HP Business Availability Center

for the Windows and Solaris operating systems

Software Version: 8.01

Reports

hp invent

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PART II: USER REPORTS

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Welcome to This Guide

This guide describes how to configure and work with Reports in HP Business Availability Center.

This chapter includes:

➤ How This Guide Is Organized on page 9

➤ Who Should Read This Guide on page 10

➤ Getting More Information on page 10

How This Guide Is Organized

The guide contains the following parts:

Part I   **Global Reports Components**

Describes how to work with reports, the reports available in HP Business Availability Center, customizing reports, and analyzing reports logs.

Part II   **User Reports**

Describes the pages and dialog boxes that are part of User Reports, which enable tracking of specific performance issues relevant to your organization or business unit's performance monitoring needs.

Who Should Read This Guide

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

➤ HP Business Availability Center administrators

➤ HP Business Availability Center application administrators

➤ HP Business Availability Center end users

Readers of this guide should be knowledgeable about navigating and using enterprise applications, and be familiar with HP Business Availability Center and enterprise monitoring and management concepts.

Getting More Information

For a complete list of all online documentation included with HP Business Availability Center, additional online resources, information on acquiring documentation updates, and typographical conventions used in this guide, see the *HP Business Availability Center Deployment Guide* PDF.

Part I

Global Reports Components

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Introducing Reports

This chapter provides general information on Reports.

This chapter includes:

Concepts

➤ Reports Overview on page 14

➤ HP Business Availability Center Reports on page 16

➤ Legacy Reports on page 36

🔷 Reports Overview

Reports are available in the various applications contexts in HP Business
Availability Center, and enable you to view and analyze performance data
collected by HP Business Availability Center data collectors and stored in the
HP Business Availability Center database.

HP Business Availability Center provides the following types of reports:

➤ **Application Reports.** Contain data displaying how well different areas of
HP Business Availability Center are performing. Reports are categorized by
the application they relate to:

  ➤ **Business Process Insight Reports.** Display information on business
  processes and business process monitors, which enable you to visualize
  the health, performance, and effectiveness of your business processes. For
  details on Business Process Insight reports, see *Using Business Process
  Insight*.

  ➤ **Dashboard Reports.** Display data collected from monitors, probes, and
  applications. For details on Dashboard reports, see "Dashboard Reports
  Overview" in *Using Dashboard*.

  ➤ **End User Management Reports.** Enable you to detect end-user business
  process issues before customers are impacted. For details on End User
  Management reports, see "End User Management Reports - Overview" in
  Using End User Management.

  ➤ **Service Level Management Reports.** Show you how well actual service
  levels compare with your goals. For details on Service Level Management
  reports, see "Service Level Management Reports - Overview" in *Using
  Service Level Management*.

  ➤ **HP Business Availability Center for Siebel Applications Reports.** Display
  information on HP Business Availability Center for Siebel Applications
  diagnostics tools. For details on HP Business Availability Center for Siebel
  Applications Reports, see *Solutions and Integrations*.

  ➤ **TransactionVision Reports.** Display information on transaction topology
  and infrastructure for data collection. For details on TransactionVision
  reports, see *Using TransactionVision*.

  Note: You must ensure that Java Runtime Environment is installed on
  the client PC, to enable viewing of the TransactionVision report applets.

> ➤ **System Availability Management Reports.** Display information about how the servers and applications you are monitoring have performed over time. For details on System Availability Management reports, see "System Availability Management Reports" in *Using System Availability Management.*

> ➤ **Alerts Reports.** Enable you to view alert schedules configured for various HP Business Availability Center contexts. For details on Alerts Reports, see "Alerts Application" in *Alerts.*

> ➤ **Universal CMDB Reports.** Enable you to view and assess performance data collected by HP Business Availability Center and stored in the CMDB. For details on Universal CMDB Reports, see "Overview Reports Overview" in *Model Management.*

➤ **User Reports.** Customized reports containing user-defined data and formatting that can help you focus on specific aspects of your organization's application and infrastructure resource performance.

User reports include:

> ➤ **Favorite Filters.** For details, see "Favorite Filters" on page 96.

> ➤ **Custom Reports**. For details, see "Custom Reports" on page 127.

> ➤ **Trend Reports.** For details, see "Trend Reports" on page 175.

> ➤ **Service Reports.** For details, see "Service Report" on page 205.

> ➤ **Custom Links.** For details, see "New Custom Link Page" on page 113.

> ➤ **Excel Reports.** For details, see "Excel Reports" on page 97.

> ➤ **Custom Query Reports.** For details, see "Custom Query Builder" on page 285.

User reports are configured in the Report Manager. For details on the Report Manager, see "Report Manager" on page 93.

You can also create a Schedule for User Reports to enable them to be sent to recipients at specified times. For details on creating schedules, see "Report Schedules" on page 96.

➤ **Additional Reports.** Reports that cannot be accessed directly from any application but that can be added to custom reports to provide additional information. For details on Additional Reports, see "Additional Custom Reports" on page 161.

HP Business Availability Center Reports

The following reports are available in HP Business Availability Center, arranged by context.

These reports can be accessed via the specified contexts in HP Business Availability Center, and can also be assigned to Favorite Filters in the Favorite Filter Wizard, and to Custom Reports as report components using the Custom Report Wizard. Not all reports are available for each wizard. For details on configuring Favorite Filters, see "Favorite Filters Wizard" on page 107. For details on Custom Reports, see "Custom Reports" on page 127.

You can click the report name for a full description of the report.

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Alerts Reports

Reports	Description
Actual vs. Baseline Suggested Alerts Report	Enables you to compare the actual alerts that were triggered by user-defined thresholds and the Baselined Suggested alerts that would be triggered during the specified time range, for the selected Business Process Monitor profiles if you were using Baselining. For details, see "Actual vs. Baseline Suggested Alerts Report" in *Alerts*.
Actual vs. Baseline Suggested Alerts – Detailed Report	Enables you to view, for each time period, whether the number of actual alerts that were triggered by user-defined thresholds is greater, equal, or smaller than the Baselined alerts that would be triggered during the specified time range, for the selected Business Process Monitor profiles if you were using Baselining. For details, see "Actual vs. Baseline Suggested Alerts – Detailed Report" in *Alerts*.
Alerts Count Over Time Report	Enables you to display, for the selected profile, the number of alerts that occurred over the specified time range, organized by time and severity. For details, "Alerts Count Over Time Report" in *Alerts*.
Alerts Count Summary Report	Enables you to display, for the selected profile, the total number of alerts that occurred over the specified time range, organized by severity. For details, see "Alerts Count Summary Report" in *Alerts*.
Alerts Log Report	Enables you to track all alert details for event-based alerts sent by HP Business Availability Center during the specified time range, for the selected Business Process Monitor profiles, or Real User Monitor, regardless of the action specified for the alert in the alert scheme. For details, see "Alerts Log Report" in *Alerts*.

Reports	Description
Baseline Suggested Alerts Log Report	Enables you to track all alert details for event-based alerts that would be sent by HP Business Availability Center during the specified time range, for the selected Business Process Monitor profiles, or Real User Monitor, regardless of the action specified for the alert in the alert scheme, if you were using Baselining. For details, see "Baseline Suggested Alerts Log Report" in *Alerts*.
Configuration Item Status Alerts Report	Enables you to list all of the alerts that occurred in the specified period of time. For details, see "Configuration Item Status Alerts Report" in *Alerts*.
SLA Status Alerts Report	Lists the alerts that were triggered during a specified time period. For details, see "SLA Status Alerts Report" in *Alerts*.

Application Change Lifecycle Reports

Reports	Description
Location Load Analysis Report	Enables you to view the transaction load (the number of Real User Monitor transaction runs) and bit rate (bits per second) per end-user location. For details, see "Location Load Analysis Report" in *Solutions and Integrations*.
Typical Transaction Load Report	Enables you to view the average transaction load (the number of Real User Monitor transaction runs) during a typical hour, day, or week within a larger time frame that you select. For details, see "Typical Transaction Load Report" in *Solutions and Integrations*.

Application Performance Lifecycle Reports

Reports	Description
Business Process Distribution Page	Enables you to view transaction run and transaction response time data over time for the configured transactions monitored by the Real User Monitor, and create VuGen script templates that can be used in a Performance Center load test. For details, see "Business Process Distribution Page" in *Using Application Performance Lifecycle*.
Location Load Analysis Report	Enables you to view the transaction load (the number of Real User Monitor transaction runs) and bit rate (bits per second) per end-user location. For details, see "Location Load Analysis Report" in *Using Application Performance Lifecycle*.
Typical Transaction Load Report	Enables you to view the average transaction load (the number of Real User Monitor transaction runs) during a typical hour, day, or week within a larger time frame that you select. For details, see "Typical Transaction Load Report" in *Using Application Performance Lifecycle*.

Business Process Insight Reports

Reports	Description
BPI Monitors Over Time Report	Displays two graphs for each selected BPI Duration Monitor CI or BPI Custom/Value Monitor CI. For details, see "BPI Application Reports" in *Using Business Process Insight*.
Business Process Over Time Report	Displays information about the volume, backlog, and health of the selected Business Process CI, over the selected time period. For details, see "BPI Application Reports" in *Using Business Process Insight*.
Business Process Summary Report	Displays the summary data of the selected Business Process CIs. For details, see "BPI Application Reports" in *Using Business Process Insight*.

Dashboard Reports

Reports	Description
KPIs Summary Report	Displays a summary of KPI status distribution over time for each selected KPI. For details, see "KPIs Summary Report" in *Using Dashboard*.
KPIs Trend Report	Enables you to analyze the trend for changes in KPI status over time, for selected statuses. For details, see "KPIs Trend Report" in *Using Dashboard*.
KPIs Distribution Over Time Report	Enables you to analyze KPI trend by viewing KPI status distribution over time for selected statuses. For details, see "KPIs Distribution Over Time Report" in *Using Dashboard*.
KPIs Over Time Report	Displays the status or value, over time, of selected CIs and KPIs that are accessible from the Dashboard application. For details, see "KPIs Over Time Report" in *Using Dashboard*.

Business Process Insight Reports

Reports	Description
Business Process Summary	Displays the summary data for the selected Business Processes. For details, see "BPI Application Reports" in *Using Business Process Insight*.
Business Process Over Time	Displays an over-time graph of information relating to the Business Process instance status. For details, see "BPI Application Reports" in *Using Business Process Insight*.
BPI Monitors Over Time	Displays information relating to the Business Process Monitors status for your Business Processes over a selected time period. For details, see "BPI Application Reports" in *Using Business Process Insight*.

End User Management Reports

Snapshot Status Report

Reports	Description
End User Management Status Snapshot	Displays a summary of the five worst transactions and locations for Business Process Monitor for the last day. For Real User Monitor, End User Management displays the five worst sessions (that is, the least available) and the slowest applications. For details, see "Status Snapshot" in *Using End User Management*.
Network and Tool Reports	Displays reports that help you identify problems along the network.
	Report data is based on WebTrace/Traceroute monitor data.
	For details, see "Network Reports and Tools Overview" in *Using End User Management*.

Summary Reports

Reports	Description
Multi-Profile Summary Report	Displays an overall snapshot of application performance for multiple Business Process profiles. For details, see "Multi-Profile Summary Report" in *Using End User Management*.
Performance Matrix Report	Displays a distribution of average transaction response times—organized by transaction, location, or group—over a specified period of time. For details, see "Performance Matrix Report" in *Using End User Management*.

Reports	Description
Single Profile Summary Report	Displays a quick snapshot of application performance for a specific Business Process profile. For details, see "Single Profile Summary Report" in *Using End User Management.*
Triage Report	Displays transaction data for Business Process Monitor profiles, organized by location, for the past day or for any selected 24 hours. For details, see "Triage Report" in *Using End User Management.*

Business Process Reports

Reports	Description
Availability Over Time Report	Displays the percentage of successful transactions performed by all hosts in a profile—organized by transaction, location, or group—over time. For details, see "Availability Over Time Report" in *Using End User Management.*
Breakdown Over Time Report	Displays a color-coded graph showing the average transaction breakdown category response times (in milliseconds) of a profile's transactions over time. For details, see "Breakdown Over Time Report" in *Using End User Management.*
Breakdown Summary Report	Displays a color-coded graph that breaks down transaction times into categories, enabling you to determine whether poor transaction response times are being caused by network or server problems, or by client delays. For details, see "Breakdown Summary Report" in *Using End User Management.*

Reports	Description
Error Summary Report	Displays detailed tables—organized by error type—of errors that occurred during a profile run, over the specified time period. Since not all errors cause transactions to fail, the Error Summary report includes errors for transactions that completed successfully as well as transactions that failed. The report also lists outlier transactions. For details, see "Error Summary Report" in *Using End User Management*.
Failed Transactions Report	Displays details about errors that occur during a script run. You also access the Snapshot on Error feature from the Failed Transaction report. For details, see "Failed Transactions Report" in *Using End User Management*.
Location Analysis Report	Displays an in-depth picture of the performance of locations. The report enables you to understand, for the selected profile and defined time frame: ➤ the average response times of your transactions over time for each location in the profile. ➤ how well your locations performed relative to the set transaction thresholds. For details, see "Location Analysis Report" in *Using End User Management*.
Min./Max. Response Time Report	Displays the minimum, average, and maximum response time (in seconds) of completed transactions—organized by transaction, location, or group—for the selected time frame. For details, see "Min./Max. Response Time Report" in *Using End User Management*.
Response Time by Percentile Report	Displays, for the defined time range, the specific response time value that all measured response time values are equal to or below, for calculated percentiles. For details, see "Response Time by Percentile Report" in *Using End User Management*.

Reports	Description
Response Time Over Time Report	Displays the average response times (in seconds) of completed transactions—organized by transaction, location, or group—over time. For details, see "Response Time Over Time Report" in *Using End User Management*.
Transaction Analysis Report	Displays an in-depth picture of the performance of transactions. The report enables you to understand, for the selected profile and defined time frame: ➤ the average response times of your transactions over time. ➤ whether poor transaction response times are being caused by network or server problems, or by client delays. ➤ the availability level of your transactions. ➤ how well your transactions performed relative to set transaction thresholds. For details, see "Transaction Analysis Report" in *Using End User Management*.
Transaction Breakdown Raw Data Report	Displays a summary of every instance of the transaction that occurred during the selected time range. For details, see "Transaction Breakdown Raw Data Report" in *Using End User Management*.
Triage Raw Data Report	Displays performance and availability raw data for a Business Process Monitor transaction. For details, see "Triage Raw Data Report" in *Using End User Management*.
Network and Tool reports	Displays reports that help you identify problems along the network. Report data is based on WebTrace/Traceroute monitor data. For details, see "Network Reports and Tools Overview" in *Using End User Management*.

Network Reports

Reports	Description
Network Analysis Report	Displays an in-depth picture of network performance for a Business Process profile, if you defined a WebTrace monitor for the profile. For details, see "Network Analysis Report" in *Using End User Management.*
Page Component Breakdown Report	Displays an on-demand component breakdown of any Web page. For details, see "Page Component Breakdown Report" in *Using End User Management.*
WebTrace by Location Report	Displays typical traceroute information from configured host locations to specified destinations, enabling you to analyze network performance. For details, see "WebTrace by Location Report" in *Using End User Management.*
WebTrace Measurements Report	Displays WebTrace data with increased time granularity. For details, see "WebTrace Measurements Report" in *Using End User Management.*
WebTrace Over Time Report	Displays additional route time and hop information that helps you determine at exactly which point along the network path bottlenecks are occurring. For details, see "WebTrace Over Time Report" in *Using End User Management.*

Real User Monitor Reports

Reports	Description
Business Process Distribution Report	Displays transaction run and transaction response time data over time for the transactions that you configure in End User Management Administration. For details, see "Business Process Distribution Report" in *Using End User Management*.
End User Over Time Report	Displays a selected end-user group's hits, latency, events, requests, and traffic over the course of time. For details, see "End User Over Time Report" in *Using End User Management*.
End User Summary Report	Displays data for specific end-user groups that were configured for Real User Monitor in End User Management Administration. Also displays aggregated data for unconfigured end-user groups, which is displayed grouped by country, or if the country is unknown, then grouped as OTHER. For details, see "End User Summary Report" in *Using End User Management*.
End Users by Page Report	Displays data for a selected Web page configured for Real User Monitor in End User Management Administration, broken down by end-user groups. For details, see "End Users by Page Report" in *Using End User Management*.
End Users by Transaction Report	Displays general, availability, and performance data for each end-user group that ran the transaction you selected in the Transaction Summary report. For details, see "End Users by Transaction Report" in *Using End User Management*.
Event Analysis Report	Displays data for a selected event type, broken down by pages, servers, and end-user groups. Also displays the Event Count Over Time report for the selected event type. For details, see "Event Analysis Report" in *Using End User Management*.

Reports	Description
Event Count Over Time Report	Displays data for all events, or sessions with events, in monitored applications that you configured in End User Management Administration, broken down by time intervals. For details, see "Event Count Over Time Report" in *Using End User Management.*
Event Summary Report	Displays a summary of events in monitored applications that you configured in End User Management Administration. For details, see "Event Summary Report" in *Using End User Management.*
Global Statistics Report	Contains tables displaying general page, end-user, and broken link data that is not related to the specific pages and end-users that you define for Real User Monitor in End User Management Administration. For details, see "Global Statistics Report" in *Using End User Management.*
Page Over Time Report	Displays details of the availability, performance, hits availability, and breakdown for the selected Web page over the course of time. For details, see "Page Over Time Report" in *Using End User Management.*
Page Summary Report	Displays data for specific Web pages that were configured for Real User Monitor in End User Management Administration. For details, see "Page Summary Report" in *Using End User Management.*
Pages by Server Summary Report	Displays a table showing each page hit by the server for which you are viewing data. For details, see "Pages by Server Summary Report" in *Using End User Management.*
Server Over Time Report	Displays graphs and tables of the server's availability, traffic, requests, and errors over the course of time. For details, see "Server Over Time Report" in *Using End User Management.*
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.*

Reports	Description
Servers by Page Summary Report	Displays a table showing each server used in accessing the page for which you are viewing data. For details, see "Servers by Page Summary Report" in *Using End User Management*.
Session Analyzer Report	Displays session data for specific applications that were configured for Real User Monitor in End User Management Administration. Sessions in applications that have not been configured for monitoring are also reported as part of a default entity for other applications, called **<engine name>'s other applications**. For example, for a configured Real User Monitor engine called **myengine**, the default entity for non-monitored applications is **myengine's other applications**. For details, see "Session Analyzer Report" in *Using End User Management*.
Session Details Report	Displays details of a session and includes panes showing data for Properties, General Events, and Pages. For details, see "Session Details Report" in *Using End User Management*.
TCP Application Over Time Report	Displays a selected application's traffic, errors, load, and response times over the course of time. For details, see "TCP Application Over Time Report" in *Using End User Management*.
TCP Application Summary Report	Displays data for specific TCP applications, as well as for Web (HTTP) applications with TCP settings, that were configured for Real User Monitor in End User Management Administration. For details, see "TCP Application Summary Report" in *Using End User Management*.
Transaction Over Time Report	Displays details of the availability, page times, run availability, and breakdown for the selected transaction, over the course of time. For details, see "Transaction Over Time Report" in *Using End User Management*.

Reports	Description
Transaction Summary Report	Displays data for specific transactions that were configured for Real User Monitor in End User Management Administration. For details, see "Transaction Summary Report" in *Using End User Management.*
Unconfigured End Users by Country/State, City, or IP	Displays data for the end-users included in a country or state selected in the Unconfigured End Users by Country/State report, grouped by city. For details, see "Unconfigured End Users by Country/State, City, or IP" in *Using End User Management.*
Unconfigured End Users by Country/State, City, or IP	Displays data for the end-users included in an unconfigured end-user group selected in the End User Summary report, grouped by country and state. For details, see "Unconfigured End Users by Country/State, City, or IP" in *Using End User Management.*
Unconfigured End Users by Country/State, City, or IP	Displays data for the end-users included in a city selected in the Unconfigured End Users by City report, grouped by IP address. For details, see "Unconfigured End Users by Country/State, City, or IP" in *Using End User Management.*
Network and Tool Reports	Displays reports that help you identify problems along the network. Report data is based on WebTrace/Traceroute monitor data. For details, see "Network Reports and Tools Overview" in *Using End User Management.*

Service Level Management Reports

Status Snapshot Report

Report Name	Description
Status Snapshot Report	Displays up-to-date information about the worst-performing agreements in the current tracking periods, and in previous, closed periods. For details, see "Status Snapshot Report" in *Using Service Level Management*.

SLA Reports

Report Name	Description
SLA Status Report	Displays current and forecast status for agreements over a selected tracking period. Use to determine if current service levels may lead to a future breach of the agreement. For details, see "SLA Status Report" in *Using Service Level Management*.
SLAs Summary Report	Displays a list of agreements and their status, organized by KPI/calendar/time period. Use to view a summary of data for all (or specific) agreements. For details, see "SLAs Summary Report" in *Using Service Level Management*.
CI Summary Report	Drill-down from the SLA Summary report. The report displays status for CIs in the branch for a selected CI (up to four levels), organized by KPI/calendar/time period. Use to find CIs that did not reach their objectives. For details, see "CI Summary Report" in *Using Service Level Management*.

Report Name	Description
CI Impact Report	Displays a CI's impact across several agreements. The report displays status organized by KPI/calendar/time period. Use to compare the availability and performance of a CI across several agreements.
	For details, see "CI Impact Report" in *Using Service Level Management*.
CI Status Report	Displays status for CIs in the branch for a selected CI (up to four levels), for a selected time range, calendar, and KPI. Use to view configuration information, such as objectives, for each CI.
	For details, see "CI Status Report" in *Using Service Level Management*.
Time Range Comparison Report	Enables you to compare status for up to eight time ranges for CIs in an agreement.
	Displays status for CIs in the branch of a selected CI (up to four levels), for a selected calendar and KPI.
	The added value in this report is that it displays a trend between two time ranges.
	Use to compare time ranges to determine whether availability and performance have improved.
	For details, see "Time Range Comparison Report" in *Using Service Level Management*.

Report Name	Description
CIs Over Time Report	Displays a graphic display of status over time for selected CIs, for a specific KPI and calendar. Use to follow the results of a particular CI over a time period and compare with other CIs. For details, see "CIs Over Time Report" in *Using Service Level Management.*
CI Over Time vs. Target Report	Displays a graphic display of status over time for a selected CI, for a specific KPI and calendar, and compares results to the target objectives for the CI. Use to see how well a CI has performed compared to its objectives. For details, see "CI Over Time vs. Target Report" in *Using Service Level Management.*

Outage Reports

Report Name	Description
Outage Summary Report	Displays a list of outages for selected CIs. Use to view outage information for a specific agreement. For details, see "Outage Summary Report" in *Using Service Level Management.*

Report Name	Description
Outage Breakdown Report	Displays a graphic display for breakdown of outage categories by CI outages, or a breakdown of CI outages by outage categories. You view data according to outage duration or number of outages, for a specific calendar. Use to view a breakdown of all outages for certain CIs, to see to which category a CI belongs (Database, Network, Webserver, Undefined, or user-defined). For details, see "Outage Breakdown Report" in *Using Service Level Management*.
Outage Distribution Report	Displays a graphic display of outage distribution by CI or by outage category. You view data according to outage duration or number of outages, for a specific calendar. Use to view the outage distribution for selected CIs, to see which CI or category has the most outages, or has outages with the longest duration. For details, see "Outage Distribution Report" in *Using Service Level Management*.

Business Availability Center for SOA Reports

Reports	Description
Consumer Summary Report	Displays specific metrics for all of the consumers accessing the selected Web services or operations in a selected view. For details, see "Consumer Summary Report" in *Solutions and Integrations*.
Health Report	Displays health metrics for the selected Web service(s), operation(s), server, endpoint, or consumer in a selected view. For details, see "Health Report" in *Solutions and Integrations*.
Metrics Over Time Report	Displays the performance of selected metrics related to a selected view and selected CIs, over time. For details, see "Metrics Over Time Report" in *Solutions and Integrations*.

Reports	Description
Server and Endpoint Summary Report	Displays a drillable summary of the metrics for all of the servers or endpoints on which the selected Web services or operations of a selected view are running. For details, see "Server and Endpoint Summary Report" in *Solutions and Integrations*.
Top Metrics Report	Displays the top metrics information about the traffic to and from all of the monitored Web services or operations in a specific view. For details, see "Top Metrics Report" in *Solutions and Integrations*.

System Availability Management Reports

Report Name	Description
Monitor Performance Report	Displays the best- or worst-performing SiteScope monitors across various SiteScope categories. For details, see "Monitor Performance Report" in *Using System Availability Management*.
Cross-Performance Report	Displays data from more than one SiteScope server filtered by monitored servers, monitor types, and measurements. For details, see "Cross-Performance Report" in *Using System Availability Management*.
Group Performance Report	Displays the infrastructure machine resource usage data for the monitors in the selected group and its subgroups. For details, see "Group Performance Report" in *Using System Availability Management*.
Status Summary Report	Displays a quick snapshot of the performance of monitored infrastructure machines, organized by SiteScope group. For details, see "Status Summary Report" in *Using System Availability Management*.

Report Name	Description
Warning Summary Report	Displays a list of the monitors, for the selected group and its subgroups, whose measurements fell within the minor threshold level during the selected time period. For details, see "Warning Summary Report" in *Using System Availability Management*.
Error Summary Report	Displays a list of the monitors, for the selected group and its subgroups, whose measurements returned errors during the selected time period. For details, see "Error Summary Report" in *Using System Availability Management*.

TransactionVision Reports

Reports	Description
Transaction Over Time Report	Displays details of the availability, page times, run availability, and breakdown for the selected transaction, over the course of time. For details, see "Transaction Over Time Report" in *Using TransactionVision*
Transaction Summary Report	Displays data for specific transactions that were configured for Real User Monitor in End User Management Administration. For details, see "Transaction Summary Report" in *Using End User Management*.
Transaction Over Time Report, Transaction Performance Summary Report	Displays summarized information for selected business transactions monitored by TransactionVision, and information over time for specific transactions. For details, see "Transaction Over Time Report" and "Transaction Performance Summary Report" in *Using TransactionVision*.

Universal CMDB Reports

Report Name	Description
Asset Report	Displays a list of all the CIs in a specified view, their attribute values, as well as their child CI's in the CMDB. For details, see "Asset Report" in *Model Management.*
Change Report	Enables you to view and analyze the actual changes made to a specific CI and its children. For details, see "Change Report" in *Model Management.*
Host Dependency Report	Lists all the relationships of the type Dependency that connect between servers in the selected view, or between the servers in the CMDB and the servers within the selected view. For details, see "Host Dependency Report" in *Model Management.*
Topology Report	Gives you information about the selected Report nodes in the TQL on which it is based. For details, see "Topology Report" in *Model Management.*

Legacy Reports

Certain report functionalities are not supported in HP Business Availability Center Legacy Reports. These elements are indicated in the table in "Common Report Elements" on page 56.

The following table outlines the HP Business Availability Center Legacy Reports, arranged by application:

Application	Reports
End User Management - Summary Reports	Multi-Profile Summary Report
	Single Profile Summary Report
	Performance Matrix Report

Application	Reports
End User Management - Business Process Reports	Availability Over Time Report
	Response Over Time Report
	Transaction Analysis Report
System Availability Management	Monitor Performance Report
	Group Performance Report
	Status Summary Report
	Warning Summary Report
	Error Summary Report

2

Working in Reports

This chapter includes the main concepts, tasks, and reference information for Working in Reports.

This chapter includes:

Concepts

Tasks

Reference

🔵 Working in Reports - Overview

Reports consist of charts and tables that help you track and analyze the health of your monitored environment. You view and generate reports, as well as drill down and apply various filtering criteria to examine performance trends and pinpoint the cause of availability and performance issues.

Reports enable you to examine and analyze the data that HP Business Availability Center collects. When generating reports, you can specify various report settings, including time range and resolution, profile, grouping, and filters.

You can also customize reports by adding a header and a footer, by selecting to automatically or manually generate the report, or by customizing other display elements. For details, see "Report Manager" on page 93.

For details on navigation functions, see "Navigating HP Business Availability Center" in *Platform Administration*.

Note: HP Business Availability Center presents certain reports within the context of transaction thresholds. For details on configuring transaction thresholds, see "Transaction Threshold Settings" in *Using End User Management*.

The Annotation Tool enables you to generate a snapshot of select reports on which you can highlight important areas of the report. For details, see "Report Annotation" on page 44.

Certain user interface elements are common to most report pages. For details, see "Common Report Elements" on page 56.

🔩 Generating Reports

You generate reports to enable receiving data in an organized format. Certain reports are initially generated automatically, whereas for others you must specify report criteria and generate the report manually. For a list of report elements used for report generation that are common to most reports, see "Common Report Elements" on page 56.

You can configure HP Business Availability Center to generate reports automatically after selecting the report from the menu or to generate reports only on demand from within the report. For details, see "Configure Report Generation Settings" on page 48.

You can configure the time range and granularity for which the report should be generated. The granularity determines how many measurement samples are displayed in the report per time interval. By default, reports are limited to a maximum of 32 samples (trend reports have a maximum of 50 samples). Thus, for example, if you select the "Day" time range and the "minutes" granularity, since there are 1,440 minutes in a day and a maximum of 32 samples on a chart, the granularity ranges from "every 45 minutes" (1440/32=45) to "every 59 minutes" (above 59 minutes, you use the "hour" granularity unit).

Additional examples:

➤ If you select the Day time range and a granularity of every 1 hour, the report is displayed using 24 samples (1 hour x 24 = 1 day).

➤ If you select the Month time range and a granularity of every 1 week, the report is displayed using 4 samples (1 week x 4 = 1 month).

You can modify the allowed number of samples in reports in the Infrastructure Settings Manager. To do so, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, click **Foundations**, select **End User/System Availability Management**, and locate the **Max Data Points in Report** parameter entry in the **Data** table. Modify the value to the required amount.

For details on using the Infrastructure Settings Manager, see "Infrastructure Settings" in *Platform Administration*.

Note:

➤ In certain reports, the selected time range is displayed along the x-axis. HP Business Availability Center breaks down the time range according to segments that differ depending on the selected time range. For details, see "Report Times" in *Reference Information*.

➤ Depending on the time range you select, HP Business Availability Center generates reports using either raw data or aggregated data. A note is displayed in the report when aggregated data is used. For details, see "How Reports Use Aggregated Data" in *Reference Information*.

For details on configuring the time range and granularity for reports, see "Time Range and Granularity Bar" on page 70.

You can generate reports from the following locations in HP Business Availability Center.

➤ In the various Reports tabs located in the **End User Management**, **Service Level Management**, and **System Availability Management** contexts under the **Applications** menu item.

➤ In the Report Manager, accessed from the User Reports context under the **Applications** menu item. For details on the Report Manager, see "Report Manager" on page 93.

You apply filtering criteria to examine performance issue trends and pinpoint the cause of availability and performance issues. You can save your filter configurations as a Favorite Filter, to be used again for generating other reports of the same report type. For details, see "Save Filter to Favorites Dialog Box" on page 69.

You can also generate a Favorite Filter from outside the reports pages, using the Favorite Filters wizard in the Report Manager. For details, see "Favorite Filters Wizard" on page 107.

You can also choose from various options for publishing a report, for individuals who do not usually work with HP Business Availability Center. For details on publishing reports, see "Publishing a Report" on page 43.

🔩 **Publishing a Report**

You can generate up-to-date reports that can be viewed by users who do not usually work with HP Business Availability Center, and, therefore, do not know how to create reports. However, these users must have a network connection to HP Business Availability Center to view the report. You publish the reports in .csv format, Excel format, .xml format, or printer-friendly format, and send the report (generally, by email) to the user.

The report contains data that is updated when the report is accessed. For example, say you prepare a report for the past month (24 Oct 2005 8:00 AM – 21 Nov 2005 8:00 AM), publish the report, and send the URL or an HTML file of the report to a user. The user accesses the report a week later (on 28 Nov 2005), at which time the report shows the updated past month (31 Oct 2005 8:00 AM – 28 Nov 2005 8:00 AM).

If you define a time period using the Custom option, the report always shows data reflecting the customized time period, no matter when the user accesses the report.

You would probably publish reports that use a relative tracking period (for example, past month, month to date), as it may not be useful to publish reports that use an absolute tracking period (for example, hour, day, month).

You can choose between two methods for publishing reports: URL and HTML. Use URL to submit the form with a **GET** method (recommended), and HTML to submit the form with a **POST** method.

Tip: When publishing a report, choose only from tracking periods that show data when the user accesses the report. For example, if you know that the monitor being tracked by the profile is going down shortly, and you are setting up a report to show data, ensure that you have configured the report to show data for a time when the monitor is up and running. Otherwise, the user's report does not include data.

For details on the user interface for publishing a report, see "Publish Report Dialog Box" on page 63.

Report Annotation

The Annotation Tool creates a snapshot of the report you are viewing and enables you to highlight important areas of the report by drawing shapes, lines, and adding text to the snapshot. Annotated reports can be shown to others to emphasize exceptional areas of the report, uploaded to Report Manager, or and saved to your local directory.

The Annotation Tool is accessible by clicking the **Annotation Tool** button on the right side of the page.

The actions you can perform with your annotation are:

➤ Print the annotation

➤ Save a snapshot of the annotation in .png format to your local machine

➤ Send the annotation using email

For details on the user interface for creating an annotation, see "Annotation Tool Window" on page 50.

Viewing Reports with Adobe Flash Player

HP Business Availability Center utilizes Adobe Flash Player technology in selected reports to render report charts, to control the flow of information, and add interest to your reports.

You must have Flash Player version 8.0 or later installed on your machine. If you do not, the browser displays a message containing instructions on downloading Flash Player.

Pie charts in Flash reports have the following functionality, available via the context menu:

➤ **Enable Rotation.** When this option is selected, you can click and drag to rotate the pie. Toggles with **Enable Slicing Movement**.

➤ **Enable Slicing Movement.** When this option is selected, you can click a pie slice to slide it out from the main pie. Toggles with **Enable Rotation**.

➤ **View 2D/View 3D.** Toggle between these options as required.

By default, the KPIs Distribution Over Time, KPIs Summary, and KPIs Trend reports (available in Dashboard and My BSM Business Dashboard) use Flash with a built-in one second delay for rendering the reports. If required, you can remove the delay (so that the reports are immediately displayed fully rendered). To remove the delay, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Reports Delay Time** entry in the Business Reports Properties table. Modify the value to **False**.

🔧 Generate Reports

This task describes how to generate reports to track and analyze the health of your monitored environment.

