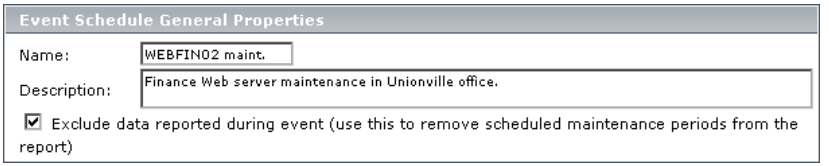


Monthly

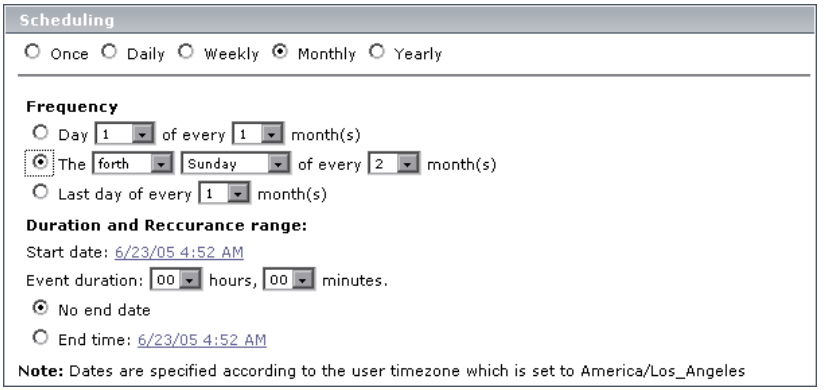
Every other month, on the forth Sunday, the Web server for the Finance department in the Unionville office is scheduled for maintenance at 1:00 AM for two hours. Therefore, the IT Ops director must define a recurring event and exclude all CIs from reports during this period.

➤ The IT Ops director accesses the Events tab and creates a new Business Process Monitor event by clicking the **New BPM Event** button.

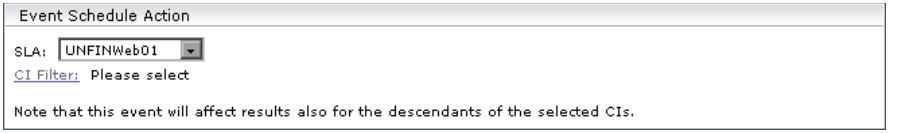
➤ He enters a name and description for the maintenance. He leaves the **Exclude data reported** check box selected.



➤ In the Scheduling section, he chooses the **Monthly** option. In the Frequency section, he selects **Fourth**, **Sunday**, and **2**. He enters the start date and time and enters **2** for the event duration. He leaves **No end date** selected.



➤ In the Event Schedule Action section, he selects one of the SLAs that cover the Unionville office contracts (each SLA needs its own event).



- He selects the SLA's CI from the CI filter, so that all descendants are also affected.
- He saves the event.

Yearly

The VP of eBusiness likes to be prepared. Each July 5th, her boss sends her an e-mail requesting network statistics for the previous day to compare to their targets. This year, on July 3rd, she prepares an SLA to measure network performance and creates an event that will run throughout the next 24 hours.

In the Scheduling section, she chooses the **Yearly** option. In the Frequency section, she selects **Every**, **July**, and **4**. She enters the start date and time of July 4th at 12:00 AM and sets an event duration of 23 hours and 59 minutes. She leaves **No end date** selected.

On July 5th she is able to reply immediately to her boss's e-mail with the network performance results compared to the target objectives.

12

SLA Status Alerts

This chapter explains how to create an SLA status alert that notifies you or another user of changes to an SLA's KPI status.

This chapter describes:	On page:
The SLA Status Alerts Page	204
SLA Status Alert Workflow	205
Defining an Alert: Welcome	206
Defining an Alert: General	206
Defining an Alert: Related SLAs	207
Defining an Alert: Templates and Recipients	208
Defining an Alert: Actions	210
Defining an Alert: Summary	215
Cloning SLA Status Alerts	215
Deleting SLA Status Alerts	215

The SLA Status Alerts Page

You use this page to create SLA status alerts or to perform actions on existing alerts. Service Level Management displays those alerts which you, the logged-in user, have permissions to change or delete.

The page includes the following components:

Alert Name – The name of the alert. For a long name, hold the cursor over the name to view it in full in a tooltip.

Recipients – The names of the users who are to be informed when alert conditions are met.

Condition – The conditions that trigger an alert.

Actions – You perform the following actions by clicking the appropriate button:



- **Enable** – click to run the alert (if this button is disabled, the alert is running)
- **Disable** – click to stop the alert (the alert can be enabled again)
- **Clone** – click to duplicate the alert. For details, see "Cloning SLA Status Alerts" on page 215.
- **Edit** – click to edit the alert. For details, see "Defining an Alert: General" on page 206.
- **Delete** – click to delete the alert. For details, see "Deleting SLA Status Alerts" on page 215.

New Alert button – To define an alert, click this button. For details, see the next section.

You can sort the list by any column: An arrow next to a title shows by which column the alerts are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

Select, Unselect, Invert Selection, Disable, Enable, and Delete buttons – To perform an action on more than one alert simultaneously, select the check boxes of the alerts you want to start, stop, or delete, using the **Select**, **Unselect**, and **Invert Selection** buttons. Click the relevant button.



To search for an alert in the list:

Enter the name of the alert in the **Search in current view by name** box and click **Search**.

Service Level Management displays the alert on the page.

When searching, you can type an asterisk (*****) to replace characters. For example, to search for an alert named **alert on finance machine**, enter *finance*. To display all alerts, type an asterisk only.

SLA Status Alert Workflow

Perform the following steps to define an SLA status alert:

- Use the Alert Wizard to define an SLA. For details, see "Defining an Alert: Welcome" on page 206.
- Give a name to the alert, set conditions, and define the notification frequency. For details, see "Defining an Alert: General" on page 206.
- Choose the SLAs that will be monitored by the alert. For details, see "Defining an Alert: Related SLAs" on page 207.
- Choose the recipients and templates for the alert. For details, see "Defining an Alert: Templates and Recipients" on page 208.
- Select the actions that will be triggered by the alert. For details, see "Defining an Alert: Actions" on page 210.
- Verify that the alert scheme you created is correct. For details, see "Defining an Alert: Summary" on page 215.

Defining an Alert: Welcome

You use the Alert Wizard to define SLA status alerts.

To create an SLA status alert:

1 Select the **SLAs Status Alerts** tab to open the Service Level Agreement page (**Admin** > **Service Level Management**). The page shows a list of existing alerts, organized alphabetically.

For a description of this page, see "The SLA Status Alerts Page" on page 204.

2 Click **New Alert** to open the Alert Wizard at the Welcome page.

3 Click **Next** to begin creating an alert.

The first stage in the procedure is to name the new alert and set conditions. Continue to the next section.

Defining an Alert: General

The first stage in the procedure is to define the alert's name and description and to set conditions.

To define alert properties:

1 Fill out the following fields:

Name – The name of the alert must be unique and must not be longer than 100 characters.

Description – Enter a description to appear in Service Level Management reports.

Alert Type – Choose between **All Tracking Periods** (the alert monitors all tracking periods) or **Selected Tracking Periods** (you select the tracking periods in the next stage of the procedure).

Condition – Choose between:

- **Send alert once status worsens**: triggers the alert when the current status of an SLA is worse than the previous status. **No Data** is ignored. For example, if the status changes from Met to Minor Breached, the alert is triggered.
- **Send alert once status improves**: triggers the alert when the current status of the SLA is better than the previous status. **No Data** is ignored. For example, if the status changes from Breached to Minor Breached, the alert is triggered.
- **Send alert if status value was changed from**: sets the appropriate conditions for sending an alert. Select the appropriate status in the **from** and **to** boxes.

Notification Frequency – Choose between:

- **Send alert for every trigger occurrence**: send an alert each time the condition is triggered.
- **Send no more than one alert per**: send an alert once only according to the selection, even if the condition is triggered more than once.

2 Click **Next** to continue.

The next stage in the procedure is to associate SLAs with the alert. Continue to the next section.

Defining an Alert: Related SLAs

The next stage in the procedure is to select the SLAs and the tracking periods that the alert should monitor. The list of SLAs includes those which you, the logged-in user, have permissions to change or delete.

To specify related SLAs and to select tracking periods:

1 Add SLAs to the list of SLAs that the alert will monitor.

To move the SLAs to the Selected SLAs list, use the upper arrow.

To remove SLAs from the Selected SLAs list, select the SLAs and use the lower arrow.

Select multiple SLAs by holding down the CTRL key and selecting the SLAs.

2 If you chose the **Selected Tracking Periods** alert type in the previous page, the Related SLAs page includes a list of tracking periods.

Select the tracking periods to include in the alert. The tracking periods that appear here are chosen during SLA creation.

To make your selections, you can also use the buttons at the bottom of the list for **Select All**, **Clear All**, and **Invert Selection**.

Note: The list of tracking periods is displayed after you have selected the SLAs.

---

3 Click **Next** to continue.

The next stage in the procedure is to choose the alert's format and to define to whom the alert should be sent. Continue to the next section.

Defining an Alert: Templates and Recipients

The next stage in the procedure is to choose the alert's format and to define to whom the alert should be sent.

To choose formats and recipients:

1 Select the template formats that are to be used when Mercury Business Availability Center sends the alert to recipients:

➤ **E-mail message template**. Choose between:

Short HTML e-mail message, short text e-mail message – These messages include the change in status only.

Long HTML e-mail message, long text e-mail message – These messages include a subject line and body.

Mercury Business Availability Center supports secure mail. For details, see "E-mail Messages" in *Platform Administration*.

➤ **SMS or pager template**. SMS and pager messages are sent via e-mail to the service provider. The e-mail address is:
<SMS provider access number>@<SMS provider e-mail address>
or
<Pager provider access number>@<Pager provider e-mail address>.

Choose between:

Long SMS/Pager message – The message includes the change in status and information about the SLA.

Short SMS/Pager message – The message includes the change in status only.

For details on modifying the message character set, see below.

2 To define a new recipient, click **New Recipient**. For details, see "Configuring and Selecting Recipients" in *Platform Administration*.

3 Click **Next** to continue.

The next stage in the procedure is to choose the actions that should occur when the alert is triggered. Continue to the next section.

To modify a message character set:

The default character set for e-mail, SMS and pager messages is **UTF-8**. You can change this character set in the Infrastructure Settings Manager.

1 Access the Infrastructure Settings Manager: **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

2 Select the Foundations context and choose **Alerting** from the list.

3 Scroll down to the **Alerting - Triggered alerts** table.

4 Click the **Edit** button for the relevant parameter: **E-mail alerts charset**, **SMS alert charset**, or **Pager alert charset**.

5 In the View list, select another character set, for example, **ISO-2022-JP**.

Defining an Alert: Actions

The next stage in the procedure is to choose the actions that occur when an alert is triggered.

You can embed alert parameters in a URL, set up an executable file to run when an alert is triggered, and set up an SNMP trap to run when an alert is triggered.

This section includes the following topics:

- "Create URL" on page 210
- "Differences Between GET and POST" on page 212
- "Create Executable File" on page 212
- "Create SNMP Trap" on page 214

Create URL

You can embed predefined alert parameters in a URL that is accessed when an alert is triggered.

By accessing a URL, Mercury Business Availability Center can send alerts via a Web site, for example, using Active Server Pages, CGI, or Perl. The URL can activate an executable program on a Web server, report to a custom database, activate a Web-based fax service, and so forth.

When accessing a URL, Mercury Business Availability Center supports the GET method only. For details, see "Differences Between GET and POST" on page 212.

To create a URL:

1. Click **New URL** to open the Create New URL window.
2. Enter the URL in the box and embed alert parameters by choosing alert parameters and clicking **Insert Field**. The field appears between double angle-brackets in the **Enter URL** box.

When embedding alert parameters in a URL, use the following format:

```
http://<server_or_IP>?<alert parameters>
```

For example:

```
http://financesystem.com?name=<AlertName>&sla=<SLA
Name>&TriggerTime=<Trigger Time>&CurrentStatus=<Current Status>
```

The alert parameters are:

- **SLA Name** – the name of the SLA

  If an alert monitors more than one SLA, the name that appears in this field is the SLA that triggered the alert.

- **Alert Name** – the name of the alert scheme
- **Trigger Time** – the start date and time of the alert.
- **Previous Status** – the previous status of the SLA

  Service Level Management includes the following statuses: Exceeded, Met, Minor Breached, Breached, and Failed.

- **Current Status** – the current status of the SLA

  The change from previous status to current status triggers the alert.

- **Tracking Period** – the period that the alert is monitoring, chosen during SLA creation

3 Click **OK** to return to the Actions page.

4 Set up an executable file ("Create Executable File" on page 212) or an SNMP trap alert ("Create SNMP Trap" on page 214), or click **Finish** to continue.

The last stage in the procedure is to verify that the settings you defined for the alert are correct. Continue to the next section.

Differences Between GET and POST

Mercury Business Availability Center supports the GET method only, for the following reasons:

- **Usability** – with the POST method, the HTML file must first be saved on the client computer and then sent by the administrator to the specific user. With the GET method, the URL can be copied from Mercury Business Availability Center, pasted into an e-mail, and sent to the user.
- **HTTP specifications** – for the differences between the GET and POST methods, see http://www.cs.tut.fi/~jkorpela/forms/methods.html.

Create Executable File

You can specify that you want Mercury Business Availability Center to run an executable file (for example, an **.exe** or **.bat** file) when an alert is triggered.

You can embed alert parameters in the executable file. The parameters are used as placeholders when the message is formatted.

Note: The executable file must not be interactive (no user response required) and should not have a user interface.

To create an executable file:

1. Click **New Executable File** to open the Create New Executable File window.
2. Enter the URL in the box and embed alert parameters by choosing alert parameters and clicking **Insert Field**. The field appears between double angle-brackets in the **Enter command** box.

   When using a custom command line, the command line that runs the executable file must be in the following format:

```
<full path to program from Data Processing Server machine> <program command line switches>
```

You embed the alert parameters—which are expanded before the command line is executed—in the program command line switches section of the command line statement. For example:

```
C:\Bin\MyAlertReporter.exe –title “<Alert Name> for <SLA Name>” –Text “<Current Status>”
```

Note: Because the server triggers the executable, the path to the executable must be available from the Data Processing Server machine.

The alert parameters are:

- **SLA Name** – the name of the SLA
- **Alert Name** – the name of the alert scheme
- **Trigger Time** – the start date and time of the event that triggered the alert.

  Note: Trigger time is not necessarily the time of the alert. For example, if the alert engine is down when the alert is triggered, the alert may be sent several minutes later.

- **Previous Status** – the previous status of the SLA

  Service Level Management includes the following statuses: Exceeded, Met, Minor Breached, Breached, and Failed.

- **Current Status** – the current status of the SLA

  The change from previous status to current status triggers the alert.

- **Tracking Period** – the period that the alert is monitoring, chosen during SLA creation

3. Click **OK** to return to the Actions page.
4. Set up a URL (“Create URL” on page 210) or an SNMP trap alert (“Create SNMP Trap” on page 214), or click **Finish** to continue.

   The last stage in the procedure is to verify that the settings you defined for the alert are correct. Continue to the next section.

Create SNMP Trap

You specify that you want Mercury Business Availability Center to send an SNMP trap when alert trigger criteria are met. The alert notice can be seen via any SNMP management console in the organization.

For details on configuring the Alerts MIB in your SNMP management console, see "Configuring the Alerts MIB" in *Platform Administration*. (For traps created through the SLA Status Alerts page, use the file **CIAlerts.mib**.)

Note: Mercury Business Availability Center supports only SNMP V1 traps.

To create an SNMP trap:

1. Click **New SNMP Trap** to open the Create New SNMP Trap window.
2. Enter the IP address or name of the host destination.

   If Service Level Management displays a default host destination, you can accept the default, or enter another IP address or name.

   If you do not enter a port number, Service Level Management uses a default port number.

   The SNMP default trap destination host and port are set in the Infrastructure Settings Manager. Select the Foundations context and choose **Alerting** > **Alerting – Triggered Alerts**. For details, see "Editing Settings with the Infrastructure Settings Manager" on page 151 and "Editing Infrastructure Settings" in *Platform Administration*.
3. Click **OK** to return to the Actions page.
4. Set up a URL ("Create URL" on page 210) or an executable file alert ("Create Executable File" on page 212), or click **Finish** to continue.

   The last stage in the procedure is to verify that the settings you defined for the alert are correct. Continue to the next section.

Defining an Alert: Summary

The last stage in the procedure is to verify that the settings you defined for the alert are correct.

To verify the alert settings:

1. Read through the alert summary.
2. To save the alert, click **OK**. You are returned to the SLA Status Alerts page.

   To make changes to the alert, click **Back** or click the stage in the left menu to go directly to the page you want to change.

Cloning SLA Status Alerts

You can clone an existing alert. The cloned alert inherits all the properties of the existing alert, including SLAs and recipients. The creator of the new alert is the user who cloned it.

To clone an alert:

1. Locate the alert in the SLA Status Alerts page (**Admin** > **Service Level Management** > **SLA Status Alerts**) and click its **Clone** button.

   Service Level Management adds a copy of the alert to the list of alerts, renames the clone **Copy of <name>**, and changes its start date to the present date and time.
2. To rename and edit the alert, click the **Edit** button.

Deleting SLA Status Alerts

To delete one alert or several alerts, select the alerts in the SLA Status Alerts page (**Admin** > **Service Level Management** > **SLA Status Alerts**), and click the **Delete** button. Answer **Yes** to the question that is displayed.

13

Recalculation

Note to Mercury Managed Services customers: Mercury Operations administers these pages. For information about recalculation, contact Mercury Managed Services Support.

This chapter explains how to run the recalculation process to update the data in your SLAs, and how to cancel a recalculation task.

This chapter describes:	On page:
Recalculation Overview	218
The Recalculation Page	218
Running Recalculation Tasks	219
Cancelling a Recalculation Task	220

Recalculation Overview

You will generally use recalculation after making retroactive changes. For example:

- After defining a downtime event for the previous week, you should run the recalculation process to show the effect of the event on results.
- In the case of a connection problem with a site where data is sent after a one day delay, you should run recalculation so that this data is also included in calculations. (Service Level Management automatically supports "late arrivals," that is, data that reaches the database up to one hour after the data is recorded. However, for data reaching the database after a longer period of time, you must run the recalculation function.)
- After viewing the reports of a specific SLA, you notice that the objective definition was set too high. You edit the objective and run recalculation so that the change is reflected in the historical data.

The Recalculation Page

Caution: If you recalculate an SLA for a period when the raw data has already been purged, you will lose the recalculated data for that period. To verify the purging policy, select **Admin** > **Platform** > **Setup and Maintenance** > **Data Purging**.

You use this page to follow a recalculation task, to run new tasks, and to cancel recalculation tasks. This page includes recalculation tasks that are running and that are scheduled to run:

SLA – The name of the SLA. Service Level Management displays only those SLAs whose state is **Running or Terminated** (if their end date falls within the recalculation period—for example, an SLA that terminated a week ago can still be recalculated and will be included in this table). SLAs with a **Preliminary** state are not displayed.

Time Stamp of Latest Calculation – The last time that Service Level Management calculated the SLA data. Note that Service Level Management recalculates the SLA data once an hour for the previous hour. That is, if the time is now 07:30 AM, Service Level Management recalculated the data at 7:00 AM for data that was received between 05:00 AM and 06:00 AM.

Status – The current status of the recalculation run. When a task is running, Service Level Management displays the progress of the recalculation process in percentages.

Actions – You can run or cancel a recalculation task. For details, see the next sections.

Running Recalculation Tasks

You generally run recalculation tasks after making retroactive changes.

To run a recalculation task:

1 Select the Recalculation tab (**Admin** > **Service Level Management** > **Recalculation**).



2 Locate the SLA which you want to recalculate, and click its **Schedule** button to open the Recalculation Task dialog box.

3 To define the start of the recalculation period, click the **Recalculate from** date and time to make changes in the calendar.

The recalculation period must begin before the Last Calculation date and time.

The earliest date at which the recalculation process can begin running is set in the Infrastructure Settings Manager. By default, the recalculation period is three months. It is not recommended to lengthen this period as the recalculation task takes longer for a longer period. For example, Service Level Management takes longer to recalculate a month than to recalculate a week. For details, see “Editing Settings with the Infrastructure Settings Manager” on page 151 and “Infrastructure Settings” in *Platform Administration*.

4 To define when the recalculation must begin: click the **Schedule the task to start** date and time to make changes in the calendar.

Note: If you have just created an SLA whose start date has the current date and time, and you choose to start the SLA now, Service Level Management immediately begins calculating the first hour. However, since the first hour's raw data has not yet been sent to the database, the results are of no value. In this case, choose to start the SLA in a few hours.

---

5 Click **OK**.

Cancelling a Recalculation Task

You can cancel a recalculation task if it has been scheduled but has not yet begun running.



To cancel a task, locate the task and click its **Cancel** button.

14

Outage Categories

This chapter explains how to define outage categories to be used in Service Level Management reports, to make results more meaningful.

This chapter describes:	On page:
The Outage Categories Page	222
Creating an Outage Category	222
Editing an Outage Category	223

The Outage Categories Page

You use this page to view existing outage categories and to create outage categories in addition to the default categories provided by Service Level Management.

The page includes the following components:

Name – the name of the category

Description – the description of the category



Actions – you edit an outage category by clicking the **Edit** button. For details see "Editing an Outage Category" on page 223.

New Outage Category button – to define a category, click this button. For details, see the next section.

You can sort the list by any column: An arrow next to a title shows by which column the outages are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

Note: You cannot delete an outage category.

Creating an Outage Category

You create outage categories to be used in Service Level Management reports, to make results more meaningful. For details on outage reports, see "Outage Reports" in *Using Service Level Management*.

To create an outage category:

1 Select the **Outage Categories** tab to open the Outage Categories page (**Admin** > **Service Level Management**). The page shows a list of existing categories, organized alphabetically.

For a description of this page, see "The Outage Categories Page" on page 222.

2 Click **New Outage Category** to open the Outage Category page.

3 Enter the details of the new category in the name and description fields.

4 Click **OK** to save the new category, or **Cancel** to close the window without saving the category.

When you add an outage to an SLA (during SLA creation or editing), you can choose the new category from the list.

Editing an Outage Category

You can edit outage categories, including the default categories.

To edit an outage category:

1 Select the **Outage Categories** tab to open the Outage Categories page (**Admin** > **Service Level Management**). The page shows a list of existing categories, organized alphabetically.

2 Locate the category you want to change, and click its **Edit** button.

3 In the Outage Category window, make any necessary changes.

4 Click **OK** to return to the Outage Categories page, or **Cancel** to close the window without editing the category.

15

Repositories

The Repositories tab displays a list of Service Level Management KPIs and business rules (also known as business logic), as detailed in the following chapters:

- Chapter 25, “Service Level Management KPI Repository”
- Chapter 28, “Service Level Management Business Rules Repository”

For details on defining a Service Level Management KPI, see “Defining an SLA: KPIs” on page 168. For details on all KPIs and business rules, see “Repositories Administration” on page 347.

16

Upgrading Service Level Management to Mercury Business Availability Center 6.1

This chapter describes how to upgrade service level agreements (SLAs) to work with Mercury Business Availability Center 6.1. You can upgrade SLAs, Service Level Management custom reports, and reports saved to the report repository.

Mercury Business Availability Center displays the Service Level Management Upgrade page only after all other upgrade processes have concluded. That is, before you begin the Service Level Management upgrade process, Mercury Business Availability Center has upgraded all SLAs to version 5.x.

Because of differences in architecture between Mercury Business Availability Center versions 5.x and 6.1, Service Level Management calculations may not be identical in the two versions. An SLA will probably show the same result for monitor (leaf) data, but data attached to CIs nearer the root may not be the same in both versions.

This chapter describes:	On page:
Prerequisites	228
SLA Upgrade and the Business Process Monitor Adapter Source	229
SLA Upgrade and the SiteScope Adapter Source	231
Upgrading SLAs from 5.x to 6.1	232
Upgrading Custom Reports	235
Upgrading the Report Repository	236
Upgrading Rules Used For SLA Conversions	237
Upgrade Messages	245

Prerequisites

This section includes issues that should be considered before beginning the upgrade procedure:

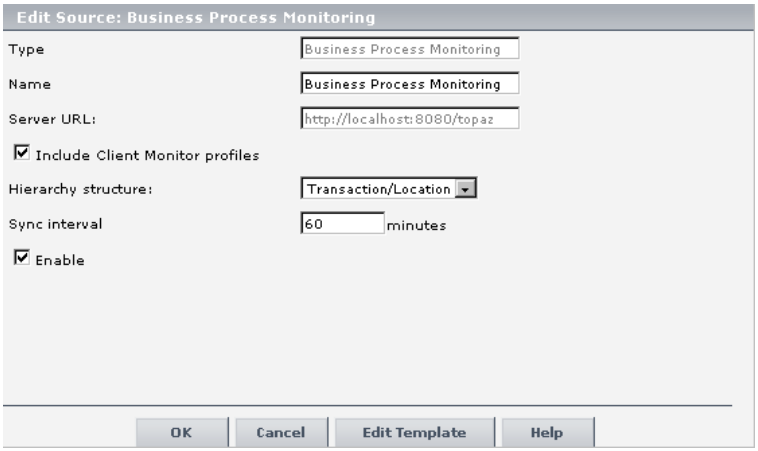
- Due to backward compatibility issues, an upgraded SLA configuration is different to the previous version. Before performing the upgrade procedure, therefore, you should save important reports to the report repository. For details, see "Saving a Report to the Report Repository" in *Application Administration*. This step is optional.
- To verify version 5.x SLA configuration data, you can display the Service Level Panorama report to view the SLA configuration in its entirety, in report format. To access the report: **Applications** > **Service Level Management** > **Offline Reports** > **Service Level Panorama**. This step is optional.
- The version 6.1 default KPI definitions for the upgrade process are stored in an XML file in the Infrastructure Settings Manager (select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Applications**, select **Service Level Management**, and locate the **Upgrade KPIs** entry in the Service Level Management – SLM Admin table). Prior to upgrade, it is recommended to view this file and make any necessary changes.
- The version 6.1 default objectives are stored in an XML file in the Infrastructure Settings Manager (select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Applications**, select **Service Level Management**, and locate the **Default KPIs** entry in the Service Level Management – SLM Admin table). Prior to upgrade, it is recommended to make yourself familiar with the objective values.
- Verify that the Monitor configuration item type (CIT) has been successfully upgraded. For details, refer to *Upgrading Mercury Business Availability Center*. Verify, too, that monitors, transactions, and measurements have been successfully upgraded by viewing them in IT Universe or Monitor Administration. For details, see *Working with Monitor Administration*.
- Because you cannot roll back the custom report upgrade, before upgrading custom reports, back up the custom reports table in the database. This step is optional.

SLA Upgrade and the Business Process Monitor Adapter Source

If a 5.x transaction is filtered by location, you can avoid losing data in version 6.1 SLAs by configuring the Business Process Monitor adapter source (before performing the upgrade process) so that CIs include location information.

To configure the Business Process Monitor adapter source:

1. Display the Edit Source window: **Admin** > **CMDB** > **Source Manager**.
2. Click the **Edit** button for the Business Process Monitor source adapter.
3. Select **Transaction/Location** in the Hierarchy structure field:



For details on the hierarchy structure, see "Business Process Monitor Hierarchies" in *Source Manager Administration*.

Tip: If most of the 5.x SLAs are filtered by location, set an adapter's hierarchy structure to **Transaction/Location**. If most SLAs are not filtered by location, set the hierarchy structure to **Regular**.

Example of 6.1 SLA Dependent on Adapter Mode

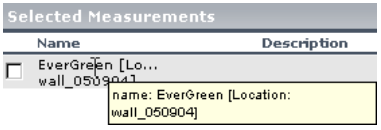
In 5.x, an SLA may or may not include location information. The upgrade process upgrades the SLA according to:

- whether the SLA includes location information

  and

- how the Business Process Monitor adapter source is configured

The following table shows how the upgrade process configures the 6.1 SLA:

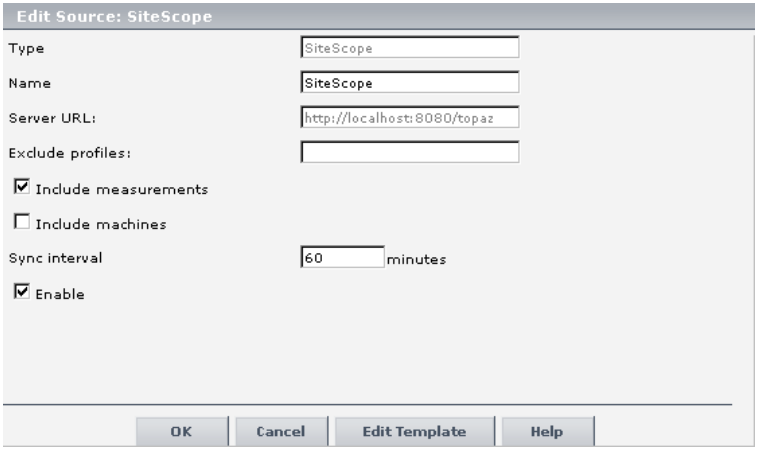
Version 5.x	**Version 6.1**	
	Business Process Monitor Adapter Source Set at Transaction/Location	**Business Process Monitor Adapter Source Set at** Regular
Transaction (EverGreen) filtered by location (wall_050904):  	EverGreen └ wall_050904 Upgrade process adds a CI of type BP Step and below it, a CI of type Transaction from Location, thereby replicating the 5.x SLA exactly.	EverGreen └ EverGreen Upgrade process does not recognize location, so adds transaction only to the SLA.
Transaction not filtered by location	EverGreen ├ wall ├ wall_05 └ wall_050904 Upgrade process adds a CI of type BP Step and below it, a CI of type Transaction from Location for all 6.1 locations.	EverGreen └ EverGreen Upgrade process replicates the 5.x SLA exactly.

SLA Upgrade and the SiteScope Adapter Source

If a 5.x monitor is filtered by monitor and measurement, you can avoid losing data in version 6.1 by configuring the SiteScope source adapter (before performing the upgrade process) so that CIs include measurement performance objectives—and not only monitor objectives.

To configure the SiteScope adapter source:

1. Display the Edit Source window: **Admin** > **CMDB** > **Source Manager**.
2. Click the **Edit** button for the SiteScope source adapter.
3. Select the **Include measurements** check box in the Edit Source window:



For details on editing the SiteScope source, see "SiteScope Hierarchies" in *Source Manager Administration*.

Example of 6.1 SLA Dependent on Adapter Mode

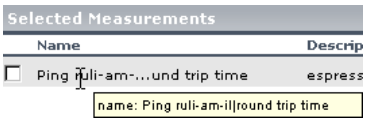
In 5.x, an SLA may or may not include measurement information. The upgrade process upgrades the SLA according to:

- whether the SLA includes a SiteScope performance objective

  and

- how the SiteScope adapter source is configured

The following table shows how the upgrade process configures the 6.1 SLA:

Version 5.x	**Version 6.1**	
	SiteScope Adapter Source: Include Measurements **Check Box Selected**	**SiteScope Adapter Source:** Include Measurements **Check Box Not Selected**
Monitor (Ping ruli-am-il) filtered by measurement (round trip time):  	With measurements: Ping ruli-am-il └ round trip time Upgrade process replicates the 5.x SLA exactly.	Monitor only: Ping ruli-am-il Upgrade process adds monitor only to the SLA. **Note:** You will lose SiteScope performance objectives data for this customer.

Upgrading SLAs from 5.x to 6.1

This section explains how to upgrade service level agreements from version 5.x to 6.1 and how to delete 5.x SLAs.

The SLA table includes the following components:

Name – the name of the SLA

Description – the description of the SLA

Status – shows whether the upgrade process has run

You can sort the list by name, description, or status: An arrow next to a title shows by which column the SLAs are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

Actions – These buttons show the actions that you can perform on the SLA: **Simulate**, **Upgrade**, **Roll Back**, and **View Log**.

To upgrade version 5.x SLAs to version 6.1:

1 Select **Admin** > **Platform** > **Setup and Maintenance** and click the **Service Level Management Upgrade** link to open the upgrade page. The page shows a list of SLAs that are not compatible with version 6.1, organized alphabetically.

2 Locate the SLA you want to upgrade.

Note: If the SLA has the same name as a version 6.1 SLA, Service Level Management does not perform the upgrade process. You must change the name of either of the SLAs.

---

3 To view upgrade results and identify configuration changes, click **Simulate**. This step is optional but highly recommended.

Service Level Management displays the Upgrade Warnings window. Read through the warnings. You can copy the information in this window to a text editor by copying and pasting.

During simulation, Service Level Management updates all components of an SLA apart from its associations with KPIs and objectives.

4 If you are satisfied with the results, return to the upgrade page and click **Upgrade**. The SLA's status changes to **Upgraded** and the **Upgrade** button changes to **Roll Back**.

At the end of the upgrade process, the Upgrade Warning window is displayed again. The first message informs you that the SLA has been upgraded successfully. The other messages are intended to help you decide whether you want to change the SLA in version 6.1 or to accept the upgraded version. Click **OK** to return to the Upgrade page.

If you are not satisfied with the results, click **Roll Back** and make the changes to the 5.x SLA, either in a 5.x version of Mercury Business Availability Center, or by writing directly to the database.

5 To review the changes to the upgraded SLA in the Service Level Agreements page, click **Review 6.1 Configuration**. The SLA is now displayed in the list of SLAs that are compatible with version 6.1. For details on this page, see "The Service Level Agreements Page" in *Application Administration*.

Note:

- An upgraded 6.1 SLA is not identical with the original 5.x version.
- It is highly recommended to use the SLA Wizard to check the SLA, make changes to the SLA (if necessary), and save it. For details, see "SLA Definition Workflow" in *Application Administration*.

  When checking an SLA, pay special attention to the default objectives, especially if they are replacing 5.x services and groups (in the cases where the 5.x SLA does not include overall objectives).
- You must start the SLA (that is, click the **Start** button) for Service Level Management to calculate the SLA. Service Level Management calculates the SLA for the past three months only.

---

6 Click **View Log** to view a chronological account of the upgrade process and the warning messages.

Logs are saved to the Data Processing Server.

7 Continue to upgrade the SLAs. Repeat steps 2 to 5 for each SLA.

To upgrade or roll back several SLAs simultaneously:

Note: This procedure is not recommended as it slows down performance and creates many warning notifications.

---

1 Select the check boxes of the SLAs you want to upgrade or roll back.

2 Click the **Upgrade** or **Roll Back** button below the list of SLAs.

3 Continue with the upgrade process, as described in the previous section.

The next step is to upgrade the custom reports. For details, see "Upgrading Custom Reports" on page 235.

To delete version 5.x SLAs:

You can upgrade custom reports to version 6.1 only after you have upgraded all 5.x SLAs. If there are SLAs that you do not wish to upgrade (for example, because they are no longer relevant to your system), you must delete them.

1. Select the check boxes of the SLAs you want to delete.
2. Click the **Delete** button below the list of SLAs.

Upgrading Custom Reports

You can upgrade Service Level Management custom reports only when all SLAs have been upgraded.

Important: You cannot roll back custom reports. Before performing the upgrade, verify that you are satisfied with the upgraded SLAs. You can also back up the custom report tables before upgrading the SLAs.

To upgrade custom reports:

- Click **Upgrade** to update existing Service Level Management custom reports.
- Click **Review 6.1 Configuration** to access the list of custom reports.

Version 5.x Reports	Version 6.1 Report
Executive Scorecard	SLAs Summary
Availability Snapshot Performance Snapshot	SLAs Summary – only WeekToDate time range is saved, with a Day granularity
Service Status	CI Status – only the service is saved to this version
Availability Over Time vs. SLA	CIs Over Time vs. Target

Version 5.x Reports	Version 6.1 Report
Time Range Comparison	Time Range Comparison – only the service is saved to this version
Service Outages	Outages Summary – only the service is saved to this version. All outage categories are displayed.

➤ There is no Availability by Location/Group report. To produce a similar report, you must create an SLA to which you assign CIs for specific locations or groups.

Upgrading the Report Repository

Note: You can upgrade the Service Level Management report repository without upgrading the SLAs or custom reports.

➤ Click **Upgrade** to update the Service Level Management reports saved to the report repository.

➤ Click **Review 6.1 Configuration** to access the Report Repository page.

Upgrading Rules Used For SLA Conversions

Service Level Management uses a very complex algorithm to map SLAs from previous versions to version 6.1. However, due to backward compatibility issues (deriving from a difference in hierarchical structure), an upgraded 6.1 SLA is not identical with the 5.x SLA. The reasons for these differences are listed in this section.

Note: Transactions, measurements, and external data are collectively called data sources in this section.

For a note on the meaning of default objectives, see "Prerequisites" on page 228.

This section includes the following topics:

- "SLA Structure Issues" on page 237
- "Data Source and Objective Issues" on page 238
- "Downtime and Other Event Issues" on page 241
- "Service Level Management Report Issues" on page 242
- "Time Interval Issues" on page 243
- "Time Zone Issues" on page 244
- "Day of the Week Issues" on page 244
- "Notes" on page 244

SLA Structure Issues

- The upgraded SLA structure depends on the source adapter's hierarchy structure. For details, see "Business Process Source Parameters" in *Source Manager Administration*.
- The start date is set to three months prior to the date on which the SLA is upgraded. The end date is set at a year ahead of the upgrade date.

- For a previous version's SLA groups and services, the upgrade process creates a CI for each group and service (to preserve the SLA's structure).
- Any groups or services that do not have data sources are discarded.
- For a CI created from an SLA group, SLA, or service, the upgrade process gives default objectives to the CI. For SLA groups, however, if an overall objective was set in 5.x, the CI is given the 5.x overall objective and not the default objective.

Data Source and Objective Issues

- If a group includes data sources other than Business Process Monitor and SiteScope sources (that is, Real User Monitor data or external data), the data sources are discarded and are not included in the SLA.
- Previously, a data source was filtered by location. The upgrade process adds a CI of type BP Step to the SLA for each data source. Under this CI, the upgrade process adds a CI of type BP Transaction from Location for each previously-existing location.

  If a 5.x transaction was not filtered by location and, before running the upgrade process, you set the adapter to a Transaction/Location hierarchy structure (for details, see "Prerequisites" on page 228), the upgrade process assigns each existing location to a transaction (with a CI of type BP Transaction from Location). This means that each SLA includes more information.

  If the original SLA did not have a node equivalent to the CI of type BP Step and no objectives were defined for the SLA, the upgrade process assigns default objectives for the new CIs. For details on the default KPI definitions for the upgrade process, see "Prerequisites" on page 228.
- If a data source appears more than once in the original SLA, the upgrade process maps all instances of the data source to only one CI. The upgrade process selects the first occurrence of a KPI or objective. Furthermore, identical data sources running on the same location are also mapped to one CI and here, too, the first occurrence of a KPI or objective is selected.

To retain the original 5.x data, use one of the following options:

a Create an SLA (in version 6.1) for each service.

For example, a 5.x SLA includes one transaction and two services: Transaction A has an objective of 99% in Service 1, and 97% in Service 2. Create two SLAs, SLA 1 for Service 1 and SLA 2 for Service 2. Assign an objective of 99% to SLA 1 and an objective of 97% to SLA 2.

Tip: Clone the SLA, creating the same number of SLAs as there are services. Change each SLA according to one of the services. For details, see "Cloning an SLA" in *Application Administration*.

---

b Configure the upgraded SLA so that it includes more than the Exceeded and Failed targets (for details, see "Defining an SLA: Properties" in *Application Administration*). Define an objective and set its 5.x higher value to the higher target and the lower value to the lower target.

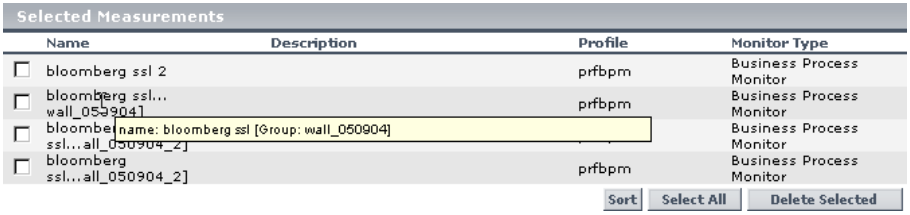
For example, a 5.x SLA includes one transaction and two services: Transaction A had an objective of 99% in Service 1, and 97% in Service 2. Set the objectives for the 6.1 SLA so that Exceeded has an objective of 99% and Met has an objective of 97%.

- If an SLA previously included a service without any data sources, the upgrade process removes the service from the SLA's hierarchy.
- If an SLA previously included a service with data sources filtered by one or more locations, the upgrade process adds a CI of type BP Step to the SLA for each location.
- If an SLA did not previously include a performance percentile objective, the upgrade process cannot add a Six Sigma performance objective to the SLA, and the objective is discarded.

  To support the Performance Six Sigma metric in version 6.1, the following objectives must have been defined for an SLA in version 5.x: percentile performance objectives and Six Sigma performance objectives.
- If the upgrade process cannot locate a Business Process Monitor or SiteScope monitor in version 6.1 that existed in version 5.x, the monitor is not added to the SLA.

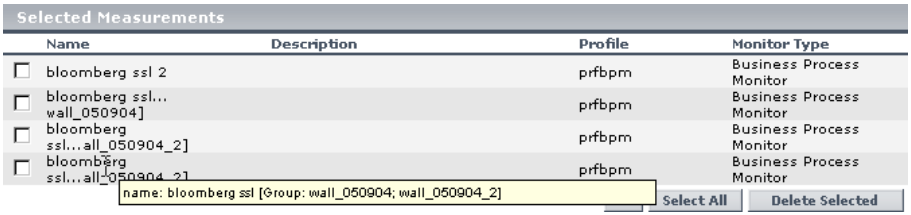
- If the upgrade process cannot locate a Business Process Monitor transaction or a SiteScope measurement in version 6.1 that existed in version 5.x, the measurement is not added to the SLA.
- Before the upgrade process, if an adapter was not configured to support CIs per measurement, the upgrade process cannot upgrade the overall performance objectives for the SLA's groups.
- The definition of a data source in version 5.x is not the same as in 6.1: a data source in version 5.x can receive data from any location, whereas a data source in version 6.1 can receive data only from locations already defined in version 6.1.
- You cannot automatically filter Business Process Monitor transactions by group. This is because groups are not included in the IT Universe. You can, however, manually define a new configuration item (CI) with dedicated selectors and associate it with the SLA.
- If a data source was previously filtered by BPM group (that do not exist in version 6.1), the upgrade process removes the group filter from the SLA for that data source. Following the upgrade, the SLA includes only one instance of the data source which does not include any group filter. Also, the SLA's objective is taken from the first occurrence found by the upgrade process.

  Example 1: a 5.x SLA contains two measurements, bloomberg ssl filtered on group wall_050409 and bloomberg ssl filtered on group wall_050409_2:



  The upgrade process creates an SLA with CI bloomberg ssl.

Example 2: a 5.x SLA contains a measurement, bloomberg ssl, filtered on two groups, wall_050904 and wall_050904_2:



The upgrade process creates an SLA with a CI named bloomberg ssl.

- Outlier trimming is not supported. Trimming is supported.

  Previously, in version 5.x, you could import outlier thresholds from the transaction threshold configuration in Monitor Administration. In version 6.1, the outlier trimming setting is no longer supported. Trimming is now calculated by the trimming condition rule parameter.

Downtime and Other Event Issues

- If an event's end date has expired (that is, the end date falls before the 6.1 SLA's start date), the upgrade process discards the event.
- Downtime granularity was changed to 5 minutes in version 6.0. Following upgrade, you should check downtime durations.

  During upgrade, event start times are rounded downwards and end times are rounded upwards. For example, the period 12:37 to 13:31 becomes 12:35 to 13:35.
- If an event is defined on a BPM group, the upgrade process discards the event (because BPM groups no longer exist in version 6.1).
- The **All SLAs** downtime value is replicated for each SLA during the upgrade process; the event receives the original name and the SLA name.
- For event CIs of type BP Group Location, the upgrade process discards the event, due to a backward compatibility issue.
- If an event's name already exists in version 6.1, the upgrade process changes the current event name by appending the SLA name in brackets to the event name.

- If an event's CI of type BP Step is not found, the upgrade process discards the event.
- If an event's CI of type BP Location is not found, the upgrade process discards the event.
- If an event's CI of type BP Transaction from Location is not found, the upgrade process discards the event.

Service Level Management Report Issues

- The following reports take a different format in version 6.1:

Version 5.x Reports	Version 6.1 Report
Executive Scorecard Availability Snapshot Performance Snapshot	SLAs Summary
Service Status	CI Status
Availability Over Time vs. SLA	CIs Over Time vs. Target
Time Range Comparison	Time Range Comparison
Service Outages	Outages Summary

- There is no Availability by Location/Group report. To produce a similar report, you must create an SLA to which you assign CIs for specific locations or groups.
- Report customizations are not upgraded.
- When upgrading custom reports, the upgrade process substitutes the SLA's creator name with the name of the user who upgraded the SLA.
- If the upgrade process does not succeed in upgrading one component of a custom report, you should use the Custom Report Manager to delete the component.
- The upgrade process calculates to-date reports till yesterday midnight.
- The upgrade process cannot upgrade reports that include active filters.

- The upgrade process can upgrade reports for predefined tracking periods only. For example, the process will not upgrade a report which includes a single value for the last three days.
- The upgrade process assigns calendar tracking periods only to reports. The minimum tracking period granularity is one hour.
- Version 6.1 does not support Service Level Management Scheduled reports produced in previous versions. That is, the reports are not upgraded.
- The upgrade process cannot assign headers or footers from version 5.x SLAs to version 6.1 SLAs Service Level Management reports. However, if the header and footer are part of a custom report, they are upgraded. You define headers and footers for reports in the Infrastructure Settings Manager. For details, see "Customizing Reports" in *Platform Administration*.
- The upgrade process stores reports in the report repository in .pdf format only.

Time Interval Issues

- Time intervals can no longer be associated with a specific SLA, but are now global functions.
- If no objectives were associated with a time interval in version 5.x, the time interval is not added to the version 6.1 SLA.
- Time intervals no longer include calculation metrics, which are now incorporated in a KPI's business rule. Therefore, you cannot now define different metrics for a CI's time intervals (for example, you cannot define an average performance metric for the 24x7 time interval, and a percentile performance metric for Business Hours).
- For version 6.1, each time interval is unique and includes a specific schedule. Previously, it was possible to define different schedules for a time interval, depending on the SLA with which the time interval was associated. During the upgrade process, only one time interval with one schedule is created, based on the time interval name. All SLAs that were associated with the previous time interval (no matter which schedule was chosen for each SLA) are now associated with the new time interval. Check each SLA; if the schedule is not suitable, create a time interval and associate it with the SLA.

Time Zone Issues

➤ If a version 5.x time zone is not supported in version 6.1, the upgrade process assigns to the SLA the first occurrence of a time zone with the same time difference as the 5.x time zone.

Day of the Week Issues

➤ During upgrade, if the first day of the week has not been defined for the same day in versions 5.x and 6.1, you are asked to choose which definition to use as a default.

Notes

➤ Any changes you make to running 6.1 SLAs (configuration changes, time interval changes, or downtime event changes) do not affect the SLA retroactively, unless the changes are made before you start the SLA. To update the SLA for previous tracking periods, you must recalculate the data. For details, see "Recalculation" in *Application Administration*.

➤ Service Level Management can recalculate SLAs for the past three months only. (This parameter is configurable in the Infrastructure Settings Manager. Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Service Level Management**, and locate the **Recalculation period limit** entry in the Service Level Management – SLM Admin table.)

➤ The upgrade process can fail if one of the following is exceeded: the CMDB object quota, the active TQL quota, the number of views.

Upgrade Messages

The following table includes the messages that Service Level Management displays following the successful upgrade of an SLA. The message order in this table is the same as in the Service Level Management application.

Message	Description
SLA end date is set to (<value>).	The start date is set to three months prior to the date on which the SLA is upgraded. The end date is set at a year ahead of the upgrade date. **Note:** The start date is configurable. For details, see the explanation in "Notes" on page 244.
Time zone <value> is not supported in 6.1. Assigning SLA to <value> time zone instead.	If a version 5.x time zone is not supported in version 6.1, the upgrade process assigns to the SLA the first occurrence of a time zone with the same time difference as the 5.x time zone.
SLA Owner name not found (User ID: <value>).	If a version 5.x does not include a user ID, the SLA owner name is ignored.
Time Interval (<value>) already exists. Associating it with the SLA. Verify that its scheduling matches.	For version 6.1, each time interval is unique and includes a specific schedule. Previously, it was possible to define different schedules for a time interval, depending on the SLA with which the time interval was associated. During the upgrade process, only one time interval with one schedule is created, based on the time interval name. All SLAs that were associated with the previous time interval (no matter which schedule was chosen for each SLA) are now associated with the new time interval. Check each SLA; if the schedule is not suitable, create a time interval and associate it with the SLA.
Time Interval (<value>) has no objectives in 5.x, and therefore is not added to the 6.1 SLA.	If no objectives were associated with a time interval in version 5.x, the time interval is not added to the version 6.1 SLA.
Service (<value>) had no data sources, removed from SLA's hierarchy.	If an SLA previously included a service without any data sources, the upgrade process removes the service from the SLA's hierarchy.

Message	Description
Group (<value>) contains Data Sources of type other than BPM and SiS. Those Data Sources are discarded.	The upgrade process upgrades Business Process Monitor and SiteScope data sources only. Other data sources, such as Real User Monitor and custom classes, are discarded.
Service Data Source (<value>) is filtered by several locations. Adding CI for each of the locations.	Previously, a data source was filtered by location. The upgrade process adds a CI of type BP Step to the SLA for each data source. Under this CI, the upgrade process adds a CI of type BP Transaction from Location for each previously-existing location. If the original SLA did not have a node equivalent to the CI of type BP Step and no objectives were defined for the SLA, the upgrade process assigns default objectives for the new CIs.
Service Data Source (<value>) is filtered by single location. Adding CI the location.	

Message	Description
Service Data Source (<value>) ingredients already appears in the SLA. Please note that the objectives were already upgraded.	If a data source appears more than once in the original SLA, the upgrade process maps all instances of the data source to only one CI. The upgrade process selects the first occurrence of a KPI or objective. Furthermore, identical data sources running on the same location are also mapped to one CI and here, too, the first occurrence of a KPI or objective is selected. **To retain the original 5.x data, use one of the following options:** ➤ Create an SLA (in version 6.1) for each service. For example, a 5.x SLA includes one transaction and two services: Transaction A has an objective of 99% in Service 1, and 97% in Service 2. Create two SLAs, SLA 1 for Service 1 and SLA 2 for Service 2. Assign an objective of 99% to SLA 1 and 97% to SLA 2. **Tip:** Clone the SLA, creating the same number of SLAs as there are services. Change each SLA according to one of the services. For details, see "Cloning an SLA" in *Application Administration*. ➤ Configure the upgraded SLA so that it includes more than the Exceeded and Failed targets (for details, see "Defining an SLA: Properties" in *Application Administration*). Define an objective and set its 5.x higher value to the higher target and the lower value to the lower target. For example, a 5.x SLA includes one transaction and two services: Transaction A has an objective of 99% in Service 1, and 97% in Service 2. Set the objectives for the 6.1 SLA so that Exceeded has an objective of 99% and Met has an objective of 97%.
Service Data Source (<value>) ingredients do not appear in 6.1, and therefore the data source is not added.	If the data source does not exist in the CMDB, the data source is not added to the 6.1 SLA.
Service Data Source (<value>) is filtered by Group(s). Adding CI for each of the locations.	If an SLA was previously filtered by BPM groups (that do not exist in version 6.1), the upgrade process adds a CI of type BP Step with a child for each location.

Message	Description
Service Data Source (<value>) is filtered by Location(s), but the model does not support by-location CIs.	If a 5.x SLA includes transactions filtered by one or more locations and the hierarchy structure is set to Regular, the upgrade process adds a CI of type BP Step to the SLA without any children. To include locations in the SLA, you must change the hierarchy structure. For details, see "SLA Upgrade and the Business Process Monitor Adapter Source" on page 229.
Service Data Source (<value>) is not filtered, but the model supports by-location CIs.	If a 5.x SLA includes transactions not filtered by location and the hierarchy structure is set to Transaction/Location, the upgrade process assigns all 6.1 locations to a transaction (with a CI of type BP Transaction from Location). Following the upgrade process, when you check the SLA, you can remove the unwanted locations. **Note:** Do not remove all locations from the transaction, otherwise the data is disabled. You must leave at least one location (as a data source) in the SLA.
Performance 6-Sigma Objective cannot be defined for group (<value>), because no performance objective defined.	If an SLA did not previously include an overall performance percentile objective, the upgrade process cannot add a Six Sigma performance objective to the SLA, and the objective is discarded. To support the Performance Six Sigma metric in version 6.1, the following objectives must have been defined for an SLA in version 5.x: percentile performance objectives and Six Sigma performance objectives.
The SiteScope monitor was not found in version 6.1 for the measurement (<value>).	If the upgrade process cannot locate a SiteScope monitor in version 6.1 that existed in version 5.x, the monitor is not added to the SLA. For a note on other reasons for a missing object, see "Prerequisites" on page 228.
The SiteScope measurement was not found in version 6.1 for the version 5.1 measurement (<value>).	If the upgrade process cannot locate a SiteScope measurement in version 6.1 that existed in version 5.x, the measurement is not added to the SLA.

Message	Description
SiteScope has not been configured to support by-measurement CIs, so performance objectives cannot be upgraded for measurement (<value>).	If performance objectives have been defined for a version 5.x SLA that includes a service with System class (SiteScope) measurements, you can avoid losing the measurement data in version 6.1. Configure the SiteScope source adapter so that the upgrade process upgrades measurement performance objectives—and not only monitor objectives. This must be done before performing the upgrade process. For details, see "SLA Upgrade and the SiteScope Adapter Source" on page 231.
SiteScope has not been configured to support by-measurement CIs, so the overall performance objective cannot be upgraded for group (<value>).	
Cannot upgrade event defined on BPM group. Event name: (<value>).	If an event is defined on a BPM group, the upgrade process discards the event (because BPM groups no longer exist in version 6.1).
Events on location from profile are not supported. Event: (<value>).	Due to backward compatibility issues, the upgrade process cannot upgrade events based on a specific profile's location.
Discarding event (<value>). Its end date has expired.	If an event's end date has expired (that is, the end date falls before the 6.1 SLA's start date), the upgrade process discards the event.
The event name (<value>) already exists. Changing name to (<value>).	If an event's name already exists in version 6.1, the upgrade process changes the current event name by appending the SLA name in brackets to the event name.
Location CI (<value>) was not found for event (<value>). Discarding this event.	If an event's location cannot be mapped to a 6.1 CI, the upgrade process discards the event. The reason that the event is not found in version 6.1 may be because the object on which the event is based no longer exists. For a note on other reasons for a missing object, see "Prerequisites" on page 228.
BP Group CI was not found for event (<value>). Discarding this event.	
BP Step CI was not found for event (<value>). Discarding this event.	
BP transaction from location CI was not found for event (<value>). Discarding this event.	

Message	Description
Changing event (<value>) scheduling. Previous scheduling: start limit date <value>, event range: <value> - <value>. Upgraded scheduling: start limit date <value>, event range: <value> - <value>.	➤ Due to backward compatibility issues, the upgrade process concatenates the start limit date and hour to one value. ➤ During upgrade, event start times are rounded downwards and end times are rounded upwards. For example, the period 12:37 – 13:31 becomes 12:35 – 13:35. ➤ Downtime granularity was changed to 5 minutes in version 6.0. Following upgrade, you should check downtime duration periods.
Changing event (<value>) start limit time from <value> to <value>.	
Changing event (<value>) scheduling from <value> - <value> to <value> - <value>.	

Part III

End User Management Administration

17

End User Management Report Configuration

You use the End User Management Configuration page to configure how your reports appear in Mercury Business Availability Center. You can select the order in which transactions appear in reports, use color coding to configure the appearance of transactions, and filter out transactions, locations, and groups that you do not want appearing in your reports.

This chapter describes:	On page:
About Report Configuration	253
Modifying Transaction Order	254
Transaction Coloring	254
Report Filters	255

About Report Configuration

You can perform the following report configuration tasks:

- You specify the order in which you want transactions that are part of a specific profile to appear in performance data reports (for details, see "Modifying Transaction Order" on page 254).
- You specify the color used to represent a transaction in reports (for details, see "Transaction Coloring" on page 254).
- You specify which transactions, locations, and/or groups to exclude from all Mercury Business Availability Center reports (for details, see "Report Filters" on page 255).

Modifying Transaction Order

You configure the transaction order for End User Management reports from End User Management Administration.

You specify the order in which you want transactions that are part of the current profile to appear in reports. You can use the links at the top of the list to sort the list by transaction name and by the appearance order within the scripts.

To modify transaction order:

1. In the **Reports** tab, select **Transaction Ordering**.
2. Select the profile whose transactions you want to order in the **Select profile** list.
3. Select a transaction in the list, and use the arrows to the right of the list to move it up or down.

   Click **Sort by name** or **Revert to original order** to sort the list by either of those criteria.
4. Click **Save** to save the settings.

Transaction Coloring

You configure transaction coloring for End User Management reports from End User Management Administration.

You can modify the color used to represent a transaction in reports.

To assign a different color to a transaction for display in reports:

1. In the Reports tab, select **Transaction Coloring**.
2. Select the profile containing the transactions whose color you want to modify in the **Select profile** list.



3. Click the color picker button, select the required color or type its hex value, and click **OK**.
4. Click **Save** to save the settings.

Report Filters

You configure filters for End User Management reports in End User Management Administration.

Report filters enable you to exclude specific transactions, locations, and/or groups from all reports for the current and future profile sessions. You configure report filters per profile.

Individual users can configure report filters only for themselves. Administrators can configure global report filters that affect all users. Any transaction, location, or group that is filtered out using the global-level report filter is unavailable at the user level (and appears disabled on the Report Filters page). For details on specifying global-level report filters, see "Configuring Report Filters Globally" in *Platform Administration*.

To configure user-level report filters:

1. In the Reports tab, select **Report Filters**.
2. Select the profile whose report filters you want to modify in the **Select profile** list.
3. Select the check box beside the transaction(s), location(s), and/or group(s) you want to exclude from reports.

Tip: To prevent old or obsolete transactions from appearing in reports, use the transaction filter.

---

4. Clear the relevant check box to display an excluded transaction, location and/or group.
5. Click **Save** to save the settings.

   Filtered values still appear in user-defined (custom and trend) reports that were created before configuring the filter. To remove newly filtered values from existing user-defined reports, you must remove and re-add the components containing the elements for which filters have been set, and save the report.

Part IV

Mercury Business Availability Center for SAP Administration

18

Deploying Mercury Business Availability Center for SAP

This chapter describes how to install Mercury Business Availability Center for SAP.

This chapter describes:	On page:
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Deploying Mercury Business Availability Center for SAP	260

Mercury Business Availability Center for SAP Workflow

To work with Mercury Business Availability Center™ *for SAP®* you must use the following workflow:

- Ensure that the following software is installed before you install Mercury Business Availability Center for SAP:
  - Mercury Business Availability Center 6.1 – for details, see Mercury Business Availability Center deployment guides.
  - Mercury Application Mapping 6.1 if you are using the Shared CMDB feature – for details, see *Mercury Application Mapping Installation Guide Version 6.1*. The Shared CMDB feature provides more functionality for monitoring changes – for details, see "Sharing the Mercury Universal CMDB Environment" in *Working with the CMDB*.
  - SiteScope 8.1.2 – for details, see *SiteScope Administration*

- Business Process Monitor 6.1 – for details, see *Business Process Monitor Admin*.
- Install Shared CMDB – for details, refer to *Mercury Application Mapping Installation Guide Version 6.1*

- Install Mercury Business Availability Center for SAP – for details, see "Deploying Mercury Business Availability Center for SAP" on page 259.
- Perform Discovery – for details, see "Running SAP Discovery" on page 288.
- Create a Business Process Monitor profile – for details, see "Using a Business Process Monitor Profile to Simulate SAP Users" on page 311.
- Create monitors – for details, see "Step 7 – Creating General Monitors" on page 267.
- Perform the Shared CMDB workaround when you are using the Shared CMDB feature – for details, see "Step 8 – Shared CMDB Workaround" on page 267.