This task includes the following steps:

➤ "Access the Report Page" on page 45

➤ "Choose the Time Range and Granularity" on page 45

➤ "Configure Report Parameters" on page 46

➤ "Save Filter to Favorites" on page 46

➤ "Results" on page 47

1 Access the Report Page

Access the relevant report page where you want to configure reports. For details on the reports contexts, see "HP Business Availability Center Reports" on page 16.

2 Choose the Time Range and Granularity

When generating a report, you choose the time range and granularity in which the report is displayed. For details on configuring the time range and granularity for reports, see "Time Range and Granularity Bar" on page 70.

For additional information on choosing the time range and granularity in Service Level Management, see "Tracking Range and Granularity in Service Level Management" in *Using Service Level Management*.

3 Configure Report Parameters

You configure the parameters of your report, and optionally apply filtering criteria to receive specific data for the report. For details on the various elements used to configure reports that are common to most reports, see "Common Report Elements" on page 56.

Example

a Click **Profiles** and **Active Filters** links to select the relevant profiles and active filters to be monitored by the report.

b Choose the time range for the report in the Time Range and Granularity bar.

c Optionally, choose from the following:

➤ Click the **Format** button to choose a format for production of the report.

➤ Click the **Export** button to choose a format in which to transfer the report data, either via email, publishing, or uploading to the Report Manager.

➤ Add annotations to the report. For details on the user interface for annotating reports, see "Annotation Tool Window" on page 50.

➤ Configure a Favorite Filter for the report. For details on the user interface for performing this task, see "Save Filter to Favorites Dialog Box" on page 69.

d Click **Generate** to generate the report.
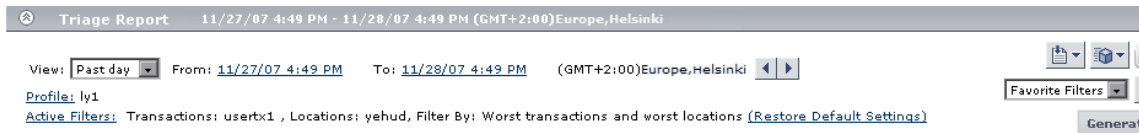
4 Save Filter to Favorites

Optionally, you can save your configured report filters to be used again for generating other reports. For details on the user interface for configuring a favorite filter, see "Save Filter to Favorites Dialog Box" on page 69.

Example

Click the **Favorite Filters** button on the right side of the screen to open the Save Filter to Favorites dialog box.

After saving, the filter appears under the specified access level (**Private** or **Public**) in the Favorite Filters drop down.

You select a Favorite Filter and click **Generate** to generate a report according to the specific filter's parameters.

5 Results

The report's parameters appear in the collapsible pane above the report.

If you configured a Favorite Filter for the report, you can select the configured filter from the Favorite Filters drop down. The selected filter is now configured as the parameters by which the new report is generated.

⚓ Configure Report Generation Settings

To configure the report generation settings in HP Business Availability Center, users with appropriate administrative privileges should perform the changes described in the procedure below.

Note: You must have appropriate administrative privileges to configure these settings.

To configure report generation settings for reports:

1 Select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings,** choose **Foundations,** select **Reporting** and locate the **Generate reports automatically** entry in the Reporting-Display table.

2 Click the **Edit** button and set the property value as required:

➤ Select **true** to enable automatic report generation

➤ Select **false** to disable automatic report generation

To restore default settings, click the **Restore Default** button.

⚓ Enable Font When Exporting to a PDF

You can optionally configure Unicode font to display characters in most languages when exporting a report to a PDF.

You can configure Unicode font either using the Infrastructure Settings Manager, or by installing the font to the font library on your system.

To configure Unicode font using the Infrastructure Settings Manager:

1 Navigate to **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

2 Select **Foundations** and choose **Reporting.**

3 Locate the **Reporting - Display** table**.**

4 Modify the **Unicode font path for PDF** attribute to the path of the Unicode font located on the server.

➤ For Windows: C:\Windows\Font_Location\arialuni.ttf

➤ For UNIX: /opt/tmp/arialuni.ttf

To configure Arial Unicode MS font using the font library:

1 Navigate to the font library on your system:

For example, in Windows: C:\Windows\Fonts

2 Download the font from the following web site:

http://www.microsoft.com/typography/fonts/family.aspx?FID=24

3 Restart HP Business Availability Center.

🔍 Working in Reports User Interface

This section describes:

➤ Annotation Tool Window on page 50

➤ Common Report Elements on page 56

➤ Export Options on page 61

➤ Format Options on page 68

➤ Save Filter to Favorites Dialog Box on page 69

➤ Time Range and Granularity Bar on page 70

🔍 Annotation Tool Window

Description	Enables you to annotate a snapshot of the report you are viewing, to highlight important areas. **To access:** Click the **Annotate** button 🔧 on the right side of the page.
Important Information	When saving the annotation: ➤ The snapshot is saved in .png format. ➤ You cannot select the **New Folder** icon 📁 when saving in the **My Documents** directory or any of its subdirectories.
Included in Tasks	"Generating Reports" on page 41
Useful Links	"Report Annotation" on page 44

Annotation Options

Description	The elements which enable you to customize your snapshot. **To access:** Click the **Annotate** button 🔧 on the right side of the report page. The annotation options are located on the left side of the annotation window.
Useful Links	"Report Annotation" on page 44

The following elements are included:

GUI Element (A–Z)	Description
	Click to navigate the snapshot.
	Click to select a specific area of the snapshot.
	Click to add a shape to the snapshot. Clicking the shape tool button enables the following shape buttons: ➤ Click to mark an area of the snapshot with a rectangle. ➤ Click to mark an area of the snapshot with a filled rectangle. ➤ Click to mark an area of the snapshot with an oval. ➤ Click to mark an area of the snapshot with a filled oval. ➤ Click to mark an area of the snapshot with a round rectangle. ➤ Click to mark an area of the snapshot with a filled round rectangle. **Customization.** After selecting this button, you can customize your line appearance through the following parts of the interface: ➤ **Line Type.** Choose the type of line you want to add. Options include: 　➤ Solid Line 　➤ Jagged Line ➤ **Line Width.** Select the width of the line, in pixels, in the annotation.

GUI Element (A–Z)	Description

	Click to enable the line tool, which marks the selected area of the snapshot with a line.
	
	Customization. After selecting this button, you can customize your line appearance through the following parts of the interface:
	
	➤ **Line Style.** Choose the style of line you want to add. Options include:
	   ➤ Regular line
	   ➤ Line with endpoints
	   ➤ Line with arrows
	➤ **Line Type.** Choose the type of line you want to add. Options include:
	   ➤ Solid Line
	   ➤ Jagged Line
	➤ **Line Width.** Select the width of the line, in pixels, in the annotation.

	Click to add text to the snapshot. **Example:** Add, This is the problematic transaction above a line marking an area of the report.

GUI Element (A–Z)	Description
Border and Fill Colors	Select the relevant square to choose the color of the border and fill of your annotations. The available squares are: ➤ **Upper Square.** Click to choose the color of lines, as generated by the line tool and displayed in unfilled shapes. ➤ **Lower Square.** Click to choose the color to fill shapes. Clicking either of the squares generates a dialog box with the following tabs where you choose the color: ➤ Swatches ➤ HSB ➤ RGB
Opacity	Slide the opacity bar to choose the darkness level of the selected shape line, text line, or shape color in the annotation. **Note:** ➤ A higher opacity percentage means that the selection appears darker. A lower opacity percentage means that the selection appears lighter. ➤ This field is enabled when either the shape tool, line tool, or text tool button is selected.

Menu Bar

Description	Displays the elements which enable you to perform selected actions on your snapshot.
	To access: Click the **Annotate** button 🔯 on the right side of the report page.
	The menu bar contains elements which enable you to:
	➤ Change the appearance of the snapshot.
	➤ Save, print, email, or upload an annotation report to the Report Manager.
	➤ Customize the appearance of text annotated onto your snapshot. These elements are enabled only when the **Text Tool** button T is selected.
Useful Links	"Report Annotation" on page 44

The following elements are included:

GUI Element (A–Z)	Description
💾	Click to save the snapshot on your local machine.
	Note:
	➤ The snapshot is saved in .png format.
	➤ You cannot select the **New Folder** icon 📁 when saving in the **My Documents** directory or any of its subdirectories.
⬚	Click to select all of the annotations added to your snapshot.
✕	Click to clear all annotations.
↺	Click to undo the most recent action performed on the snapshot.
↻	Click to redo the most recent action performed on the snapshot.
🔍	Click to bring the snapshot view closer.
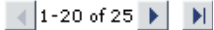
GUI Element (A–Z)	Description
	Click to set the snapshot view further away.
	Click to restore the snapshot to its original size.
	Click to print the snapshot.
	Click to send the snapshot via email.
	Click to upload the snapshot to the Report Repository. For details on the Report Repository, see "Report Manager Overview" on page 94. **Note:** This option is not available when accessing the Annotation Tool from the SiteScope feature.
	Click for help.
B	Click to mark the text as bold. **Note:** This field is enabled only when selecting the **Text Tool** button $\boxed{T}$.
I	Click to mark the text as italicized. **Note:** This field is enabled only when selecting the **Text Tool** button $\boxed{T}$.
U	Click to mark the text as underlined. **Note:** This field is enabled only when selecting the **Text Tool** button $\boxed{T}$.
<Font Family>	Select the font for the text in the report. **Note:** This field is only enabled when selecting the **Text Tool** button $\boxed{T}$.

GUI Element (A–Z)	Description
<Font Size>	Select the size of the font in the report. **Note:** This field is only enabled when selecting the **Text Tool** button T .
Anti-aliasing	Select to make adjust the pixel reading of text or annotation lines so that they appear smoother. **Note:** This field is only enabled when selecting the **Text Tool** button T .

Common Report Elements

Description	The options that are common to most report pages.
Important Information	➤ You may see only a few of the items described below in your report. Report elements specific to a certain application are described within that application's documentation. ➤ Reports contain a collapsible report filter which includes the specified elements noted in the description cells below. Many of these elements appear in other reports as well. Click the **Minimize** ⊗ or **Restore** ⊗ button to collapse or expand the report filter, respectively. **Note:** When the collapsible report filter is hidden, the filter information is visible through a tooltip that appears when hovering anywhere on the report title bar.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
Generate	After you have specified the report criteria, click **Generate** to generate the report (in certain applications, such as Business Availability Center for Siebel Applications, reports are generated automatically when the page is loaded).
	Certain reports are initially generated automatically, whereas for others you must specify report criteria and generate the report manually. For details on setting reports to be automatically generated, see "Configure Report Generation Settings" on page 80.
	Click to send the report via email. For details, see "Mail Details Dialog Box" on page 62.
	Note. This button is accessible as a sub-option of the **Export** button , and on the report interface for legacy reports. For a list of legacy reports, see "Legacy Reports" on page 36.
1-20 of 25	Divides a table of data or a list of reports into pages. You move from page to page by clicking the relevant button:
	➤ To view more reports, click the **Next page** or **Last page** buttons.
	➤ To view previous reports in the list, click the **Previous page** or **First page** buttons.
	➤ Click the left arrow to adjust the time range of the report backwards according to the granularity displayed in the **View** dropdown.
	➤ Click the right arrow to adjust the time range of the report ahead, according to the granularity displayed in the **View** dropdown.
	Click the **Sort Up** button to display an alphabetical list in the column you chose.

GUI Element (A–Z)	Description
▼	Click the **Sort Down** button to display a reverse alphabetical list in the column you chose.
▤	Click to reset the table columns' width to its default setting. You can adjust the width of the table's columns by dragging the borders of the column to the right or the left.
▥	Click the **Select Columns** button to open the Select Columns dialog box and select the columns you want to be displayed on the table. For details on the Select Columns dialog box, see "Working with Tables" in *Reference Information*.
▤▼	Click the **Format** button to drill down for options on formatting your report. You can then save the report to your local machine. For details on format options, see "Format Options" on page 68. **Note:** Many of format options are available as individual buttons on HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
▣▼	Click the **Export** button to drill down for options on exporting your report. For details on export options, see "Export Options" on page 61. **Note:** The **Export** button is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
▣	Click the **Capture result and add annotations** button to capture the report and add annotations. For details on annotating reports, see "Report Annotation" on page 44. **Note:** This element is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see see "Legacy Reports" on page 36.

GUI Element (A–Z)	Description
	Click the **Save Filter** button to open the Save Filter to Favorites dialog box and configure the current filter as a favorite filter. For details on Favorite Filters, see "Save Filter to Favorites Dialog Box" on page 69. **Note:** This element is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see see "Legacy Reports" on page 36.
<breadcrumbs>	The list of pages appearing horizontally across the top of the page that you have navigated through to get to the current page. **Note:** Each page in the list of breadcrumbs is a link which you can click to trace your path of navigation.
<calendar>	Enables you to configure the day, month, year, and specific time that the report is to start and end. The Calendar dialog box also contains the following buttons: ➤ **Revert.** Click to return the calendar to the most recently saved configuration. ➤ **Current.** Click to configure the calendar with the current date and time. **Note:** The date and time that are configured correspond to the time you opened the calendar dialog box.
<color coding>	HP Business Availability Center uses color coding in reports to organize data in a meaningful way, and make reports more readable. Use the legend that appears in a report to get a basic description of the color coding used in the report. For detailed information about a specific report and how to interpret the color coding used, refer to that report's documentation.

GUI Element (A–Z)	Description
<Time Range and Granularity Bar>	Located at the top of the report area. Displays the currently selected report date, time frame, and granularity. For details, see "Time Range and Granularity Bar" on page 70. **Note:** This element is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see see "Legacy Reports" on page 36.
Profile	Click the link to select the profile to be monitored by the report. **Note:** This element is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
View as Graph tab	Click to display a graphical representation of the data. This is generally the default view.
View as Table tab	Click to display a tabular representation of the data.

🔖 Export Options

The following exporting options are available when clicking the Export button:

Description	Enables you to export a report or report item, either by sending it through email, publishing it, or creating a PDF to be sent to the Report Manager.
	To access: Click the **Export** button 📦▾ on the right side of the report page.
Important Information	The only Export option available in HP Business Availability Center legacy reports is the **email** option. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
Useful Links	"Common Report Elements" on page 56

GUI Element (A-Z)	Description
📧	Click to send a report using email. For details, see "Mail Details Dialog Box" on page 62.
	Note: The **Email** button is also available on the report screen of HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
📰	Click to publish a report with updated data. For details, see "Publish Report Dialog Box" on page 63.
	Note: The **Publish** button is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
📦	Click to create a PDF of the report and export it to Report Manager. For details on Report Manager, see "Report Manager" on page 93.
	Note: The **Report Manager** button is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.

🔍 Mail Details Dialog Box

Description	Enables you to configure a report to be sent via email. **To access:** Click the **Export** button 📦▾ and select **Email**.
Important Information	If you choose to use a mail option that displays the report content in the email client, verify that the email client does not employ security restrictions which prevent the running of scripts contained in HTML mail. Email clients that do employ such restrictions may be unable to properly display all report content.
Useful Links	"Export Options" on page 61

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Comments	Enter relevant comments, if required.
Include Images	Select to include all report resources (for example, graphics) in the email. Clear to remove images from the email. The images are then located on HP Business Availability Center servers. A network connection to HP Business Availability Center is required to access HP Business Availability Center servers and view the report images.
Reply-to	Enter an email address for receiving replies. **Note:** If required, an email address can be configured to appear in the Reply-to field by default. This is done in the Infrastructure Settings Manager. Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Foundations**, select **Business Availability Center**, and locate the **Default Reply-To Address** entry in the Business Availability Center Interface - Display table. Update the value as required.

GUI Element (A-Z)	Description
Send as Internet Explorer Archived HTML (.mht)	All report resources (for example, graphics) are displayed in the browser, which must support MHT format (such as Microsoft Internet Explorer). It is not necessary to have a connection to an HP Business Availability Center machine to enable you to view the attachment.
Send Report As	Specify the format in which you want to send the report. Choose from the following options: ➤ **HTML mail.** The report is displayed in the email client (the email client must support, and be configured to display, HTML) ➤ **HTML attachment.** The report is displayed in HTML format in a browser. **Note:** You must have a connection to an HP Business Availability Center machine to enable you to view the attachment. ➤ **PDF.** The report is displayed in .pdf format in a new browser window.
Subject	Enter a descriptive subject, or accept the default value.
To	Enter an email address to which you want to send the report.
Zipped Attachment	Select to send the attachment in zipped format. **Note:** This field is available only when **HTML attachment** or **PDF** have been selected in the **Send Report As** field.

🔍 Publish Report Dialog Box

Description	Enables you to publish HP Business Availability Center reports in different formats for other users to view. **To access:** Click the **Export** button 📦 ▼ on the right side of the report page, and select **Publish Report** 🖨.
Important Information	The log in and log out steps to view the report are transparent to the user.
Useful Links	"Publishing a Report" on page 43

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Choose export format	Choose the export format for the report. The available options are:
	➤ **CSV.** The report is formatted as a comma-separated values (CSV) text file that can be displayed in a spreadsheet.
	Note: For the CSV formatted report to display correctly, the comma (,) must be defined as the list separator. In Windows, to verify or modify the list separator value, open Regional Options from the Control Panel, and on the Numbers tab ensure that the comma is defined as the List Separator value. In Solaris, you can specify the list separator in the application that opens the CSV file.
	➤ **Excel.** The report is formatted as an .xls (Excel) file that can be displayed in a spreadsheet.
	Note: Any tooltips in the report are converted to comments in Microsoft Excel. To view all the text of a large tooltip, edit the comment by right-clicking the cell and choosing Edit Comment. Enlarge the box by dragging a corner of the comment box.
	➤ **XML.** The report is formatted as an XML file that can be opened in a text or XML editor.
	Tip: To extract HTML code from the report:
	1. Save the file as HTML
	2. Open the file in an HTML editor
	3. Copy the relevant table into the target file
	➤ **Printer-Friendly.** The report is saved in HTML format for printing purposes.

GUI Element (A-Z)	Description
Generate HTML	Click to send the report as an HTML file. You can open or save the file on your local machine. **Note:** ➤ The user name and password are encrypted in the HTML file. ➤ If you include your own user name and password in the HTML file, when the user closes the report, you are simultaneously logged out of HP Business Availability Center.
Generate URL	Click to generate the URL and displays it in the resulting Published URL window. Click **Copy** to select the URL, then paste the URL into an email to send to the user. **Note:** ➤ It is recommended that the URL not exceed a maximum length of 2,000 characters (~2K), to ensure that the URL can be read by all systems. ➤ Do not modify the URL string. If necessary, make changes to the report itself, then publish the report again. ➤ The user name and password are encrypted in the URL file. ➤ If you include your own user name and password in the URL, when the user closes the report, you are simultaneously logged out of HP Business Availability Center.

GUI Element (A-Z)	Description
Login name transmitted with report	The login name by which the report recipient can login to HP Business Availability Center and view the report. **Note:** ➤ The default login name is that with which you logged in to HP Business Availability Center in the current session. ➤ Do not publish the report with administrator permissions. It is recommended that you create a login name and password for the user with less permissions than for an administrator. For details, see "User Management – Overview" in *Platform Administration*.
Password transmitted with report	The password by which the report recipient can login to HP Business Availability Center and view the report. **Note:** ➤ The default password is that with which you logged in to HP Business Availability Center in the current session. ➤ Do not publish the report with administrator permissions. It is recommended that you create a login name and password for the user with less permissions than for an administrator. For details, see "User Management – Overview" in *Platform Administration*.

Save as PDF to Report Manager Dialog Box

Description	Enables you to configure parameters of the report you want to save as a PDF to the Report Manager. **To access:** Click the **Export** button and select **Save as PDF**.
Useful Links	"Report Manager" on page 93

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<report snapshot>	A snapshot of the selected report, as it currently appears.
Description	Optionally, enter a description for the report.
Report name	Enter a name for the report, to be displayed in the Report Manager.
Save report as	Choose the privilege level of the report, as per the following options: ➤ **Private.** The report or report object is available only to the user who configured it or an administrator. ➤ **Public.** The report or report object is available to administrators or any user with appropriate permissions.

🔍 Format Options

The following formatting options are available when clicking the **Format** button.

Description	Enables you to format the report in a specific format to be saved on your local machine.
	To access: Click the **Format** button 📄▼ on the right side of the report page.
Important Information	Many of the Format options are available as individual buttons on the right side of HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36.
Useful Links	"Common Report Elements" on page 56

GUI Element (A-Z)	Description
🖨	Click to send a report to a printer.
	Tip: Before printing, ensure that printer settings are set to print the selected frame, and not to print frames as laid out on screen.
	To obtain optimal print results if you are using Microsoft Internet Explorer, enable the **Print background color and images** option (**Tools** > **Internet Options** > **Advanced tab** > **Printing**).
📄	Click to produce a .pdf format file.
	Note: To enable displaying characters in all languages in your .pdf file, you must configure the Infrastructure Settings Manager to access the appropriate Unicode file on your server. For details on performing this task, see "Enable Font When Exporting to a PDF" on page 48.

GUI Element (A-Z)	Description
	Click to produce a .csv format file. **Note:** For the CSV formatted report to display correctly, the comma (,) must be defined as the list separator. In Windows, to verify or modify the list separator value, open Regional Options from the Control Panel, and on the Numbers tab ensure that the comma is defined as the List Separator value. In Solaris, you can specify the list separator in the application that opens the CSV file.
	Click to produce an Excel format file. **Note:** You cannot export information from charts into Microsoft Excel.
	Click to produce an .xml format file. **Note:** Only those reports that support this functionality include the **XML** button.

Save Filter to Favorites Dialog Box

Description	Enables you to save the current filter to your list of Favorite Filters, to be used for generating a new instance of the same report type for which you created the filter. **To access:** Click the **Save Filter** button on the right side of the report page.
Important Information	You can view saved filters by selecting the specific filter in the Favorite Filters drop-down window.
Included in Tasks	"Generate Reports" on page 45
Useful Links	"Generating Reports" on page 41

The following elements are included:

GUI Element (A–Z)	Description
Filter Description	Enter a description for the filter you are creating. The description appears only in the list of Favorite Filters in the Report Manager.
Filter Name	Enter a descriptive name for the filter you are creating.
Report Name	The name of the report for which you are creating a favorite filter. **Note:** This field cannot be edited.
Save Report As	Choose the access level for which you want to save your report. ➤ **Private.** Only the report organizer can view the report generated by the filter. ➤ **Public.** All users with appropriate permission levels can view the report generated by the filter.

Time Range and Granularity Bar

Description	Displays the time range and granularity for which the report is generated. **To access:** Access the top portion of the report screen, or click the **Restore** button at the top of reports to open the collapsible filter pane.
Important Information	➤ The Time Range and Granularity bar is not available in HP Business Availability Center legacy reports. For a list of HP Business Availability Center legacy reports, see "Legacy Reports" on page 36. ➤ For reports that are divided by time units, you select a report granularity or accept the default granularity. From the granularity value and granularity unit lists (labeled **Every**), you select the granularity for the report. ➤ Not all time ranges are available for all reports.

Included in Tasks	"Report Annotation" on page 44
Useful Links	"Generating Reports" on page 41

The following elements are included:

GUI Element (A–Z)	Description
◀	Click to view the report one time frame earlier than the currently displayed time frame. **Tooltip:** Back **Example:** If the value of the **View** field is **Day**, clicking this button displays data for one day earlier than the currently displayed report.
▶	Click to view the report one time frame later than the currently displayed time frame. **Tooltip:** Forward **Example:** If the value of the **View** field is **Day**, clicking this button displays data for one day later than the currently displayed report.
Every	Select the report granularity level, or the time frame indicating the frequency of how often you want the report to be generated. Depending on the time range selected in the **View** field, the following options may be available: ➤ Hour ➤ Day ➤ Week ➤ Month
From	Click the link to open the calendar and configure a start date and time for the report.

GUI Element (A–Z)	Description
To	Click the link to open the calendar and configure an end date and time for the report.
View	Select a time range for which you want to view the report. Available time ranges include the following ranges: ➤ Past hour, Past day, Past week, Past month, Past quarter, Past year ➤ Hour, Day, Week, Month, Quarter, Year ➤ Custom (a user defined time period) **Note:** The available granularity units (minute, hour, day, week, month, year) differ depending on the selected time range and the specific report, and the granularity values differ per granularity unit.

🔍 Troubleshooting and Limitations

Following are troubleshooting and limitations relating to various areas of Working in Reports:

Annotating a Report

You cannot select the **New Folder** icon 📁 when saving an annotation in the **My Documents** directory or any of its subdirectories.

Formatting a Report

➤ When exporting a report to Microsoft Excel, if you are using Microsoft Excel 2007, an error message is generated. Click **OK** to close the error message window and display the data in Microsoft Excel.

➤ You cannot export information from charts into Microsoft Excel.

Generating a Report

If you configure a report with a time range that does not end in the present (for example, two days ago, three days ago, two days from now, three days from now), when you click **Generate** to generate the report, the report time range remains as it was originally configured and does not update itself to end in the present.

Viewing a Report

If you are having trouble viewing a specific report, you may require Flash player to properly view the report. Install Flash player on your machine, and then try accessing the report again. For details on viewing reports with Adobe Flash player, see "Viewing Reports with Adobe Flash Player" on page 44.

Publishing a Report

When producing a hierarchal UCMDB report, the size of the .pdf is limited to the default number of data units defined for your environment. The default value is 400. A data unit is the information displayed under a CI in a report. In a table, each row is counted as one data unit. If this value does not suit your needs and must be modified, contact HP Software Support.

If the file you are producing contains more than the allotted number of data units, the .pdf file is truncated.

The affected UCMDB reports are:

➤ **Topology Report**. For details, see "Topology Report Page" in *Model Management*.

➤ **Asset Report**. For details, see "Asset Report Page" in *Model Management*.

➤ **Related CIs Report**. For details, see "Get Related CIs Report" in *Model Management*.

➤ **Correlation Report**. For details, see "Correlation Manager Window" in *Model Management*.

➤ **Export to Report**. For details, see "Package Manager Window" in *Model Management*.

3

Customizing Reports

This chapter describes how to generate reports automatically or manually, and how to specify a header and a footer for a report.

This chapter includes:

Concepts

➤ Customizing Reports - Overview on page 75

➤ Configuring a Report Header and Footer on page 76

Tasks

➤ Customize Report Settings in the Infrastructure Settings Manager on page 78

Customizing Reports - Overview

You can specify various settings in the HP Business Availability Center Infrastructure Settings manager to enable you to customize the look and display of your HP Business Availability Center reports.

HP Business Availability Center enables you to choose from the following customizing options:

➤ **Specify a header and a footer for reports.** For details, see "Configuring a Report Header and Footer" on page 76.

➤ **Specify the default browser.** For details, see "Specify the Default Browser" on page 78.

➤ **Generate reports automatically.** For details, see "Configure Report Generation Settings" on page 80.

➤ **Customize the display of global reports.** For details, see "Customize the Global Reports Display" on page 81.

➤ **Configure the maximum number of data units exportable to .pdf.** For details, see "Configure the Maximum Number of Data Units Exportable to PDF" on page 81.

➤ **Configure the maximum number of rows per table.** For details, see "Configure the Maximum Number of Rows Per Table" on page 82.

➤ **Customize the display of specific reports.** For details, see "Customize the Specific Reports Display" on page 82.

Note: HP Business Availability Center also enables you to customize the look and layout of specific reports (customizable reports). Contact HP Software Support to assist you in performing this type of report customization.

Configuring a Report Header and Footer

You can add a header and a footer to a report. You can also modify an existing header and footer or return to the default header and footer (blank).

You can add a header or footer in one of the following ways:

➤ Configure a global report header and footer in the Infrastructure Settings Manager.

The global report header and footer has the following characteristics:

➤ The text of the header/footer has to be valid HTML.

➤ The changes take effect immediately.

➤ The change is applied to all the customizable reports.

➤ The header/footer is static. It remains displayed on the page while you scroll the report lines.

For example, if you specify the header Today's Results, the header appears with a bold font.

Today's Results			
Start Time	**End User Group**	**User**	**Duration [hh:mm:ss]**
06/06/2005 15:43	ISP	ISP05	00:00:51
06/06/2005 15:43	ISP	ISP05	00:00:56
06/06/2005 15:43	ISP	ISP05	00:00:58
06/06/2005 15:43	ISP	ISP05	00:00:59

As another example, if you specify the footer <center>Per User</center> the report shows the footer aligned to the center of the report.

Today's Results				
Start Time	**End User Group**	**User**	**Duration [hh:mm:ss]**	**Application Errors**
06/06/2005 15:43	ISP	ISP05	00:00:51	
06/06/2005 15:43	ISP	ISP05	00:00:56	
06/06/2005 15:43	ISP	ISP05	00:00:58	
06/06/2005 15:43	ISP	ISP05	00:00:59	
06/06/2005 15:43	ISP	ISP05	00:01:01	
		Per User		

For details on configuring a global header and footer, see "Configure the Global Report Header and Footer" on page 79.

➤ Configure a default header and footer for all Custom and Trend reports in the Report Manager. For details, see "Default Header/Footer Dialog Box" on page 118.

➤ Configure a header and footer for a specific user report via the selected report wizard in the Report Manager. For details, see "Header/Footer Page" on page 157 (for Custom Reports), or "Header/Footer Page" on page 198 (for Trend Reports).

The report header and footer you add for the specific user report in the appropriate wizard overrides the default header and footer configured for all custom and trend reports in the Report Manager. The default header and footer configured for all custom and trend reports via the **Set default header / footer for Custom & Trend reports** button in the Report Manager overrides the global report header and footer configured in the Infrastructure Settings Manager.

🔨 Customize Report Settings in the Infrastructure Settings Manager

You can perform the following report customization settings in the Infrastructure Settings Manager:

➤ **Specify the Default Browser.** For details, see "Specify the Default Browser" on page 78.

➤ **Configure the Global Report Header and Footer.** For details, see "Configure the Global Report Header and Footer" on page 79.

➤ **Configure Report Generation Settings.** For details, see "Configure Report Generation Settings" on page 80.

➤ **Customize the Global Reports Display.** For details, see "Customize the Global Reports Display" on page 81.

➤ **Configure the Maximum Number of Data Units Exportable to PDF.** For details, see "Configure the Maximum Number of Data Units Exportable to PDF" on page 81.

➤ **Configure the Maximum Number of Rows Per Table.** For details, see "Configure the Maximum Number of Rows Per Table" on page 82.

➤ **Customize the Specific Reports Display.** For details, see "Customize the Specific Reports Display" on page 82.

Specify the Default Browser

You can specify the default browser to view reports in.

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

2 Select **Reporting** to open the Reporting-Display area.

3 Click the **Edit** button next to the **Default Browser** setting to open the Default Browser dialog box.

4 Set the **Value** field as required:

➤ select **true** to enable Internet Explorer

➤ select **false** to enable another browser

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

To restore default settings, click the **Restore Default** button.

Configure the Global Report Header and Footer

You can configure the global header and footer that appears for all reports.

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

2 Select **Reporting** to open the Reporting - Display area.

3 To specify a header:

➤ Click the **Edit** button next to the **Display static report header** setting to open the Display static report header dialog box.

➤ In the **Value** box, enter the text of the header.

➤ Click **Save** to save the changes.

To restore default settings, click the **Restore Default** button.

4 To specify a footer:

➤ Click the **Edit** button next to the **Display static report footer** setting to open the Display static report footer dialog box.

➤ In the **Value** box, enter the text of the footer.

➤ Click **Save** to save the changes.

To restore default settings, click the **Restore Default** button.

Note: The header and footer configured either using the **Set default header / footer for all Custom & Trend reports** button or the User Report Wizard in the Report Manager overrides the global report header and footer.

Configure Report Generation Settings

You can configure HP Business Availability Center to generate reports automatically after selecting the report from the menu or to generate reports only on demand from within the report.

To configure these settings, users with appropriate administrative privileges should perform the changes described in the procedure below.

Note: You must log in again for the changes to take effect.

To configure report generation settings for reports:

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

 2 Select **Reporting** to open the Reporting-Display area.

 3 Click the **Edit** button next to the **Generate reports automatically** setting to open the Generate Reports Automatically dialog box.

 4 Set the property value as required:

  ➤ select **true** to enable automatic report generation

  ➤ select **false** to disable automatic report generation

 5 Click **Save**.

To remove automatic report generation, set the property back to **false**.

To restore default settings, click the **Restore Default** button.

Customize the Global Reports Display

You can customize the appearance of your reports by configuring display elements to be applied to all reports.

To customize the global display for reports:

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

2 Select **Reporting** to open the Reporting - Display area.

3 Click the **Edit** button next to the **Global reports display customization** setting to open the Global reports display customization dialog box.

4 Enter the XML script in the **Value** field for the report components you want to customize. A sample configuration file is located at:

<HP Business Availability Center root directory>\HPBAC\AppServer\webapps\site.war\WEB-INF\rfw\conf\internal\rfw-presentation.xml

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

To restore default settings, click the **Restore Default** button.

Configure the Maximum Number of Data Units Exportable to PDF

You can configure the maximum number of data units that can be presented when exporting hierarchic reports in .pdf format.

To configure the maximum amount of data units exportable to .pdf:

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

2 Select **Reporting** to open the Reporting - Display area.

3 Click the **Edit** button next to the **Maximum number of data units exportable to .pdf** setting to open the Maximum number of data units exportable to .pdf dialog box.

4 Enter the number of data units you want to set as the maximum number exportable to a hierarchic .pdf report in the **Value** field.

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

To restore default settings, click the **Restore Default** button.

Configure the Maximum Number of Rows Per Table

You can configure the maximum number of rows that are presented when generating a table in a report.

To configure the maximum number of rows per table:

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

2 Select **Reporting** to open the Reporting - Display area.

3 Click the **Edit** button next to the **Maximum number of rows per table** setting to open the Maximum number of rows per table dialog box.

4 Enter the maximum number of rows in the **Value** field you want displayed in the table.

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

To restore default settings, click the **Restore Default** button.

Customize the Specific Reports Display

You can customize the appearance of your reports by configuring display elements to be applied to specific reports.

To customize the display for specific reports:

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

2 Select **Reporting** to open the Reporting - Display area.

3 Click the **Edit** button next to the **Specific report display customization** setting to open the Specific reports display customization dialog box.

4 Enter the XML script in the **Value** field for the report components you want to customize. A sample configuration file is located at:

<HP Business Availability Center root directory>\HPBAC\AppServer\webapps\site.war\WEB-INF\rfw\conf\applications*-presentation.xml

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

To restore default settings, click the **Restore Default** button.

4

Reports Log

HP Business Availability Center logs all activities related to reports as well as errors that occur when generating reports. Such activities include: creating a new report, generating a report, modifying report filters, drilling down in reports, and so forth.

This chapter includes:

Concepts

♻ Reports Log - Overview

HP Business Availability Center records all activities related to specific reports in a reports log. The activities that are logged are:

➤ Errors. For details, see "Logging Errors" on page 86.

➤ Any other activity performed on the report. For details, see "Logging Activities" on page 86.

The reports log records activities for all HP Business Availability Center reports, except for legacy reports. For a list of available HP Business Availability Center reports, including legacy reports, see "Legacy Reports" on page 36.

The reports log is located at **<HP Business Availability Center root directory>\log\EJBContainer\reports.log.**

Each error and activity is recorded using a specific format – for details about the reports log format, see "Reports Log Structure" on page 88.

Logging Errors

Logging occurs for any error during:

➤ report initialization.

➤ report customization – for details on customizing reports, see "Customizing Reports" on page 75.

➤ report rendering (creating the report display).

Logging Activities

Logging occurs for any action related to reports. The actions that are logged are:

➤ creating a new report

➤ generating a report

➤ updating the filter of a report that is included in a custom report

➤ drilling down in a report and between reports

➤ updating the filter of a report

➤ printing a generated report, exporting it using email, or opening it in Microsoft Excel file format or in PDF format. For details on these actions, see "Format Options" on page 68.

🎲 Reports Log Level

Depending on the log level you specify, the following information can be recorded in the reports log:

➤ debugging information

➤ activities performed on reports

➤ warning messages

➤ error messages

➤ fatal errors

The log levels have the following hierarchy: **DEBUG**, **INFO**, **WARN**, **ERROR**, and **FATAL**, where **DEBUG** represents the lowest level and **FATAL** the highest level. The default level is **ERROR**.

The log level hierarchy means that if you select one of the levels, the report includes all the information related to that level and the levels above it, as follows:

Level	Reports log
DEBUG	Includes debugging information, activities performed on reports, warning messages, error messages, and fatal errors.
INFO	Includes activities performed on reports, warning messages, error messages, and fatal errors.
WARN	Includes warning messages, error messages, and fatal errors.
ERROR	Includes error messages, and fatal errors.
FATAL	Includes fatal errors.

🖈 Set the Reports Log Level

You set the Reports log level to record the reports information that you want to track.

To set the Reports Log level:

 1 Open the **<HP Business Availability Center root directory>conf\core\Tools\log4j\EJB\topaz.properties** file with a text editor.

 2 Search for the following line:
 log4j.category.com.mercury.am.bac.core.reports= ${<loglevel>}, reports.appender

 3 Change **<loglevel>** to **DEBUG, INFO, WARN, ERROR**, or **FATAL**.

 4 Save the file.

🔍 Reports Log Structure

The reports log includes entries for each activity or error. Each entry has the following structure:

```
2005-08-24 11:25:07,590 [TP-Processor1] (NewReportAction.java:66) <loglevel> -
MERQ-120238: USER ACTION started
-------------------------------------=-------------------------------------
Action=            <action>
User=              <user> (id:<id>)
Report ID=         <report_id>;  State ID: <state_id>
-------------------------------------=-------------------------------------
2005-08-24 11:25:15,980 [TP-Processor1] (DisplayAction.java:77) <loglevel> - MERQ-
120242: USER ACTION ended
-------------------------------------=-------------------------------------
User=              <user> (id:<id>)
Report ID=         <report_id>;  State ID: <state_id>
Duration=          <duration> ms  (init:6141;  render:3859)
Time filter=       View: <view>; From:<from_day_time>; To: <to_day_time>; Every:
<periodicity>
-------------------------------------=-------------------------------------
```

where:

➤ **<log_level>** represents the level that you selected – for details about the log level, see "Set the Reports Log Level" on page 88.

➤ **<action>** is the type of activity that has been logged:

  ➤ **New report.** The user created a new report from a menu.

  ➤ **Generate.** The user clicked the **Generate** button.

  ➤ **CustomSaveFilter.** The user clicked **OK** in the filter of new reports when creating a custom report.

  ➤ **Update filter.** The user modified the filter in one of the reports.

  ➤ **Navigate.** The user drilled down in a report or between reports.

  ➤ **Export.** The user exported a report to Excel, .PDF, .CSV, or e-mail formats.

➤ **<user>** is the login name.

➤ **<id>** is for internal use.

➤ **<report_id>** is the report requested by the user action.

➤ **<state_id>** is for internal use.

➤ **<duration>** is the number of milliseconds the server took to perform the user action.

➤ The time filter that was used in the activity includes the following information:

  ➤ **<view>** indicates the filter that was selected. This information is for internal use.

  ➤ **<from_day_time>** indicates when the activity started. This information is for internal use.

  ➤ **<to_day_time>** indicates when the activity ended.

  ➤ **<periodicity>** indicates the sampling periodicity. This information is for internal use.

For example, the following entry specifies that a new report CMDBOverTime has been created by the admin user:

```
2005-08-24 11:25:07,590 [TP-Processor1] (NewReportAction.java:66) INFO  - MERQ-120238: USER ACTION started
--------------------------------------=-------------------------------------------
Action=                 New report
User=                   admin (id:1)
Report ID=              CmdbOverTime;  State ID: 0
--------------------------------------=-------------------------------------------
2005-08-24 11:25:15,980 [TP-Processor1] (DisplayAction.java:77) INFO  - MERQ-120242: USER ACTION ended
--------------------------------------=-------------------------------------------
User=                   admin (id:1)
Report ID=              CmdbOverTime;  State ID: 0
Duration=               10078 ms  (init:6141;  render:3859)
Time filter=            View: pastDay; From: 23/08/05 11:25; To: 24/08/05 11:25; Every: 1 hours
--------------------------------------=-------------------------------------------
```

Part II

User Reports

92

5

Report Manager

This chapter includes the main concepts, tasks, and reference information for the Report Manager.

This chapter includes:

Concepts

➤ Report Manager Overview on page 94

➤ Saving a Report as a PDF to the Report Manager on page 95

➤ Favorite Filters on page 96

➤ Report Schedules on page 96

➤ Excel Reports on page 97

Tasks

➤ Work With the Report Manager — Workflow on page 98

➤ Work With the Report Manager — Scenario on page 100

➤ Create a Schedule on page 106

Reference

➤ Report Manager User Interface on page 107

Troubleshooting and Limitations on page 125

Report Manager Overview

The Report Manager is a central location where you can manage selected reports and report objects from throughout HP Business Availability Center. You can also create **User Reports** - customized reports containing user-defined data and formatting that can help you focus on specific aspects of your organization's application and infrastructure resource performance. The Report Manager enables you to create and manage the following:

Report or Report Object	Description
Favorite Filters	Used to regenerate a report with predefined filters. For details, see "Favorite Filters" on page 96.
Custom Reports	Reports consisting of selected components (individual application reports) that enable you to focus on the data you are most interested in tracking. For details, see "Custom Reports" on page 127.
Trend Reports	Reports that present a comparison of multiple measurements from several profiles collected by Business Process Monitor, Real User Monitor, and SiteScope. This enables you to analyze how various internal HP Business Availability Center factors affect system performance. For details, see "Trend Reports" on page 175.
Service Reports	A report based on data from data sources from the Service Level Management, Dashboard, or other applications. For details, see "Service Report" on page 205.
Schedules	Schedule a report or report object to be sent to specified individuals at set times. For details, see "Report Schedules" on page 96.
Custom Links	A link to open a Web page in a browser window. For details, see "New Custom Link Page" on page 113.
Excel Reports	Customized reports in HP Business Availability Center that take advantage of the charting abilities of Microsoft Excel. For details, see "Excel Reports" on page 97.

Report or Report Object	Description
Annotations	A snapshot of selected reports and highlight important areas of the report by drawing shapes, lines, and adding text to the snapshot. For details, see "Report Annotation" on page 44. **Note:** Annotations are created outside the Report Manager, in the specific report in which you are working.
Email	Send reports and report objects to selected individuals using email. For details, see "Email Dialog Box" on page 119.
PDFs	Store a PDF of selected HP Business Availability Center reports, to access at a later time. For details, see "Saving a Report as a PDF to the Report Manager" on page 95.

Saving a Report as a PDF to the Report Manager

You can save the data of selected reports to the Report Manager, for viewing on other occasions, or for sending to other users. Reports are stored as PDF files in the Report Manager, and the report is saved with data valid at the time the report is saved. This is the case even if data subsequently changes, or more data accrues to the report.

You can save all reports to the Report Manager, except for HP Business Availability Center Legacy Reports. For a list of HP Business Availability Center Legacy Reports, see "Legacy Reports" on page 36.

♣ Favorite Filters

Favorite Filters enable you to save a report filter and reuse it for future generating of the report. The filter you create can be used only for the same report for which it was created. Filters include the time range, location, views, CIs, resource definitions, and granularity for which the report is generated, as well as profiles, active filters, configuration items (CIs) and Key Performance Indicators (KPIs) configured for the report. For details on creating a Favorite Filter, see "Favorite Filters Wizard" on page 107.

You can also create a Favorite Filter from the specified report page. For details on the user interface for performing this task, see "Save Filter to Favorites Dialog Box" on page 69.

♣ Report Schedules

You configure schedules to enable specified recipients to automatically receive reports, through email, at regularly defined intervals.

You can schedule Favorite Filters, Custom Reports, Trend Reports, and Service Reports defined in the Report Manager, or reports saved from the specific report page. To do so, you must have **View** permissions for the Recipients resource and **Add** permissions for the Scheduled Reports resource. For details on assigning user permissions, see "Assign Permissions" in *Platform Administration*.

For details on configuring report schedules, see "Create a Schedule" on page 106.

By default, the value that appears in the **From** field in the email containing the scheduled report is **HPBAC_Alert_Manager@<HP Business Availability Center server name>**. You can modify the value by selecting **Admin > Platform > Setup and Maintenance > Infrastructure Settings** and the **Scheduled Reports** context in the **Foundations** tab. Modify the value **E-mail sender** or **Scheduled Reports e-mail sender address** (to include an email address in the **From** field). For details on modifying values, see "Infrastructure Settings Manager Page" in *Platform Administration*.

To correctly view scheduled reports received in Microsoft Outlook 2003, in **Tools** > **Options** > **Security** > **Zone Settings**, select **Internet**; click **Custom Level** and specify the following settings in the Security Settings dialog box:

➤ **Download signed ActiveX control** = **Prompt**

➤ **Run ActiveX controls and plug-ins** = **Enable**

➤ **Script ActiveX controls marked safe for scripting** = **Enable**

➤ In the **Reset to** list, select **Medium**

Administrators can manage configured report schedules using the Report Schedule Manager tab, located at **Admin** > **Platform** > **Report Schedule Manager**. For details on managing report schedules using the Report Schedule Manager tab, see "Report Schedule Manager" in *Platform Administration*.

Excel Reports

You can build and view customized reports in HP Business Availability Center that take advantage of the charting abilities of Microsoft Excel. Excel reports display various types of data collected by HP Business Availability Center data collectors. The reports can be viewed with Microsoft Excel or any spreadsheet program capable of reading files with the **.xls** format. You can also upload Excel reports that were created using the **.xlsx** format. For details on creating a Microsoft Excel Report, see "Create a Microsoft Excel Report - Workflow" on page 317.

Note: Contact HP Software-as-a-Service Support for details on implementing Microsoft Excel reports in HP Software-as-a-Service.

🔧 Work With the Report Manager — Workflow

This task describes how to create, manage, and distribute reports using the Report Manager.

This task includes the following steps:

1 Create a Favorite Filter

You can create a filter for reports, save it, and apply it to the specified report. For details on creating a Favorite Filter, see "Favorite Filters Wizard" on page 107.

2 Create a Custom Report

You can create a customized report with components that you select to present the data most relevant to you. For details on creating a Custom report, see "Custom Report Wizard" on page 136.

3 Create a Trend Report

You can configure a report which compares multiple measurements from various profiles, enabling you to analyze how various internal HP Business Availability Center factors affect system performance. For details on creating a Trend report, see "Trend Report Wizard" on page 190.

4 **Create a Service Report**

You can create a custom report that displays selected data from data sources of the Service Level Management, Dashboard, or other applications. For details on creating a Service report, see "Configure a Service Report in the Report Manager – Workflow" on page 219.

5 **Create a Custom Link**

You can create a link to open a web page in a browser window. For details on creating a Custom Link, see "New Custom Link Page" on page 113.

6 **Create an Excel Report**

You can build and view customized reports in HP Business Availability Center that take advantage of the charting abilities of Microsoft Excel. For details on creating an Excel report, see "Create a Microsoft Excel Report - Workflow" on page 317.

7 **View a User Report**

You can view HP Business Availability Center report or report objects by selecting the item in the Report Manager table and clicking the **View Report** button on the Report Manager Main Page.

8 **Email a User Report**

You can send a Favorite Filter, Custom report, Trend report, or Service report to selected users using email. For details, see "Email Dialog Box" on page 119.

For details on how to create a schedule for a report or report object to be sent to specified individuals at set times, see "Create a Schedule" on page 106.

🎋 Work With the Report Manager — Scenario

This scenario describes how to create, manage, and distribute reports and report objects using Report Manager.

For a task of this scenario, see "Work With the Report Manager — Workflow" on page 98.

This scenario includes the following steps:

1 Creating a Favorite Filter

John Smith is the CEO for ABC Software Company. He wants to see the data output of the Change report for a specific CI for the past month. He clicks the **New** button and selects **New Favorite Filter**. In the Favorite Filters Wizard, he configures a Favorite Filter by selecting the report he wants to view, and configures the Time Range and Granularity bar to generate or view the report displaying all the changes that occurred for that CI, Resource, View during the defined time range.

The report generated by the Favorite Filter appears as follows:

2 Creating a Custom Report

The information that John most needs to see is the Availability Over Time and Response Time Over Time reports, located in the Business Process sub category within the End User Management category. He clicks the **New** button, selects **New Custom Report** and navigates to the Report Components page where he selects **User Experience Reports** in the Category field, and **Availability Over Time** and **Response Time Over Time** in the **Type** field to add these report components to his Custom report.

The Custom report is displayed as follows:
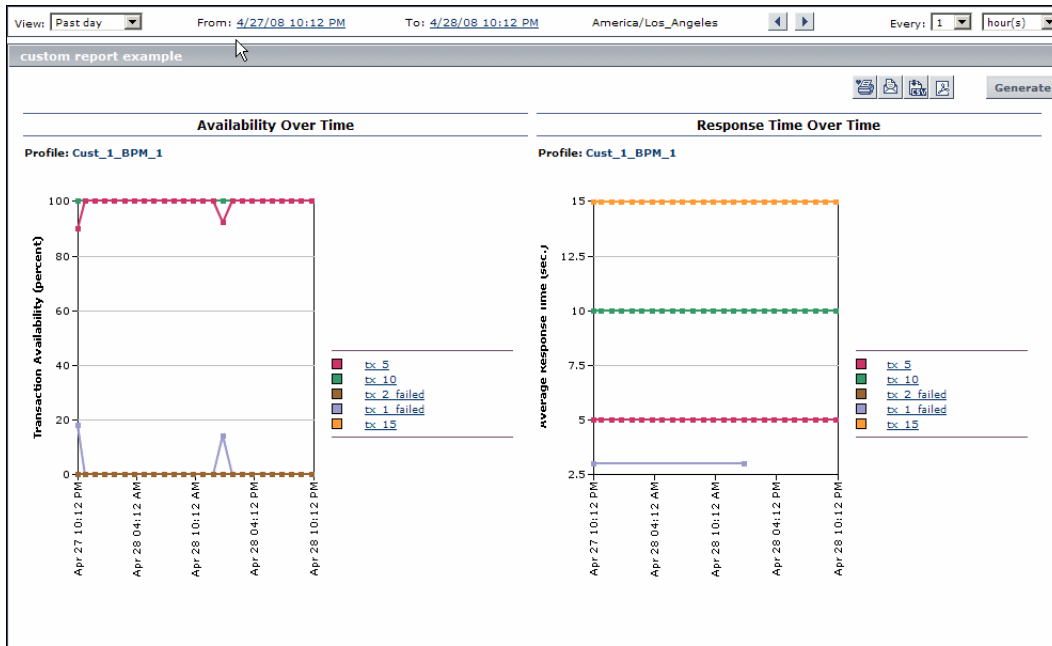
3 Creating a Trend Report

John also wants to receive a daily report comparison of Transaction Response Time and Download Time data within Business Process Monitor. He clicks the **New** button, selects **New Trend Report** and navigates to the Select Measurements page and clicks the **Add New Component** button to open the Measurement Selection page, where he adds the relevant selections to his Trend report, as described in "Trend Report Wizard" on page 190.

In the following image, the red line represents the generated data for the Transaction Response Time measurement, and blue line represents the generated data for the Download Time measurement. You configure the measurements' color by clicking the **Color Swatch** next to the relevant measurement on the Select Measurements page in the Trend Report Wizard. For details on how to perform this task, see "Select Measurements Page" on page 192.
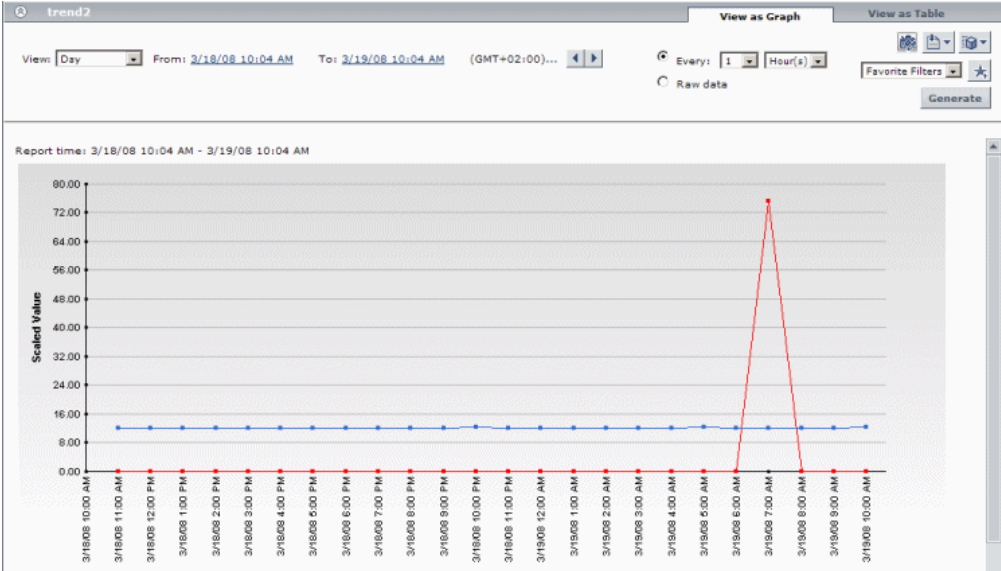
4 Creating a Service Report

John wants to view data collected from the Dashboard KPIs data source. He clicks the **New** button, selects **New Service Report** and configures a Service report, as described in "Configure a Service Report in the Report Manager – Workflow" on page 219.

5 Creating a Custom Link

John creates a link to a select report page by clicking the **New** button, selecting **New Custom Link**, and entering the URL of the report page he wants to view.

6 Creating an Excel Report

John wants to view his report data in a more organized format, and decides to use Microsoft Excel for this purpose. He follows this procedure:

a Navigates to the Custom Query Builder and creates a Web Query, as described in "Build a Custom Query – Workflow" on page 287.

b Opens Microsoft Excel and creates a Microsoft Excel report, as described in "Create a Microsoft Excel Report - Workflow" on page 317.

c Navigates to the Report Manager, clicks the **New** button, selects **New Excel Report**, and browses to the file he saved. The Excel report is saved to the Report Manager.

7 Emailing a User Report

John wants to send his Custom report to an associate to show him the data that has been collected. He selects the Custom report in the Report Manager and clicks the **Send Email Now** button to choose a recipient from the Email dialog box and send the Custom report using email.

8 Viewing a Report Saved to the Report Manager

One of John's associates has saved an annotated report to the Report Manager, and John wants to view the areas in the report that have been highlighted by the annotations. He selects the annotation in the Report Manager and clicks the **View Report** button to view the report's annotations.

The resulting Report Manager page appears as follows:

Name	Type	Details	Description	Privilege	Owner	Scheduling
change1	Favorite Filter	Change Report		Public	-	2 active schedules out of 2
change2	Favorite Filter	Change Report		Public	-	
change3	Favorite Filter	Change Report		Public	-	
change5	Favorite Filter	Change Report		Public	-	
change7	Annotated Report	Change Report		Public	-	
Changed Applications	Favorite Filter	Changed Applicat		Public	-	
CMDB Util	Favorite Filter	CMDB Utilization		Public	-	
Network Device Breakdown	Favorite Filter	Network Device Br		Public	-	

The annotated report appears, with annotations indicated by black and pink boxes, as follows:

🪝 **Create a Schedule**

This task describes how to create a scheduled report to enable specific recipients to automatically receive reports, through email, at regularly defined intervals.

This task includes the following steps:

➤ "Prerequisites" on page 106

➤ "Create a Schedule" on page 106

➤ "Results" on page 106

1 **Prerequisites**

Ensure that you have at least one Favorite Filter, Custom report, Trend report, or Service report in the Report Manager. For details on configuring reports and report objects, see "Work With the Report Manager — Workflow" on page 98.

2 **Create a Schedule**

a Click the **Create new schedule for selected reports** button.

b Enter the requested information in the Create New Schedule dialog box. For details on creating a new schedule in the Create New Schedule Dialog Box, see "Create New Schedule Dialog Box" on page 121.

3 **Results**

The configured schedule's status is indicated in the **Scheduling** column of the Report Manager.

Click the link in the **Scheduling** column to open the Schedule Management dialog box and manage the configured schedules. For details on the Schedule Management dialog box, see "Schedule Management Dialog Box" on page 124.

Report Manager User Interface

This section describes:

➤ Favorite Filters Wizard on page 107

➤ New Custom Link Page on page 113

➤ New Excel Report Page on page 113

➤ Report Manager Main Page on page 114

Favorite Filters Wizard

Description	Enables you to create a predefined filter with which you can regenerate the specified report.
	To access: Click the **New** button ⬚▼ in the Report Manager and select **New Favorite Filter**.
Important Information	Favorite Filters cannot be applied to legacy reports. For a list of legacy reports, see "Legacy Reports" on page 36.
Included in Tasks	"Generate Reports" on page 45
Wizard Map	The Favorite Filters Wizard contains:
	Filter Properties Page > Filter Setting Page > Report Preview Page

Filter Properties Page

Description	Enables you to choose the report for which you want to assign a Favorite Filter, and to configure the name, description, and access level of the filter.
	To access: Click the **New** button ⬚▼ in the Report Manager and select **New Favorite Filter**.
Important Information	General information about the wizard is available at "Favorite Filters Wizard" on page 107.
Wizard Map	**Filter Properties Page** > Filter Setting Page > Report Preview Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
Filter description	Optionally, enter a description for the filter.
Filter name	Enter a descriptive name for the filter.
Save filter as	Choose the access level for the favorite filter: ➤ **Private.** The filter is available only to the user who configured it, or to an administrator. ➤ **Public.** The filter is available to any user with appropriate permissions. For details on user permissions and the privileges they provide, see "User Management Operations" in *Platform Administration*.
Select report	Click to select from the list of reports from which you can assign a Favorite Filter. For details on the available reports, see "HP Business Availability Center Reports" on page 16.

🔍 Filter Setting Page

Description	Enables you to configure parameters for the filter. **To access:** Click the **New** button 🗋▾ in the Report Manager and select **New Favorite Filter**.
Important Information	General information about the wizard is available at "Favorite Filters Wizard" on page 107.
Wizard Map	Filter Properties Page > **Filter Setting Page** > Report Preview Page

The following elements are included:

GUI Element (A–Z)	Description
<Filters>	The active filters displayed on the Filter Setting page depend on the report you have chosen. The various filter options are described in the documentation for the specific report you are viewing. For a list of all HP Business Availability Center reports, see "HP Business Availability Center Reports" on page 16.
Time Range and Granularity Bar	Choose the date, time frame, and granularity for the filter. For details, see "Time Range and Granularity Bar" on page 70.

Select CI/View Dialog Box

Description	Select the required CI or view. Opens the Select CI/View dialog box. For details, see "Working with View Explorer" in *Model Management*. **To access:** Click the **CI/View** link.
Important Information	The CI/View link is available only in the Change report.

Set View-specific Report Dialog Box

Description	Enables you to generate a report of the selected Report TQL query based on a specific view rather than the entire CMDB. **To access**: Select the Favorite Filter of a Topology report and click the **Edit** button ✐. In the Filter Settings page, click the **Set View-Specific Report** link.
Important Information	The Set View-specific Report link is available only in Topology reports.

Save to History DB Option

Description	Enables you to create a schedule to send the Favorite Filter to specified individuals at specific intervals.
	To access: Select the Favorite Filter of a Topology report and click the **Edit** button 🖉. In the Filter Settings page, select the **Save to History DB** option.
Important Information	The Set View-specific Report link is available only in Topology reports.

Selected View Dialog Box

Description	Select the required view. Opens the Selected View dialog box.
	To access: Click the **Selected View** link.
Important Information	The Selected View link is available only in Asset, Host Dependency, or Change reports.

Configuration Items Dialog Box

Description	Enables you to select the CIs to be included in the report for which you are configuring the Favorite Filter.
	To access: Click the **Configuration Items** link on the Filter Setting page of the Favorite Filter dialog box.
	For details on the elements contained in the Configuration Items dialog box, see "Configuration Items Dialog Box" in *Using Dashboard*.
Important Information	➤ The Configuration Items link is available only for selected Dashboard and End User Management reports.
	➤ The availability of the tabs in the Configuration Items dialog box depends on the specific report you are generating. For details, see the description of the specific report with which you are working.

KPIs Dialog Box

Description	Enables you to select the KPIs on which to run the Favorite Filter, for the duration of a Web session.
	To access: Click **KPIs** on the Filter Setting page in the Favorite Filters wizard.
	For details on the elements contained in the KPIs dialog box, see "KPIs Dialog Box" in *Using Dashboard*.
Important Information	➤ The KPIs dialog box is available only for selected Dashboard reports.
	➤ The availability of the tabs in the KPIs dialog box depends on the specific report you are generating. For details, see the description of the specific report with which you are working.

Active Filters Dialog Box

Description	Enables you to set filters to determine which specific report components are to be included in the Favorite Filter.
	To access: Click the **Active Filters** link on the Filter Setting page in the Favorite Filters Wizard.
	Active filters are saved across reports. For details on Active Filters, see "Active Filters Dialog Box" in *Using End User Management*.
Important Information	➤ The Active Filters link is available for Real User Monitor and Business Process Monitor reports.
	➤ The availability of the tabs in the Active Filters dialog box depends on the specific report you are generating. For details, see the description of the specific report with which you are working.

Applications Dialog Box

Description	Enables you to select the applications to be included in the Favorite Filter.
	To access: Click the **Applications** link on the Filter Setting page of the Favorite Filters Wizard.
	For details on the elements contained in the Applications dialog box, see "Applications Dialog Box" in *Using End User Management*.
Important Information	➤ The Applications link is available only for Real User Monitor reports.
	➤ In the Global Statistics report, you select an application from the dropdown list in the **Application** field.

🔍 Report Preview Page

Description	Displays a snapshot of the generated report, based on the parameters configured for the filter.
	To access: Click the **New** button ☐⁺▾ in the Report Manager and select **New Favorite Filter**.
Important Information	➤ The Report Preview Page only displays the report and does not enable any functionality on the report snapshot.
	➤ General information about the wizard is available at "Favorite Filters Wizard" on page 107.
Wizard Map	Filter Properties Page > Filter Setting Page > **Report Preview Page**

🔍 New Custom Link Page

Description	Enables you to create a custom link to open a web page in a browser window. **To access:** Click the **New** button 🔳▾ in the Report Manager and select **New Custom Link**. To view the linked site, select the Custom Link in the Report Manager table, and click the **View Report** button 👓.

The following elements are included:

GUI Element (A-Z)	Description
Name	Enter a descriptive name for the custom link.
URL	Enter the URL of the web page you to which you want to create a link.

🔍 New Excel Report Page

Description	Enables you to upload a Microsoft Excel report that includes HP Business Availability Center data to the Report Manager. **To access:** Click the **New** button 🔳▾ in the Report Manager and select **New Excel Report**.
Important Information	Before you can upload an Excel report, you must: ➤ create a Web query file that you then import into Excel. ➤ create the report itself in Excel. For details, see "Create a Microsoft Excel Report - Workflow" on page 317.

Included in Tasks	"Create a Microsoft Excel Report - Workflow" on page 317
	"Create a Microsoft Excel Web Query File" on page 318
	"Generate a Report with Microsoft Excel" on page 318
Useful Links	"Excel Reports" on page 97

The following elements are included:

GUI Element (A-Z)	Description
Description	Type a description of the report as you want it to appear in the Report Manager table.
Excel File	Type the path to the saved Excel file you want to add, or use the Browse function to browse to the file. You can add **.xls** or **.xlsx** files.
Report Name	Type a name for the report as you want it to appear in the Report Manager table.

🔍 Report Manager Main Page

Description	Enables you to manage the contents of the Report Manager and perform a variety of actions, including:
	➤ View, edit, and clone existing components.
	➤ Configure new user reports and Favorite Filters.
	➤ Email reports and Favorite Filters.
	➤ Create a schedule for selected reports to run.
	To access: Select **Applications** > **User Reports** > **Report Manager.**
Important Information	You can filter the contents of the Report Manager by entering or selecting values in the cells under each column heading.
Useful Links	"Annotation Tool Window" on page 50

The following elements are included:

GUI Element (A–Z)	Description
👓	Click to view the selected report or report object.
⏮ ◀ 2 ▾ /8 Pages ▶ ⏭	Divides a table of data into pages. You move from page to page by clicking the relevant button: ➤ To view more items, click the **Next page** or **Last page** buttons. ➤ To view previous items in the list, click the **Previous page** or **First page** buttons.
📄▾	Click to create a new report or report object. Choose from the following options: ➤ **New Favorite Filter.** For details, see "Favorite Filters Wizard" on page 107. ➤ **New Custom Report.** For details, see "Custom Report Wizard" on page 136. ➤ **New Trend Report.** For details, see "Trend Report Wizard" on page 190. ➤ **New Service Report.** For details, see "Service Report Builder Wizard" on page 227. ➤ **New Custom Link.** For details, see "New Custom Link Page" on page 113. ➤ **New Excel Report.** For details, see "New Excel Report Page" on page 113.
✏	Click to edit the selected report or Favorite Filter. **Note:** Clicking this button opens the selected report or report object's wizard.
▯▫▯	Click to create a copy of the report object. You can then edit parameters in the wizard of the selected report or report object. **Note:** Any schedules configured for a specific report or report object are not cloned when selecting this option.

GUI Element (A–Z)	Description
✕	Click to delete the report or report object. **Note:** Deleting a report causes all schedules configured for the report to also be deleted.
⬛	Click to email the selected report or report object. For details, see "Email Dialog Box" on page 119.
⏰	Click to create a schedule to send the report or report object to specified individuals at specific intervals. For details, see "Create New Schedule Dialog Box" on page 121.
⬛	Click to open the Schedule Management dialog box and manage schedules configured for the selected report or report object. For details, see "Schedule Management Dialog Box" on page 124. A user with Administrator permissions can view and manage all schedules for all reports from the Report Schedule Manager. For details, see "Report Schedule Manager" in *Platform Administration*.
⬛	Click to delete all schedules from the selected report.
⬛	Click to resume all schedules for the selected report.
⬛	Click to pause all schedules for the selected report.
⬛	Click to configure a default header and footer for all custom and trend reports in the Report Manager. For details, see "Default Header/Footer Dialog Box" on page 118.
↻	Click to refresh the Report Manager page.
⬛	Click to reset the width of the columns to the default setting.

GUI Element (A–Z)	Description
	Click to select columns to be visible in the table. For details, see "Working with Tables" in *Reference Information*.
Description	The description of the report or report object. The value of this field is entered as entered during configuration of the report or report object. **Note:** This element is not displayed for Custom and Trend reports.
Details	Displays information on the report or report object according to the selected report type, as follows: ➤ **Favorite Filter.** The name of the report (value of the **Report Name** field) that the Filter is associated with. ➤ **Custom Report.** The titles of the components added to the report in the Custom Report Wizard. ➤ **Trend Report.** The value of the **Name** field for the measurements added to the Trend report in the Trend Report Wizard. The Details field is empty for Custom Links, Excel Reports, and Service Reports.
Name	The name of the report or report object.
Owner	The user who created the report or report object.
Privilege	The privilege level of the report or report object. The available values are: ➤ **Private.** The report or report object is available only to the user who configured it, or an administrator. ➤ **Public.** The report or report object is available to administrators or any user with appropriate permissions. **Note:** This element is not displayed for Custom reports, Trend reports, and Custom links, which by default have the **Public** privilege level.

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GUI Element (A–Z)	Description
Scheduling	Indicates if schedules are configured for the selected report or filter, and displays a link to the list of schedules (if they exist). Click the indicated schedules link to open the Schedules Management dialog box and manage schedules for the selected item. For details on the user interface, see "Schedule Management Dialog Box" on page 124. **Note:** A user with Administrator permissions can view and manage all schedules for all reports from the Report Schedule Manager. For details, see "Report Schedule Manager" in *Platform Administration*.
Type	The type of report or report object displayed.

🔍 Default Header/Footer Dialog Box

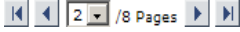| Description	Enables you to create a default header and footer to be displayed for all custom and trend reports. **To access:** Click the **Set default header/footer for all Custom & Trend Reports** button 🗗 on the Report Manager Main Page.
Important Information	The header and footer configured in the Default Header/Footer dialog box overrides the header and footer configured on the Infrastructure Settings page.

The following elements are included:

GUI Element (A-Z)	Description
Footer HTML	Enter the footer text with valid HTML tags.
Header HTML	Enter the header text with valid HTML tags.
Preview	Click to preview the configured header and footer.

🔍 Email Dialog Box

Description	Enables you to send the selected report or report object using email.
	To access: Click the **Email** button 📧 on the Report Manager Main Page.
Important Information	You must have **View** permissions to email a report.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Attachment type	Select the type of report attachment to be used. The available attachment types are:
	➤ **Embedded.** The report or report object is embedded into the body of the email.
	➤ **Attached.** The report or report object is sent as an external attachment with the email.
	➤ **Zipped.** The report or report object is sent as a .zip file attachment.
Format	Select the format of the report.
Recipients	Section of the Email dialog box that enables you to select recipients to receive the email. For details, see "Recipients Area" on page 120.
Report Coverage Time	Section of the Email dialog box that enables you to configure the time frame to be monitored by the report. For details, see "Report Coverage Time Area" on page 120.
	Note: This field is enabled only when selecting a Custom or Trend Report.
Select language	Select the language of the report attachment. The server from which the schedule is being sent must support the selected language for the report to display properly.