  Mercury Business Availability Center for SAP is ready. Once all these steps are completed, you can view SAP data in the Dashboard, view the impact of changes, and so forth.

Deploying Mercury Business Availability Center for SAP

Note:

- The following procedure assumes that Mercury Business Availability Center 6.1, SiteScope 8.1, Business Process Monitor 6.1, and if necessary, Mercury Application Mapping 6.1, are already installed.
- Mercury Application Mapping and Mercury Business Availability Center must not reside on the same machine.
- An existing Business Process Monitor machine can be leveraged for running SAP scripts as well.

Deploying Mercury Business Availability Center for SAP 6.1 includes the following steps:

- "Step 1 – Setting the License for Mercury Business Availability Center for SAP" on page 262
- "Step 2 – Performing the SiteScope Post-Installation Procedure" on page 263
- "Step 3 – Performing the Discovery Probe Post-Installation Procedure" on page 265
- "Step 4 – Running SAP Discovery" on page 266
- "Step 5 – Creating a Business Process Monitor Profile" on page 266
- "Step 6 – Creating a SAP CCMS Monitor" on page 266
- "Step 7 – Creating General Monitors" on page 267
- "Step 8 – Shared CMDB Workaround" on page 267

Step 1 – Setting the License for Mercury Business Availability Center for SAP

When setting the Mercury Business Availability Center for SAP license, verify that the license also contains the Auto Discovery license (customers with the Mercury Business Availability Center for SAP license also receive the Auto Discovery license).

If the Mercury Business Availability Center for SAP license was set while installing Mercury Business Availability Center, then the SAP packages are automatically deployed and added to the CMDB.

If the Mercury Business Availability Center for SAP license was set after installing Mercury Business Availability Center, you must deploy the packages manually or restart Mercury Business Availability Center so the SAP packages are deployed automatically (this is the recommended procedure).

To check that the SAP packages have been deployed:

Note: The SAP-related packages: **SAP.zip**, **SAP_discovery.zip**, and **SAP_monitoring.zip** are at the following location on the machine where CMDB is installed:
<Mercury_Business_Availability_Center_root_directory>\mam_lib\packages

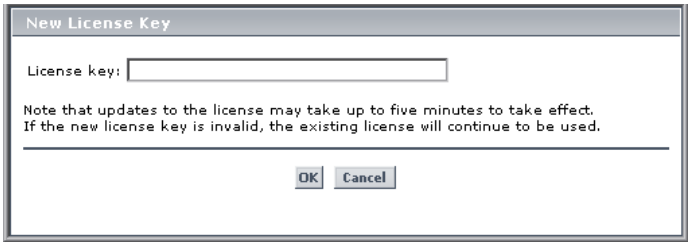
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To check that the packages are deployed, select **Admin** > **CMDB**, click the IT Universe tab and check that the SAP_Systems view is listed in the View list in View Explorer.

To set the license for Mercury Business Availability Center for SAP:

1. Log in to Mercury Business Availability Center.
2. Choose **Admin** > **Platform** > **Setup and Maintenance**.
3. Select **License Management**.

4 Click **New License Key** to open the New License Key page.



5 Enter a valid license key in the **License key** box.

The license key includes Mercury Business Availability Center for SAP.

6 Click **OK** to save the change.

7 Verify that the value of **Business Availability Center for SAP** in the **Applications** area is now **Licensed**.

8 It is recommended to restart Mercury Business Availability Center at this point.

Step 2 – Performing the SiteScope Post-Installation Procedure

Once SiteScope 8.1.2 is installed, install SAP Java connector on the SiteScope machine and set the appropriate license.

To install the SAP Java connector (JCo) on the SiteScope machine:

1 Download the SAP JCo package from the Tools & Services window of SAP JCo in SAP Service Marketplace:

https://websmp101.sap-ag.de/~form/sapnet?_SHORTKEY=01100035870000463649

2 Extract **sapjco-ntintel-2.0.8.zip** to a temporary directory (for example: C:\temp) on the SiteScope machine.

3 Copy **sapjco.jar** from the temporary directory to the **<SiteScope_root_directory>\SiteScope\WEB-INF\lib** directory on the SiteScope machine.

4 Copy **sapjcorfc.dll** from the temporary directory to the **<SiteScope_root_directory>\SiteScope\bin** directory on the SiteScope machine.

5 Copy **librfc32.dll** from the temporary directory, in the SiteScope machine to:

- the **%winnt%\system32** directory
- the **<SiteScope_root_directory>\SiteScope\bin** directory

If there is an old version of the **librfc32.dll** file already in the **<SiteScope_root_directory>\bin** or in the **%winnt%\system32** directory, you should replace it.

6 Restart SiteScope as follows: on the SiteScope machine, go to **Start** > **Programs** > **Administration Tools** > **Services**, find SiteScope service and restart it.

To set the appropriate license:

1 Launch SiteScope by entering the following URL in a browser: **http://<SiS_machine_name>:8080**

2 Choose **Preferences** > **General Preferences**.

3 Click **Edit**.

4 Click **Insert valid license keys**.

5 In the **License Number** box, enter a valid SiteScope license key.

6 In the **Option Licenses** box, enter the SiteScope license keys appropriate for the SAP solution.

Make sure to insert a license for: EMS monitors, SAP monitors, and the SAP R/3 solution template.

7 Click **OK** to approve the changes.

Step 3 – Performing the Discovery Probe Post-Installation Procedure

After installing the Discovery Probe, perform the post-installation procedure (see below) and restart the Discovery Probe. If the Discovery Probe is already running before you perform the post-installation procedure, stop it and restart it afterwards.

To perform the Discovery Probe post-installation procedure:

1 Download the SAP JCo package from the Tools & Services window of SAP JCo in SAP Service Marketplace:

https://websmp101.sap-ag.de/~form/sapnet?_SHORTKEY=01100035870000463649

2 Extract **sapjco-ntintel-2.0.8.zip** to a temporary directory (for example: C:\temp) on the Mercury Business Availability Center machine.

3 Create a new **sap** directory (in lowercase) in the **MercuryAM\DiscoveryProbe\root\ext** directory on the machine where the Discovery Probe is installed.

4 Copy **sapjco.jar** from the temporary directory to the **MercuryAM\DiscoveryProbe\root\ext\sap** directory on the machine where the Discovery Probe is installed.

5 Copy **sapjcorfc.dll** from the temporary directory to the **MercuryAM\DiscoveryProbe\root\ext\sap** directory on the machine where the Discovery Probe is installed.

6 Copy **librfc32.dll** from the temporary directory to the **%winnt%\system32** directory.

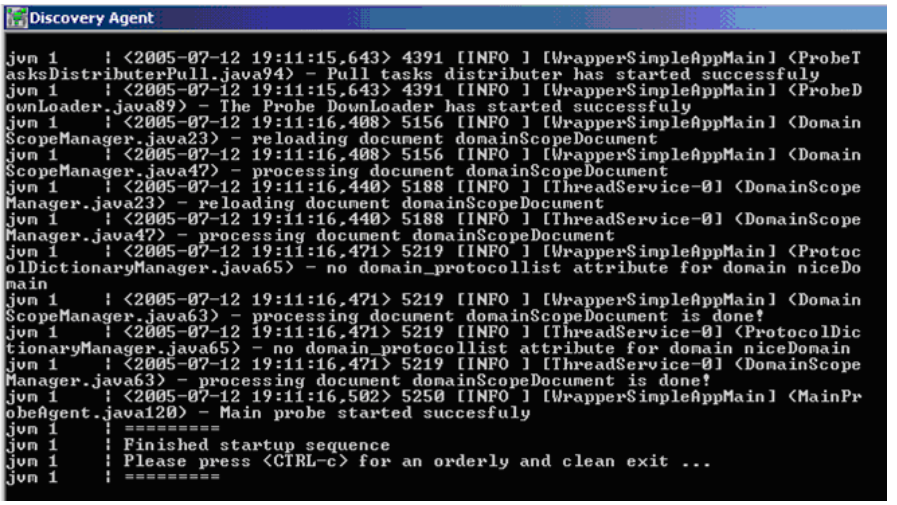
7 Verify that the **MSVCR71.dll** and **MSVCP71.dll** files are located in the **%winnt%\system32** directory. If not perform the following procedure.

To start the Discovery Agent:

1 On the Discovery Probe machine, access: **Start** > **Programs** > **Business Availability Center** > **Administration** > **Discovery Agent**

This starts the Discovery Probe and opens a CMD console.

2 Wait until the console displays the following lines: **Finished startup sequence**



Step 4 – Running SAP Discovery

You run SAP discovery to discover SAP elements and SAP topology – for details, see "Running SAP Discovery" on page 288.

Step 5 – Creating a Business Process Monitor Profile

To create a Business Process Monitor profile, see "Managing Business Process Profiles and Creating Client Monitor Profiles" in *End User Management Data Collector Configuration*.

Step 6 – Creating a SAP CCMS Monitor

The SAP CCMS monitor retrieves and reports measurements using SAP centralized monitoring system CCMS. CCMS is used to monitor all servers, components, and resources in the SAP R/3® System from one single centralized server facilitating problem discovery and problem diagnosis. For details, see "SAP CCMS Monitor" in *Configuring SiteScope Monitors*.

To create a SAP CCMS monitor, see "Configuring the SAP CCMS Monitor" in *Configuring SiteScope Monitors*.

SAP CCMS Monitor solution template is the most effective way to deploy a CCMS monitor – for details, see "Using SiteScope CCMS Solution Template" on page 328.

Step 7 – Creating General Monitors

You create general SiteScope monitors to get the complete picture: Database Query Monitor, Ping Monitor, and so forth – for details, see *Configuring SiteScope Monitors*.

Step 8 – Shared CMDB Workaround

Perform this step only if you plan to work with the Shared CMDB feature. In this case, you must undeploy the MAM Service package and then redeploy it.

For more details about Shared CMDB capabilities, see "Sharing the Mercury Universal CMDB Environment" in *Working with the CMDB*.

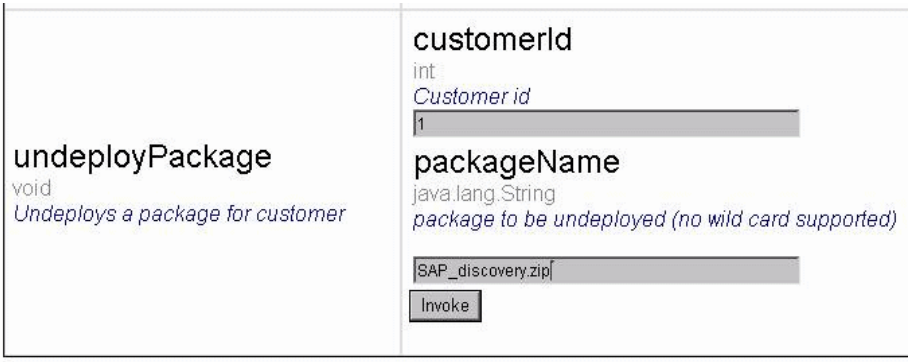
To undeploy the MAM Service package:

1 In the browser, enter **http://<Mercury_Business_Availability_Center_server_name>:8080/jmx-console/**

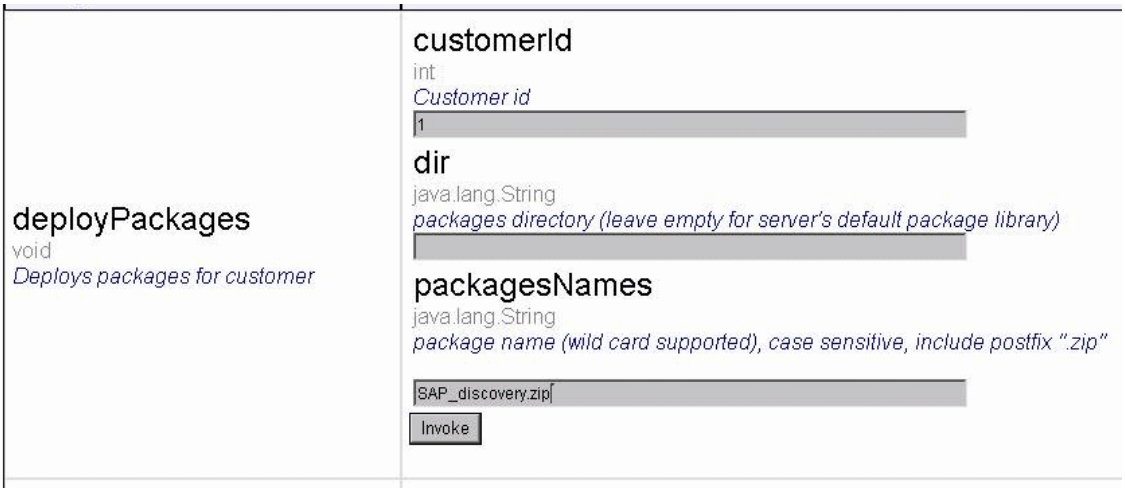
2 Double-click **service=Package manager** listed under **MAM**.



3 In the undeployPackage section, enter the customer Id number in the **customerId** box and **SAP_discovery.zip** in the **packageName** box, and click **Invoke**.



4 In the deployPackage section, enter the customer Id number in the **customerId** box and **SAP_discovery.zip** in the **packageName** box, and click **Invoke**.



19

Mercury Business Availability Center for SAP CIs

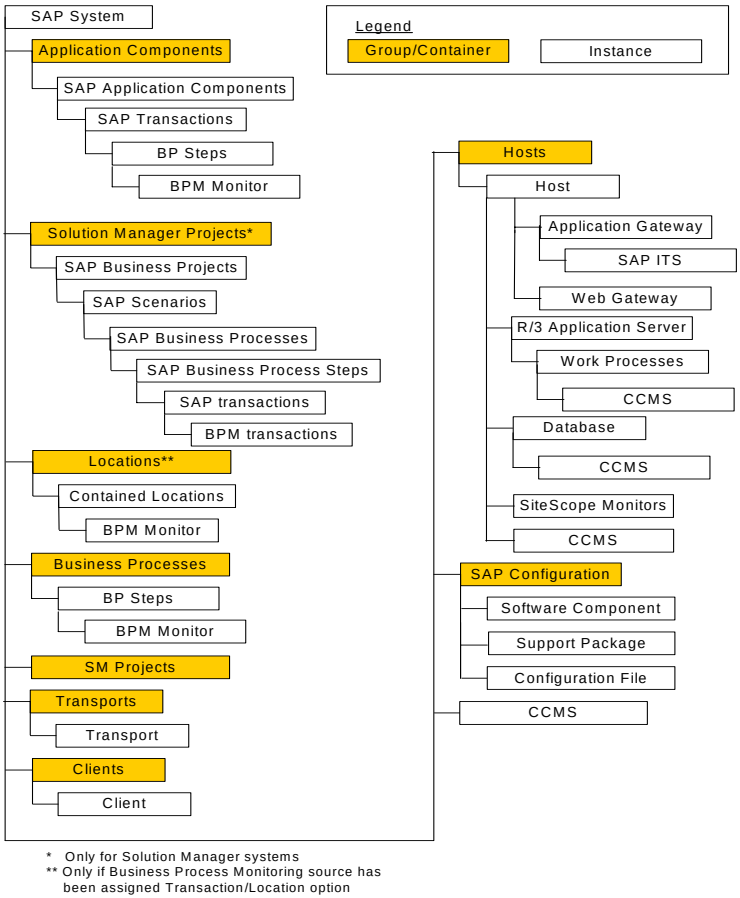
SAP discovery package discovers SAP-related CIs and general CIs (such as hosts) that are related to them. This chapter describes the CI types and the full hierarchy of SAP CIs that appear in Mercury Business Availability Center (depending on the specific SAP deployment discovered).

This chapter describes:	On page:
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Hierarchy

The CIs hierarchy is as follows:



SAP System

SAP System is a logical unit, grouping together SAP-related CIs (and possibly other CIs as well) into one homogenous SAP deployment.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor
System	Indicates physical problems with underlying hosts, provided by SiteScope physical monitors (for example: CPU monitor, disk space monitor, and so forth) – for details, see "System" on page 387. By default, the System KPI does not appear in the view. If you are using a regular SiteScope monitor (which creates the System KPI) and you want to display the System KPI in the view, you have to add the System KPI manually to the CI.	SiteScope
SAP	Indicates problems related to the SAP infrastructure – for details, see "SAP" on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope

KPIs	Description	Source
Transactions	A bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the end-user experience status (the worst status between **Performance** and **Availability**) that corresponds to the color – for details, see "Transactions" on page 388.	Business Process Monitor
Locations	A bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the end-user experience status (the worst status between **Performance** and **Availability**) that corresponds to the color, at the specified location – for details, see "Locations" on page 379.	Business Process Monitor

SAP Applications

SAP Applications is a logical unit, grouping together Application Components.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

SAP Application Component

A SAP Application Components may include other SAP Application Components and some SAP transactions with some common denominator.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

SAP Transaction

A SAP Transaction CI is part of a business process defined in the SAP System. It is comprised of request-response couples called dialog steps. The end user uses SAP transactions to carry out actions on the SAP System.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

Business Process Step

Business Process Steps (BPM transactions inside a script) are emulated SAP transactions executed on a Business Process Monitor machine. They are used to supply proactive monitoring of end user experience.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

BPM Monitor

The BPM Monitor CIs represent Business Process Monitor entities used to monitor user experience.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

Solution Manager Projects

The Solution Manager Projects CI type includes SAP Business Project CIs, SAP Scenario CIs, SAP Business Process CIs, and SAP Business Process Step CIs.

The Solution Manager Projects hierarchy is specified by the user in SAP Solution Manager.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

Locations

The Contained Group Locations is a logical unit, grouping together Contained Locations CIs.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor
Locations	A bar that includes up to six colored sections. Each colored section represents the relative amount of BP Steps with the end-user experience status (the worst status between performance and availability) that corresponds to the color – for details, see "Locations" on page 379.	Business Process Monitor

Contained Locations

Location CIs are created as part of the Business Process Monitor hierarchy when working with the **Transactions/locations** option.

To separate the SAP Business Process steps locations status from the Location CI (from the Business Process Monitor), the Contained Locations CIs are created by the SAP solution and are connected to the SAP Business Process steps (identified by following the naming convention or by manually linking them).

The regular Location CI is connected to all Business Process steps both regular and SAP, but the Contained Location CI is connected only to the SAP Business Process steps.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor

Business Processes

The Contained Group called Business Processes is a logical container that contains all the Business Process steps attached to all the SAP transactions.

The default CI KPIs are:

KPIs	Description	Source
Performance	Indicates the performance of SAP transactions – for details, see "Performance" on page 382.	Business Process Monitor
Availability	Indicates the availability of SAP transactions – for details, see "Availability" on page 373.	Business Process Monitor
Transactions	A bar that includes up to six colored sections. Each colored section represents the relative amount of BP Steps with the end-user experience status (the worst status between performance and availability) that corresponds to the color – for details, see "Transactions" on page 388.	Business Process Monitor

Transports

A Transport represents packaged change requests that include the changes that are to be deployed onto the system.

This CI does not have KPIs.

Client

A client is an organizational and legal CI in the SAP system. The main objective of the client is to keep the data isolated: the data in a client can only be visible within that client; it cannot be displayed or changed from another client. Each client on a system can represent a unique working environment.

This CI does not have KPIs.

Hosts

Hosts is a logical unit, grouping together Host CIs.

A Host CI represents the physical machine on which a server is installed. This is not a SAP-specific element.

The default CI KPIs are:

KPIs	Description	Source
System	Indicates physical problems with underlying hosts, provided by SiteScope physical monitors (for example: CPU monitor, disk space monitor, and so forth) – for details, see "System" on page 387. By default, the System KPI does not appear in the view. If you are using a regular SiteScope monitor (which creates the System KPI) and you want to display the System KPI in the view, you have to add the System KPI manually to the CI.	SiteScope
SAP	Indicates problems related to the SAP infrastructure – for details, see "SAP" on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope

Application Gateway

An Internet Transaction Server (ITS) component. Establishes the connection to the R/3 System and performs the processing of tasks that are required to move data between R/3 applications and the Internet.

This CI does not have KPIs.

Web Gateway

An ITS component. A web server extension that establishes the connection between ITS and the Web server and forwards user requests to the Application Gateway.

This CI does not have KPIs.

R/3 Application Server

SAP® R/3 Application Server is SAP's integrated software solution for client/server and distributed open systems.

The default CI KPIs are:

KPIs	Description	Source
SAP	Indicates problems related to the SAP infrastructure – for details, see “SAP” on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope

Work Processes

Each work process CI is a logical, single-instance representation of all the work processes of the same type existing on the R/3 server.

There are several available types of work processes:

- **Dialog Work Process** – Executes dialog programs (ABAP).
- **Update Work Process** – Responsible for asynchronous database changes (controlled by a COMMIT WORK statement in a dialog work process).
- **Update2 Work Process** – Used for statistical, non-critical updates (for example, result calculations).
- **Background Work Process** – Executes time-dependent or event-controlled background jobs.
- **Enqueue Work Process** – Executes locking operations (if SAP transactions have to synchronize themselves).
- **Spool Work Process** – Performs print formatting (to printer, file, or database).

The default CI KPIs are:

KPIs	Description	Source
SAP	Indicates problems related to the SAP infrastructure – for details, see "SAP" on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope

Database

A database management system holding the data tier, including all the SAP elements: SAP transactions, programs, work processes, and so forth. This is not a SAP-specific CI.

The default CI KPIs are:

KPIs	Description	Source
SAP	Indicates problems related to the SAP infrastructure – for details, see "SAP" on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope
System	Indicates physical problems with underlying hosts, provided by SiteScope physical monitors (for example: CPU monitor, disk space monitor, and so forth) – for details, see "System" on page 387. By default, the System KPI does not appear in the view. If you are using a regular SiteScope monitor (which creates the System KPI) and you want to display the System KPI in the view, you have to add the System KPI manually to the CI.	SiteScope

Software Component

A software component installed on the SAP System, for example: SAP_ABA (cross-application component), SAP_HR (human resources), and so forth.

This CI does not have KPIs.

Support Package

A Support Package contains quality improvements for the SAP system, or adjustments due to legal changes.

This CI does not have KPIs.

Configuration File

Configuration files are used to enter configuration parameters into the system/servers.

This CI does not have KPIs.

CCMS Counters

CCMS Counters (also called Measurements) are pieces of information elements, relevant to SAP, retrieved from SAP CCMS (Computer Center Management System).

The default CI KPI is:

KPIs	Description	Source
SAP	Indicates problems related to the SAP infrastructure – for details, see "SAP" on page 385. The data that is reported by this KPI comes from CCMS measurements.	SiteScope

Monitor

The monitors are SiteScope entities used to monitor the various CIs that exist in the CMDB. The monitors that are most likely to appear in the SAP view are host monitors: CPU, memory, disk space, and so forth. These monitors appear in the SAP view only if they are manually attached to the Host CI.

The default CI KPIs are:

KPIs	Description	Source
System	Indicates physical problems with underlying hosts, provided by SiteScope physical monitors (for example: CPU monitor, disk space monitor, and so forth) – for details, see "System" on page 387. By default, the System KPI does not appear in the view. If you are using a regular SiteScope monitor (which creates the System KPI) and you want to display the System KPI in the view, you have to add the System KPI manually to the CI.	SiteScope

20

Administering Mercury Business Availability Center for SAP

This chapter describes the specific tasks involved in administering Mercury Business Availability Center for SAP.

This chapter describes:	On page:
Running SAP Discovery	288
Step 1 – Preparing for a SAP Discovery	288
Step 2 – Adding Network CI to Trigger the Discovery of SAP System Networking	288
Step 3 – Running the Discovery Patterns	288
Step 4 – Checking that the Discovery Ran Correctly	288
Step 5 – Running SAP Solution Manager Discovery	288
Using a Business Process Monitor Profile to Simulate SAP Users	311
Using the SAP CCMS Monitor to Retrieve Measurements from SAP System	328
Administering SAP Service	335
Understanding the Change Reports	340

Running SAP Discovery

The SAP discovery process enables you to discover SAP elements and SAP topology. The SAP discovery process consists of the following steps:

1. "Step 1 – Preparing for a SAP Discovery" on page 288
2. "Step 2 – Adding Network CI to Trigger the Discovery of SAP System Networking" on page 291
3. "Step 3 – Running the Discovery Patterns" on page 296
4. "Step 4 – Checking that the Discovery Ran Correctly" on page 310
5. "Step 5 – Running SAP Solution Manager Discovery" on page 311

The first step is a pre-requisite to the other steps. Steps 2 to 5 discover different SAP elements and different parts of SAP topology.

Step 1 – Preparing for a SAP Discovery

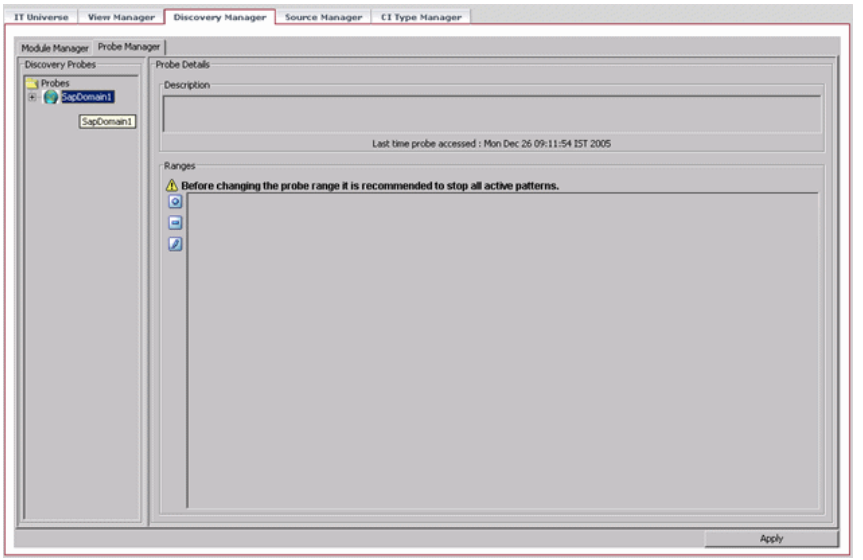
Before you run a SAP discovery, you must define the protocols as indicated in this section.

Note: Ensure that the Probe Manager and Probe Gateway are running.

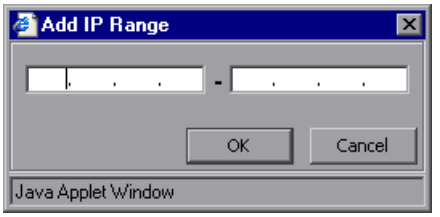
To prepare for a SAP discovery:

1. In Mercury Business Availability Center, select **Admin** > **CMDB**.
2. Click the **Discovery Manager** tab.
3. Click the **Probe Manager** tab to open the Probe Details page.

4 Select the relevant domain.



5 Click the plus button to open the Add Range window.



6 Enter the range of IP addresses that includes the IP address of the probe you want to discover. If there is only one address, enter its value in both boxes.

7 Click **OK**.

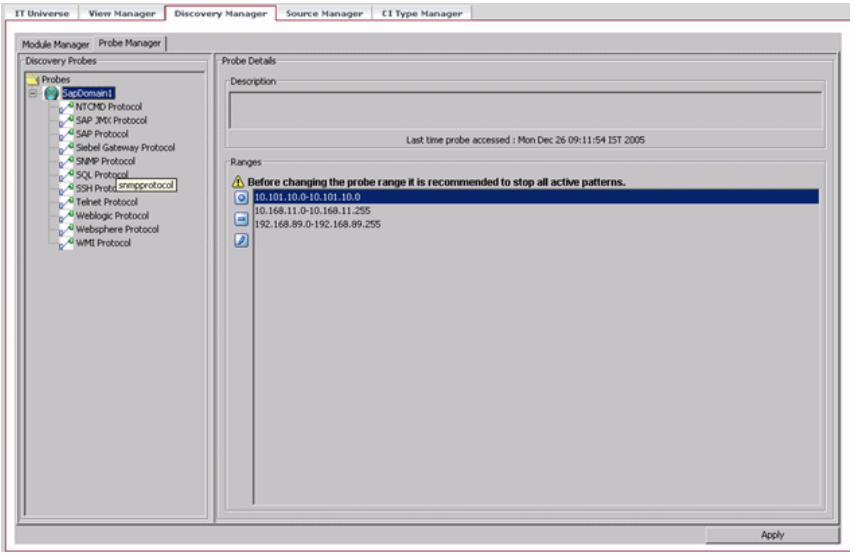
8 Click the plus button to open the Add Range window once more.

9 Enter the range of IP addresses that includes the IP address of the SAP system you want to discover. If there is only one address, enter its value in both boxes.

10 Click **OK**.

11 Click **Apply**.

12 Expand the domain:



You must now define the protocols.

13 Select **SNMP Protocol**, and click the plus button. Populate the following field:

- **Community** – Enter the password you used when connecting to the SNMP service community you defined while configuring the SNMP service (for example, a community for read only or read/write).

14 Select **WMI Protocol**, and click the plus button. Populate the following fields:

- **NT Domain** – The name of the host where discovery probe is installed.
- **User Name** – The name of the user you use to connect to the host as administrator.
- **User Password** – The password of the user you use to connect to the host as administrator.

15 Select **NTCMD Protocol**, and click the plus button. Populate the following fields:

- **NT Domain** – The name of the host where discovery probe is installed.

- **User Name** – The name of the user you use to connect to the host as administrator.
- **User Password** – The password of the user you use to connect to the host as administrator.



16 Select **SAP Protocol**, and click the plus button. Populate the following fields:

- **SAP Client** – The default value is 800. It is recommended to use the default value.
- **SAP System Number** – The default value is 00. It is recommended to use the default value.
- **User Name** – The name of the user you use to log on to the SAP system.
- **User Password** – The password of the user you use to log on to the SAP system.

  If you want to discover more than one SAP System, it is recommended to create a SAP Protocol for each SAP system with different users and passwords.

17 Click **Apply** to save the changes.

Step 2 – Adding Network CI to Trigger the Discovery of SAP System Networking

To trigger the discovery of SAP System networking features, you must add Network CI to the CMDB.

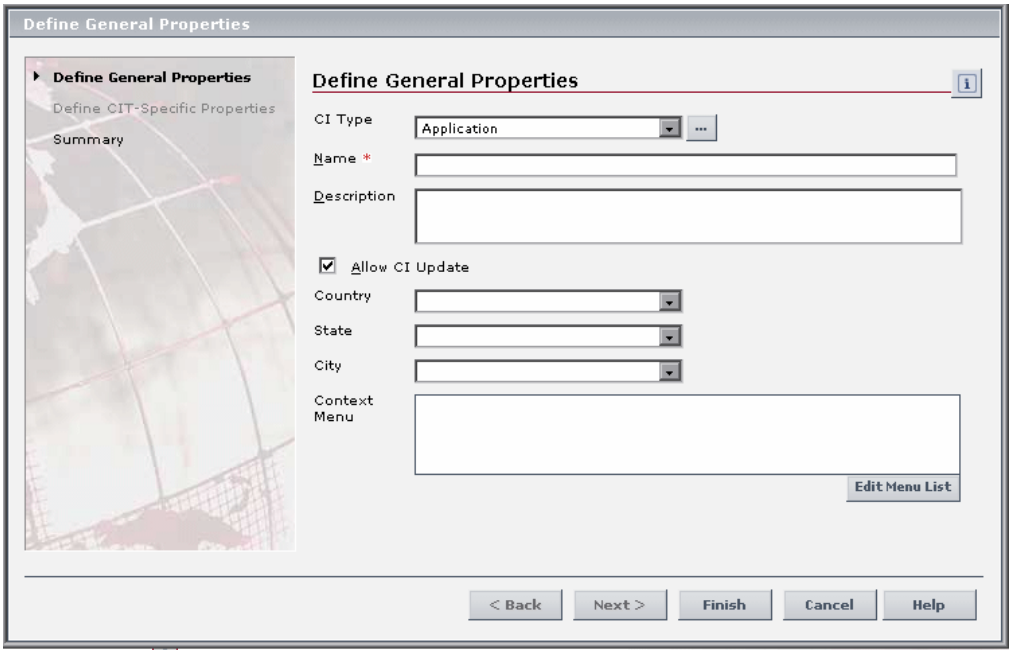
To add Network CI to trigger a discovery of SAP System networking:

1 In Mercury Business Availability Center, select **Admin** > **CMDB**, and click the **IT Universe Manager** tab in CMDB Administration.

2 Select the **SAP Systems** view.

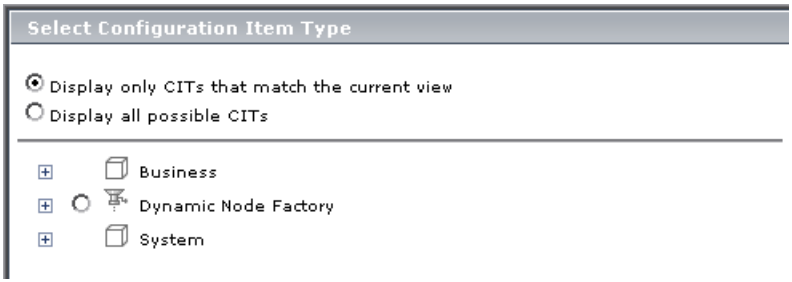
3 In the right pane, click **Create new CIs** under How to get started.

4 A wizard opens.

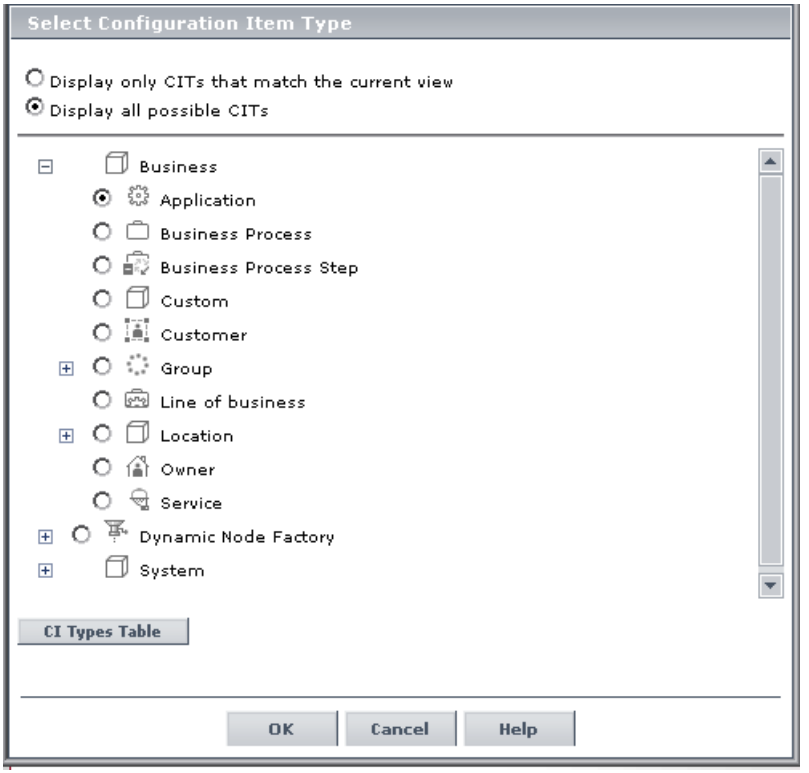




5 Click the more button to the right of the **CI Type** box, to display the full CI Type list.

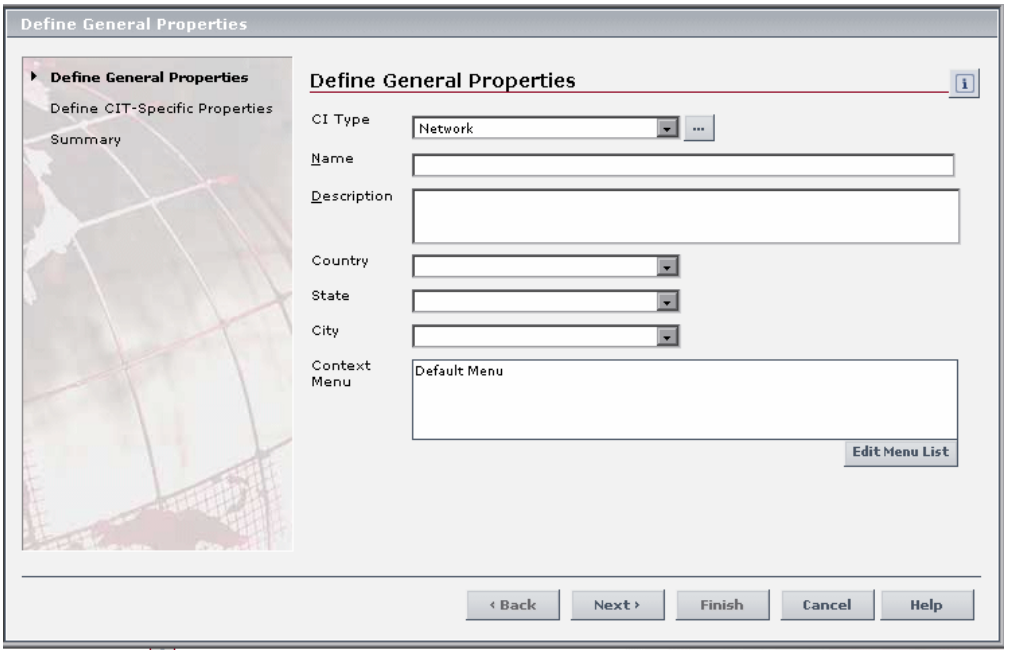


6 Select **Display all possible CITs** to display the list of all possible CITs.



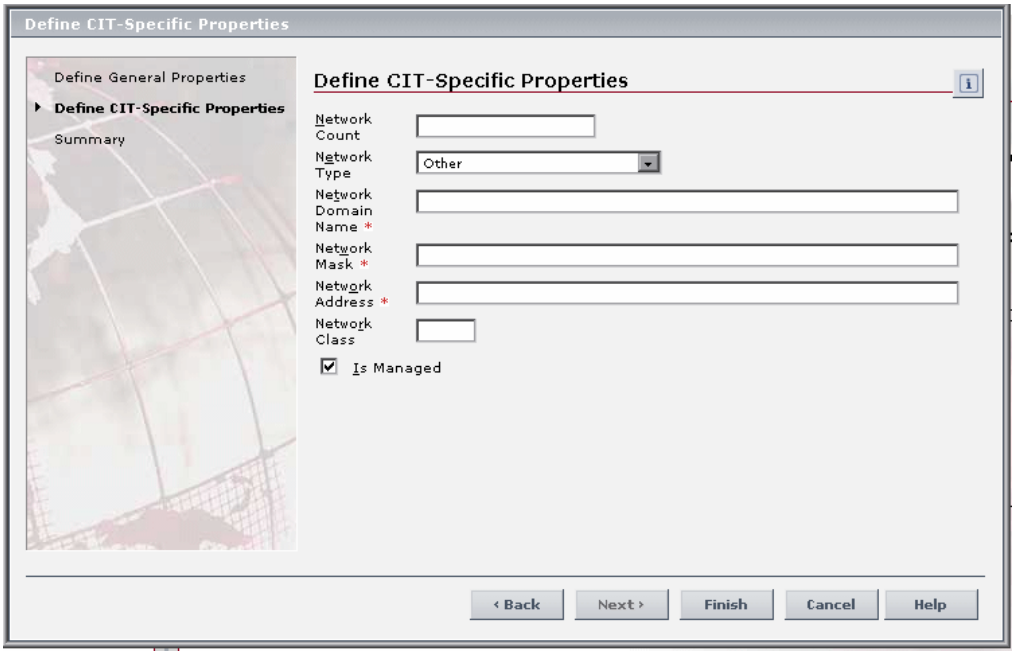
7 Expand **System** and then expand **Network Resource**.

8 Select **Network** and click **OK**. The Define General Properties page opens.



9 In the **Name** box, enter the IP address of the SAP system network.

10 Click **Next**.



11 Enter the following information:

- In the **Network Domain Name** box, enter the name of the domain as it was specified during SAP installation.
- In the **Network Mask** box, enter the mask for the IP address of the SAP System network.
- In the **Network Address** box, enter the IP address of the SAP system network.

12 Click **Finish** to save the changes.

You should get the following message: **Network CI was added successfully**.

Step 3 – Running the Discovery Patterns

To run the discovery patterns, you must trigger them in the order described in this section. Each discovery pattern discovers different components – for details on the components and their hierarchy structure, see "Mercury Business Availability Center for SAP CIs" on page 269.

This section includes the following topics:

- "Accessing the Discovery Modules" on page 297
- "Running the ICMP_NET_Dis_IpC Discovery Pattern" on page 298
- "Running the SNMP_NET_Dis_Connection Discovery Pattern" on page 298
- "Running the NTCMD_NET_Dis_Connection Discovery Pattern" on page 299
- "Running the WMI_NET_Dis_Connection Discovery Pattern" on page 299
- "Running the WMI_HR_Process Discovery Pattern" on page 299
- "Running the TCP_NET_Dis_Port Discovery Pattern" on page 300
- "Running the TCP_Webserver_Detection Discovery Pattern" on page 300
- "Running the SAP_Dis_Site Discovery Pattern" on page 300
- "Running the SAP_Dis_ITS Discovery Pattern" on page 301
- "Running the SAP_Dis_Applications Discovery Pattern" on page 302
- "Running the SAP_Dis_Solution_Manager Discovery Pattern" on page 310

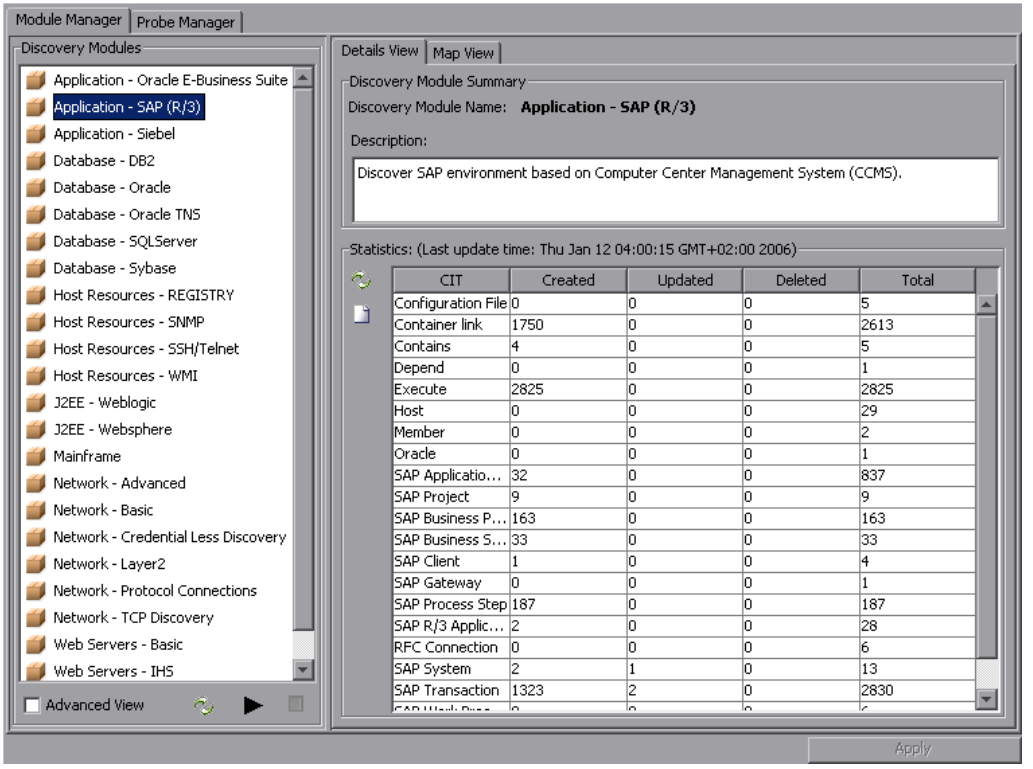
Accessing the Discovery Modules

Access the discovery modules and then run each discovery pattern in the proper order.

To access the discovery modules:

1 Click the **Discovery Manager** tab in CMDB Administration.

2 Click the **Module Manager** tab.



3 Select **Advanced View** at the bottom of the left pane.

Note: It is very important, the first time you run discovery, to start the next pattern only after you verify that the activated pattern has completed and successfully discovered all the required elements.

---

4 Go to the next procedure.

Running the ICMP_NET_Dis_IpC Discovery Pattern

Run the ICMP_NET_Dis_IpC discovery pattern to discover which machines are active in the range of given IP addresses.

To run the ICMP_NET_Dis_IpC discovery pattern:

1 Expand **Network - Basic** and select **ICMP_NET_Dis_IpC** – this pattern pings the machines in the IP address range that you provided in "Step 1 – Preparing for a SAP Discovery" on page 288.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the SNMP_NET_Dis_Connection Discovery Pattern

Run the SNMP_NET_Dis_Connection discovery pattern to discover, in the range of given IP addresses, the hosts that communicate using the SNMP protocol.

To run the SNMP_NET_Dis_Connection discovery pattern:

1 Expand **Network - Protocol Connections** and select **SNMP_NET_Dis_Connection**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the NTCMD_NET_Dis_Connection Discovery Pattern

Run the NTCMD_NET_Dis_Connection discovery pattern to discover, in the range of given IP addresses, the hosts that communicate using the NTCMD protocol.

To run the NTCMD_NET_Dis_Connection discovery pattern:

1 Expand **Network - Protocol Connections** and select **NTCMD_NET_Dis_Connection**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the WMI_NET_Dis_Connection Discovery Pattern

Run the WMI_NET_Dis_Connection discovery pattern to discover, in the range of given IP addresses, the hosts that communicate using the WMI protocol.

To run the WMI_NET_Dis_Connection discovery pattern:

1 Expand **Network - Protocol Connections** and select **WMI_NET_Dis_Connection**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the WMI_HR_Process Discovery Pattern

Run the WMI_HR_Process discovery pattern to discover the processes that are running on the server.

If the SAP system you are discovering has an ITS configuration and you want to discover the ITS entities of the SAP system, run this pattern as a prerequisite to the SAP discovery that discovers ITS entities.

To run the WMI_HR_Process discovery pattern:

1 Expand **Host Resources - WMI** and select **WMI_HR_Process**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the TCP_NET_Dis_Port Discovery Pattern

Run the TCP_NET_Dis_Port discovery pattern to discover the server's open active ports.

To run the TCP_NET_Dis_Port discovery pattern:

1 Expand **Network - Advanced** and select **TCP_NET_Dis_Port**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the TCP_Webserver_Detection Discovery Pattern

Run the TCP_Webserver_Detection discovery pattern to discover the Web servers running on this host.

If the SAP system you are discovering has an ITS configuration and you want to discover the ITS entities of the SAP system, run this pattern as a pre-requisite to the SAP discovery that discovers ITS entities.

To run the TCP_Webserver_Detection discovery pattern:

1 Expand **Web Server - Basic** and select **TCP_Webserver_Detection**.



2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the SAP_Dis_Site Discovery Pattern

Run the SAP_Dis_Site discovery pattern to discover infrastructure entities in the SAP System: Hosts, R/3 Application server/s, Work Processes, databases, SAP clients, Configuration files, software components (discovered as a configuration file), and support packages (discovered as a configuration file).

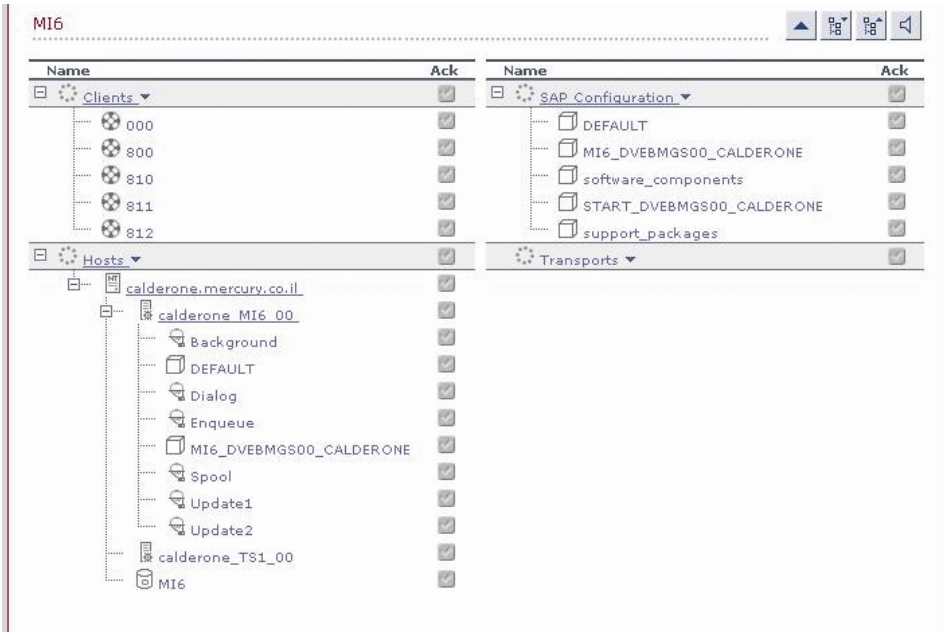
To run the SAP_Dis_Site discovery pattern:

1 Expand **Application - SAP (R/3)** and select **SAP_Dis_Site**.



2 Click the **activatepatterns** button to start the discovery.

The view is as follows:



3 Go to the next discovery procedure.

Running the SAP_Dis_ITS Discovery Pattern

Run the SAP_Dis_ITS discovery pattern to discover Internet Transaction Server (ITS) entities (Application Gateway and Web Gateway).

To run the SAP_Dis_ITS discovery pattern:

1 Expand **Application - SAP (R/3)** and select **SAP_Dis_ITS**.

2 Click the **activatepatterns** button to start the discovery.

3 Go to the next discovery procedure.

Running the SAP_Dis_Applications Discovery Pattern

Before you run the SAP_Dis_Applications discovery pattern to discover application components, SAP transactions and transports, you must set the discovery mode.

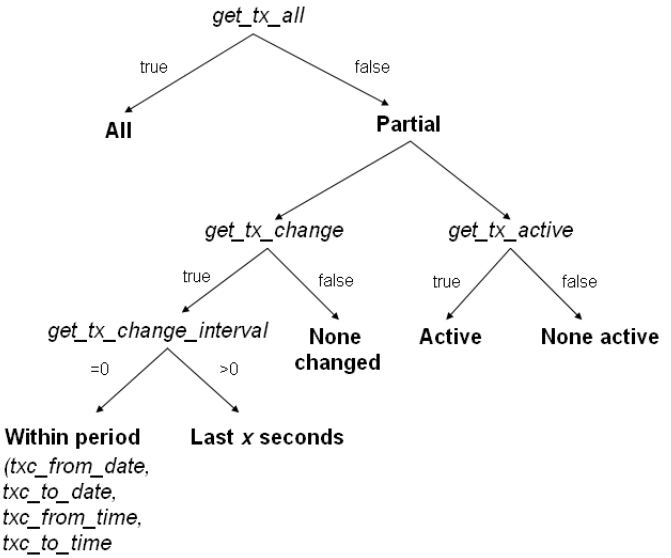
If you want to discover changed SAP transactions you must determine the appropriate range of dates (for details, see "Determining the Appropriate Range of Dates for Changed SAP Transaction Discovery" on page 307).

This section includes:

- "Selecting the Discovery Modes for Discovering Application Components, SAP Transactions, and Transports" on page 303
- "Discover All SAP Transactions" on page 304
- "Discover Active SAP Transactions" on page 305
- "Discover Changed SAP Transactions" on page 305
- "Discover Active and Changed SAP Transactions" on page 306
- "Determining the Appropriate Range of Dates for Changed SAP Transaction Discovery" on page 307

Selecting the Discovery Modes for Discovering Application Components, SAP Transactions, and Transports

You can use the following parameter's structure to run the required discovery pattern.



Depending on the combination of parameters and their values you can discover all SAP transaction, active SAP transactions, the SAP transactions that were modified by a SAP transport, or both.

Once you have selected what you want to discover, run the appropriate discovery:

- "Discover All SAP Transactions" on page 304
- "Discover Active SAP Transactions" on page 305
- "Discover Changed SAP Transactions" on page 305
- "Discover Active and Changed SAP Transactions" on page 306

Discover All SAP Transactions

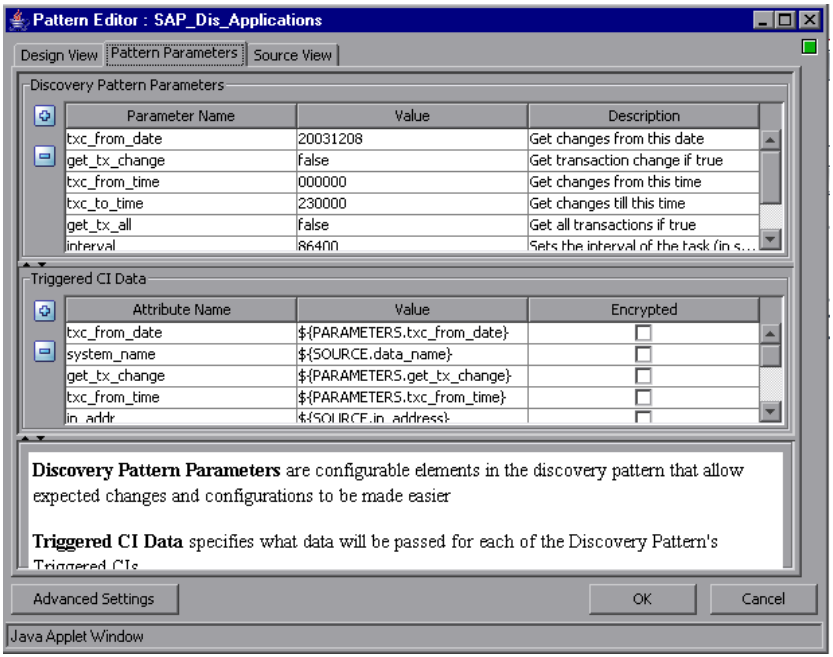
Note: This configuration is not recommended because of capacity issues.

You can discover all SAP transactions.

To discover all SAP Transactions:

1 Expand **Application - SAP (R/3)**.

2 Double-click **SAP_Dis_Application** discovery pattern, and click **Pattern Parameters** to open the Pattern Parameters page.



3 Set **get_tx_all** to **true**.

4 Set **get_tx_change** to **false** (default).

5 Click **OK** to save the changes.

6 Click the **activatepatterns** button to start the discovery.

7 Go to the next procedure – for details, see "Running the SAP_Dis_Solution_Manager Discovery Pattern" on page 310.

Discover Active SAP Transactions

You can discover active SAP transactions.

To discover active SAP Transactions:

1 Double-click **SAP_Dis_Application** discovery pattern to open the Pattern Editor page.

2 Set **get_tx_all** to **false**.

3 Set **get_tx_active** to **true**.

4 Click **OK** to save the changes.

5 Go to the next procedure – for details, see "Running the SAP_Dis_Solution_Manager Discovery Pattern" on page 310.

Discover Changed SAP Transactions

You can discover the SAP transactions that have been changed by discovered transports.

To run changed SAP Transactions:

1 Double-click **SAP_Dis_Application** discovery pattern to open the Pattern Editor page.

2 Set **get_tx_all** to **false**.

3 Set **get_tx_active** to **false**.

4 Set **get_tx_change** to **true**.

5 Set **get_tx_change_interval** to one of the following:

- **0** – to discover the changes to transactions in the period of time specified in the **txc_from_date, txc_from_time**, **txc_to_date,** and **txc_to_time** parameters. For details about the range to specify, see "Determining the Appropriate Range of Dates for Changed SAP Transaction Discovery" on page 307.

- **x** – (where x > 0) to discover the changes to transactions in the last **x** seconds

6 Click **OK** to save the changes.

7 Go to the next procedure – for details, see "Running the SAP_Dis_Solution_Manager Discovery Pattern" on page 310.

Discover Active and Changed SAP Transactions

You can discover the SAP transactions that are active and have changed since the last discovery.

To discover active and changed SAP Transactions:

1 Double-click **SAP_Dis_Application** discovery pattern to open the Pattern Editor page.

2 Set **get_tx_all** to **false**.

3 Set **get_tx_active** to **true**.

4 Set **get_tx_change** to **true**.

5 Set **get_tx_change_interval** to one of the following:

- **0** – to discover the changes to transactions in the period of time specified in the **txc_from_date, txc_from_time**, **txc_to_date,** and **txc_to_time** parameters. For details about the range to specify, see "Determining the Appropriate Range of Dates for Changed SAP Transaction Discovery" on page 307.
- **x** – (where x > 0) to discover the changes to transactions in the last **x** seconds

6 Click **OK** to save the changes.

7 Go to the next procedure – for details, see "Running the SAP_Dis_Solution_Manager Discovery Pattern" on page 310.

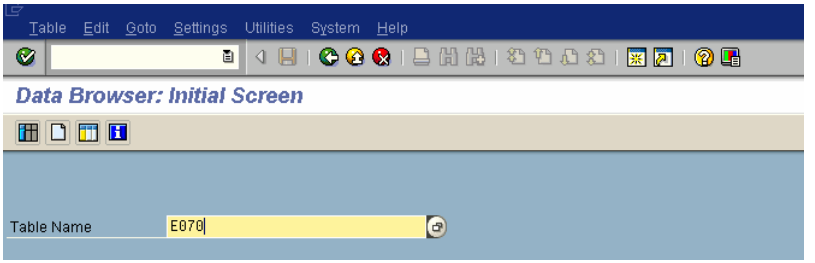
Determining the Appropriate Range of Dates for Changed SAP Transaction Discovery

To discover the SAP transactions that have changed, you must determine the appropriate range of dates before entering them in the appropriate discovery pattern – for details, see "Selecting the Discovery Modes for Discovering Application Components, SAP Transactions, and Transports" on page 303.

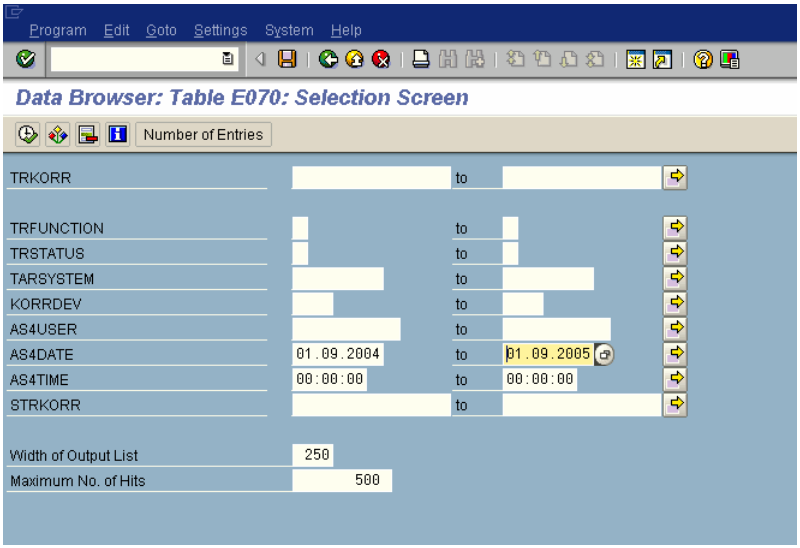
To determine the appropriate range of dates for changed SAP transactions discovery:

1 Click the SAP Logon icon to log in to SAP.

2 Activate SE16 in SAPGUI to open table E070.



3 Enter the range of dates for which you want to display the transports deployed



4 Press the **Execute** button, in the top left corner.

The outcome is the result of the query you just defined in SAP. The time range is indicated in the AS4DATE and AS4TIME columns.

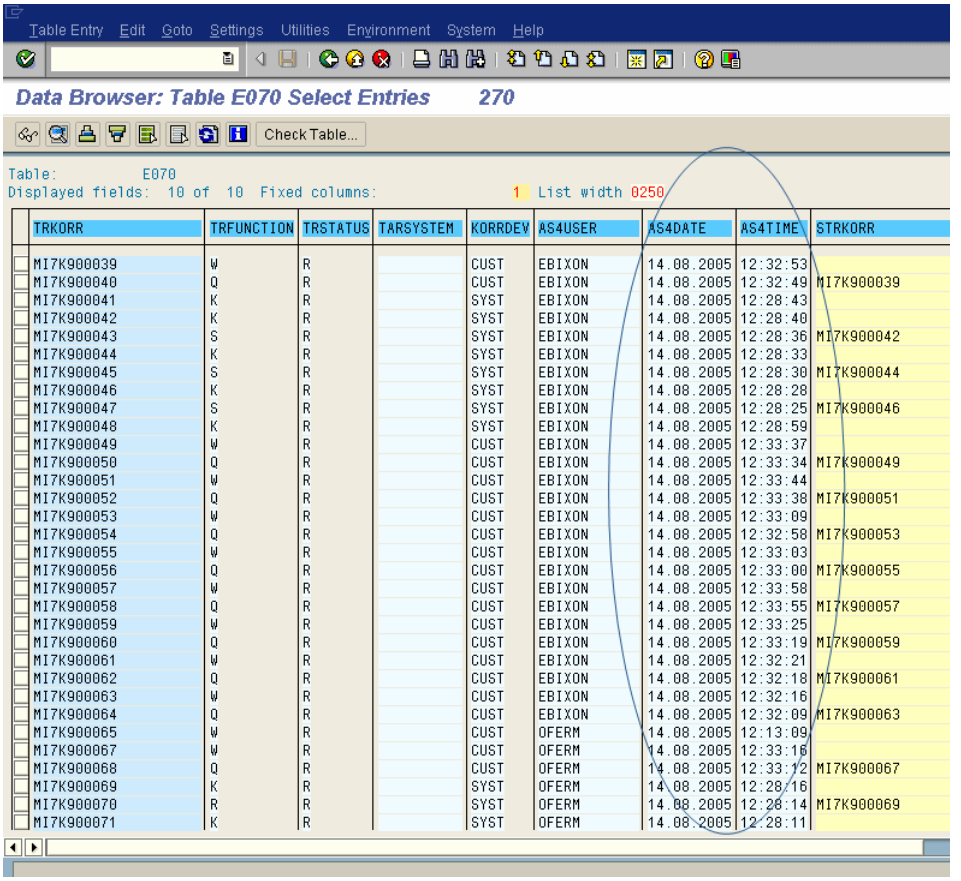


Table Entry Edit Goto Settings Utilities Environment System Help

Data Browser: Table E070 Select Entries 270

Check Table...

Table: E070
Displayed fields: 10 of 10 Fixed columns: 1 List width 0250

TRKORR	TRFUNCTION	TRSTATUS	TARSYSTEM	KORRDEV	AS4USER	AS4DATE	AS4TIME	STRKORR
MI7K900039	W	R		CUST	EBIXON	14.08.2005	12:32:53	
MI7K900040	Q	R		CUST	EBIXON	14.08.2005	12:32:49	MI7K900039
MI7K900041	K	R		SYST	EBIXON	14.08.2005	12:28:43	
MI7K900042	K	R		SYST	EBIXON	14.08.2005	12:28:40	
MI7K900043	S	R		SYST	EBIXON	14.08.2005	12:28:36	MI7K900042
MI7K900044	K	R		SYST	EBIXON	14.08.2005	12:28:33	
MI7K900045	S	R		SYST	EBIXON	14.08.2005	12:28:30	MI7K900044
MI7K900046	K	R		SYST	EBIXON	14.08.2005	12:28:28	
MI7K900047	S	R		SYST	EBIXON	14.08.2005	12:28:25	MI7K900046
MI7K900048	K	R		SYST	EBIXON	14.08.2005	12:28:59	
MI7K900049	W	R		CUST	EBIXON	14.08.2005	12:33:37	
MI7K900050	Q	R		CUST	EBIXON	14.08.2005	12:33:34	MI7K900049
MI7K900051	W	R		CUST	EBIXON	14.08.2005	12:33:44	
MI7K900052	Q	R		CUST	EBIXON	14.08.2005	12:33:38	MI7K900051
MI7K900053	W	R		CUST	EBIXON	14.08.2005	12:33:09	
MI7K900054	Q	R		CUST	EBIXON	14.08.2005	12:32:58	MI7K900053
MI7K900055	W	R		CUST	EBIXON	14.08.2005	12:33:03	
MI7K900056	Q	R		CUST	EBIXON	14.08.2005	12:33:00	MI7K900055
MI7K900057	W	R		CUST	EBIXON	14.08.2005	12:33:58	
MI7K900058	Q	R		CUST	EBIXON	14.08.2005	12:33:55	MI7K900057
MI7K900059	W	R		CUST	EBIXON	14.08.2005	12:33:25	
MI7K900060	Q	R		CUST	EBIXON	14.08.2005	12:33:19	MI7K900059
MI7K900061	W	R		CUST	EBIXON	14.08.2005	12:32:21	
MI7K900062	Q	R		CUST	EBIXON	14.08.2005	12:32:18	MI7K900061
MI7K900063	W	R		CUST	EBIXON	14.08.2005	12:32:16	
MI7K900064	Q	R		CUST	EBIXON	14.08.2005	12:32:09	MI7K900063
MI7K900065	W	R		CUST	OFERM	14.08.2005	12:13:09	
MI7K900067	W	R		CUST	OFERM	14.08.2005	12:33:16	
MI7K900068	Q	R		CUST	OFERM	14.08.2005	12:33:12	MI7K900067
MI7K900069	K	R		SYST	OFERM	14.08.2005	12:28:16	
MI7K900070	R	R		SYST	OFERM	14.08.2005	12:28:14	MI7K900069
MI7K900071	K	R		SYST	OFERM	14.08.2005	12:28:11	

Running the SAP_Dis_Solution_Manager Discovery Pattern

Run the SAP_Dis_Solution_Manager discovery pattern if you are using SAP Solution Manager and you want to discover the SAP Solution Manager components.

To run the SAP_Dis_Solution_Manager discovery pattern:

1 Expand **Application - SAP (R/3)** and select **SAP_Dis_Solution_Manager**.

2 Click the **activatepatterns** button to start the discovery.

For details on the SAP Solution Manager components, see "Mercury Business Availability Center for SAP CIs" on page 269.

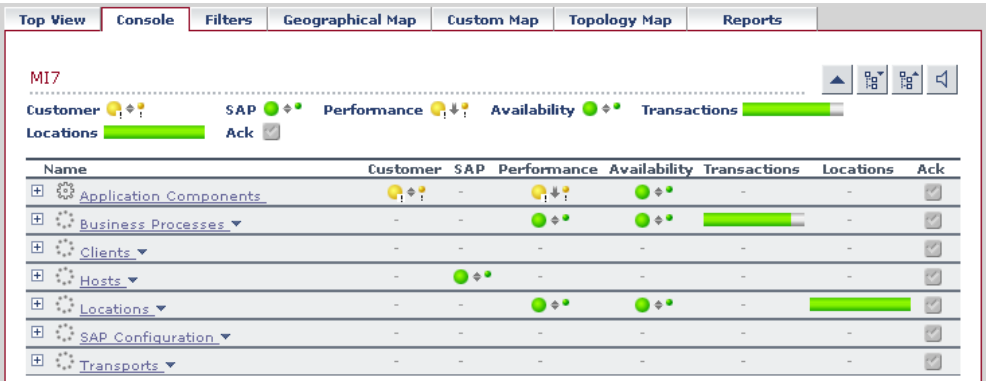
Step 4 – Checking that the Discovery Ran Correctly

After running all the discoveries, check that all the information is displayed correctly.

To check that the discovery ran correctly:

Select **Application** > **Dashboard**, click the **Console** tab, and open the SAP Systems view or select **Admin** > **CMDB**, and click the **IT Universe Manager** tab.

The view is as follows if Business Process Monitor profiles and CCMS monitors were configured before running discovery. Otherwise, the view is similar but the status indicators are grey:



Step 5 – Running SAP Solution Manager Discovery

You run the SAP Solution Manager discovery to discover the business process hierarchy.

To run SAP Solution Manager Discovery:

1. Select **Admin** > **CMDB** and click the **Discovery Manager** tab to open the Discovery Management page.
2. In the Module Manager tab, expand **Application - SAP (R/3)**.
3. Run the **SAP_Dis_SolutionManager** discovery pattern by selecting it in the Module Manager.

   The outcome is the business process hierarchy – for details, see "Mercury Business Availability Center for SAP CIs" on page 269.

   For more details about how to run automatic discovery, see *Discovery Process Tutorial*.

Using a Business Process Monitor Profile to Simulate SAP Users

Business Process Monitor profiles are used to simulate SAP users in order to obtain performance and availability information on the SAP transactions.

You can view Business Process Steps under the SAP view to enable you to analyze what happens in the SAP system.

This section includes the following topics:

- "Creating a Business Process Monitor Profile" on page 312
- "Synchronizing the Business Process Monitoring Source Adapter" on page 318
- "Attaching Business Process Monitor Transactions to SAP Application Components" on page 318
- "Checking/Viewing the Business Process Monitor Measurements in the SAP Systems View" on page 322

Creating a Business Process Monitor Profile

You create Business Process profiles in Monitor Administration – for details, see "Managing Business Process Profiles and Creating Client Monitor Profiles" in *End User Management Data Collector Configuration*.

This section includes the following topics:

➤ "Selecting the Appropriate Protocol" on page 312

➤ "Selecting the Appropriate Run-Time Settings" on page 314

➤ "Editing the Script" on page 316

Selecting the Appropriate Protocol

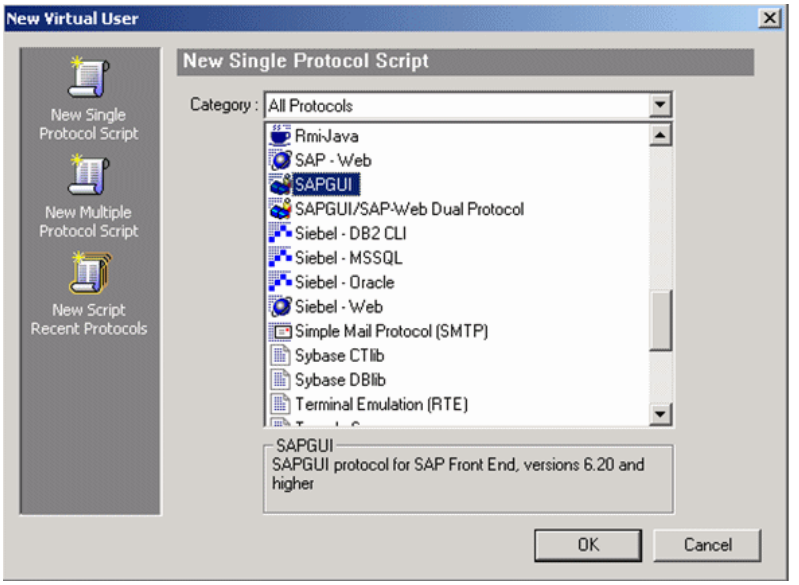
In Mercury Virtual User Generator (VuGen), SAP scripts are recorded using the SAPGUI protocol. You must select the SAPGUI protocol when you create a new script – for details, see "Creating New Virtual User Scripts" in *Using Mercury Virtual User Generator*.

To select the appropriate protocol:

1 In VuGen, select **New** to open the New Virtual User page.

2 Select **New Single Protocol Script**.

3 Select the **SAPGUI** protocol.

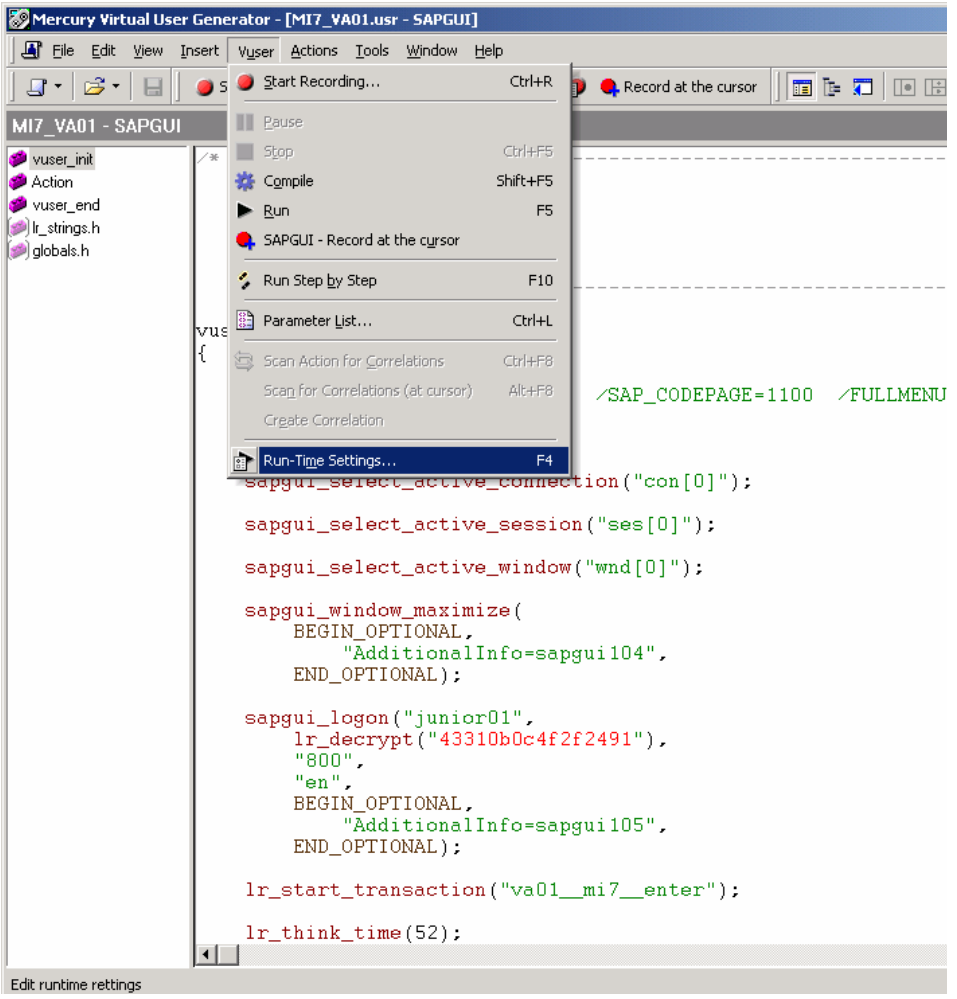


Selecting the Appropriate Run-Time Settings

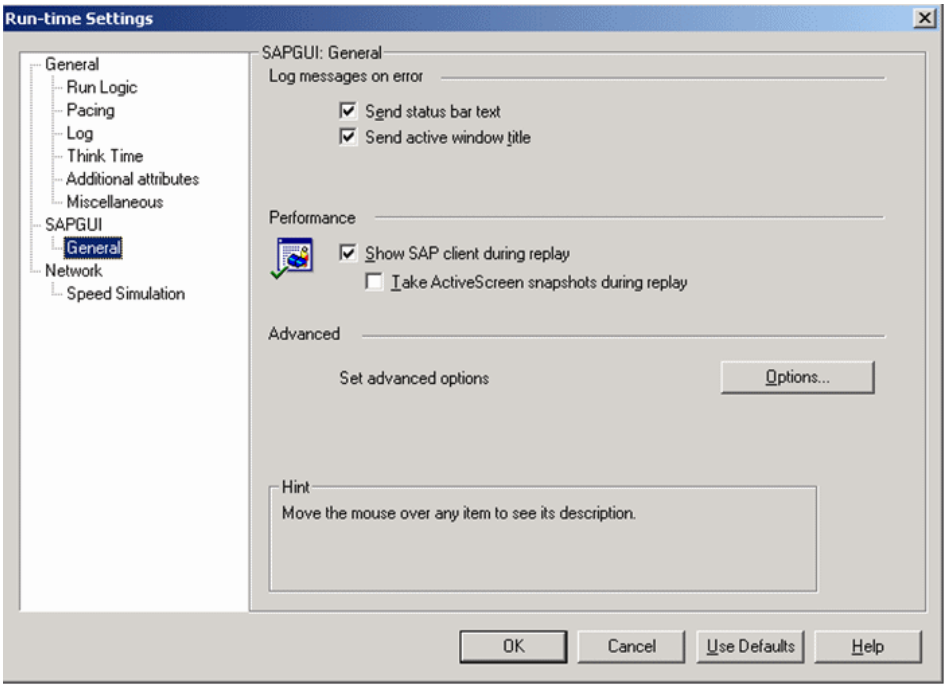
In VuGen, open the Run-Time settings window, and in the Performance area, select **Show SAP client during replay** to give more accurate user experience times – for details, see "Configuring Run-Time Settings" in *Using Mercury Virtual User Generator*.

To select the appropriate run-time settings:

1 After recording the script in VuGen, select **Vuser** > **Run-Time Settings**.



2 The Run-time Settings page opens. Select **Show SAP client during replay**, and clear **Take ActiveScreen snapshots during replay**.



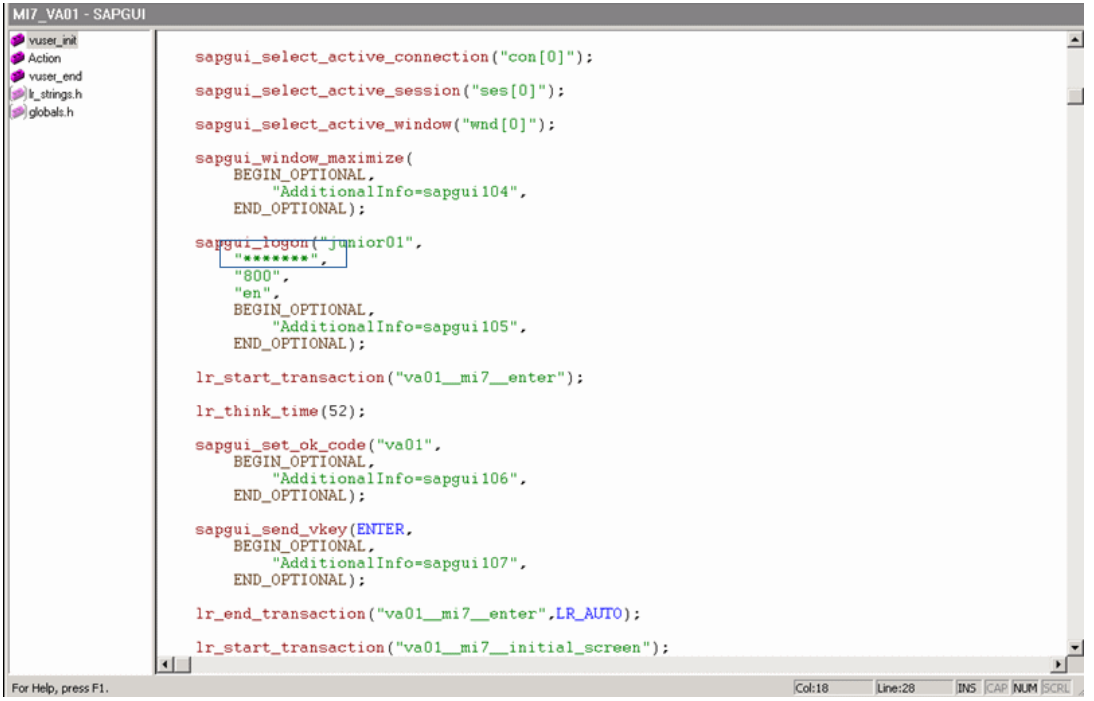
3 Click **OK**.

Editing the Script

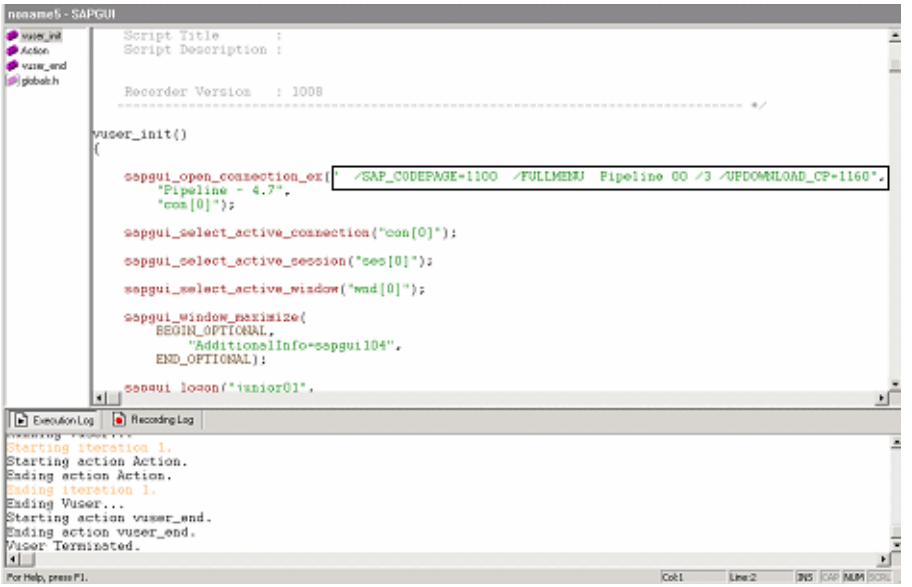
You can edit the script to make sure the password is recorded properly and to check and correct the script's connection parameters.

To edit the script:

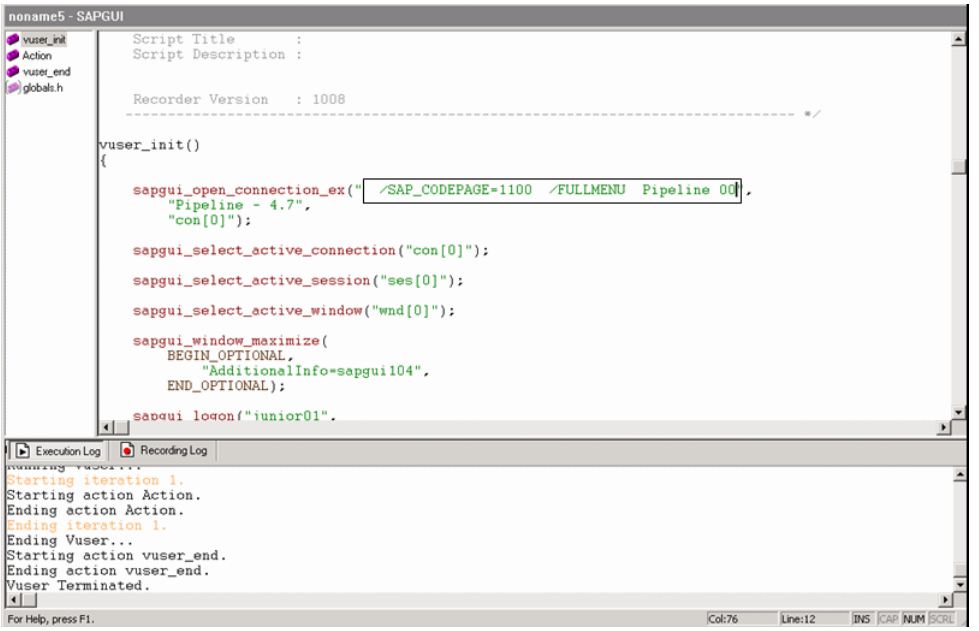
1 Make sure the password is recorded correctly. Remove the stars and replace with the required password.



2 Check the script's connection parameters and if necessary, delete the string that appears after the system number in the first parameter.



The result is as follows:



Synchronizing the Business Process Monitoring Source Adapter

You can synchronize the Business Process Monitoring source adapter immediately or you can wait for the automatic synchronization to take place – for details, see "Administering Mercury Business Availability Center for SAP" in *Source Manager Administration*.

Attaching Business Process Monitor Transactions to SAP Application Components

To display Performance and Availability information, Business Process Steps must be attached to SAP transactions.

You can connect BMP transactions to a SAP transaction in two different ways:

➤ by following the naming conventions for the BMP transaction names. For details, see "Following the Naming Conventions for Naming Business Process Steps" on page 319.

➤ by **not** following the naming conventions for the BMP transaction names and manually linking a Business Process Step to a SAP transaction. For details, see "Attaching Business Process Steps to a SAP Transaction without Following the Naming Conventions" on page 320.

If you do not follow the naming conventions, be careful when deleting links between SAP transactions and Business Process Steps. For details, see "Deleting Links Between SAP Transactions and Business Process Steps" on page 321.

Following the Naming Conventions for Naming Business Process Steps

To logically connect Business Process Steps to a SAP transaction, the Business Process Step name should have the following format:
<tran_name>_ _<sys_name>_ _<BPM_tran_name>

➤ **tran_name** – the name, in lowercase, of the SAP transaction to which you want to attach the Business Process Step.

➤ **sys_name** – the name, in lowercase, of the SAP System on which the transaction is run (for example, MI7).

➤ **BPM_tran_name** – the unique name of the Business Process Step. Any set of alphanumeric and mixed case characters are supported (special characters are not allowed). It is good practice to name the transaction so that the name indicates what occurs in that set of dialog steps.

Note: You assign the appropriate name to a Business Process Step when you record it – for details, see "Recording with VuGen" in *Using Mercury Virtual User Generator*.

For example, the names of the Business Process Steps assigned to the SAP transaction VA01 in the MI7 SAP System should start with: va01_ _mi7_

In the SAP Systems View, a **Business Process Steps** node that is displayed under a specific SAP transaction is a container under which all relevant transactions are located.

It is important to split a SAP transaction into a few Business Process Monitor transactions so that you are able to pinpoint the problem. For example, if each step of the SAP transaction is a separate Business Process Monitor transaction, you can find the exact part of the SAP transaction where the problem occurs.

Attaching Business Process Steps to a SAP Transaction without Following the Naming Conventions

If you do not want to follow the naming conventions for the Business Process Steps, go to Monitor Administration and build a Business Process Monitor profile. You can then manually connect Business Process Steps with SAP transactions.

To attach Business Process Steps to a SAP transaction without following the naming convention:

1. Select **Admin** > **CMDB**.
2. Click the **IT Universe Manager** tab.
3. Select **SAP View** in the **View** list.
4. Right-click the SAP transaction that you want to monitor using the BPM profile and select **Attach Related CI** to open the **Attach Related CIs** wizard.
5. Select **Monitors View** in the **Views** list.
6. Expand and select the Business Process Step to which you want to connect the SAP transaction.



7. Click the right arrow to move the CI to the right-hand box.
8. Click **Next**.
9. In the **Relationship Type** list, select **Monitored By for SAP**.
10. Select **Allow CI Update.**
11. Click **Finish**.

Deleting Links Between SAP Transactions and Business Process Steps

SiteScope measurements and Business Process Monitor transactions are attached under the appropriate level of the SAP hierarchy – for details, see "Mercury Business Availability Center for SAP CIs" on page 269.

A TQL runs in the background and returns:

- **CCMS measurements that are not linked to SAP entities** – most of the CCMS measurements' names indicate to which SAP entities they should be attached in the hierarchy.



- **Business Process Monitor transactions that are not attached to a SAP and follow the naming convention** – the name of the Business Process Monitor transaction indicates to which SAP entity it should be attached – for details about the naming convention, see below.
- **Business Process steps that are manually attached to a SAP transaction** – a Business Process Step is automatically attached to the Business Process container that was created by the Business Process Step, the Business Process Step is monitored by SAP – for details, see "Attaching Business Process Steps to a SAP Transaction without Following the Naming Conventions" on page 320.

  If the Business Process Monitor source adapter was assigned the **Transaction/Location** option (for details, see "Business Process Monitoring" in *Source Manager Administration*) a copy of the location information is attached to the Locations container.

If you delete a link between a SAP transaction and its child Business Process Step transaction, then the following happens:

- If you followed the naming convention for the Business Process Step transaction, the link between the SAP transaction and its child Business Process Step is automatically recreated at the next synchronization
- If you did not follow the naming convention and created a manual link between the SAP transaction and a Business Process Step transaction, then when you delete the link:
  - if the Business Process Monitoring source adapter was assigned the **Transactions/locations** option, the Location container is not deleted.

    You can manually delete it. Delete the Location container only if the deleted Business Process Step transaction is the only CI attached to this location. If other Business Process Step transactions are attached to this location, delete only the links between the Business Process Monitor (BPM transaction from location) and the Location container.
  - if the Business Process Monitoring source adapter was assigned the **Regular** option, the Business Process container is not deleted. You must manually delete the links between the Business Process container and the detached Business Process Step transaction.

For details about the **Transactions/locations** or **Regular** options, see "Business Process Monitoring" in *Source Manager Administration*.

Checking/Viewing the Business Process Monitor Measurements in the SAP Systems View

You can view the Business Process Measurement in the SAP Systems view in different locations in the SAP hierarchy.

This section includes the following topics:

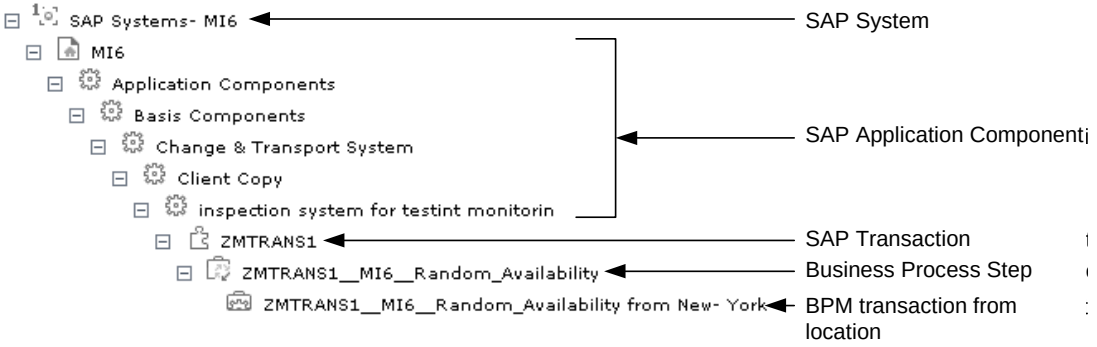
- "Naming Convention for Business Process Steps and Transaction/Location Hierarchy Structure" on page 323
- "No Naming Convention for Business Process Steps and Transaction/Location Hierarchy Structure" on page 324
- "Naming Convention for Business Process Steps and Regular Hierarchy Structure" on page 326

➤ "No Naming Convention for Business Process Steps and Regular Hierarchy Structure" on page 327

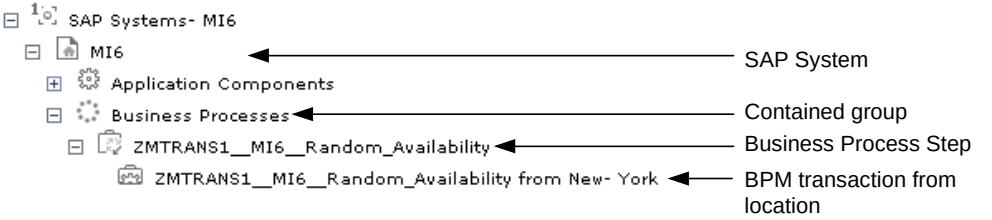
Naming Convention for Business Process Steps and Transaction/Location Hierarchy Structure

If you have used the naming convention for the Business Process Step, and you have set the Hierarchy structure of the Business Process Monitoring source adapter to **Transaction/Location** (for details, see "Business Process Monitoring" in *Source Manager Administration*) then the view displays the following structure:

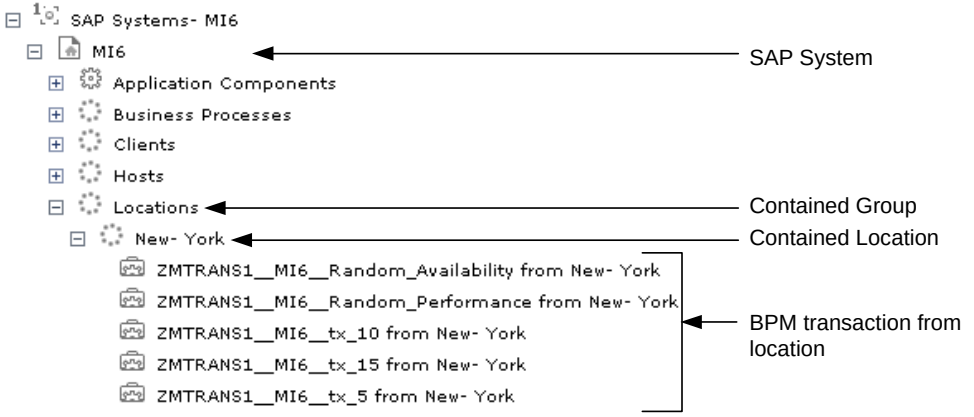
➤ the BPM Monitor (BPM transaction from location CIT) is displayed under a Business Process Step CI, under a SAP transaction CI, under several levels of SAP Application Component CIs, under a SAP System CI. For example:



➤ the BPM Monitor (BPM transaction from location CIT) is also displayed under a Business Process Step CI under the Contained group CI (Business Processes). For example:



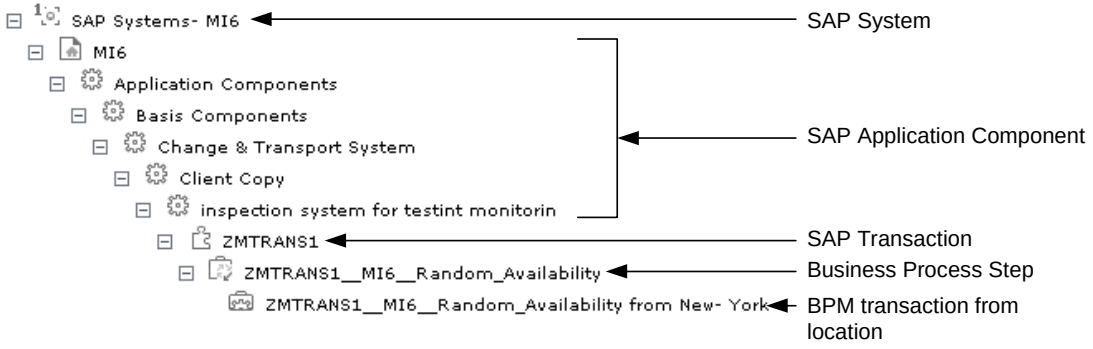
➤ the BPM Monitor (BPM transaction from location CIT) is displayed under a Contained Location CI itself under a Contained group CI (Locations) under the SAP System CI. For example:



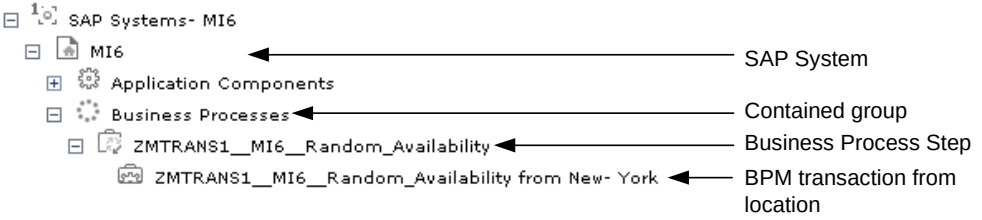
No Naming Convention for Business Process Steps and Transaction/Location Hierarchy Structure

If the Business Process Steps do not follow the naming conventions, and you have set the Hierarchy structure of the Business Process Monitoring source adapter to **Transaction/Location** (for details, see "Business Process Monitoring" in *Source Manager Administration*) then the view displays the following structure:

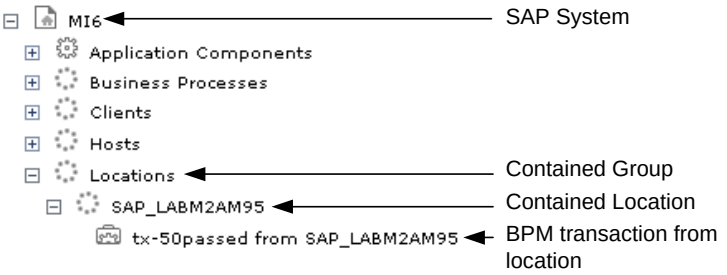
➤ the BPM Monitor (BPM transaction from location CIT) is displayed under a Business Process Step CI, under a SAP transaction CI, under several levels of SAP Application Component CIs, under a SAP System CI. For example:



➤ the BPM Monitor (BPM transaction from location CIT) is also displayed under a Business Process Step CI under the Contained group CI (Business Processes). For example:



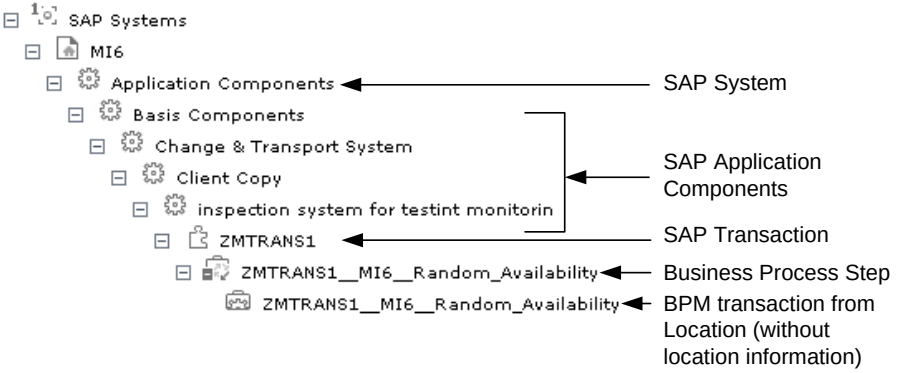
➤ the BPM Monitor (BPM transaction from location CIT) is also displayed under a Contained Location CI, under a Contained group CI (Locations), under a SAP System CI. For example:



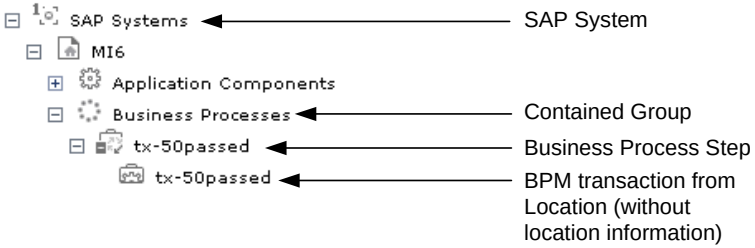
Naming Convention for Business Process Steps and Regular Hierarchy Structure

If the Business Process Steps follow the naming conventions and you have set the Hierarchy structure of the Business Process Monitoring source adapter to **Regular** (for details, see "Business Process Monitoring" in *Source Manager Administration*), then the view displays the following structure:

- the BPM Monitor (BPM transaction from location CIT) is displayed without the location information, under a Business Process Step CI, under a SAP transaction CI, under several levels of SAP Application Component CIs, under a SAP System CI. For example:



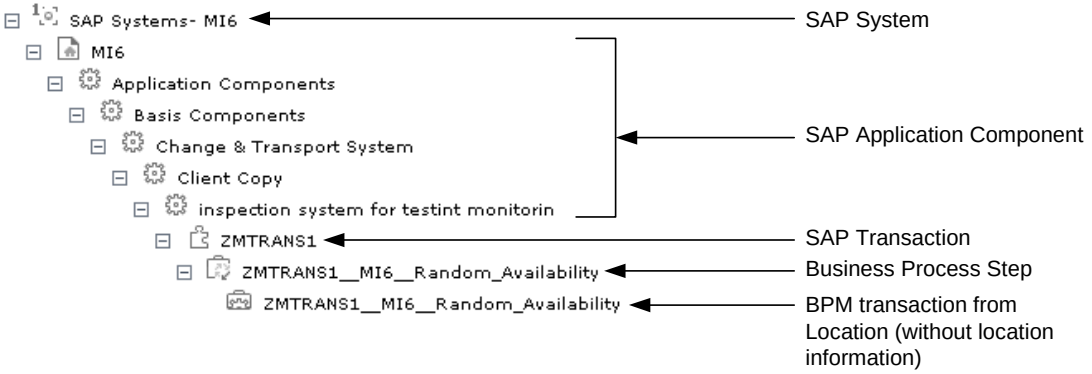
- the BPM Monitor (BPM transaction from location CIT) without location information, is also displayed under a Business Process Step CI under the Contained group CI (Business Processes). For example:



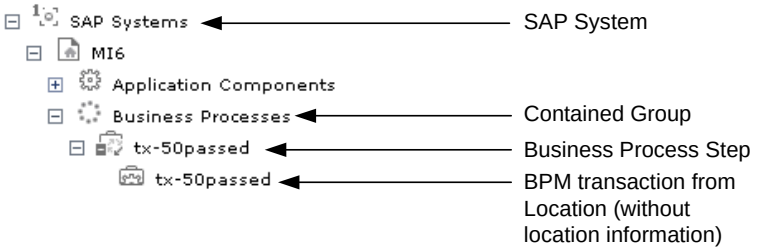
No Naming Convention for Business Process Steps and Regular Hierarchy Structure

If a Business Process Step does not follow the naming conventions and you have set the Hierarchy structure of the Business Process Monitoring source adapter to **Regular** (for details, see "Business Process Monitoring" in *Source Manager Administration*), then the view displays the following structure:

- the BPM Monitor (BPM transaction from location CIT) is displayed under a Business Process Step CI, under a SAP transaction CI, under several levels of SAP Application Component CIs, under a SAP System CI, without the location information. For example:



- the BPM Monitor (BPM transaction from location CIT) without location information, is also displayed under a Business Process Step CI under the Contained group CI (Business Processes). For example:



Using the SAP CCMS Monitor to Retrieve Measurements from SAP System

The SAP CCMS monitor retrieves and reports measurements from SAP's centralized monitoring system CCMS. CCMS is used to monitor all servers, components and resources in the SAP R/3® System from one single centralized server, facilitating problem discovery and problem diagnosis. For details, see "SAP CCMS Monitor" in *Configuring SiteScope Monitors*.

Note: The SAP CCMS Monitor is an optional SiteScope feature whose license is provided with Mercury Business Availability Center for SAP.

This section includes the following topics:

- "Using SiteScope CCMS Solution Template" on page 328
- "Attaching SiteScope to Mercury Business Availability Center" on page 329
- "Checking that the Monitor is Set to Report All Monitors and Measurements" on page 329
- "Synchronizing the SiteScope Source Adapter" on page 330
- "Connecting the SAP CCMS Measurements to the Appropriate Elements of the SAP Hierarchy" on page 330
- "Checking/Viewing the SiteScope Measurements in the SAP View" on page 333

Using SiteScope CCMS Solution Template

The **MonitorSetSSServer.mset** solution template is the most effective way to deploy a CCMS monitor.

To use the SiteScope CCMS solution template:

1. Access SiteScope via Monitor Administration in Mercury Business Availability Center or directly using the URL: **http://<SiteScope_server>:8080/topaz/**.
2. Click the **Monitors** tab.

3 Right-click the appropriate SiteScope in the Enterprise tree, and select **New Group**.

4 Enter the name of the group in the **Group Name** box in the Main Settings area.

5 Click **OK**.

6 Expand **Solution Sets**, right-click **SAPR3Solution**, and select **Copy**.

7 Right-click the new group you have created, and select **Paste**.

8 In the Main Settings area, enter the following information:

- the name of the SAP System in the **TARGET_SERVER_NAME** box
- the user name in the **USER_NAME** box
- the password in the **Password** box
- the number of the SAP system in the **SYSTEM_NUMBER** box
- the number of the client to which you connect SiteScope in the **CLIENT_NUMBER** box

9 Click **OK**.

Attaching SiteScope to Mercury Business Availability Center

You must now attach SiteScope to Mercury Business Availability Center – for details, see "Managing SiteScope in the Monitor Tree" in *Managing SiteScope*.

Checking that the Monitor is Set to Report All Monitors and Measurements

To view SiteScope measurements, you must make sure that the monitor is set to report all monitors and measurements information.

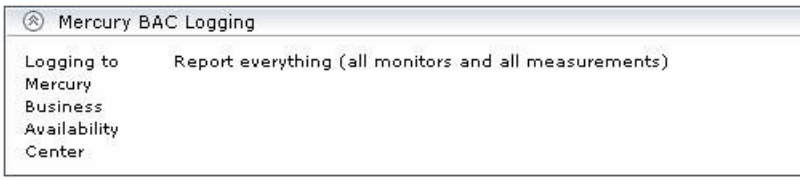
To check that the monitor is set to report all monitors and measurements:

1 Select **Admin** > **Monitors**.

2 Click the **Monitors** tab.

3 Double-click the appropriate CCMS monitor under the appropriate group, select **Properties**, and expand the Mercury BAC Login area.

4 Make sure that the value of the **Logging to Mercury Business Availability Center** is **Report everything (all monitors and all measurements)**.



Synchronizing the SiteScope Source Adapter

You can synchronize the SiteScope source adapter immediately or you can wait for the automatic synchronization to take place – for details, see "Administering Mercury Business Availability Center for SAP" in *Source Manager Administration*.

Connecting the SAP CCMS Measurements to the Appropriate Elements of the SAP Hierarchy

The SAP CCMS measurements are connected to the appropriate elements of the SAP hierarchy as follows:

1 A SAP CCMS measurement can reside only under a System, R/3 Application Server, Work Process, or Database CIT.

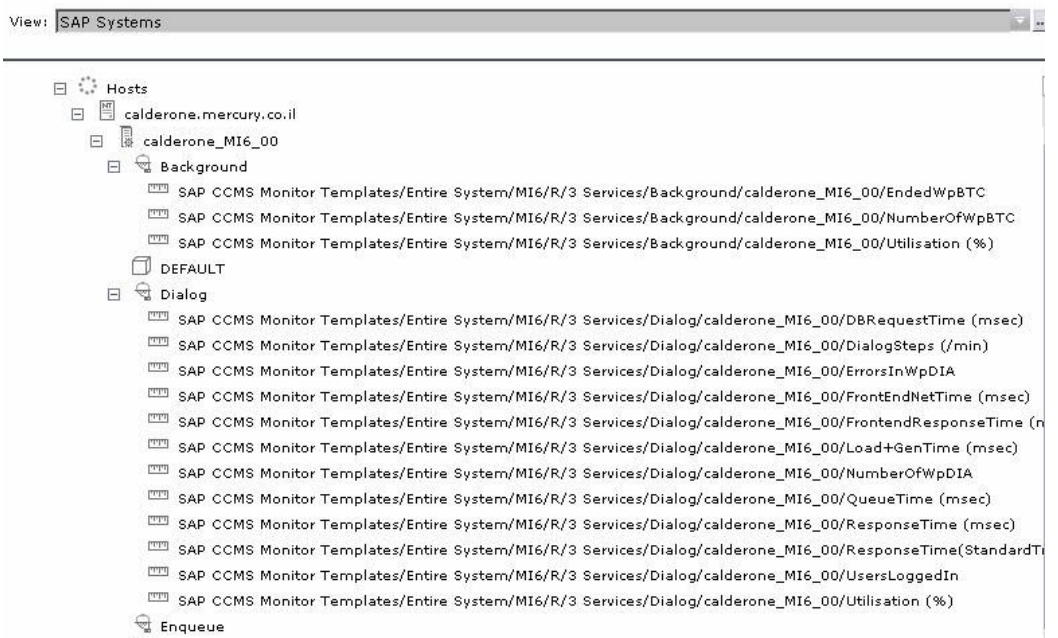
2 The linkage is performed based on the CCMS measurement's name that includes the name of the appropriate CI.

A CCMS measurement name has the following syntax: **<field1>/<field2>/<field3>**. If the fields in the CCMS name include the name of an R/3 Application Server, System ID, Work Process name, or Database name, the CCMS measurement is attached to the appropriate CI as follows:

<field1>	**<field2>**	**<field3>**	**Attached to CI**
R/3 Application Server name	System ID	Work Process name	Attached to the specified work process
R/3 Application Server name	System ID	N/A	Attached to the specified R/3 application server
System ID	N/A	N/A	Attached to the specified SAP system
System ID	Database name	N/A	Attached to the specified database

For more details about SAP hierarchy, see Chapter 19, "Mercury Business Availability Center for SAP CIs".

For example, if you have the following CCMS measurements:



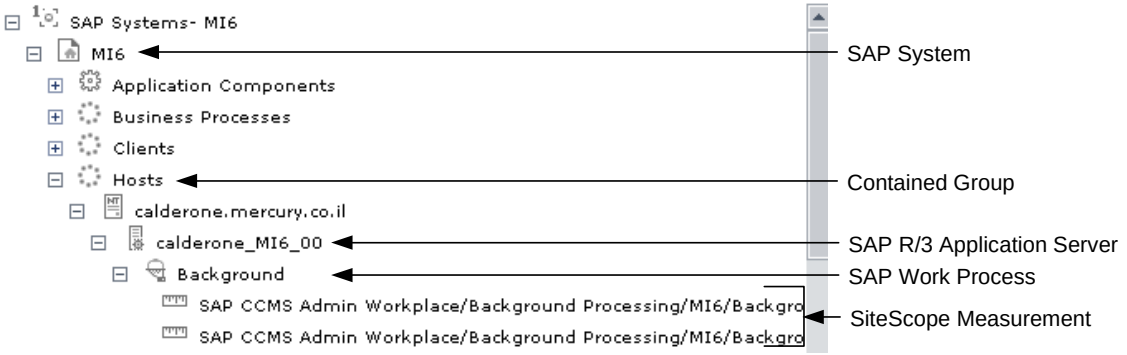
The first three CCMS measurements in the above figure are attached to the Background CI (Work Process) under the R/3 Services CI (R/3 Application Server), under the Host CI.

The other group of measurements are attached to the Dialog Work Process under the R/3 Services (R/3 Application Server) under the Host calderone_MI6_00.

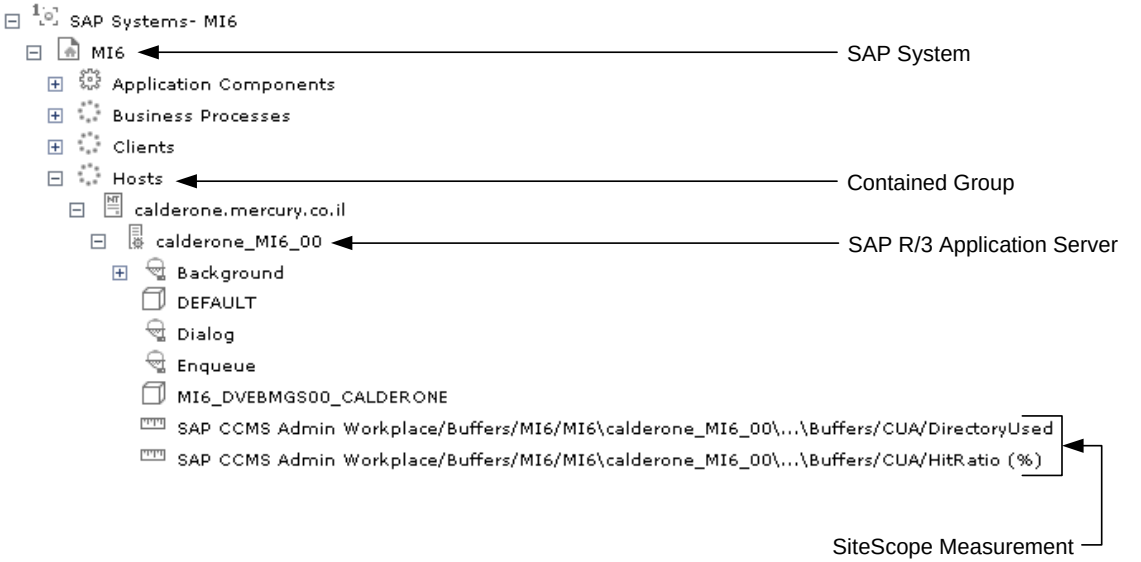
Checking/Viewing the SiteScope Measurements in the SAP View

SiteScope monitors are displayed in the SAP view only if they are connected to hosts. To display them elsewhere in the hierarchy, advanced users must modify the TQL of the SAP System.

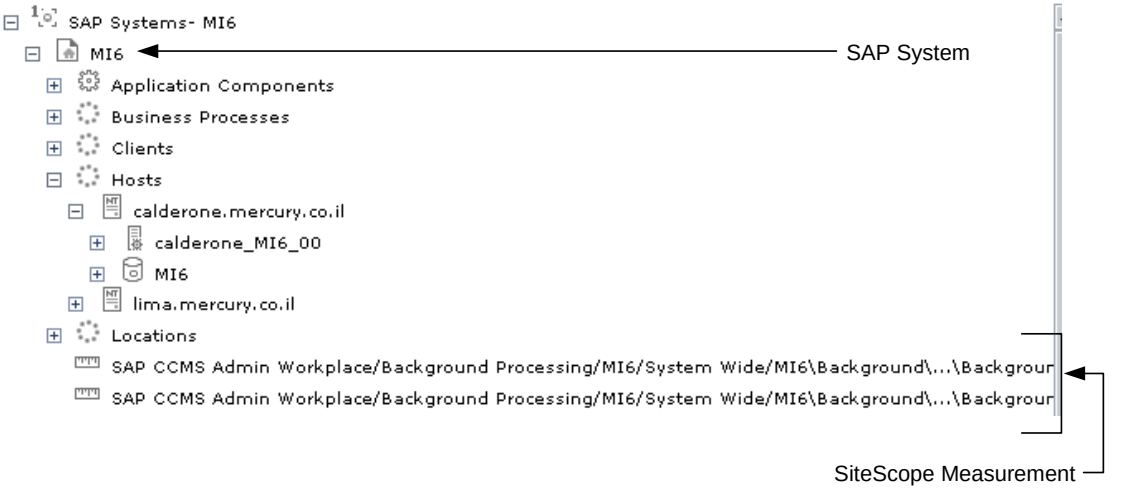
➤ The SiteScope Measurement is displayed under a SAP Work Process CI, under SAP R/3 Application Server CI, under an instance of a Contained Group CI, under a SAP System CI. For example:



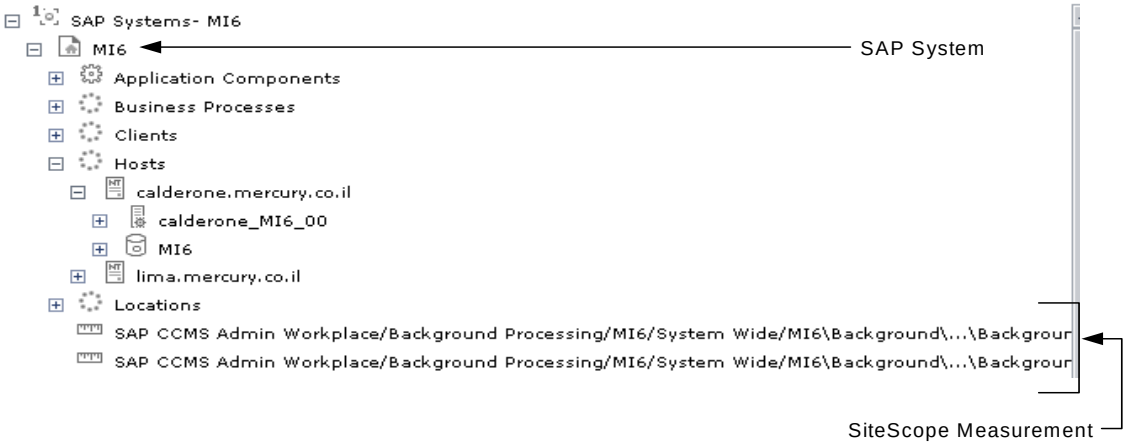
➤ The SiteScope Measurement is displayed under a SAP R/3 Application Server CI, under an instance of a Contained Group CI, under a SAP System CI. For example:



➤ The SiteScope Measurement is displayed under a SAP System CI. For example:



➤ The SiteScope Measurement is displayed under a Database CI, under an instance of a Contained Group CI, under a SAP System CI. For example:



Administering SAP Service

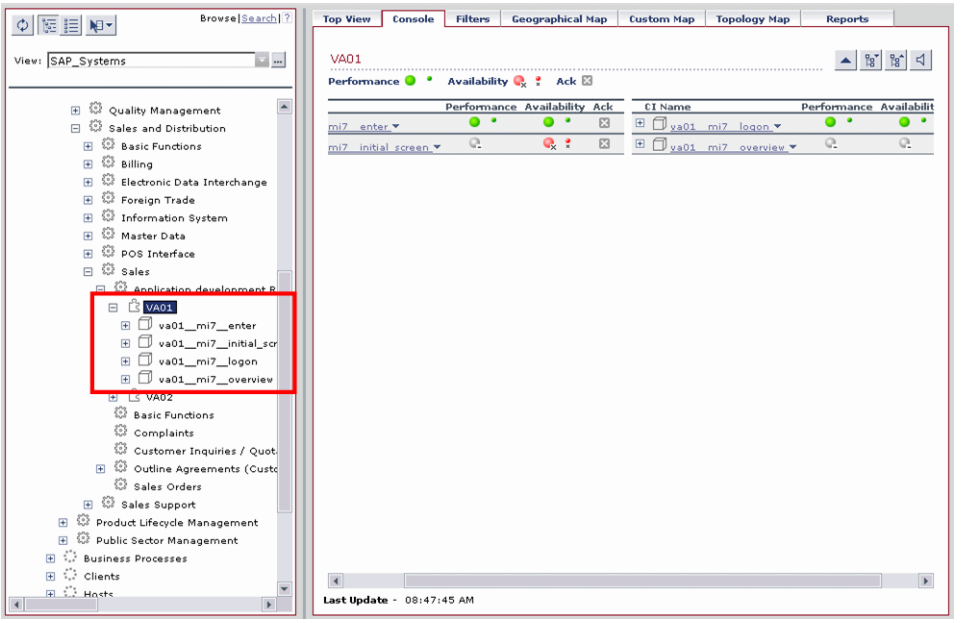
The SAP service is assigned to the Modeling Data Processing Server. It is a configuration service that enables Mercury Business Availability Center to work with data that is in SAP format.

For details about how to view a service status via the JMX Web console, see "High Availability for the Data Processing Server" in *Deploying Servers*.

The SAP Service provides the following advantages:

- Responsible for intelligent relation of monitoring information
- Installed on the modeling processing server (5 server installation)
- Loaded after the CMDB and Viewing System services are loaded
- Registers on 3 TQLs and gets notification on every change in those TQLs
- Check if the service is up/activated in the JMX console – for details, see "Activating the SAP Service" on page 336
- Responsible for automatic linkage of SiteScope measurements or BPM scripts with standardized names – for details, see "Following the Naming Conventions for Naming Business Process Steps" on page 319

- Creating a Business Process and Locations container and connecting the appropriate Business Process Steps to the containers. A Business Process Step connected manually to the SAP transaction would also be connected to those containers – for details, see "Attaching Business Process Steps to a SAP Transaction without Following the Naming Conventions" on page 320.
- Works after BPM and SiteScope source adapters have been synchronized
- Business Process Step that follows the naming convention



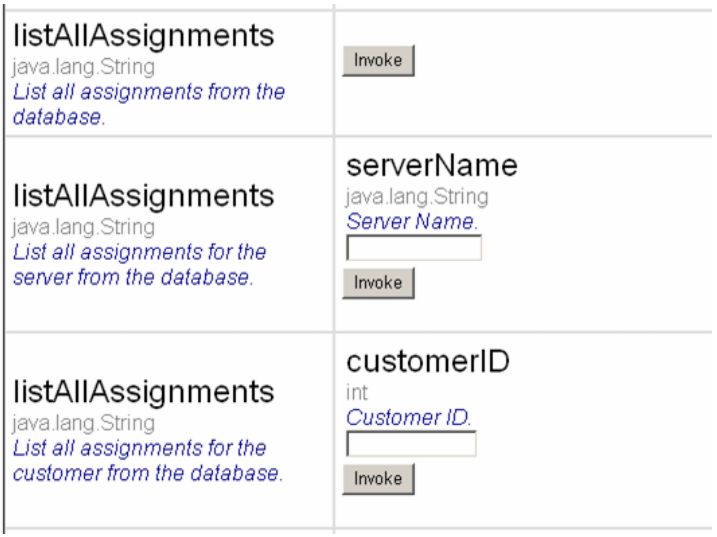
Activating the SAP Service

Check that the SAP Service is activated (it is activated by default). If necessary activate it manually.