Report Coverage Time Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
◀	Click to move the report coverage time range back the time frame specified in the **View** field.
▶	Click to move the report coverage time range ahead the time frame specified in the **View** field.
<Time zone drop down>	Select the time zone from which the report generation time is to take effect.
From	Click to select the start date and time for the generated report.
To	Click to select the end date and time for the generated report.
View	Select the time frame that the emailed report is to cover.

Recipients Area

The following elements are included:

GUI Element (A–Z)	Description
▶	Click to move recipients to the Selected Recipients pane. You must select recipients in the **Available Email Recipients** pane before clicking this button.
◀	Click to de-select recipients by highlighting and move them to the Available Email Recipients pane. You must highlight recipients in the Selected Recipients pane before clicking this button.
Available Email Recipients	The list of configured recipients who are currently not selected to receive email on the report or report object.

GUI Element (A–Z)	Description
New Recipient	Click to add a new recipient to receive email of the report or report object. For details, see "Recipient Properties Wizard" in *Alerts*.
Selected Recipients	The list of configured recipients who are currently selected to receive email on the report or report object.

✏ Create New Schedule Dialog Box

Description	Enables you to schedule a report to be sent to specified individuals at specific intervals.
	To access:
	You access the Create New Schedule dialog box in one of the following ways:
	➤ Click the **Create new schedule for selected reports** button 🕐 on the Report Manager main page.
	➤ Click the **New** button ✳ in the Schedules Management dialog box, accessible by clicking the listed schedules in the **Scheduling** column.
	Note: This dialog box is also accessible by navigating to **Admin** > **Platform** > **Report Schedule Manager**, and clicking the **Edit Selected Schedule** button 🖰. For details on the Report Schedule Manager, see "Report Schedule Manager" in *Platform Administration*.
Included in Tasks	"Create a Schedule" on page 106
Useful Links	"Report Schedules" on page 96

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
Generate data for the past X hours	Select the number of previous hours for which the report should be generated. **Note:** This option is enabled only when the **Daily** recurrence pattern is selected for Custom and Trend reports.
Range of recurrence	Configure the start and end time of the schedule, as follows: ➤ **Start.** Click to configure the date for the schedule to start. ➤ **No end date.** Select for the schedule to run indefinitely. ➤ **End by.** Click to configure the date for the schedule to end.
Recipients	Configure recipients to receive the report at the scheduled time. For details on configuring recipients, see "Recipients Area" on page 120.
Recur every day on	Select the days of the week on which the report is to run.

GUI Element (A–Z)	Description

Recurrence Pattern	➤ For a Favorite Filter and Service Report, enables you to select how often the report or report object is to be sent.
	
	➤ For a Custom Report and Trend Report, enables you to select how often the report is to be sent and enables you to select the time frame for when the report data is to be generated.
	
	You also select the following configurations:
	
	➤ How often the report is to run. Choose from:
	   ➤ Daily
	   ➤ Weekly
	   ➤ Monthly
	   ➤ Quarterly
	
	➤ Days of the week the report is to run, if you chose **Daily** or **Weekly**.
	
	➤ The first or last day of every month or quarter, if you chose **Monthly** or **Quarterly**.
	
	➤ The specific day of the month or quarter, if you chose **Monthly** or **Quarterly**.

Report generation time	Set the time for the report generation to begin, and the time zone in which the generation should take place.
Select language	Select a language for the schedule to be sent. **Note:** The server from which the schedule is being sent must support the selected language for the report to display properly.
Time Zone	Select a time zone according to whose time the schedule is to be sent.

🔍 Schedule Management Dialog Box

Description	Enables you to manage configured schedules.
	To access:
	➤ Click the link in the **Scheduling** column next to the relevant item on the Report Manager Main Page.
	➤ Click the **Manage schedules list** button �__ on the Report Manager Main Page.
Useful Links	"Create New Schedule Dialog Box" on page 121

The following elements are included:

GUI Element (A–Z)	Description
✴	Click to create a new schedule for the selected report or report object. For details on creating schedules, see "Create New Schedule Dialog Box" on page 121.
▶	Click to resume the selected schedule according to its configured running time.
❚❚	Click to pause the selected schedule.
✕	Click to delete the selected schedule. **Note:** Deleting the schedule does not delete the report or report object.
Generation Time	The time (in the indicated time zone) that the schedule is to be generated.
Recipients	The recipients configured to receive the selected schedule.

GUI Element (A–Z)	Description
Recurrence	The recurrence pattern for the selected schedule.
Status	The current status of the schedule, displayed with an icon indicating one of the following statuses: ➤ Active. ▶ ➤ Paused. ⏸ **Note:** If an error status is indicated, see the scheduler log located in: **<HP Business Availability Center root directory>\hpbac\log\schedulergw\scheduler.log>**

🔍 Troubleshooting and Limitations

This section describes troubleshooting and limitations of the Report Manager.

Custom Links

➤ When entering the URL, do not enter a URL that is redirected, as a redirected link may cause a runtime error or the application to log out. Enter only URLs that are accessed directly upon linking.

➤ If the specified Web page includes JavaScript code that attempts to access the top frame, the browser displays an "access denied" error. To avoid this issue, set your browser to ignore JavaScript errors.

Excel Reports

➤ Users who have permissions to view Microsoft Excel reports but who do not have permissions on specific profiles are able to view data from those profiles only if they are included in an Excel report.

➤ Microsoft Excel reports cannot return more than 10,000 records due to a Microsoft Excel limitation when using Web queries. Possible workarounds include:

➤ split the request to several consecutive queries

➤ group data using larger time range chunks

➤ use filter parameters to fetch specific data

Report Schedules and Email Reports

When attempting to schedule or email multiple reports or report objects at the same time, you must ensure that your selections are from the same group. The items are grouped as follows:

➤ Favorite Filter and Service Report

➤ Custom Report and Trend Report

6

Custom Reports

This chapter includes the main concepts, tasks, and reference information on Custom reports.

This chapter includes:

Concepts

➤ Custom Reports - Overview on page 127

➤ Understanding the Header/Footer Page in the Custom Report Wizard on page 131

Reference

➤ Custom Reports User Interface on page 132

Troubleshooting and Limitations on page 158

Custom Reports - Overview

Custom reports consist of components—individual application reports that enable you to focus on the data you are most interested in tracking. Each Custom report consists of components from different HP Business Availability Center applications.

You select components from the relevant applications, and then configure settings for each component, including format (chart or table), layout, and time settings. You also specify active filters, which enable you to design the report to focus on the specific information that you most want to track (for example, business-critical transactions or critical alerts). In addition, you can add a custom header and footer to the report.

You configure Custom reports from the Custom Report Wizard, located in the Report Manager. For details on configuring Custom report components, see "Custom Report Wizard" on page 136.

Note: When a Custom report based on a **Custom** time range (selected in the time range and granularity bar) contains Service Level Management components, the time ranges used for these components are adjusted to fit Service Level Management tracking periods. For more information, see "Time Ranges in Service Level Management Component Reports" on page 128.

Time Ranges in Service Level Management Component Reports

When a Custom report is set to use a global time period for all components (so that the time range and granularity bar is displayed at the top of the Custom report), and you select to base the report on a **Custom** time range (selected in the **View** box), the time range you define might not fit the tracking periods for any Service Level Management components included in the report.

In this case, the time range for each Service Level Management component is automatically adjusted to correlate with Service Level Management tracking periods. The adjustment is made based on the **From** and **To** dates defined for the time range.

For over time reports (CIs Over Time, CI Over Time vs. Target), the automatic adjustment for both dates is to the nearest hour or nearest midnight, as appropriate.

Note: The granularity supported for these report components is every 1 hour, week, month, or year, as appropriate for the time range, with a maximum of 60 data points. For example, if you select a granularity of 1 day for a time range of a year, this would generate 365 data points, so the component report cannot be generated.

For all other Service Level Management reports, the adjustment is made as follows:

➤ If the difference between the **From** and **To** date is under 2 hours, the time is adjusted to show the hour that starts from the **From** date and time (rounded back to the nearest hour).

➤ If the difference between the **From** and **To** date is at least 2 hours, but under 2 days, the time is adjusted to show the day that starts from the **From** date (rounded back to the nearest midnight).

➤ If the difference between the **From** and **To** date is at least 2 days, but under 2 weeks, the time is adjusted to the week that starts from the **From** date (rounded back to the first weekday of that week).

➤ If the difference between the **From** and **To** date is at least 2 weeks, but under 61 days, the time is adjusted to the month that starts from the **From** date (rounded back to the first day of that month).

➤ If the difference between the **From** and **To** date is from 61 days to 121 days, the time is adjusted to the quarter that starts from the **From** date (rounded back to the first day of that quarter).

➤ If the difference between the **From** and **To** date is 122 days or more, the time is adjusted to the year that starts from the **From** date (rounded back to the first day of that year).

The adjusted time range used for the Service Level Management component is displayed at the top of the component report. (The settings in the time range bar remain as defined.)

In the following images, the custom time range for My Custom Report is set for 1.5 hours—from 4:40 pm to 6:10 pm. In the CI Status report component, the time range has been automatically adjusted to the hour from 4:00 pm - 5:00 pm; In the CIs Over Time report component, the time range has been automatically adjusted to the two hour period from 4:00 pm - 6:00 pm:

View: [Custom ▼]   From: 5/8/07 4:40 PM   To: 5/8/07 6:10 PM   Europe/Helsinki ◀ ▶   Every: [1 ▼] [hour(s) ▼]

My Custom Report

CI Status

Time Range: 5/8/2007 4:00 PM - 5:00 PM
CI: Outages (SLA: Outages)
KPI: Availability
Calendar: 24×7

CI	Availability (%)		Objectives	Samples	Successes	Failures	From Target	Deviation From Target (%)
Outages	80.000	Exceeded: > 98.0 % Met: > 95.0 % Minor Breached: > 90.0 %	0	-	-	-18	-18.367

View: [Custom ▼]   From: 5/8/07 4:40 PM   To: 5/8/07 6:10 PM   Europe/Helsinki ◀ ▶   Every: [1 ▼] [hour(s) ▼]

My Custom Report

CIs Over Time

Time Range: 5/8/2007 4:00 PM - 6:00 PM
CIs: Outages (SLA: Outages)
KPI: Availability
Calendar: 24×7

80.000

79.000

♨ Understanding the Header/Footer Page in the Custom Report Wizard

You can add a custom header and footer to your Custom report, using the **Header/Footer page** in the Custom Report Wizard. The custom header and footer can include free text, HTML tags used to mark up the text, hypertext links, JavaScript, as well as references to external resources such as images, Flash files, and so on. If you do not mark up the text, it is formatted according to the browser defaults.

You add the Custom Header and Footer into the **Report Header** and **Report Footer** panes, respectively.

HP Business Availability Center adds the HTML header to the report below the report filter, and the HTML footer at the end of the report, immediately before closing the body tag.

Note:

➤ The header and footer you configure on the Header/Footer page overrides the default header and footer configured from the **Set default header/footer for all Custom & Trend reports** button in the Report Manager.

➤ Use caution when marking up the header and footer fields, as some HTML code may affect the behavior of HP Business Availability Center. For example, a linked URL may contain JavaScript that causes the URL to "break out" of frames. Make sure you use valid HTML.

➤ It is recommended that you perform an external check of the HTML code used in the header and footer, as HP Business Availability Center does not perform any validity checks on the header and footer content.

For details on the Header/Footer page, see "Header/Footer Page" on page 157.

🔍 Custom Reports User Interface

This section describes:

➤ Custom Report Output on page 133

➤ Custom Report Wizard on page 136

🔍 Custom Report Output

This is an example of a Custom report:

Description	Displays the Custom report created in the Custom Report Wizard. You create Custom reports to view the data that you are most interested in tracking.
	To access: Select a Custom report in the Report Manager main page and click the **View Report** button 👓.
	The information displayed in the Custom report is dependent on the report components you added when configuring the report in the Custom Report Wizard.
Useful Links	"Custom Reports - Overview" on page 127
	"Custom Report Wizard" on page 136

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<Common report elements>	For details, see "Common Report Elements" in *Reports*.

GUI Element (A-Z)	Description
<Header/Footer>	The header and footer of the report that was configured in one of the following locations:
	➤ The Header/Footer page of the Custom Report Wizard. For details, see "Header/Footer Page" on page 157.
	➤ The Default Header/Footer dialog box which is displayed after clicking the **Set default header/footer for all Custom & Trend Reports** button ⬚ on the Report Manager main page. For details, see "Default Header/Footer Dialog Box" on page 118.
	➤ The static report header and static report footer configured in the HP Business Availability Center Infrastructure Settings.
	To configure the static report header and footer, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose the **Customer Settings** tab and the **Foundations** context, select **Reporting**, and locate the **Display static report header** and **Display static report footer** entries in the Reporting - Display table. Modify the **Customer's Value** to the desired header and footer, as appropriate.
	Note:
	➤ Settings configured in the Header/Footer page of the Custom Report Wizard override settings configured in the Default Header/Footer dialog box.
	➤ Settings configured in the Default Header/Footer dialog box override settings configured in the HP Business Availability Center Infrastructure Settings.
<Report Components>	The title of the report component, as configured in the Custom Report Wizard. The specific report components are described in the documentation for the specific report that you are viewing. For a list of all HP Business Availability Center reports, see "HP Business Availability Center Reports" on page 16.

Custom Report Wizard

Description	Enables you to create customized reports that present the data most relevant to you.
	To access: Select **Applications** > **User Reports** > **Report Manager**, click the **New** icon and select **New Custom Report**.
Important Information	If you configure user-level or global-level report filters to filter specific transactions, locations, or groups from reports after creating a Custom report, the filtered values still appear in the reports. To remove any newly filtered values from existing Custom reports, you must remove and re-add the components containing the elements for which filters have been set, and save the report.
Wizard Map	The Custom Report Wizard contains:
	Report Properties Page > Report Components Page > Add Component Dialog Box > (Filters Dialog Box) > Header/Footer Page > Reports Preview Page
Useful Links	"Custom Reports - Overview" on page 127

Report Properties Page

Description	Enables you to configure general properties for your Custom report.
	To access: Select **Applications** > **User Reports** > **Report Manager**, click the **New** icon and select **New Custom Report**.
Important Information	General information about the wizard is available in "Custom Report Wizard" on page 136.
Wizard Map	**Report Properties Page** > Report Components Page > Add Component Dialog Box > (Filters Dialog Box) > Header/Footer Page > Reports Preview Page

The following elements are included:

GUI Element (A–Z)	Description
Automatic Generation	Choose an automatic generation setting for your report. Select from the following options: ➤ **Do not generate the report automatically.** Select to ensure that the report is generated only on demand. ➤ **Refresh the report every x minutes.** Select to generate and refresh the report every x minutes. Select the number of minutes from the drop down box.
Insert a page break after each component when printing the report	Select to insert a page break after each report component when printing the report.
Page Title	Enter a title for the Custom report.
Report Name	Enter a descriptive name for the Custom report. **Note:** Leaving this field blank causes the value to automatically default to the value of the **Page Title** field.
Time Period	Choose whether you want to enable one time period for all components, or a separate time period for each component.

🔍 Report Components Page

Description	Enables you to add components that contain the data most important to you to the Custom report. **To access:** Enter parameters on the Report Properties page in the Custom Report Wizard.
Important Information	General information about the wizard is available in "Custom Report Wizard" on page 136.
Wizard Map	Report Properties Page > **Report Components Page** > Add Component Dialog Box > (Filters Dialog Box) > Header/Footer Page > Reports Preview Page

The following elements are included:

GUI Element (A–Z)	Description
✚	Click to open the Add Component dialog box and add a component to the customized report. For details, see "Add Component Dialog Box" on page 139.
▽	Click to configure filters for the selected component. For details, see "Filters Dialog Box" on page 155.
▤	Click to reset the width of columns in the report components table.
▥	Click to select columns to be visible on the report components table. For details, see "Working with Tables" in *Reference Information*.
Entity	The profile, if applicable, to which the report component belongs.
Report	The type of report component selected.
Time Frame	Displays a method for time range display for the component. ➤ **Global.** One time range is applied to all report components. This is displayed if you chose **Use one time period for all reports** in the **Time Period** field on the Reports Properties page. ➤ **<Time Interval>.** The interval at which the report is to be generated. This is displayed if you chose **Use separate time period for each report** in the **Time Period** field on the Reports Properties page.
Title	The title of the report, as configured on the Component Properties page.
Width	Displays the size of the report component, as configured on the Component Properties page: ➤ **Wide.** The component is displayed across the whole page. ➤ **Narrow.** The component is displayed across half the page.

🔍 Add Component Dialog Box

Description	Enables you to choose a component type and specific report to be included in your Custom report.
	To access: Click the **Add New Component** button ➕ on the Report Components page in the Custom Report Wizard.
Wizard Map	Report Properties Page > Report Components Page > **Add Component Dialog Box** > (Filters Dialog Box) > Header/Footer Page > Reports Preview Page
Useful Links	"Custom Report Wizard" on page 136
	"Report Components Page" on page 137

The following elements are included:

GUI Element (A–Z)	Description
Select Component	Select the specific component you want added to your Custom report. For details, see "Select Component Pane" on page 140.
Select Component Category	Select the type of report component you want added to your Custom report.
	You must click the expand button next to the application contexts to view the available categories to choose from.
	For details on the available reports components, see "HP Business Availability Center Reports" on page 16.

🔍 Select Component Pane

Description	Enables you to configure components to be included in your Custom report.
	To access: Click the **New Component Button** ➕ on the Report Components page of the Custom Report Wizard and choose a component category from the Select Component Category pane. Configure your component in the Select Component pane.
Wizard Map	Report Properties Page > Report Components Page > **Add Component Dialog Box** > (Filters Dialog Box) > Header/Footer Page > Reports Preview Page
Important Information	➤ Before selecting the **Service Report Builder** in the User Reports context, you must first create a Service Report in the Report Manager to enable you to add Service Reports as a component to your Custom Report. For details, see "Configure a Service Report in the Report Manager – Workflow" on page 219.
	➤ Not all elements are available for all report components within each context.

End User Management Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Category	Select a report category. **Note:** This field is available only for Business Process reports in the End User Management context. The available report categories are: ➤ Performance Update Reports, located in "Additional Custom Reports" on page 161. ➤ User Experience Reports (Real User Monitor and Business Process Monitor reports), located in *Using End User Management*. The individual reports are then selected in the **Type** field.
Interval	If you selected **Use separate time period for each report** when defining the report properties, select the time frame for which HP Business Availability Center should generate the report. You then configure how long ago the data for the report should be generated in the **Start** field. If you selected **Use global setting for all reports** when defining the report properties, this field reads **Use global settings**.
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1). **Note:** For a component to appear in the **Narrow** format (as configured in the **Size** field), you must have two **Narrow** components positioned consecutively.
Profile	Select a profile for the Custom report component.

GUI Element (A–Z)	Description
Report	Select a report from the Report list. The available reports are displayed based on the component category chosen, as follows:
	➤ **Business Process Monitor Enhanced**
	➤ Response Time by Percentile Report
	➤ Triage Raw Data Report
	➤ Triage Report
	➤ **Real User Monitor**
	➤ End User Over Time Report
	➤ End User Summary Report
	➤ End Users by Page Report
	➤ End Users by Transaction Report
	➤ Event Analysis Report
	➤ Event Count Over Time Report
	➤ Event Summary Report
	➤ Page Over Time Report
	➤ Page Summary Report
	➤ Pages by Server Summary Report
	➤ Server Over Time Report
	➤ Server Summary Report
	➤ Servers by Page Summary Report
	➤ TCP Application Summary Report
	➤ Transaction Over Time Report
	➤ Transaction Summary Report
	➤ **Real User Monitor (Old)**
	➤ Broken Links
	➤ Most Active End Users
	➤ Most Popular Pages
	➤ Pages with Most Errors
	➤ Pages with Slowest Server Time
	➤ Slowest End Users

GUI Element (A–Z)	Description
Size	Select the size for the report component to be displayed: ➤ **Wide.** The component is displayed across the whole page. ➤ **Narrow.** The component is displayed across half the page.
Start	Select how long ago the data for the report should be generated. The granularity for this field is measured according to what you chose in the Interval field.
Start Time	Select the default time period for which HP Business Availability Center initially generates the report. You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use global setting for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.

GUI Element (A–Z)	Description

Type	Select the report type that you want to add to the Custom report, based on the component category you chose:
	
	➤ Performance Update Reports
	  ➤ Performance Update Summary
	  ➤ Performance of Locations
	  ➤ Performance of Transactions
	  ➤ Transaction Availability
	For details, see "Performance Update Report" on page 162.
	
	➤ User Experience Reports, located in *Using End User Management*:
	  ➤ Availability Over Time Report
	  ➤ Breakdown Over Time Report
	  ➤ Breakdown Summary Report
	  ➤ Min./Max. Response Time Report
	  ➤ Overall Performance by Profiles. For details, see Multi-Profile Summary Report.
	  ➤ Overall Performance of 3 Worst Locations (multi-profile). For details, see Performance of Locations.
	  ➤ Overall Performance of 3 Worst Profiles (multi-profile). For details, see Multi-Profile Summary Report.
	  ➤ Performance Matrix Report
	  ➤ Profile Summary Report in Additional Reports
	  ➤ Response Time – 90th Percentile Report in Additional Reports
	  ➤ Response Time by Percentile Report
	  ➤ Response Time Over Time Report
	For details, see "Business Process Reports Overview" on page 160.

GUI Element (A–Z)	Description
View As	Select **Graph** or **Table**, depending on the format in which you want HP Business Availability Center to display the report. These options are not available for all reports. In a report with multi-tab layout, all tabs are displayed one after another.
Width	Select the width of the frame size for the component.

System Availability Management Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Display	Select whether you want HP Business Availability Center to display the best- or worst-performing monitors, and choose the number of monitors to be displayed in the report in the **Monitors** list.
Interval	If you selected **Use separate time period for each report** when defining the report properties, select the time frame for which HP Business Availability Center should generate the report. You then configure how long ago the data for the report should be generated in the **Start** field. If you selected **Enable time period per component** when defining the report properties, select the time period for which HP Business Availability Center initially generates the report in the **Interval** list.

GUI Element (A–Z)	Description
Monitor Title	Specify the monitors (by their title, as defined in SiteScope) on which you want the Custom report data to be based.
	Leave empty to instruct HP Business Availability Center to base the report on all values.
	You can use the asterisk symbol (*****) as a wildcard to instruct HP Business Availability Center to base the report on a subset of all values. For example, to name all CPU monitors in SiteScope with the naming convention cpu_<servername>, specify cpu***** to instruct HP Business Availability Center to include all CPU monitors in the Custom report.
	Note:
	➤ It is not recommended to enter a wildcard as the first character in a string because HP Business Availability Center is unable to use the Index tables when querying the database, thus slowing report generation times.
	➤ This field is available only for the SiteScope Monitor Performance component category.
Monitor Type	Select the monitor on which you want the Custom report data to be based. To base the report on all monitors, choose **All types**.
	Note: This field is available only for the SiteScope Monitor Performance component category.
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1).
	Note: For a component to appear in the **Narrow** format (as configured in the **Size** field), you must have two **Narrow** components positioned consecutively.

GUI Element (A–Z)	Description
Profile	Select a profile for the Custom report component. **Note:** This field is available only for the SiteScope Monitor Performance component category.
Report	Displays Cross-Performance, to add the Cross-Performance report component to the Custom report.
Server Name	Specify the servers on which you want the Custom report data to be based. Leave empty to instruct HP Business Availability Center to base the report on all values. **Note:** This field is available only for the SiteScope Monitor Performance component category.
Size	Select the size to be displayed for the report component: ➤ **Wide.** The component is displayed across the whole page. ➤ **Narrow.** The component is displayed across half the page.
Start	Select how long ago the data for the report should be generated. The granularity for this field is measured according to what you chose in the **Interval** field.
Start Time	Select the default time period for which HP Business Availability Center initially generates the report. You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use one time period for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.

GUI Element (A–Z)	Description
Type	Select a specific SiteScope report component to add to your Custom report. Choose from the following reports, located in *Using System Availability Management*: ➤ Overall Performance Report. For details on this report, see "Overall Performance Report" in *Using System Availability Management*. ➤ SiteScope Data Over Time Report. For details on this report, see "SiteScope Data over Time Report" in *Using System Availability Management*. ➤ SiteScope Profile Summary Report, contained in the Group Performance Report. For details on the Group Performance report, see "SiteScope Data over Time Report" in *Using System Availability Management*.
View As	Select **Graph** or **Table**, depending on the format in which you want HP Business Availability Center to display the report. In a report with multi-tab layout, all tabs are displayed one after another.

User Report Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Height	Select the height of the frame size for the component. **Important:** Keep in mind the required frame size for correctly viewing the Web page content being accessed.
Interval	If you selected **Use separate time period for each report** when defining the report properties, select the time frame for which HP Business Availability Center should generate the report. You then configure how long ago the data for the report should be generated in the **Start** field. If you selected **Enable time period per component** when defining the report properties, this field reads **Use global settings**.

GUI Element (A–Z)	Description
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1).
	Note: For a component to appear in the Narrow format (as configured in the Size field), you must have two Narrow components positioned consecutively.
Report	Select to add the Custom Query Builder report component. For details on the Custom Query Builder report, see "Custom Query Builder" on page 285.
Report Title	Enter a descriptive title for the report.
	Note: This field is available only for the Service Report Builder component.
Select Report	Select a report to be included as a component for your Custom report.
	Note: This field is available only for the Service Report Builder component.
Size	Select the size to be displayed for the report component:
	➤ **Wide.** The component is displayed across the whole page.
	➤ **Narrow.** The component is displayed across half the page.
Start Time	Select the default time period for which HP Business Availability Center initially generates the report.
	You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use one time period for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.

GUI Element (A–Z)	Description
URL	Select to create a report that calls a specified URL. For example, you can integrate links to external charts generated by third-party EMS software into the Custom report. You specify the URL as well as any parameters that you want the URL to process at runtime.
	HP Business Availability Center provides two templates that you can use as the arguments for parameters that process report times:
	➤ **Start Time.** Uses the argument **$$startTime$$** to return the start time for the report.
	➤ **End Time.** Uses the argument **$$endTime$$** to return the end time for the report.
	Example: A URL that uses parameters to return the chart type and start time of a report is:
	http://www.myapp.com?graph=responsetime;starttime=$$startTime$$
	Note:
	➤ If the specified Web page includes JavaScript code that attempts to access the top frame, the browser displays an "access denied" error. To avoid this issue, set the browser to ignore JavaScript errors.
	➤ Type the URL of the Web page you want HP Business Availability Center to display in the report. If the URL includes parameters, specify them as required.
	➤ To use one of the predefined arguments with a parameter in the URL, place the insertion point in the URL where you want to add the argument, select the required argument from the URL runtime templates list, and click **Add Template**.
	➤ This field is available only when the URL component category is selected.

GUI Element (A–Z)	Description
View As	Select **Graph** or **Table**, depending on the format in which you want HP Business Availability Center to display the report. In a report with multi-tab layout, all tabs are displayed one after another.
Width	Select the width of the frame size for the component. **Important:** Keep in mind the required frame size for correctly viewing the Web page content being accessed.

Dashboard Report Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1). **Note:** For a component to appear in the Narrow format (as configured in the Size field), you must have two Narrow components positioned consecutively.

Report	Select the report you want added to your Custom report. The available reports are located in *Using Dashboard* and are displayed according to the selected component category, as follows:
	
	➤ **Business Dashboard**
	  ➤ KPIs Distribution Over Time Report
	  ➤ KPIs Summary Report
	  ➤ KPIs Trend Report
	➤ **General**
	  ➤ KPIs Over Time Report

GUI Element (A–Z)	Description
Size	Select the size to be displayed for the report component: ➤ **Wide.** The component is displayed across the whole page. ➤ **Narrow.** The component is displayed across half the page.
Start	Select how long ago the data for the report should be generated. The granularity for this field is measured according to what you chose in the **Interval** field.
Start Time	Select the default time period for which HP Business Availability Center initially generates the report. You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use one time period for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.
View As	Select **Graph** or **Table**, depending on the format in which you want HP Business Availability Center to display the report. In a report with multi-tab layout, all tabs are displayed one after another.

Alert Report Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1). **Note:** For a component to appear in the **Narrow** format (as configured in the **Size** field), you must have two **Narrow** components positioned consecutively.
Report	Select the report you want added to your Custom report. Choose from the following reports, located in *Alerts*: ➤ Actual vs. Baseline Suggested Alerts Report ➤ Actual vs. Baseline Suggested Alerts – Detailed Report ➤ Alerts Count Over Time Report ➤ Alerts Log Report ➤ Baseline Suggested Alerts Log Report ➤ Configuration Item Status Alerts Report ➤ SLA Status Alerts Report
Size	Select the size to be displayed for the report component: ➤ **Wide.** The component is displayed across the whole page. ➤ **Narrow.** The component is displayed across half the page.
Start Time	Select the default time period for which HP Business Availability Center initially generates the report. You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use one time period for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.

Service Level Management Components

The following elements are included (listed alphabetically):

GUI Element (A–Z)	Description
Position	Select the position for the component within the Custom report, relative to the other components. Selecting 1 instructs HP Business Availability Center to place the component at the top of the list (for the first component, you must select 1).
	Note: For a component to appear in the **Narrow** format (as configured in the **Size** field), you must have two **Narrow** components positioned consecutively.
Report	Select the report you want added to your Custom report. Choose from the following reports, located in *Using Service Level Management*:
	➤ CI Impact Report
	➤ CI Over Time vs. Target Report
	➤ CI Status Report
	➤ CI Summary Report
	➤ CIs Over Time Report
	➤ Outage Breakdown Report
	➤ Outage Distribution Report
	➤ Outage Summary Report
	➤ SLA Status Report
	➤ SLAs Summary Report
	➤ Time Range Comparison Report
Size	Select the size to be displayed for the report component:
	➤ **Wide.** The component is displayed across the whole page.
	➤ **Narrow.** The component is displayed across half the page.

GUI Element (A–Z)	Description
Start Time	Select the default time period for which HP Business Availability Center initially generates the report. You can select this time period only if you selected **Use separate time period for each report** when defining the report properties. If you selected **Use one time period for all reports**, this field displays **Use global settings**.
Title	Type the descriptive title that you want to appear in the report components table, or accept the default.

🔍 Filters Dialog Box

Description	Enables you to configure filters for the selected component. **To access:** Click the **Edit Filter** button 🔽 on the Reports page in the Custom Report Wizard. **Note:** ➤ This dialog box may have the heading Component Filters for certain components. ➤ The **Edit Filter** button is not enabled for the Service Report Builder and URL components in the User Reports category.

Wizard Map	Report Properties Page > Report Components Page > Add Component Dialog Box > (**Filters Dialog Box**) > Header/Footer Page > Reports Preview Page
Important Information	➤ The elements displayed in this dialog box depend on the particular report you have selected. For details on the elements that are displayed, see the relevant documentation for the selected report.
	➤ For a component that includes a time range comparison, the Component Filters window includes a **Time Ranges** option where you set the time ranges to be compared in the report.
	When the Custom report is set to **Use global settings for all components**, the available time ranges include **Global Time**. The global time range is determined by the time range selected when the report is generated, or by the time range set by the report schedule.
	➤ If you do not have access permissions to the profile in the component (or to at least one of the profiles in a multi-profile component), or if the profile has been removed from the database, you cannot edit component filters.
	For details on setting report filters, see "Configure Report Filters Globally" in *Platform Administration*, "Report Filters Page" in *Using End User Management*, and "Active Filters Dialog Box" in *Using End User Management*.

🔖 Header/Footer Page

Description	Enables you to add a Custom header or footer to your Custom report. **To access:** Enter parameters on the Report Properties and Report Components pages in the Custom Report Wizard.
Important Information	➤ The header and footer you configure on the Header/Footer page overrides the default header and footer configured from the **Set default header/footer for all Custom & Trend reports** button 🔲 in the Report Manager. ➤ General information about the wizard is available at "Favorite Filters Wizard" on page 107.
Wizard Map	Report Properties Page > Report Components Page > Add Component Dialog Box > (Filters Dialog Box) > **Header/Footer Page** > Reports Preview Page

🔖 Reports Preview Page

Description	Displays the Custom report according to the properties configured in the Custom Report Wizard. **To access:** Enter parameters on the Report Properties, Report Components, and Header/Footer pages in the Custom Report Wizard.
Important Information	➤ General information about the wizard is available in "Custom Report Wizard" on page 136. ➤ **Note to HP Software-as-a-Service Customers:** If you selected **Do not generate the report automatically** in the Automatic Generation field on the Report Properties page, you must click the **Generate** button to view the report data.
Wizard Map	Report Properties Page > Report Components Page > Add Component Dialog Box > (Filters Dialog Box) > Header/Footer Page > **Reports Preview Page**

🔍 Troubleshooting and Limitations

This section describes Troubleshooting and Limitations of Custom reports, divided into the following sections:

➤ **General.** General limitations of Custom reports.

➤ **Report Components.** Limitations relating to individual report components.

General

This section describes general limitations of Custom reports.

➤ Within any one specific component, HP Business Availability Center can display only those profiles that have the same settings for outlier values. Therefore, in the Custom Report Wizard, you should select a set of profiles that have the same setting for outlier values. For details on modifying outlier value settings for a profile, see "Transaction Threshold Settings" in *Using End User Management.*

➤ After creating Custom reports, if you then configure user or global-level report filters to filter specific transactions, locations, or groups from reports, the filtered values still appear in the reports. To remove any newly filtered values from existing Custom reports, you must remove and re-add the components containing the elements for which filters have been set, and save the report.

Report Components

This section describes limitations relating to individual reports components.

➤ When configuring the Service Level Management report component and selecting **Use global settings for all components**, if a global time range is selected (at report generation) that does not match the time ranges of the SLA filtered in the Service Level Management component, the following message is displayed upon report generation: No associated tracking periods exist.

➤ If you have upgraded from a previous version of HP Business Availability Center and have a Custom report containing the Response Time by Percentile Report component who's time period ends in the past (for example, two days ago, three days ago, and so forth), the time range for the report defaults to the shortest predefined time range that includes the previous setting. For example, for a report that was configured to end two days ago, the **Past Week** time range is used. For a report that was configured to end eight days ago, the **Past Month** time range is used. This limitation applies only if you have selected the **Use separate time period for each report** option in the Report Properties page of the Custom Report Wizard.

➤ To see data in the report after adding Business Dashboard components, you must select CIs and KPIs in the filter.