To view if the SAP Service is activated:

1. In the browser, enter **http://<Mercury_Business_Availability_Center_server_name>:8080/jmx-console/**
2. Double-click **service=hac-manager** listed under **Topaz**.

3 The JMX MBean View for hac-manager opens.

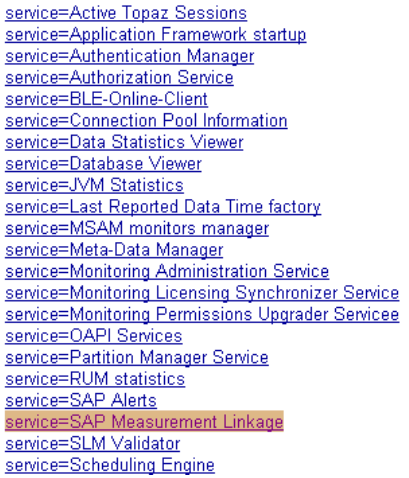


4 Click the **Invoke** button corresponding to the **listAllAssignments** parameter. The result is as follows:

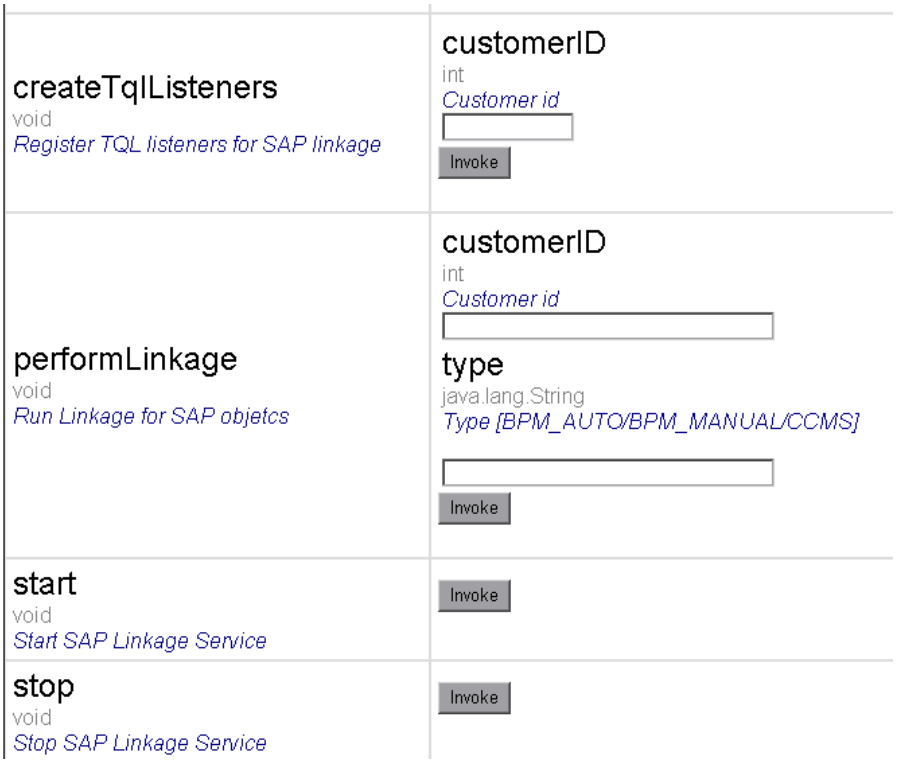
Service	Customer	Server - [Start] - [Ping]	Assigned - [Since] - [Duration]	State - [Since] - [Duration]	Srv. Sign	State Sign
LRDT	-1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:36:17] - [1d:9h:13m]	41	41
NOA	-1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:36:17] - [1d:9h:13m]	41	41
DASHBOARD	1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:38:32] - [1d:9h:11m]	41	41
CDM	1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:38:25] - [1d:9h:11m]	41	41
CMDB	1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:36:42] - [1d:9h:13m]	41	41
VIEWSYS	1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:37:42] - [1d:9h:12m]	41	41
SAP	1	eschulman2-il - [1d:9h:15m] - [24s]	Yes(1) - [06/Nov/2005 08:18:20] - [15d:14h:31m]	RUNNING - [20/Nov/2005 13:38:00] - [1d:9h:11m]	41	41

To manually activate the SAP service:

1. In the browser, enter **http://<Mercury_Business_Availability_Center_server_name>:8080/jmx-console/**
2. Double-click **service=SAP Measurement Linkage** listed under **Topaz**.



3 The JMX MBean View for SAP Measurement Linkage opens:



4 Specify:

- **performLinkage** – gets customer ID and the relevant linkage to perform (CCMS/BPM AUTO/BPM manual
- **createTqlListeners** – mainly for debugging
- **Start** – starts the service
- **Stop** – stops the service

Understanding the Change Reports

Changes made to the properties of all types of CIs are discovered by different types of discoveries – for details, see "Running SAP Discovery" on page 288. Those changes are displayed in the Change report available as a right-click menu option for each one of the relevant CI types – for details about the Change report, see "Change Report" in *Using Dashboard*.

Some of the changes made to the SAP Transactions CIs are caused by changes made to the corresponding Transport CIs. Those specific changes are processed by correlation rules in discovery and are displayed in the SAP Transaction Changes report and the SAP Transport Changes report. For details, see "SAP Transaction Changes Report" on page 183 and "SAP Transport Changes Report" on page 185.

21

Troubleshooting Mercury Business Availability Center for SAP

This chapter provides information that can help troubleshooting Mercury Business Availability Center for SAP.

This chapter describes:	On page:
The SAP KPI Remains Uninitialized	342
CCMS Does Not Manage to Monitor a SAP System	343
The Performance and Availability KPIs Remain Uninitialized	343
SAP Business Process Monitor Scripts Do Not Execute	344
Unable to Log Into Mercury Business Availability Center	344

The SAP KPI Remains Uninitialized

If the SAP KPI remains uninitialized, check these possible solutions in the following order:

1. Make sure the SAP CCMS monitor is set to send samples to Mercury Business Availability Center in the monitor's **Logging to Mercury AM** property in Monitor Administration.
2. Check that the samples arrive to the Business Logic Engine, in the following file:
<Mercury_Business_Availability_Center_root_directory>\log\EJBContainer\TrinitySamples.log
3. Check that the samples arrive to the bus in the following file:
<Mercury_Business_Availability_Center_root_directory>\log\core\dispatcher_log.txt
4. Check that the samples are sent in the following file:
<SiteScope_root_directory>\logs\topaz_all.log.1
5. If you see values in the measurements' KPIs, but they are not colored, check the threshold definition in Monitor Administration.
6. Restart SiteScope, detach it, and reattach it.
7. Check time synchronization between Mercury Business Availability Center and its Management database.

CCMS Does Not Manage to Monitor a SAP System

If CCMS does not manage to monitor a SAP System, check these possible solutions in the following order:

1. If you are able to connect to the SAP System using SAP Logon.
2. If yes, run the **rz20** transaction.
3. Open **SAP CCMS Monitor Templates** > **Entire System**, and check if a tree is displayed.
   - ➤ If there is no tree, there might be a problem with the job that is collecting CCMS information. Contact your SAP administrator.
   - ➤ If there is a tree, check that the names of the application server and of the system match, in content and case, the ones used in SiteScope.

The Performance and Availability KPIs Remain Uninitialized

If the Performance and Availability KPIs remain uninitialized, check these possible solutions in the following order:

1. Check that the samples arrive, in the following file: **<Mercury_Business_Availability_Center_root_directory>\log\EJBContainer\TrinitySamples.log**
2. Try and run Business Process Monitor as a specific user.
3. Check time synchronization between Mercury Business Availability Center and its Management database.
4. Check the minute's synchronization between Business Process Monitor and Mercury Business Availability Center.

SAP Business Process Monitor Scripts Do Not Execute

If the SAP Business Process Monitor scripts do not execute, check these possible solutions in the following order:

1. Verify that SAP Logon is installed on the Business Process Monitor server.
2. Make sure that the SAP Business Process Monitor scripts run in Mercury Virtual User Generator (VuGen) and check the script's connection parameters – for details, see "Editing the Script" on page 316.
3. Register dlls under **<Business_Process_Monitor_install_directory>\bin**, as follows:
   - **regsvr32 SapGuiActiveScreen.dll**
   - **regsvr32 SapGuiReplayEvents.dll**
   - **regsvr32 ActiveScreen.dll**

Unable to Log Into Mercury Business Availability Center

If you are unable to log into Mercury Business Availability Center, check these possible solutions in the following order:

1. Check that the last line in the following file:
   <SiteScope_root_directory>\log\jboss_boot.log
   displays the following information: JBoss .... started in ...
2. If you are able to connect using port **8080** explicitly, give the **Read and Execute** permission to **Everyone** for the following dlls in **<Windows_installation_directory>\System32**:
   - **msvcr71.dll**
   - **msvcp71.dll**
   - **mfc71.dll**
   - **atl71.dll**

3 If you have SiteScope installed on the same machine as Mercury Business Availability Center, make sure that Mercury Business Availability Center is already running before you start SiteScope.

Note: It is not recommended to install Mercury Business Availability Center and SiteScope on the same machine.

Part V

Repositories Administration

22

Introduction to Mercury Business Availability Center Repositories

Mercury Business Availability Center's repositories provide definitions for objects in the Mercury Business Availability Center system. Many of these definitions can be customized as required by your organization.

The Repositories page provides a convenient user interface for viewing and customizing the definitions contained in the repository XML definition files. These files define the objects that are used throughout Mercury Business Availability Center to determine how source data is imported and handled by Dashboard Administration or Service Level Management Administration, and to determine appearance and functionality for the CIs in the presentation layer.

Advanced users can modify existing repository objects and create new ones. This may be necessary when you want to customize the way information is presented in Dashboard or in Service Level Management, in order to fit the needs of your organization; or when you need to create new objects when integrating data from a new external system into Dashboard or Service Level Management.

The Repositories page enables you to access the following repositories:

- **KPIs** – provides definitions for the Key Performance Indicators (KPIs) used in Dashboard or in Service Level Management. For details, see Chapter 23, "KPIs Repository"
- **rules** – provides definitions for the business rules used with the KPIs. For details, see "Business Rules Repository" on page 405
- **context menus** – provides definitions for the Configuration Items (CIs) menus used in the Dashboard or Service Level Management application. For details, see "Context Menu Items Repository" on page 605

- **context menu items** – provides definitions for the CI menu items that are used in the context menus. For details, see "Context Menu Items Repository" on page 605
- **tooltips** – provides definitions for the tooltips used to display CI information in the Dashboard or Service Level Management application. For details, see "Tooltips Repository" on page 685

Mercury Services offers best practice consulting; it is recommended that you use this service before making any changes to the repositories. For information on how to obtain this service, contact your Mercury representative.

Important: Changes made to the repositories may adversely affect Dashboard or Service Level Management functionality. Only administrators with advanced knowledge of Dashboard or Service Level Management should perform changes.

Note: Users can only view the repositories if they are given the **Add** permission for **Sources** in the Permissions Management page for Dashboard or Service Level Management (**Admin** > **Platform** > **Users and Permissions** > **Permissions Management**).

23

KPIs Repository

The KPI Repository includes the Key Performance Indicators (KPIs) available in Dashboard and Service Level Management and enables you to create new KPIs and to edit existing KPIs. For details about Dashboard KPIs, see Chapter 24, “Dashboard KPIs Details.” For details about Service Level Management KPIs, see Chapter 25, “Service Level Management KPI Repository.”

This chapter describes:	On page:
Working with the KPIs Repository	352
Example Scenario – Creating KPIs	354
Creating a KPI Using Cloning	357
Creating a New KPI	358
Editing a KPI Using Override	358
Specifying the KPI Details	359
Dependent KPIs	369

Working with the KPIs Repository

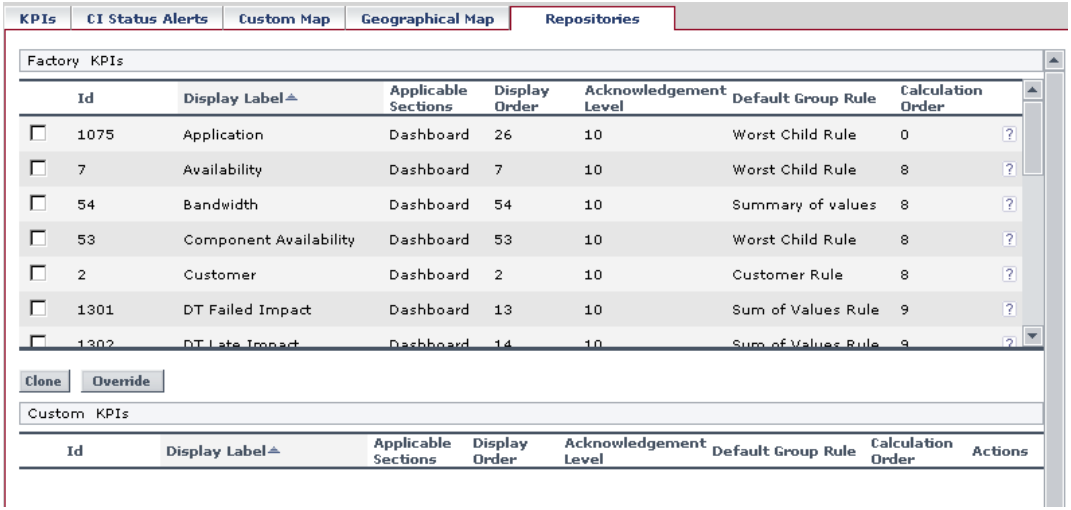
The KPIs Repository page displays the list of factory (pre-defined) and customized KPIs. Those KPIs are available throughout Mercury Business Availability Center to determine how source data is imported.

Advanced users can modify existing repository KPIs and create new ones. You modify existing repository KPIs when you want to customize the way information is presented in Dashboard or Service Level Management, to fit the needs of your organization. You may create new KPIs when integrating data from a new external system into Dashboard or Service Level Management.

The Dashboard KPIs Repository includes all the KPIs that can be used in the Dashboard application – for details about the Dashboard KPIs, see Chapter 24, “Dashboard KPIs Details”. The Service Level Management KPIs Repository includes all the KPIs that can be used in the Service Level Management application – for details, see Chapter 25, “Service Level Management KPI Repository”.

Each KPI is defined by an ID number in the adapter templates, and is assigned a default business rule (a business rule is build on business logic). For more information about KPIs, see Chapter 2, “Configuring KPIs”.

The KPIs Repository page provides the following information:



- **Id** – This specifies the ID number used to identify the KPI in the source adapter templates. This is the default KPI ID.
- **Display Label** – the name used for the KPI in Dashboard.
- **Applicable section** – the sections of the application where the KPI is in use. For example: Dashboard.
- **Display Order** – The order in which the KPIs are displayed in Dashboard. This is the default display order.
- **Acknowledgment Level** – The highest KPI status from which you can add an acknowledge note in the Dashboard application. This is the default acknowledgement level.
- **Default Group Rule** – This specifies the rule that is defined by default for this KPI.
- **Calculation Order** – The position of the KPI in the ordered list used by Dashboard when it calculates the topology. Dashboard calculates the higher priority KPIs first, and then the lower priority KPIs. This is the default calculation order.

  You can:

- **create a new KPI** – you can create a new customized KPI by:
  - **cloning** – you clone an existing KPI to use it as a template – for details, see "Creating a KPI Using Cloning" on page 357
  - **creating a new KPI** – for details, see "Creating a New KPI" on page 358
- **edit an existing KPI** – you override an existing KPI to replace it with a customized KPI – for details, see "Editing a KPI Using Override" on page 358

  The above operations add the corresponding KPI entry to the Custom KPIs list. You can then customize the KPI to your organization's specifications – for details, see "Specifying the KPI Details" on page 359

Example Scenario – Creating KPIs

This scenario describes how to create two KPIs. Those KPIs are clones of the OT Impact KPI. The first KPI is created specifically for the Real User Monitor and the second one for the Business Process Monitor. Both KPIs will be attached to two rules cloned from the Impact Over Time rule that calculates the financial loss of downtime.

The scenario is divided into the following stages:

- "Stage 1: Create the RUM OT Impact KPI and the Business Process Monitor OT Impact KPI" on page 354
- "Stage 2: Create the New Rules" on page 356
- "Stage 3: Attach the New Rules to the New KPIs" on page 356

Stage 1: Create the RUM OT Impact KPI and the Business Process Monitor OT Impact KPI

The first stage involves creating clones of the OT Impact KPI.

To create the clone of the OT Impact KPI:

1. Select **Admin** > **Dashboard** or **Service Level Management**.
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Select the **KPIs** tab menu option to open the KPIs page.
4. In the **Factory KPIs** area, select the OT Item KPI you want to clone.



☐	303	Locations	Dashboard
☑	13	OT Impact	Dashboard
☐	6	Performance	Dashboard

5. Click the **Clone** button. The cloned KPI appears in the Custom KPIs area.



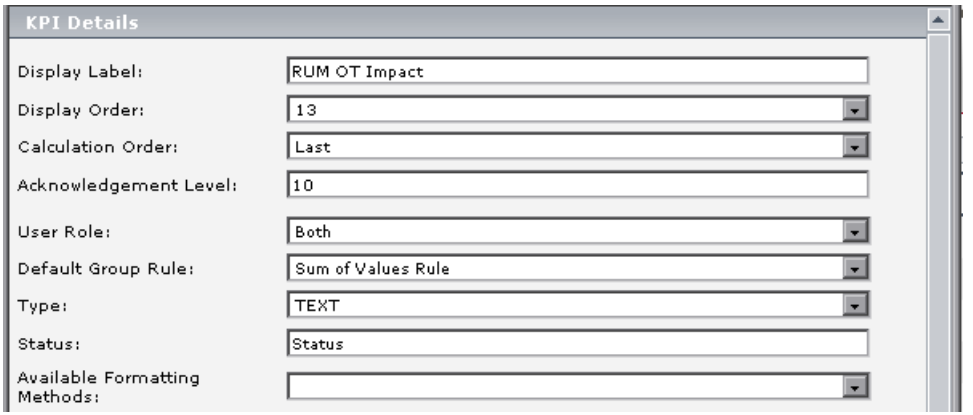
Custom KPIs

	Id	Display Label	Applicable Sections
☐	2000	OT Impact	Dashboard



6 Click the appropriate **Edit Entity** button to open the **KPI Details** dialog box – for details, see "Specifying the KPI Details" on page 359.

7 Change the name of the KPI to **RUM OT Impact**.



8 Click **OK**.

9 Repeat steps 4 through 6 to create the BPM OT Impact KPI.

The result is as follows:



Stage 2: Create the New Rules

The second stage of the scenario consists in creating the two rules – for details, see "Example Scenario - Creating New Rules" on page 409.

Stage 3: Attach the New Rules to the New KPIs

The next stage is to attach the new rules to the new KPIs.

To add the context menu item to a context menu:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Select the **KPIs** tab menu option to open the KPIs page.

4 In the **Custom KPIs** area, select the **RUM OT Impact** KPI.

Custom KPIs

	Id	Display Label	Applicable Sections
☑	2000	RUM OT Impact	Dashboard
☐	2001	BPM OT Impact	Dashboard



5 Click the appropriate **Edit Entity** button to open the **KPI Details** dialog box – for details, see "Specifying the KPI Details" on page 359.

6 In the **Applicable Rules** list, scroll down to the RUM Impact Over Time Rule and select the rule. Make sure that you press the CTRL button when you select the rules. If you do not press the CTRL button, all the pre-selected rules are disabled when you click the rule you want to add to the applicable rules.

Applicable Rules:

MTBF - Alternate
MTTR
Monitors Availability Per Volume Rule
Monitors Performance Per Volume Rule in %
Monitors Volume Sum Rule
Monitors-BP Step Performance Rule
Number Of Outages
Outage Based on Availability
Outage Duration
PNR
Percentage Rule
RUM Impact Over Time Rule
RUM Page Monitor Availability Rule
RUM Page Monitor Performance Rule

7 Click **OK** to save the change.

8 Repeat steps 4 through 7 to attach the **BPM Impact Over Time** rule to the **SiteScope OT Impact** KPI.

Creating a KPI Using Cloning

You can create a new KPI by cloning an existing KPI and modifying it. The existing KPI can be a factory or a customized KPI. The original KPI is still available. The cloned KPI is automatically assigned a new KPI ID.

To clone an existing KPI:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Select the **KPIs** tab menu option to open the KPIs page.

4 In the **Factory KPIs** or **Custom KPIs** area, select the KPI you want to clone.

5 Click the **Clone** button. The cloned KPI appears in the Custom KPIs area.



6 To specify the KPI's details (you can do it now or at a later time), click the appropriate **Edit Entity** button to open the **KPI Details** dialog box – for details, see "Specifying the KPI Details" on page 359.

Note: Change the name of the KPI you have cloned to make sure you attach the cloned KPI and not the original KPI to a specific configuration item (CI).

Creating a New KPI

You can create a new KPI that is not based on an existing KPI.

To create a new KPI:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Select the **KPIs** tab menu option to open the KPIs page.

4 In the **Custom KPIs** area, click the **New Item** button to open the **KPI Details** dialog box in which you specify the new details of the KPI you want to create.

5 Proceed to "Specifying the KPI Details" on page 359.

Editing a KPI Using Override

You can override an existing factory KPI. The KPI that you override is marked as overridden in the Factory KPIs area. A copy appears in the Custom KPIs area. The copy of the KPI in the Custom KPIs area overrides the original factory KPI and the original factory KPI is disabled. The overriding KPI and the original KPI have the same KPI ID.

Note: If you later delete the custom KPI that overrode the factory KPI, the original factory KPI is automatically restored.

To edit a KPI using override:

1 Select **Admin** > **Dashboard** or **Service Level Management**.

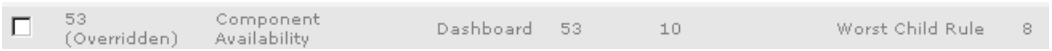


2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Select the **KPIs** tab menu option to open the KPIs page.

4 In the **Factory KPIs** area, select the KPI you want to override.

5 Click the **Override** button. (Overridden) appears underneath the overridden KPI as follows:



A copy of the factory KPI appears in the **Custom KPIs** area.

6 To specify the KPI's details (you can do it now or at a later time), click the appropriate **Edit Entity** button to open the **KPI Details** dialog box – for details, see below.



Specifying the KPI Details

In the KPI Details dialog box, you can modify existing detailed information for the KPI. You can also modify existing information or enter new information for the KPI parameters.

Cloning a KPI creates a new KPI with a new ID number.

This section includes the following topics:

- "Specifying the KPI Details" on page 359
- "Specifying the KPI's Parameter Details" on page 364
- "Formatting Methods" on page 366
- "Trend" on page 368
- "Color and Icons" on page 368

Specifying the KPI Details

You can modify existing detailed information for the KPI.

To specify KPI details:

1 Access the **KPI Details** dialog box.

2 Enter the displayed name for the KPI in the **Display Label** box.

3 Select the order in which the KPIs are displayed in Dashboard or Service Level Management in the **Display Order** list.

4 Select the KPI position in the **Calculation Order** list.

That number represents the position of the KPI in the ordered list used by Dashboard or Service Level Management when it calculates the topology. Dashboard or Service Level Management calculates the higher priority KPIs first, and then the lower priority KPIs.

5 Enter the highest KPI status from which you can add an acknowledgment note in the Dashboard or Service Level Management application in the **Acknowledgement Level** box.

6 Select the type of user in the **Applicable for User Role** list. You can define two versions of a single Dashboard KPIs for two different user types (modes): **Operations** and **Business**, where each KPI version is geared towards the particular viewing requirements of one of the user types – for details, see "KPIs for User Modes" on page 57. Select **Both** if you want to have one version of the KPI.

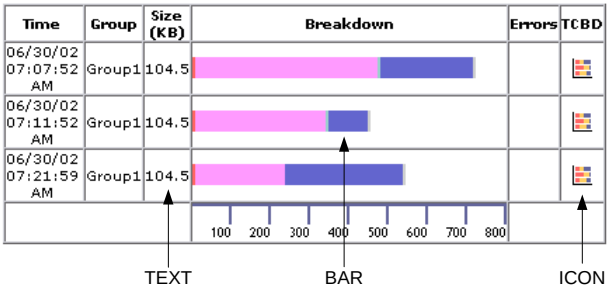
If you select **Operations** and **Business**, it is recommended to modify the KPI's name to reflect the type of user role. For example, rename OT Impact: OT Impact - Operations.

7 Select the group rule to be used for the next level up in the hierarchy in the **Default Group Rule** list.

This list displays all the available group rules for the applicable rule you selected in the **Applicable Rules** list.

When a KPI is defined for a CI, it is usually added to a parent CI. The parent item uses the group rule to calculate the KPI status. For a list of the group rules, see "Dashboard Business Rules Details" on page 429.

8 Select how you want the KPI to be presented in the Dashboard or Service Level Management application—**ICON**, **TEXT**, **PNR_BAR, BAR** or **GROUPBAR**—in the **Type** list.



If you select the **GROUPBAR** type for the **Transactions** KPI and one or more of the CI's children has the Business Process Step type, then the **Transactions** KPI is displayed as a **GROUPBAR** in the Console tab.

If you select **GROUPBAR** for the **Locations** KPI and one or more of the CI's children has the Locations type, then the **Locations** KPI is displayed as a **GROUPBAR** in the Console tab. For example:



For more details about the PNR_BAR representation, see "Attaching a PNR KPI to a CI" on page 20.

9 The source of the KPI status is displayed in the **Status** box. It is usually **Status**.

The value of the **Status** box represents the key in the KPI results status object. Changing the value of **Status** is necessary if you create a new rule with a key that is not **Status**; in such a case, enter the key of the new rule in the **Status** box. To create a new rule with a different key, contact Mercury Customer Support.

10 Select the formatting method you want to use for this KPI in the **Available Formatting Methods** list – for details, see "Formatting Methods" on page 366.

11 The formatting method that is invoked on the **valueSource** is displayed in the **Formatting Method** box. This field can remain blank if it is not required. If you need to create a new method, contact Mercury Customer Support.

12 The source of the KPI value is displayed in the **Value** box. It is usually **Value**.

The value of the **Status** box represents the key in the KPI results value object. If you enter another string in the **Value** box, you must create a rule whose key is the **Value** value. If you need to create a new rule, contact Mercury Customer Support.

13 Enter the row value prefix in the **Value Prefix** box. This can remain blank if it is not required.

14 Enter the row value postfix in the **Value Postfix** box. This can remain blank if it is not required.

For example, to indicate that the value of the KPI is in dollars, enter $ in the **Value Postfix** box.

15 Enter the type of unit applicable to the rule results displayed in the KPI, in the **Units** box – for more details about the available units, see "Units of Measurement for Objectives" on page 44.

16 In **The KPI is critical** list, select the trend for the KPI – for details on trend, see "Trend" on page 368. Select:

- **values are smaller –** when the values are small the KPI is critical
- **no different –** when the values are not different the KPI is critical
- **values are bigger –** when the values are large the KPI is critical

---

Note: All the fields listed above are connected to the calculation performed by the selected Applicable Rules.

---

17 Add rules or remove existing rules from the **Applicable Rules** list. **Applicable Rules** lists the rules (types of calculations) that can be performed on the KPI.

One of the rules in the list of applicable rules is the default rule of the KPI. You can change the default rule of the KPI to one of the other rules selected in the **Applicable Rules** list. For example, the applicable rules of the OT Impact KPI are: **Sum of Values** rule and **Impact Over Time** rule. The default rule is **Sum of Values**.

Note: Make sure that you press the CTRL button when you select the rules. If you do not press the CTRL button, all the pre-selected rules are disabled when you click the rule you want to add to the applicable rules.

For details on the rule applicable for a specific KPI, see "Dashboard KPIs Details" on page 371. The rules included here define the options that will be available in the View Builder when selecting the rule to assign to a KPI.

Note: You must select a rule in the **Applicable Rules** list to make it available to the KPI.

---

18 Add sections or remove existing sections from the **Applicable Sections** list. **Applicable Sections** lists the sections (applications and sub-applications) in which the KPI can be displayed. For the KPI to be displayed, you must select at least one section.

The available applicable sections are:

- Dashboard
- SLM
- SLM General
- SLM Outage
- SLM PNR

19 You can then modify the existing parameters or add new parameters to the KPI – for details, see below.

Specifying the KPI's Parameter Details

In the Parameters Details dialog box, you can modify existing detailed information or enter new information about the KPI's parameter.

The pre-defined default status parameters are the same for each KPI:

critical – (red) indicates that the status falls within the Critical objective level– for details, see "KPI Objectives" on page 38

downtime – stopped or downtime (gray with green outline) status. The corresponding profile/group/monitor is currently disabled

info/OK – (green) indicates that the status falls within the OK objective level – for details, see "KPI Objectives" on page 38

major – (orange) indicates that the status falls within the Major objective level – for details, see "KPI Objectives" on page 38

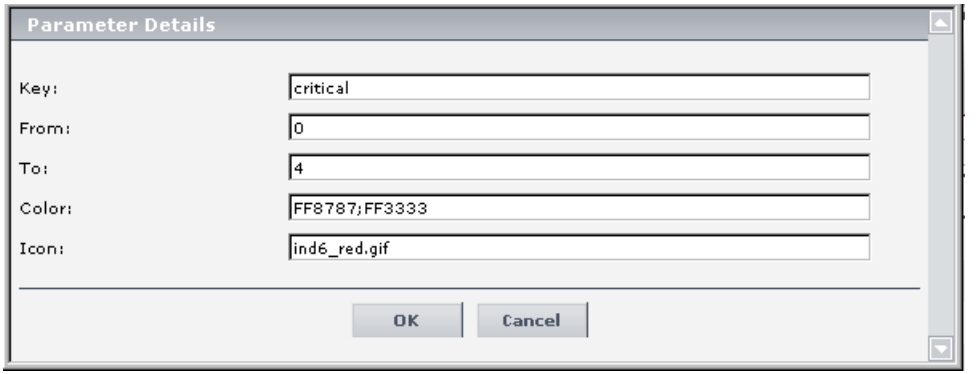
minor – (yellow) indicates that the status falls within the Minor objective level – for details, see "KPI Objectives" on page 38

stop – stopped or downtime (gray with green outline) status. The corresponding profile/group/monitor is currently disabled

none – uninitialized or No Data (gray) status.

warning – warning (yellow) status

The values of the **From**, **To**, **Color**, and **Icon** parameters might be different depending on the KPI. For example:



To specify the KPI's parameter details:

1 In the **KPI Details** dialog box, in the **KPI Parameters** area, click the **New** or **Edit** button to open the **Parameter Details** dialog box.

2 Enter the name of the KPI parameter in the **Key** box.

3 Enter the appropriate values in the **From**/**To** boxes.

When the value of a KPI is in the range indicated by the **From** and **To** boxes, the tooltip for the KPI is assigned the color specified in the **Color** box and the KPI is assigned the status icon specified in the **Icon** box.

4 Enter a color (HTML color code, RGB, or hexadecimal format) in the **Color** box. The first number represents the color of the border of the KPI tooltip. The second number represents the color of the header of the KPI tooltip – for details, see "Color and Icons" on page 368.

➤ Enter the path to a status icon in the **Icon** box.

The icon you specify is assigned to the KPI when the KPI's value is within the range specified in the **From**/**To** fields – for details, see "Color and Icons" on page 368.

Note: For a list of KPI parameters and their default values, see the description of each KPI in "Dashboard KPIs Details" on page 371.

---

5 Click **OK** to save the new KPI details and close the **KPI Details** dialog box.

Formatting Methods

The formatting methods that are available are:

Formatting Methods	Description
analyzeSiteScopeMessage	If, in a message, a long word overlaps the end of the line, the word is truncated. The rest of the word and the rest of the message are wrapped.
encode	Inserts a back slash (\) before special characters.
formatDecimalNumber	Returns as a formatted decimal number. The number of digits after the decimal point is indicated by numAfterDot.
formatDateTime	Returns formatted as date and time: DDMMMYYYY hh:mm:ss
formatPnrValue	Formats the pnr time left in the PNR format.
getIntValue	Returns an int number as string.
getMilliAsSec	Returns a millisecond value as seconds by dividing the value by 1000.
getMustValue	Returns ! if there is a value, otherwise returns nothing.
getRemedyETTR	Explanation available on request. Contact your Mercury representative.
getRemedyResource	Explanation available on request. Contact your Mercury representative.
getResourceString	Returns the corresponding resource string to the given string.
getStatusString	Returns the corresponding resource string to the given status string.
getWeightValue	Returns the value if there is a value, otherwise returns 1.

Formatting Methods	Description
ifEndCheck	Changes an empty string into a comment line. Inserts "--->" at the end of the string.
ifStartCheck	Changes an empty string into a comment line. Inserts "**<!--**" at the end of the string.
numberToTime	Converts a string that can represent a period of time in seconds into a more readable format.
resourceFromKey	Used to get the resource of the ticketing sample field.
returnDateAsString	Returns the given date in milliseconds in the date format as it appears in the **.resources** file.
returnDateAsStringInSec	Returns the given date in seconds in to the date format as it appears in the **.resources** file.
returnNumOfDigitAfter Point	Formats the given string and returns a string that shows only 3 digit after the point.
returnNumOfDigitAfter Point(digits)	Formats the given string and returns a decimal number. The number of digits after the decimal point is specified in **(digits)**.
returnNumOfDigitAfter PointWithDollar	Converts the given string into a decimal number with 3 digits after the decimal point preceded by a dollar sign.
returnNumOfDigitAfter PointWithEuro	Converts the given string into a decimal number with 3 digits after the decimal point preceded by a dollar sign followed by a Euro sign.
returnWithPercentSign	Converts the given string into a decimal number with 3 digits after the decimal point followed by a percentage sign.
toLowerCase	Returns the lower case of the given string.
toLowerCase_encode	Works in the same way as toLowerCase but adds add escaping on the return value.

Trend

Service Level Management (SLM) KPIs are assigned a positive trend (the higher the better or the lower the better).

For example:

- the Availability KPI is given a positive trend. This means that it becomes critical when its value is small because it means that the page whose availability is being measured is not available most of the time. The Availability KPI performance is best when its value is large.
- the Outage Duration KPI is given a negative trend. This means that its performance is best when its value is small.

Color and Icons

You can specify the border and header color of a KPI tooltip for each one of the KPI's parameters. The colors specified in the **Color** box, are assigned to the KPI tooltip when the KPI value is within the range specified in the **From**/**To** boxes – for details, see "Specifying the KPI's Parameter Details" on page 364.

The syntax is: **<border_color>;<header_color>**

- **<border_color>** is the tooltip border color (in hex triplet format).
- **<header_color>** is the tooltip header color (in hex triplet format).

The colors should be separated by semi-colons.

For example: when the Availability KPI has the OK status, the tooltip would display the following colors 66CC00;339900:



A hex triplet is a six-digit, three-byte hexadecimal number used to represent colors. The bytes represent the red, green and blue components of the color in respective order. One byte represents a number in the range 00 to FF. The hex triplet is formed by concatenating three bytes in hexadecimal notation.

For example, consider the color where the red/green/blue values are hexadecimal numbers: red=24, green=68, blue=A0 (a greyish-blue color). To obtain the hex triplet, simply write the three hex bytes together without spaces, thus: 2468A0. If a byte is less than 16 (decimal) or 10 (hex) it must be represented with a leading zero to keep the number of digits in the triplet equal to six.

You can also specify the icon that is assigned to the KPI when the KPI value is within the range specified in the **From**/**To** fields. You must enter the path to a status icon in the **Icon** box – for details, see "Specifying the KPI's Parameter Details" on page 364.

Dependent KPIs

A KPI is dependent on another KPI when the rule that calculates the value of the first KPI uses the results of the second KPI's rule. For example, if an Outage KPI and a Number of Outages KPI are attached to a specific CI, the value of the Number of Outages KPI depends on the values of the Outage KPI. The KPIs are calculated in a specific order.

24

Dashboard KPIs Details

This chapter describes the KPIs and lists their applicable rules.

This chapter describes:	On page:
Application	372
Availability	373
Bandwidth	373
Component Availability	374
Customer	375
DT Failed Impact	376
DT Late Impact	376
DT Total Impact	377
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This chapter describes:	On page:
Transactions	388
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Application

Displays the worst overall status for Mercury Diagnostics measurements (attached to Business Process Monitor transactions).

To view this KPI, you must modify the Business Process Monitoring adapter – for details, see *Mercury Diagnostics Installation and User's Guide*.

Rules

The following rules are applicable to this KPI:

- "Diagnostics for J2EE/.Net General" on page 448
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Availability

Displays information relating to availability measurements for transactions.

Rules

The following rules are applicable to this KPI:

- "Average Availability of Weighted Volume" on page 432
- "Best Child Rule" on page 438
- "Deep Transaction Tracing Monitor Availability" on page 441
- "EMS Simple Rule" on page 450
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "Percentage Rule" on page 472
- "RUM Page Monitor Availability Rule" on page 484
- "RUM Session Monitor Availability Rule" on page 488
- "RUM Transaction Monitor Availability Rule" on page 493
- "Transaction Availability Rule" on page 511
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Bandwidth

Displays the amount of traffic (in bytes) between application servers and end users accessing the servers (this includes traffic in both directions). This includes both HTTP and HTTPS traffic.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "RUM Bandwidth Rule" on page 478
- "Summary of Values Rule" on page 510
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Component Availability

Displays information on pages without server errors, for servers monitored by the Real User Monitor.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455

- "RUM Component Availability Rule" on page 479
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Customer

Displays information relating to customer service. Used for backward compatibility. This KPI can be associated with all CIs.

For example, for each one of your customers you can create a customized KPI that will represent the specific transactions that are relevant to that customer.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "Customer Rule" on page 439
- "Percentage Rule" on page 472
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

DT Failed Impact

Displays information relating to the financial loss caused to the organization when a Deep Transaction transaction has failed.

Rules

The following rules are applicable to this KPI:

- "Deep Transaction Tracing Monitor Failed Tx Business Impact" on page 443
- "Sum of Values Rule" on page 508

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

DT Late Impact

Displays information related to the financial loss caused to the organization when the transaction has not been completed on time (late). The threshold is set in TransactionVision (DTT) application.

Rules

The following rules are applicable to this KPI:

- "Deep Transaction Tracing Monitor Late Tx Business Impact" on page 444
- "Sum of Values Rule" on page 508

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

DT Total Impact

Displays information relating to the financial loss to the organization calculated by adding the DT Late Impact and the DT Failed Impact information.

Rules

The following rules are applicable to this KPI:

➤ "Deep Transaction Tracing Monitor Total Tx Business Impact" on page 447

➤ "Sum of Values Rule" on page 508

See Also...

➤ "Creating a KPI Using Cloning" on page 357

➤ "Creating a New KPI" on page 358

➤ "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

HP System

Displays information relating to service levels for HP OpenView Service Navigator metrics.

Rules

The following rules are applicable to this KPI:

➤ "Best Child Rule" on page 438

➤ "EMS Simple Rule" on page 450

➤ "Generic Sample Rule" on page 452

➤ "Generic Sum of Values Over Time Rule" on page 455

- "HP OpenView Service Navigator Rule" on page 463
- "HP Worst Child Rule" on page 464
- "Percentage Rule" on page 472
- "Sitescope Measurement Rule" on page 500
- "Sitescope Monitor Rule" on page 503
- "Sitescope Measurement Time-Based Rule" on page 502
- "Sitescope Monitor Time-Based Rule" on page 505
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Latency

Displays the average roundtrip time for packets, between the end users and the servers monitored by the Real User Monitor.

Rules

The following rules are applicable to this KPI:

- "Average Latency of Weighted Volume" on page 433
- "Best Child Rule" on page 438
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "RUM Latency Rule" on page 482
- "Worst Child Rule" on page 518

See Also...

- ➤ "Creating a KPI Using Cloning" on page 357
- ➤ "Creating a New KPI" on page 358
- ➤ "Editing a KPI Using Override" on page 358
- ➤ "Specifying the KPI Details" on page 359

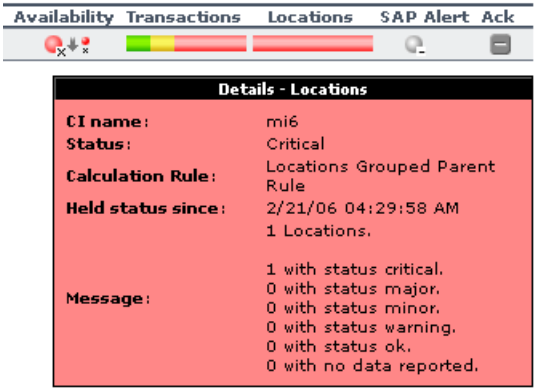
Locations

At the group level, displays the worst status of all the children CIs. The Locations KPI is a bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the worst status of all the children CIs, that corresponds to the color, at that location. This KPI is dedicated for the SAP System.

At the monitor level, displays the worst status of the **Performance** and **Availability** KPIs for the CI. The Locations KPI is a bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the end-user experience status (the worst status between **Performance** and **Availability**) that corresponds to the color, at that location. The colors correspond to the Business Process Monitor Performance/Availability colors.

For example, if there are ten SAP Business Process Steps under the Locations container, five with **Informational** end-user experience, two with **Minor** status, two with **Critical** status, and one with No Data status, the bar will be: 50% green, 20% yellow, 20% red, and 10% gray.

The KPI's tooltip displays a list of how many locations have each status, and the total number of locations. The tooltip's color is set according to the worst location status.



Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "Locations Grouped Rule" on page 469
- "Percentage Rule" on page 472
- "Transaction Availability Rule" on page 511
- "Transaction Performance Rule" on page 512
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

OT Impact

Displays information relating to the financial loss caused to the organization when an item is unavailable over time. By default, the calculation is based on the Availability KPI.

At the monitor/leaf level, you should attach the Impact Over Time rule to the OT Impact KPI and the Availability KPI to the same CI. The Impact Over Time rule measures the total time the Availability KPI attached to the same CI has the red status, and then calculates the financial loss using the rule parameter: **DollarImpactFactor**. This parameter represents the amount of dollars lost in an hour if the system is unavailable.

At the group level, you should attach the Sum of Values rule to the OT impact KPI. The Sum of Values rule calculates the sum of all the values of the OverTime Impact KPI of its children.

The OT Impact rule calculates financial loss as you add the OT Impact KPI. The calculation has no time limitation.

To restart the calculation you can:

- change the rule's objectives
- delete the OT Impact KPI and add it again

Restarting Mercury Business Availability Center might restart the financial loss calculation, but because of dashboard calculation persistency, the last known financial value might be recovered instead.

Rules

The following rules are applicable to this KPI:

- "Impact Over Time Rule" on page 465
- "Sum of Values Rule" on page 508

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358

➤ "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

Performance

Displays information related to performance measurements of transactions.

Rules

The following rules are applicable to this KPI:

➤ "Average Performance of Weighted Volume in %" on page 436

➤ "Average Performance of Weighted Volume in Seconds" on page 437

➤ "Average of Converted Performance Results in %" on page 434

➤ "Best Child Rule" on page 438

➤ "Deep Transaction Tracing Monitor Performance" on page 445

➤ "EMS Simple Rule" on page 450

➤ "Generic Sample Rule" on page 452

➤ "Generic Sum of Values Over Time Rule" on page 455

➤ "Percentage Rule" on page 472

➤ "RUM Page Monitor Performance Rule" on page 485

➤ "RUM Session Monitor Performance Rule" on page 490

➤ "RUM Transaction Monitor Performance Rule" on page 495

➤ "Transaction Performance Rule" on page 512

➤ "Worst Child Rule" on page 518

See Also...

➤ "Creating a KPI Using Cloning" on page 357

➤ "Creating a New KPI" on page 358

➤ "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

PNR

Displays status based on the Point of No Return (PNR) for SLA samples (this data is calculated by the corresponding internal PNR rule for the Service Level Management application). The status is displayed in bar form in the Dashboard tab. The PNR samples measure unavailability in the period of time that has elapsed, and how much time remains before the SLA is in breach of contract. Note that there are two PNR rules: one is internal and gathers information from the Service Level Management application and the other one displays the information from the SLM PNR rule on the Dashboard.

Rules

The following rules are applicable to this KPI:

➤ "Dashboard PNR Rule" on page 440

See Also...

➤ "Creating a KPI Using Cloning" on page 357

➤ "Creating a New KPI" on page 358

➤ "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

RT Impact

Displays information relating to the financial loss caused to the organization in real time; the calculation is based on the Availability KPI.

At the monitor/leaf level, you should attach the Real Time Impact rule to the RT impact KPI and the Availability KPI to the same CI. The Real Time Impact rule measures the time the Availability KPI attached to the same CI has the red status, and then calculates the financial loss using the rule parameter: **DollarImpactFactor**. This parameter represents the amount of dollars lost in an hour if the system is unavailable. If the Availability KPI status is not red, then the Real Time Impact value is 0.0$.

At the group level, you should attach the Sum of Values rule to the RT Impact KPI. The Sum of Values rule calculates the sum of all the values of the Real Time Impact KPI of its children.

When availability status returns to green, the value for this KPI reverts to 0.

Rules

The following rules are applicable to this KPI:

- "Real Time Impact" on page 476
- "Sum of Values Rule" on page 508

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

SAP

Indicates problems related to the SAP infrastructure. This KPI appears for the following CI types:

- CCMS Counters
- Database
- Host
- R/3 Application Server
- SAP System
- Work Processes

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "Percentage Rule" on page 472
- "Sitescope Measurement Rule" on page 500
- "SiteScope Vertical Rule" on page 506
- "Sitescope Measurement Time-Based Rule" on page 502
- "Sitescope Monitor Rule" on page 503
- "Sitescope Monitor Time-Based Rule" on page 505
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

SAP Alerts

SAP Alerts are created by the SAP system for various reasons; for example, an incorrect user login, exceeded CCMS thresholds, and so forth.

SAP alerts are retrieved from the SAP system by the SiteScope CCMS Alerts monitor. They can be displayed in the Dashboard using a SAP Alert KPI whose color is determined by the SAP system.

Once you have handled the problem that triggered the alert, perform an alert completion procedure. This causes the alert to be acknowledged.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "SAP Alerts Rule" on page 497
- "Sitescope Measurement Rule" on page 500
- "Sitescope Monitor Rule" on page 503
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

System

Displays information relating to system performance for measurements or monitors.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "Percentage Rule" on page 472
- "Sitescope Measurement Rule" on page 500
- "Sitescope Measurement Time-Based Rule" on page 502
- "Sitescope Monitor Rule" on page 503
- "Sitescope Monitor Time-Based Rule" on page 505
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

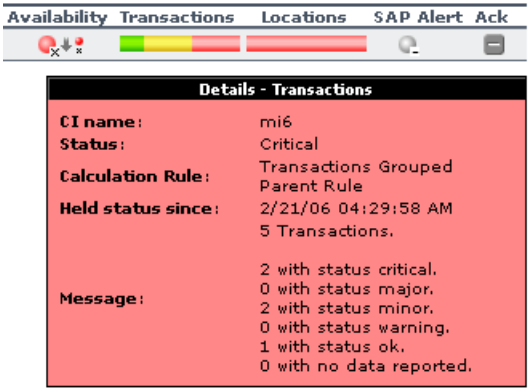
Transactions

At the group level, displays the worst status of all the children CIs. At the group level, displays the worst status of all the children CIs. The Locations KPI is a bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the worst status of all the children CIs, that corresponds to the color. This KPI is dedicated for the SAP System.

At the monitor level, displays the worst status of the **Performance** and **Availability** KPIs for the CI. The Transactions KPI is a bar that includes up to six colored sections. Each colored section represents the relative amount of Business Process Steps with the end-user experience status (the worst status between **Performance** and **Availability**) that corresponds to the color. The colors correspond to the Business Process Monitor **Performance**/**Availability** colors.

For example, if there are ten SAP Business Process Steps under the Transactions container, five with **Informational** end-user experience, two with **Minor** status, two with **Critical** status, and one with No Data status, the bar will be: 50% green, 20% yellow, 20% red, and 10% gray.

The KPI's tooltip displays a list of how many transactions have each status, and the total number of transactions. The tooltip's color is set according to the worst transaction status.



Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "Percentage Rule" on page 472
- "Transaction Availability Rule" on page 511
- "Transaction Performance Rule" on page 512
- "Transactions Grouped Rule" on page 516
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

User

Displays information related to the end-user performance.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "EMS Simple Rule" on page 450
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "Percentage Rule" on page 472
- "Transaction Availability Rule" on page 511

- "Transaction Performance Rule" on page 512
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358
- "Editing a KPI Using Override" on page 358
- "Specifying the KPI Details" on page 359

Volume

Displays information on the total number of times that defined events or errors (monitored by the Real User Monitor) occurred.

Rules

The following rules are applicable to this KPI:

- "Best Child Rule" on page 438
- "Generic Sample Rule" on page 452
- "Generic Sum of Values Over Time Rule" on page 455
- "RUM Event Monitor Volume Rule" on page 481
- "RUM Page Monitor Volume Rule" on page 487
- "RUM Session Monitor Volume Rule" on page 492
- "RUM Transaction Monitor Volume Rule" on page 496
- "Sum of Values Rule" on page 508
- "Worst Child Rule" on page 518

See Also...

- "Creating a KPI Using Cloning" on page 357
- "Creating a New KPI" on page 358

➤ "Editing a KPI Using Override" on page 358

➤ "Specifying the KPI Details" on page 359

25

Service Level Management KPI Repository

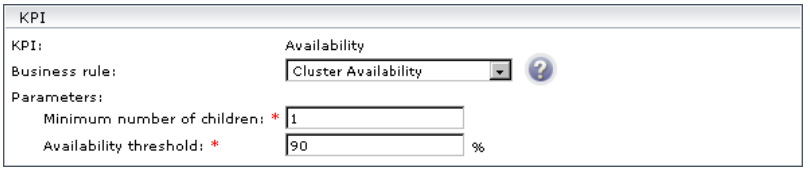
This chapter describes the KPI Repository that contains the Key Performance Indicators (KPIs) available in Service Level Management.

This chapter describes:	On page:
Overview of the Service Level Management KPIs	394
The KPIs Page	395
Availability	397
Availability Six Sigma	397
MTBF (Mean Time Between Failures)	398
MTTR (Mean Time to Recover)	398
Number of Outages	399
Outage Duration	399
Outages	400
Response Time	402
Performance	400
Performance Six Sigma	401
PNR (Point of No Return)	401
SLM Status	403
System Availability	403
System Performance	404

Overview of the Service Level Management KPIs

The Service Level Management repositories include Service Level Management KPIs and business rules (also known as business logic). To access Service Level Management KPIs and business rules: **Admin** > **Service Level Management** > **Repositories**.

During the creation of an SLA (using the SLA Wizard) you select the KPIs and rules that Service Level Management uses to calculate results:



To view a rule definition, hold the pointer over a parameter name. Mandatory parameters are marked with an asterisk (*****).

The Infrastructure Settings Manager

Caution: Many of the settings in the Infrastructure Settings Manager should not be modified without first consulting Mercury Customer Support or your Mercury Services representative. Modifying certain settings can adversely affect the performance of Mercury Business Availability Center.

Users with an advanced knowledge of Mercury Business Availability Center can modify certain settings that define the contents of KPIs and business rules. For example, you can remove certain business rule parameters (**No data timeout** and **Maximum duration in hours**) intended only for advanced users, from a KPI's rule list. Furthermore, you can define which business rules are available for each configuration item type (CIT).

To display advanced business rule parameters:

1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**. Select the **Applications** context and choose **Service Level Management** from the list.
2. Locate the **Display advanced business logic parameters** option.
3. Click the **Edit** button and change the value to **true**.
4. Click **Save** to save the change and to return to the Infrastructure Settings Manager.

The KPIs Page

To display the KPI page, select **Admin** > **Service Level Management** > **Repositories** > **KPIs**.

The KPI page includes two tables: the Factory KPIs table and the Custom KPIs table. The Factory KPIs table displays Service Level Management KPIs and the default rule attached to each KPI. The Custom KPIs table displays user-defined KPIs.

You can clone a factory KPI to create a new KPI and you can edit existing KPIs by overriding their properties. You can also create a new KPI. For details on cloning a KPI, see "Creating a KPI Using Cloning" on page 357. For details on overriding a KPI, see "Editing a KPI Using Override" on page 358. For details on creating a KPI, see "Creating a New KPI" on page 358.

You can delete custom KPIs only. To delete a custom KPI, select the KPI and click the **Delete** button.

You can sort the Factory KPIs table by any column: An arrow next to a title shows by which column the actions are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

The page includes the following components:

- check box – select to clone or override a KPI
- **ID** – the default ID number used to identify the KPI in the adapter templates. For details on adapter templates, see "Working with Templates" in *Source Manager Administration*.
- **Display Label** – the name used for the KPI in Service Level Management
- **Applicable Sections** – there are three types:

  SLM General – for regular KPIs that can be selected during SLA creation

  SLM Outage – for outage KPIs that can be selected during outage creation

  SLM PNR – for KPIs used by Mercury for internal use only
- **Display Order** – the default order in which the KPIs are displayed in Service Level Management
- **Acknowledgement Level** – not applicable to Service Level Management
- **Default Group Rule** – not applicable to Service Level Management
- **Calculation Order** – The position of the KPI in the ordered list used by Service Level Management when it calculates the topology. Service Level Management calculates the higher priority KPIs first, and then the lower priority KPIs. This is the default calculation order.
- **Help** – click the Help button to display help on the KPI

Availability

Service Level Management measures the availability percentages of CIs and compares them to the SLA objectives.

Unit of measurement: percentage.

Rules

This KPI uses the following rules:

- "Best Child (Max.)" on page 527
- "Children Success Ratio" on page 539
- "Cluster Availability" on page 541
- "Group Average Value" on page 546
- "Worst Child (Min)" on page 574

Availability Six Sigma

Service Level Management measures the Six Sigma availability of CIs and compares the Six Sigma values to the SLA objectives.

Unit of measurement: Sigma.

Rules

This KPI uses the following rules:

- "BPM Six Sigma Availability" on page 537
- "Best Child (Max.)" on page 527
- "Group Average Value" on page 546
- "SiteScope Monitor Six Sigma" on page 565
- "SiteScope Six Sigma Availability" on page 568
- "Six Sigma Group" on page 570
- "Worst Child (Min)" on page 574

MTBF (Mean Time Between Failures)

Service Level Management calculates the mean time between failures (MTBF) in seconds. The minimum value is **0**. A positive trend is assigned to this KPI, that is, the higher the MTBF value, the better.

Unit of measurement: date.

Rules

This KPI uses the following rules:

- "Best Child (Max.)" on page 527
- "Group Average Value" on page 546
- "MTBF (Mean Time Between Failures)" on page 547
- "MTBF (Mean Time Between Failures) – Alternate" on page 548
- "Worst Child (Min)" on page 574

MTTR (Mean Time to Recover)

Service Level Management calculates the mean time to recover (MTTR) in seconds. It is calculated as the average outage duration; that is, the total duration divided by the number of outages. The minimum value is **0**. A negative trend is assigned to this KPI, that is, the lower the MTTR value, the better.

Unit of measurement: date.

Rules

This KPI uses the following rules:

- "Best Child (Min.)" on page 528
- "Group Average Value" on page 546
- "MTTR (Mean Time to Recover)" on page 550
- "Worst Child (Max)" on page 573

Number of Outages

Service Level Management displays the number of outages that occurred during the tracking period. The minimum value is **0**. A negative trend is assigned to this KPI, that is, the lower the number of outages, the better.

Unit of measurement: number.

Rules

This KPI uses the following rules:

- "Best Child (Min.)" on page 528
- "Group Average Value" on page 546
- "Number of Outages" on page 552
- "Worst Child (Max)" on page 573

Outage Duration

Service Level Management calculates the duration of the outages during the tracking period, in minutes. The minimum value is **0**. A negative trend is assigned to this KPI, that is, the shorter the duration of the outage, the better.

Unit of measurement: date.

Rules

This KPI uses the following rules:

- "Best Child (Min.)" on page 528
- "Group Average Value" on page 546
- "Outage Duration" on page 555
- "Worst Child (Max)" on page 573

Outages

Needed by Service Level Management when calculating outages.

The Outage KPI is defined in the Outage Definition page – for details, see "Defining an SLA: Outages" on page 171.

Rules

This KPI uses the following rules:

- "BPM Outage" on page 534
- "Outage Based on Availability" on page 553
- "Outages Based on System Availability" on page 554
- "SiteScope Monitor Outage" on page 563
- "SiteScope Outage" on page 566

Performance

You use the Performance KPI where the measurement result must be in percentages. For example, use this KPI to measure success ratios.

Unit of measurement: percentage.

Rules

This KPI uses the following rules:

- "Best Child (Max.)" on page 527
- "Children Success Ratio" on page 539
- "Group Average Value" on page 546
- "Response Time Success Ratio" on page 556
- "Worst Child (Min)" on page 574

Performance Six Sigma

Service Level Management calculates the Six Sigma value and compares it with the Six Sigma objective.

Unit of measurement: Sigma.

Rules

This KPI uses the following rules:

- "Best Child (Max.)" on page 527
- "BPM Six Sigma Performance" on page 538
- "Group Average Value" on page 546
- "Six Sigma Group" on page 570
- "SiteScope Six Sigma Availability" on page 568
- "Worst Child (Min)" on page 574

PNR (Point of No Return)

Note: This KPI is for internal Mercury use only and should not be modified.

The PNR (Point of No Return) KPI is used by Mercury Business Availability Center for internal calculations needed to display Service Level Management data in Dashboard.

For details about setting up a PNR KPI, see "Attaching a PNR KPI to a CI" on page 20. For details on viewing the SLA bar in Dashboard on the Console page, see "Service Level Management Results in Dashboard" on page 42 in *Using Dashboard*.

Rules

This KPI uses the following rules:

- "PNR (Point of No Return)" on page 556

Response Time

Service Level Management measures the response time for Business Process Monitor transactions, Real User Monitor measurements, and SiteScope measurements.

Unit of measurement: seconds.

Rules

This KPI uses the following rules:

- "BPM Average Response Time" on page 530
- "BPM Max. Response Time" on page 531
- "BPM Min. Response Time" on page 533
- "Best Child (Min.)" on page 528
- "Group Average Value" on page 546
- "Worst Child (Max)" on page 573

SLM Status

Note: This KPI is for internal Mercury use only and should not be modified.

The SLM Status KPI is used by Mercury Business Availability Center for internal calculations needed to display the Status Snapshot. For details, see "SLA Status Snapshot" in *Using Service Level Management*.

Rules

This KPI uses the following rules:

- "Service Level Management Status" on page 558

System Availability

Service Level Management calculates the availability percentages of measurements or monitors and compares them to the SLA objectives.

Unit of measurement: percentage.

Rules

This KPI uses the following rules:

- "Best Child (Max.)" on page 527
- "Cluster Availability" on page 541
- "External Source Average Availability" on page 543
- "Group Average Value" on page 546
- "SiteScope Average Availability" on page 558
- "SiteScope Monitor Availability" on page 564
- "Worst Child (Min)" on page 574

System Performance

This KPI is used as a general performance indicator (for example, CPU, disk space, success sample rate) and also as the default KPI for Business Process Monitor CIs.

Rules

This KPI uses the following rules:

- "Best Child (Min.)" on page 528
- "Children Success Ratio" on page 539
- "External Source Average Value" on page 544
- "Group Average Value" on page 546
- "SiteScope Average Value" on page 560
- "SiteScope Max. Value" on page 561
- "SiteScope Min. Value" on page 562
- "Worst Child (Max)" on page 573

26

Business Rules Repository

The Business Rules Repository includes the rules available in Dashboard or Service Level Management and enables you to create new rules and to edit existing rules. For details about Dashboard rules, see Chapter 27, “Dashboard Business Rules Details”. For details about Service Level Management rules, see Chapter 28, “Service Level Management Business Rules Repository”.

This chapter describes:	On page:
About Rules Repository	406
Working with the Business Rules Repository	408
Example Scenario - Creating New Rules	409
Creating a Rule Using Cloning	412
Creating a Rule	412
Editing a Rule Using Override	413
Specifying the Rule Details	414
Configuring the Rules Global Parameters	417
Status Calculations	419
Last Sample Details Definitions	425
Setting a Rule and its Parameters Back to Default	426
Sample-Based and Time-Based Sampling	426

About Rules Repository

A business rule is used to calculate the value and status of a Key Performance Indicator (KPI). Some of the rules are used by the Dashboard, others are used by Service Level Management.

A rule is the basic object that receives events (either samples or application messages), deals with processing the data, and holds the process results. To receive the events, the rule uses input filtering criteria called selectors – for details, see "Attaching New KPIs to CIs" on page 13.

In the adapter templates, which are used to map the entities in the data source to the configuration items (CIs) used by Mercury Universal CMDB, the business rule for each KPI is identified by an ID number. For a list of the rules ID numbers, see Chapter 27, "Dashboard Business Rules Details".

The rule's parameters are used to define the input for the rule. The values used for the parameters can be fixed values (defined within the parameter definition) or referenced values taken from the samples.

The rule parameters are defined in the Business Rules Repository, as part of each rule definition. Alternatively, rule parameters may be defined in an adapter template for a data source (as part of the KPI definition), and the values set for these parameters will override the definitions in the Business Rules Repository. For details, see "Editing KPI Properties" on page 23 and *Source Manager Administration*.

The KPI must always have an associated business rule that defines the business logic. The business logic determines how the data will be handled to obtain a single status rating.

There are two categories of business rules:

- **Monitor rules** – these are rules that deal with original sample data for monitor CIs, for example, the Transaction Availability Rule. These rules calculate the actual value for the KPI, and assign a status to the value based on defined objectives. (The objective thresholds can be modified when defining/editing the KPI.)
- **Group rules** – these are rules that aggregate the status results of a number of child CIs to produce a status for the parent CI, for example, the Worst Child Rule.

For details, see "About Business Rules" in *Application Administration*.

Each KPI has been assigned a default business rule that is used when you attach a new KPI to a CI; the default is generally one of the group rules for that KPI. When editing a KPI or attaching a new KPI, you can select a different rule, from the list of rules that are applicable for that KPI.

If a KPI is associated with a logical CI then the rule that calculates the status and value of this KPI is probably a group rule – it uses the KPIs of other CIs in order to calculate its own status and value (for example: Worst Child rule).

A group rule is the basic object that receives events (either samples or application messages), deals with processing the data, and holds the process results. To receive the events, the rule uses input filtering criteria (selectors, described in "Selectors for KPIs" in *Application Administration*).

In the adapter templates, the business rule for each KPI is identified by a logic ID (the rule ID). For a list of the rules defined for Dashboard, see Chapter 27, "Dashboard Business Rules Details". For a list of the rules defined for Service Level Management, see Chapter 28, "Service Level Management Business Rules Repository".

Each rule's parameters are used to define input for the rule. The values used for the parameters can be fixed values (defined within the parameter definition) or referenced values taken from the samples.

The rule parameters are defined in the Business Rules Repository, as part of each rule definition.

Depending on the type of rule, some rule parameters may be defined in an adapter template for a data source (as part of the KPI definition. The values set for these parameters will override the definitions in the Business Rules Repository. For a list of rule parameters, see each rule description in Chapter 27, "Dashboard Business Rules Details".

Note that some rules are for use only by Dashboard or Service Level Management and are not available for use in your custom views.

Note: If you add a rule, a matching tooltip (with the same ID number) is automatically created – for more details, see "Tooltips Repository" on page 685.

The Service Level Management rules are divided into two sets:

- low level rules – used by items that receive data (monitors such as Business Process Monitor transactions, Real User Monitor, SiteScope monitors, and so forth)
- roll-up rules – used by higher levels in the hierarchy (applications, groups, business processes, and so forth)

For more details about Service Level Management rules, see Chapter 28, "Service Level Management Business Rules Repository."

Working with the Business Rules Repository

The Rules Repositories page displays the list of factory (pre-defined) rules available throughout Dashboard or Service Level Management to determine how source data is handled by Dashboard Administration or Service Level Management Administration.

Advanced users can modify existing repository objects and create new ones. This may be necessary when you want to customize the way information is presented in Dashboard or Service Level Management, to fit the needs of your organization. You may also need to create new objects when integrating data from a new external system into Dashboard or Service Level Management.

You can create a new customized rule by:

- cloning – this consists in (copying) a factory (pre-defined) or a customized rule to use as a template – for details, see "Creating a Rule Using Cloning" on page 412
- creating a new rule – for details, see "Creating a Rule" on page 412

You can edit an existing rule by overriding it (replacing it) – for details, see "Editing a Rule Using Override" on page 413

You can then customize the new rule or the overridden rule to your organization specifications – for details, see "Specifying the Rule Details" on page 414.

If you have created a new rule, you must attach it to a KPI – for details, see "Specifying the KPI Details" on page 359.

Example Scenario - Creating New Rules

This scenario describes the creation of two custom rules in Dashboard or Service Level Management. Those two rules are clones of the Impact Over Time rule. The RUM Impact Over Time rule and the Business Process Monitor Impact Over Time rule. These two rules have different criteria to calculate the financial loss of downtime.

This scenario has one stage: "Stage 1: Create the New Rules" on page 409.

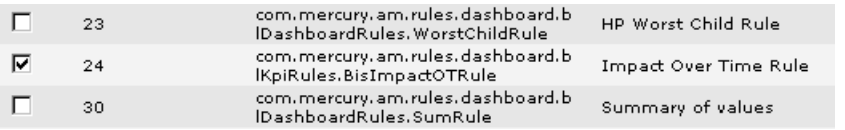
Stage 1: Create the New Rules

The first stage is to define the rules in the Business Rules Repository page of Dashboard Administration or Service Level Management Administration. This involves defining the rule parameters. In this scenario, the rule is set to apply only for the **Group** item class.

To create the rule:

1. Select **Admin** > **Dashboard** or **Service Level Management**.
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Select the **Business Rules** tab menu option to open the business rules page.

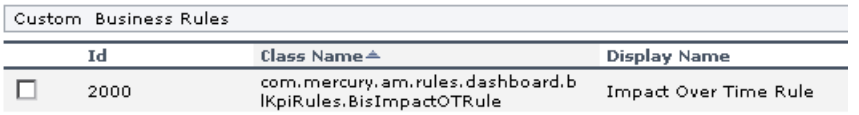
4 In the **Factory Business Rules** area, select the **Item Over Time Rule** that you want to clone.



☐	23	com.mercury.am.rules.dashboard.blDashboardRules.WorstChildRule	HP Worst Child Rule
☑	24	com.mercury.am.rules.dashboard.blKpiRules.BisImpactOTRule	Impact Over Time Rule
☐	30	com.mercury.am.rules.dashboard.blDashboardRules.SumRule	Summary of values

5 Click the **Clone** button.

6 The cloned rule appears in the **Custom Business Rules** area.



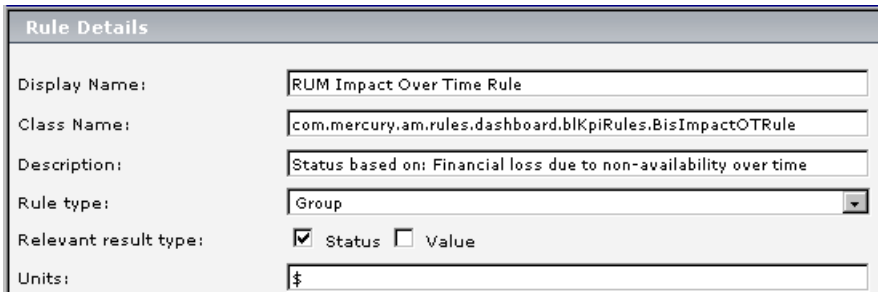
Custom Business Rules

	Id	Class Name	Display Name
☐	2000	com.mercury.am.rules.dashboard.blKpiRules.BisImpactOTRule	Impact Over Time Rule

7 Click the appropriate **Edit Entity** button to open the Rule Details page.

8 Change the name of the rule to **RUM Impact Over Time** in the **Display Name** box.

9 Add **- for RUM** at the end of the description to indicate that the rule is for Real User Monitor in the **Description** box.

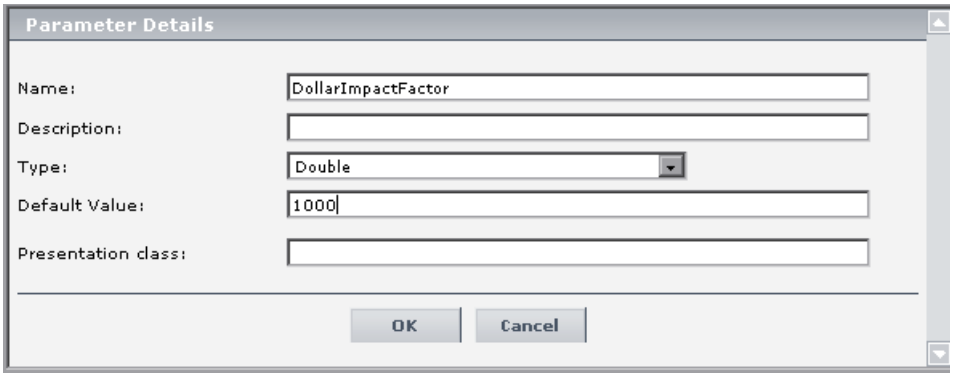


Rule Details

Display Name:	RUM Impact Over Time Rule
Class Name:	com.mercury.am.rules.dashboard.blKpiRules.BisImpactOTRule
Description:	Status based on: Financial loss due to non-availability over time
Rule type:	Group
Relevant result type:	☑ Status ☐ Value
Units:	$

10 In the **Parameters** area, click the **Edit** button of the **DollarImpactFactor** parameter to open the Parameter Details page.

11 Change 600 to 1000 in **Default Value** box.

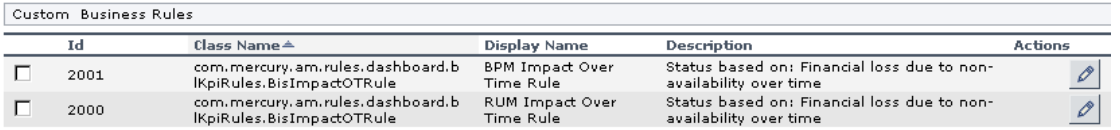


12 Click **OK** to save the changes to the parameter

13 Click **OK** to save the changes to the rule.

14 Repeat steps 4 and 11 to define the **BPM Impact Over Time** rule with a **DollarImpactFactor** of 500, and add **- for BPM** at the end of the description.

The result is as follows:



The next step is to attach those new rules to the new KPIs that were created – for details, see “Stage 3: Attach the New Rules to the New KPIs” on page 356.

Creating a Rule Using Cloning

You can create a customized rule by cloning an existing rule and modifying it. The existing rule can be a factory rule or a customized rule. The original rule is still available. The cloned rule is automatically assigned a new Rule ID.

To create a rule using cloning:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Click the **Business Rules** tab menu option to open the rules page.

4 In the **Factory Rules** or **Custom Rules** area, select the rule you want to clone.

5 Click the **Clone** button. The cloned rule appears in the Custom Rules area.

6 To specify the rule's details (you can do it now or at a later time), click the appropriate **Edit Entity** button to open the Rule Details dialog box – for details, see "Specifying the Rule Details" on page 414.



Note: Change the name of the rule you have cloned to make sure you attach the appropriate rule to a specific KPI.

Creating a Rule

You can create a new rule that is not based on an existing rule.

To create a new customized rule:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Click the **Business Rules** tab menu option to open the rules page.

4 In the **Custom Rules** area, click the **New Item** button to open the Rule Details dialog box in which you specify the details of the rule you want to create.

5 Proceed to "Specifying the Rule Details" on page 414.

Editing a Rule Using Override

You can override an existing factory rule with a new custom rule. The existing rule that you override is marked as overridden and a copy of the rule appears in the Custom Rules area. The rule that you modify in the Custom Rule area overrides the original factory rule. The original factory rule is disabled. The overriding rule and the original rule have the same Rule ID.

Note: If you later delete a custom rule, which was created by overriding a factory rule, the original factory rule is restored.

To edit a rule using Override:

1 Select **Admin** > **Dashboard** or **Service Level Management**.

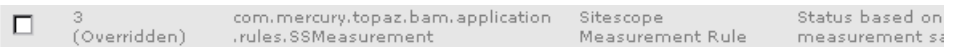


2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Click the **Business Rules** tab menu option to open the rules page.

4 In the **Factory Rules** area, select the rule you want to override.

5 Click the **Override** button. In the Factory Rule area the note (Overridden) appears underneath the overridden rule as follows:



A copy of the factory rule appears in the Custom Rules area.



6 In the Custom Rules area, click the **Edit Rule** button relevant to the rule you overrode, to open the Rule Details dialog box in which you customize the new rule.



7 To specify the rule's details (you can do it now or at a later time), click the appropriate **Edit Entity** button to open the Rule Details dialog box – for details, see below.

Specifying the Rule Details

In the Rule Details dialog box, you can modify existing detailed information for the rule. You can also modify existing information or enter new information about the rule parameters and the Objective parameters – for more details, see "KPI Objectives" on page 38.

This section includes the following topics:

➤ "Specifying the Rule Details" on page 414
➤ "Specifying the Rule Parameter Details" on page 415
➤ "Specifying the Rule Objective Parameters" on page 416

Specifying the Rule Details

You can specify the rule details.

To specify rule details:

1 Access the Rule Details dialog box.

2 Enter the name of the rule as it is to be displayed in the UI in the **Display Name** box.

3 Enter the name of the class the rule belongs to in the **Class Name** box. It includes the Java class that implements the rule, with the full path to the root.

4 Enter a description of the rule in the **Description** box.

5 Select one of the following in the **Rule type** list – for details, see "About Business Rules" on page 11:

- **Both** – so the rule can be applied both to group and monitor
- **Group** – so the rule can be applied to a group
- **Monitor** – so the rule can be applied to a monitor

6 Select one of the following in the **Relevant result type** area – for details, see "Saving Measurements Data" on page 34:

- **Status** – so the rule result is displayed as a status indicator
- **Value** – so the rule is displayed as a value

7 Enter the type of unit applicable to the rule results (relevant only when you selected **Value** in the **Relevant result type** area, see above for more details) in the **Units** box – for more details about the available units, see "Units of Measurement for Objectives" on page 44.

8 In the Rule parameters area, click the **New** button to enter new parameters or click the relevant **Edit** button to modify an existing parameter – for details, see "Specifying the Rule Parameter Details" on page 415 and "Specifying the Rule Objective Parameters" on page 416.

9 In the Objective Parameters area, click the **New** button to enter new objective parameters or click the relevant **Edit** button to modify an existing parameter – for details, see "Specifying the Rule Parameter Details" on page 415.

Specifying the Rule Parameter Details

In the **Parameter Details** window, you can either modify existing information or enter new information about the rule's parameters.

To specify the rule parameter details:

1 In the Rule Details dialog box, in the Rule parameters area, click the **New** button to enter new parameters or click the relevant **Edit** button to modify an existing parameter.

2 Enter or modify the name of the parameter in the **Name** box. The parameter name is used as a key.

3 Enter or modify the parameter description in the **Description** box.

4 Enter the type of parameter in the **Type** box. Possible values are: **Boolean** (can be 0 or 1), **Integer**, **Long**, **Double** (can be a decimal number), or **String**.

5 Enter the value to be listed as the default value of the parameter in Dashboard or Service Level Management in the **Default value** box. Note that for some of the rules, the default values can be: **sampleBased** or **timeBased** and indicates if the calculation performed by the rule is based on the sample values or is calculated.

6 Enter the name of the presentation class in the **Presentation class** box.

Note: For a list of rule parameters and their default values, see each rule description in Chapter 27, "Dashboard Business Rules Details".

---

7 Click **OK** to save the new rule details and close the Parameter Details dialog box.

8 You may now specify the rule's objective parameters if necessary – for details, see "Specifying the Rule Objective Parameters" on page 416.

Specifying the Rule Objective Parameters

When you set the objectives for a specific Business rule in the Repositories tab, they are applicable everywhere the rule is used; they become the default objectives for this rule.

You can then override those defaults for a specific KPI – for details, see "KPI Objectives" on page 38.

The objective parameters are based on a measurement unit that depends on the format of the data handled by the business logic – for details, see "KPI Objectives" on page 38.

To create or edit an objective parameter for a specific rule:

1 Select **Admin** > **Dashboard** or **Service Level Management**



2 Click the down arrow in the **Repositories** tab and select **Rules**.

3 Select the appropriate rule and click the **Edit** button.

4 You can then:

- click the **New** button in the **Objective parameters** area to open the Parameter Details page
- click the **Edit** button for the objective parameter you want to modify to open the Parameter Details page

5 Enter the parameter details – for details, see "Specifying the Rule Parameter Details" on page 415.

6 If you created a new rule, you must now attach the rule to the appropriate KPI – for details, see "Dependent KPIs" on page 369. If you cloned or overrode an existing rule, the rule is already attached to the appropriate KPI.

Configuring the Rules Global Parameters

You can edit all rules global parameters by accessing the Global Attributes page from the **Rules** page. The global attributes for rules are listed in "Rule Global Attributes" on page 418.

You can also modify existing information or enter new information for the global attribute details.

To globally edit all factory rules:

1 Select **Admin** > **Dashboard** or **Service Level Management**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Click the **Business Rules** tab menu option to open the rules page.

4 Click the **Edit Globals** button to open the **Global Attributes Details** page.

5 You can then:

- enter new global attribute details by clicking the **New** button to open the **Global Attribute Details** window
- edit existing global attribute details by clicking the relevant **Edit** button to open the **Global Attribute Details** window

6 Enter or modify the appropriate parameters:

- **Key** – the global attribute key
- **Value** – the value of the global attribute
- **History Size (approximately)** – the time period (in hours) used when calculating history and trend status. The range is 1 to 6 hours.
- **Type** – the type of KPI value that is saved to the CMDB. Select **Boolean**, **Number**, or **String**.

7 Click **OK** to save the changes and return to the previous page.

Rule Global Attributes

The global attributes for the rules are listed in the following table.

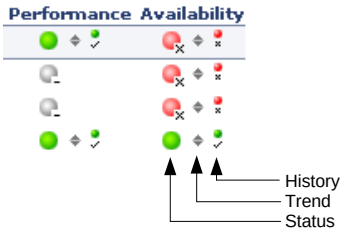
Display Name	Usual Default Value	Description
saveLastSample	false	Defines whether the last sample is presented in Dashboard or Service Level Management when clicking on the status icon – for details, see "Last Sample Details Definitions" on page 425.
HistoryType	Worst	Defines the history calculation type to be used when calculating history status. Values can be: **Worst**, **Average**, or **None** (no history status displayed) – for details, see "Configuring the Rules Global Parameters" on page 417.
HistorySize	60	Defines a time period (in hours) used when calculating history and trend status. Enter round hours between 1 and 6.
saveValuesToPersistency	false	Set **saveValuesToPersistency** to **true** if you want Dashboard or Service Level Management to save CIs and KPIs value data to be displayed in the KPI Over Time with Value report – for details, see "KPIs Over Time Report" in *Using Dashboard*.

Display Name	Usual Default Value	Description
saveValuesToPersistencyInterval	900	Defines the periodicity (in minutes) with which the value of the KPI is saved to the CMDB (to be used in KPI Over Time with Value reports) – for details, see "KPIs Over Time Report" in *Using Dashboard*.
Calculate Trend	false	Defines whether the trend should be calculated (and displayed) or not.

Note: To override the global parameters values for individual rules, you must add the relevant parameter to the relevant rule and then modify its value.

Status Calculations

Every KPI can hold three icons: real time status, trend, and history.



The way status is determined for these icons is described in the following sections:

- "Status Scores" on page 420
- "History Calculation" on page 421

- "Trend Calculation" on page 422
- "Modifying the Trend and History Status Calculations" on page 422

Status Scores

Real-time statuses can be:

- 0 – worst
- 5 – bad
- 10 – middle
- 15 – good
- 20 – best

In most rules, only the main three statuses (0, 10 and 20) are used.

When a score has been calculated from more than one value, the scores are assigned status using the following definitions:

- 0 = worst
- 0 < score < 7.5 = bad
- 7.5 to 12.5 (inclusive) = middle
- 12.5 < score < 20 = good
- 20 = best

They are then assigned the colors:

- worst – red
- bad – orange
- middle – yellow
- good – olive
- best – green

Note: Only relevant statuses (0-20) are taking into consideration ("grey" statuses are ignored).

History Calculation

The history status icon displays either the worst status or the average status for the CI's KPI during a specified time period.

The calculation method for history status is determined by the value set for the **HistoryType** parameter (one of the global parameters in the Business Rules Repository, described in "Rule Global Attributes" on page 418). The possible calculation methods are **Worst** (default value) or **Average**. Whichever calculation method is used, only status scores that have meaning (scores 0 to 20—the non-gray icons) are taken into consideration.

- **Worst** – consists in taking the worst status over the period of time specified in the **HistorySize** parameter (also one of the global parameters)

  For example: if HistorySize is 60 minutes (default value) and the KPI's values for the last 60 minutes are: 10, 10, 5, 0, -2, 20, the worst status is 0, so the history icon is red.

- **Average** – The Average calculation consists in taking the average status over the period of time specified in the **HistorySize** parameter (Simple Moving Average). The calculation result is rounded to the nearest of the following values: 0, 5, 10, 15, or 20.

  For example: if HistorySize is 60 minutes and the KPI's values for the last 60 minutes are: 10, 10, 5, 0, -2, 20, the Average status is 10 (rounded from (10+10+5+0+20)/5=9), so the history icon is yellow.

Trend Calculation

The trend status icon shows the trend in real-time status for the CI KPI, using three directions: up, down, and no change.

Trend analysis is performed by comparing the Simple Moving Average (SMA) value for a long window with the SMA for a short window. If the short window SMA is higher than the long window SMA, the trend is considered to be up. If the long window SMA is higher, the trend is considered to be down. The SMA is calculated only on status scores that have meaning (scores 0 to 20—the non-gray icons).

- **Long window SMA** – based on the mean status of a KPI over the period of time specified in the **HistorySize** parameter (default = 60 minutes), one of the global parameters in the Business Rules Repository, described in "Rule Global Attributes" on page 418
- **Short window SMA** – based on the mean status of a KPI over the period of time defined by (**TrendRate * HistorySize**). The **TrendRate** parameter (default = 0.3) represents the time rate between the long and short window, and is defined in the hidden parameters described in "Modifying the Trend and History Status Calculations" on page 422

Modifying the Trend and History Status Calculations

You can modify the way the trend and history statuses are calculated and displayed, by editing certain rule parameters. A rule parameter can be set in three places:

- as part of the global rule parameters that apply to all rules and affect all CIs – for details on editing global parameters, see "Configuring the Rules Global Parameters" on page 417
- directly for a rule, so that it affects all CIs that use this rule – for details on editing rule parameters, see "Specifying the Rule Details" on page 414

Some of the parameters for trend and history statuses are predefined and can be viewed and edited in the Business Rules Repository page; others are "hidden," but can be manually added on the Repositories tab if you want to override the parameter default value.

Business Rules Repository Parameters

You can modify various global parameters for trend and history status in the Business Rules Repository, as follows:

- You can specify whether or not you want trend status and/or history status displayed for CIs.
- You can change the window of time used for trend and history calculations.
- You can specify the calculation type for history status.

For details, see "Rule Global Attributes" on page 418.

Note that the global parameters can be overridden by defining a different value for the relevant parameter within a specific rule.

Hidden Parameters

The history and trend statuses use the following "hidden parameters." These are parameters with default values that are not visible to the user. However, if necessary, they can be overridden by defining the parameter in the global parameters for the Business Rules Repository (described in "Configuring the Rules Global Parameters" on page 417).

Name	Default Value	Description
TrendRate	**0.3**	Sets the time rate between the long window (period of time defined by the **HistorySize** parameter) and a short window.
CalculationGranularity	**20**	Sets the time difference, in seconds, between recalculating statuses for a view. This knowledge is shown in **<MercyrAM>\log\EJBcontainer\ TrinityStatistic.log**.

The **CalculationGranularity** parameter determines how many calculations will be performed for a CI in a certain period of time. During normal functioning, Dashboard or Service Level Management perform the calculation approximately every 20 seconds (~180 calculations/hour). If Dashboard or Service Level Management is running without a problem, there is no reason to change the default value.

If Dashboard or Service Level Management has a heavy calculation load, causing the calculations to take more time, Dashboard or Service Level Management might automatically adjust the granularity to calculate less often. For example, calculation may take place every minute or more, meaning 60 or less calculations an hour. If this is a problem, you can define the **CalculationGranularity** parameter above, to override the automatic granularity rate; however, this modification should be made with great caution, and only by advanced users. Contact Mercury Customer Support for assistance.

Note: If the **CalculationGranularity** parameter is not changed when there is a heavy calculation load, this will not cause wrong results, but note that calculations will be done on a longer time scale (for example, calculation may be done on a history size of three hours instead of one hour).

Last Sample Details Definitions

You can set Dashboard or Service Level Management to save details from the last sample received for a CI, so that these details can be viewed in the Event Details window for the CI in Dashboard or Service Level Management (described in "Viewing Sample Details" in *Using Dashboard*).

Last sample details are kept in memory using the **saveLastSample** property. You can use this property to store sample details only for specific CI KPIs, or for all KPIs, as follows:

- To set the property for an individual KPI rule, override the rule in the Business Rules Repository. In the Rule Details window for the new custom rule, add a new parameter **saveLastSample** with default value **true**. (Note that this property need only be defined for rules that apply to monitor CIs.)
- To set the property for all KPI rules, click the **Edit Globals** button in the Business Rules Repository to view the Global Attributes list. Edit the **saveLastSample** attribute to change its value to **true** (default setting is **false**).

  For more details on editing global attributes, see "Configuring the Rules Global Parameters" on page 417.

  After setting the property in the Business Rules Repository, you must restart Mercury Business Availability Center for the changes to take effect.

Note: Storing last sample details may require use of a large amount of memory, slowing down Dashboard or Service Level Management performance.

Setting a Rule and its Parameters Back to Default

If you have modified a rule or its parameters, you might need to return the rule and its parameters to their defaults.

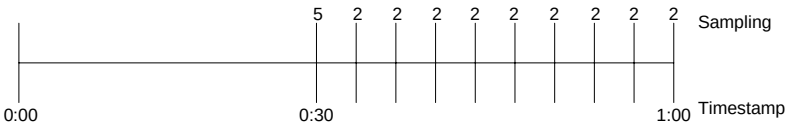
To set a rule and its parameters back to default:

1. Select **Admin** > **Dashboard** or **Service Level Management**.
2. Click the down arrow in the **Repositories** tab and select **Rules**.
3. In the **Custom Rules** area, delete the copy of the rule you want to return to default.
4. Click **OK**. The rule and its parameters are returned to their defaults.

Sample-Based and Time-Based Sampling

Monitor rules are time-based or sample-based. The time-based sampling is more accurate than the sample-based sampling when samples are not taken regularly; for example, SiteScope sampling accelerates when a problem occurs. When samples are taken regularly, time-based and sample-based sampling provide the same results.

If you have the following sample:



The result of the first part of the sampling period is 5. After that the result of each sampling period is 2.

The sample-based result is calculated as follows:
(5+8x2)/9= 2.33
The samplings are as follows: 1 sampling with the value 5 and 8 samplings with the value 2. The total number of samplings is 9.

The time-based result is calculated as follows:
(30x5 +30x2)/60=3.5
During 30 seconds the value was 5. During the next 30 seconds the value was 2. The total sampling time was 60 seconds.

27

Dashboard Business Rules Details

The Business Rules Repository includes the rules available in Dashboard and enables you to create new rules and to edit existing rules.

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Average Availability of Weighted Volume

Calculates the weighted average based on the total number of users accessing the page monitored by the Monitor, based on the Sum of availability of Monitors Per volume.

This is a group rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Availability" on page 373

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Average Latency of Weighted Volume

Calculates the weighted average of the latency of the monitored End User groups weighted by the volume of users and the weighted relationships.

For details about weighted relationships, see “Working with Relationships” in *IT Universe Administration*.

KPIs Using this Rule

This rule is used by the following KPI(s):
“Latency” on page 378

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

See Also...

- “Creating a Rule Using Cloning” on page 412
- “Editing a Rule Using Override” on page 413.
- “Specifying the Rule Details” on page 414.
- “Specifying the Rule Parameter Details” on page 415.
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- “Configuring the Rules Global Parameters” on page 417
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- “Example Scenario - Creating New Rules” on page 409.

Average of Converted Performance Results in %

Converts the monitors status into percentages using the Average of Performance Results in % rule, then calculates the average, compares the average to the objectives, and provides the result in percentages.

KPIs Using This Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
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- "Example Scenario - Creating New Rules" on page 409.

Average of Values

Converts the monitors status into percentages using the Average of Performance Results in % rule, then calculates the average, compares the average to the objectives, and provides the result in percentages.

KPIs Using This Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Average Performance of Weighted Volume in %

Calculates the average performance based on the weighted volume (total number) of users accessing the page monitored by the Monitor, where the performance of the monitor has been converted to percentages by the Average of Performance Results rule.

KPIs Using This Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Average Performance of Weighted Volume in Seconds

Calculates, in seconds, the average performance based on the weighted volume (total number) of users accessing the page monitored by the Monitor, where the performance of the monitor has been converted to percentages by the Average of Performance Results rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
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- "Configuring the Rules Global Parameters" on page 417
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- "Example Scenario - Creating New Rules" on page 409.

Best Child Rule

Calculates the best result value based on all the CI's KPI children (based on the highest **status** held by any of the child CIs). This is a group rule.

If, for example, at least one CI within a subgroup currently has green status, then the CIs for both the subgroup and group that contain that CI will also display green status.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Availability" on page 373
- "Bandwidth" on page 373
- "Component Availability" on page 374
- "Customer" on page 375
- "HP System" on page 377
- "Latency" on page 378
- "Locations" on page 379
- "Performance" on page 382
- "SAP" on page 385
- "SAP Alerts" on page 386
- "System" on page 387
- "Transactions" on page 388
- "User" on page 389
- "Volume" on page 390

Parameters

This rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Customer Rule

Displays the status of the worst KPI of all the CIs' children. If, for example, at least one CI within a subgroup currently has green status, then the CIs for both the subgroup and group that contain that CI will also display green status.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Customer" on page 375

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.

- "Configuring the Rules Global Parameters" on page 417
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Dashboard PNR Rule

Produces status to be presented in the Dashboard, based on Point of No Return (PNR) samples (created by the corresponding internal SLM PNR – for details, see "PNR (Point of No Return)" on page 556).The status is displayed in bar form in the Dashboard tab. The PNR samples measure unavailability in the period of time that has elapsed, and how much time remains before the SLA is in breach of contract.

KPIs Using this Rule

This rule is used by the following KPI(s):
"PNR" on page 383

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
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Deep Transaction Tracing Monitor Availability

Calculates the average of Deep Transaction transaction availability over time.

The external system provides information about the threshold to use to calculate the availability of the Deep Transaction transaction. This information is provided in the Response Time Threshold that is part of the sample itself.

This is a monitor rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Availability" on page 373

Understanding the Deep Transaction Tracing Monitor Availability Rule

If a CI has children that are Deep Transaction transactions, the Deep Transaction Tracing Monitor Availability Rule calculates the average availability of all the children transactions. The value of the availability for each transaction is the result of the comparison between the transaction value in the sample and the Response Time Threshold that is included in the sampling.

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
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- "Example Scenario - Creating New Rules" on page 409.

Deep Transaction Tracing Monitor Failed Tx Business Impact

Calculates the financial loss caused to the organization when Deep Transaction transactions have failed.

This is a monitor rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"DT Failed Impact" on page 376

Understanding the Deep Transaction Tracing Monitor Failed Tx Business Impact

If a CI has children that are Deep Transaction transactions, the Deep Transaction Tracing Monitor Failed Tx Business Impact displays the result provided by the sample. The result is the financial loss occurred by the organization based on the number of transactions that have failed during the time period specified in the **duration** parameter.

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Deep Transaction Tracing Monitor Late Tx Business Impact

Calculates the financial loss caused to the organization when Deep Transaction transactions have not been sent on time (late).

This is a monitor rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"DT Late Impact" on page 376

Understanding the Deep Transaction Tracing Monitor Late Tx Business Impact

If a CI has children that are Deep Transaction transactions, the Deep Transaction Tracing Monitor Late Tx Business Impact displays the result provided by the sample. The result is the financial loss occurred by the organization based on the number of transactions that have not be sent on time (are late) during the time period specified in the **duration** parameter.

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Deep Transaction Tracing Monitor Performance

Calculate the average of a Deep Transaction transaction performance over time.

This is a monitor rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Understanding the Rule

If a CI has children that are Deep Transaction transactions, the Deep Transaction Monitor Performance Rule analyzes the sample and counts the number of failed transactions (x) and the total number of transactions (y), calculates y-x which represents the number of successful transactions, and divides it by y to get the percentage of successful transactions which represents the performance of the transaction.

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.

➤ "Configuring the Rules Global Parameters" on page 417

➤ "Specifying the KPI Details" on page 359

➤ "Example Scenario - Creating New Rules" on page 409.

Deep Transaction Tracing Monitor Total Tx Business Impact

Calculates the financial loss caused to the organization when Deep Transaction transactions have not been sent on time (late) or when they have failed. The rule adds the results of the Deep Transaction Monitor Total Tx Business Impact rule and the Deep Transaction Monitor Late Tx Business Impact rule.

This is a monitor rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"DT Total Impact" on page 377

Understanding the Deep Transaction Tracing Monitor Total Tx Business Impact Rule

If a CI has children that are Deep Transaction transactions, the Deep Transaction Tracing Monitor Total Tx Business Impact displays the result provided by the sample. The result is the financial loss occurred by the organization based on the number of transactions that have not be sent on time (are late) added to the number of transactions that have failed during the time period specified in the **duration** parameter.

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Diagnostics for J2EE/.Net General

Calculates the status of the Mercury Diagnostics Application KPI based on the worst of all statuses from the J2EE rules calculations. For more details about Diagnostics for J2EE/.Net, see *Mercury Diagnostics Installation and User's Guide*.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Application" on page 372

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

EMS Simple Rule

Calculates the KPI status based on metrics collected from UDX event or old EMS samples for a typical EMS system.

Status is assigned according to the following values:

KPI status	Value for an EMS UDX Sample	Value for an EMS non-UDX Sample
Uninitialized	0	0
Informational	1	10
Warning	2	20
Minor	3	30
Major	4	40
Critical	5	50

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Availability" on page 373
- "HP System" on page 377
- "Locations" on page 379
- "SAP" on page 385
- "SAP Alerts" on page 386
- "Performance" on page 382
- "System" on page 387
- "Transactions" on page 388
- "User" on page 389

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Number of Problematic Samples – The number of samples that have the required status.
A specified number of samples (specified in the **Total Number of Samples** parameter) is accumulated. The status of the rule changes to a new status only when, among the accumulated samples, the specified number of samples (specified in the **Number of Problematic Samples** parameter) has the new status.
For example, **Total Number of Samples**=5, **Number of Problematic Samples**=3; if three samples in the accumulated samples have a red status, the rule status changes to red.

Total Number of Samples – The total number of samples. See Number of Problematic Samples parameter for more details.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Generic Sample Rule

Use this rule to create a customized rule. The rule compares the value of a selected field from a sample to the objectives and returns the result of the comparison.

The tooltip of the Generic Sample Rule is empty.

KPIs Using this Rule

You can attach this rule to an existing KPI or to a new KPI that you create – for details, see below.

This rule is used by the following KPI(s):

- "Application" on page 372
- "Availability" on page 373
- "Bandwidth" on page 373
- "Component Availability" on page 374
- "HP System" on page 377
- "Latency" on page 378
- "Performance" on page 382
- "System" on page 387
- "User" on page 389
- "Volume" on page 390

Understanding the Rule

To use the Generic Sample rule, you must first customize the rule, and then attach the rule to a KPI, and then attach the KPI to a view. The KPI automatically propagates the rule selected in the Default Rule list to all the CI parents.

To create a customized Generic Sample Rule:

1 Select **Admin**> **Dashboard**, and select **Business Rules** in the Repositories tab.

2 In the Factory Business Rules area, select the **Generic Sample Rule** and click **Clone**.



3 In the Custom Business Rule area, click the **Edit** button corresponding to the Generic Sample Rule to open the Rule Details window.

4 In the **Display Name** box, enter a new name for the cloned rule.

5 In the Rule Parameters area:



➤ Click the **Edit** button corresponding to the **Field Name** to open the Parameter Details window. In the **Default Value** box, specify the name of the field (in the sample) on which to apply the rule. The field must have a numeric value. Click **OK** to save the change.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.

➤ If the name of the time stamp field in the sample is not time_stamp, click **Edit** for the **Time Stamp Field** parameter. Enter the name of the sample time stamp field in the **Default Value** box. The type of the sample time stamp field must be time. Click **OK** to save the change.



6 If required, in the Objective Parameters area, click the **Edit** button corresponding to the appropriate objective to open the Parameter details window and make the changes – for details, see "Specifying the Rule Objective Parameters" on page 416.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.

---

7 Click **OK** to save the changes.

To define the customized rule for a KPI:

1 Select **Admin**> **Dashboard**, and select **KPIs** in the Repositories tab.

2 In the Factory KPIs area, select any KPI and click **Clone**.



3 In the Custom KPIs area, click the **Edit** button corresponding to the KPI you just cloned to open the Item Details window.

4 In the **Display Label** box, enter a new name for the cloned KPI.

5 In the **Default Rule** list, select **Worst Child**.

6 In the **Applicable Rules** list, select **Worst Child**, click CTRL and click the cloned Generic Sample Rule you just created.

7 In the **Applicable Sections** list, select **Dashboard**.

8 Click **OK** to save the changes.

To attach the customized rule to a KPI for a CI:

1 Select **Admin**> **Dashboard**, and select the **KPIs** tab.

2 Select a view.

3 Select the appropriate monitor level to which you want to attach the KPI.

4 Click **New KPI** to open the New KPI window.

5 In the **KPI** list, select the KPI you just created.

6 In the **Business rule** list, select the generic rule you just created.

7 Click **OK** to save the changes.

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see “No Data Timeout for Transaction CIs” on page 30.

Field Name – The name of the sample field you want to compare to the objectives. The field must have a numeric value.

Time Stamp Field – The name of the time stamp field, if its name is not **time_stamp**.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Generic Sum of Values Over Time Rule

Use this rule to create a customized rule. The rule adds the values of the selected sample field for all the samples that arrive during the time period specified in the **duration** parameter.

The tooltip for the Generic Sum of Value Over Time Rule is empty.

KPIs Using this Rule

You can attach this rule to an existing KPI or to a new KPI that you create – for details, see below.

This rule is used by the following KPI(s):

- "Application" on page 372
- "Availability" on page 373
- "Bandwidth" on page 373

- "Component Availability" on page 374
- "HP System" on page 377
- "Latency" on page 378
- "Performance" on page 382
- "System" on page 387
- "User" on page 389
- "Volume" on page 390

Understanding the Generic Sum of Values Over Time Rule

To use the Generic Sum of Values Over Time rule, you must first customize the rule, and then attach the rule to a KPI, and then attach the KPI to a view. The KPI automatically propagates the rule selected in the Default Rule list to all the CI parents.

To create a customized Generic Sum of Values Over Time Rule:

1. Select **Admin**> **Dashboard**, and select **Business Rules** in the Repositories tab.
2. In the Factory Business Rules area, select the **Generic Sum of Values Over Time Rule** and click **Clone**.
3. In the Custom Business Rule area, click the **Edit** button corresponding to the Generic Sum of Values Over Time Rule to open the Rule Details window.
4. In the **Display Name** box, enter a new name for the cloned rule.
5. In the Rule Parameters area:

   - Click the **Edit** button corresponding to the **Field Name** to open the Parameter Details window. In the **Default Value** box, specify the name of the field (in the sample) on which to apply the rule. The field must have a numeric value. Click **OK** to save the change.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.



➤ If the name of the time stamp field in the sample is not time_stamp, click the **Edit** button corresponding to the **Time Stamp Field** parameter. Enter the name of the sample time stamp field in the **Default Value** box. The type of the sample time stamp field must be time. Click **OK** to save the change.



➤ If required, click the **Edit** button corresponding to the **duration** parameter and specify the sampling duration, in seconds, in the **Default value** box. The default is 15 minutes (900 seconds).



6 If required, in the Objective Parameters area, click the **Edit** button corresponding to the appropriate objective to open the Parameter details window and make the changes – for details, see "Specifying the Rule Objective Parameters" on page 416.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.

---

7 Click **OK** to save the changes.

To define the customized rule for a KPI:

1 Select **Admin**> **Dashboard**, and select **KPIs** in the Repositories tab.

2 In the Factory KPIs area, select any KPI and click **Clone**.



3 In the Custom KPIs area, click the **Edit** button corresponding to the KPI you just cloned to open the Item Details window.

4 In the **Display Label** box, enter a new name for the cloned KPI.

5 In the **Default Rule** list, select **Worst Child**.

6 In the **Applicable Rules** list, select **Worst Child**, click CTRL and click the cloned generic rule you just created.

7 In the **Applicable Sections** list, select **Dashboard**.

8 Click **OK** to save the changes.

To attach the customized rule to a KPI for a CI:

1. Select **Admin**> **Dashboard**, and select the **KPIs** tab.
2. Select a view.
3. Select the appropriate monitor level to which you want to attach the KPI.
4. Click **New KPI** to open the New KPI window.
5. In the **KPI** list, select the KPI you just created.
6. In the **Business rule** list, select the generic rule you just created.
7. Click **OK** to save the changes.

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Field Name – The name of the sample field you want to compare to the objectives. The field must have a numeric value.

Time Stamp Field – The name of the time stamp field, if its name is not **time_stamp**.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.

➤ "Specifying the Rule Details" on page 414.

➤ "Specifying the Rule Parameter Details" on page 415.

➤ "Specifying the Rule Objective Parameters" on page 416.

➤ "Configuring the Rules Global Parameters" on page 417

➤ "Specifying the KPI Details" on page 359

➤ "Example Scenario - Creating New Rules" on page 409.

Generic Two Arguments Rule

Use this rule to perform a specific calculation based on the values of two specific fields. The calculation is performed as follows: calculate a value based on an operation (specified by the arithmetic operator) and two fields that are the sample's keys, multiply the result by a factor, and then compare the result with specified objectives.

You must create a KPI and attach the Generic Two Arguments Rule rule to that KPI.

The tooltip for the Generic Sum of Value Over Time Rule is empty.

KPIs Using this Rule

There are no KPIs using this rule. You can attach this rule to an existing KPI or to a new KPI that you create – for details, see below.

Understanding the Rule

To use the Generic Two Arguments Rule, you must first customize the rule, and then attach the rule to a KPI, and then attach the KPI to a view. The KPI automatically propagates the rule selected in the Default Rule list to all the CI parents.

To create a customized Generic Two Arguments Rule:

1. Select **Admin**> **Dashboard**, and select **Business Rules** in the Repositories tab.
2. In the Factory Business Rules area, select the Generic Two Arguments Rule and click **Clone**.



3 In the Custom Business Rule area, click the **Edit** button corresponding to the Generic Two Arguments Rule to open the Rule Details window.

4 In the **Display Name** box, enter a new name for the cloned rule.

5 In the Rule Parameters area:



➤ Click the **Edit** button corresponding to the **First Field Name** to open the Parameter Details window. In the **Default Value** box, specify the name of the first sample field on which to apply the rule. The field must have a numeric value. Click **OK** to save the change.



➤ Click the **Edit** button corresponding to the **Second Field Name** to open the Parameter Details window. In the **Default Value** box, specify the name of the second sample field on which to apply the rule. The field must have a numeric value. Click **OK** to save the change.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.



➤ If the name of the time stamp field in the sample is not time_stamp, click the **Edit** button corresponding to the **Time Stamp Field** parameter. Enter the name of the sample time stamp field in the **Name** box. The type of the sample time stamp field must be time. Click **OK** to save the change.



➤ If required, click the **Edit** button corresponding to the **duration** parameter and specify the sampling duration, in seconds, in the **Default value** box. The default is 15 minutes (900 seconds).



➤ If required, click the **Edit** button corresponding to the **Operator** parameter and specify the operator (+, -,*, or /) you want to use in the **Default value** box.



➤ If required, click the **Edit** button corresponding to the **Factor** parameter and specify the value you want to use in the **Default value** box.



6 If required, in the Objective Parameters area, click the **Edit** button corresponding to the appropriate objective to open the Parameter details window and make the changes – for details, see “Specifying the Rule Objective Parameters” on page 416.

Note: The units of the objectives and of the field value must be the same. The result is provided with the same unit too.

---

7 Click **OK** to save the changes.

To define the customized rule for a KPI:

1 Select **Admin**> **Dashboard**, and select **KPIs** in the Repositories tab.

2 In the Factory KPIs area, select any KPI and click **Clone**.



3 In the Custom KPIs area, click the **Edit** button corresponding to the KPI you just cloned to open the Item Details window.

4 In the **Display Label** box, enter a new name for the cloned KPI.

5 In the **Default Rule** list, select **Worst Child**.

6 In the **Applicable Rules** list, select **Worst Child**, click CTRL and click the cloned generic rule you just created.

7 In the **Applicable Sections** list, select **Dashboard**.

8 Click **OK** to save the changes.

To attach the customized rule to a KPI for a CI:

1 Select **Admin**> **Dashboard**, and select the **KPIs** tab.

2 Select a view.

3 Select the appropriate monitor level to which you want to attach the KPI.

4 Click **New KPI** to open the New KPI window.

5 In the **KPI** list, select the KPI you just created.

6 In the **Business rule** list, select the generic rule you just created.

7 Click **OK** to save the changes.

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

First Field Name – The name of the first field on which to apply the rule. The field must have a numeric value.

Second Field Name – The name of the second field on which to apply the rule. The field must have a numeric value.

Operator – the operator used to calculate the result of the first and second fields. It can be: **+**, **-**, *****, or **/**.

Time Stamp Field – the name of the time stamp field, if its name is not **time_stamp**.

Factor – the number used to multiply the result of the operation performed on the two fields, before comparing the result to the objectives.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

HP OpenView Service Navigator Rule

Calculates the KPI status based on metrics collected from UDX event samples or old format HP OpenView samples for an HP OpenView Service Navigator measurement CI.

Status is assigned according to the following values:

KPI status	Value for an HP UDX Sample	Value for an old format HP OpenView Sample
Uninitialized	0	0
Informational	1	10
Warning	2	20
Minor	3	30
Major	4	40
Critical	5	50

KPIs Using this Rule

This rule is used by the following KPI(s):
"HP System" on page 377

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Number of Problematic Samples – The number of samples that have the required status.
A specified number of samples (specified in the **Total Number of Samples** parameter) is accumulated. The status of the rule changes to a new status only when, among the accumulated samples, the specified number of samples (specified in the **Number of Problematic Samples** parameter) has the new status.
For example, **Total Number of Samples**=5, **Number of Problematic Samples**=3; if three samples in the accumulated samples have a red status, the rule status changes to red.

Total Number of Samples – The total number of samples. See Number of Problematic Samples parameter for more details.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

HP Worst Child Rule

Calculates the status for the HP System KPI based on the worst status held by any of the child CIs.

If, for example, at least one CI within a subgroup currently has red status, then the CIs for both the subgroup and the group that contains that CI will also display red status.

KPIs Using this Rule

This rule is used by the following KPI(s):
"HP System" on page 377

Parameters

The rule parameters are:

InitStatus – Defines a different initial status for the CIs in a KPI until samples are received for the KPI. (The default KPI status for rules that do not include an InitStatus parameter is **Uninitialized**.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Impact Over Time Rule

Calculates the financial loss due to non-availability over time.

The non-availability period starts when the status of the Availability KPI changed to Critical (red) status until the current time. The financial loss for the CI is calculated by multiplying the total Critical period by an hourly $ amount (defined by the **DollarImpactFactor** parameter for the rule) and dividing by 60. The financial loss indication changes from green to red when the figure passes the objectives defined in the **DollarImpactThreshold** parameter for the rule.

At the monitor level, attach the Impact Over Time rule to the OT Impact KPI and the Availability KPI to the same CI. The Impact Over Time rule measures the time the Availability KPI attached to the same CI has the red status, and then calculates the financial loss using the rule parameter: **DollarImpactFactor**. This parameter represents the amount of dollars lost in an hour if the system is unavailable. If the Availability KPI status is not red, then the Real Time Impact value is 0.0$.

At the group level, attach the Sum of Values rule to the RT Impact KPI. The Sum of Values rule summarizes all the values of the Real Time Impact KPI of its children.

KPIs Using this Rule

This rule is used by the following KPI(s):
"OT Impact" on page 381

Parameters

The rule parameters are:

DollarImpactFactor – The financial loss factor per hour. The financial loss indicator in the KPI is incrementally increased by a percentage of the $ amount defined here, for each period that availability for the CI is at Error/Poor status.

StatusDimension – Defines the ID of the KPI for which the other rule parameters apply.

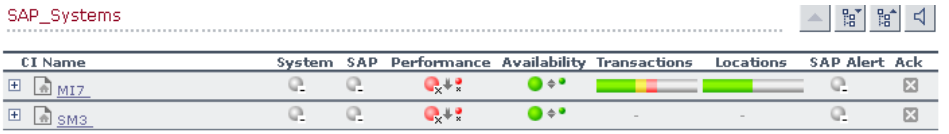
See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417

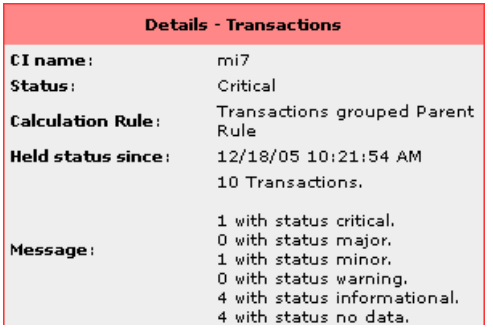
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Locations Grouped Parent Rule

When a SAP System CI has Locations group child CIs, the rule uses the results of the Locations Grouped rule for each child CI and calculates and displays the sum of each status.



For each result, the tooltip displays how many of the children have a critical status, how many have the OK status, and so forth.



KPIs Using this Rule

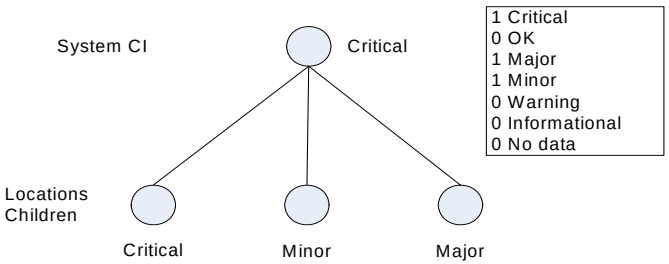
This rule is used by the following KPI:
"Locations" on page 379

Understanding the Rule

For example, a System CI has three Locations children with the following statuses:

- Locations child 1 – Status = Critical
- Locations child 2 – Status = Minor
- Locations child 3 – Status = Major

The rule calculates the status of the System CI by taking the worst status for all the children: Critical. The tooltip displays for each status how many children have that specific status:



Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

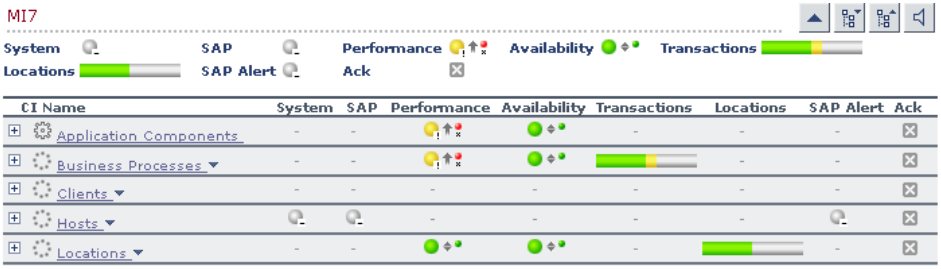
duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

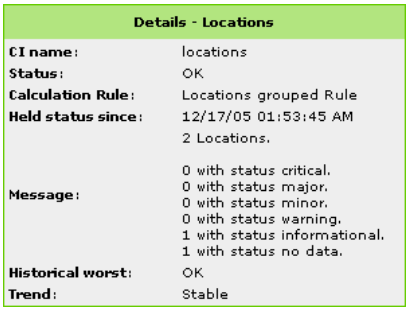
- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Locations Grouped Rule

For a Locations group CI, whose Contained Location children CIs represent transactions, the rule selects the worst status of **Performance** and **Availability**, and displays the worst status of all the children.



The tooltip displays for each status the sum of all the CI's children that have a critical status, how many have the OK status, and so forth.



Details - Locations	
CI name:	locations
Status:	OK
Calculation Rule:	Locations grouped Rule
Held status since:	12/17/05 01:53:45 AM
Message:	2 Locations. 0 with status critical. 0 with status major. 0 with status minor. 0 with status warning. 1 with status informational. 1 with status no data.
Historical worst:	OK
Trend:	Stable

KPIs Using this Rule

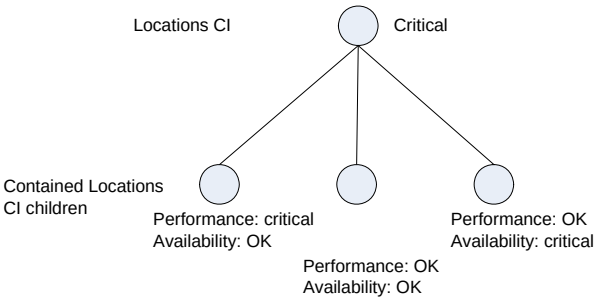
This rule is used by the following KPI(s):
"Locations" on page 379

Understanding the Rule

For example, a Locations CI has three Contained Location children with the following statuses:

- Contained Location child 1 – Performance = Critical and Availability = OK
- Contained Location child 2 – Performance = OK and Availability = Minor
- Contained Location child 3 – Performance = OK and Availability = Major

The rule calculates the status of the Locations CI by taking for each child the worst status of **Performance** and **Availability**: Critical, Minor, and Major. The overall status worst status is Critical. The rule also calculates the sum of children with each specific status and displays that information in the tooltip:



Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.

- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Percentage Rule

Calculates the weighted average of the statuses of all the children. The result is in percentages.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Availability" on page 373
- "Customer" on page 375
- "HP System" on page 377
- "Locations" on page 379
- "SAP" on page 385
- "System" on page 387
- "Transactions" on page 388
- "Performance" on page 382
- "User" on page 389

Understanding the Percentage Rule

When the Percentage Rule is defined as the KPI rule for a parent group, the group is assigned a KPI status based on a percentage calculated from the child CIs in the group. If required, significant relationships between CIs (usually between the parent CI and one of the children CIs) can be weighted (**Weight** option), so that they have more impact on the percentage calculation. You can also define dominant status (**Must** option) for a relationship between CIs (usually between the parent CI and one of the children CIs), so that a child CI with low status in the dominant relationship will influence the status of the group.

Note: For all percentage calculation methods, the number of gray child CIs (Uninitialized, Stopped, or Downtime statuses) is ignored in the final calculation of the parent group score.

The different applications of the Percentage Rule are described below:

- **Basic Percentage Rule –** When using the Percentage Rule, parent group status is based on a percentage (the **score** for the group), calculated from the number of child CIs with red, orange, olive, green, or yellow status. (Note that if any of the child CIs are weighted, this influences the percentage calculation, as described in Weighted Percentage, below.)

  Each status has a value, as follows:

  - red = 0
  - orange = 5
  - yellow = 10
  - olive = 30
  - green = 20

  Each value is multiplied by the number of children in the group that have that status, and the results are totaled and divided by the number of children in the calculation, to give an average result. For example, in a group of five CIs with one red, two yellow, one green, and one gray, the calculation would be as follows:

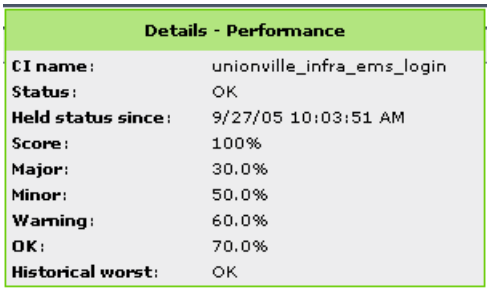
1 x 0
2 x 10
1 x 20
Total = 40/4 (number of red, yellow, and green children) = 10 (average result)

The average result is then divided by 20 (the highest status value) and multiplied by 100, to give the percentage score for the group:

(10/20) x 100 = 50% (score)

The score determines the status for the parent group according to objectives defined for the KPI – for details, see "KPI Objectives" on page 38. The rule objectives

When you assign the Percentage rule to a KPI, the tooltip for the KPI in Dashboard, displays the percentage score for the group and the Percentage rule objectives.



Details - Performance	
CI name:	unionville_infra_ems_login
Status:	OK
Held status since:	9/27/05 10:03:51 AM
Score:	100%
Major:	30.0%
Minor:	50.0%
Warning:	60.0%
OK:	70.0%
Historical worst:	OK

- **Weighted Percentage** – Relationships by default are not weighted (**weight = 1**). You can change the default weight for a relationship in the **weight** box, accessed in the Define Configuration Item Relationship window (described in "Creating a New CI" in *IT Universe Administration*).

  When a child CIs in a group is in a relationship with a weight greater than 1, then the percentage calculations described in Basic Percentage Rule, are adjusted to take account of this. Each CI status value is multiplied by the weight for the CI, and the total is divided by the total weight values, to give the average result.

For example, taking the same group that was used for the basic percentage example (five CIs with one red, two yellow, one green, and one gray), if the green CI has a weight of 3 and one of the yellow CIs has a weight of 2, then the average result calculation looks like this:

1 x 0
2 x 10
1 x 10
3 x 20
Total = 90/7 (total weight values for red, yellow, and green children) = 12.86 (average result)

The percentage score for the group is then calculated in the same way as for the basic Percentage Rule: average result is divided by 20 and multiplied by 100:

(12.86/20) x 100 = 64.27% (score)

Note that the weights for CIs are only relevant when the parent group status is calculated using the Percentage Rule.

- **Dominant Child** – By default, all CIs are in non-dominant relationships (**must** is cleared). You can change the setting for a relationship to dominant in the Define Configuration Item Relationship window (described in "Creating a New CI" in *IT Universe Administration*).

  When a child CIs in a group is in a dominant relationship, then status is calculated for the group by comparing the results from the following two status calculation methods:

  - Dashboard determines the lowest status held among all dominant CIs.
  - Dashboard determines group status according to the percentage rule calculation (as described in Basic Percentage Rule above).

  The worst status from the two calculations becomes the status for the group.

  When the group status has been taken from the lowest status held by a dominant CI, the tooltip for the parent group displays **Score: n/a (Using dominant child)**.

  Note that the dominant CIs are only relevant when the group is using the Percentage Rule to calculate status.

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Real Time Impact

Calculates financial loss due to non-availability.

The non-availability period starts the last time the status of the CI Availability KPI changed to Critical (red) status to the current time. The financial loss for the CI is calculated by multiplying the total Critical period by an hourly $ amount (defined by the **DollarImpactFactor** parameter for the rule) and dividing by 60.

At the monitor/leaf level, you should attach the Real Time Impact rule to the RT impact KPI and the Availability KPI to the same CI. The Real Time Impact rule measures the time the Availability KPI attached to the same CI has the red status, and then calculates the financial loss using the rule parameter: **DollarImpactFactor**. This parameter represents the amount of dollars lost in an hour if the system is unavailable. If the Availability KPI status is not red, then the Real Time Impact value is 0.0$.

At the group level, you should attach the Sum of Values rule to the RT Impact KPI. The Sum of Values rule calculates the sum of all the values of the Real Time Impact KPI of its children.