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Additional Custom Reports

This chapter describes reports that cannot be accessed directly from any
application but that can be added to Custom reports to provide additional
information.

This chapter includes:

Concepts

🍀 Additional Custom Reports - Overview

The Additional Custom reports cannot be accessed directly from any
application, but they can be added to Custom reports to provide additional
information. Additional Custom reports display information about
transaction response times and availability for Business Process Monitor
profiles. For details on Custom reports, see "Custom Reports" on page 127.

For details on working with reports, see "Working in Reports" on page 39.

The following reports are available:

➤ Performance Update Report on page 162

➤ Profile Summary Report on page 162

➤ Response Time – 90th Percentile Report on page 163

➤ Overall Performance Report on page 165

Performance Update Report

The Performance Update report is a scheduled report that is configured to be sent to specified recipients, through email, on a periodic basis. The report includes key metrics on the performance of the transactions and locations defined in a specific profile.

You define transaction thresholds—to specify the **OK**, **Warning**, and **Poor** range for each transaction—when you create a profile. You can also modify the transaction threshold ranges, as well as the default outlier value of 45 seconds, from End User Management Administration. For details, see "Edit Transaction Monitor Page" in *Using End User Management*.

You add components of the Performance Update report to Custom reports. For details on the Performance Update Report User Interface, see "Performance Update Report Output" on page 166.

Profile Summary Report

The Profile Summary displays an overview of the transaction response time and availability for each Business Process Monitor profile that you add to the report. For details on configuring Custom reports and their components, see "Custom Report Wizard" on page 136.

For details on the Profile Summary Report User Interface, see "Profile Summary Report Output" on page 169.

Response Time – 90th Percentile Report

The Response Time – 90th Percentile report does not appear in any application and can be added only to Custom reports to provide additional information. For details on configuring Custom reports, see "Custom Report Wizard" on page 136.

The Response Time – 90th Percentile displays, for each indicated point in time, the specific response time value that 90 percent of all measured response time values are equal to or below. You can view the data in either chart or table format.

When calculating each point along the chart (or value in the table), HP Business Availability Center considers all transaction instances between the given point in time and the following point. For example, when displaying the report in the "Day" resolution, HP Business Availability Center divides the x-axis (or table) per hour. The value at each point along the chart (or in each cell in the table) represents the 90th percentile for the following hour.
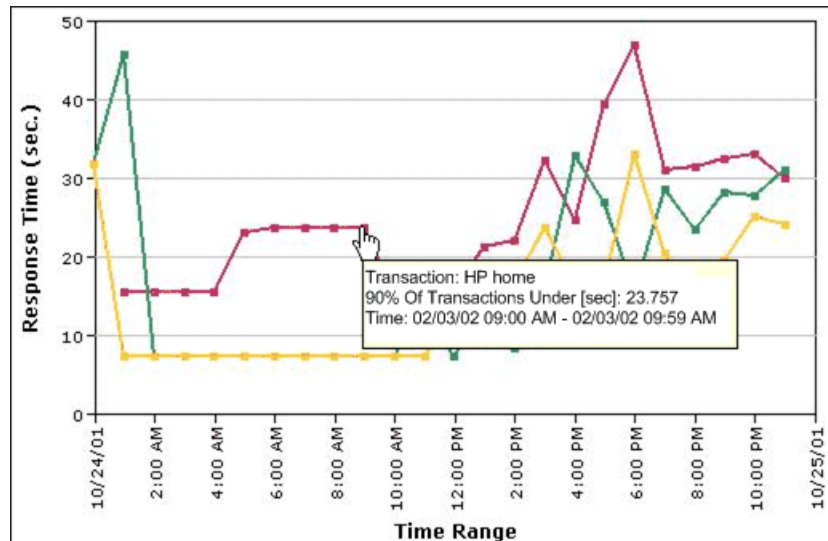
In the above chart, 90% of the transactions that ran between 9:00 AM and 9:59 AM had response times equal to or below 23.757.

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The Response Time – 90th Percentile data helps you identify response time problems and pinpoint their source. Because the data excludes response times above the 90th percentile (the highest 10 percent of response times), non-representative or non-typical transaction instances (for example, transactions that run during a server reboot) are eliminated. Thus, the data provides a more accurate picture of transaction performance over the defined time period.

By breaking down the data by transaction, location, or group across different time frames, you can identify exactly where and when transaction response times are too slow. For example, you might determine that response times in the 90th percentile for transactions from a specific location are consistently high over the course of several hours. This might indicate a problem somewhere along the network between that location and the monitored Web site.

You can further analyze the Response Time – 90th Percentile data as described below:

➤ place your cursor over any small square along the chart to view a tooltip containing details about the specific response time value that 90 percent of all response time values were equal to or below.

➤ modify the report time frame and click **Generate** to generate the modified report.

➤ drill down in the chart view. Click any time point in the chart to increase the time resolution for the selected transaction, location, or group. Click any drill down link to the right of the report, to focus on that transaction, location, or group.

➤ drill down in the table view. Click any link in a column or row header to focus on a specific time frame, transaction, location or group.

➤ select the table view in the Custom Report Manager to display the report in table format.

The table displays, for each point in time, the specific response time value that 90 percent of all response time values were equal to or below. You can view the table broken down by transaction, location, or group.

➤ Apply component filters in the Custom Report Manager. Click the **Edit Filters** button, and select or clear check boxes to view the report filtered by specific transactions, locations, or groups.

Overall Performance Report

The Overall Performance report is a System Availability Management report which displays a quick snapshot of the performance of the monitored infrastructure machines in the selected SiteScope profiles. It can be added only from the Custom Report Wizard, and cannot be accessed from the System Availability Management context. For details on the Overall Performance Report, see "Overall Performance Report" in *Using System Availability Management*.

Additional Custom Reports - User Interface

This section describes:

➤ Performance Update Report Output on page 166

➤ Profile Summary Report Output on page 169

➤ Response Time – 90th Percentile Report Output on page 171

🔍 Performance Update Report Output

This is an example of the Performance Update Report:

Profile: TestAlerts

Availability:	100.0 %
Alerts sent:	307 (0 with critical severity)
Total transactions:	**1900**
Failed transactions:	**0**
Outlier transactions:	**0**

This report treats outlier transaction as failed

Transaction Availability

Transaction	Availability %	Description
Search_flights	100.0 %	
Book_flight	98.951 %	

Performance of Transactions

Transaction	Avg. Response Time (Sec)	OK %	Warning %	Poor %	Failed %	Total	Outlier Total %
Search_flights	0.812	68.881 %	20.979 %	10.14 %	0 %	286	0 %
Book_flight	17.967	0 %	0 %	98.951 %	1.049 %	286	1.049 %

Performance of Locations

Location name	OK %	Warning %	Poor %	Failed %	Total	Outlier Total %
East Coast location	9.298 %	10.526 %	29.474 %	50.702 %	570	0.526 %
West Coast location	25 %	0 %	25 %	50 %	576	0 %

Description	Displays key metrics on the performance of the transactions and locations defined in a specific profile.
	To access: You view the Performance Update report either in your email client or in a Web browser. You can view the Performance Update report from a Custom report to which the Performance Update report component has been added.
Useful Links	"Performance Update Report" on page 162
	"Custom Reports" on page 127

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Common report elements>	For details, see "Common Report Elements" on page 56.
Report Title and Frequency	Displays the title of the report, and in parentheses the report frequency.
Time Zone and Time Frame for Report	Displays the configured time zone relative to GMT, as well as the time frame of the report. For a reference list of GMT time zones for locations throughout the world, see "GMT Time Zones" in *Reference Information*.

Report Content

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Outlier transaction reporting status>	Describes whether HP Business Availability Center ignores outlier transactions in reports, or treats them as failed transactions (this setting is defined during profile definition in End User Management Administration).
Alerts Sent	Displays the total number of alerts sent, including the number of critical severity alerts, for the measured period.
Availability	Displays the percentage of transactions that succeeded (did not fail) during the measured period.
Failed Transactions	Displays the total number of failed transactions for the measured period.
Outlier Transactions	Displays the total number of outlier transactions for the measured period.
Performance of Locations	Displays, for the measured period and for each location, the percentage of transactions that fell into each defined transaction threshold range, (**OK**, **Warning**, and **Poor**), the percentage of failed transaction instances, the total number of transactions, and the percentage of outlier transactions.
Performance of Transactions	Displays, for the measured period and for each transaction, average transaction response time, the percentage of transaction instances that fell into each defined transaction threshold range, (**OK**, **Warning**, and **Poor**), the percentage of failed transaction instances, the total number of transaction instances, and the percentage of outlier transaction instances.
Performance Update Summary	Displays the transaction availability and total alerts sent for the measured period.
Profile name	Displays the Business Process profile upon which the report is based.

GUI Element (A–Z)	Description
Total Transactions	Displays the total number of transactions run during the measured period.
Transaction Availability	Displays the availability rate for each transaction in the profile, for the measured period. If a description of the transaction is set, the description is displayed (this setting is defined during transaction monitor configuration in End User Management Administration).

Profile Summary Report Output

This is an example of the Profile Summary Report:

Description	Displays an overview of the transaction response time and availability for each Business Process Monitor profile that you add to the Custom report. **To access:** You can view the Profile Summary report in the Custom report to which the Profile Summary report component has been added.
Important Information	If you apply active filters, only the selected transactions, locations, and groups are included in the report. For details on applying active filters, see "Active Filters Dialog Box" in *Using End User Management*.
Useful Links	"Profile Summary Report" on page 162 "Custom Reports" on page 127

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Common report elements>	For details, see "Common Report Elements" on page 56.
Performance	Displays the performance level for the selected profile, indicated by a colored icon.
Profile Name	Displays the Business Process profile upon which the report is based. You can click the profile name to generate a Transaction Analysis report for the profile. For details, see "Transaction Analysis Report" in *Using End User Management*.
Transaction Availability	Displays the availability of the transactions running on the selected profile, indicated by a colored icon. For details on the color codes, see "Report Content" on page 170.

Report Content

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Gray Icon>	➤ **Performance.** Indicates that no transaction data is defined. ➤ **Transaction Availability.** N/A
<Green Icon>	➤ **Performance.** Indicates that each transaction's average response time fell within the OK threshold level. ➤ **Transaction Availability.** Indicates that no transactions failed.
<Profile Name>	The name of the Business Process profile upon which the report is based.

GUI Element (A–Z)	Description
<Red Icon>	➤ **Performance.** Indicates that at least one transaction's average response time fell within the Critical threshold level. ➤ **Transaction Availability.** Indicates that at least one transaction failed.
<Yellow Icon>	➤ **Performance.** Indicates that at least one transaction's average response time fell within the Minor threshold level, but no transaction's average response time fell within the Critical threshold level. ➤ **Transaction Availability.** N/A

🔍 Response Time – 90th Percentile Report Output

This is an example of the Response Time - 90th Percentile Report:

Description	Displays, for each indicated point in time, the specific response time value that 90 percent of all measured response time values are equal to or below.
	To access: You can view the Response Time - 90th Percentile Report in the Custom report to which the Response Time - 90th Percentile report component has been added.
Important Information	You can apply component filters in the Custom Report Wizard by clicking the **Edit Filter** button 🔽 , and select or clear check boxes to view the report filtered by specific transactions, locations, or groups.
Useful Links	"Response Time – 90th Percentile Report" on page 163
	"Custom Reports" on page 127

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Common report elements>	For details, see "Common Report Elements" in *Reports*.
Profile	The Business Process profile upon which the report is based.

Report Content - Graph View

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<drill down link>	Click any drill down link to the right of the report to focus on that transaction, location, or group.
<small square on chart>	➤ Place your cursor over any small square along the graph to view a tooltip containing details about the specific response time value that 90 percent of all response time values were equal to or below. ➤ Click any time point in the graph to increase the time resolution for the selected transaction, location, or group.
Response Time (sec.)	The time, in seconds, for which the report data is generated.
Time Range	The time frame that the report data is generated over. The intervals displayed depend on the granularity chosen in the **Every** field.

Report Content - Table View

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
<Date and Time>	The date and time that the data is generated for in the given transaction. The time interval depends on the granularity selected in the **Every** field.
<Transaction Name>	The name of the transaction in the profile being monitored.
<Values in Table>	The specific response time value that 90 percent of all response time values were equal to or below for the given point in time.

8

Trend Reports

This chapter includes the main concepts, tasks, and reference information for Trend reports.

This chapter includes:

Concepts

Tasks

Reference

🍂 Trend Reports - Overview

Trend reports enable you to compare multiple measurements from several profiles, based on data collected by Business Process Monitor, Real User Monitor, and SiteScope. You can also add custom monitor data—including Real User Monitor data—to Trend reports.

Combining measurements for several monitors on the same chart enables you to analyze:

➤ Analyze the relationship between transaction response time and availability.

➤ Analyze the relationship between network and server health.

➤ Analyze the same set of measurements over two time periods (for example, you can compare measurements for the past hour and the hour before that).

➤ Monitor infrastructure machine performance over a selected time range.

When viewing Trend reports, you can:

➤ Display data using different data aggregation methods and according to different groupings.

➤ Adjust the scale used when displaying a measurement.

➤ Add a custom header and footer to the report.

➤ View raw data when choosing a time range of two days or less.

When HP Business Availability Center generates the Trend report, it displays data in time segments that differ depending on the time granularity you select in the Time Range and Granularity bar. For details on using the Time Range and Granularity bar, see "Time Range and Granularity Bar" on page 70.

Trend reports are configured in the Trend Report Wizard, accessible from the Report Manager in the User Reports context. For details on configuring a Trend report, see "Trend Report Wizard" on page 190.

You view existing Trend reports by selecting a Trend report in the Report Manager and clicking the **View Report** button. For details on the Trend report User Interface, see "Trend Report Output" on page 182.

🍀 Understanding the Trend Report Scale

Measurement values in the Trend report are displayed along the y-axis using a normalized scale. By default, HP Business Availability Center automatically sets the scale factor for each measurement. If required, you can manually modify the scale factor for any measurement in the table on the Select Measurements page, for example, to better view multiple measurements whose data values span a wide range. For details, see "Select Measurements Page" on page 192.

When you manually modify the scale factor, HP Business Availability Center scales measurement values by dividing the actual value by the value chosen in the scale list. Thus, a value of 100 with a scale setting of 0.1 is shown as 1000 along the y-axis. A value of 100 with a scale setting of 10 is shown as 10 along the y-axis.

For example, if at a given point in time Measurement A (whose scale value is set to "Auto") has a value of 10 and Measurement B (whose scale value is set to 0.1) has a value of 90, the y-axis displays a range from 0-1000 to accommodate both values. If both measurements' scale settings are set to "Auto," the y-axis value ranges from 0-100.

🍀 Adding Measurements to a Trend Report

You add measurements to a Trend report using the Measurement Selection page of the Trend Report Wizard. You can compare the measurements in a Trend report for the selected time range to the same set of measurements over a similar time period, but for a different start date. For example, to compare performance over two consecutive days, you could generate a Trend report for one day starting Dec. 12 at midnight, and then generate the comparison data for one day starting Dec. 11 at midnight.

You can add up to 20 measurements to a Trend report.

Measurement Selection

On the Measurement Selection page in the Trend Report Wizard, measurements are grouped into tables by monitor type. You can optionally adjust the name and color of configured measurements, as well as the scale factor for each measurement in the **Scale** field on the table. For details on the Trend report scale, see "Understanding the Trend Report Scale" on page 177.

Measurement filters differ per monitor category. Depending on the monitor type you choose, HP Business Availability Center displays various filters by which you determine which measurements are to appear in the Trend report. You must select an entry from each list.

For each monitor category, HP Business Availability Center displays the counters (measurements) that are relevant to the selected groups or data types. You select the relevant counter (measurement) to add to your Trend report.

For details on adding measurements to a Trend report, see "Select Measurements Page" on page 192.

Understanding the Header/Footer Page in the Trend Report Wizard

You can add a Custom Header and Footer to your Trend report, using the **Header/Footer page** in the Trend Report Wizard. The Custom Header and Footer can include:

➤ Free text

➤ HTML tags used to mark up the text

➤ Hypertext links

➤ JavaScript

The Custom Header and Footer can also include references to external resources such as images, Flash files, and so on. If you do not mark up the text, it is formatted according to the browser defaults.

You add the Custom Header and Footer into the **Report Header** and **Report Footer** panes, respectively.

HP Business Availability Center adds the HTML header to the report directly below the report filter, and the HTML footer at the end of the report, immediately before closing the body tag.

Note:

➤ The header and footer you configure on the **Header/Footer** page overrides the default header and footer configured using the **Set default header/footer for all Custom & Trend reports** button in the Report Manager.

➤ Use caution when marking up the header and footer fields, as some HTML code may affect the behavior of HP Business Availability Center. For example, a linked URL may contain JavaScript that causes the URL to "break out" of frames. Make sure you use valid HTML.

➤ It is recommended that you perform an external check of the HTML code used in the header and footer, as HP Business Availability Center does not perform any validity checks on the header and footer content.

For details on the **Header/Footer** page, see "Header/Footer Page" on page 198.

🔧 Modify the Maximum Number of Report Measurements

This task describes how to modify the maximum number of measurements displayed in a Trend report.

To modify the maximum number of measurements displayed in a Trend report:

1 Access the HP Business Availability Center Infrastructure Settings Manager, by navigating to **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

2 Select the **Applications** context.

3 Choose **End User Management/System Availability Management** from the list.

4 Locate the **End User Management/System Availability Management - Data** table.

5 Change the value in the **Max Trend Report Measurements** setting, as necessary.

🔍 Trend Reports User Interface

This section describes:

➤ Trend Report Output on page 182

➤ Trend Report Wizard on page 190

🔍 Trend Report Output

This is an example of a Trend report:

Description	Displays a data comparison of multiple measurements from several profiles collected by Business Process Monitor and SiteScope. Trend reports enable you to analyze the effect of various aspects of your system on transaction response time.
	To access: Select **Applications** > **User Reports** > **Report Manager**, select a Trend report in the table and click the **View Report** button 👓 to view the Trend report.
	Choose the **View as Graph** tab to view the Trend report data in graph format.
	Choose the **View as Table** tab to view the Trend report data in table format.
Useful Links	"Trend Reports - Overview"

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<Common report elements>	For details, see "Common Report Elements" in *Reports*.
Every	Click to set a granularity by which to view the report. For details on setting the granularity of reports, see "Time Range and Granularity Bar" on page 70.
Raw Data	Click to view every instance of data output for the selected transaction.
	Note:
	➤ A point on the graph appears when there is a change in the data value or measurement frequency from the previous time point on the graph. However, if there has been no change in either of these areas over the course of one hour, a point is nevertheless displayed on the graph.
	➤ A straight line on the graph with no points indicates the following:
	➤ There has been no change in the value of the incoming data from the previous time point on the graph.
	➤ There has been no change in the frequency that the incoming data is measured in since the previous time point on the graph.
	➤ A gap in the graph indicates that no data has been retrieved for the specific time period.

Report Content as Graph

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<data points>	The time intervals that data is displayed for, based on the chosen granularity. For example, if you chose to view data every hour from March 18, 2008 at 2:00 PM to March 19, 2008 at 2:00 PM, the x-axis displays points of data for every hour from the report's start time to its end time. If **Raw data** is chosen instead of a granularity, every instance of a change in data output for the select transaction is displayed.
Comparison Time	The time range with which the selected Trend report is being compared. **Note:** This table is visible only if you selected the **Comparison Time** check box on the Trend Properties page of the Trend Report Wizard. The Comparison Time graph contains: ➤ **y-axis.** The value of the y-axis, as configured on the Trend Properties page in the Trend Report Wizard. ➤ **<time stamp>.** The time range and granularity for which report data is displayed, based on the configurations set on the Time Range and Granularity Bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70.
Report Time	The time range of the generated report. The Report Time graph contains: ➤ **y-axis.** The value of the y-axis, as configured in the Trend Properties page in the Trend Report Wizard. ➤ **<time stamp>.** The time range and granularity for which report data is displayed, based on the configurations set on the Time Range and Granularity Bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70.

GUI Element (A-Z)	Description
Selected Measurements	The measurements chosen for the Trend report, grouped by monitor type, as configured in the Trend Report Wizard. For details, see "Selected Measurements Table" on page 185.
Time Comparison	The time frames for which data is to be compared. This table contains the following elements: ➤ **<left most column>.** Lists the table on which the time comparison is being measured. ➤ **From.** The time that the data comparison in the selected Trend report is to start. ➤ **To.** The time that the data comparison in the selected Trend report is to end. **Note:** This table is visible only if you selected the **Comparison Time** check box on the Trend Properties page of the Trend Report Wizard.

Selected Measurements Table

The Selected Measurements table contains the following elements (not all elements appear for all monitor types; unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<color box/color swatch>	Displays the color of the selected measurement in the report, as configured in the Trend Report Wizard. Click the color swatch to customize the color.
Aggregation	The data aggregation method for the selected measurement.
Group	The monitor group, as defined in the host properties.
Location	The location of the host machine. **Note:** This field is visible only for Business Process Monitor measurements.
Measurement	The measurement being monitored by the Trend report.

GUI Element (A-Z)	Description
Name	The name of the Trend report. **Tooltip:** The full name of the Trend report, as per the counter and transaction configured on the Measurement Selection page.
Profile	The monitor profile with which the selected measurement is associated.
Scale	The scale setting configured in the Trend Report Wizard which HP Business Availability Center divides by the actual measurement value. Thus, a value of 100 with a scale setting of 0.1 is shown as 1000 along the y-axis. A value of 100 with a scale setting of 10 is shown as 10 along the y-axis.
Transaction	The monitor transaction with which the selected measurement is associated.
Used Aggr. Data	Displays the aggregation table from which data was taken. Options are: ➤ Daily ➤ Hourly **Note:** This option is not relevant for raw data.

Report Content as Table

When the View as Table option is chosen, the elements displayed depend on whether you have chosen to view aggregated data or raw data:

Aggregated Data Elements

The following elements are displayed when the **Every** option is selected on the Time Range and Granularity Bar (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<color box/color swatch>	Displays the color of the selected measurement in the report, as configured in the Trend Report Wizard. Click the color swatch to customize the color.
<measurement name headers>	The measurement name headers correspond to the selections made on the Measurement Selection page, accessible from the Select Measurements page in the Trend Report Wizard. For details, see "Measurement Selection Page" on page 193. **Note:** <measurement name headers> are displayed only when the **Every** option is selected on the Time Range and Granularity bar. For details on the Time Range and Granularity bar, see "Time Range and Granularity Bar" on page 70.
<time intervals>	Data output for the displayed time. **Note:** <time intervals> are displayed only when the **Every** option is selected on the Time Range and Granularity bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70.

GUI Element (A-Z)	Description
Report Time	The time range of the generated report. The Report Time graph contains: ➤ **y-axis.** The value of the y-axis, as configured in the Trend Properties page in the Trend Report Wizard. ➤ **\<time stamp>.** The time range and granularity for which report data is displayed, based on the configurations set on the Time Range and Granularity Bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70.
Selected Measurements	The measurements chosen for the Trend report, grouped by monitor type, as configured in the Trend Report Wizard. For details, see "Selected Measurements Table" on page 185.
Time Comparison	The time frames that data is to be compared for. This table contains the following elements: ➤ **Name.** The name of the transaction being measured. ➤ **\<Date and Time>** The data and time that the data is being measured for. The data and time entries that appear are dependent on the configurations set on the Time Range and Granularity bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70 **Note:** This table is visible only if you selected the **Comparison Time** check box on the Trend Properties page of the Trend Report Wizard.

Raw Data Elements

The following elements are displayed when the **Raw Data** option is selected on the Time Range and Granularity bar:

The last two tables are the same as in aggregated. The difference is in Time, Measurement, and Value.

GUI Element (A-Z)	Description
Comparison Time	The time range which the selected Trend report is being compared with.
	Note: This table is visible only if you selected the **Comparison Time** check box on the Trend Properties page of the Trend Report Wizard.
	The Comparison Time Graph contains:
	➤ **y-axis.** The value of the y-axis, as configured in the Trend Properties page in the Trend Report Wizard.
	➤ **<time stamp>.** The time range and granularity for which report data is displayed, based on the configurations set on the Time Range and Granularity bar. For details on the Time Range and Granularity Bar, see "Time Range and Granularity Bar" on page 70.
Report Time	The time range of the generated report, based on the configurations set on Time Range and Granularity bar. This table displays the following elements:
	➤ **Time.** The time that the selected data is generated for in the Trend report.
	➤ **Measurement.** The measurement being monitored by the Trend report.
	➤ **Value.** The value of the data in the specific measurement being monitored by the Trend report.

GUI Element (A-Z)	Description
Selected Measurements	Displays tables of the measurements selected on the Measurement Selection Page, accessed from the Select Measurement page of the Trend Report Wizard. For details, see "Measurement Selection Page" on page 193.
Time Comparison	The time frames that data is to be compared for. This table contains the following elements: ➤ **<left most column>.** Lists the table on which the time comparison is being measured. ➤ **From.** The time that the data comparison in the selected Trend report is to start. ➤ **To.** The time that the data comparison in the selected Trend report is to start. **Note:** This table is visible only if you selected the **Comparison Time** check box on the Trend Properties page of the Trend Report Wizard.

🔍 Trend Report Wizard

Description	Enables you to configure a Trend report in the Report Manager to compare multiple measurements from various monitors. **To access:** Select **Applications > User Reports > Report Manager**, click the **New** icon 📄▾ and select **New Trend Report**.
Wizard Map	Trend Properties Page > Select Measurements Page > Header/Footer Page > Preview Report Page
Useful Links	"Trend Reports - Overview" on page 176

🔍 **Trend Properties Page**

Description	Enables you to configure properties for your Trend report.
	To access: Select **Applications** > **User Reports** > **Report Manager**, click the **New** icon ▼ and select **New Trend Report**.
Important Information	General information about the wizard is available in "Trend Report Wizard" on page 190.
Wizard Map	The Trend Report Wizard contains:
	Trend Properties Page > Select Measurements Page > Header/Footer Page > Preview Report Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Comparison start time	Click the checkbox to enable comparison of the measurements in the Trend report over multiple time periods. Click the date and time link to select a date and time for the comparison data to be measured.
	Example: To compare performance over two consecutive days, you could generate a Trend report for one day starting Dec. 12 at midnight, and then generate the comparison data for one day starting Dec. 11 at midnight.
Page title	Enter a descriptive name for the report. This name appears at the top of the report display page.
Report name	Specify a report name to appear in the Report Manager.
	Default value: The page title value.
Y-axis label	Enter the required label of the Y-axis. This text is used for the Y-axis in report charts.

🔍 Select Measurements Page

Description	Enables you to select the measurements to display in the merged report chart. **To access:** Enter information in the Trend Properties page of the Trend Report Wizard.
Important Information	➤ The fields displayed on the tables that appear on this page are configured on the measurement selection page. For an explanation of these fields, see "Measurement Selection Page" on page 193. ➤ General information about the wizard is available in "Trend Report Wizard" on page 190.
Wizard Map	Trend Properties Page > **Select Measurements Page** > Header/Footer Page > Preview Report Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➕	Click to open the Measurement Selection page and add measurements to your Trend report. For details, see "Measurement Selection Page" on page 193.
<color box/color swatch>	Displays the color of the selected measurement in the report. Click the color swatch to customize the color.
Aggregation	The data aggregation method for the selected measurement.
Group	The monitor group, as defined in the host properties.
Location	The location of the host machine. **Note:** This field is visible only for Business Process Monitor measurements.
Measurement	The measurement being monitored by the Trend report.

GUI Element (A-Z)	Description
Name	The name of the Trend report.
	Tooltip: The full name of the Trend report, as per the counter and transaction configured on the Measurement Selection page.
Profile	The monitor profile that the selected measurement is associated with.
Scale	The scale setting by which HP Business Availability Center divides by the actual measurement value. Thus, a value of 100 with a scale setting of 0.1 is shown as 1000 along the y-axis. A value of 100 with a scale setting of 10 is shown as 10 along the y-axis. For details on adjusting the Trend report scale, see "Understanding the Trend Report Scale" on page 177.
Transaction	The monitor transaction that the selected measurement is associated with.

🔍 Measurement Selection Page

Description	Enables you to select measurements to add to your Trend report, per monitor type.
	To access: Click the **Add Measurements** button ➕ on the Select Measurements page of the Trend Report Wizard.
Useful Links	"Trend Report Wizard" on page 190

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
🔽	Click to activate the search for the data in the **Contains** box.
Contains	Enter the measurement you want to search for in the selected filter.

GUI Element (A-Z)	Description
Data Aggregation Method	Select a data aggregation method. HP Business Availability Center calculates the data to display for each time segment based on the data aggregation method you choose: ➤ **Average.** For each time segment, calculates and displays the average of all data collected during that segment. ➤ **Maximum.** For each time segment, displays the single highest data value that occurred during that segment. ➤ **Minimum.** For each time segment, displays the single lowest data value that occurred during that segment. ➤ **Count.** For each time segment, displays the number (count) of data values that occurred during that segment. ➤ **Sum.** For each time segment, displays the sum of data values that occurred during that segment.
Group by	Select a format by which to group results. ➤ **Transaction.** Results are shown per transaction. ➤ **Location.** Results are shown per host machine location. ➤ **Group.** Results are shown per group, as defined in the host properties. **Note:** This field is visible only if you chose the **Business Process Monitor** monitor type.

GUI Element (A-Z)	Description
Monitor Type	Select the type of monitor whose filters you want to select measurements from to include in the Trend report. The available monitors are: ➤ **Business Process Monitor**. Transaction-related data collected by the Business Process Monitor. For details on Business Process Monitor filters, see "Business Process Monitor Filters" on page 196. ➤ **WebTrace.** WebTrace or traceroute data collected by the Business Process Monitor. ➤ **SiteScope.** Infrastructure machine-related data collected by SiteScope. ➤ **Real User Monitor.** Network and server performance and availability data in real time collected by the Real User Monitor. Real User Monitor Trend reports analyze the trend of performance and availability data for the servers, pages, transactions, and end users that you configure for monitoring. **Note.** The data types listed under Real User Monitor (Pages, Transactions, End Users) are the same as the RUM Pages, RUM Transactions, and RUM End Users data types listed in the Custom monitor type list. Selecting them from the Real User Monitor monitor type list saves having to define measurement filters for them in the Measurement Filters page. ➤ **Custom.** Custom monitor data for which a filter has been defined in the Measurement Filters page. For details, see "Working with Measurement Filters" in *Platform Administration*.

Business Process Monitor Filters

The following elements are included (listed alphabetically):

GUI Element (A-Z)	Description
Counter	Transaction response time, transaction breakdown, and transaction availability data collected by Business Process Monitor.
Group	Defined groups to which hosts were assigned during profile creation.
Location	Defined host locations (machines on which HP Business Availability Center Business Process Monitor Agent is running).
Profile	Business Process Monitor profiles.
Transaction	Defined transactions in scripts assigned to profiles.

WebTrace Filters

The following elements are included (listed alphabetically):

GUI Element (A-Z)	Description
Counter	WebTrace/traceroute data collected by Business Process Monitor.
Location	Defined host locations (machines on which HP Business Availability Center Business Process Monitor Agent is running).
Profile	Business Process Monitor profiles.

SiteScope Filters

The following elements are included (listed alphabetically):

GUI Element (A-Z)	Description
Group Tree	Defined SiteScope groups and subgroups for the profile.
Measurement	SiteScope monitor and measurement information, displayed using the following syntax: **monitor title | monitored server | counter**
Profile	SiteScope profiles (one per SiteScope).
Top Groups	Defined top-level SiteScope groups for the profile.

Real User Monitor Filters

The following elements are included (listed alphabetically):

GUI Element (A-Z)	Description
Data Type	The type of data. Data types include: ➤ **Pages**. The pages that have been configured for monitoring by Real User Monitor. ➤ **Transactions**. The transactions that have been configured for monitoring by Real User Monitor. ➤ **End Users**. The end users that have been configured for monitoring by Real User Monitor.
Groups	Groups of pages/transactions/end users as defined in End User Management. For details on configuring groups, see "Real User Monitor Administration" in *Using End User Management.*
Items	The pages/transactions/end users of the selected groups; this is the actual filter that is to be used.
Measurements	All measurements defined for the selected data type.

Custom Filters

The following elements are included (listed alphabetically):

GUI Element (A-Z)	Description
Data Type	The type of data for which the measurement filter is created.
Dimension	The name of a specific filter field.
Dimension Values	A specific instance of a field in custom data chosen when defining a measurement filter. You use dimension values to group data in a Trend report.
Filter Category	Defined groups, created in the Measurement Filters page in Platform Administration, that help organize measurement filters into manageable groupings. For details on Measurement Filters, see "Working with Measurement Filters" in *Platform Administration*.
Filter Name	The name of the measurement filter, created in the Measurement Filters page in Platform Administration, used to filter incoming custom data. For details on Measurement Filters, see "Working with Measurement Filters" in *Platform Administration*.
Measurement	The available measurements for the selected data type.

Header/Footer Page

Description	Enables you to add a custom header or footer to your Trend report. **To access:** Enter parameters on the Trend Properties and Select Measurements pages in the Trend Report Wizard.
Important Information	General information about the wizard is available in "Trend Report Wizard" on page 190.
Wizard Map	Trend Properties Page > Select Measurements Page > **Header/Footer Page** > Preview Report Page
Useful Links	"Understanding the Header/Footer Page in the Trend Report Wizard" on page 178

The following elements are included:

GUI Element (A-Z)	Description
Footer HTML	Enter the text for the Footer.
Header HTML	Enter the text for the Header.

🔍 Preview Report Page

Description	Displays the Trend report according to the properties configured in the Trend Report Wizard.
	To access: Enter parameters on the Trend Properties, Select Measurements, and Header/Footer pages in the Trend Report Wizard.
Important Information	➤ You can view the report either in Graph or Table format by clicking the appropriate tab.
	➤ General information about the wizard is available in "Trend Report Wizard" on page 190.
Wizard Map	Trend Properties Page > Select Measurements Page > Header/Footer Page > **Preview Report Page**

🔍 Troubleshooting and Limitations

➤ After creating Trend reports, if you then configure user or global-level report filters to filter specific transactions, locations, or groups from reports, the filtered values still appear in the reports. To remove any newly filtered values from existing Trend reports, you must remove and re-add the components containing the elements for which filters have been set, and save the report.

➤ Permissions are granted by system administrators through the User Management interface, and can be enabled or revoked at any time. Thus, permissions to modify a Trend report that you create may be removed by the administrator at a later time.

➤ Transactions whose response times exceed their outlier value (set in Transaction Threshold Settings in System Availability Management) are always displayed in Trend reports as failed transactions, even if the **Ignore outlier data in reports** setting is selected for the profile to which the transactions belong.