The financial loss indication changes from green to red when the figure passes the threshold defined in the **DollarImpactThreshold** parameter for the rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"RT Impact" on page 384

Parameters

The rule parameters are:

DollarImpactFactor – The financial loss factor per hour. The financial loss indicator in the KPI is incrementally increased by a percentage of the $ amount defined here, for each period that availability for the CI is at Error/Poor status.

StatusDimension – Defines the ID of the KPI for which the other rule parameters apply.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Bandwidth Rule

Displays the amount of traffic (in bytes) between the application server and end users accessing the server (this includes traffic in both directions), during the time period specified by the **duration** parameter. This includes both HTTP and HTTPS traffic.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Bandwidth" on page 373

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417

- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Component Availability Rule

Calculates the percentage of pages without server errors over the time period specified in the **duration** parameter for the rule, for a server monitored by the Real User Monitor.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Component Availability" on page 374

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Event Monitor Volume Rule

Counts the total number of times that a defined event or error (monitored by the Real User Monitor) occurred during the time period specified by the **duration** parameter for the rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Understanding the Rule

The volumes for error have the following thresholds:

Color	Value
Green	<1
Yellow	<7
Red	>7

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Latency Rule

Displays the average roundtrip time for a packet, between the end users and the server monitored by the Real User Monitor, during the time period specified by the **duration** parameter for the rule.

The displayed status color represents the average value as follows:

Color	Value
Green	< 50
Yellow	< 200
Red	> 200

KPIs Using this Rule

This rule is used by the following KPI(s):
"Latency" on page 378

Understanding the Rule

The thresholds used by this rule are configured in Monitor Administration.

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Page Monitor Availability Rule

Calculates (in percentage) the average availability for a page monitored by Real User Monitor, over the time period specified in the duration parameter for the rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Availability" on page 373

Understanding the Rule

The thresholds for this rules are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Page Monitor Performance Rule

Calculate the percentage of pages without performance problem (pages with page time over the threshold).

KPIs Using this Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Page Monitor Volume Rule

Counts the total number of hits to a page monitored by Real User Monitor, during the time period specified by the **duration** parameter.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Understanding the Rule

The volumes for error have the following thresholds:

Color	Value
Green	<1
Yellow	<7
Red	>7

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Session Monitor Availability Rule

Calculates the percentage of available sessions (out of the total number of sessions), over the time period specified in the **duration** parameter for the rule. A session is considered available when all its pages are available.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Availability" on page 373

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Session Monitor Performance Rule

Calculates the percentage of sessions that do not have a performance problem (out of the total number of sessions). A session is considered to have no performance problem when each one of its pages does not have a performance problem. A page is considered to have a performance problem when page time is over the threshold.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Session Monitor Volume Rule

Adds the total number of sessions started for an application in the past 24 hours, the total number of users starting a session in the past 24 hours, and the number of sessions that were closed in the time period specified by the duration parameter for the rule, for sessions monitored by Real User Monitor.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Understanding the Rule

The volumes for error have the following thresholds:

Color	Value
Green	<1
Yellow	<7
Red	>7

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
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- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Transaction Monitor Availability Rule

Calculates the percentage of available transactions (out of the total number of transactions), over the time period specified in the **duration** parameter for the rule. A transaction is considered available when all pages accessed by the transaction are available.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Availability" on page 373

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see “No Data Timeout for Transaction CIs” on page 30.

See Also...

- “Creating a Rule Using Cloning” on page 412
- “Editing a Rule Using Override” on page 413.
- “Specifying the Rule Details” on page 414.
- “Specifying the Rule Parameter Details” on page 415.
- “Specifying the Rule Objective Parameters” on page 416.
- “Configuring the Rules Global Parameters” on page 417
- “Specifying the KPI Details” on page 359
- “Example Scenario - Creating New Rules” on page 409.

RUM Transaction Monitor Performance Rule

Calculates the percentage of transactions (out of the total number of transactions) that do not have pages with a performance problem. A page is considered to have a performance problem when page time is over the threshold.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Performance" on page 382

Understanding the Rule

The thresholds for this rule are:

Color	Value
Red	<90%
Orange	<100%
Green	=100%

Parameters

The rule parameters are:

volumeKPI – The KPI number of the Volume KPI (in Real User Monitor). Used to calculate rules in Real User Monitor group rules.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

RUM Transaction Monitor Volume Rule

Counts the total number of times that a transaction monitored by Real User Monitor was completed, during the time period specified by the **duration** parameter for the rule.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

SAP Alerts Rule

The rule obtains SAP samples from SiteScope and displays them as is. The SAP Alerts include the name of the alert and its status.

Mercury Business Availability Center displays two types of SAP Alerts:

- Dialog alerts under a Dialog work process
- Syslog alerts under a SAP R/3 server

The status of an alert is displayed by the color of the SAP alert KPI, assigned by the SAP system.

The colors of active alerts can be red or yellow – for details, see "Understanding KPI Status" in *Using Dashboard*.

KPIs Using this Rule

➤ This rule is used by the following KPI(s):
"SAP Alerts" on page 386

Parameters

The rule parameters are:

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359

➤ "Example Scenario - Creating New Rules" on page 409.

Service Level Management Tracking Period Alert

This is an internal rule that is used to send alerts to Service Level Management.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Parameters

The rule parameters are:

tracking period id – Internal. This parameter must not be modified.

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

See Also...

➤ "Creating a Rule Using Cloning" on page 412
➤ "Editing a Rule Using Override" on page 413.
➤ "Specifying the Rule Details" on page 414.
➤ "Specifying the Rule Parameter Details" on page 415.
➤ "Specifying the Rule Objective Parameters" on page 416.
➤ "Configuring the Rules Global Parameters" on page 417
➤ "Specifying the KPI Details" on page 359
➤ "Example Scenario - Creating New Rules" on page 409.

Sitescope Measurement Rule

Calculates the status based on metrics for a SiteScope measurement CI for sampleType: **ss_t**, monitored by the SiteScope Monitor.

Status	Value
Informational	1
Middle	2
Critical	3

KPIs Using this Rule

This rule is used by the following KPI(s):

- "HP System" on page 377
- "SAP" on page 385
- "SAP Alerts" on page 386
- "System" on page 387

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Number of Problematic Samples – The number of samples that have the required status.
A specified number of samples (specified in the **Total Number of Samples** parameter) is accumulated. The status of the rule changes to a new status only when, among the accumulated samples, the specified number of samples (specified in the **Number of Problematic Samples** parameter) has the new status.
For example, **Total Number of Samples**=5, **Number of Problematic Samples**=3; if three samples in the accumulated samples have a red status, the rule status changes to red.

Total Number of Samples – The total number of samples. See Number of Problematic Samples parameter for more details.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Sitescope Measurement Time-Based Rule

Calculates the status based on metrics for a SiteScope measurement CI for time sampleType: **ss_t**, monitored by the SiteScope Monitor.

Status	Value
Informational	1
Middle	2
Critical	3

KPIs Using this Rule

This rule is used by the following KPI(s):

- "HP System" on page 377
- "SAP" on page 385
- "System" on page 387

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Sitescope Monitor Rule

Calculates the status based on metrics for a SiteScope measurement CI for sampleType: **ss_monitor_t**, monitored by the SiteScope Monitor.

Status	Value
Informational	1
Middle	2
Critical	3

KPIs Using this Rule

This rule is used by the following KPI(s):

- "HP System" on page 377
- "SAP" on page 385
- "SAP Alerts" on page 386
- "System" on page 387

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Number of Problematic Samples – The number of samples that have the required status.
A specified number of samples (specified in the **Total Number of Samples** parameter) is accumulated. The status of the rule changes to a new status only when, among the accumulated samples, the specified number of samples (specified in the **Number of Problematic Samples** parameter) has the new status.
For example, **Total Number of Samples**=5, **Number of Problematic Samples**=3; if three samples in the accumulated samples have a red status, the rule status changes to red.

Total Number of Samples – The total number of samples. See Number of Problematic Samples parameter for more details.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Sitescope Monitor Time-Based Rule

Calculates the status based on metrics for a SiteScope measurement CI for time samples sampleType: **ss_monitor_t**, monitored by the SiteScope Monitor.

Status	Value
Informational	1
Middle	2
Critical	3

KPIs Using this Rule

This rule is used by the following KPI(s):

- "HP System" on page 377
- "SAP" on page 385
- "System" on page 387

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
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SiteScope Vertical Rule

Takes samples arriving from the CCMS monitor via SiteScope and displays them as is under the SAP KPI – for details, see "SAP" on page 385. The status is taken from the SAP Quality field, the message from the SAP Message field, and the value from the SAP d_value field.

KPIs Using this Rule

This rule is used by the following KPI(s):
"SAP" on page 385

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

Number of Problematic Samples – The number of samples that have the required status.
A specified number of samples (specified in the **Total Number of Samples** parameter) is accumulated. The status of the rule changes to a new status only when, among the accumulated samples, the specified number of samples (specified in the **Number of Problematic Samples** parameter) has the new status.
For example, **Total Number of Samples**=5, **Number of Problematic Samples**=3; if three samples in the accumulated samples have a red status, the rule status changes to red.

Total Number of Samples – The total number of samples. See Number of Problematic Samples parameter for more details.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Sum of Values Rule

Calculates the total of the dollar loss (as calculated by Real Time Impact or Over Time Impact) of all the child CIs of the KPI the rule is attached to.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "DT Failed Impact" on page 376
- "DT Late Impact" on page 376
- "DT Total Impact" on page 377
- "OT Impact" on page 381
- "RT Impact" on page 384

Understanding the Rule

This rule calculates the sum total for all child CIs in the KPI it is attached to. Based on: Sum of the values of the children in the group.

If you add the **Impact Over Time** and/or **Real Time Impact** rules to the child CIs of a KPI; at the group level you can use the **Sum of Values** rule to view the sum of the children's values.

At the monitor/leaf level, you should attach the Impact Over Time rule to the OT Impact KPI and the Availability KPI to the same CI. The Impact Over Time rule measures the total time the Availability KPI attached to the same CI has the red status, and then calculates the financial loss using the rule parameter: **DollarImpactFactor**. This parameter represents the amount of dollars lost in an hour if the system is unavailable.

At the group level, you should attach the Sum of Values rule to the OT impact KPI. The Sum of Values rule calculates the sum of all the values of the OverTime Impact KPI of its children.

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Sum of Volume Rule

Group rule that calculates the sum of the users accessing a page or encountering an error on a page.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Volume" on page 390

Parameters

The rule does not have parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417

➤ "Specifying the KPI Details" on page 359

➤ "Example Scenario - Creating New Rules" on page 409.

Summary of Values Rule

Calculates the sum of the children's values.

KPIs Using this Rule

This rule is used by the following KPI(s):
"Bandwidth" on page 373

Parameters

The rule does not have parameters.

See Also...

➤ "Creating a Rule Using Cloning" on page 412

➤ "Editing a Rule Using Override" on page 413.

➤ "Specifying the Rule Details" on page 414.

➤ "Specifying the Rule Parameter Details" on page 415.

➤ "Specifying the Rule Objective Parameters" on page 416.

➤ "Configuring the Rules Global Parameters" on page 417

➤ "Specifying the KPI Details" on page 359

➤ "Example Scenario - Creating New Rules" on page 409.

Transaction Availability Rule

Calculates how many Business Process Monitor transactions were available (or ran successfully) during the time period specified by the duration parameter.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Availability" on page 373
- "Locations" on page 379
- "Transactions" on page 388
- "User" on page 389

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.

- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Transaction Performance Rule

Calculates the average response time of the Business Process Monitor transactions that ran during the time period specified by the duration parameter.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Performance" on page 382
- "Locations" on page 379
- "Transactions" on page 388
- "User" on page 389

Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

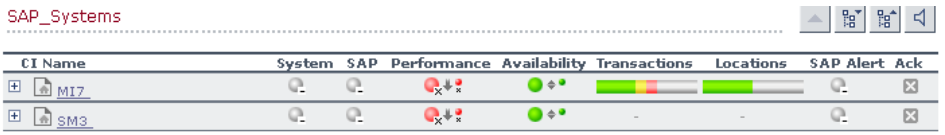
duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Transactions Grouped Parent Rule

When a System CI has Business Process group CI children, the rule uses the results of the Transactions Grouped rule for each child of the CI and calculates and displays the sum of each status.



For each result, the tooltip displays how many of the children have a critical status, how many have the OK status, and so forth.

Details - Transactions	
CI name:	mi7
Status:	Critical
Calculation Rule:	Transactions grouped Parent Rule
Held status since:	12/18/05 10:21:54 AM
Message:	10 Transactions. 1 with status critical. 0 with status major. 1 with status minor. 0 with status warning. 4 with status informational. 4 with status no data.
Historical worst:	Critical
Trend:	Upward

KPIs Using this Rule

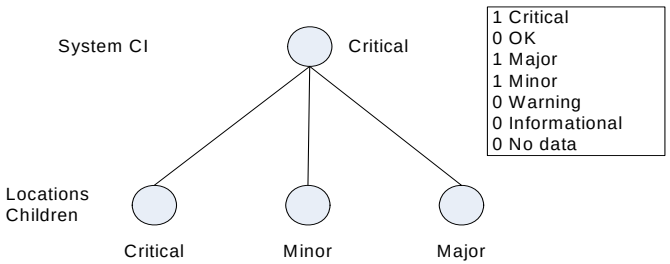
This rule is used by the following KPI(s):
"Transactions" on page 388

Understanding the Rule

For example, a System CI has three Business Process children with the following statuses:

- Business Process child 1 – Status = Critical
- Business Process child 2 – Status = Minor
- Business Process child 3 – Status = Major

The rule calculates the status of the System CI by taking the worst status for all the children: Critical. The tooltip displays for each status how many children have that specific status:



Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

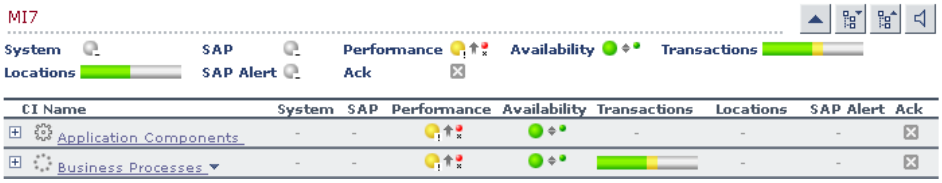
duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

Transactions Grouped Rule

For a Business Process group CI, whose BP Step children CIs have KPIs that are transactions, the rule selects the worst of **Performance** and **Availability**, and displays the worst status of all the children.



The tooltip displays for each status the sum of all the CI's children that have a critical status, how many have the OK status, and so forth.

Details - Transactions	
CI name:	business processes
Status:	Minor
Calculation Rule:	Transactions grouped Rule
Held status since:	12/18/05 09:07:19 AM
Message:	10 Transactions. 0 with status critical. 0 with status major. 1 with status minor. 0 with status warning. 5 with status informational. 4 with status no data.
Historical worst:	Critical
Trend:	Upward

KPIs Using this Rule

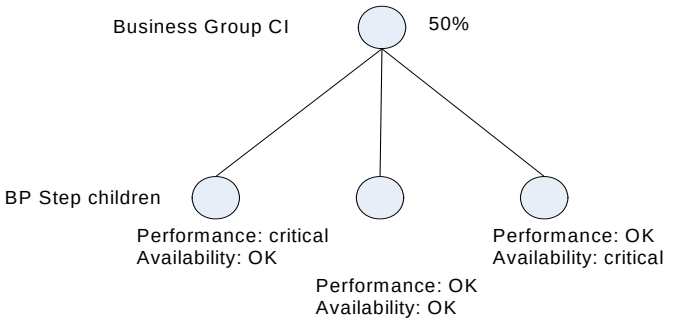
This rule is used by the following KPI(s):
"Transactions" on page 388

Understanding the Rule

For example, a Business Group CI has three BP Step children with the following statuses:

- BP Step child 1 – Performance = Critical and Availability = OK
- BP Step child 2 – Performance = OK and Availability = Minor
- BP Step child 3 – Performance = OK and Availability = Major

The rule calculates the status of the Business Group CI by taking for each child the worst status of **Performance** and **Availability**: Critical, Minor, and Major. The overall status worst status is Critical. The rule also calculates the sum of children with each specific status and displays that information in the tooltip:



Parameters

The rule parameters are:

No data timeout – The timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs—for details, see "No Data Timeout for Transaction CIs" on page 30.

duration – Dashboard calculates CI status based on the samples received during the duration period (defined in seconds). For example, if a CI has a duration of 5 minutes, status is calculated based on the samples received during the past 5 minutes.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.

- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
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- "Example Scenario - Creating New Rules" on page 409.

Worst Child Rule

Calculates the status based on the lowest **status** held by any of the child CIs. If, for example, at least one CI within a subgroup currently has red status, then the CIs for both the subgroup and group that contain that CI will also display red status.

KPIs Using this Rule

This rule is used by the following KPI(s):

- "Application" on page 372
- "Availability" on page 373
- "Bandwidth" on page 373
- "Component Availability" on page 374
- "Customer" on page 375
- "HP System" on page 377
- "Latency" on page 378
- "Locations" on page 379
- "Performance" on page 382
- "SAP" on page 385
- "SAP Alerts" on page 386
- "System" on page 387
- "Transactions" on page 388

- "User" on page 389
- "Volume" on page 390

Parameters

The rule does not use parameters.

See Also...

- "Creating a Rule Using Cloning" on page 412
- "Editing a Rule Using Override" on page 413.
- "Specifying the Rule Details" on page 414.
- "Specifying the Rule Parameter Details" on page 415.
- "Specifying the Rule Objective Parameters" on page 416.
- "Configuring the Rules Global Parameters" on page 417
- "Specifying the KPI Details" on page 359
- "Example Scenario - Creating New Rules" on page 409.

28

Service Level Management Business Rules Repository

This chapter describes the Service Level Management Business Rules repository.

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Best Child (Max.)	527
Best Child (Min.)	528
BPM Average Availability	529
BPM Average Response Time	530
BPM Max. Response Time	531
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Overview of Service Level Management Rules

A KPI must always have an associated business rule that defines the logic to be performed (by the Business Logic Engine) to calculate the measurement for the KPI. The properties and objectives assigned to the KPI depend on the selected rule.

Service Level Management provides rules for use with the KPIs. The rules are contained in the Business Rules repository.

During the creation of an SLA, you can accept the default business rules or you can define custom rules.

Group, Monitor, and Sibling Business Rules

Business rules consist of the following types:

- **Monitor business rule** – measures the actual data sources (also called leaf rule)
- **Group business rule** – performs calculations according to results of children
- **Sibling business rule** – takes sibling measurements into account before performing calculations. For example, the MTTR rule can perform its calculation only after it receives the result of one of the outages rules.
- **Outage business rule** – used when calculating outages

Note: Not all business rule parameters mentioned in the following sections may appear in your system. The Service Level Management administrator might have configured the settings to hide some parameters. For details, see the next section.

The Infrastructure Settings Manager

Caution: Many of the settings in the Infrastructure Settings Manager should not be modified without first consulting Mercury Customer Support or your Mercury Services representative. Modifying certain settings can adversely affect the performance of Mercury Business Availability Center.

Users with an advanced knowledge of Mercury Business Availability Center can modify certain settings that define the contents of KPIs and business rules. For example, you can remove certain business rule parameters (**No data timeout**, **Maximum duration in hours**) intended only for advanced users, from a KPI's rule list. Furthermore, you can define which business rules are available for each configuration item type (CIT).

To display advanced business rule parameters in KPI pages:

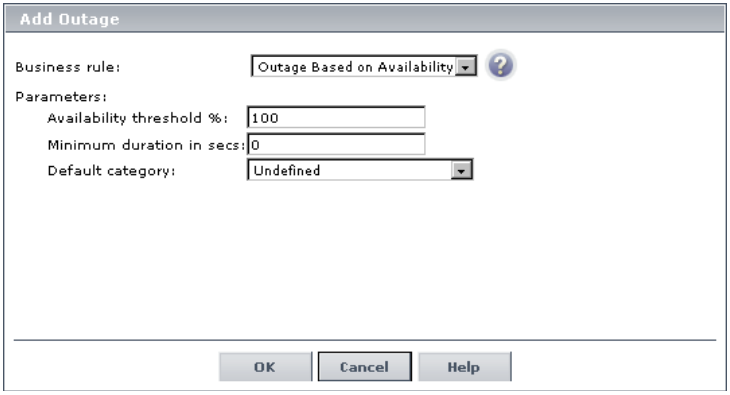
1. Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**. Select the **Applications** context and choose **Service Level Management** from the list.
2. Locate the **Display advanced business logic parameters** option.
3. Click the **Edit** button and change the value to **true**.
4. Click **Save** to save the change and to return to the Infrastructure Settings Manager.

Notes

- During SLA creation, Service Level Management displays only applicable rules for each KPI, in the KPI Definition window. An empty Business rule field signifies that there are no applicable rules for the selected KPI, for the CI associated with the SLA. (That is, the same KPI, when used with another CI, may have applicable rules.)

Outage Business Rules

Service Level Management displays outage business rules in the Add Outage window (for details on adding an outage to an SLA, see "Defining an SLA: Outages" on page 171):



Service Level Management uses the following rules when calculating outages:

- "BPM Outage" on page 534
- "Outage Based on Availability" on page 553
- "Outages Based on System Availability" on page 554
- "SiteScope Monitor Outage" on page 563
- "SiteScope Outage" on page 566

Business Rules Page

To display the Business Rules page, select **Admin** > **Service Level Management** > **Repositories** > **Business Rules**.

The Business Rules page includes two tables: the Factory Business Rules table and the Custom Business Rules table. The Factory Business Rules table displays Service Level Management rules and their class names.

You can clone a factory business rule to create a new rule and you can edit existing rules by overriding their properties. You can also create rules. For details on cloning a rule, see "Creating a Rule Using Cloning" on page 412. For details on overriding a rule, see "Editing a Rule Using Override" on page 413. For details on creating a rule, see "Creating a Rule" on page 412.

You can sort the Factory Business Rules table by any column: An arrow next to a title shows by which column the rules are sorted, and also the direction in which the column has been sorted (that is, ascending or descending).

The Business Rules page includes the following components:

- check box – select to clone or override a rule
- **ID** – the default ID number used to identify the rule in the adapter templates. For details on adapter templates, see "Working with Templates" in *Source Manager Administration*.
- **Class Name** – the class name of the business rule. The class name includes its type (group, leaf (monitor), outage, or sibling).

Note: User-defined classes may not follow the same naming conventions.

- **Display Name** – the name of the rule, as defined in the Rule Details page. For details, see "Specifying the Rule Details" on page 414.
- **Description** – the description of the business rule
- **Help** – click to display help on the rule

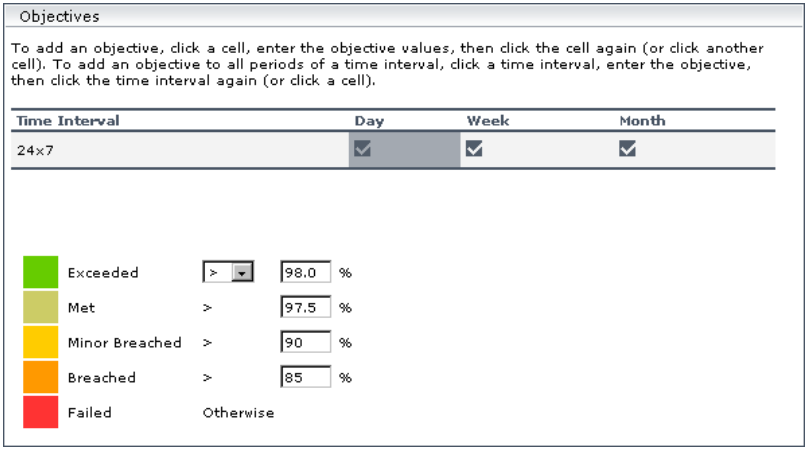
Best Child (Max.)

The Best Child (max.) rule returns the highest value held by any of the child CIs. For example, when calculating the best child result for the Availability KPI, the child with the highest availability is best (where 100% is the best availability and 0% is the worst).

This is a group rule.

Example

During SLA creation, you set objectives for an Availability KPI:



The Availability KPI has three children, CI1, CI2, and CI3, with the following values: 95%, 97.6%, 96.3%. At report generation time, the rule returns the highest value (97.6%), and gives the SLA a Met status (the status color is olive).

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "Availability Six Sigma" on page 397
- "MTBF (Mean Time Between Failures)" on page 398

- "Performance" on page 400
- "Performance Six Sigma" on page 401
- "System Availability" on page 403

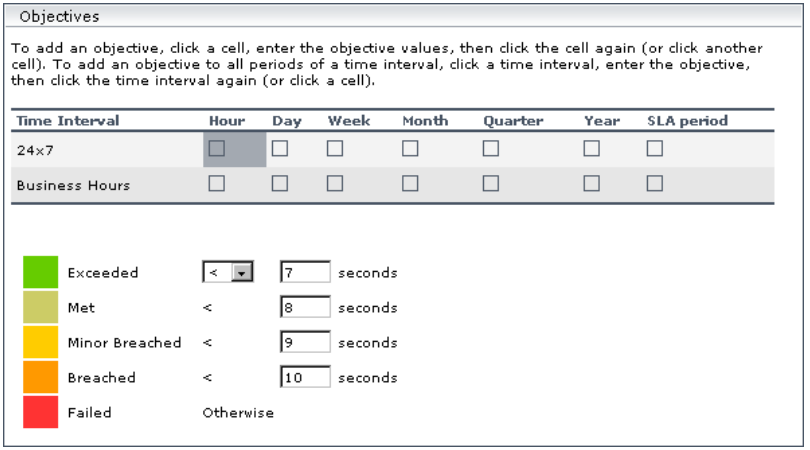
Best Child (Min.)

The Best Child (min.) rule returns the lowest value held by any of the child CIs. For example, when calculating the best child result for the Response Time KPI, the child with the shortest response time is best.

This is a group rule.

Example

During SLA creation, you set objectives for a Response Time KPI:



The Response Time KPI has three children, CI1, CI2, and CI3, with the following values: 10 seconds, 12 seconds, 8.5 seconds. At report generation time, the rule returns the lowest value (8.5 seconds), and gives the SLA a Minor Breached status (the color is yellow).

KPIs

This rule is used by the following KPIs:

- "MTTR (Mean Time to Recover)" on page 398
- "Number of Outages" on page 399
- "Outage Duration" on page 399
- "Response Time" on page 402
- "System Performance" on page 404

BPM Average Availability

The BPM Average Availability rule calculates the average availability of Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT).

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

The Availability KPI for a Business Process Monitor monitors 10 transactions. 8 transactions are available and 2 transactions are not available. At report generation time, the rule calculates an availability of 80% (8 out of 10 transactions available = 80%).

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Average Response Time

The BPM Average Response Time rule calculates the average response time of Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT).

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

The Response Time KPI for a Business Process Monitor monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates an average response time of 5 seconds: (2+4+6+8)/4 = 5 seconds.

KPIs

This rule is used by the following KPIs:

- "Response Time" on page 402

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Max. Response Time

The BPM Max. Response Time rule calculates the maximum response time of Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT).

This is a monitor rule.

Example

The Response Time KPI for a Business Process Monitor monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates the maximum response time as 8 seconds.

KPIs

This rule is used by the following KPIs:

- "Response Time" on page 402

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Min. Response Time

The BPM Min. Response Time rule calculates the minimum response time of Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT).

This is a monitor rule.

Example

The Response Time KPI for a Business Process Monitor monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates the minimum response time as 2 seconds.

KPIs

This rule is used by the following KPIs:

- "Response Time" on page 402

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Outage

The BPM Outage rule calculates an outage for Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT). An outage occurs if there are more than the minimum number of failures for more than the minimum duration.

This is an outage rule.

KPIs

This rule is used by the following KPIs:

- "Outages" on page 400

Parameters

The rule parameters are:

- **Minimum number of failures** – the minimum number of failures that must occur to be considered an outage

  Default/Mandatory – 2/Yes

- **Minimum duration** – the minimum duration in seconds that can be considered an outage

  Default/Mandatory – 60/Yes

- **Default category** – classifies a probable outage cause for use in Outage Summary reports

  Default/Mandatory – Undefined/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Maximum duration** (for advanced users only) – the maximum duration in hours that can be considered an outage

  Default/Mandatory – -/No

- **Ignore timed out trimming** – exclude samples that are timed out

Default/Mandatory – false/Yes

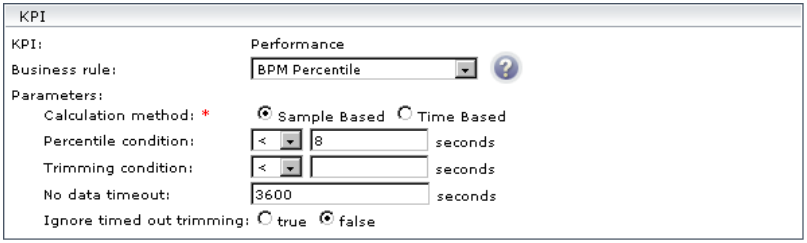
BPM Percentile

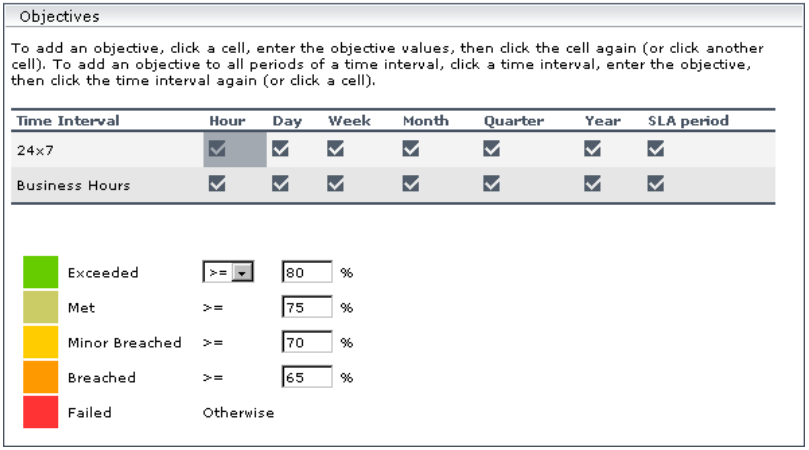
The BPM Percentile rule calculates in which percentile the Business Process Monitor CI performance times fall, as defined by the Percentile condition parameter, for Business Process Monitor CIs that belong to the BPM Transaction from Location configuration item type (CIT).

This is a monitor rule.

Example

During SLA creation, you set objectives for a Performance KPI with a Percentile condition of < 8 seconds:





The Performance KPI has four samples, S1, S2, S3, and S4 with the following values: 7.5, 7.6, 7.7 and 8.1 seconds. At report generation time, the rule calculates that 3 out of the 4 samples fulfill the percentile condition, returns a percentile of 75, and gives the SLA a Met status (the status color is olive).

KPIs

This rule is used by the following KPIs:

- "Performance" on page 400

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Percentile condition** – defines a successful result by setting the value that should be compared to the objective and which operator should be used

  Default/Mandatory – <8/No

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Six Sigma Availability

The BPM Six Sigma Availability rule calculates the Sigma availability value for Business Process Monitor CIs, by comparing the number of samples (number of opportunities) with the number of unavailable samples (defects).

This is a monitor rule.

Example

For a Six Sigma result of 4, you expect that for every million CIs (opportunities), not more than 6,210 will fail.

KPIs

This rule is used by the following KPIs:

- "Availability Six Sigma" on page 397

Parameters

The rule parameters are:

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Ignore timed out trimming** – exclude samples that are timed out

  Default/Mandatory – false/Yes

BPM Six Sigma Performance

The BPM Six Sigma Performance rule calculates the Sigma performance value for Business Process Monitor CIs, by comparing the number of measurements (number of opportunities) with the number of failed measurements (DPMO), that is, the number of measurements that did not meet the condition per million measurements.

This is a monitor rule.

Example

For a Six Sigma result of 3, you are expecting that for every million CIs (opportunities), less than 66,800 will **not** meet the target performance objective.

KPIs

This rule is used by the following KPIs:

➤ "Performance Six Sigma" on page 401

Parameters

The rule parameters are:

➤ **Six Sigma condition** – defines whether to calculate the sigma performance larger than or smaller than the objective value, and which operator should be used

Default/Mandatory – <8/Yes

➤ **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

Default/Mandatory – 3600/Yes

➤ **Ignore timed out trimming** – exclude samples that are timed out

Default/Mandatory – false/Yes

Children Success Ratio

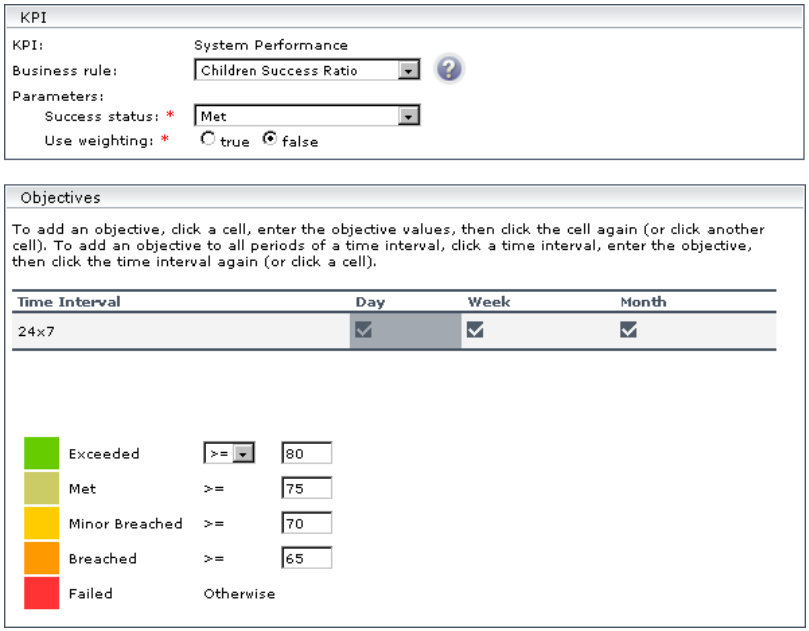
The Children Success Ratio rule enables you to compare, in the same report, CIs that measure different types of activity, for example, with different targets or calculation results. For example, an SLA that monitors an application server can include a CI to measure the server CPU (in MBs) and another CI to monitor the server memory (in percentages).

Service Level Management calculates the status of each child CI (as a percentage). A child CI is considered successful if its status is greater than, or equal to, the Success Status parameter defined in the Children Success Ratio rule.

This is a group rule.

Example

During SLA creation, you set objectives for a System Performance KPI as follows:



The Success status parameter is defined as Met. That is, any child CI is considered successful if its status is greater than, or equal to, Met (in the above case, 75%).

The System Performance KPI has three children: CI1 (measures CPU), CI2 (measures memory), and CI3 (measures ping time). At report generation time, CI1 receives a status of Exceeded (considered successful), CI2 receives a status of Minor Breached (considered failed), and CI3 receives a status of Met (considered successful). Two child CIs out of 3 are successful.

The KPI result, therefore, is 66.67%. This gives the SLA a Breached status (the status color is orange).

KPIs

This rule is used by the following KPIs:

- "Performance" on page 400
- "System Performance" on page 404

Parameters

The rule parameters are:

- **Success status** – the status to which all child CIs are compared: if the child CI's status is greater than, or equal to, this value, the child CI is considered successful

  Default/Mandatory – Exceeded/Yes

- **Use weighting** – true: include weighting values

  Default/Mandatory – false/Yes

Cluster Availability

The Cluster Availability rule calculates the availability of a cluster. A cluster is available when, for each calculation cycle (by default, 5 minutes), a defined, minimum number of child CIs reach an availability threshold.

Note: You can use this rule only when child CIs use the time-based calculation method (that is, their calculation method cannot be sample-based).

This is a group rule.

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "System Availability" on page 403

Parameters

The rule parameters are:

- **Minimum number of children** – the minimum number of child CIs that must be available for the cluster to be considered available

  Default/Mandatory – Exceeded/Yes

- **Availability threshold** – the availability threshold in percentages

  Default/Mandatory – 90/Yes

Dummy Rule

(Also known as Simulated Data rule.) Used to calculate what-if scenarios.

Note: This rule is not by used by default. It can be applied when overriding existing Availability KPIs.

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "Performance" on page 400

Parameters

The rule parameters are:

- **Is constant** – true: the data is persistent

  Default/Mandatory – 5/Yes

- **Constant value** – the value of the persistent data

  Default/Mandatory – 80/Yes

- **Random min. value** – (if **false** is selected in the Is constant field) the minimum value of the non-persistent data

  Default/Mandatory – 60/Yes

- **Random max. value** – (if **false** is selected in the Is constant field) the maximum value of the non-persistent data

  Default/Mandatory – 100/Yes

External Source Average Availability

The External Source Average Availability rule calculates the average availability for external source CIs that belong to the UDX Measurement Filter configuration item type (CIT).

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

Two external source samples out of 10 are unavailable. Therefore, the average availability is 80%.

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "System Availability" on page 403

Parameters

The rule parameters are:

- **Availability field** – the name of the availability field in the external source sample

  Default/Mandatory – -/Yes

- **Available value** – the availability value as it appears in the external source sample. If the availability value matches this value, the sample is considered available. For any other value, the sample is considered unavailable. Examples of values: yes/no, true/false, 0/1.

  Default/Mandatory – -/Yes

- **Time stamp field** – the name of the time stamp field in the external source sample

  Default/Mandatory – time_stamp/Yes

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

External Source Average Value

The External Source Average Value rule calculates the average performance for external source CIs that belong to the UDX Measurement Filter configuration item type (CIT). For details on displaying external source data in Service Level Management reports, see "Monitoring Events on Other Systems" on page 154.

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

The average value of 4 external source samples with response times of 2, 4, 8, and 10 seconds is 6 seconds: (2+4+8+10)/4 = 6.

KPIs

This rule is used by the following KPIs:

➤ "System Performance" on page 404

Parameters

The rule parameters are:

➤ **Availability field** – the name of the availability field in the external source sample

Default/Mandatory – -/Yes

➤ **Available value** – the availability value as it appears in the external source sample. If the availability value matches this value, the sample is considered available. For any other value, the sample is considered unavailable. Examples of values: yes/no, true/false, 0/1.

Default/Mandatory – -/Yes

➤ **Performance field** – the name of the performance field in the external source sample

Default/Mandatory – -/Yes

➤ **Time stamp field** – the name of the time stamp field in the external source sample

Default/Mandatory – time_stamp/Yes

➤ **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

Default/Mandatory – Time Based/Yes

➤ **Trimming condition** – ignore outlier trimmed values

Default/Mandatory – -/No

➤ **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

Default/Mandatory – 3600/Yes

Group Average Value

The Group Average Value calculates the average, weighted value of CIs, whether of a Business Process Monitor, SiteScope, Real User Monitor, or external source type. The calculation takes child CI weights into consideration.

This is a group rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

An SLA has 3 child CIs with values 2 (weight: 1), 3 (weight: 2), and 1 (weight: 1). Service Level Management calculates the average value as ((2*1)+(3*2)+(1*1))/3 = (2+6+1)/3 = 9/3 = 3.

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "Availability Six Sigma" on page 397
- "MTBF (Mean Time Between Failures)" on page 398
- "MTTR (Mean Time to Recover)" on page 398
- "Number of Outages" on page 399
- "Outage Duration" on page 399
- "Performance" on page 400
- "Performance Six Sigma" on page 401
- "Response Time" on page 402
- "System Availability" on page 403
- "System Performance" on page 404

MTBF (Mean Time Between Failures)

Service Level Management calculates the mean time between failures, that is, the tracking period divided by the number of outages.

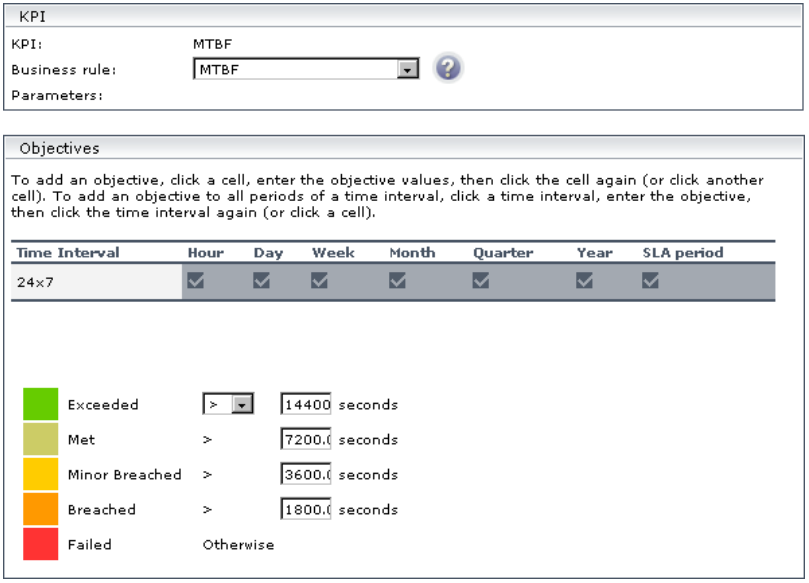
This rule needs the results of an Outages rule (for the relevant time interval) to perform its own calculations. You must previously assign the Outages KPI to the appropriate CI (for details, see “Defining an SLA: Outages” on page 171).

Service Level Management calculates the MTBF on a daily basis (24 hours), and takes into account only the outages that occur in the specific time interval. For example, if the time interval is Business Hours (that is, 9:00 AM to 5:00 PM), then outages that occur at 3:00 AM are not considered.

This is a sibling rule.

Example

During SLA creation, you set objectives for an MTBF KPI as follows:



The Outage Summary report shows the following outages that occurred during the 24x7 time interval:

CI	Start Date	End Date	Duration (HH:MM:SS)	Description	Category
SLA 02	2/12/06 11:50 PM	2/13/06 12:25 AM	00:35:00	-	Network
SLA 02	2/13/06 12:35 AM	2/13/06 12:55 AM	00:20:00	-	Network
SLA 02	2/13/06 3:50 AM	2/13/06 4:10 AM	00:20:00	-	Undefined

At report generation time, Service Level Management calculates the MTBF as the tracking period divided by the number of outages, that is, 24/3 = 8 hours = 28800 seconds. The CI receives a status of Exceeded (the status color is green).

KPIs

This rule is used by the following KPIs:

➤ "MTBF (Mean Time Between Failures)" on page 398

MTBF (Mean Time Between Failures) – Alternate

Service Level Management also uses an alternative method for calculating the mean time between failures: the total uptime divided by the number of outages. The total uptime is the tracking period minus the total outage duration.

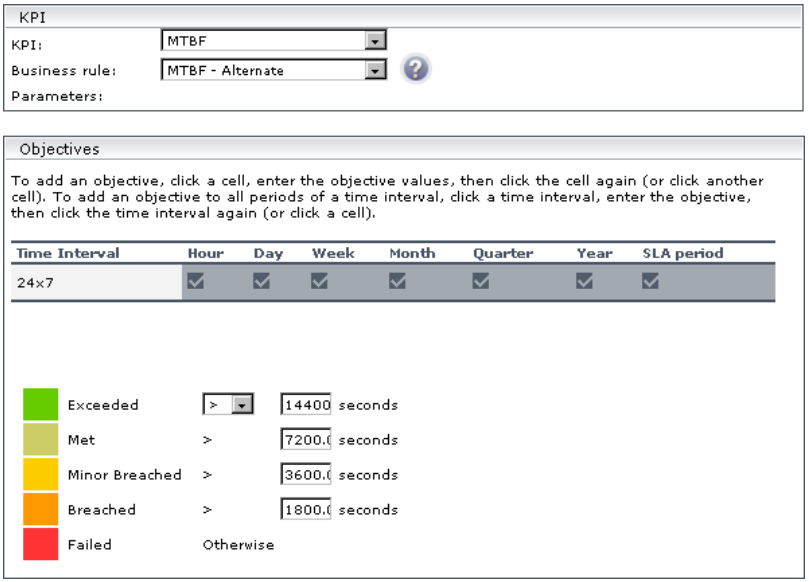
This rule needs the results of an Outages rule (for the relevant time interval) to perform its own calculations. You must previously assign the Outages KPI to the appropriate CI (for details, see "Defining an SLA: Outages" on page 171).

Service Level Management calculates the MTBF on a daily basis (24 hours), and takes into account only the outages that occur in the specific time interval. For example, if the time interval is Business Hours (that is, 9:00 AM to 5:00 PM), then outages that occur at 3:00 AM are not considered.

This is a sibling rule.

Example

During SLA creation, you set objectives for an MTBF – Alternate KPI as follows:



The Outage Summary report shows the following outages that occurred during the Business Hours time interval:

CI	Start Date	End Date	Duration (HH:MM:SS)	Description	Category
SLA 02	2/12/06 11:50 AM	2/13/06 12:25 PM	00:30:00	-	Network
SLA 02	2/13/06 12:35 PM	2/13/06 3:35 PM	03:00:00	-	Network
SLA 02	2/13/06 3:50 PM	2/13/06 4:10 PM	00:30:00	-	Undefined

At report generation time, Service Level Management makes the following calculation:

Total uptime = tracking period - total outage duration
= 9 - (30 + 180 + 30 mins.) = 9 - 4 = 5 hours.

MTBF – Alternate = total uptime / number of outages
= 5/3 = 1.666 hours = 6000 seconds.

The CI receives a status of Minor Breached (the status color is yellow).

KPIs

This rule is used by the following KPIs:

➤ "MTBF (Mean Time Between Failures)" on page 398

MTTR (Mean Time to Recover)

Service Level Management calculates the mean time to recover, that is, the average outage duration during a specified time interval. The MTTR is the total outage duration divided by the number of outages.

This rule needs the results of an Outages rule (for the relevant time interval) to perform its own calculations. You must previously assign the Outages KPI to the appropriate CI (for details, see "Defining an SLA: Outages" on page 171).

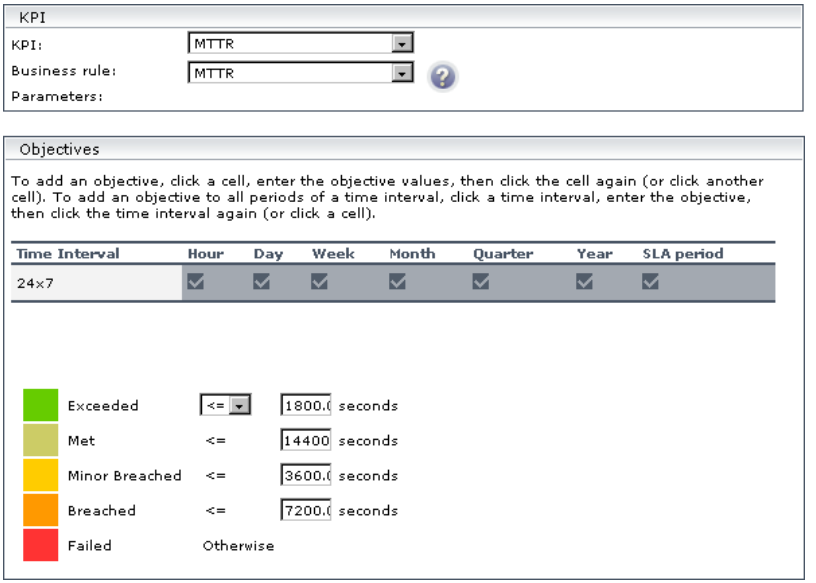
Service Level Management calculates the MTTR on a daily basis (24 hours), and takes into account only the outages that occur in the specific time interval. For example, if the time interval is Business Hours (that is, 9:00 AM to 5:00 PM), then outages that occur at 3:00 AM are not considered.

Note: The outages used in the calculation are only those outages that end during the tracking period.

This is a sibling rule.

Example

During SLA creation, you set objectives for an MTTR KPI as follows:



The Outage Summary report shows the following outages that occurred during the Business Hours time interval:

CI	Start Date	End Date	Duration (HH:MM:SS)	Description	Category
SLA 02	2/12/06 11:50 AM	2/13/06 12:25 PM	00:30:00	-	Network
SLA 02	2/13/06 12:35 PM	2/13/06 3:35 PM	03:00:00	-	Network
SLA 02	2/13/06 3:50 PM	2/13/06 4:10 PM	00:30:00	-	Undefined

Outage duration is 30, 180, and 30 minutes.

The number of outages is 3.

MTTR = (30+180+30)/3 = 240/3 = 80 minutes = 4800 seconds.

The CI receives a status of Breached (the status color is orange).

KPIs

This rule is used by the following KPIs:

➤ "MTTR (Mean Time to Recover)" on page 398

Number of Outages

Service Level Management calculates how many outages occurred during the tracking period for a specific time interval.

This rule needs the results of an Outages rule (for the relevant time interval) to perform its own calculations. You must previously assign the Outages KPI to the appropriate CI (for details, see "Defining an SLA: Outages" on page 171).

Service Level Management calculates the number of outages on a daily basis (24 hours), and takes into account only the outages that occur in the specific time interval. For example, if the time interval is Business Hours (that is, 9:00 AM to 5:00 PM), outages that occur at 3:00 AM are not considered.

Note: Outages that start before but end within the tracking period and outages that start within the tracking period but end after the tracking period are also included in the calculation.

This is a sibling rule.

KPIs

This rule is used by the following KPIs:

➤ "Number of Outages" on page 399

Outage Based on Availability

Service Level Management uses this rule when calculating outages. If a CI's availability is less than the availability objective for more than the minimum duration, Service Level Management records the downtime as an outage.

This is an outages rule.

KPIs

This rule is used by the following KPIs:

- "Outages" on page 400

Parameters

The rule parameters are:

- **Availability threshold** – the availability threshold in percentages

  Default/Mandatory – 90/Yes

- **Minimum duration** – the minimum duration in seconds that can be considered an outage

  Default/Mandatory – 60/Yes

- **Default category** – classifies a probable outage cause for use in Outage Summary reports

  Default/Mandatory – Undefined/No

- **Maximum duration** (for advanced users only) – the maximum duration in hours that can be considered an outage

  Default/Mandatory – -/No

Outages Based on System Availability

Service Level Management creates an outage if a CI's system availability is less than the objective for more than the minimum duration.

This is an outages rule.

KPIs

This rule is used by the following KPIs:

- "Outages" on page 400

Parameters

The rule parameters are:

- **Availability threshold** – the availability threshold in percentages

  Default/Mandatory – 90/Yes

- **Minimum duration** – the minimum duration in seconds that can be considered an outage

  Default/Mandatory – 60/Yes

- **Default category** – classifies a probable outage cause for use in Outage Summary reports

  Default/Mandatory – Undefined/No

- **Maximum duration** (for advanced users only) – the maximum duration in hours that can be considered an outage

  Default/Mandatory – -/No

Outage Duration

Service Level Management calculates the length of the outages that occurred during the tracking period (day, week, month, year, and so forth).

This rule needs the results of an Outages rule (for the relevant time interval) to perform its own calculations. You must previously assign the Outages KPI to the appropriate CI (for details, see "Defining an SLA: Outages" on page 171).

Note: Outages that start before but end within the tracking period and outages that start within the tracking period but end after the tracking period are also included in the calculation.

This is a sibling rule.

Example

During a selected time interval, Service Level Management records one outage of 1:30 hours and one outage of 0:30 hours. Therefore the outage duration = 1:30 + 0:30 = 2 hours.

KPIs

This rule is used by the following KPIs:

- "Outage Duration" on page 399

PNR (Point of No Return)

Note: This rule is for internal Mercury use only and should not be modified.

The Point Of No Return (PNR) rule displays what percentage of the unavailability time has passed, and how much more time may elapse for a CI before the SLA is in breach of contract.

This is a sibling rule.

KPIs

This rule is used by the following KPIs:

➤ "PNR (Point of No Return)" on page 401

Response Time Success Ratio

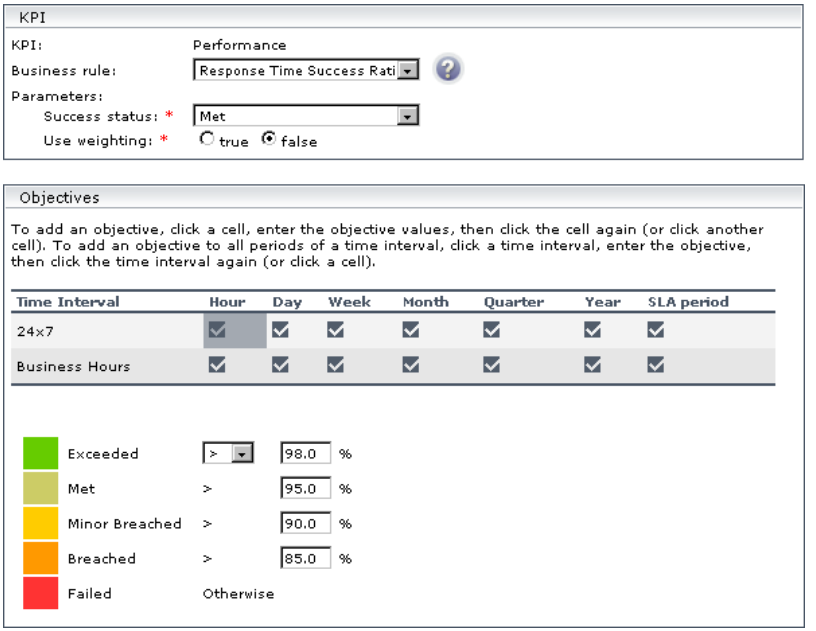
This rule enables you to compare, in the same report, CIs that measure different types of activity. Service Level Management calculates the status of each CI (as a percentage) and compares this status to a value defined during KPI creation.

The Response Time Success Ratio rule calculates the status of each child CI, and provides a value for the success of the status.

This is a group rule.

Example

During SLA creation, you set objectives for a Performance KPI as follows:



The Success status parameter is defined as Met. That is, any child CI is considered successful if its status is greater than, or equal to, Met (in the above case, 95%).

The Performance KPI has three children: CI1, CI2, and CI3. At report generation time, CI1 receives a status of Exceeded (considered successful), CI2 receives a status of Breached (considered to have failed), and CI3 receives a status of Met (considered successful). Two child CIs out of 3 are successful.

The KPI result, therefore, is 66.67%. This gives the CI a Failed status (the status color is red).

KPIs

This rule is used by the following KPIs:

➤ "Performance" on page 400

Parameters

The rule parameters are:

- **Success status** – the status to which all child CIs are compared: if the child CI's status is greater than, or equal to, this value, the child CI is considered successful

  Default/Mandatory – Exceeded/Yes

- **Use weighting** – true: include weighting values

  Default/Mandatory – false/Yes

Service Level Management Status

Note: This rule is for internal Mercury use only and should not be modified.

This rule calculates the status of an SLA for the Status Snapshot report.

This is a sibling rule.

SiteScope Average Availability

Service Level Management calculates the average availability of SiteScope CIs that belong to the SiteScope Measurement configuration item type (CIT).

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

The System Availability KPI for a SiteScope monitors 10 transactions. 8 transactions are available and 2 transactions are not available. At report generation time, the rule calculates an availability of 80% (8 out of 10 transactions available = 80%).

KPIs

This rule is used by the following KPIs:

- "System Availability" on page 403

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

SiteScope Average Value

Service Level Management calculates the average value of SiteScope CIs that belong to the SiteScope Measurement configuration item type (CIT).

This is a monitor rule.

Example

Note: This example uses a sample-based calculation method. By default, the calculation method is time-based.

The System Performance KPI for a SiteScope monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates an average response time of 5 seconds: (2+4+6+8)/4 = 5 seconds.

KPIs

This rule is used by the following KPIs:

➤ "System Performance" on page 404

Parameters

The rule parameters are:

➤ **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

Default/Mandatory – Time Based/Yes

➤ **Trimming condition** – ignore outlier trimmed values

Default/Mandatory – -/No

➤ **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

Default/Mandatory – 3600/Yes

SiteScope Max. Value

Service Level Management calculates the maximum value of SiteScope CIs that belong to the SiteScope Measurement CIT.

This is a monitor rule.

Example

The System Performance KPI for a SiteScope monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates the maximum response time as 8 seconds.

KPIs

This rule is used by the following KPIs:

- "System Performance" on page 404

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

SiteScope Min. Value

Service Level Management calculates the minimum value of SiteScope CIs that belong to the SiteScope Measurement CIT.

This is a monitor rule.

Example

The System Performance KPI for a SiteScope monitors 4 transactions with the response times 2, 4, 6, and 8 seconds. At report generation time, the rule calculates the minimum response time as 2 seconds.

KPIs

This rule is used by the following KPIs:

- "System Performance" on page 404

Parameters

The rule parameters are:

- **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

  Default/Mandatory – Time Based/Yes

- **Trimming condition** – ignore outlier trimmed values

  Default/Mandatory – -/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

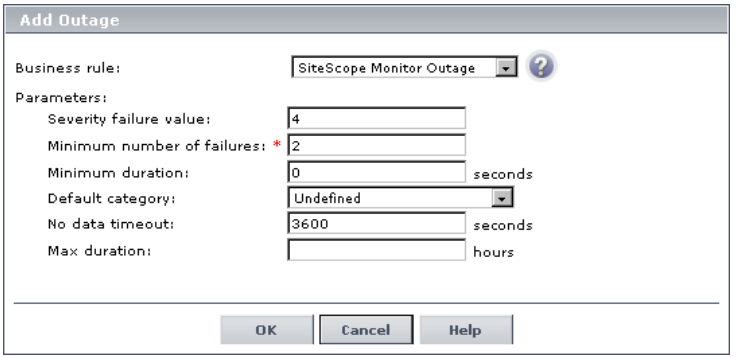
  Default/Mandatory – 3600/Yes

SiteScope Monitor Outage

Service Level Management determines that an outage has occurred if there are more than the minimum number of failures for more than the minimum duration, for SiteScope CIs that belong to the SiteScope Monitor CIT.

SiteScope monitors send status change event data to Service Level Management that includes severity values (for details on the EMS configuration files that define the Integration Monitors, see "Configuring the Event Template (event.config)" in *Configuring SiteScope Monitors*).

Service Level Management checks the severity level to determine if an outage has occurred, by comparing the value to that set during outage creation:



Severity failure value defines which severity value is considered a failure (that is, the sample is unavailable). For example, if the value is 4, samples with a severity value of 1, 2, or 3 are considered available, and samples with a severity value of 4 or 5 are considered unavailable.

This is an outages rule.

KPIs

This rule is used by the following KPIs:

➤ "Outages" on page 400

Parameters

The rule parameters are:

- **Severity failure value** – the severity value, for status changes, at which an SLA is considered unavailable

  Default/Mandatory – 5/Yes

- **Minimum number of failures** – the minimum number of failures that must occur to be considered an outage

  Default/Mandatory – 2/Yes

- **Minimum duration** – the minimum duration in seconds that can be considered an outage

  Default/Mandatory – 60/Yes

- **Default category** – classifies a probable outage cause for use in Outage Summary reports

  Default/Mandatory – Undefined/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Maximum duration** (for advanced users only) – the maximum duration in hours that can be considered an outage

  Default/Mandatory – -/No

SiteScope Monitor Availability

Service Level Management uses this rule to calculate SiteScope system availability.

This is a monitor rule.

KPIs

This rule is used by the following KPIs:

- "System Availability" on page 403

Parameters

The rule parameters are:

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

SiteScope Monitor Six Sigma

Service Level Management calculates the Sigma availability value for SiteScope CIs, by comparing the number of samples (number of opportunities) with the number of unavailable samples (defects).

This is a monitor rule.

KPIs

This rule is used by the following KPIs:

- "Availability Six Sigma" on page 397

Parameters

The rule parameters are:

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

SiteScope Outage

Calculates an outage for SiteScope CIs that belong to the SiteScope Measurement CIT, if there is more than the minimum number of failures for more than the minimum duration.

This is an outages rule.

KPIs

This rule is used by the following KPIs:

- "Outages" on page 400

Parameters

The rule parameters are:

- **Minimum number of failures** – the minimum number of failures that must occur to be considered an outage

  Default/Mandatory – 2/Yes

- **Minimum duration** – the minimum duration in seconds that can be considered an outage

  Default/Mandatory – 60/Yes

- **Default category** – classifies a probable outage cause for use in Outage Summary reports

  Default/Mandatory – Undefined/No

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

- **Maximum duration** (for advanced users only) – the maximum duration in hours that can be considered an outage

  Default/Mandatory – -/No

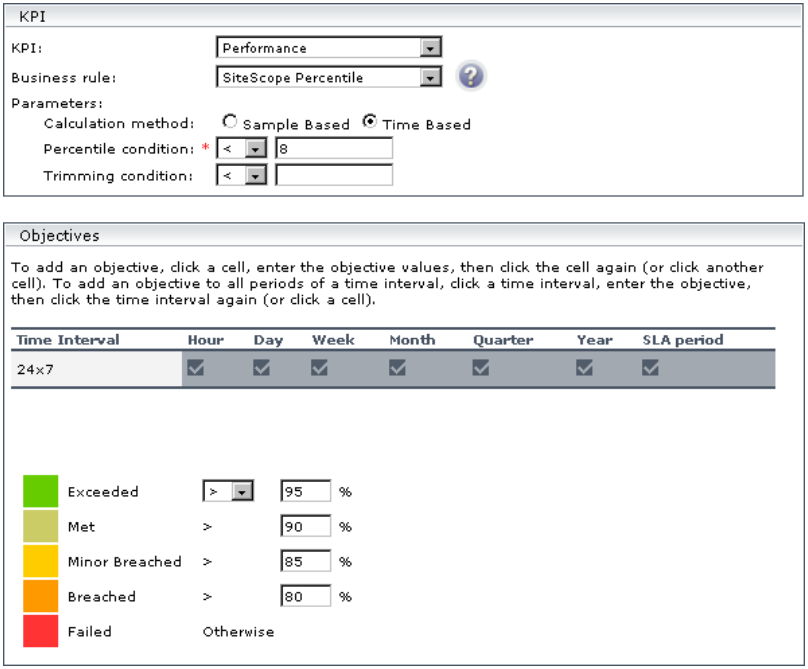
SiteScope Percentile

Service Level Management calculates in which percentile the SiteScope CI performance times fall, as defined by the Percentile condition operator and threshold, for SiteScope CIs that belong to the SiteScope Measurement configuration item type (CIT).

This is a monitor rule.

Example

During SLA creation, you set objectives for a Performance KPI with a Percentile condition of < 8 seconds:



The Performance KPI has four samples, S1, S2, S3, and S4 with the following values: 8.2, 8.3, 8.1 and 8.1 seconds. At report generation time, the rule calculates that 4 out of the 4 samples fulfill the percentile condition (that is, the result falls in the 100th percentile), and gives the SLA an Exceeded status (the status color is green).

KPIs

This rule is used by the following KPIs:

➤ "Performance" on page 400

Parameters

The rule parameters are:

➤ **Calculation method** – sample-based: rule calculates per sample; time-based: rule calculates by sample duration

Default/Mandatory – Time Based/Yes

➤ **Percentile condition** – defines a successful result by setting the value that should be compared to the objective and which operator should be used

Default/Mandatory – <8/No

➤ **Trimming condition** – ignore outlier trimmed values

Default/Mandatory – -/No

➤ **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

Default/Mandatory – 3600/Yes

SiteScope Six Sigma Availability

Service Level Management calculates the Six Sigma availability value of CIs by comparing the number of opportunities (number of samples) with the number of defects (unavailable samples).

This is a monitor rule.

Example

If you set a Sigma of 4, you are expecting that for every million opportunities (CIs), not more than 6,210 will fail.

KPIs

This rule is used by the following KPIs:

➤ "Availability Six Sigma" on page 397

Parameters

The rule parameters are:

➤ **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

Default/Mandatory – 3600/Yes

SiteScope Six Sigma Performance

Service Level Management calculates the Six Sigma performance value of SiteScope CIs by comparing the number of opportunities (number of samples) with the number of defects (unavailable samples).

This is a monitor rule.

Example

If you set a sigma of 3, you are expecting that for every million opportunities (CIs), less than 66,800 will **not** meet the target performance goal.

KPIs

This rule is used by the following KPIs:

➤ "Performance Six Sigma" on page 401

Parameters

The rule parameters are:

- **Six Sigma condition** – defines whether to calculate the sigma performance larger than or smaller than the objective value, and which operator should be used

  Default/Mandatory – <8/Yes

- **No data timeout** (for advanced users only) – the number of seconds from the time of the latest sample until the status changes to NO DATA. Relevant only when **Time Based** is chosen for the Calculation method parameter.

  Default/Mandatory – 3600/Yes

Six Sigma Group

Service Level Management calculates the number of failures per child CI (total number of defects and opportunities) that occurred on average in all child CIs.

Note: For Service Level Management to calculate the number of failures, all child CIs must include a Six Sigma rule.

This is a group rule.

KPIs

This rule is used by the following KPIs:

- "Availability Six Sigma" on page 397

Parameters

The rule parameters are:

➤ **Use weighting** – true: include weighting values

Default/Mandatory – false/Yes

System Performance Success Ratio

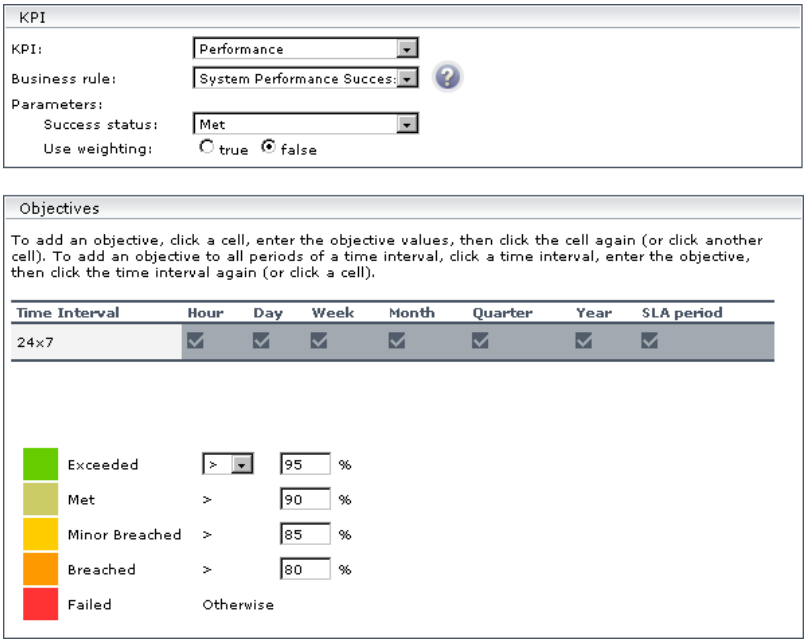
Service Level Management calculates the system performance of each child CI (as a percentage). A child CI is considered successful if its status is greater than, or equal to, the Success Status parameter defined in this rule.

The System Performance Success Ration rule enables you to compare, in the same report, CIs that measure different types of activity. For example, an SLA that monitors an application server can include a CI to measure the server CPU (in MBs) and another CI to monitor the server memory (in percentages).

This is a group rule.

Example

During SLA creation, you set objectives for a Performance KPI as follows:



The Success status parameter is defined as Met. That is, any child CI is considered successful if its status is greater than, or equal to, Met (in the above case, 90%).

The System Performance KPI has three children: CI1 (measures CPU), CI2 (measures memory), and CI3 (measures ping time). At report generation time, CI1 receives a status of Exceeded (considered successful), CI2 receives a status of Met (considered successful), and CI3 receives a status of Met (considered successful). Three child CIs out of 3 are successful.

The KPI result, therefore, is 100%. This gives the SLA an Exceeded status (the status color is green).

KPIs

This rule is used by the following KPIs:

➤ "Performance" on page 400

Parameters

The rule parameters are:

- **Success status** – the status to which all child CIs are compared: if the child CI's status is greater than, or equal to, this value, the child CI is considered successful

  Default/Mandatory – Exceeded/Yes

- **Use weighting** – true: include weighting values

  Default/Mandatory – false/Yes

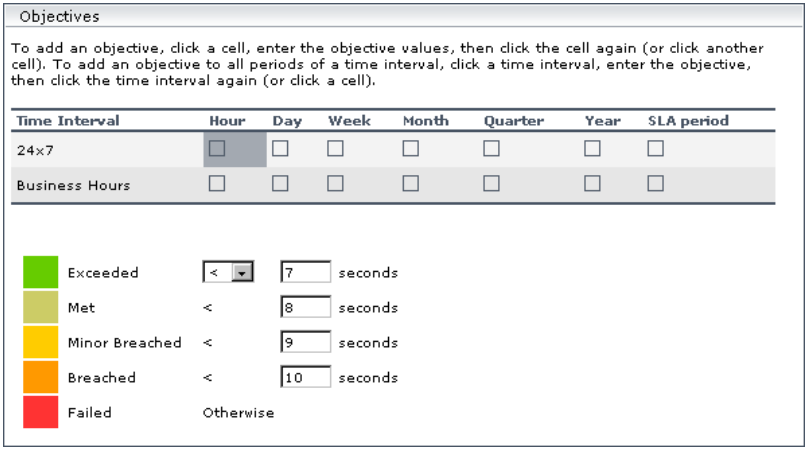
Worst Child (Max)

Service Level Management returns the highest value held by any of the child CIs. For example, when calculating the worst child result for the Response Time KPI, the child with the longest response time is worst.

This is a group rule.

Example

During SLA creation, you set objectives for a Response Time KPI:



The Response Time KPI has 3 children, CI1, CI2, and CI3, with the following values: 10 seconds, 12 seconds, 8.5 seconds. At report generation time, the rule returns the highest value (10 seconds), and gives the SLA a Breached status (the color is orange).

KPIs

This rule is used by the following KPIs:

- "MTTR (Mean Time to Recover)" on page 398
- "Number of Outages" on page 399
- "Outage Duration" on page 399
- "Response Time" on page 402
- "System Performance" on page 404

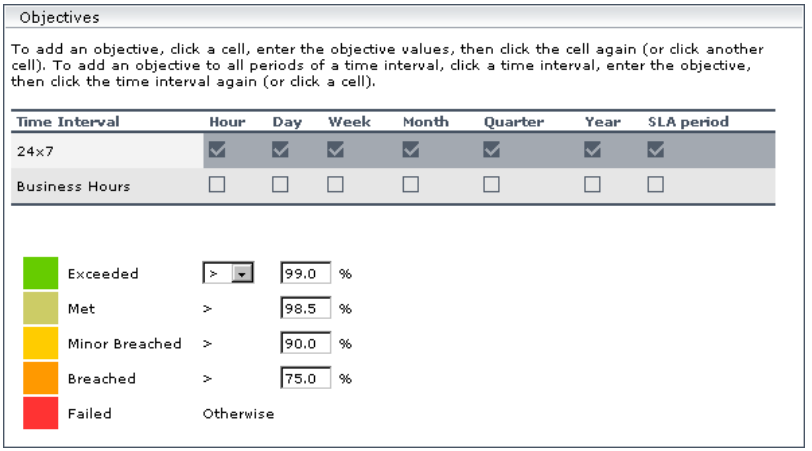
Worst Child (Min)

Service Level Management returns the lowest value held by any of the child CIs. For example, when calculating the worst child result for the System Availability KPI, the child with the lowest percentage availability is the worst.

This is a group rule.

Example

During SLA creation, you set objectives for a System Availability KPI:



The System Availability KPI has 3 children, CI1, CI2, and CI3, with the following values: 99%, 98.6%, 92%. At report generation time, the rule returns the lowest value (92%), and gives the SLA a Minor Breached status (the color is yellow).

KPIs

This rule is used by the following KPIs:

- "Availability" on page 397
- "Availability Six Sigma" on page 397
- "MTBF (Mean Time Between Failures)" on page 398
- "Performance" on page 400
- "Performance Six Sigma" on page 401
- "System Availability" on page 403

29

Context Menus Repository

The Context Menus Repository includes the context menus available in Dashboard and enables you to create new context menus and to edit existing context menus.

This chapter describes:	On page:
Working with the Context Menus Repository	577
Creating a Context Menu Using Cloning	579
Creating a Customized Context Menu	580
Editing a Context Menu Using Override	580
Specifying the Context Menu Details	581
Context Menus Details	582

Working with the Context Menus Repository

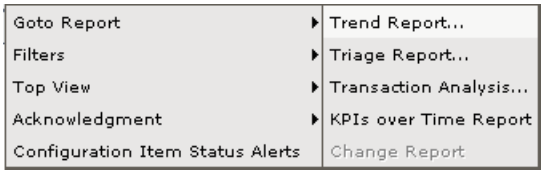
The Context Menu Repositories page displays the list of factory (pre-defined) context menus available throughout Dashboard to determine appearance and functionality for the CIs in the presentation layer.

Advanced users can modify existing repository objects and create new ones. This may be necessary when you want to customize the way information is presented in Dashboard, to fit the needs of your organization; or you may need to create new objects when integrating data from a new external system into Dashboard.

A context menu defines the menu options that are available in the menu for a KPI or a CI in the Dashboard application. The adapter template assigns every configuration item type (CIT), a default context menu.

The actions required by each menu option are defined in Chapter 30, "Context Menu Items Repository."

For example, in the Console tab of the Dashboard application, the menu: **Goto Report** > **Trend Report** is displayed:



This menu is a subset of the Goto menu with the following characteristics:

- The SiteScope Group Menu context menu includes, by definition, the following menu entities: **Goto**, **Filters**, and **Show in Top View**.
- The **Goto** entity includes, by definition, the following its Sub-context menu items are: **Configuration Item Status Alert**, **Cross-Performance Report**, **KPIs Over Time Report**, **SiteScope**, and **Trend Report**.
- The **Goto** entity appears in the following Applicable Sections: **Dashboard**, **SLM General**, **SLM Outage**, and **SLM Pnr**.

You can:

- create a new customized context menu by:
  - cloning (copying) a factory (pre-defined) or customized context menu to use as a template – for details, see "Creating a Context Menu Using Cloning" below
  - creating a new context menu – for details, see "Creating a Customized Context Menu" below
    - specifying its details – for details, see "Specifying the Context Menu Details" on page 581

➤ replace an existing factory context menu by overriding it – for details, see "Editing a Context Menu Using Override" on page 580

You can then customize the context menu to your organization specifications – for details, see "Specifying the Context Menu Details" on page 581

Creating a Context Menu Using Cloning

You can create a customized context menu by cloning an existing context menu and modifying it. The existing context menu can be a factory or a customized context menu. The original context menu is still available. A new ID number is assigned to the cloned context menu.

To create a context menu using cloning:

1 Select **Admin** > **Dashboard**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Click the **Context Menus** tab menu option to open the context menus page.

4 In the **Factory Context Menus** area or in the **Custom Context Menus** area, select the context menu you want to clone.

5 Click the **Clone** button. The cloned context menu item appears in the **Custom Context Menus** area.



6 Click the **Edit Context Menu** button to open the **Context Menu Details** window. For more details, see "Specifying the Context Menu Details" on page 581.

Creating a Customized Context Menu

You can create a new context menu.

To create a customized context menu:

1. Select **Admin** > **Dashboard**.
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Click the **Context Menus** tab menu option to open the context menus page.
4. Click the **New Item** button in the **Custom Context Menus** area to open the **Context Menu Details** window. For more details, see "Specifying the Context Menu Details" on page 581.

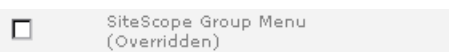
Editing a Context Menu Using Override

When you override an existing context menu, a copy appears in the **Custom Context Menus** area and the existing context menu is marked with (Overridden) in the **Factory Context Menus** area. Overriding replaces the existing context menu with the context menu that you have modified. The ID number of the overriding context menu is the same as the ID number of the overridden context menu.

To override a context menu:

1. Select **Admin** > **Dashboard**.
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Click the **Context Menus** tab menu option to open the context menus page.
4. In the **Factory Context Menus** area or in the **Custom Context Menus** area, select the context menu you want to override.
5. Click the **Override** button.

   (Overridden) appears under the overridden context menu in the **Factory Context Menus** area as follows:



The overriding context menu appears in the **Custom Context Menus** area.



6 Click the **Edit Context Menu** button to open the **Context Menu Details** window. For more details, see "Specifying the Context Menu Details" on page 581.

Specifying the Context Menu Details

In the context menu Items Details page, you can either modify the information or enter new information for the context menu. You can also modify existing information or add new information about the context menu entity.

This section includes the following topics:

- "Specifying the Context Menu Details" on page 581
- "Specifying the Menu Entity Details" on page 582

Specifying the Context Menu Details

You can either modify the information or enter new information for the context menu.

To specify the context menu details:

1 Access the **Context Menu Details** page.

2 Enter or modify the name of the context menu in the **Display Name** box.

3 In the **Menu Entities** area, choose one of the following options:

- click the **New** button to enter new menu entity details – for more details, go to "Specifying the Menu Entity Details" on page 582



- click the **Delete** button to delete an existing menu entity details
- click the **Edit** button to modify existing menu entity details – for more details, go to "Specifying the Menu Entity Details" on page 582

4 Click **OK** to save the information and return to the previous page.

Specifying the Menu Entity Details

In the **Menu Entity Details** page, you can either modify existing information or enter new information about the menu entity.

To specify the menu entities details:

1. Access the **Menu Entity Details** page.
2. Enter or modify the name of the context menu item (the main menu element that is displayed) in the **Context Menu Item** box.
3. Select or de-select the sub-menu items in the **Sub-context Menu Items** list.
4. Select or de-select the applications where the menus appear in the **Applicable Sections** list. If you specify nothing the menu appears in all tabs.
5. Click **OK** to save the information and return to the previous page.

Context Menus Details

This section lists the available context menus, describes them, and lists their default options.

Several context menus with the same name might be listed in the Context Menu Repository; they might have different parameters.

This section includes the following topics:

- "BMC Measurement Menu" on page 584
- "Business Process Monitor Group Menu" on page 584
- "CI Neighbors" on page 585
- "CI Properties" on page 585
- "CIM Measurement Menu" on page 586
- "Config File Menu" on page 586
- "Dashboard Administration Menu" on page 587
- "Deep Transactions Tracing Context Menu" on page 587
- "Default Menu" on page 588

- "Diagnostics BPM Menu" on page 588
- "Diagnostics Probe Group Menu" on page 589
- "Diagnostics Probe Menu" on page 589
- "EMS Measurement Menu" on page 589
- "Group Menu" on page 590
- "ITU Nodes" on page 590
- "ITU Root" on page 591
- "Locate CI" on page 591
- "Locate CI in SLA" on page 592
- "RUM Application Error Monitor Menu" on page 592
- "RUM Application Menu" on page 592
- "RUM End User Group Container Menu" on page 593
- "RUM End User Group Menu" on page 593
- "RUM End User's Menu" on page 594
- "RUM Errors Menu" on page 594
- "RUM Group Menu" on page 595
- "RUM HTTP Error Monitor Menu" on page 595
- "RUM Informational Event Monitor Menu" on page 596
- "RUM Informational Events Menu" on page 596
- "RUM Page Monitor Menu" on page 597
- "RUM Servers Menu" on page 597
- "RUM Server Menu" on page 597
- "RUM Session Monitor Menu" on page 598
- "RUM Transaction Monitor Menu" on page 598
- "SAP Alert Acknowledgment" on page 599
- "SAP Menu" on page 599
- "SAP System Menu" on page 600

- "SAP Transport Menu" on page 600
- "SiteScope Group Menu" on page 601
- "Sitescope Measurement Menu" on page 601
- "Sitescope Monitor Menu" on page 601
- "Transaction Measurement Menu" on page 602
- "VM Menu" on page 603

BMC Measurement Menu

Context menu for measurement CIs originating from a BMC Patrol system.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Show in Top View on page 669
- Show Path to Root on page 670
- Show Problematic Subtree on page 671
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Business Process Monitor Group Menu

Context menu for group CIs where the data originates from a Business Process Monitor source.

Menu Entities

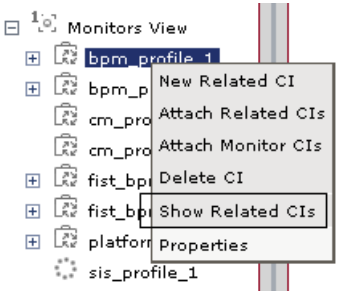
The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674

- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

CI Neighbors

Context menu in the CMDB.



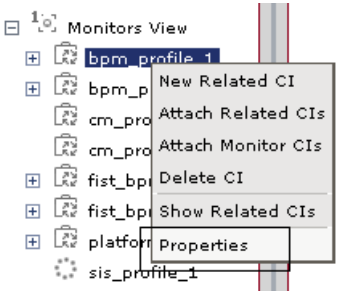
Menu Entities

The menu entities are:

- Show Related CIs on page 672

CI Properties

Context menu in the CMDB.



Menu Entities

The menu entities are:

- Properties on page 657

CIM Measurement Menu

Context menu for measurement CIs originating from a Compaq Insight Manager (CIM) system.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Config File Menu

Displays the Show Content option in the right-click menu – for details, see "Show Content" in *Using Dashboard*.

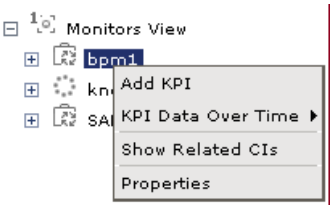
Menu Entities

The menu entities are:

- Show Content on page 667

Dashboard Administration Menu

Displays the right-click menu in Dashboard Admin.



Menu Entities

The menu entities are:

- Add KPI on page 626
- KPIs Data Over Time on page 650

Deep Transactions Tracing Context Menu

Context menu that is used in Dashboard Monitor Views to drill from a specific transaction to the Diagnostics transaction screen.

This context menu is available only if TransactionVision has been installed – for details, see "Administering Deep Transaction Tracing" on page 137.

Menu Entities

The menu entities are:

- Deep Transaction Tracing Reports on page 634

Default Menu

Displays the right-click menu in Dashboard Console tab.



Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Diagnostics BPM Menu

Context menu that is used in Dashboard Monitor Views to drill from a specific transaction to the Diagnostics transaction screen.

Menu Entities

The menu entities are:

- Drill to Diagnostics on page 637
- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Diagnostics Probe Group Menu

Context menu that is used in Dashboard Diagnostics Views to drill down from a specific probe group CI to the Diagnostics Console screen.

Menu Entities

The menu entities are:

- Drill to Diagnostics on page 637

Diagnostics Probe Menu

Context menu that is used in Dashboard Monitors Views to drill down from a specific probe CI to the Diagnostics transaction screen.

Menu Entities

The menu entities are:

- Drill to Diagnostics on page 637

EMS Measurement Menu

Context menu for measurement CIs originating from an Enterprise Management Systems (EMS) source.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Group Menu

The default context menu for most of the business configuration item types (CITs).

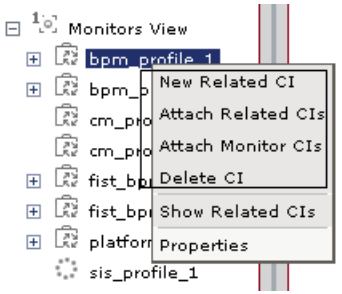
Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

ITU Nodes

Context menu for CIs in IT Universe Manager View Explorer – for details, see "Using View Explorer" in *Working with the CMDB*. The options that appear in the right-click menu depend on the context.



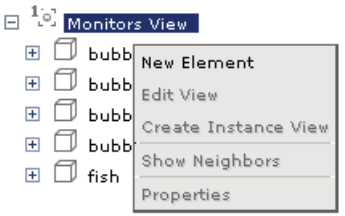
Menu Entities

The menu entities are:

- New Related CI on **page 654**
- Attach Related CIs on **page 628**
- Attach Monitor CIs on **page 627**
- Delete CI on **page 635**

ITU Root

Context menu group CI in IT Universe Manager View Explorer – for details, see "Using View Explorer" in *Working with the CMDB*. The options that appear in the right-click menu depend on the context.



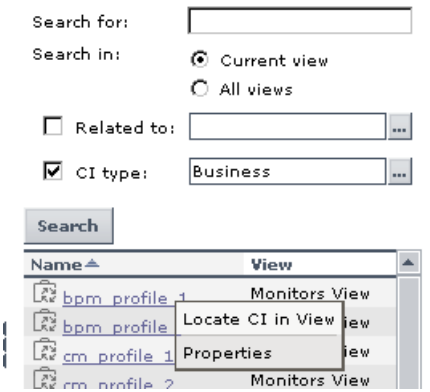
Menu Entities

The menu entities are:

- **New CI** on page 652
- Edit View on **page 638**

Locate CI

Context menu after a search operation in IT Universe.



Menu Entities

The menu entities are:

- Locate CI in View on page 652

Locate CI in SLA

Menu Entities

The menu entities are:

- Locate CI in SLA on page 651

RUM Application Error Monitor Menu

Context menu for RUM Error Event CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Application Menu

Context menu for Application CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM End User Group Container Menu

Context menu for RUM End User Group Container CIs in the Real User End Users view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM End User Group Menu

Context menu for RUM End User Groups CIs in the Real User End Users view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM End User's Menu

Context menu for RUM End User Group monitor CIs in the Real User End Users view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Errors Menu

Context menu for RUM Errors Event CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Group Menu

Context menu for RUM End User Group monitor CIs in the Real User End Users view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM HTTP Error Monitor Menu

Context menu for RUM HTTP Error Monitor CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Informational Event Monitor Menu

Context menu for RUM Informational Event Monitor CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Informational Events Menu

Context menu for RUM Informational Events CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Page Monitor Menu

Context menu for RUM Page Monitor CIs in the Real User Application view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Servers Menu

Context menu for RUM Servers CIs in the Real User Servers view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Server Menu

Context menu for RUM Server Monitor CIs in the Real User Servers view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674

- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Session Monitor Menu

Context menu for RUM Session Monitor CIs in the Real User Applications view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

RUM Transaction Monitor Menu

Context menu for RUM Transaction Monitor CIs in the Real User Applications view.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

SAP Alert Acknowledgment

Context menu for a SAP Alert CI.

Menu Entities

The menu entities are:

- Complete Alert on page 630
- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

SAP Menu

Context menu for a SAP CI.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Application Mapping on page 626
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

SAP System Menu

Context menu for a SAP System CI.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Application Mapping on page 626
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

SAP Transport Menu

Context menu for a Transport CI.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Application Mapping on page 626
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

SiteScope Group Menu

Context menu for SiteScope group CIs.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Sitescope Measurement Menu

Context menu for measurements CIs originating from SiteScope.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Sitescope Monitor Menu

Context menu for SiteScope monitor CIs when there is no measurement level for the monitor.

Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649

- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

Transaction Measurement Menu

Context menu for transaction measurement CIs.

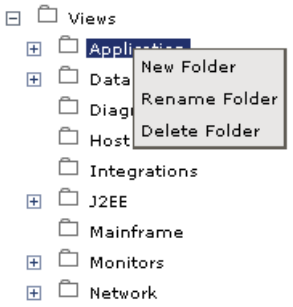
Menu Entities

The menu entities are:

- Goto Report on page 650
- Filters on page 649
- Top View on page 674
- Acknowledgement on page 625
- Configuration Item Status Alerts on page 632

VM Menu

Context menu in View Manager in CMDB.



Menu Entities

The menu entities are:

- New Folder on page 653
- Rename Folder on page 659
- Delete Folder on page 636

30

Context Menu Items Repository

The Context Menu Items Repository includes the context menu items available in Dashboard and enables you to create new context menu items and to edit existing context menu items.

This chapter describes:	On page:
Working with the Context Menu Items Repository	605
Example Scenario - Creating a New Context Menu Item	606
Creating a Context Menu Item Using Cloning	617
Creating a Context Menu Item	617
Editing a Context Menu Item Using Override	618
Specifying the Context Menu Items Details	619
Context Menu Items Details	622
Pre- and Post-Processor Classes	681

Working with the Context Menu Items Repository

The Context Menu Items Repositories page displays the list of factory (pre-defined) context menu items available throughout Dashboard to determine appearance and functionality for the CIs in the presentation layer.

Advanced users can modify existing repository objects and create new ones. This may be necessary when you want to customize the way information is presented in Dashboard, in order to fit the needs of your organization; or you may need to create new objects when integrating data from a new external system into Dashboard.

The Context Menu Items Repository defines the options available in the context menus. Each context menu item either specifies an operation that is to take place, or acts as a parent for a sub-menu. For a list of the context menu items defined for Dashboard, see "Context Menu Items Details" on page 622.

You can:

- create a context menu item by:
  - cloning – this consists in copying a factory (pre-defined) or a customized context menu item to use as a template – for details, see "Creating a Context Menu Item Using Cloning" below
  - creating a new context menu item – for details, see "Creating a Context Menu Item" below
- replace an existing factory context menu item by overriding it – for details, see "Editing a Context Menu Item Using Override" on page 618

  You can then modify the context menu item to customize it to your organization specifications – for details, see "Specifying the Context Menu Items Details" on page 619.

Example Scenario - Creating a New Context Menu Item

This scenario describes the creation of a new menu option for CIs in Dashboard, where the menu option generates a dynamic URL reference to an external application. For this scenario, the URL links to an external application that provides a runbook for monitored Business Process Monitor transactions.Within the runbook site, a new page is displayed for each transaction and each profile. The menu option should be able to take you to the specific transaction and the specific profile.

The new menu option (Access Runbook) is added to the context menus used for Business Process Monitor CIs.

The scenario is divided into two stages:

- "Stage 1: Create the Context Menu Item" on page 607
- "Stage 2: Add the Menu Item to a Context Menu" on page 613

To view the final outcome of this scenario, see "Result in Dashboard" on page 616.

Stage 1: Create the Context Menu Item

The first stage involves creating the context menu item in the Dashboard Repositories. The new context menu item will access the runbook application HTTP page that contains the details for the selected transaction, and display the page content in a new browser window.

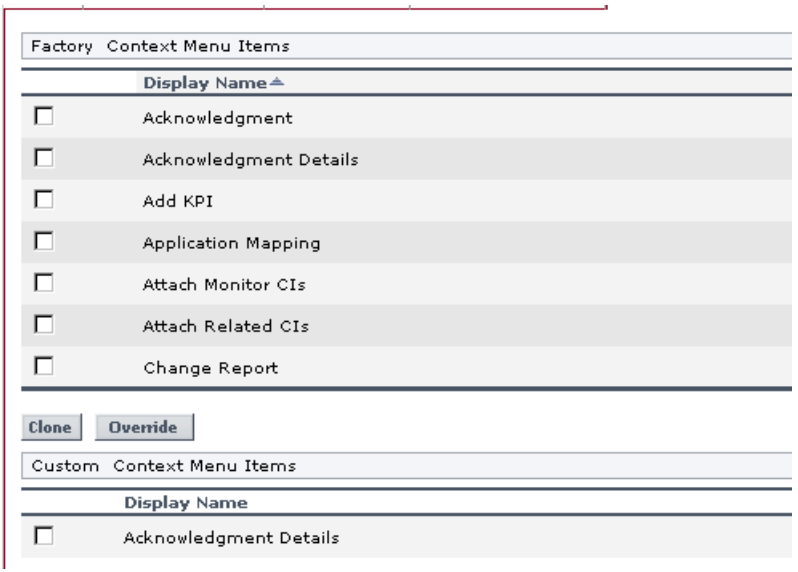
In order to create a context menu item, you can add a completely new menu item, or clone an existing one that is similar to what you need and edit its properties. In this scenario, a new menu item is created.

To create the new context menu item:

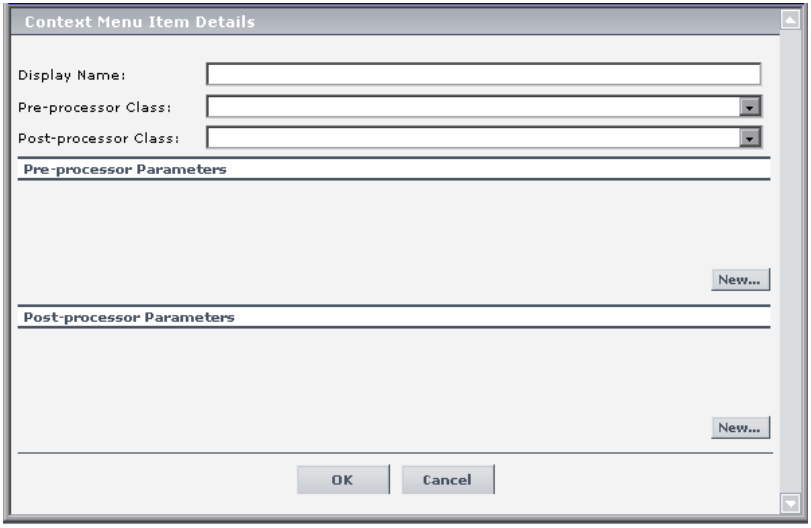
1 Select **Admin** > **Dashboard**.

2 Move your mouse pointer over the **Repositories** tab title and click the down arrow that appears.

3 Select the **Context Menu Items** tab menu option to open the context menu items page.



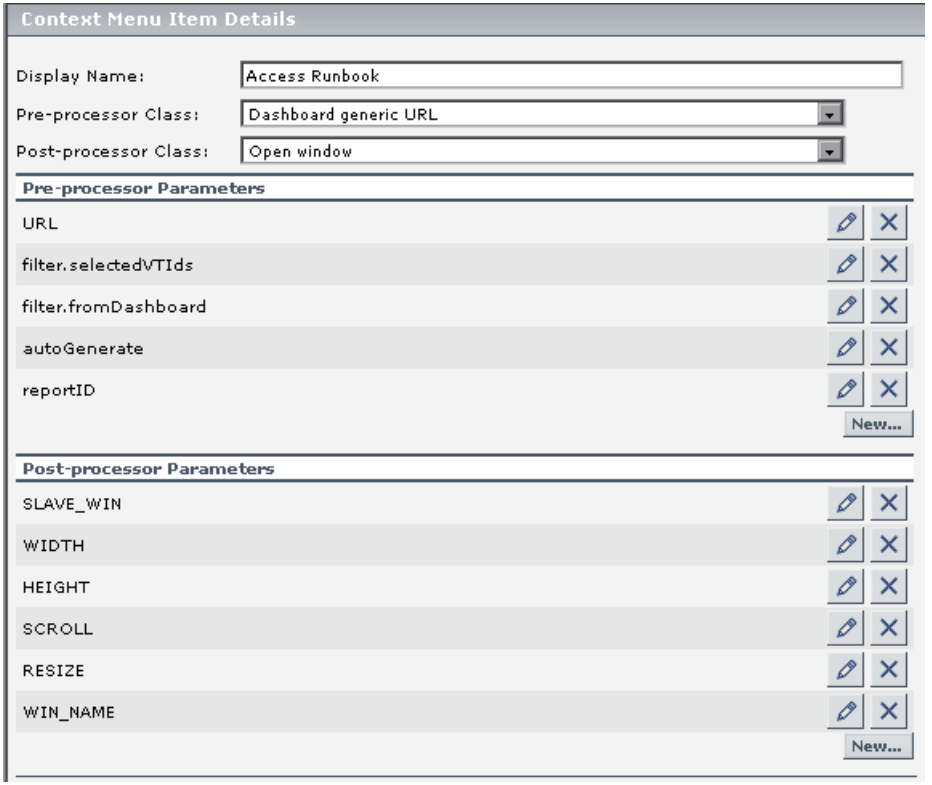
4 In the **Custom Context Menu Items** area, click **New Item** (located bottom-right) to create a new menu item. The Context Menu Item Details window is displayed.



5 Enter the details in the top three boxes as follows:

- **Display Name** – enter a name for the context menu item you are creating, for example, Access Runbook.
- **Pre-processor Class** – select **Preprocessor: Dashboard Generic URL** from the list.
- **Post-processor Class** – select **Postprocessor: Open Window** from the list.

When you select the **Pre-processor Class** and **Post-processor Class** options, the default parameters for each selection are automatically added in the **Pre-processor Parameters** and **Post-processor Parameters** areas.



6 In the **Pre-processor Parameters** area, click the **Edit** button for the **URL** parameter to open the Pre-processor Parameter Details window.

In the **Value** box, enter the static part of the URL for the application Web page that the menu item will access, for example: http://bacmon.nwie.net/ioc

Leave the **Convert to** box empty.

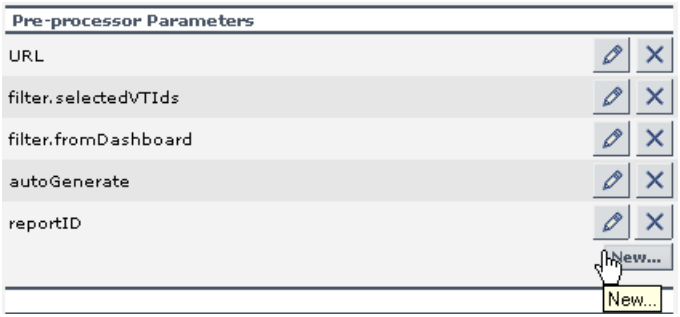


Click **OK**.

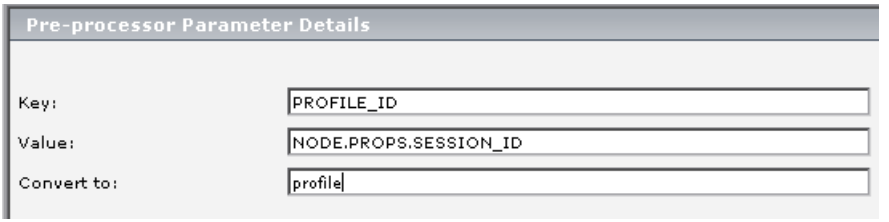
7 Define the following two additional parameters in the **Pre-processor Parameters** area. These parameters define the dynamic component of the URL, so that the accessed page shows content for the selected transaction.

- **PROFILE_ID**
- **TRANSACTION_NAME**

To add a parameter in the **Pre-processor Parameters** area, click **New** (located bottom-right of the area).

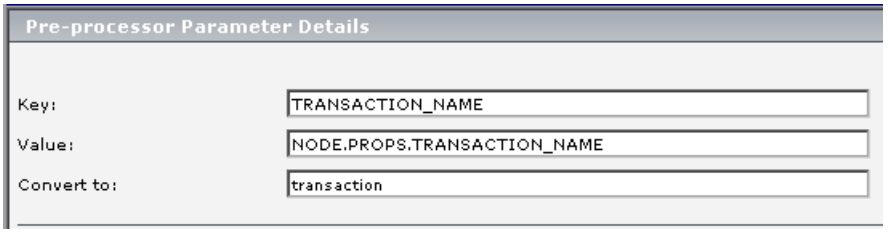


8 In the displayed Pre-processor Parameter Details window, define the following information for the **PROFILE_ID** parameter:



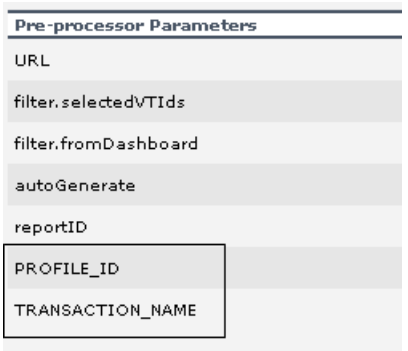
- In the **Key** box, enter PROFILE_ID
- In the **Value** box, enter NODE.PROPS.SESSION_ID
- In the **Convert to** box, enter profile
- Click **OK**.

9 Repeat steps 7 and 8 to define the **TRANSACTION_NAME** parameter, using the following information:

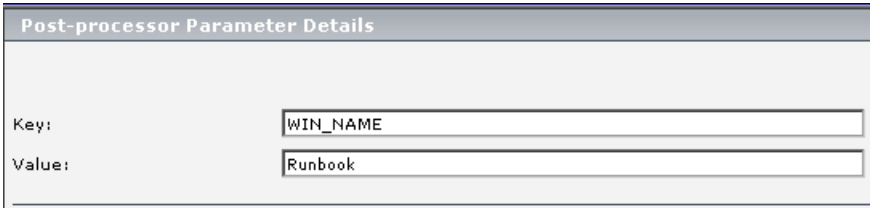


- **Key** – enter TRANSACTION_NAME
- **Value** – enter NODE.PROPS.TRANSACTION_NAME
- **Convert to** – enter transaction

10 Check that the added parameters are listed in the **Pre-processor Parameters** area of the Context Menu Item Details window.

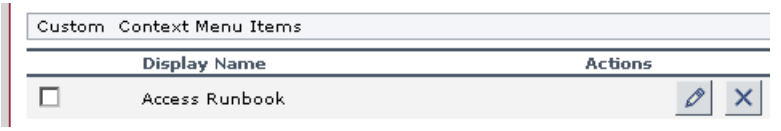


11 In the **Post-processor Parameters** area, click the **Edit** button for **WIN_NAME** to open the Post-processor Parameter Details window. In the **Value** box, enter a name for the window opened by the menu item, for example, Runbooks.



Click **OK**.

12 Click **OK** to close the Context Menu Item Details window. Then new context menu item is displayed in the **Custom Context Menu Items** area of the Repositories Context Menu Items page.



Stage 2: Add the Menu Item to a Context Menu

The second stage is to add the new menu item to the relevant context menus. For this scenario, the Access Runbook menu item created during Stage 1 is added to the **Goto** parent menu under the **Business Process Monitor Group Menu** (the default context menu for Business Process Monitor parent CIs), and the **Transaction Measurement Menu** (the default context menu for Business Process Monitor monitor CIs).

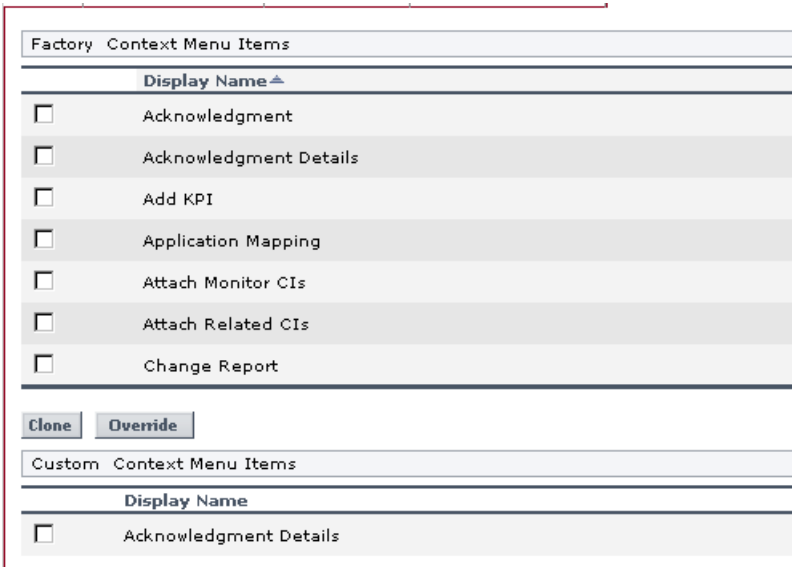
In order to edit a context menu, you override the context menu definition with a new custom context menu definition. The new version will replace the overridden version throughout Dashboard.

To add the context menu item to a context menu:

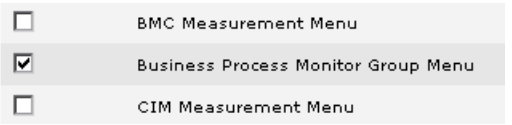
1 Select **Admin** > **Dashboard**.

2 Move your mouse pointer over the **Repositories** tab title and click the down arrow that appears.

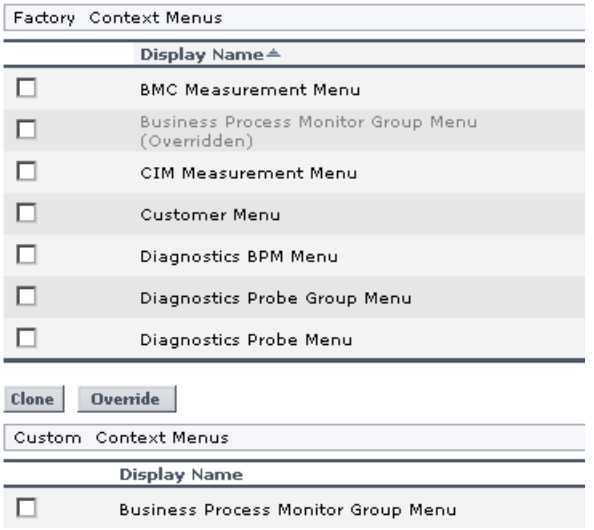
3 Select the **Context Menus** tab menu option to open the context menus page.



4 In the **Factory Context Menus** area, select the check boxes for the required context menus, for example, **Business Process Monitor Group Menu**, and then click **Override**.

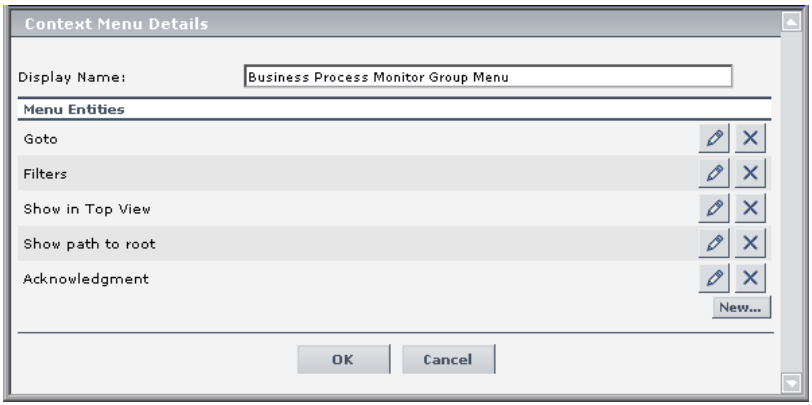


The context menus are shown as **Overridden** (disabled) in the **Factory Context Menus** area, and the copied versions of the menus are displayed in the **Custom Context Menus** area.



5 To edit the new version of the **Business Process Monitor Group Menu**, click the **Edit** button at the right-end of the context menu row. The Context Menu Details window for the context menu is displayed.

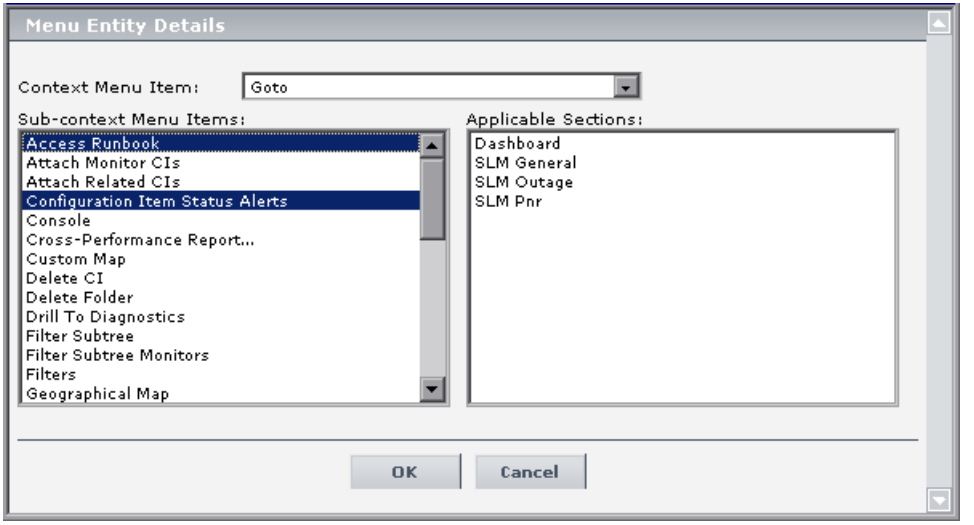
6 The **Menu Entities** area in the Context Menu Details window lists the options that are displayed at the first level of the context menu when it is opened in Dashboard. Click the **Edit** button for the **Goto** option.



The Menu Entity Details window for the context menu item **Goto** is displayed.

7 In the Menu Entity Details window, add the new menu item created during Stage 1 to the **Sub-context Menu Items** list. This list defines all menu options that appear in the submenu under the **Goto** menu option. The defined menu options are shown selected (highlighted) in the list.

To add **Access Runbook** to the list, select it while holding down the **Ctrl** key on the keyboard (if you do not use the **Ctrl** key when selecting an option, all other options are deselected).



Click **OK** to close the Menu Entity Details window.

8 Repeat steps 5 through 7 for the new version of the **Transaction Measurement Menu**.

9 Click **OK** to close the Context Menu Details window.

Result in Dashboard

In Dashboard, the **Access Runbook** link appears in the menu options for Business Process Monitor CIs.

Creating a Context Menu Item Using Cloning

You can create a customized context menu item by cloning an existing context menu item and modifying it. The existing context menu item can be a factory or customized context menu item. The original one is still available

To create context menu item using cloning:

1. Select **Admin** > **Dashboard**.
2. Move your mouse pointer over the **Repositories** tab title and click the down arrow that appears.



3. Click the **Context Menu Items** tab menu option to open the context menu items page.
4. In the **Factory Context Menu Items** area or in the **Custom Context Menu Items** area, select the context menu item you want to clone.
5. Click the **Clone** button. The cloned context menu item appears in the **Custom Context Menu Items** area.
6. Click the **Edit Context Menu Item** button to open the **Context Menu Item Details** window. For more details go to “Specifying the Context Menu Items Details” on page 619.



Creating a Context Menu Item

You can create a new context menu item.

To create a new customized context menu item:

1. Select **Admin** > **Dashboard**.
2. Move your mouse pointer over the **Repositories** tab title and click the down arrow that appears.



3. Click the **Context Menu Items** tab menu option to open the context menu items page.
4. Click the **New Item** button in the **Custom Context Menu Items** area to open the **Context Menu Item Details** window. For more details go to “Specifying the Context Menu Items Details” on page 619.

Editing a Context Menu Item Using Override

You can override an existing factory context menu item with a new custom one. The existing context menu item that you override is marked as overridden in the Factory Context Menu Items area and a copy of the item appears in the Custom Context Menu Items area. You replace the existing context menu item with the context menu item that you have modified.

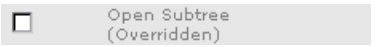
To edit a context menu item:

1. Select **Admin** > **Dashboard**.
2. Move your mouse pointer over the **Repositories** tab title and click the down arrow that appears.



3. Click the **Context Menu Items** tab menu option to open the context menu items page.
4. Click **Context Menu Items** in the **Repositories** left–hand menu to open the **Context Menu Items** page.
5. Click the **Override** button.

   (Overridden) appears under the overridden context menu item in the **Factory Context Menu Items** area as follows:



   The overridden context menu item appears in the **Custom Context Menu Items** area.



6. Click the **Edit Context Menu Item** button to open the **Context Menu Item Details** window. For more details go to “Specifying the Context Menu Items Details” on page 619.

Specifying the Context Menu Items Details

In the Items Details window, you can either modify the information or enter new information. You can also modify existing information or enter new information about the pre- or post-processor parameters.

This section includes the following topics:

- "Specifying the Context Menu Items Details" on page 619
- "Specifying the Processor Parameter Details" on page 621

Specifying the Context Menu Items Details

You can either modify the information or enter new information.

To specify the context menu item details:

1. Access the **Context Menu Item Details** window.
2. Enter or modify displayed the name of the menu option in the **Display Name** box.
3. Enter the name of the pre-processor class to be used to perform the corresponding action **before** accessing the database, when this menu option is selected from the item menu options, in the **Pre-Processor Class** box.
4. Enter the name of the post-processor class to be used to perform the corresponding action **after** accessing the database, when this menu option is selected from the item menu options, in the **Post-Processor Class** box.
5. The **Pre-Processor Parameters** area lists the list of parameters for the pre-processor class. Those parameters specify what the menu option does when you select it.
   - to enter new parameters to the pre-processor parameters click the **New** button
   - to edit existing pre-processor parameters click the **Edit** button

   For more details, see "Specifying the Processor Parameter Details" on page 621.

Note: It is not recommended to:

- add new parameters to the pre-processor class
- make changes to a pre-processor class as it might change its behavior. Classes are built for specific context menus

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6 The **Post-Processor Parameters** area lists the list of parameters for the post-processor class. Those parameters specify what the menu option does when you select it.

- to add new parameters to the post-processor parameters click the **New** button
- to edit existing post-processor parameters click the **Edit** button

For more details, go to "Specifying the Processor Parameter Details" on page 621.

Note: It is not recommended to:

- add new parameters to the pre-processor class
- make changes to a pre-processor class as it might change its behavior. Classes are built for specific context menus

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7 Click **OK** to save the information and return to the previous page.

Specifying the Processor Parameter Details

In the **Pre-** or **Post-Processor Parameter Details** window, you can either modify existing information or enter new information about the pre-processor parameter or the post-processor parameter.

To specify the pre-processor parameters details:

1 In the **Pre-Processor Parameters Details** window, enter or modify the following information:

- **Key** – the parameter's key. The GenericURLPreprocess parameter has certain predefined keys: URL_SUFFIX and URL (or a composition of PROTOCOL, HOST, and PORT).
- **Value** – the parameter's value. In case of a URL key, it can be a certain URL (for example: http://www.mercury.co.il) The value can also be retrieved from the CI using an Escaping sequence form; for example: NODE-ID to get the CI Id.
- **Convert To** – this key is used if the key is a parameter in the URL. In this case, the URL is added with the converted key and the value.

2 Click **OK** to save the information and return to the previous page.

To specify the post-processor parameters details:

1 In the **Post-Processor Parameters Details** window, enter or modify the following information:

- **Key** – the parameter's key.
- **Value** – the parameter's value. The value can also be retrieved from the CI using an Escaping sequence form; for example: NODE-ID to get the CI Id.

2 Click **OK** to save the information and return to the previous page.

Context Menu Items Details

This section provides details about each context menu item, its pre- and post-processor classes and the classes parameters.

This section includes the following topics:

- "Acknowledgement" on page 625
- "Acknowledgement Details" on page 625
- "Add KPI" on page 626
- "Application Mapping" on page 626
- "Attach Monitor CIs" on page 627
- "Attach Related CIs" on page 628
- "Change Report" on page 629
- "Complete Alert" on page 630
- "Component Topology" on page 631
- "Configuration Item Status Alerts" on page 632
- "Console" on page 632
- "Cross-Performance Report" on page 633
- "Custom Map" on page 634
- "Deep Transaction Tracing Reports" on page 634
- "Delete CI" on page 635
- "Delete Folder" on page 636
- "Disable" on page 637
- "Drill to Diagnostics" on page 637
- "Edit View" on page 638
- "Enable" on page 639
- "End User Summary Report" on page 639
- "Event Count Over Time Report" on page 640
- "Event Count Over Time Report (Application Error Monitor)" on page 641

- "Event Count Over Time Report (HTTP Error Monitor)" on page 642
- "Event Count Over Time Report (Information Event Monitor)" on page 643
- "Event Summary Report" on page 644
- "Event Summary Report (Errors Monitor)" on page 645
- "Event Summary Report (Event Monitor)" on page 646
- "Filter Subtree" on page 647
- "Filter Subtree Monitors" on page 648
- "Filters" on page 649
- "Geographical Map" on page 649
- "Goto Report" on page 650
- "KPIs Data Over Time" on page 650
- "KPIs Over Time Report" on page 651
- "Locate CI in SLA" on page 651
- "Locate CI in View" on page 652
- "New CI" on page 652
- "New Folder" on page 653
- "New Related CI" on page 654
- "Page Summary Report" on page 655
- "Problem Isolation" on page 656
- "Properties" on page 657
- "Raw Data Over Time Report" on page 658
- "Rename Folder" on page 659
- "SAP Transaction Changes Report" on page 660
- "SAP Transport Changes Report" on page 661
- "Server Summary Report" on page 662
- "Service Level Report" on page 663
- "Session Analyzer Report" on page 664

- "Set/Unset Acknowledgement" on page 665
- "Show Complete Subtree" on page 666
- "Show Content" on page 667
- "Show Impact" on page 668
- "Show in Top View" on page 669
- "Show Path to Root" on page 670
- "Show Problematic Subtree" on page 671
- "Show Related CIs" on page 672
- "Show Subtree Monitors" on page 672
- "SiteScope" on page 673
- "Top View" on page 674
- "Topology Map" on page 675
- "Tracking Report" on page 675
- "Transaction Analysis" on page 676
- "Transaction Summary Report" on page 678
- "Trend Report" on page 679
- "Triage Report" on page 680

Acknowledgement

Opens the Set/Unset Acknowledgment window relevant to the CI, in Dashboard – for details, see "Setting or Unsetting Acknowledgments" on page 48 in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Acknowledgement Details

Opens the Acknowledgment details window relevant to the CI, in Dashboard – for details, see "Viewing Acknowledgment Details" on page 46 in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

ack.cmdbObjectID – where to take the CMDB object ID.

ack.ackID – where to take the acknowledgment ID.

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Add KPI

Opens the New KPI page in Dashboard Administration – for details, see "Attaching New KPIs to CIs" in *Application Administration*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Application Mapping

Opens the Acknowledgment details window relevant to the CI, in Dashboard – for details, see "Using Mercury Business Availability Center for SAP" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Attach Monitor CIs

Opens the Select Related CI wizard relevant to the CI, in IT Universe Manager – for details, see "Working with CIs in IT Universe Manager" in *IT Universe Administration*.

Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)**. For a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **ITU internal (open modal window)**. For a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

PARAM2 – this parameter is for internal use only. This parameter must not be modified.

PARAM0 – this parameter is for internal use only. This parameter must not be modified.

HEIGHT – the opened window height, in pixels

PARAM1 – this parameter is for internal use only. This parameter must not be modified.

PERMISSION_TYPE – internal. This parameter must not be modified.

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Attach Related CIs

Opens the Select Related CI wizard relevant to the CI, in IT Universe Manager – for details, see "Working with CIs in IT Universe Manager" in *IT Universe Administration*.

Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **ITU internal (open modal window)** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

PARAM2 – this parameter is for internal use only. This parameter must not be modified.

PARAM0 – this parameter is for internal use only. This parameter must not be modified.

HEIGHT – the opened window height, in pixels

PERMISSION_TYPE – internal. This parameter must not be modified.

PARAM1 – this parameter is for internal use only. This parameter must not be modified.

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Change Report

Opens the Change report in Dashboard – for details, see "Change Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class but uses the following parameters:

password – internal. This parameter must not be modified.

user – internal. This parameter must not be modified.

CMDB_NODE_ID – internal. This parameter must not be modified.

PROTOCOL – the type of protocol to be used

PORT – the target port

URL_SUFFIX – the suffix to add at the end of the URL

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Complete Alert

Activates a URL call to the relevant SAP system and completes the selected SAP alert.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Pre-Processor Classes" on page 682:

ALERTTIME – The time of the selected SAP alert.

ALSYSID – The SAP system which the alert came from.

MSG – The name of the SAP alert.

szTargetHostName – The name of the SiteScope host that sent the sample.

MSEGNAME – Contains the type of the monitor and connection parameters (for example: SAP_CCMS_calderone_MI6_00).

ALINDEX – The internal handle for the SAP alert.

szTargetHostIP – The IP of the SiteScope that sent the sample.

ALERTDATE – The date when the selected SAP alert occurred.

ALUNIQNUM – The Id number of the SAP alert, as appears on the SAP system.

SapConnId – Uses the following syntax: <host name>:<user name> to connect to a specific SiteScope monitor to retrieve the SAP alert. host name is the name of the host that contains the R3 server where the SAP alert originated. user name is the name of the user used to access the server to which the SiteScope monitor is connected.

Component Topology

Displays the Component Topology report – for details, see "Component Topology Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

loginBtn – Internal. This parameter must not be modified.

Password – the password used to login to the Deep Transaction Tracking application.

LoginName – the name of the user used to login the Deep Transaction Tracking application.

LoginURL – the URL of the Deep Transaction Tracking application.

URL – the URL of the Mercury Business Availability Center machine.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Pre-Processor Classes" on page 682:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Configuration Item Status Alerts

Opens the Configuration Item Status Alert report relevant to the CI – for details, see "Configuration Item Status Alerts" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Console

Opens the Console tab in the Dashboard Application.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Switch Dashboard tabs** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Cross-Performance Report

Opens the SiteScope Cross-Performance report relevant to the CI – for details, see Cross-Performance Report in *Using System Availability Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class but uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

actionProcessorClass – the process to run to gather the parameters. This parameter must not be modified.

application_id – the ID of the application to be used when opening Diagnostics.

stepValue – the time period used to calculate reports (every 5 minutes).