9

Accessing Custom and Trend Reports Using a URL

This chapter describes the concept of accessing Custom and Trend reports directly in a web browser, from outside of HP Business Availability Center.

This chapter includes:

Concepts

🔩 **Accessing Custom and Trend Reports Using a URL**

You can build a URL that opens a defined User report directly in the browser, without being located in the HP Business Availability Center context.

Build the URL using the following syntax:

```
http://<ServerName>/topaz/OfflineReportsServlet?createSession=true
&filterProfileId=<filterProfileId>
&actionForward=report
&timeFrame=<timeFrame>
&stepUnit=<stepUnit>
&stepValue=<stepValue>
&requestType=offline
&userlogin=<login_name>
&userpassword=<login_password>
&session_id=<session_id>
&autoUpdatePastTime=true
&gmtOffset=<gmtOffset>
&useVIP=true
&startTime=<startTime>
&endTime=<endTime>
&skipNavBar=true
&reportName=Report_<report_ID>
```

The parameters whose values must be provided are described below:

➤ **<ServerName>.** The name of the HP Business Availability Center server (Gateway Server in a distributed architecture).

➤ **<filterProfileId>.** Any valid profile ID listed in the SESSION_ID column in the SESSIONS table of the management database.

➤ **<timeFrame>.** Any one of:
Hour/Day/Week/Month/LastHour/LastDay/LastWeek/LastMonth.

➤ **<stepUnit>.** Any one of: Minute/Hour/Day/Month.

➤ **<stepValue>.** Value of stepUnit (for example, if timeframe of every 1 day is required, and stepUnit=Day, set stepValue=1).

➤ **<login_name>.** Valid user login name.

➤ **<login_password>.** Password for specified login name.

➤ **<session_id>.** Same as filterProfileId.

➤ **<gmtOffset>.** GMT offset in minutes.

➤ **<startTime>.** Start time for the report in format YYYYMMDDHHmm (not needed if using timeFrame=LastHour/LastDay/LastWeek/LastMonth). Note that months are numbered starting from 0, so January is 00 and December is 11.

➤ **<endTime>.** End time for the report (same details as startTime).

➤ **<report_ID>.** The CR_CUSTOM_REPORT_ID value for the report, as specified in the CUSTOM_REPORTS table in the management database.

For example:

```
http://myserver/topaz/OfflineReportsServlet?createSession=true
&filterProfileId=1
&actionForward=report
&timeFrame=Week
&stepUnit=Day
&stepValue=1
&requestType=offline
&userlogin=admin
&userpassword=admin
&session_id=1
&autoUpdatePastTime=true
&gmtOffset=120
&useVIP=true
&startTime=200600010100
&endTime=200601010100
&skipNavBar=true
&reportName=Report_1
```

10

Service Report

This chapter provides information on the Service report.

This chapter includes:

Concepts

Tasks

Reference

🔹 **Service Report Overview**

Service reports are Custom reports that display selected data from data sources of the Service Level Management, Dashboard, or other applications.

You can create a Service report by:

➤ Adding the Service report portlet to a page or a module in My BSM and then configuring the portlet. For details, see "Configure a Service Report Portlet in My BSM – Workflow" in *Using My BSM*.

➤ Creating a Service report in Report Manager. For details on performing this task, see "Configure a Service Report in the Report Manager – Workflow" on page 219. The Service report can then be added to a Custom report in the Report Manager. For details about adding components to a Custom report, see "Report Components Page" on page 137.

Note: Service reports created in My BSM are independent from Service reports created in the Report Manager: when you create a Custom report, you see only the Service reports created in the Report Manager.

🔹 **Dimensions and Measurements**

The Service report uses data from the CMDB and Profile databases corresponding to the data source of the different applications. These databases are configured for Online Analytical Processing (OLAP) and employ a multidimensional data model. The multidimensional data model creates a matrix of measurements and dimensions (cube) that maps and links them in a specific way for each application.

This section includes the following topics:

➤ "About Dimensions and Measurements" on page 207

➤ "Impact of the Dimensions/Measurement Selection on the Report Structure" on page 208

➤ "Impact on the Type of Selection: Single Selection or Multiple Selection" on page 208

About Dimensions and Measurements

When you configure a Service report as a portlet in My BSM or as a component in a Custom report, you specify the source of the data, and you select the data source dimensions and measurements that you want to display in the report.

For example, when you create an SLA in Service Level Management, you specify the properties, such as SLA name, customer, and provider, that you use to get information about the status of the SLA. All the properties can be used as dimensions in Service reports for the Service Level Management application. For details about the SLA properties, see "Agreement Wizard" in *Using Service Level Management.*

The measurements that are available depend on the data source and on the data source dimensions that you selected. The measurements are the parameters of the dimensions. For example, the measurements of the SLA dimension are the attributes of the SLA: Customer, Provider, Value, Objectives, and so on.

When you select one or more data sources in the Service report wizard, the dimensions and the measurements are linked by a map. Those links have an impact on the elements that you can select when building the report and on the possible location of those elements in the report. For details about the maps, see the "Impact of the Dimensions/Measurement Selection on the Report Structure" on page 208.

Note: When you select more than one data source in the Service Report Builder wizard, the dimensions and measurements maps are combined.

Impact of the Dimensions/Measurement Selection on the Report Structure

Some measurements automatically assume a specified position (row header, column header, orthogonal) in the Service report; for example in the **Service Level Management - SLA Status Data** data source, the SLA Overall Status measurement has a one-to-one link to the SLA dimension and is automatically orthogonal to the SLA dimension in the report. Special maps provide the relationships between dimensions and measurements. For details, see the map sections in "Select a Data Source Page" on page 230.

Other measurements (such as Forecast Status, or SLA Breached Date) have a one-to-many relation with multiple dimensions. In addition, they are linked to the same dimensions (they are in the same box in the map). Therefore, they do not have an automatic position in the report, and you must select where you want them to be displayed by selecting **As column headers** or **As row headers**.

Impact on the Type of Selection: Single Selection or Multiple Selection

If you select a dimension (**SLA**) and a measurement (**SLA Overall Status**) that are simply linked to each other in the dimensions and measurements map, the Dimensions Filter displays a multiple-selection for the **SLA** dimension. This is because there is only one customer for each **SLA**. The values you can select from are the available SLAs.

If you select a measurement (**SLA Forecast Status**) that is linked to several dimensions in the map (**Forecast Based on Tracking Period**, **SLA**, and **Tracking Period**) and you have selected only one dimension (**SLA**) in the Dimensions Selection page, the Dimensions Filter displays all the other dimensions that are mapped to the measurement. This is because of the multidimensional data model of the databases where the data is located. To access the SLA Forecast Status measurement data relevant to the SLA dimension that you selected, you must also provide the values for the other dimensions in the data model. For details about the map, see "Service Level Management - SLA Status Data Dimensions and Measurements Map" on page 236.

The dimension you selected in the Select Dimensions page (**SLA**) is multi-selection and you must make a choice from among the available dimensions. Each of the other dimensions linked to the selected measurement is single-selection (fixed dimension).

Multi-selection is different for each dimension.

🔣 Service Report Formats

You can format the Service report by selecting columns and row headers, by adding different column types in the same table, customizing the report structure, adding calculated columns, and combining data from multiple sources, such as SLM and additional data sources.

The Service report can have the following formats:

➤ **Pivot table.** You can use dimensions and measurements to create multiple column or row headers and you can choose where to locate them in the table. For example, a pivot table can have the following structure:

➤ **Deeper hierarchy.** You can select several dimensions to be the column headers and more than one dimension to be the rows header. For example, a deeper hierarchy table with 3 headers is as follows:

➤ **Measurements per dimension.** For each dimension, you can select what you want to display: values, status, objectives, background status color, and so on. An example of such a table is as follows:

Note: In the regular cells of a table, numeric content is right-aligned and text content is left-aligned. In header cells, the cell content is centered.

➤ **Charts.** You can display the report as a **Line**, **Pie**, **Area**, **Bar**, or **Stacked Bar** chart. You can also use the 3D and/or Flash technology to format the chart. For example:

➤ 3D:
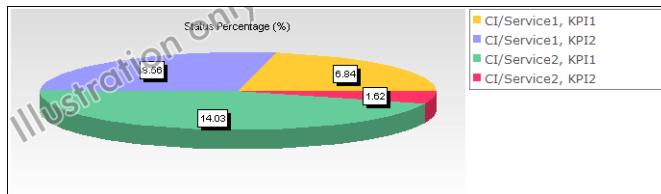
➤ 3D and Flash:
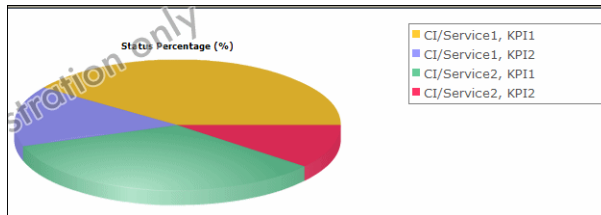
➤ Area chart without Flash:
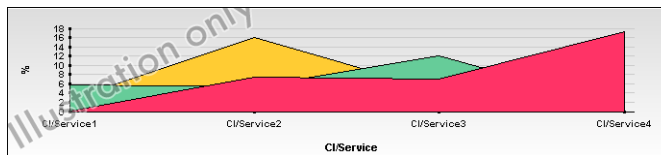
➤ Area chart with Flash:
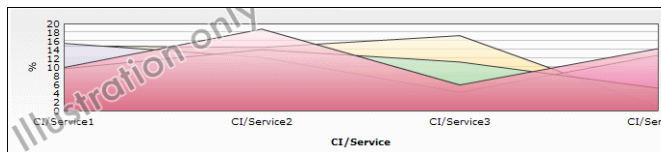
Other Possible Structures

A Service report can display:

➤ The value of the measurement:

	Availability		Performance	
	24x7	**Business Hours**	**24x7**	**Business Hours**
CI1	90	80	90	70
CI2	10	20	10	30

➤ The status of the measurement:

	Availability		Performance	
	24x7	**Business Hours**	**24x7**	**Business Hours**
CI1	Breached	Minor breached	Met	Met
CI2	Exceeded	Met	Exceeded	Met

➤ Both the value and status of the measurement. You can choose between the following structures:

➤ Vertical merge (select **As column headers**):

	Availability				Performance			
	24x7		**Business Hours**		**24x7**		**Business Hours**	
	Value	**Status**	**Value**	**Status**	**Value**	**Status**	**Value**	**Status**
CI1	90	Breached	80	Minor breached	90	Met	70	Met
CI2	10	Exceeded	20	Met	10	Exceeded	30	Met

➤ Horizontal merge (select **As Row headers**):

		Availability		Performance	
		24x7	**Business Hours**	**24x7**	**Business Hours**
CI1	Value	90	80	90	70
	Status	Breached	Minor breached	Met	Met
CI2	Value	10	20	10	30
	Status	Exceeded	Met	Exceeded	Met

Status Function Automatic Measurements

When you use the **Status** function to create a calculated measurement, the following additional measurements are automatically created:

➤ **<Compare_measurement_selection> (<new_measurement_name> as background)**. This measurement displays the value of the measurement you selected in the **Compare measurement** list and the status of the measurement when compared to the thresholds you selected in **To threshold** as the background color for the cell in the table.

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➤ **<new_measurement_name>**. This measurement displays the status of the measurement you selected in the **Compare measurement** list when compared to the thresholds you selected in **To threshold** as the name of the threshold.

		SLA1	SLA2
CI/Service1	KPI1	Exceeded	Failed
	KPI2	Exceeded	Failed
CI/Service2	KPI1	Exceeded	Exceeded
	KPI2	Exceeded	Exceeded

➤ **<new_measurement_name> (<new_measurement_name> as background**). This measurement displays the status of the measurement you selected in the **Compare measurement** list when compared to the thresholds you selected in **To threshold** as the name of the threshold and as the background color for the cell in the table.

		SLA1	SLA2
CI/Service1	KPI1	Exceeded	Exceeded
	KPI2	Exceeded	Failed
CI/Service2	KPI1	Exceeded	Exceeded
	KPI2	Failed	Exceeded

➤ **<new_measurement_name> as background**. This measurement displays the status of the measurement you selected in the **Compare measurement** list when compared to the thresholds you selected in **To threshold** as the background color for the cell in the table.

		SLA1	SLA2
CI/Service1	KPI1		
	KPI2		
CI/Service2	KPI1		
	KPI2		

🔹 Tips and Tricks

This section includes tips and tricks that you can use when creating a Service report.

General

➤ Selecting the **Enable automatic preview** option enables you to see the changes you make to the report before you generate the report.

➤ Click CTRL and use the mouse to perform a multi-selection of dimensions or measurements.

➤ When you create a Service report based on the Service Level Management data sources, you can display data for the **Targets** measurements, only if all the CIs included in the same SLA have the same threshold. Data is displayed if all the thresholds are linked to the **SLAs**, **CIs/Services**, and **KPIs** dimensions, and if all the Calendar and Target measurements are the same.

➤ After you have created a Service report, you can clone it by copying and pasting it in the tree of pages. For details, see "Edit Page Dialog Box" in *Using My BSM*. For an example of why you might clone a Service report, see "Example – Create a Service Report for Online and for Print" on page 220.

Select Dimensions Page

➤ It is recommended, when creating a Service report, to distribute the dimensions between the Rows and the Columns. In the measurement maps, check the dimensions that are linked to the measurements you are selecting. Then, try to distribute those dimensions between the rows and columns. For example, if you want to display the **KPI Value** and **All Targets** measurements and you have selected the **Calendar**, **CI**, and **SLA** dimensions, it is recommended not to have **CI** and **SLA** both in rows or columns but rather, to have one of them in rows and one of them in columns.

		Calendar1	Calendar2	All Targets
CI1	SLA1	23	45	All Targets1
	SLA2	68	92	All Targets2
CI2	SLA1	20	67	All Targets3
	SLA2	22	69	All Targets4

	CI1				CI2			
	Calendar1		Calendar2		Calendar1		Calendar2	
	KPI Value	All Targets	KPI Value	All Targets	KPI Value	All Targets	KPI Value	All Targets
SLA1	19	All Targets1	29	All Targets1	63	All Targets3	62	All Targets3
SLA2	61	All Targets2	8	All Targets2	0	All Targets4	28	All Targets4

➤ Reports in which you have moved the majority of the dimensions to the **Columns** box are wide, which might cause printing problems. Reports in which you have moved the majority of the dimensions to the **Rows** box are long.

➤ If you have selected the **SLAs** and **Calendar** dimensions, and you want to display data for lots of SLAs, it is recommended to set **SLAs** in Rows and **Calendar** in Columns. If you want to display data for many time intervals but for a limited number of SLAs, it is recommended to set **SLAs** in Columns and **Calendar** in Rows.

Select Measurements Page

➤ To create a narrower report, move the measurements to the **Rows** box if you have moved the majority of the dimensions to the **Columns** box (or vice versa). A new measurement then adds one more row to the report.

➤ The order of the measurements in the **Available Measurements** box in the Select Measurements page is by order of importance and not by alphabetical order.

➤ If you see the error message: **Some of the selections are incompatible and cause problems in the report structure (or Errors were encountered while trying to build the report)**, change the order of the selected dimensions in the Select Dimensions page or the order of the measurements in the Select Measurements page. If that does not work, change the order of the selections in the **Rows** and **Columns** boxes in the Select Dimensions page.

➤ If you add a calculated measurement and regular measurements to a report, the regular measurements always appear before the calculated, independently of the order you selected in the selection lists.

Calculated Measurement

➤ It is important to add a meaningful description when you create a new measurement, because the description appears as a tooltip in the report and describes what the measurement represents: the measurements that are used, the type of calculation, the dimension on which the calculation is based, and so on. For example, the difference between the SLA KPI value and the target Exceeded, compared by Time interval.

➤ To ensure that you are using the **Difference** calculated measurement in the correct way, it is recommended to add the measurements you selected in the **First measurement** and in the **Second measurement** boxes to the report and to verify that the **Difference** calculation is done in the correct order. If it is not, switch the measurements you selected from the **First measurement** to the **Second measurement** boxes and vice versa.

> ➤ All dimensions that you did not select in the Select Dimensions page can be used as the base for an aggregation measurement, but you do not have to necessarily select multiple values in the Select Dimensions Filter page. For example, if you have selected the **SLA** and **CI** dimensions in rows and the **KPIs** in columns, you can perform an aggregation over the **Time Interval** or the **Calendar** dimensions, which were not selected. In the Select Dimensions Filter page, both dimensions are multi-selection, but you can select multiple values for one dimension and one value for the other dimension; for example, **Last week** and **every one week**.

Select Dimensions Filter Page

To immediately see the impact of adding other dimensions to a report, click **Preview** or select the **Enable automatic preview** option. A mock-up of the report is displayed in the page lower box.

⚒ Configure a Service Report in the Report Manager – Workflow

You can add a Service report to the Report Manager. You configure the Service report using a wizard.

This task includes the following steps:

➤ "Install Flash to Format the Report Using Flash Technology – Optional" on page 219

➤ "Configure a Service Report in Report Manager" on page 219

➤ "Add a Service Report to a Custom Report" on page 220

➤ "Change the First Day of Month Setting – Optional" on page 220

➤ "Display the Service Report" on page 220

1 Install Flash to Format the Report Using Flash Technology – Optional

To render the Service report charts using Flash, you must have the Macromedia Flash Player installed on your local machine. If you do not, the browser displays a message containing instructions on how to download Flash Player.

2 Configure a Service Report in Report Manager

To configure a Service report in the Report Manager, select **Applications** > **User Reports** > **Report Manager**, click the **New** button and select **New Service Report** in the dropdown menu to open the Service Report Builder wizard.

Use the Service Report Builder wizard to configure the following information:

➤ Report properties

➤ Report format

➤ Data sources for the report

➤ Report dimensions

➤ Report measurements

➤ Report dimensions

While creating the Service report, you can also create new measurements that you can use immediately in the report.

For details on creating a Service report, see "Service Report Builder Wizard" on page 227.

3 Add a Service Report to a Custom Report

Once a Service report is available in the Report Manager, you can add it to a Custom report. For details, see "Custom Report Wizard" in *Reports*.

Example – Create a Service Report for Online and for Print

If the Service report portlet displays correctly online, but is too wide to be printed, you can clone it. In the cloned report, you can change the location of the dimensions or their order to create a printable report that includes the same data as the online report.

4 Change the First Day of Month Setting – Optional

To change the first day of the month setting (default is 1), select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Foundations**, select **Calendar**, and locate the **First day of month** entry in the Calendar - Calendar Options table. Change the value to any value between 1 and 31.

Note: Changing the **First day of month** setting affects Service reports and all other Dashboard components.

---

5 Display the Service Report

To display the Service report, select **Applications > User Reports**, select the relevant Service report and click the **View Report** button.

Create a Customized Measurement

You can create a customized measurement that performs an aggregation (Average, Max, Min, Sum, Best, Worst, Count Status, or Status Percentage) or performs a calculation (Difference, Difference by percentage, Status, or Trend) based on selected measurement values. After you create the new measurement, you can use it in the Service Report Builder like a regular measurement. For details, see "Create Measurement Dialog Box" on page 267.

Example – Display the Trend Between Values

To display the trend of each instance of the time interval:

1 Access the Service report wizard.

2 In the Select a Data Source page, select **SLM - SLA KPI Data** and click **Next**.

3 In the Select Dimensions page, move SLA and CI to the **Rows** box, Time Range to the **Columns** box, and click **Next**.

4 In the Select Measurement page, click the **Create Measurement** button.

5 In the Create Measurement dialog box, enter Trend on time interval in the **Measurement name** box, select the **Calculated Measurement** type, select **Trend** in the Select function list, select Time Range (column's header) in the **Select Dimension** list, KPI Status (Time Range 1) in the **First Measurement** list, and KPI Status (Time Range 2) in the **Second Measurement** list in the Function Parameters area, and click **OK**.

6 Add the **KPI Status (as text and background)** measurement and move it before the Trend on time interval measurement.

7 In the Select Measurement page, click **Preview**. The preview displays the trend of the SLAs between two time intervals.

8 Adjust the appropriate dimension filters and save the report.

Example – Display How Far an SLA is From Exceeding Its Target

To display how far the SLA is from exceeding its target:

1 Access the Service report wizard.

2 In the Select Data source page, select **SLM - SLA KPI Data** and click **Next**.

3 In the Select Dimensions page, move CI and SLA to the **Rows** box, Time Range to the **Columns** box, and click **Next**.

4 In the Select Measurement page, click the **Create Measurement** button.

5 In the Create Measurement dialog box, enter Diff value from target in the **Measurement name** box, select the **Calculated Measurement** type, select **Difference by percentage** in the Select function list, select SLA (row headers) in the **Select Dimension** list, KPI Value (SLA 1) in the **First Measurement** list, and Deviation From Target (SLA 1) in the **Second Measurement** list in the Function Parameters area, and click **OK**.

6 In the Select Measurement page, click **Preview**. The preview displays how far the SLA is from the exceeded value in percentages.

		Time Range1	Time Range2
CI1	SLA1	-68.69	-77.00
	SLA2	38.72	-98.79
CI2	SLA1	-31.60	-83.70
	SLA2	-79.60	-72.14

7 You can also display the measurements (KPI Value, or Deviation From Target, and Exceeded) on which you base the calculation:

		Time Range1		Time Range2		Exceeded
		KPI Value	Deviation From	KPI Value	Deviation From	
SLA1	CI1	4	9.01	25	10.10	6.43
	CI2	54	3.49	24	16.96	8.05
SLA2	CI1	36	16.92	68	5.38	5.25
	CI2	5	19.57	13	17.61	0.36

8 Select the appropriate dimension filters and save the report.

Example – Fine-Tune SLAs

Instead of adjusting the SLA thresholds in the Service Level Management application directly, create a Service report based on the appropriate Service Level Management data sources, and create a new measurement based on the **Status** function. Fine-tune the function thresholds to check the SLA over a specific time period until you get the required results. You can then use those thresholds in the Service Level Management application.

Example – Drill Into SLAs Data

The smallest status duration for an SLA is five minutes. If a customer has multiple SLAs and you want to see when the objective exceeds 98 you can create a Service report with the **Status** function, and set the threshold to 98. The report displays the status information and not the real SLA measurement. The tooltip displays the real name of the calculated measurement.

Example – Simulate a Tracking Period That Starts and Ends on Mondays

Usually, the tracking period is from the first day of the previous month/week to the first day of the current month/week. You can create a report that provides information from the third day (Monday) of the previous month/week to the third day of the current month/week.

To simulate a tracking period that starts and ends on Mondays:

1 Access the Service report wizard.

2 In the Select Datasource page, select **SLM - SLA KPI Data** and click **Next**.

3 In the Select Dimensions page, move CI to the **Rows** box, SLA to the **Columns** box, and click **Next**.

4 In the Select Measurement page, click **Create Measurement**.

5 In the Create Measurement dialog box, enter My Average Value in the **Measurement name** box, select the **Aggregated Measurement** type, select **Average** in the Select function list, select KPI Value in the **Select measurement** list, and click **OK**.

6 In the Select Measurement page, the My Average Value measurement is automatically moved to the **Selected Measurements** box. Click **Next**.

7 In the Select Dimension Filters page:

➤ For the CI Mandatory Dimension, select a view, and the appropriate CIs.

➤ For the SLA Mandatory Dimension, select SLA1 IRD and SLA2 IRD.

➤ For the Time Ranges Mandatory Dimension, select Over Time, Week where you select the date to be from the 3rd day to the 3rd day and Every day. The hour is automatically changed to midnight.

➤ For the KPIs Mandatory Dimension, select Availability and Performance.

➤ For the Calendar Mandatory Dimension, select 24x7.

8 Click **Finish**, **OK**, and **Save**.

9 Open **My BSM** and display the report.

Service Report		SLA1	SLA2
Finance Service		79.20	80.17
HR Service		79.20	80.17

10 Click the **Funnel** button to display the report filter. It indicates that the report starts and ends on Mondays.

Service Report

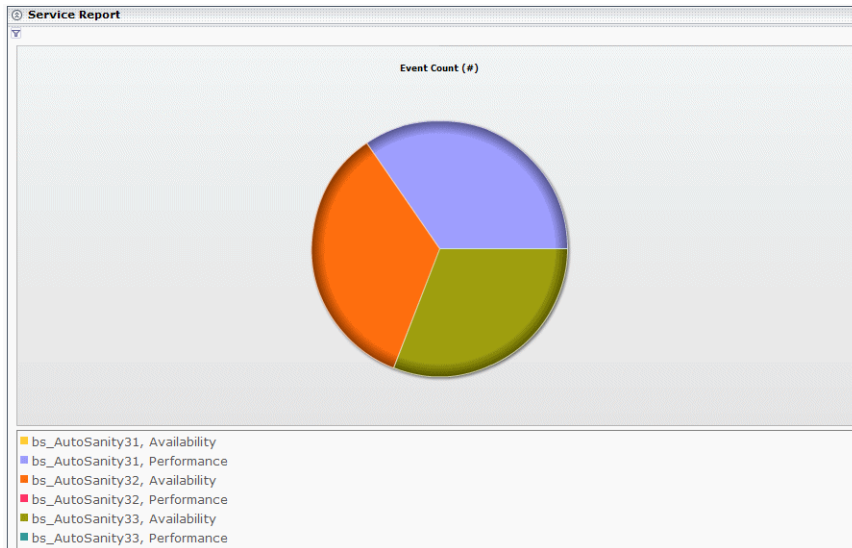| Filter |
|---|
| **Calendar:** 24x7 |
| **KPI:** Availability , Performance |
| **Selected Time:** 2/12/07 12:00 AM - 2/18/07 10:42 PM America/Los Angeles Every 1 Day(s) |
| **Measurement:** My Average Value |

🔖 Service Report User Interface

This section describes:

➤ Service Report on page 225

➤ Service Report Builder Wizard on page 227

🔖 Service Report

Description	Displays the Service report you configured in a Service report portlet in My BSM or as a report in the Report Manager.
	To access:
	➤ In My BSM, select the page where the Service report portlet is located. The portlet contains the configured Service report.
	➤ Select **Applications** > **User Reports**, select the relevant Service report, and click the **View** button 🔍 .
Important Information	The report displays the data and the format selected when creating the report using the Service Report Builder wizard.
Included in Tasks	"Configure a Service Report Portlet in My BSM – Workflow" in *Using My BSM*
	"Configure a Service Report in the Report Manager – Workflow" on page 219

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
🔻	In My BSM, click the **Funnel** button to display the values of the dimensions selected in the Dimension Filters page that are not directly displayed in the report.
<Common report elements>	For details, see "Common Report Elements" in *Reports*.
<Dimension filter elements>	In the Report Manager, displays the values of the dimensions selected in the Dimension Filters page that are not directly displayed in the report.

🔍 Service Report Builder Wizard

Description	Enables you to configure a Service report. You select the data source on which you want to base the Service report data, the dimensions and measurements that are to appear in the report, and the structure of the report. **To access:** ➤ In My BSM, click **Launch Service Report Builder** in the **Filter** area of the Edit Preferences page of a Service report portlet. ➤ In the Report Manager, click **New** 📋▼ and select **New Service Report**.
Included in Tasks	"Configure a Service Report Portlet in My BSM – Workflow" in *Using My BSM* "Configure a Service Report in the Report Manager – Workflow" on page 219
Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page > Select a Data Source Page > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) > (Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

🔍 Service Report Properties Page

Description	Enables you to enter the name and description of the Service report.
Important Information	➤ This page is displayed only when you access the Service report from the Report Manager. ➤ General information about the wizard is available in "Service Report Builder Wizard" on page 227.
Wizard Map	Welcome > **Service Report Properties Page** > Select a Display Type Page > Select a Data Source Page > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) >(Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
Report description	Enter a description of the report. The description appears in the list of available reports in the Report Manager.
Report name	Enter the name of the report. The name appears in the list of available reports in the Report Manager. This field is mandatory. When you clone a report in the Report Manager, the name of the cloned report is automatically changed to **Copy of <cloned_report_name>**.
Save report as	Select one of the following options: ➤ **Private.** Only the report organizer can view the report. ➤ **Public.** All users with appropriate permission levels can view the report. This is the default.

Select a Display Type Page

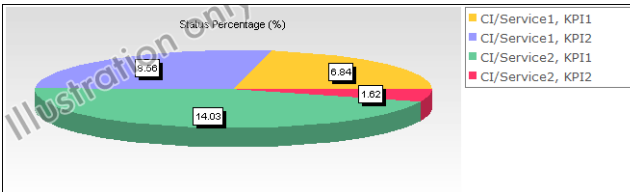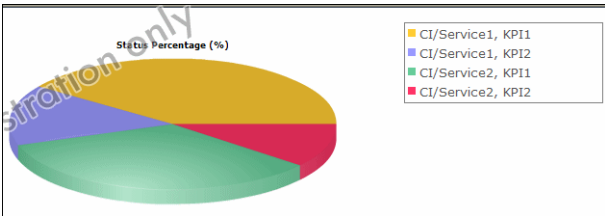| Description	Enables you to select the type of format you want to use to display the report. The report can be displayed as a table or as a chart.
Important Information	General information about the wizard is available in "Service Report Builder Wizard" on page 227.
Wizard Map	Welcome > Service Report Properties Page > **Select a Display Type Page** > Select a Data Source Page > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) >(Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A–Z)	Description
Chart	Select this option to display the list of the different charts available to render the report.
Display 3D	Select this option to display the selected chart format with a 3-dimensional look. **Example:** ➤ When you select **Pie** and **Display 3D**: ➤ When you select **Pie**, **Display 3D**, and **Flash**:

GUI Element (A–Z)	Description
Flash	Select this option to display the selected chart format using Flash technology. **Note:** To display the report using Flash technology, you must have Flash installed. **Example:** **Note:** You can select both **Display 3D** and **Flash**. See the description of the **Display 3D** option for an example.
Pie, Bar, Line, Stacked Bar, Area	Select the type of chart you want to use to display the report. **Note:** You can select **Area** only if you also select **Flash**.
Pivot table	Select this option to display the report as a pivot table. This option is selected by default.

🔖 Select a Data Source Page

Description	Enables you to select one or more data sources on which you want to base the Service report data.
Important Information	➤ You can select more than one data source. ➤ For details on the impact of the data source selection, see "Dimensions and Measurements" on page 206. ➤ General information about the wizard is available in "Service Report Builder Wizard" on page 227. **Limitations:** See the details in "Troubleshooting and Limitations" on page 281.

Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page > **Select a Data Source Page** > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) >(Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

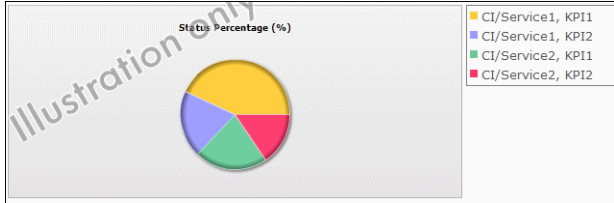The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Business Process Insight Data	Select to build the report using data from Business Process Insight. For details about the data source dimensions, measurements, and the relations between time, see "Business Process Insight Data Dimensions and Measurements Map" on page 240.
Dashboard KPIs data	Select to build the report using business-related CIs, based on historical data from the associated Dashboard KPIs. For details about the data source dimensions, measurements, and the relations between time, see "Dashboard KPIs Data Source Dimensions and Measurements Map" on page 238.
Over Time Additional data	Select to build the report using dimensions and measurements, such as Number of tickets and Number of measurements, from multiple data sources. For details about the data source dimensions, measurements, and the relations between time, see "Over Time Additional Data Dimensions and Measurements Map" on page 245.
Service Level Management - SLA KPI data	Select to build the report using CIs, KPIs, SLA dimensions, and the Time and Calendar measurements, from Service Level Management. For details about the data source dimensions, measurements, and the relations between time, see "Dashboard KPIs Data Source Dimensions and Measurements Map" on page 238.

GUI Element (A-Z)	Description
Service Level Management - SLA Status data	Select to build the report using SLAs, Tracking Period, and Time dimensions, and SLA Status for Previous Periods, SLA Current Status, and SLA Current Status By Time Periods, and SLA Forecast measurements. For details about the data source dimensions, measurements, and the relations between time, see "Service Level Management - SLA Status Data Dimensions and Measurements Map" on page 236.
TransactionVision data	Select to build the report using data from TransactionVision. For details about the data source dimensions, measurements, and the relations between time, see "TransactionVision - Data Dimensions and Measurements Map" on page 247.

Service Level Management - SLA KPI Data Dimensions and Measurements Map

The dimensions and measurements map for the SLA KPI data source includes the following elements:
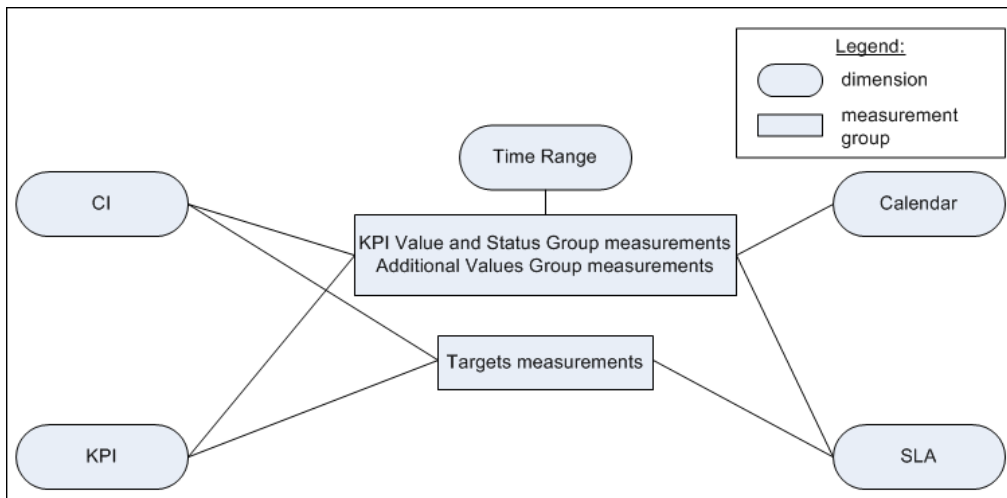
Depending on the dimensions and measurements you select, make either a single selection or multiple selection for each dimension's values. For details, see "Impact on the Type of Selection: Single Selection or Multiple Selection" on page 208.

Dimensions

The dimensions are:

GUI Element (A-Z)	Description
Calendar	The business-day structure. It can be: ➤ **24hx7d** ➤ **Business Hours**
CI	The CI you want to display in the report.
KPI	The KPI you want to display in the report.
SLA	The Service Level Agreement you want to display in the report.
Time Range	The time range for which you want to see information.