TARGET_HOST – where the properties of the target host are located.

PROFILE_ID – the SiteScope profile to be used when opening SiteScope.

MONITOR_TYPE – the type of monitor.

PROFILE_NAME – the name of the profile.

timeFrame – the time frame during which the report runs.

menu_item_id – the ID of the menu item.

actionForward – the name of the menu to go to. Do not modify!

stepUnit – the unit of **stepValue**.

Custom Map

Opens the Custom Map tab in Dashboard.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Switch Dashboard tabs** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Deep Transaction Tracing Reports

Opens a window in the Bristol's TransactionVision application to display reports that provide you with breakdown information for the transaction at component level – for details, see "Deep Transaction Tracing Reports" in *Using Dashboard*.

This context menu item is available only if Bristol's TransactionVision has been installed.

Pre-Processor Class

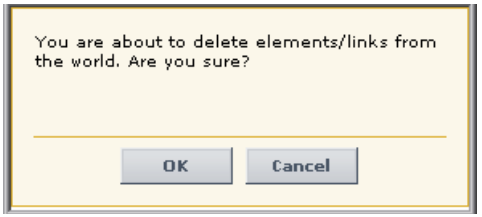
The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Delete CI

Opens the following dialog box to confirm that you want to delete the relevant CI in IT Universe Manager – for details, see "Working with CIs in IT Universe Manager" in *IT Universe Administration*.



Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **ITU internal (open modal window)** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

PERMISSION_TYPE – internal. This parameter must not be modified.

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Delete Folder

Opens the Delete Folder dialog box to enable you to delete the folder.

Pre-Processor Class

The context menu item pre-processor class is **View manager (new folder) processor** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **General view-manager context menu** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

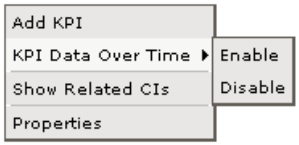
HEIGHT – the opened window height, in pixels

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Disable

Disables the KPI attached to a CI in the KPI tab in Dashboard Administration – for details, see "Saving KPI Data over Time for a CI" in *Application Administration*.



Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class, but uses the following parameter:

POSTPROCESS_OPERATION – indicates whether the post-process operation is to be run (**true**) or not (**false**).

Drill to Diagnostics

Drills down in the Diagnostics application – for details, see *Mercury Diagnostics Installation and User's Guide*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class, but uses the some of the following parameters.

application_id – the ID of the application to be used when opening Diagnostics.

profile_name – The name of the profile to be used when opening Diagnostics.

trans_name – The name of the transaction to be used when opening Diagnostics.

drill_from – The ID of the application you are drilling from.

probe_name – The name of the probe to be used when opening Diagnostics.

server_name – The name of the server to be used when opening Diagnostics.

probe_group_name – The name of the probe group to be used when opening Diagnostics.

Edit View

Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

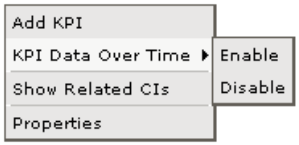
Post-Processor Class

The context menu item does not use a post-processor class but uses the following parameter:

PERMISSION_TYPE – internal. This parameter must not be modified.

Enable

Enables the KPI attached to a CI in the KPI tab in Dashboard Administration – for details, see "Saving KPI Data over Time for a CI" in *Application Administration*.



Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class, but uses the following parameter:

POSTPROCESS_OPERATION – indicates whether the post-process operation is to be run (**true**) or not (**false**).

End User Summary Report

Moves to the End User Summary Report in End User Management. The End User Summary report displays data for specific end-users that were configured for the Real User Monitor in Monitor Administration. For details, see "End User Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

monitorName – Internal. This parameter must not be modified.

application_id – the ID of the application to be used when opening Diagnostics.

__UIF_FORM – Internal. This parameter must not be modified.

__UIF_APPLICATION – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

isContainer – Internal. This parameter must not be modified.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

Event Count Over Time Report

Moves to the Event Count Over Time Report in End User Management. The Event Count Over Time report displays data for all events, or sessions with events, in monitored applications that you configured in Monitor Administration, broken down by time intervals. For details, see "Event Count Over Time Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

Event Count Over Time Report (Application Error Monitor)

Moves to the Event Count Over Time Report in End User Management. The Event Count Over Time report displays data for all events, or sessions with events, in monitored applications that you configured in Monitor Administration, broken down by time intervals. For details, see "Event Count Over Time Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.selectedApplicationErrors – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

Event Count Over Time Report (HTTP Error Monitor)

Moves to the Event Count Over Time Report in End User Management. The Event Count Over Time report displays data for all events, or sessions with events, in monitored applications that you configured in Monitor Administration, broken down by time intervals. For details, see "Event Count Over Time Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.httpErrors – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

Event Count Over Time Report (Information Event Monitor)

Moves to the Event Count Over Time Report in End User Management. The Event Count Over Time report displays data for all events, or sessions with events, in monitored applications that you configured in Monitor Administration, broken down by time intervals. For details, see "Event Count Over Time Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.selectedEvents – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

Event Summary Report

Moves to the Event Summary report in End User Management. The Event Summary report displays a summary of events in monitored applications that you configured in Monitor Administration. For details, see "Event Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

filter.performance – Internal. This parameter must not be modified.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.events – Internal. This parameter must not be modified.

filter.httpErrors – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

monitorName – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

filter.applicationErrors – Internal. This parameter must not be modified.

Event Summary Report (Errors Monitor)

Moves to the Event Summary report in End User Management. The Event Summary report displays a summary of events in monitored applications that you configured in Monitor Administration. For details, see "Event Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

filter.performance – Internal. This parameter must not be modified.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.events – Internal. This parameter must not be modified.

filter.httpErrors – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

filter.applicationErrors – Internal. This parameter must not be modified.

Event Summary Report (Event Monitor)

Moves to the Event Summary report in End User Management. The Event Summary report displays a summary of events in monitored applications that you configured in Monitor Administration. For details, see "Event Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

filter.performance – Internal. This parameter must not be modified.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.events – Internal. This parameter must not be modified.

filter.httpErrors – Internal. This parameter must not be modified.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

filter.applicationErrors – Internal. This parameter must not be modified.

Filter Subtree

Filters the subtree of the selected element according to the previously defined filter. For details about the Filters tab, see "Dashboard Filters" in *Using Dashboard*.

By default, appears under the Events shortcut menu.

Pre-Processor Class

The context menu item pre-processor class is **Prepare parameters (dashboard)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

strutsAction – dynamic parameter used by the class.

viewType – dynamic parameter used by the class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs with parameters** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Filter Subtree Monitors

Displays only the CIs that have the monitor type – like the Show Monitors Only filter. For details about the Filters tab, see "Dashboard Filters" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Prepare parameters (dashboard)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

NODE_ID – converts to **nodeId**.

strutsAction – dynamic parameter used by the class.

nodeType – This parameter must not be modified.

viewType – dynamic parameter used by the class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs with parameters** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Filters

Opens the Filters tab in Dashboard or is used as a parent menu for other filter context menu items; for example, Filter Subtree Monitors. For details about the Filters tab, see “Dashboard Filters” in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

Depending on the Filters you select the context menu item may not have a class or may use the post-processor class **Switch Dashboard tabs** – for a description of the class, see “Post-Processor Classes” on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Geographical Map

Opens the Geographical Map tab in Dashboard. For details about the Geographical Map tab, see “Dashboard Geographical Map” in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs** – for a description of the class, see “Post-Processor Classes” on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Goto Report

Parent menu for redirections to other applications.

Pre-Processor Class

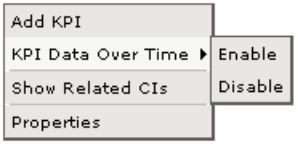
The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

KPIs Data Over Time

The main menu option that lists the Enable/Disable options for a KPI attached to a CI in the KPI tab in Dashboard Administration – for details, see "Saving KPI Data over Time for a CI" in *Application Administration*.



Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

KPIs Over Time Report

Opens the KPI over Time report relevant to the CI – for details, see "KPIs Over Time Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Goto KPI Over Time report** – for a description of the class, see "Post-Processor Classes" on page 682.

This class does not have parameters.

Locate CI in SLA

Displays the Search pane where you can specify the CI you want to locate in SLA. For details about the search feature, see "Locating a Configuration Item by Searching" in *Working with the CMDB*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Locate search result elements in the view traverse** – for a description of the class, see "Post-Processor Classes" on page 682.

This class does not have parameters.

Locate CI in View

Displays the Search pane where you can specify the CI you want to locate. For details about the search feature, see "Locating a Configuration Item by Searching" in *Working with the CMDB*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Locate search result elements in the view traverse** – for a description of the class, see "Post-Processor Classes" on page 682.

This class does not have parameters.

New CI

Opens the New CI page in the IT Universe Manager tab – for details about the tab, see "Working with CIs in IT Universe Manager" in *IT Universe Administration*.

Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **ITU internal (open modal window)** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

PARAM2 – this parameter is for internal use only. This parameter must not be modified.

PARAM4 – this parameter is for internal use only. This parameter must not be modified.

HEIGHT – the opened window height, in pixels

PERMISSION_TYPE – internal. This parameter must not be modified.

PARAM1 – this parameter is for internal use only. This parameter must not be modified.

WIDTH – the opened window width, in pixels

PARAM3 – this parameter is for internal use only. This parameter must not be modified.

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

New Folder

Opens the Create Folder dialog box to enable you to create a new folder – for details, see "Creating a New Folder" in *View Manager Administration*.

Pre-Processor Class

The context menu item pre-processor class is **View manager (new folder) processor** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **General view-manager context menu** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

New Related CI

Opens the New CI wizard relevant to the CI in IT Universe Manager – for details, see "Working with Relationships" in *IT Universe Administration*.

Pre-Processor Class

The context menu item pre-processor class is **ITU internal (open modal window)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **ITU internal (open modal window)** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

PARAM2 – this parameter is for internal use only. This parameter must not be modified.

PARAM0 – this parameter is for internal use only. This parameter must not be modified.

PARAM4 – this parameter is for internal use only. This parameter must not be modified.

HEIGHT – the opened window height, in pixels

PERMISSION_TYPE – internal. This parameter must not be modified.

PARAM1 – this parameter is for internal use only. This parameter must not be modified.

WIDTH – the opened window width, in pixels

PARAM3 – this parameter is for internal use only. This parameter must not be modified.

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Page Summary Report

Moves to the Page Summary report in End User Management. The Page Summary report displays data for specific Web pages that were configured for the Real User Monitor in Monitor Administration. For details, see "Page Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

selectedTab – Internal. This parameter must not be modified.

monitorName – Internal. This parameter must not be modified.

application_id – the ID of the application to be used when opening Diagnostics.

__UIF_FORM – Internal. This parameter must not be modified.

__UIF_APPLICATION – Internal. This parameter must not be modified.

selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

Problem Isolation

Displays the information about the root cause of a problem for objects that are affected by a chain of correlation rules in a logical map that describes a chain of trigger elements that affect the object – for details, see "Isolating a Problem" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

USER – The user used by Mercury Application Mapping server administrator.

CMDB_NODE_ID – The node ID of the object. This parameter must not be modified.

PASSWORD – The password of the user used by Mercury Application Mapping server administrator.

PROTOCOL – Defines the URL of the Mercury Application Mapping server.

category – Internal. This parameter must not be modified.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

PORT – Defines the port of the Mercury Application Mapping server.

URL_SUFFIX – The suffix of the URL of the Mercury Application Mapping server.

Pre-Processor Class

The context menu item pre-processor class is **Open the properties page from the view traverse** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Properties

Opens the Properties dialog box relevant to the CI – for details, see "Working with CIs in IT Universe Manager" in *IT Universe Administration*.

Pre-Processor Class

The context menu item pre-processor class is **Show properties in VT** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Pre-Processor Class

The context menu item pre-processor class is **Open the properties page from the view traverse** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Raw Data Over Time Report

Opens the Raw Data Over Time report relevant to the CI – for details, see "Raw Data Over Time Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

autoGenerate – internal parameter of the Raw Data Over Time report.

URL – the URL of the new window.

reportID – The ID number of the report.

filter.selectedVTIds – used to add a dynamic value to the URL.

filter.fromDashboard – used to add a dynamic value to the URL.

popup – Internal. This parameter must not be modified.

Post-Processor Class

The context menu item uses the following parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Rename Folder

Opens the Rename Folder dialog box to enable you to rename the folder.

Pre-Processor Class

The context menu item pre-processor class is **View manager (new folder) processor** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **General view-manager context menu** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

WIDTH – the opened window width, in pixels

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

SAP Transaction Changes Report

Opens the SAP Transaction Changes report that tracks changes made to a SAP Transaction CI when a transport was modified – for details, see "SAP Transaction Changes Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

reportName – The name of the report. Internal. This parameter must not be modified.

PASSWORD – The password of the user used by Mercury Application Mapping server administrator.

USERNAME – The user used by Mercury Application Mapping server administrator.

PROTOCOL – Defines the URL of the Mercury Application Mapping server.

PORT – Defines the port of the Mercury Application Mapping server.

URL_SUFFIX – The suffix of the URL of the Mercury Application Mapping server.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Pre-Processor Classes" on page 682:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

SAP Transport Changes Report

Opens the SAP Transport Changes report that track changes made to the properties of a SAP Transport CI – for details, see "SAP Transport Changes Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

reportName – The name of the report. Internal. This parameter must not be modified.

PASSWORD – The password of the user used by Mercury Application Mapping server administrator.

USERNAME – The user used by Mercury Application Mapping server administrator.

PROTOCOL – Defines the URL of the Mercury Application Mapping server.

PORT – Defines the port of the Mercury Application Mapping server.

URL_SUFFIX – The suffix of the URL of the Mercury Application Mapping server.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Pre-Processor Classes" on page 682:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Server Summary Report

Moves to the Server Summary report in End User Management. The Server Summary report displays data for the servers that are monitored by the Real User Monitor probe. For details, see "Server Summary Report" in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

__UIF_FORM – Internal. This parameter must not be modified.

itemsWildcard – Internal. This parameter must not be modified.

__UIF_APPLICATION – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

Service Level Report

Displays the Service Level report – for details, see "Service Level Report" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

loginBtn – Internal. This parameter must not be modified.

Password – the password used to login to the Deep Transaction Tracking application.

LoginName – the name of the user used to login the Deep Transaction Tracking application.

LoginURL – the URL of the Deep Transaction Tracking application.

URL – the URL of the Mercury Business Availability Center machine.

isFullScreen – opens a popup window with the path to root. Do not modify!

selectedTxnClasses

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Pre-Processor Classes" on page 682:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Session Analyzer Report

Moves to the Session Analyzer report in End User Management filtered on the selected transaction (or child transactions in the case of a transaction group entity) and the "Past Hour" time period. The Session Analyzer report displays session data for specific applications that were configured for the Real User Monitor in Monitor Administration. For details, see “Session Analyzer Report” in *Using End User Management*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

autoGenerate – internal parameter of the Raw Data Over Time report.

filter.selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

time_view – Internal. This parameter must not be modified.

reportID – The ID number of the report.

Set/Unset Acknowledgement

Moves to the Top View tab with the Set/Unset Acknowledgment option selected for the CI in the Dashboard application. For details, see "Setting or Unsetting Acknowledgments" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

ack.cmdbObjectID – where to take the CMDB object ID.

ack.ackID – where to take the acknowledgment ID.

ack.closeDialog – Internal. This parameter must not be modified.

URL – the URL of the new window.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Show Complete Subtree

Moves to the Events tab and displays all CIs (subgroups and monitor CIs) that fall in the branches under this CI.

By default, appears under the Events shortcut menu.

Pre-Processor Class

The context menu item pre-processor class is **Prepare parameters (dashboard)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

NODE_ID – converts to **nodeId**.

strutsAction – dynamic parameter used by the class.

selectFilterID – dynamic parameter used by the class.

viewType – dynamic parameter used by the class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs with parameters** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Show Content

Display a details file that includes details about the specific configuration file, software component, or support package of the SAP system discovered by the automatic discovery process – for details, see "Show Content" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

CMDB_NODE_ID – The node Id of the object. Internal. This parameter must not be modified.

PASSWORD – The password of the user used by Mercury Application Mapping server administrator.

USERNAME – The user used by Mercury Application Mapping server administrator.

PROTOCOL – Defines the URL of the Mercury Application Mapping server.

className – Internal. This parameter must not be modified.

PORT – Defines the port of the Mercury Application Mapping server.

URL_SUFFIX – The suffix of the URL of the Mercury Application Mapping server.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Show Impact

Display the impact of a root cause object by displaying all the objects that are affected by it in a separate window – for details, see "Showing Impact" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

CMDB_NODE_ID – The node Id of the object. Internal. This parameter must not be modified.

USER – The user used by Mercury Application Mapping server administrator.

PASSWORD – The password of the user used by Mercury Application Mapping server administrator.

PROTOCOL – Defines the URL of the Mercury Application Mapping server.

category – Specifies the report. This parameter must not be modified.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

PORT – Defines the port of the Mercury Application Mapping server.

URL_SUFFIX – The suffix of the URL of the Mercury Application Mapping server.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Show in Top View

Parent menu. Opens Dashboard Top View tab with the view's tree centered on the selected CI – for more details, see "Menu Options for CIs" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Prepare parameters (dashboard)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

NODE_ID – converts to **nodeId**.

Post-Processor Class

The context menu item post-processor class is **Switch Dashboard tabs** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Show Path to Root

Moves to the Top View tab with the Show Path to Root option selected for the CI in the Dashboard application. For details, see "Show Path to Root" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

targetNodeIds – the ID of the target node.

URL – the URL of the new window.

isFullScreen – opens a popup window with the path to root. Do not modify!

filterId – the ID of the filter. Internal. This parameter must not be modified.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Show Problematic Subtree

Moves to the Top View tab with the Expand to Problem option selected for the CI in the Dashboard application. For details, see "Show Problematic Subtree" in *Using Dashboard*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

The parameters are:

targetNodeIds – the ID of the target node.

URL – the URL of the new window.

isFullScreen – opens a popup window with the path to root. Do not modify!

filterId – the ID of the filter. Internal. This parameter must not be modified.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Show Related CIs

Opens the appropriate dialog box, in IT Universe Manager.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Show Subtree Monitors

Opens the Events tab and displays only the CIs with the monitor type, their children CIs and the KPIs attached to those CIs, filtered using the Show Monitors Only filter. For details, see "Menu Options in the Filters Tab" in *Using Dashboard*.

Pre-Processor Class

The context menu item pre-processor class is **Prepare parameters (dashboard)** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

NODE_ID – converts to **nodeId**.

strutsAction – dynamic parameter used by the class.

selectFilterID – dynamic parameter used by the class.

viewType – dynamic parameter used by the class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs with parameters** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

SiteScope

Displays the relevant SiteScope Web page for this CI in a new SiteScope browser window, enabling you to view more detailed SiteScope parameters and measurements. Refer to the SiteScope documentation for directions on using SiteScope.

By default, appears under the **Goto** shortcut menu.

Note: By default, Dashboard accesses the SiteScope machine using the machine host name. If you want access via IP, edit the **SiteScope** context menu item, by changing the value for the pre-processor parameter **HOST_BY** from NAME to IP.

Pre-Processor Class

The context menu item pre-processor class is **Goto SiteScope** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

ROOT_PATH – The root path to SiteScope.

PROFILE_ID – the SiteScope profile to be used when opening SiteScope.

POST_FIX – the post fix expression to be added to the all URLs.

GROUP_NODE_NAME – the CIs group in SiteScope.

HOST_BY – SiteScope host.

ROOT_POSTFIX – SiteScope root.html document.

PATH – the path that includes all the SiteScope groups.

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Top View

Moves to the Top View tab for the CI in the Dashboard application. For details, see "Dashboard Top View" in *Using Dashboard*.

By default, appears under the **Goto** shortcut menu.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

Topology Map

Opens the Topology Map tab in Dashboard. For details, see "Working in Topology Map Mode" in *IT Universe Administration*.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item post-processor class is **Switch dashboard tabs** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

TAB_ID – the ID of the tab. The tab ID is available in the application framework. If you change the tab ID, it is recommended to change the name of the context menu item to match the name of the tab that is opened by this option.

Tracking Report

Opens the Deep Transaction Tracing reports – for details, see "Working With Deep Transaction Tracing" in *Using Dashboard*.

To open Deep Transaction Tracing reports properly, users with the appropriate permissions must manually configure the **Service Level Report** and **Tracking Report** context menu items – for details, see "Configuring the URL to Open Reports in TransactionVision" on page 140.

Pre-Processor Class

The context menu item pre-processor class is **Dashboard generic URL** – for a description of the class, see "Pre-Processor Classes" on page 682.

The parameters are:

loginBtn – Internal. This parameter must not be modified.

Password – the password used to login to the Deep Transaction Tracking application.

LoginName – the name of the user used to login the Deep Transaction Tracking application.

LoginURL – the URL of the Deep Transaction Tracking application.

URL – the URL of the Mercury Business Availability Center machine.

isFullScreen – opens a popup window with the path to root. Do not modify!

Post-Processor Class

The context menu item post-processor class is **Open window** – for a description of the class, see "Post-Processor Classes" on page 682.

The parameters are:

SCROLL – if set to **1**, a scrolling tab is added to the opened window, if required. If set to 0, no scrolling tab is added to the open window.

HEIGHT – the opened window height, in pixels

SLAVE_WIN – if set to **1** it checks that the window closes when the application is closed

WIDTH – the opened window width, in pixels

WIN_NAME – specifies the window name

RESIZE – if set to 1, the window can be resized. If set to 0, the window cannot be resized.

Transaction Analysis

Moves to the Transaction Analysis report in End User Management filtered on the selected transaction (or child transactions in the case of a transaction group entity) and the "Past Hour" time period. The Transaction Analysis report provides an in-depth picture of the performance of transactions. For details, see "Transaction Analysis Report" in *Using End User Management*.

By default, appears under the **Goto** shortcut menu.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item does not use a post-processor class.

The post-processor parameters are:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

stepValue – the time period used to calculate reports (every 5 minutes).

timeFrame – the time frame during which the report runs.

REQUEST_TYPE – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

MEASUREMENT_1_ID_PREFIX – Internal. Used to control if the report is filtered by location or by transaction for Business Process Monitor CIs.

actionForward – the name of the menu to go to. Do not modify!

stepUnit – the unit of **stepValue**.

MEASUREMENT_0_ID_PREFIX – Internal. Internal. Used to control if the report is filtered by location or by transaction for SiteScope CIs

PROFILE_ID – the SiteScope profile to be used when opening SiteScope.

autoUpdatePastTime – Internal. This parameter must not be modified.

MAX_MEASUREMENT_NUM – Maximum limit of measurements to filter in both SiteScope and Business Process Monitor.

DIMENSION_ID_PREFIX – Internal. Controls if the report is filtered by location or by transaction (see MEASUREMENT_1_ID_PREFIX).

REPORT_NAME – Specifies to which report to drill down from End User Management (not just from Transaction Analysis). This is the internal name of the EUM reports. It is supported only for legacy reports – for details, see "Customizing Reports" in *Platform Administration*.

Transaction Summary Report

Moves to the Transaction Summary Reports area for that CI in the End User Management User Reports application. The Transaction Summary report displays data for specific transactions that were configured for the Real User Monitor in Monitor Administration. For details, see "Transaction Summary Report" in *Using End User Management*.

By default, appears under the **Goto** shortcut menu.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

selectedTab – Internal. This parameter must not be modified.

monitorName – Internal. This parameter must not be modified.

application_id – the ID of the application to be used when opening Diagnostics.

__UIF_FORM – Internal. This parameter must not be modified.

__UIF_APPLICATION – Internal. This parameter must not be modified.

selectedApplication – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

reportType – Defines which of the results to take from the PNR KPI that relays in the SLM tab.

Trend Report

Moves to the Trend Reports area for that CI in the End User Management User Reports application. The Trend Report Wizard generates a trend report that provides a graphical representation of measurement data over a specific time period. For details, see "Overview of Trend Reports" on page 76 in *Working with Applications*.

By default, appears under the **Goto** shortcut menu.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

actionProcessorClass – Internal. This parameter must not be modified.

application_id – the ID of the application to be used when opening Diagnostics.

PROFILE_ID – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

REQUEST_TYPE – Internal. This parameter must not be modified.

MEASUREMENT_1_ID_PREFIX – Internal. Specifies the report to drill down to not from the Availability and Response Time of Business Process Monitor but for other counters, such as Download Time or DNS Time.

MAX_MEASUREMENT_NUM – the maximum number of measurements to filter. Since this menu can be applied also to for any CI that includes measurements in its subtree, then the filtered measurements are counted first. If the maximum has not been reached then the other CIs are counted until MAX_MEASUREMENT_NUM is reached.

actionForward – Internal. This parameter must not be modified.

REPORT_NAME – Internal. This parameter must not be modified.

DIMENSION_ID_PREFIX – Internal. Specifies to which report to drill down in the Trend report not from the Availability and Response Time of Business Process Monitor but for other KPIs, such as Download Time or DNS Time.

MEASUREMENT_0_ID_PREFIX – Internal. Specifies to which report to drill down in the Trend report not from the Availability and Response Time of Business Process Monitor but for other KPIs, such as Download Time or DNS Time.

Triage Report

Moves to the Triage Reports area for that CI in the End User Management User Reports application. The Triage report displays transaction data for Business Process Monitor, Client Monitor, and Real User Monitor profiles for the past day. The data is organized by location. For details, see "Triage Report" on page 23 in *Using End User Management*.

By default, appears under the **Goto** shortcut menu.

Pre-Processor Class

The context menu item does not use a pre-processor class.

Post-Processor Class

The context menu item uses the following parameters:

menu_item_url – the location where the parameters are calculated. Do not modify!

application_id – the ID of the application to be used when opening Diagnostics.

filter.selectedProfileId – Internal. This parameter must not be modified.

menu_item_id – the ID of the menu item.

reportID – The ID number of the report.

Pre- and Post-Processor Classes

Pre- and post-processor classes are build to correspond to specific menus. In addition, a pre-processor class specifies the action(s) that are performed before accessing the database and a post-processor class specifies the action(s) that are performed after accessing the database.

Note: It is not recommended to:

- add new parameters to the pre-processor class
- make changes to a pre-processor class as it might change its behavior

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This section includes the following topics:

- "Pre-Processor Classes" on page 682
- "Post-Processor Classes" on page 682

Pre-Processor Classes

The pre-processor classes are as follows:

Class	Description
Dashboard generic URL	Builds a generic URL using the class parameters.
Goto SiteScope	Opens the SiteScope Application.
ITU internal (open modal window)	ITU represents the View manager tab in the CMDB application. The class deals with the View Manager tab.
Prepare parameters (dashboard)	Prepares parameters, in JavaScript. Those parameters are used by Dashboard.
Show properties in VT	When you select the Properties option in the View Explorer context menu, the Properties dialog box of the selected CI is displayed.
View manager (new folder) processor	Deals with the View Manager tab.

Post-Processor Classes

The post-processor classes are as follows:

Class	Description
Edit view (ITU)	Context menu processor that deals with the View Manager tab in the CMDB application.
General view-manager context menu	Context menu processor that deals with the View Manager tab in the CMDB application.
Goto KPIs Over Time report	Context menu processor that deals with opening the KPIs Over Time report.
Goto Trend report	Context menu processor that deals with the Trend report drill down functions.
ITU internal (open modal window)	Context menu processor that deals with the View Manager tab in the CMDB application.

Class	Description
Locate search result elements in the view traverse	Context menu processor that deals with the search capability in View Explorer.
Open the properties page from the view traverse	When you select the Properties option in the View Explorer context menu, the Properties dialog box of the selected CI is displayed.
Open window	General post processor to open a request in a new window, rather than in the application frame.
Show all the element neighbors	Context menu processor that deals with View Explorer.
Switch application in BAC	Context menu processor for drilling down from one application to another.
Switch Dashboard tabs	Context menu processor that switches tabs in the Dashboard application. For examples, opening the appropriate Filter tab from the Console tab.
Switch dashboard tabs with parameters	Context menu processor that passes internal parameters when switching from one tab to another in Dashboard.

31

Tooltips Repository

The Tooltips Repository includes the tooltips available in Dashboard and enables you to create new tooltips and to edit existing tooltips.

This chapter describes:	On page:
Working with the Tooltips Repository	686
Example Scenario - Editing a Tooltip	687
Cloning a Tooltip	688
Overriding Existing Tooltips	689
Specifying the Tooltip Details	690
Tooltip Details	692
Tooltip Parameter Details	754

Working with the Tooltips Repository

The Tooltips Repository page displays the list of factory (pre-defined) tooltips available throughout Dashboard to determine how source data is imported and handled by Dashboard Administration, and to determine appearance and functionality for the CIs in the presentation layer.

Advanced users can modify existing repository objects and create new ones. This may be necessary when you want to customize the way information is presented in Dashboard, to fit the needs of your organization; or you may need to create new objects when integrating data from a new external system into Dashboard.

Each CI under a KPI (when the CI is connected to the KPI) has a Details tooltip to display additional information for the CI. For more information on the Details tooltips in the Dashboard application, see "Viewing Additional Information for CIs" in *Using Dashboard*.

Tooltips are assigned to CIs according to the rule used for the KPI. Most rules have an associated tooltip (referred to as the rule sentence), that is connected to the associated rule. Note that if you add a new rule to the Business Rules Repository, a new tooltip is automatically created for it. To delete a tooltip that is connected to a rule, you must delete the rule. For more information on the Tooltips Repository, see "Tooltip Details" on page 692.

You can:

- create a new rule tooltip by cloning (copying) a factory or customized tooltip to use is as a template – for details, see "Cloning a Tooltip" below
- replace an existing tooltip by overriding it – for details, see "Overriding Existing Tooltips" on page 689

  You can then modify the tooltip to your specifications – for details, see "Specifying the Tooltip Details" on page 690.

Note:

- To delete a customized tooltip, you must delete the corresponding rule.
- A tooltip and its rule have the same ID number and the same name.

Example Scenario - Editing a Tooltip

When you created the two new rules: RUM Impact Over Time and SiteScope Impact Over Time, two new tooltips were created – for details on creating the rules, see "Example Scenario - Creating New Rules" on page 409.

You want to change their description to match the rule's descriptions.

The scenario has one stage: "Stage 1: Edit the New Tooltips" on page 687.

Stage 1: Edit the New Tooltips

You access the new tooltips and you change their description.

To edit the new tooltips:

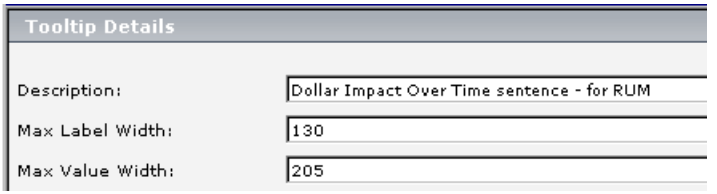
1. Select **Admin** > **Dashboard**.
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Select the **Tooltips** tab menu option to open the Tooltips page. The Custom Tooltips area displays the tooltips that correspond to the new rules you created:

Custom Tooltips

	Id	Description	Max Label Width	Max Value Width
☐	2001	Dollar Impact Over Time sentence	130	205
☐	2000	Dollar Impact Over Time sentence	130	205

4. Click the appropriate **Edit Entity** button corresponding to tooltip 2000, to open the Tooltip Details dialog box.

5 Add - **for RUM** at the end of the tooltip name in the **Description** box.



6 Repeat steps 4 through 5 (in step 5 add - **for SiteScope** at the end of the description) to create the SiteScope OT Impact KPI.

The result is as follows:



Cloning a Tooltip

You can create a customized tooltip by cloning an existing factory or customized tooltip and modifying it.

To clone a factory or customized tooltip:

1 Select **Admin** > **Dashboard**.



2 Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.

3 Select **Tooltips** to open the **Tooltips** page.

4 Select the tooltip you want to clone in the **Factory Tooltips** area or in the **Custom Tooltips** area.

5 Click the **Clone** button. The cloned tooltip appears in the **Custom Tooltips** area.



6 Click the **Edit Tooltip** button to open the **Tooltip Details** window. For more details go to “Specifying the Tooltip Details” on page 690.

Overriding Existing Tooltips

When you override an existing tooltip, a copy appears in the **Custom Tooltips** area and the existing tooltip is marked with (Overridden) in the **Factory Tooltips** area. What happens is that you replace the existing tooltip with the tooltip that you have modified.

To override an existing tooltip:

1. Select **Admin** > **Dashboard.**
2. Click the down arrow that appears when you move the mouse pointer over the **Repositories** tab title.
3. Select **Tooltips** to open the **Tooltips** page.
4. Select the tooltip you want to override in the **Factory Tooltips** area or in the **Custom Tooltips** area.
5. Click the **Override** button.

   (Overridden) appears under the overridden tooltip in the **Factory Tooltips** area as follows:



   The overridden tooltip appears in the **Custom Tooltips** area.

6. Select the tooltip and click the **Edit Tooltip** button to open the **Tooltip Details** window. For more details go to “Specifying the Tooltip Details” on page 690.

Specifying the Tooltip Details

In the Items Details window, you can either modify the information or enter new information. For a list of the tooltips parameters, see "Tooltip Parameters" on page 753.

You can also modify existing information or enter new information about the tooltips parameter details, as described in "Specifying the Tooltip Parameter Details" on page 691.

This section includes the following topics:

- "Specifying the Tooltip Details" on page 690
- "Specifying the Tooltip Parameter Details" on page 691

Specifying the Tooltip Details

In the Items Details window, you can either modify the information or enter new information. For a list of the tooltips parameters, see "Tooltip Parameters" on page 753.

To specify the tooltip details:

1 In the **Tooltip Details** window enter or modify the following information:

- **Description** – The name of the tooltip.
- **Max Label Width** – The maximum width for a tooltip parameter name.
- **Max Value Width** – The maximum width for a tooltip parameter value.
- **Parameters** – The parameters included in the tooltip. Different icons or buttons appear depending on the procedure you are following.

Note: The order of the parameters reflects the order of the corresponding information in the tooltip in the application.

To enter new parameter details click the **New** button. For more details, go to "Specifying the Tooltip Parameter Details" on page 691.

To modify existing parameter details click the **Edit** button. For more details, go to "Specifying the Tooltip Parameter Details" on page 691.

2 Click **OK** to save the information and return to the previous page.

Specifying the Tooltip Parameter Details

In the **Parameter Details** window, you can either modify existing information or enter new information about the tooltip parameter. For a list of the tooltip parameter details, see "Tooltip Parameter Details" on page 754.

To specify the parameters details:

1 In the **Parameters Details** window, enter or modify the following information:

- **Display Label** – The display label of the row. It appears exactly as written in the section.
- **Value Prefix** – The row value prefix. Can be blank if not required. Can be retrieved from the CI using the escaping sequence form - if so, the "[[%]]" string must appear before the escaping sequence.
- **Value Source** – The source of the value to display. Can be retrieved from the CI using the escaping sequence form - if so, the "[[%]]" string must appear before the escaping sequence.
- **Value Postfix** – The row value postfix. Can be blank if not required. Can be retrieved from the CI using the escaping sequence form – if so, the "[[%]]" string must appear before the escaping sequence.
- **Available Formatting Method** – Select the appropriate formatting method form the list of available methods – for details, see "Formatting Methods" on page 366.
- **Formatting Method** – Displays the method you selected in Available Formatting Method list. This is the formatting method that is invoked on the valueSource. Can be blank if not required.

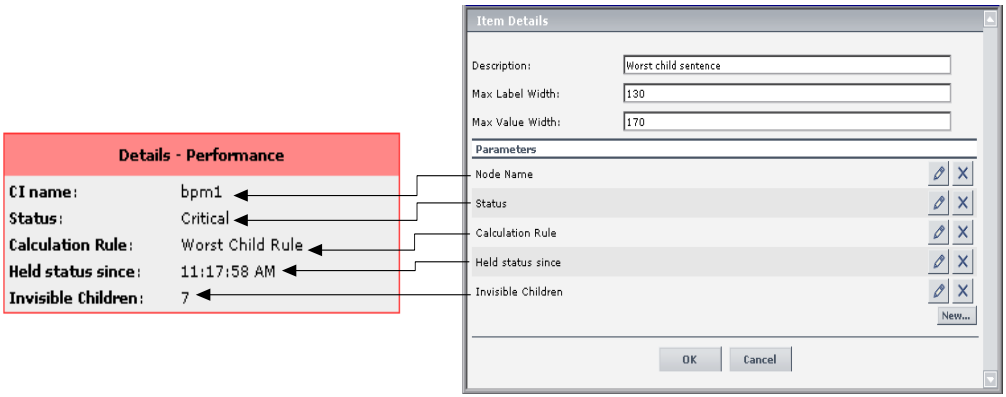
2 Click **OK** to save the information and return to the previous page.

Tooltip Details

Most of the tooltip used in Dashboard correspond directly to a rule. Each tooltip class has the same ID number as the rule it is associated with. For example, for the rule ID #2, Best Child Rule, there is a corresponding tooltip with ID #2, Best Child sentence.

The tooltip parameters correspond to the information displayed in the tooltip.

For example, the parameters of the Worst Child Sentence tooltip are displayed as entries in the tooltip and are listed in the same order as the order of the parameters in the tooltip definition.



This section includes the following topics:

- "Average Availability of Weighted Volume" on page 695
- "Average Latency of Weighted Volume" on page 696
- "Average of Converted Performance Results in %" on page 697
- "Average Performance of Weighted Volume in %" on page 699
- "Average Performance of Weighted Volume in Seconds" on page 700
- "Best Child Sentence" on page 701
- "Customer Sentence" on page 702
- "Diagnostics for J2EE General Sentence" on page 703

- "Dollar Impact Over Time Sentence" on page 704
- "Dollar Impact Sentence" on page 705
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For information on defining or editing tooltips, see "Working with the Tooltips Repository" on page 686.

The parameters for the tooltips are listed in "Tooltip Parameter Details" on page 754.

Average Availability of Weighted Volume

The tooltip is displayed for a KPI whose associated rule is "Average Availability of Weighted Volume" on page 432.

Tooltip Parameters

Each tooltip contains parameters. The parameters correspond to the type of information displayed in the tooltip. The order of the parameters corresponds to the order of the information in the tooltip. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Availability –** The percentage of time the page was available, for a Real User Monitor CIs.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Average Latency of Weighted Volume

The tooltip is displayed for a KPI whose associated rule is "Average Latency of Weighted Volume" on page 433.

Tooltip Parameters

Each tooltip contains parameters. The parameters correspond to the type of information displayed in the tooltip. The order of the parameters corresponds to the order of the information in the tooltip. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Latency –** The average round trip time for a packet. (The time it takes for a packet to go from the client to the server and back from the server to the client). The latency information is provided by the Real User Monitor sample.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Average of Converted Performance Results in %

The tooltip is displayed for a KPI whose associated rule is "Average of Converted Performance Results in %" on page 434.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Performance –** The average download time, for a Real User Monitor CI.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since** – The date and time since which this CI has held its current operational status.

6 **Major** – One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor** – One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning** – One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational** – One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Average of Values for KPIs

The tooltip is displayed for a KPI whose associated rule is "Average of Values" on page 435.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name** – The name of the CI.

2 **Status** – The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Total** – The total number of hits/transactions for Real User Monitor.

5 **Major** – One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

6 **Minor** – One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

7 **Warning** – One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

8 **Informational** – One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Average Performance of Weighted Volume in %

The tooltip is displayed for a KPI whose associated rule is "Average Performance of Weighted Volume in %" on page 436.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name** – The name of the CI.

2 **Performance** – The average download time, for a Real User Monitor CI.

3 **Status** – The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Average Performance of Weighted Volume in Seconds

The tooltip is displayed for a KPI whose associated rule is "Average Performance of Weighted Volume in Seconds" on page 437.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Performance –** The average download time, for a Real User Monitor CI.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)

➤ **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Best Child Sentence

The tooltip is displayed for a KPI whose associated rule is "Best Child Rule" on page 438.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

➤ **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)

- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Invisible Children –** All the child CIs belonging to other views, which are connected to this CI but do not belong to this view.

Customer Sentence

The tooltip is displayed for a KPI whose associated rule is "Customer Rule" on page 439.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

Diagnostics for J2EE General Sentence

The tooltip is displayed for a KPI whose associated rule is "Diagnostics for J2EE/.Net General" on page 448.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** Can be defined as OK, Warning or Critical.
3. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
4. **Description –** Describes the reason for the status. For example, a **Critical** status for a transaction, may be explained in the Description field as follows: 15% violation on latency. This would indicate that the average latency of the transaction exceeded the threshold that was set in Diagnostics by 15% and therefore the status of this transaction is defined as critical.
5. **Platform –** Indicates the platform (J2EE or .NET) on which the monitored application is running.
6. **Server Time –** (BPM Transaction tooltips only): The average time taken for the server to process the transaction.
7. **Server Requests Count –** (BPM Transaction tooltips only): The amount of server requests over the last five minute period.
8. **Average Time –** (Probe tooltips only): The average latency of all the server requests on the Virtual Machine monitored by the Probe over the last five minute period.
9. **Exceptions Count –** The amount of exceptions generated over the last five minute period.
10. **Timeout Count –** The amount of timeouts that occurred during the last five minute period.
11. **Max Time –** The maximal time a Mercury Diagnostics transaction has run in seconds.

Dollar Impact Over Time Sentence

The tooltip is displayed for a KPI whose associated rule is "Impact Over Time Rule" on page 465.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
3. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
4. **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.
5. **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.
6. **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.
7. **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.
8. **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

9 **Business Loss –** The financial loss calculated for the CI.

Dollar Impact Sentence

The tooltip is displayed for a KPI whose associated rule is "Real Time Impact" on page 476.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

5 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

6 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

7 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

8 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

9 **Business Loss –** The financial loss calculated for the CI.

Downtime Sentence

Defines the tooltip used for CIs in downtime.

The tooltip does not have an associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Held Status Since –** The date and time since which this CI has held its current operational status.

4 **Downtime Until –** The date and time that downtime is due to finish for a CI.

5 **Location –** The location of the CI if a location has been specified.

6 **Caused By –** The name of the KPIs that caused unavailability.

EMS Sentence

The tooltip is displayed for a KPI whose associated rule is "EMS Simple Rule" on page 450.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
3. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
4. **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.
5. **Severity –** The severity of the SiteScope measurement (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.
6. **Severity –** The severity of the SiteScope measurement (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.
7. **Held Status Since –** The date and time since which this CI has held its current operational status.
8. **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

9 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

10 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

11 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

Generic Sample Rule

The tooltip is displayed for a KPI whose associated rule is "Real Time Impact" on page 476.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Value –** The value of the field in the sample.

5 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

6 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

7 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

8 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Generic Sum of Values Over Time Rule

The tooltip is displayed for a KPI whose associated rule is "Generic Sum of Values Over Time Rule" on page 455.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Value** – The sum of the values of the fields in the sample.

5 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

6 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

7 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

8 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Generic Two Arguments Rule

The tooltip is displayed for a KPI whose associated rule is "Generic Two Arguments Rule" on page 459.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Value –** The result of the operation performed by the rule.

5 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

6 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

7 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

8 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Geo Map Sentence

The tooltip is displayed for status indicators in geographical maps. For details, see "Geographical Map Tooltips" in *Using Dashboard*.

The tooltip does not have an associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Location –** The location of the CI if a location has been specified.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Held Status Since –** The date and time since which this CI has held its current operational status.

4 **Caused By –** The name of the KPIs that caused unavailability.

History

The tooltip is displayed for the History KPI. For details, see "Trend and History Statuses" in *Using Dashboard*.

The tooltip does not have an associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Historical Worst –** The worst status for the CI over a period of time.
3. **Historical Average –** The average status for the CI over a period of time.

HP OpenView Service Navigator Sentence

The tooltip is displayed for a KPI whose associated rule is "HP OpenView Service Navigator Rule" on page 463.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

5 **Severity –** The severity of the SiteScope measurement (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

6 **Held Status Since –** The date and time since which this CI has held its current operational status.

7 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

8 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

9 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

10 **Owned By –** The owner of the CI in HP OpenView (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

HP Worst Child Sentence

The tooltip is displayed for a KPI whose associated rule is "HP Worst Child Rule" on page 464.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Description –** A description of the CI (the first one represents UDX and the second one represents EMS). Only the value relevant to the context is displayed.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

Locations Grouped Parent Rule

The tooltip is displayed for a KPI whose associated rule is "Locations Grouped Parent Rule" on page 467.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

Locations Grouped Rule

The tooltip is displayed for a KPI whose associated rule is "Locations Grouped Rule" on page 469.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

No Update Sentence

Defines the tooltip used for decay CIs – for details, see "Understanding KPI Status" in *Using Dashboard*.

The tooltip does not have an associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Held Status Since –** The date and time since which this CI has held its current operational status.

4 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

5 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

6 **Location –** The location of the CI if a location has been specified.

7 **Caused By –** The name of the KPIs that caused unavailability.

Percent Sentence

The tooltip is displayed for a KPI whose associated rule is "Percentage Rule" on page 472.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
3. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
4. **Held Status Since –** The date and time since which this CI has held its current operational status.
5. **Score –** The percentage of green and yellow child CIs. This will be a weighted percentage if any of the child CIs have a weight > 1 (check this by viewing the tooltips for the child CIs).

   Note that Dashboard is calculating status using the refined percentage method if a percentage is displayed for **Score** and the group or subgroup status is yellow.

   If Dashboard is calculating status for the group/subgroup using the dominant child method, the message **n/a (Using dominant child)** is displayed.
6. **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

10 **Invisible Calculated Children –** All the child CIs belonging to other views, which are connected to this CI but do not belong to this view.

Real Transaction Monitor Availability

The tooltip is displayed for a KPI whose associated rule is "Deep Transaction Tracing Monitor Availability" on page 441.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **CI Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

4 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

5 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

6 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Failed TX Count** – The number of transactions that failed.

9 **Total TX Count –** The total of the number of transactions that failed and the number of late transactions.

10 **% Available TX –** The percentage of available transactions.

Real Transaction Monitor Failed Business Impact

The tooltip is displayed for a KPI whose associated rule is "Deep Transaction Tracing Monitor Failed Tx Business Impact" on page 443.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **CI Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

4 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

5 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

6 **OK –** One of the thresholds used when defining status for the CI. The CI changes to OK (green) status when the CI's score is equal to or smaller than this value.

7 **Failed TX Impact –** The financial loss (in $) due to transactions that failed.

Real Transaction Monitor Late Business Impact

The tooltip is displayed for a KPI whose associated rule is "Deep Transaction Tracing Monitor Late Tx Business Impact" on page 444.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **CI Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

4 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

5 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

6 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Late TX Impact –** The financial loss (in $) due to transactions that were late.

Real Transaction Tracing Monitor Performance

The tooltip is displayed for a KPI whose associated rule is "Deep Transaction Tracing Monitor Performance" on page 445.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **CI Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Held Status Since –** The date and time since which this CI has held its current operational status.

4 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

5 **Avg. Response Time –** The average response time for the parent transaction during a time period up to the last received update.

6 **Response Time Threshold –** The threshold of the response time as provided by the Deep Transaction Tracing sample.

7 **Min Response Time –** The minimum response time as provided by the Deep Transaction Tracing sample.

8 **Max Response Time –** The maximum response time as provided by the Deep Transaction Tracing sample.

Real Transaction Monitor Total Business Impact

The tooltip is displayed for a KPI whose associated rule is "Deep Transaction Tracing Monitor Total Tx Business Impact" on page 447.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **CI Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

4 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

5 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

6 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

7 **Total TX Impact –** The financial loss (in $) due to transactions that failed added to the transactions that were late

RUM Bandwidth

The tooltip is displayed for a KPI whose associated rule is "RUM Bandwidth Rule" on page 478.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Bandwidth –** The number of bytes that represents the traffic in and out of Real User Monitor (for a monitor CI) or the status of the monitor with the worst status (for a group CI).

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since** – The date and time since which this CI has held its current operational status.

6 **Major** – One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor** – One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning** – One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational** – One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Component Availability

The tooltip is displayed for a KPI whose associated rule is "RUM Component Availability Rule" on page 479.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name** – The name of the CI.

2 **Component Availability** – The availability of the Real User Monitor (for a monitor CI) or the status of the monitor with the worst status (for a group CI).

3 **Status** – The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)

➤ **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Event Monitor Volume

The tooltip is displayed for a KPI whose associated rule is "RUM Event Monitor Volume Rule" on page 481.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Volume –** The number of hits in Real User Monitor.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Latency

The tooltip is displayed for a KPI whose associated rule is "RUM Latency Rule" on page 482.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Latency –** The average round trip time for a packet. (The time it takes for a packet to go from the client to the server and back from the server to the client). The latency information is provided by the Real User Monitor sample.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Page Monitor Availability

The tooltip is displayed for a KPI whose associated rule is "RUM Page Monitor Availability Rule" on page 484.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Availability –** The percentage of time the page was available, for a Real User Monitor CIs.
3. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
4. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
5. **Held Status Since –** The date and time since which this CI has held its current operational status.
6. **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.
7. **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.
8. **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Page Monitor Performance

The tooltip is displayed for a KPI whose associated rule is "RUM Page Monitor Performance Rule" on page 485.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Performance –** The average download time, for a Real User Monitor CI.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Page Monitor Volume

The tooltip is displayed for a KPI whose associated rule is "RUM Page Monitor Volume Rule" on page 487.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Volume –** The number of hits in Real User Monitor.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Session Monitor Availability

The tooltip is displayed for a KPI whose associated rule is "RUM Session Monitor Availability Rule" on page 488.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Availability –** The percentage of time the page was available, for a Real User Monitor CIs.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Session Monitor Performance

The tooltip is displayed for a KPI whose associated rule is "RUM Session Monitor Performance Rule" on page 490.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Performance –** The average download time, for a Real User Monitor CI.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Session Monitor Volume

The tooltip is displayed for a KPI whose associated rule is "RUM Session Monitor Volume Rule" on page 492.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Volume –** The number of hits in Real User Monitor.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Transaction Monitor Availability

The tooltip is displayed for a KPI whose associated rule is "RUM Transaction Monitor Availability Rule" on page 493.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Availability –** The percentage of time the page was available, for a Real User Monitor CIs.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Transaction Monitor Performance

The tooltip is displayed for a KPI whose associated rule is "RUM Transaction Monitor Performance Rule" on page 495.

Tooltip Parameters

For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Performance –** The average download time, for a Real User Monitor CI.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

RUM Transaction Monitor Volume

The tooltip is displayed for a KPI whose associated rule is "RUM Transaction Monitor Volume Rule" on page 496.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Volume –** The number of hits in Real User Monitor.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

SAP Alert Status Sentence

The tooltip is displayed for a KPI whose associated rule is "SAP Alerts Rule" on page 497.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Alert Description –** The full description of the alert.
2. **Short Name –** The name of the SAP CCMS measurement where the alert occurred.
3. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
4. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
5. **Severity –** A number indicating the severity of the alert as it appears in the SAP system
6. **State –** The SAP state of the alert: **Active**.
7. **Open Time –** The date and time when the alert was issued.
8. **Held Status Since –** The date and time since which this CI has held its current operational status.
9. **Last Update –** The date and time that the last update for the CI was received by Dashboard.

SiteScope Measurement Sentence

The tooltip is displayed for a KPI whose associated rule is “Sitescope Measurement Rule” on page 500.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see “Working with the Tooltips Repository” on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Error Message –** The error message that appears in the sample.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Measurement –** The name of the measurement from SiteScope.

9 **Monitor –** The monitor type that the CI represents.

SiteScope Measurement Time-Based Sentence

The tooltip is displayed for a KPI whose associated rule is “Sitescope Measurement Time-Based Rule” on page 502.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see “Working with the Tooltips Repository” on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Average For –** The time period for which the average response time/average availability was calculated. This time period is defined in the file for the CI.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Measurement –** The name of the measurement from SiteScope.

9 **Monitor –** The monitor type that the CI represents.

SiteScope Monitor Sentence

The tooltip is displayed for a KPI whose associated rule is "Sitescope Monitor Rule" on page 503.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- ➤ **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- ➤ **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

7 **Monitor –** The monitor type that the CI represents.

8 **Host –** The name of the machine associated with the monitor.

SiteScope Monitor Time-Based Sentence

The tooltip is displayed for a KPI whose associated rule is "Sitescope Monitor Time-Based Rule" on page 505.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- ➤ **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- ➤ **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Average For –** The time period for which the average response time/average availability was calculated. This time period is defined in the file for the CI.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Monitor –** The monitor type that the CI represents.

9 **Host –** The name of the machine associated with the monitor.

Sitescope Vertical Measurement

The tooltip is displayed for a KPI whose associated rule is "SiteScope Vertical Rule" on page 506.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

7 **Measurement –** The name of the measurement from SiteScope.

8 **Monitor –** The monitor type that the CI represents.

SLM PNR Rule

The tooltip is displayed for a KPI whose associated rule is "Dashboard PNR Rule" on page 440.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **SLA –** The name of the SLA attached to this CI.

5 **Tracking Period –** The tracking period used to calculate the PNR – for details, see "Defining an SLA: Properties" in *Application Administration*.

6 **Time Interval** – The time interval used for calculating PNR – for details, see "Time Intervals" in *Application Administration*.

7 **Calculation Time** – The last calculation time on Bambino.

8 **Pnr Time Left** – How much time is left for that measurement before the SLA is in breach of contract.

9 **Max Unavailability** – The maximum time that the item may be unavailable, according to the SLA.

10 **PNR Availability** – The item's SLA availability percentage the last time data was polled.

11 **Target Availability** – The percentage of time that the item must be available in order to match in the 'Exceeded' threshold, according to the SLA.

Stopped Sentence

Defines the tooltip used for stopped CIs.

The tooltip does not have associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name** – The name of the CI.

2 **Status** – The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Held Status Since** – The date and time since which this CI has held its current operational status.

4 **Location** – The location of the CI if a location has been specified.

5 **Caused By –** The name of the KPIs that caused unavailability.

Sum of Values for KPI Sentence

The tooltip is displayed for a KPI whose associated rule is "Sum of Values Rule" on page 508.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Total** – The total number of hits/transactions for Real User Monitor.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Sum of Volume

The tooltip is displayed for a KPI whose associated rule is "Sum of Volume Rule" on page 509.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Volume –** The number of hits in Real User Monitor.

3 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

4 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

5 **Held Status Since –** The date and time since which this CI has held its current operational status.

6 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

7 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

8 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

9 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Summary of Values for KPIs

The tooltip is displayed for a KPI whose associated rule is "Summary of Values Rule" on page 510.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Total –** The total number of hits/transactions for Real User Monitor.

5 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

6 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

7 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

8 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

Transaction Availability Sentence

The tooltip is displayed for a KPI whose associated rule is "Transaction Availability Rule" on page 511.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Avg. Availability –** The percentage of successful runs for the parent transaction during a time period up to the last received update.

6 **Average For –** The time period for which the average response time/average availability was calculated. This time period is defined in the file for the CI.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

9 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

10 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

11 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

12 **Transaction –** The name of the parent transaction for the CI.

Transaction Response Sentence

The tooltip is displayed for a KPI whose associated rule is "Transaction Performance Rule" on page 512.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Avg. Response Time –** The average response time for the parent transaction during a time period up to the last received update.

6 **Average For –** The time period for which the average response time/average availability was calculated. This time period is defined in the file for the CI.

7 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

8 **Major –** One of the thresholds used when defining status for the CI. The CI changes to Major (orange) status when the CI's score is equal to or smaller than this value.

9 **Minor –** One of the thresholds used when defining status for the CI. The CI changes to Minor (yellow) status when the CI's score is equal to or smaller than this value.

10 **Warning –** One of the thresholds used when defining status for the CI. The CI changes to Warning (light green) status when the CI's score is equal to or smaller than this value.

11 **Informational –** One of the thresholds used when defining status for the CI. The CI changes to Informational (green) status when the CI's score is equal to or smaller than this value.

12 **Transaction –** The name of the parent transaction for the CI.

Transactions Grouped Parent Rule

The tooltip is displayed for a KPI whose associated rule is "Transactions Grouped Parent Rule" on page 513.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

- **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
- **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

Transactions Grouped Rule

The tooltip is displayed for a KPI whose associated rule is "Transactions Grouped Rule" on page 516.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:

   ➤ **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)

   ➤ **Stopped** when a Business Process profile is stopped.

3 **Calculation Rule** – The name of the rule that calculates the KPI status or value.

4 **Held Status Since –** The date and time since which this CI has held its current operational status.

5 **Message –** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.

6 **Last Update –** The date and time that the last update for the CI was received by Dashboard.

Trend

The tooltip is displayed for the Trend KPI. For details, see "Trend and History Statuses" in *Using Dashboard*.

The tooltip does not have an associated rule.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1 **Node Name –** The name of the CI.

2 **Trend –** The trend of the KPI's status.

Worst Child Sentence

The tooltip is displayed for a KPI whose associated rule is "Worst Child Rule" on page 518.

Tooltip Parameters

Each tooltip contains parameters, as listed in the following table. For information on defining/editing tooltip parameters, see "Working with the Tooltips Repository" on page 686.

The tooltip parameters are:

1. **Node Name –** The name of the CI.
2. **Status –** The status of the CI (calculated according to one of the status calculation methods). It may also display:
   - **Not up to date** for decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.)
   - **Stopped** when a Business Process profile is stopped.
3. **Calculation Rule** – The name of the rule that calculates the KPI status or value.
4. **Held Status Since –** The date and time since which this CI has held its current operational status.
5. **Invisible Children –** All the child CIs belonging to other views, which are connected to this CI but do not belong to this view.

Tooltip Parameter Details

The following table lists the details that may be specified for the tooltip parameters:

Attribute	Description
Display Label	The name of the tooltip parameter displayed in the tooltip.
Value Prefix	The text that appears before the value of the tooltip parameter. For example: Greater than.
Value Source	Indicates where to take the value of the item for the KPI.
Value Postfix	The text that appears after the value of the tooltip parameter. For example: %.
Available Formatting Methods	Lists the available methods for formatting the value of the tooltip parameter. For example: toLowerCase.
Formatting Method	The method selected from the **Available Formatting Methods** list – for details about the methods, see "Formatting Methods" on page 366.

Part VI

Appendix

A

Mercury Diagnostics and Mercury Business Availability Center Integration

If you are a licensed user, you can integrate Mercury Diagnostics with Mercury Business Availability Center. This appendix explains how to begin the Mercury Diagnostics registration procedure.

The Mercury Diagnostics application is used to gain end-to-end visibility and comprehensive diagnostics for Java 2 Enterprise Edition (J2EE), .NET-connected, Siebel, SAP, Oracle, and other complex environments.

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Setting Up Mercury Business Availability Center for Mercury Diagnostics

To view Mercury Diagnostics data in Mercury Business Availability Center, you must register the Mercury Diagnostics server machine in Mercury Business Availability Center.

To register Mercury Diagnostics:

1 Access **Admin** > **Diagnostics**, to open the Mercury Diagnostics Server Details page.

If the user name with which you logged in does not have permissions for making changes on the Mercury Diagnostics server, a message is displayed instead of the Mercury Diagnostics page.

2 Enter the details of the server as follows:

Diagnostics server host name – enter the name of the machine on which the Mercury Diagnostics server is running

Diagnostics server port number – accept the port number or enter the port number through which Mercury Diagnostics listens to server traffic

Diagnostics server protocol – select the communication protocol (HTTP or HTTPS) through which Mercury Business Availability Center connects to Mercury Diagnostics

If the server name is incorrect or the server is unavailable, an error message is displayed.

3 Click **Submit** to register the server with Mercury Business Availability Center.

4 For help with the remainder of this procedure for registering the server, refer to *Mercury Diagnostics Installation and User's Guide* (**Help** > **Diagnostics Help**).

For information on viewing Mercury Diagnostics data in Mercury Business Availability Center, refer to *Mercury Diagnostics Installation and User's Guide*.

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