Measurements

The measurements are:

Measurement Group	GUI Element (A-Z)	Description
Additional Values Group	All Additional Values	Select to display all the enabled additional measurements in the report. For details about additional values, see "Additional Values in Reports" in *Using Service Level Management*. **Note:** ➤ To modify the default list of enabled additional values displayed per KPI, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Additional Values** entry in the Service Level Management - SLM Admin table. Set the value to **true** for a KPI and an additional value when you want to display that additional value parameter for the KPI. If an additional value is not included for a specific KPI, it is not available for that KPI. ➤ The PNR KPI appears in the Additional Values settings for internal purposes. Do not modify it.
KPI Value and Status Group	KPI Status	The KPI status.
	KPI Status (as text and background)	The KPI status and the KPI status compared to the objective displayed as the colored background of the report cell.
	KPI Status as background	The KPI status compared to the objectives displayed as the colored background of the report cell.
	KPI Value	The KPI value.
	KPI Value (KPI Status as background)	The KPI value and the KPI status displayed as the colored background of the report cell. The KPI status is calculated according to the objectives.

Measurement Group	GUI Element (A-Z)	Description
Target Measurements	**All Targets**	The percentage of time the value of the selected KPI was in the range defined for all targets.
	Breached	The percentage of time the value of the selected KPI was in the range defined for the **Breached** target.
	Breached (Status as background)	The percentage of time the value of the selected KPI was in the range defined for the **Breached** target, and the KPI status as the colored background of the report cell.
	Exceeded	The percentage of time the value of the selected KPI was in the range defined for the **Exceeded** target.
	Exceeded (Status as background)	The percentage of time the value of the selected KPI was in the range defined for the **Exceeded** target, and the KPI status as the colored background of the report cell.
	Met	The percentage of time the value of the selected KPI was in the range defined for the **Met** target.
	Met (Status as background)	The percentage of time the value of the selected KPI was in the range defined for the **Met** target, and the KPI status as the colored background of the report cell.
	Minor Breached	The percentage of time the value of the selected KPI was in the range defined for the **Minor Breached** target.
	Minor Breached (Status as background)	The percentage of time the value of the selected KPI was in the range defined for the **Minor Breached** target, and the KPI status as the colored background of the report cell.

Service Level Management - SLA Status Data Dimensions and Measurements Map

The dimensions and measurements map for the SLA Status data source includes the following elements:
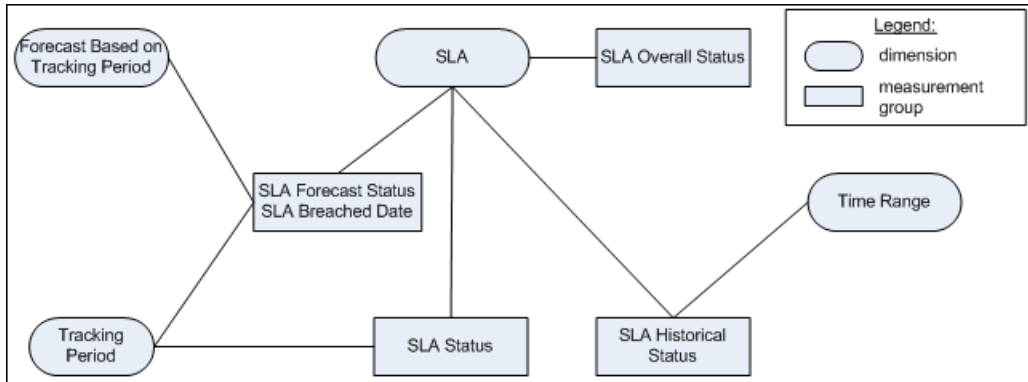
Dimensions

The dimensions are:

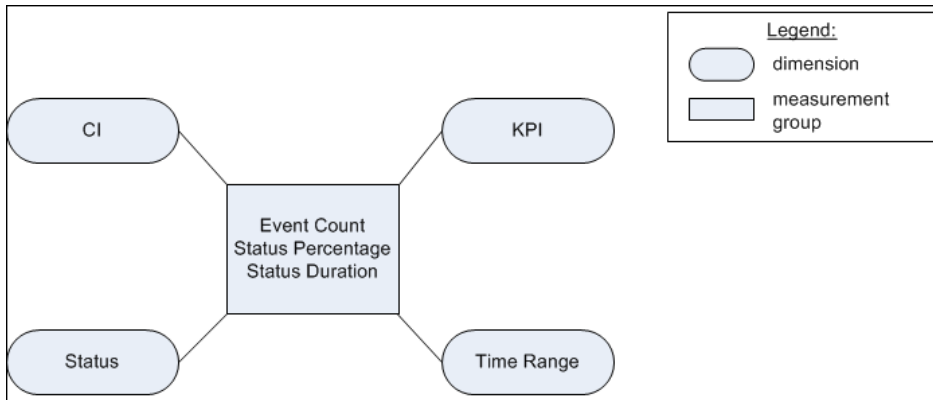| GUI Element (A-Z)	Description
Forecast Based On Tracking Period	The forecast calculated for the analysis period based on the assumption that the SLA performs in the future as it did during this analysis period.
SLA	The available SLAs that are defined for your site.
	For details on single or multiple selection, see "Impact on the Type of Selection: Single Selection or Multiple Selection" on page 208.
Time Range	The time range for which you want to see information.
Tracking Period	The tracking periods that are used to track agreement status and compile data. The tracking periods define the granularity available in Service Level Management reports.

Measurements

The measurements are:

GUI Element (A-Z)	Description
Forecast Status (as text and background)	The status of the forecast, and the Forecast status compared to the objective as the colored background of the report cell.
SLA Breached Date	The SLA breached date from the forecast report.
SLA Forecast Status	The status of the forecast.
SLA Forecast Status as background	The status of the forecast compared to the objective as the colored background of the report cell.
SLA Historical Status	The historical status for the selected time range.
SLA Historical Status (as text and background)	The value of the Historical Status, and the status compared to the objective as the colored background of the report cell.
SLA Historical Status as background	The Historical Status compared to the objective as the colored background of the report cell.
SLA Overall Status	The status used to compare to the forecast for a selected SLA and selected time range.
SLA Overall Status (as text and background)	The value of the Overall Status, and the status compared to the objective as the colored background of the report cell.
SLA Overall Status as background	The status of the Overall Status compared to the objective as the colored background of the report cell.
SLA Status	The current status of the SLA for the selected time range.
SLA Status (as text and background)	The value of the Status, and the status compared to the objective as the colored background of the report cell.

GUI Element (A-Z)	Description
SLA Status as background	The status compared to the objective as the colored background of the report cell.
Time Comparison	Enter a label for the dimension in the **Label** box. Select the tracking range and granularity for the report. For details, see "Time Range and Granularity Bar" on page 70.

Dashboard KPIs Data Source Dimensions and Measurements Map

The dimensions and measurements map for the Dashboard KPIs data source includes the following elements:

Dimensions

The dimensions are:

GUI Element (A-Z)	Description
CI	The configuration item you want to display in the report.
KPI	The KPIs you want to display in the report.

GUI Element (A-Z)	Description
Status	The status of the KPI.
Time Range	The time range for which you want to see information.

Measurements

The measurements are:

GUI Element (A-Z)	Description
Event Count (#)	The number of events with the selected status that occurred in the selected time range.
Event Count (#) (Status as background)	The number of events with the selected status that occurred in the selected time range, and the Status as the colored background of the report cell. The status represents the status dimension instance (OK, FAILED, and so on).
Status Duration (hh:mm:ss)	The length of time in hours, minutes, and seconds, during which the KPI had the selected status.
Status Duration (hh:mm:ss) (Status as background)	The length of time in hours, minutes, and seconds, during which the KPI had the selected status, and the status compared to the objective as the colored background of the report cell.
Status Percentage (%)	The length of time during which the KPI had the selected status divided by the selected time range in percentage.
Status Percentage (%) (Status as background)	The length of time during which the KPI had the selected status divided by the selected time range in percentage, and the status compared to the objective as the colored background of the report cell.

Business Process Insight Data Dimensions and Measurements Map

The dimensions and measurements map for the Business Process Insight Data data source are listed in the tables below.

Dimensions

The dimensions are:

GUI Element (A-Z)	Description
CI	The configuration item you want to display in the report.
Time Range	The time range for which you want to see information.

Measurements

Some measurements are relevant for different types of CIs. Others are relevant for all types of CIs. The measurements that are relevant for the type of CI you select in the Select Dimension Filters page are as follows:

Selected Node CIT / Measurement Group		Measurement Group	Sample Type
Business Process		Health Measurements Group	bpi_process_t
		Common Measurements Group	
BPI Monitor	Duration	Duration Measurements Group	bpi_duration_t
		Common Measurements Group	
	Value / Custom	Value Measurements Group	bpi_value_t
		Common Measurements Group	
BPI Business Process Step		Common Measurements Group	bpi_step_t

The measurements are described in the following sections.

Common Measurements Group

Measurement Group	Measurement	Description
Common Measurement Group	**Avg. Backlog Value**	The total value of all currently open instances, divided by the total number of instances.
	Avg. Backlog Count (#)	The number of currently open instances divided by the total number of instances.
	Completed Instances (#)	The sum of all completed instances.
	Completed Instances Total Value	The total value of all completed instances.
	Completed Instances Avg. Value	The total value of all completed instances divided by the total number of completed instances.

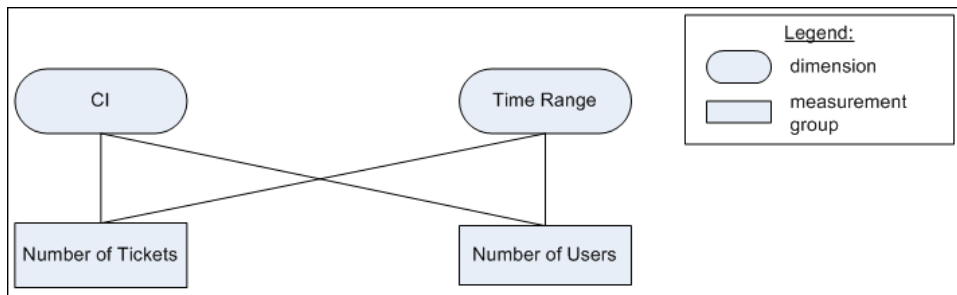| Measurement Group	Measurement	Description
Duration Measurement Group	**Avg. Duration (sec)**	The sum of the duration of all completed instances divided by the number of completed instances.
	Weighted Avg. Duration (sec)	The sum of the duration of all completed instances, each multiplied by its weight, and divided by the number of completed instances.
	Min. Duration (sec)	The minimum duration of all completed instances.
	Max. Duration (sec)	The maximum duration of all completed instances.
	Total Duration Critical Violated Instances (#)	The total duration of all violated samples with **Critical** status.
	Total Duration Critical Violated Instances (#, Status as background)	The total duration of all samples with **Critical** status, and the status compared to the objective as the colored background of the report cell.
	Total Duration Major Violated Instances (#)	The total duration of all samples with **Major** status.
	Total Duration Major Violated Instances (#, Status as background)	The total duration of all samples with **Major** status, and the status compared to the objective as the colored background of the report cell.
	Total Duration Minor Violated Instances (#)	The total duration of all violated samples with **Minor** status.
	Total Duration Minor Violated Instances (#, Status as background)	The total duration of all violated samples with **Minor** status, and the status compared to the objective as the colored background of the report cell.
	Total Duration Non-Violated Instances (#)	The total duration of all non-violated samples.
	Total Duration Non-Violated Instances (#, Status as background)	The total duration of all non-violated samples with **Minor** status, and the status compared to the objective as the colored background of the report cell.
	Total Duration Warning Violated Instances (#)	The total duration of all violated samples with **Warning** status.
	Total Duration Warning Violated Instances (#, Status as background)	The total duration of all violated samples with **Warning** status, and the status compared to the objective as the colored background of the report cell.

Measurement Group	Measurement	Description
Value Measurement Group	**Total Monitor Value**	The total value of all samples that were sent during the specified time period.
	Avg. Monitor Value	The total value of all samples that were sent during the specified time period divided by the number of currently completed samples.
	Weighted Avg. Monitor Value	The total value of all samples that were sent during the specified time period, each multiplied by its weight, divided by the number of currently completed samples.
	Min. Value	The minimum value of all samples that were sent during the specified time period.
	Max. Value	The maximum value of all samples that were sent during the specified time period.
	Total Value Critical Violated Instances (#)	The total value of all violated samples with **Critical** status.
	Total Value Critical Violated Instances (#, Status as background)	The total value of all samples with **Critical** status, and the status compared to the objective as the colored background of the report cell.
	Total Value Major Violated Instances (#)	The total value of all samples with **Major** status.
	Total Value Major Violated Instances (#, Status as background)	The total value of all samples with **Major** status, and the status compared to the objective as the colored background of the report cell.
	Total Value Minor Violated Instances (#)	The total value of all violated samples with **Minor** status.
	Total Value Minor Violated Instances (#, Status as background)	The total value of all violated samples with **Minor** status, and the status compared to the objective as the colored background of the report cell.

Measurement Group	Measurement	Description
Value Measurement Group (continued)	**Total Value Non-Violated Instances (#)**	The total value of all non-violated samples.
	Total Value Non-Violated Instances (#, Status as background)	The total value of all non-violated samples with **Minor** status, and the status compared to the objective as the colored background of the report cell.
	Total Value Warning Violated Instances (#)	The total value of all violated samples that currently have the **Warning** status.
	Total Value Warning Violated Instances (#, Status as background)	The total value of all violated samples that currently have the **Warning** status , and the status compared to the objective as the colored background of the report cell.
Health Measurement Group	**Avg. of Blocked Instances (#)**	The sum of the number of all instances with **Blocked** status, divided by the total number of instances.
	Avg. of Blocked Instances (#, Status as background)	The sum of the number of all instances with **Blocked** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.
	Avg. of Healthy Instances (#)	The sum of the number of all instances with **Healthy** status, divided by the total number of instances.
	Avg. of Healthy Instances (#, Status as background)	The sum of the number of all instances with **Healthy** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.
	Avg. of At Risk Instances (#)	The sum of the number of all instances with **AtRisk** status, divided by the total number of instances.
	Avg. of At Risk Instances (#, Status as background)	The sum of the number of all instances with **AtRisk** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.

Measurement Group	Measurement	Description
Health Measurement Group (continued)	**Avg. Value of Blocked Instances**	The total cost of all instances with **Blocked** status, divided by the total number of instances.
	Avg. Value of Blocked Instances (Status as background)	The total cost of all instances with **Blocked** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.
	Avg. Value of Healthy Instances	The total cost of all instances with **Healthy** status, divided by the total number of instances.
	Avg. Value of Healthy Instances (Status as background)	The total cost of all instances with **Healthy** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.
	Avg. Value of At Risk Instances	The total cost of all instances with **AtRisk** status, divided by the total number of instances.
	Avg. Value of At Risk Instances (Status as background)	The total cost of all instances with **AtRisk** status, divided by the total number of instances, and the status compared to the objective as the colored background of the report cell.

Over Time Additional Data Dimensions and Measurements Map

The dimensions and measurements map for the Over Time Additional Data data source includes the following elements:

Dimensions

The dimensions are:

GUI Element (A-Z)	Description
CI	The configuration item or service.
Time Range	The time range for which you want to see information.

Measurements

The measurements are:

GUI Element (A-Z)	Description
# of tickets	The number of tickets (open incidents) that were opened with the selected severity during the selected time period.
	To specify the severity, you must first specify the rule that is used to calculate the number of tickets.
	To specify the rule, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Number of open Incidents rule** entry in the Dashboard Application - Business Impact table. Enter the value of the rule you want to use. A list of rules and rule numbers are available in the Repositories (to access the Repositories, select **Admin > Dashboard > Repositories > Business Rules**).
	To specify the severity you want to use, edit the rule's properties in the Repositories.
# of users	The number of users, calculated by Real User Monitor, using the specified CI during the selected time period.

TransactionVision - Data Dimensions and Measurements Map

The data is retrieved from the Business Transaction Monitor monitor sample. For details about the sample, see "Data Sample for TransactionVision" in *Reference Information*.

The dimensions and measurements map for the TransactionVision data source includes the following elements:

Dimensions

The dimensions are:

GUI Element (A-Z)	Description
CI	The configuration item or service.
Time Range	The time range for which you want to see information.

Measurements

The measurements are:

GUI Element (A-Z)	Description
Average Backlog Value	The total financial value of the transactions that are currently running in TransactionVision, divided by the number of samples sent during the specified time period. By default, a sample represents 5 minutes of data.
Average Value	The average financial value of the transactions that ran in TransactionVision, in the sample. By default, a sample represents 5 minutes of data.
Average Value of Delays	The average financial value of the transactions that accessed TransactionVision, with delays, in the sample. By default, a sample represents 5 minutes of data.

GUI Element (A-Z)	Description
Average Value of Exceptions	The average financial value of the transactions that accessed TransactionVision, with an exception, in the sample. By default, a sample represents 5 minutes of data. A transaction with an exception is a transaction that did not follow the straight-through process defined by the user.
Average Value of Failures	The average financial value of failed transactions in TransactionVision, in the sample. By default, a sample represents 5 minutes of data. Transactions are classified as **failed** when they match the attribute or pattern defined as failure in TransactionVision.
Avg. Backlog	The number of transactions that are currently running in TransactionVision, divided by the number of samples sent during the specified time period. By default, a sample represents 5 minutes of data.
Avg. Duration (sec)	The sum of the response time of the transactions that ran in TransactionVision, divided by the total number of transactions, in the sample. By default, a sample represents 5 minutes of data.
Delays (#)	The total number of delayed (late) transactions in TransactionVision, in the sample. By default, a sample represents 5 minutes of data. Transactions are classified as **late** when their response time exceeds the defined threshold in TransactionVision.
Exceptions (#)	The total number of transactions that accessed TransactionVision, with exceptions, in the sample. By default, a sample represents 5 minutes of data. A transaction with an exception is a transaction that did not follow the straight-through process defined by the user.

GUI Element (A-Z)	Description
Failures (#)	The total number of failed transactions in TransactionVision, in the sample. By default, a sample represents 5 minutes of data. Transactions are classified as **failed** when they match the attribute or pattern defined as failure in TransactionVision.
Max. Duration (sec)	The maximum response time of the transactions that ran in TransactionVision in the sample. By default, a sample represents 5 minutes of data.
Min. Duration (sec)	The minimum response time of the transactions that ran in TransactionVision in the sample. By default, a sample represents 5 minutes of data.
Total Value	The total value of the transactions that ran in TransactionVision, in the sample. By default, a sample represents 5 minutes of data.
Total Volume (#)	The total number of transactions that ran in TransactionVision, in the sample. By default, a sample represents 5 minutes of data.
Value of Delays	The total financial value of delayed (late) transactions in TransactionVision, in the sample. By default, a sample represents 5 minutes of data. Transactions are classified as **late** when their response time exceeds the defined threshold in TransactionVision.

GUI Element (A-Z)	Description
Value of Exceptions	The total financial value of the transactions that accessed TransactionVision, with an exception, in the sample. By default, a sample represents 5 minutes of data. A transaction with an exception is a transaction that did not follow the straight-through process defined by the user.
Value of Failures	The total financial value of failed transactions in TransactionVision, in the sample. By default, a sample represents 5 minutes of data. Transactions are classified as **failed** when they match the attribute or pattern defined as failure in TransactionVision.

🔍 Select Dimensions Page

Description	Enables you to select the dimensions you want to display in the report, and whether they are to appear in a column or a row.
Important Information	➤ The information displayed on this page depends on the type of display you selected in the **Select a Display Type** page. ➤ General information about the wizard is available in "Service Report Builder Wizard" on page 227. **Tips and Tricks:** Before using this page, see "Tips and Tricks" on page 215. **Limitations:** See "Troubleshooting and Limitations" on page 281.
Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page **>** Select a Data Source Page > **Select Dimensions Page** > Select Measurements Page > (Create Measurement Dialog Box) >(Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

When You Use the Pivot Table Format

Description	The elements listed in the table below are displayed when you select **Pivot table** in the Select a Display Type page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
→	Select a dimension in the **Available dimensions** area and click the forward arrow to move the dimension to the **Columns** or **Rows** area.
←	Select a dimension in the **Rows** or **Columns** area and click the arrow to move the dimension back to the **Available dimensions** area.
▲ ▼	Change the order of the dimensions in the **Columns** or **Rows** area by clicking the up and down arrows. By default, the dimensions are listed in alphabetical order.
Available Dimensions	Select the appropriate dimension and select where you want to put it in the report by clicking the forward arrow to the **Columns** or **Rows** area.
	Use the following guidelines to select the dimensions:
	➤ If you select only one dimension and move it to the **Rows** (**Columns**) area, the dimension's measurements appear as columns (rows) in the Service report.
	➤ If you select two dimensions, it is recommended to move one dimension to the **Rows** area and the other dimension to the **Columns** area.
	➤ If you select more than two dimensions, there is no restriction to the location of the dimensions.
	The available dimensions depend on the data source you selected. For a description of the dimensions, see "Select a Data Source Page" on page 230.

GUI Element (A-Z)	Description
Clear	Click the **Clear** button to return the dimensions in the **Columns** or **Rows** area back to the **Available Dimensions** area.
Columns	Displays the dimensions that are to appear as column headers in the report.
Enable automatic preview	You can display a preview of the report by selecting **Enable automatic preview**.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the preview report.
	Note: If, after previewing the page, you clear **Enable automatic preview**, the automatic preview feature is disabled on the next wizard page.
Preview	Click the **Preview** button to review the page. The preview shows the report structure with randomly generated data.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the preview report.
	Note: The preview report displays randomly generated data and background color for illustration purposes only, and, when applicable, two placeholder values for each selected dimension.
Rows	Displays the dimensions that are to appear as row headers in the report.

When You Use the Pie Chart Format

Description	The elements listed in the table below are displayed when you select **Pie** in the Select a Display Type page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
⇒	Select a dimension in the **Available dimensions** area and click the forward arrow to move the dimension to the **Slices** area.
⇐	Select a dimension in the **Slices** area and click the arrow to move the dimension back to the **Available dimensions** area.
▲ ▼	Change the order of the dimensions in the **Slices** area by clicking the up and down arrows. By default, the dimensions are listed in alphabetical order.
<legend>	Displays the automatically selected colors that represent each dimension or combination of dimensions.
Available Dimensions	Lists the dimensions you selected in the Select Dimensions page.
	The available dimensions depend on the data source you selected. For a description of the dimensions, see "Select a Data Source Page" on page 230.
Clear	Click the **Clear** button to clear all the selections on the page.

GUI Element (A-Z)	Description
Enable automatic preview	You can display a preview of the report by selecting **Enable automatic preview**.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the report preview.
	Note: If, after previewing the page, you clear **Enable automatic preview**, the automatic preview feature is disabled on the next wizard page.

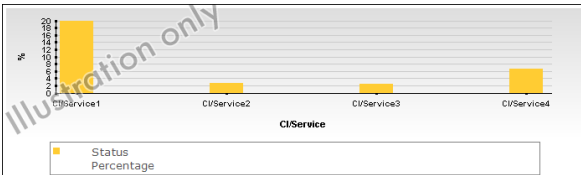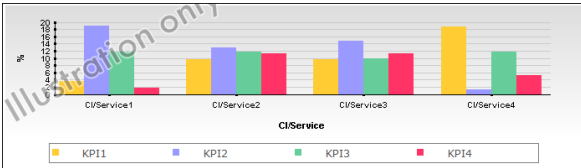| GUI Element (A-Z)	Description
Preview	Click the **Preview** button to review the page. The preview shows the report structure with randomly generated data.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the preview report.
	Note: The preview report displays randomly generated data and background color for illustration purposes only, and, when applicable, two placeholder values for each selected dimension.
Slices	**Mandatory:** Move at least one dimension to the **Slices** area.
	For example, if you move:
	➤ One dimension to the **Slices** box, each sector of the pie chart represents a different value of the dimension.
	➤ More than one dimension to the **Slices** box, each sector of the pie chart represents a combination of the values of each selected dimensions. For example, if you select dimensions CI and KPI, the pie chart includes sectors for each group of dimensions as follows: ci1, kpi1; ci1, kpi2; ci2, kpi1; ci2; kpi2.

When You Use the Bar Chart Format

Description	The elements listed in the table below are displayed when you select **Bar** in the Select a Display Type page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
→	Select a dimension in the **Available dimensions** area and click the forward arrow to move the dimension to the **X-Axis** or **Series** area.
←	Select a dimension in the **X-Axis** or **Series** area and click the arrow to move the dimension back to the **Available dimensions** area.
▲ ▼	Change the order of the dimensions in the **X-Axis** or **Series** area by clicking the up and down arrows. By default, the dimensions are listed in alphabetical order.
<legend>	Displays the automatically selected colors that represent each dimension or combination of dimensions.
Available Dimensions	Lists the dimensions you selected in the Select Dimensions page. The available dimensions depend on the data source you selected. For a description of the dimensions, see "Select a Data Source Page" on page 230.
Clear	Click the **Clear** button to clear all the selections on the page.

GUI Element (A-Z)	Description
Enable automatic preview	You can display a preview of the report by selecting **Enable automatic preview**.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the preview report.
	Note: If, after previewing the page, you clear **Enable automatic preview**, the automatic preview feature is disabled on the next wizard page.
Preview	Click the **Preview** button to review the page. The preview shows the report structure with randomly generated data.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the report preview.
	Note: The preview report displays randomly generated data and background color for illustration purposes only, and, when applicable, two placeholder values for each selected dimension.

GUI Element (A-Z)	Description
Series	The X-axis marks represent the combinations of all the values of the dimensions you moved to the **X-Axis** box. For each mark, the group of bars represent the combinations of all the values of the dimensions you moved to the **Series** box. **Example:** You moved **CI** in the **X-Axis** box, and **KPI** and **Status** to the **Series** box. The result is as follows: **Note:** If you move dimensions to the **Series** box, you can select only one measurement in the Select Measurements page.

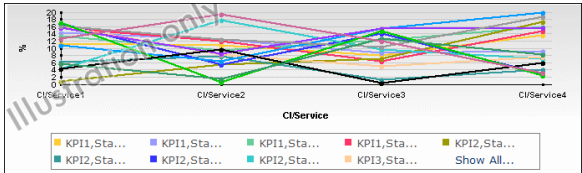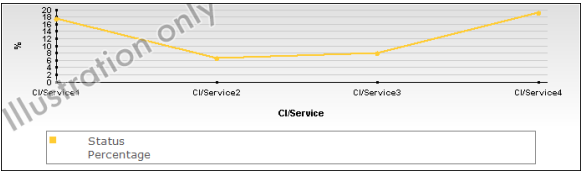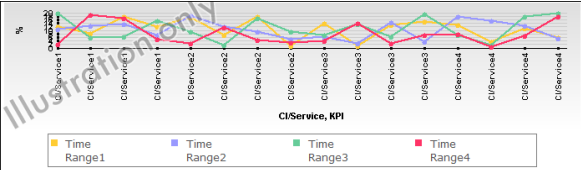| GUI Element (A-Z)	Description
X-Axis	**Mandatory:** Move at least one dimension to the X-Axis box. The X-axis marks represents the combinations of all the values of the dimensions you moved to the X-Axis box. **Example:** If you move: ➤ One dimension to the **X-Axis** box, the values of the dimension are displayed on the X-axis. ➤ More than one dimension to the **X-Axis** box, each combination of the dimensions is represented by one mark in the X-axis.

When You Use the Line/Stacked Bar/Area Chart Formats

Description	The elements listed in the table below are displayed when you select **Line/Stacked Bar/Area** in the Select a Display Type page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➡	Select a dimension in the **Available dimensions** area and click the forward arrow to move the dimension to the **X-Axis** or **Series** area.
⬅	Select a dimension in the **X-Axis** or **Series** area and click the arrow to move the dimension back to the **Available dimensions** area.
▲ ▼	Change the order of the dimensions in the **X-Axis** or **Series** area by clicking the up and down arrows. By default, the dimensions are listed in alphabetical order.
<legend>	Displays the automatically selected colors that represent each dimension or combination of dimensions
Available Dimensions	Lists the dimensions you selected in the Select Dimensions page. The available dimensions depend on the data source you selected. For a description of the dimensions, see "Select a Data Source Page" on page 230.
Clear	Click the **Clear** button to clear all the selections on the page.

GUI Element (A-Z)	Description
Enable automatic preview	You can display a preview of the report by selecting **Enable automatic preview**. When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled. Any change made to the top part of the page automatically generates the preview report. **Note:** If, after previewing the page, you clear **Enable automatic preview**, the automatic preview feature is disabled on the next wizard page.
Preview	Click the **Preview** button to review the page. The preview shows the report structure with randomly generated data. When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled. Any change made to the top part of the page automatically generates the preview report. **Note:** The preview report displays randomly generated data and background color for illustration purposes only, and, when applicable, two placeholder values for each selected dimension.

GUI Element (A-Z)	Description
Series	The X-axis marks represents the combinations of all the values of the dimensions you moved to the **X-Axis** box. For each mark, the group of bars represent the combinations of all the values of the dimensions you moved to the **Series** box. **Example:** You moved **CI** in the **X-Axis** box and **KPI** and **Status** to the **Series** box. **Note:** If you move dimensions to the **Series** box, you can select only one measurement in the Select Measurements page.

GUI Element (A-Z)	Description
X-Axis	**Mandatory:** Move at least one dimension to the X-Axis box. The X-axis marks represents the combinations of all the values of the dimensions you moved to the X-Axis box. **Example:** If you move: ➤ One dimension to the **X-Axis** box, the values of the dimension are displayed on the X-axis. ➤ More than one dimension to the **X-Axis** box, each combination of the dimensions is represented by one mark in the X-axis.

🔍 Select Measurements Page

Description	Enables you to select the measurements you want to display in the report and whether they should appear in rows or columns. The measurements that are listed in the **Available Measurements** area depend on the dimensions you selected in the Dimensions Selection page. For details, see "Dimensions and Measurements" on page 206.
Important Information	➤ You must select at least one measurement. ➤ The dimensions and measurements of each application are mapped differently. For details, see "Dimensions and Measurements" on page 206 or "Select the Dimension Filters Page" on page 277. ➤ General information about the wizard is available in "Service Report Builder Wizard" on page 227. **Tips and Tricks:** Before using this page, see "Tips and Tricks" on page 215. **Limitations:** See "Troubleshooting and Limitations" on page 281.
Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page > Select a Data Source Page > Select Dimensions Page > **Select Measurements Page** > (Create Measurement Dialog Box) > (Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➡	Select a measurement in the **Available Measurements** area to move the measurement to the **Selected Measurements** area.
⬅	Select a measurement in the **Selected Measurements** area and click to move the measurement back to the **Available Measurements** area.

GUI Element (A-Z)	Description
	Click to create a customized measurement in the Create Measurement dialog box. For details, see "Create Measurement Dialog Box" on page 267.
	See limitations in "Troubleshooting and Limitations" on page 281.
	Select a customized measurement and click to edit the measurement in the Create Measurement dialog box. For details, see "Create Measurement Dialog Box" on page 267.
	Click to open the Edit Chart Properties dialog box. For details, see "Edit Chart Properties Dialog Box" on page 274.
	Note: This button is not available for Pie charts.
	Change the order of the measurements in the **Selected Measurements** area by clicking the up and down arrows. By default, the measurements are listed in alphabetical order.
Available Measurements	Select the appropriate measurement and click the right arrow to move the measurement to the **Selected Measurements** area.
	The available measurements depend on the data source you selected. For a description of the measurements, see "Select a Data Source Page" on page 230.
Clear	Click the **Clear** button to clear all the selections on the page.
Enable automatic preview	You can display a preview of the report by selecting **Enable automatic preview**. When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled. Any change made to the top part of the page automatically generates the preview report.
	Note: If, after previewing the page, you clear **Enable automatic preview**, the automatic preview is disabled on the next wizard page.

GUI Element (A-Z)	Description
Preview	Click the **Preview** button to review the page. The preview shows the report structure with the column and row headers; it does not display data.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled. Any change made to the top part of the page automatically generates the preview report.
	Note:
	➤ The preview report displays randomly generated data and background color for illustration purposes only, and two placeholder values for each selected dimension and measurement.
	➤ The preview box displays a chart that represents all the possible combinations of the selected dimensions displayed for each measurement that you select.
Selected Measurements	The list of measurements you have selected.
	Note: For some measurements (such as **Value**, or **Status**), select where you want the measurements to be displayed in the report by selecting **As column headers** or **As row headers**. For details, see "Dimensions and Measurements" on page 206.
	Limitation: You cannot select both a regular measurement and a measurement with a background at the same time when selecting to display a Service report as a Chart.

🔍 **Create Measurement Dialog Box**

Description	Enables you to add a calculated or aggregated measurement based on the measurements you selected in the Select Measurements page. To access: Click the **Create Measurement** button 📏 on the Select Measurements page in the Service Report Builder wizard.
Important Information	➤ After you create a new measurement, you are returned to the **Select Measurements** page where the new measurement is automatically moved to the **Select Measurements** box. Any measurements you selected before you created the new measurement are discarded, unless you validated the selection (by clicking the **Next** or **Back** button). ➤ To delete a measurement you created, move it back to the **Available Measurements** box. When you click **Finish**, new measurements located in the **Available Measurements** box are automatically deleted, as they are not in use. **Note:** When you select to display a Service report in the Chart format, you can create only Aggregated measurements; you cannot create Calculated measurements. **Limitations:** See "Troubleshooting and Limitations" on page 281.
Included in Tasks	"Configure a Service Report Portlet in My BSM – Workflow" in *Using My BSM* "Create a Customized Measurement" on page 221

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Measurement description	The description of the measurement you are creating. **Note:** The description of the measurement appears as a tooltip when you move the pointer over the measurement on the Select Measurements page.
Measurement name	The name of the measurement you are creating. **Note:** * indicates that the field is mandatory.
Measurement type	Select one of the following: ➤ **Calculated** to use a calculated function. ➤ **Aggregated** to use an aggregated function.
Select function	Select the appropriate function. For details, see "Calculated Functions" on page 268 or "Aggregated Functions" on page 269.

Calculated Functions

Important Information	The **Calculated Functions** option is disabled when you select to display the Service report as a Chart. For information on the function parameters relating to the selected calculated function, see "Function Parameters" on page 271.

The following calculated functions are available:

Function (A-Z)	Description
Difference	Returns the difference between the measurements selected in the **First measurement** list and the **Second measurement** list.

Function (A-Z)	Description
Difference by percentage	Returns the difference between the measurements selected in the **First measurement** list and the **Second measurement** list, divided by the measurement selected in the **Second measurement** list, and multiplied by 100 (the result is in percentages).
	Note: If the source measurement value is 0, and the target value is not 0, the function cannot calculate the difference, and the calculation result is "-". For example: the difference by percentage of 97 from 0 is "-".
Percentage	Returns the percentage of the selected **First measurement** value relative to the selected **Second measurement** value.
Status	Compares the value of the measurement selected in **Compare measurement** box with the specified thresholds and returns a color. For more details, see "Status Function Automatic Measurements" on page 213.
Trend	Returns the trend between the measurements selected in the **First measurement** list and the **Second measurement** list. The trend is indicated in the final report, using up ▲, down ▼, or no change arrow ➥. For details, see "My BSM Page" in *Using My BSM*.

Aggregated Functions

Important Information	For information on the function parameters relating to the selected aggregated function, see "Function Parameters" on page 271.

The following aggregated functions are available:

Function (A-Z)	Description
Average	Returns the average of the values of the measurement you select in the **Select measurement** list.

Function (A-Z)	Description
Best	Available only for status measurement types. Returns the best status of all the selected measurement statuses. **Note:** This function is irrelevant when you select to display the Service report as a Chart.
Count Status	Available only for status measurement types. Returns the number of times the status has the value selected in the **Select measurement instance** during the selected period of time. **Note:** This function is irrelevant when you select to display the Service report as a Chart.
Max	Returns the highest value of the measurement you select in the **Select measurement** list.
Min	Returns the lowest value of the measurement you select in the **Select measurement** list.
Status Percentage	Available only for status measurement types. Returns the percentage of the status for the value selected in the **Select measurement instance**. **Note:** This function is irrelevant when you select to display the Service report as a Chart.
Sum	Returns the sum of the values of the measurement you select in the **Select measurement** list.
Worst	Available only for status measurement types. Returns the worst status of all the selected measurement statuses. **Note:** This function is irrelevant when you select to display the Service report as a Chart.

Function Parameters

Important Information	**Function Parameters** are disabled when you select to display the Service report as a Chart.

The following function parameters are available:

GUI Element (A-Z)	Description
Compare measurement	Displayed when you create a **Status** calculated function. Select the measurement you want to compare with the thresholds you specify in **To Threshold**.
Create measurement	Displayed when you create a **Status** calculated function. Select one of the measurements that is automatically created when you create a **Status** calculated function. For details about those measurements, see "Status Function Automatic Measurements" on page 213.

GUI Element (A-Z)	Description
First measurement	Displayed when you create a calculated function.
	Select the first measurement to be used in the calculation.
	Note:
	➤ When you create a calculated measurement, the names of the measurement in the **First measurement** and **Second measurement** lists are followed by an expression between parenthesis. For example, Event Count (Status 1) represents the instance of the measurement in the report. When the report including real data is displayed, the calculation occurs between the first instance of the measurement and the second instance of the measurement (or vice versa) according to your selection.
	You can perform calculations between:
	1. Two different instances of the same measurement. You can select only two instances (values) of the dimension on which you base the calculation in the Select Dimensions Filter page.
	2. Different measurements. There is no limitation on the number of instances.
	➤ When you select to display a dimension in a specific location (rows or columns), any calculated measurement based on that dimension and other selected measurements must also be displayed in the same location.
Second measurement	Displayed when you create a calculated function.
	Select the second measurement to be used in the calculation.
	For more information, see "First measurement" on page 272.
Select dimension	Displayed when you create a calculated function.
	Select the dimension on which you want to perform the selected function.

GUI Element (A-Z)	Description
Select measurement	Displayed when you create an aggregated function.
	Select the measurement on which you want to perform the selected function.
Selected measurement instance	Displayed when you create a **Count Status** or a **Status Percentage** aggregated function.
	Select **Failed**, **Breached**, **Minor Breached**, **Met**, **Exceeded**, **No Data**, or **Downtime**.
To thresholds	Displayed when you create a **Status** calculated function.
	Enter the threshold values and select the operator to specify the status displayed when the comparison between the value of the measurement you selected in the **Compare measurement** list complies with the thresholds.
	Note: The threshold definitions depend on the data source you selected in the **Select a Data Source** page.

🔍 Edit Chart Properties Dialog Box

Description	Enables you to specify the target lines you want to display in the Service report and the scale of the Y-axis.
	Note: The capabilities offered in this dialog box are not available for Pie charts.
	To access: Click **Edit Chart Properties** 🖼 in the Select Measurements page in the Service Report Builder wizard.

Target Lines Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Add	Click the **Add** button to add a label to the list of labels in the table.
Target Line Type Manual	Enter the following information:
	➤ **Label.** The name of the target line. The name of the target line appears in the chart legend.
	➤ **Value.** The value of the target line. It indicates the position of the target line on the Y-axis. The value appears in a tooltip when you move the pointer over the target line.
	➤ **Color.** Select one of the colors (**Red**, **Orange**, **Yellow**, **Khaki**, **Green**, or **Black**). A line with the selected color appears next to the target line label in the chart legend.
	Note:
	➤ When two or more labels have the same value but different colors, the corresponding target lines are displayed one over the other and the legend displays each colored line and its label.
	➤ When two or more labels have the same value and the same color, the legend displays the colored line followed by the label names separated by slashes (/).

GUI Element (A-Z)	Description
Target Line Type Measurement based	Select one of the measurements in the list. The measurements listed in the box are the measurements that are **not** dependant on the dimensions you moved to the X-Axis box in the Select dimensions page (if **all** the measurements available depend on the dimension you moved to the X-Axis, this option is disabled).
	The color of the labels corresponding to regular measurements (without background) is black. The color of the labels corresponding to measurements with background is the color of the background.
	Note:
	➤ When two and more labels have the same value but different colors, the corresponding target lines are displayed one over the other and the legend displays each colored line and its label.
	➤ When two or more labels have the same value and the same color, the legend displays the colored line followed by the label names separated by slashes (/).
Update	Select a label in the table, make the appropriate changes, and click **Update** to update the changes.
	Note: You can select more than one label in the table, but you cannot edit more than one label at a time.

Table Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Color	The color of the target line. A colored line appears next to the target line label in the chart legend.
Label	The name of the target line as it appears in the chart legend. The labels are listed in chronological order.
Value	The value of the target line. It indicates the position of the target line on the Y-axis. The value appears in a tooltip when you move the pointer over the target line.

Scaling Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Auto Scale	The scale of the Y-axis is evenly distributed between the minimum and maximum values of the measurements selected in the Select Measurement page.
Start Chart at 0	The minimum value on the Y-axis is 0 and the maximum value is the maximum value of the measurements selected in the Select Measurement page.

🔍 Select the Dimension Filters Page

Description	Enables you to filter the dimensions you want to display in the report.

Important Information	➤ The **Available Dimensions** area lists both:
	   ➤ the dimensions you selected in the Dimensions Selection page.
	   ➤ the dimensions related to the measurements you selected in the Measurement Selection page according to the application's dimensions and measurements map.
	
	For details, see "Dimensions and Measurements" on page 206.
	
	➤ You must select at least one dimension filter for each dimension listed in the **Available Dimension Filters** area. Depending on the links between the dimensions and measurements you selected in the previous pages of the wizard, you can select a single value or multiple values for the dimension. For details, see "Impact on the Type of Selection: Single Selection or Multiple Selection" on page 208.
	
	➤ The dimensions and measurements of each data source are mapped differently. For details, see the dimensions and measurement maps for each data source in "Impact of the Dimensions/Measurement Selection on the Report Structure" on page 208.
	
	➤ General information about the wizard is available in "Service Report Builder Wizard" on page 227.
	
	Tips and Tricks: Before using this page, see "Tips and Tricks" on page 215.
	
	Limitations: See "Troubleshooting and Limitations" on page 281.

Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page > Select a Data Source Page > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) > (Edit Chart Properties Dialog Box) > **Select the Dimension Filters Page** > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Dimensions Filters	Select a dimension in the list.
Clear	Click to clear all selections.
Dimensions Filter	Select the required dimension filter.
	Select only two values for dimensions that are used as a base for calculated functions. If you select one value, or more than two values, an error message is displayed.
	For additional information, see "Impact on the Type of Selection: Single Selection or Multiple Selection" on page 208.
	Note: When working with the Business Process Insight data source, select the measurements that are appropriate for the type of CI you select in the Select Dimension Filters. If the measurements you select have no connection with the type of CI you select, the report is empty or the data is meaningless for monitor CIs or partial for non-monitor CIs. For details about the available measurements, see "Business Process Insight Data Dimensions and Measurements Map" on page 240.

GUI Element (A-Z)	Description
Enable automatic preview	Select to display a preview of the report.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the report preview.
	Note: If, after previewing the page, you clear **Enable automatic preview**, the automatic preview is disabled on the next wizard page.
Preview	Click to preview the page. The preview shows the report structure with the column and row headers; it does not display data.
	When you edit an existing Service report, **Enable automatic preview** is automatically selected and the **Preview** button is disabled.
	Any change made to the top part of the page automatically generates the preview report.
	Note: The report preview displays randomly generated data and background color for illustration purposes only, and two placeholder values for each selected dimension.

🔍 Summary Page

Description	Displays the report you have created with real data and real background color.
Important Information	General information about the wizard is available in "Service Report Builder Wizard" on page 227.
Wizard Map	Welcome > Service Report Properties Page > Select a Display Type Page > Select a Data Source Page > Select Dimensions Page > Select Measurements Page > (Create Measurement Dialog Box) > (Edit Chart Properties Dialog Box) > Select the Dimension Filters Page > **Summary Page**
Useful Links	"Edit Preferences <portlet_name> Dialog Box" in *Using My BSM*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
🔽	In My BSM, click to display the values of the dimensions selected in the Dimension Filters page that are not directly displayed in the report.
<Common report elements>	For details, see "Common Report Elements" on page 56.

GUI Element (A-Z)	Description
<Dimension filter elements>	In Report Manager, displays the values of the dimensions selected in the Dimension Filters page that are not directly displayed in the report.
Remove empty columns and rows from report	In My BSM, select to remove the columns and rows that do not have data from the report. **Note:** ➤ When you create a Service report, you can choose components that are not necessarily related to other components in the report. Therefore, some results of the Service report may be blank when the report is generated. ➤ This option is disabled when you select the **Chart** display type for the report.

🔍 Troubleshooting and Limitations

This section includes troubleshooting suggestions and limitations for the Service report.

General

➤ If you are editing a Service report and you change the data source of the report, you cannot perform the **Clear** operation in the Select Dimensions or the Select Measurement page. Clicking **Clear** issues an error message.

Select a Data Source Page:

➤ You cannot use both the **Business Process Insight data** and the **TransactionVision data** data sources.

➤ You can use only the **Service Level Management - SLA Status data** data source with the **Service Level Management - SLA KPI data** data source.

Select Dimensions Page

➤ It is not recommended to move two or more elements in the **Rows** box and none to the **Columns** box in the Select Dimensions page, or vice-versa. It is recommended to move at least one element in the **Columns** box and one in the **Rows** box.

Select Measurements Page

➤ When you select measurements from different measurement groups, the order of the measurements in the report and in the preview is different from the selected order. For example: if you select: **Value**, **Targets - All**, and **Status**, the order of the measurements in the report is: **Value**, **Status**, **Targets - All**. For details about the measurement groups, see the maps described in "Impact of the Dimensions/Measurement Selection on the Report Structure" on page 208.

➤ You cannot combine, in a report, an aggregated measurement with calculated measurements or with regular measurements.

➤ When you select the **Line/Bar/Stacked Bar/Area** chart type, and you do not move a dimension to the **Series** box in the Select Dimensions page, you can select more than one measurement in the Select Measurements page.

➤ When you select the **Line/Bar/Stacked Bar/Area** chart type and two measurements, the left Y-axis displays the first selected measurement scale and the right Y-axis displays the second selected measurement scale if the measurement units are different.

➤ When you select the **Line/Bar/Stacked Bar/Area** chart type and more than two measurements, a **Line/Bar/Stacked Bar/Area** chart is displayed for each measurement separately.

➤ When you use a **Pie** chart and you select several measurements , the report displays a separate pie chart corresponding to each selected measurement.

Create Measurement Dialog Box

➤ If you select all the available dimensions in the Select Dimensions page, you cannot create a new aggregated measurement. For details about creating aggregated measurements, see "Create Measurement Dialog Box" on page 267.

➤ You cannot create a measurement that already exists and give it a different name.

➤ You cannot create different measurements with the same name.

➤ It is not recommended to create a calculated measurement whose dimensions appear in both the **Rows** and **Columns** boxes in the Select Dimensions page. For example, if you create a **Diff** calculated measurement based on the **KPI Value** and the **Targets - Met** measurements, the **CI**, **SLA**, and **KPI** dimensions participate in the calculation. It is recommended to move at least one of those dimensions in the **Rows** box if the other dimensions are in the **Column** box or vice-versa, so the report has the following structure:

			CI/Service1	CI/Service2
SLA1	KPI1	Time Range1	3.17	-8.35
		Time Range2	4.75	-0.57
	KPI2	Time Range1	4.79	-16.64
		Time Range2	5.36	-17.98
SLA2	KPI1	Time Range1	-8.00	6.10
		Time Range2	-0.66	0.32
	KPI2	Time Range1	-3.87	9.05
		Time Range2	15.91	15.57

Select Dimension Filters Page

➤ In the Select Dimension Filters page, the automatic preview displays an error message even when you have selected CIs. Click the **Preview** button or move to another dimension in the Mandatory Dimensions list to activate the preview feature.

11

Custom Query Builder

This chapter includes the main concepts, tasks, and reference information for the Custom Query Builder.

This chapter includes:

Concepts

➤ Custom Query Builder - Overview on page 285

Tasks

➤ Build a Custom Query – Workflow on page 287

Reference

➤ Custom Query Builder User Interface on page 290

Troubleshooting and Limitations on page 313

Custom Query Builder - Overview

The Custom Query Builder is a Web interface that assists in creating queries to the profile database. The queries are used to generate reports. The Custom Query Builder can also generate an HTML query string that can be used together with third-party tools or proprietary tools to extract data from the profile database.

This section includes the following topics:

➤ "Getting Metadata on the Samples" on page 286

➤ "Configuration" on page 286

➤ "Applying Filters to the Query Data" on page 286

➤ "Supported Syntax and Limitations" on page 286

Getting Metadata on the Samples

When building queries, you must know the data representation of the sample. For information on commonly queried samples and descriptions of their fields, click "Data Samples" in *Reference Information*.

Configuration

You can set the maximum number of data rows returned at **Admin > Platform > Setup and Maintenance > Infrastructure Settings > Foundations > Generic Data Engine Open API**. Edit the **Maximum Rows** setting as required.

Note that the **Enable Open API** setting does not affect the Custom Query Builder.

Applying Filters to the Query Data

You can apply filters to the data being extracted by the query, using the Filter dialog box. For details on the Filter dialog box, see "Filter Dialog Box" on page 301.

When a filter consists of strings containing white space or special characters (for example, where bb_guid IN (a b, c)), the white space or special character string must be enclosed with quotes (for example, where bb_guid IN ('a b', c)). When you create filters on the Filter Builder page, quotes are added automatically. Special characters are defined as any characters other than digits, letters, and the following characters: "_", "$", "#".

When defining a filter that consists of strings containing one or more single quote characters, you must add a second single quote character beside each instance. For example, change szTransactionName = ('Login_to_O'brien') to szTransactionName = ('Login_to_O''brien').

Supported Syntax and Limitations

For a list of supported SQL syntax and query limitations, see "Supported SQL Syntax" and "Query Limitations" in *Solutions and Integrations*.

🔨 Build a Custom Query – Workflow

This task describes the working order for building a Custom Query.

🔽 **Note:** If you are accessing the Custom Query Builder from the Custom Report Wizard, you must click the **Edit Filter** button after selecting the Custom Query component to configure the Custom Query in your Custom report.

This task includes the following steps:

➤ "Select the Time Range" on page 287

➤ "Select Data Type" on page 288

➤ "Select Data Field" on page 288

➤ "Apply Filters" on page 288

➤ "Apply Field Properties" on page 288

➤ "Configure Presentation Settings" on page 289

➤ "Select Refresh Rate for Report (My BSM Portlet Only)" on page 289

➤ "Generate or Save the Query" on page 289

1 Select the Time Range

a Select the time range of the data to be extracted from the database. (Not relevant if accessing the Custom Query Builder from the Custom Report Wizard.)

Using the Time Range and Granularity bar, specify the time range for which you want to extract data. For details, see "Time Range and Granularity Bar" on page 70.

b If you want returned data grouped according to a specific granularity setting (for example, if you want data for the past day grouped per hour), select **Return data per specified granularity** and specify a granularity setting.

Example
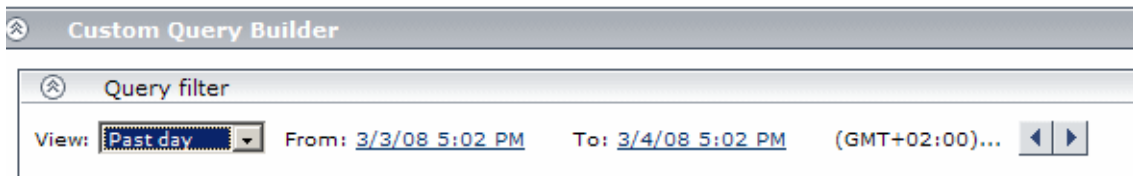
The Time Range and Granularity bar is set to extract data from March 3, 2008 at 5:02 PM until March 4, 2008 at 5:02 PM, according to the GMT + 2:00 time zone.

2 Select Data Type

Select the type of data you want to extract from the database.

From the **Sample type** list, select a data sample type. For a description of the available sample types, see "Data Samples" in *Reference Information*.

3 Select Data Field

Select the data fields of the chosen sample type that you want to extract from the database, and the functions to perform on the data. Optionally, you can change the Field Alias of the field by modifying the **Alias Name** field. Click **Add** to add the field. For detailed descriptions of the available data fields per sample type, see "Data Samples" in *Reference Information*.

4 Apply Filters

Click the **Filter Builder** button to apply filters to the data to be extracted by the query. For details on the user interface for applying filters, see "Filter Dialog Box" on page 301.

5 Apply Field Properties

Click the **Field Properties** button to define custom properties for the field. For details on the user interface for defining custom properties, see "<Field alias> Field Properties Dialog Box" on page 294.

6 Configure Presentation Settings

Configure presentation settings to instruct HP Business Availability Center how to present the data in the report. For details the user interface for performing this task, see "Presentation Settings Wizard" on page 302.

7 Select Refresh Rate for Report (My BSM Portlet Only)

In the Advanced Settings table, select a refresh rate for the report (either every 1 hour or every 2 hours), or specify no refresh.

8 Generate or Save the Query

➤ If accessing the Custom Query Builder directly from the User Reports context, click **Generate** to generate a report based on the selected data. The report appears beneath the Query Filter pane, and the Query Filter pane collapses. To edit the query or create a new query, expand the Query Filter pane. To view the report, you must collapse the Query Filter pane.

➤ If accessing the Custom Query Builder from the Custom Report Wizard, click **OK** in the Add Component dialog box to save the settings to your Custom report.

➤ If accessing the Custom Query Builder from My BSM, click **Save** to save the settings for the portlet.

Tip: To create a URL query string, click the **Export** button , select **Publish Report**, specify the requested settings, and click the **Generate URL** button.

🔩 Custom Query Builder User Interface

This section describes:

➤ Custom Query Builder Page on page 290

➤ Presentation Settings Wizard on page 302

🔩 Custom Query Builder Page

Description	Enables you to: ➤ Create queries to the profile database to generate reports. ➤ Generate an HTML query string that can be used together with third-party tools or proprietary tools to extract data from the profile database. **To access:** You access the Custom Query Builder page in one of the following ways: ➤ Select **Applications** > **User Reports** > **Custom Query Builder.** ➤ In the Custom Report wizard, select the Custom Query component category to add a Custom Query Builder report to a Custom report. For details on Custom reports, see "Custom Reports" on page 127. ➤ Select the Custom Query portlet in My BSM. For details on configuring a portlet in My BSM, see "Add Portlets to <page_name>/Add Portlets Dialog Box" in *Using My BSM*.
Important Information	To create a URL query string, click the **Export** button 📦▾ , select **Publish Report**, specify the requested settings, and click the **Generate URL** button.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Useful Links	"Custom Query Builder - Overview" on page 285 "Common Report Elements" on page 56

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to open the <Field alias> Field Properties dialog box and modify field properties, if required. For details, see "<Field alias> Field Properties Dialog Box" on page 294.
<Common report elements>	For details, see "Common Report Elements" in *Reports*.
Alias Name	Modify the alias name for the selected field, if required. For example, if you chose **AVG** from the **Function** list, modify the alias name to say Avg Response Time.
Clear Filter	Click to clear the filter string, if required.
Edit Presentation	Click to open the Presentation Settings dialog box and configure presentation settings. For details, see "Presentation Settings Wizard" on page 302.
Field Alias	The value of the **Alias name** cell for the added field. **Note:** You can edit the value of this field directly in the **Field Alias** cell.
Field Formula	The value of the **Function** and **Field name** cells for the added field. **Note:** You can edit the value of this field directly in the **Field Formula** cell. For example, to display returned response time in seconds rather than milliseconds, edit the field formula for Response Time, **dResponseTime**, as follows: dResponseTime / 1000.
Field Name	Select a data field that you want to extract from the database. For a description of the available field types, see "Data Samples" in *Reference Information*. **Tip:** When adding fields to the query, select them in the order in which you want the data columns to appear, from left to right, in the returned output.

GUI Element (A-Z)	Description
Filter	Displays the configured filter string. **Note:** ➤ When a filter consists of strings containing white space or special characters (for example, where bb_guid IN (a b, c)), the white space or special character string must be enclosed with quotes (for example, where bb_guid IN ('a b', c)). When you create filters on the Filter Builder page, quotes are added automatically. Special characters are defined as any characters other than digits, letters, and the following characters: "_", "$", "#". ➤ When defining a filter that consists of strings containing one or more single quote characters, you must add a second single quote character beside each instance. For example, change szTransactionName = ('Login_to_O'brien') to szTransactionName = ('Login_to_O''brien')
Filter Builder	Click to open the Filter dialog box and apply filters to the data being extracted by the query. For details, see "Filter Dialog Box" on page 301.
Function	Select a function to perform on the data represented in the specified data field. For example, to return average response time, select **Response Time** from the **Field name** list and **AVG** from the **Function** list. For a list of the supported functions, see "Supported SQL Syntax" in *Solutions and Integrations*.
Generate	Click to generate the report based on the selected data. The report appears beneath the Query Filter pane, and the Query Filter pane collapses. To edit the query or create a new query, expand the Query Filter pane. When the Query Filter pane is expanded, the existing report remains beneath it. **Note:** This element is available only when accessing the Custom Query Builder from the User Reports menu.

GUI Element (A-Z)	Description
Return data per specified granularity	Select if you want returned data grouped according to a specific granularity setting (for example, if you want data for the past day grouped per hour), and specify a granularity setting. **Note:** ➤ If you modify this setting after configuring presentation settings, the presentation settings are then lost. For details on presentation settings, see "Presentation Settings Wizard" on page 302. ➤ When selecting this field, it is recommended not to select the time_stamp field in the query. This is because, if **Return data per specified granularity** is selected, HP Business Availability Center automatically adds a time dimension to the report.
Sample type	Select a data sample type. For a description of the available sample types, see "Data Samples" in *Reference Information*.

🔍 **<Field alias> Field Properties Dialog Box**

Description	Enables you to modify the default field properties and define custom properties for the field.
	To access: Click the **Field Properties** button 📋 on the Custom Query Builder page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Critical Threshold	Displayed for **Double** and **Integer** field types. Used to add color coding in tables and graphs to data for which thresholds in the system have been defined—for example, to display transaction response time data with color coding corresponding to the **Critical** threshold defined in System Availability Management. In tables, the color coding is in the form of colored cells. In graphs, the color coding is in the form of a colored line. For details on working with Critical Threshold settings, see "OK/Critical Thresholds" on page 298.
Format	Displayed for **Date**, **Double**, and **Integer** field types. Used to customize the format of the displayed date or numerical data in data tables, as well as in graphs (x-axis, tooltips, legend). For a list of possible formats and syntax examples, see "Field Formats" on page 295.
Max length	Displayed only for **String** field type. Used to set a maximum length, in characters, for the displayed string. In cases where the string exceeds the defined length, a tooltip is shown with the complete string.

GUI Element (A-Z)	Description
OK Threshold	Displayed for **Double** and **Integer** field types. Used to add color coding in tables and graphs to data for which thresholds in the system have been defined—for example, to display transaction response time data with color coding corresponding to the **OK** threshold defined in System Availability Management. In tables, the color coding is in the form of colored cells. In graphs, the color coding is in the form of a colored line. For details on working with OK Threshold settings, see "OK/Critical Thresholds" on page 298.
Type	The field type. The default type for the field is initially displayed.
	Example: By changing a field type from **Double** to **Integer**, you can display the returned data without the decimal point, if you use a function to modify a field formula in a way that results in a numerical value becoming a string. For example, if you change (**dResponseTime**) to IF(**dResponseTime,>,5000,pass,fail**), you must change the type to **String** to enable the returned result to display correctly in a table.
	The following field types exist:
	➤ **String.** Used for textual expressions.
	➤ **Date.** Used for date fields.
	➤ **Double.** Used for numerical fields.
	➤ **Integer.** Used for numerical fields.

Field Formats

You enter values in the **Formats** box to modify the default format for a field, as defined in the field's metadata. For example, the default date format is **M/dd/yy hh:mm:a**, which displays the date_stamp data as **5/22/06 11:25 AM**. By changing the date format, you can modify the way the date_stamp data is displayed.

You can also add a string beside the returned data, for example, the literal string ms after returned response time data. The allowed formats are based on Java formatting classes.

Some typical date/time formats include:

Symbol	Meaning	Type	Examples
y	Year	Number	yy > 06 yyyy > 2006
M	Month	Text or Number	M > 7 M > 12 MM > 07 MMM > Jul MMMM > December
d	Day in month	Number	d > 3 d > 14 dd > 03
h	Hour (1-12, AM/PM)	Number	h > 3 h > 11 hh > 03
H	Hour (0-23)	Number	H > 15 HH > 15
m	Minute	Number	m > 7 m > 15 mm > 15
s	Second	Number	s > 15 ss > 15
S	Millisecond (0-999)	Number	SSS > 007
E	Day in week	Text	EEE > Tue EEEE" > Tuesday
a	AM/PM	Text	a > AM aa > AM

Symbol	Meaning	Type	Examples
z	Time zone	Text	z > EST zzz > EST zzzz > Eastern Standard Time
'	Escape for text	Delimiter	'hour' h > hour 9

Some typical decimal formats include:

Symbol	Meaning	Examples
0	Shows a digit, or 0 if no digit present	Value: 123.78 Pattern: 000000.000 Output: 000123.780
#	Shows a digit, or nothing if no digit present	Value: 123.78 Pattern: #.### Output: 123.78
.	Indicates the decimal point	Value: 123.78 Pattern: #.## Output: 123.78
,	Used to group numbers	Value: 4123.78 Pattern: ,###.## Output: 4,123.78
'	Used to quote a literal symbol	Value: 123.78 Pattern: '#'###.## Output: #123.78
%	Multiplies by 100 and shows as percentage	Value: 123.78 Pattern: #% Output: 12378%

A complete reference to these classes is located on the Sun Web site, at the following URLs:

➤ **Date and Time Patterns.**
http://java.sun.com/j2se/1.4.2/docs/api/java/text/SimpleDateFormat.html

➤ **Decimal Format Patterns.**
http://java.sun.com/j2se/1.4.2/docs/api/java/text/DecimalFormat.html

OK/Critical Thresholds

You enter values in the **OK Threshold** and **Critical Threshold** boxes to add color coding to your reports. Colors are added to the reports as follows:

➤ **Green.** For values corresponding to the specified OK Threshold value.

➤ **Red.** For values corresponding to the specified Critical Threshold value.

➤ **Yellow.** For values in between the specified OK Threshold and Critical Threshold values.

Example 1: Assuming your report is in table format, if you edit the field properties for transaction response time and specify 2000 ms for the OK Threshold and 4000 ms for the Critical threshold, all returned transaction response time values that are less than or equal to 2000 ms are colored green, all returned transaction response time values that are greater than or equal to 4000 ms are colored red, and all in-between values are colored yellow. This is the case even if, in System Availability Management, thresholds are defined differently.

Time	Transaction Name	Avg Response Time
5/25/06 12:00 AM	login	4,619.30
5/25/06 12:00 AM	logout	1,446.61
5/26/06 12:00 AM	login	4,596.57
5/26/06 12:00 AM	logout	791.54
5/27/06 12:00 AM	login	4,680.27
5/27/06 12:00 AM	logout	2,027.45

Example 2: Assuming your report is in graph format and average response time is selected for the y-axis, if you edit the field properties for transaction response time and specify 2000 ms for the OK Threshold and 4000 ms for the Critical threshold, a green line is drawn on the graph at the 2000 point and a red line is drawn on the graph at the 4000 point.
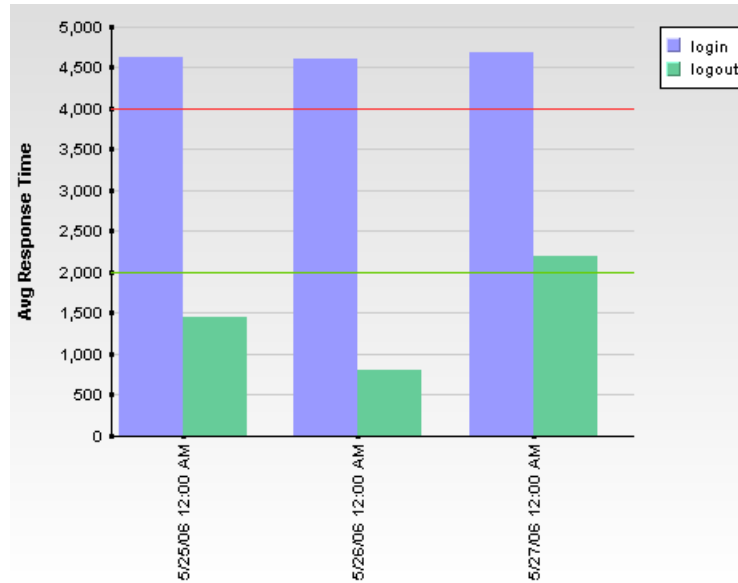
The following types of values can be entered in the **OK Threshold** and **Critical Threshold** boxes:

➤ **Numerical values.** You enter the actual values according to which you want data colored. Numerical values entered in the **OK/Critical Threshold** boxes color code both data tables (cells whose values are within a specific threshold range are colored accordingly) and graphs (a colored line representing the specified value is added to the graph). The values that you enter override any actual set threshold values.

Note: When editing the query presentation format to return a graph, if you configure multiple y-axes on the same graph, no colored line is displayed. For details on editing presentation see "Presentation Settings Wizard" on page 302.

➤ **Referenced fields.** You enter the exact field alias of two other fields that have been added to the query. The values of the referenced fields must be numerical. Typically, you add threshold fields such as **Green Threshold** and **Red Threshold**. Referenced fields entered in the **OK/Critical Threshold** boxes color code only data tables (cells whose values are within a specific threshold range are colored accordingly). Graphs are not color coded.

The following logic is used when determining how to interpret the values placed in the **OK Threshold** and **Critical Threshold** boxes to correctly apply color to the reports:

➤ If the numerical value or value of the referenced field entered in the **OK Threshold** box is lower than the numerical value or value of the referenced field entered in the **Critical Threshold** box, HP Business Availability Center assumes that lower values are OK and higher values are Critical (for example, response time). Data is colored accordingly.

For example, under this assumption, values returned for the field whose properties you are editing that were less than or equal to the numerical value or value of the referenced field specified in the **Green Threshold** box would be colored green.

➤ If the numerical value or value of the referenced field entered in the **OK Threshold** box is higher than the numerical value or value of the referenced field entered in the **Critical Threshold** box, HP Business Availability Center assumes that higher values are OK and lower values are Critical (for example, measurement of disk space). Data is colored accordingly.

For example, under this assumption, values returned for the field whose properties you are editing that were less than or equal to the numerical value or value of the referenced field specified in the **Red Threshold** box would be colored red.

🔍 Filter Dialog Box

Description	Enables you to apply filters to the data being extracted by the query.
	To access: Click the **Filter Builder** button on the Query Filter pane.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Add 'OR' Expression	Click to add **Or** filters.
Add Values	Click when available to select from a predefined list of values. The **Add Values** button is enabled for fields whose lookup value is defined as **true** in the sample metadata in the database (generally for final, discreet values).
And	Click to add an additional **And** filter.
Field	Select a field to which you want to apply a filter. For example, select **Profile Name** to filter the query to return data only for specific profiles (rather than all profiles in the database), or select **Response Time** to filter the query to return only response time data above or below a specific value (rather than all response times).
Operator	Select the required operator. For a description of the supported operators, see "Supported SQL Syntax" in *Solutions and Integrations*. **Note:** The LIKE operator does not work for the **Profile Name** field.
Value	Specify the required value. For example, if you are filtering the query by transaction name, specify a specific transaction. If you use the LIKE operator, you can use the * wildcard character to return like results (for example, a value of *westcoast* would return all transactions whose name included the string **westcoast**).

🔍 Presentation Settings Wizard

Description	Enables you to configure the presentation display of your Custom Query. **To access:** Click the **Edit Presentation** button on the Query Filter pane.
Important Information	The pages that appear on the Presentation Settings wizard depend on the option you select in the **Choose Presentation View** page and the **Choose Table Type** page.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	The Presentation Settings wizard contains the following pages, depending on whether you chose **Table** view or **Graph** view on the **Choose Presentation View** page of the wizard: ➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (Select Field Order Page) > (Sort Field Order Page) > (Table Definition Page) ➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285 "Custom Query Builder Page" on page 290

🔍 Choose Presentation View Page

Description	Enables you to choose the layout of the Custom Query presentation. **To access:** Click the **Edit Presentation** button on the Query Filter pane.
Important Information	➤ The resulting wizard pages that appear depend on the Presentation View option you choose. ➤ General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View: Choose Presentation View Page** > Choose Table Type Page > (Select Field Order Page) > (Sort Field Order Page) > (Table Definition Page) ➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285 "Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Graph	Select to view the Custom Query presentation in graph format.
Table	Select to view the Custom Query presentation in table format.

🔍 Choose Table Type Page

Description	Enables you to choose the type of table in which the Custom Query is displayed. **To access:** Select **Table** on the **Choose Presentation View** page in the Presentation Settings wizard.
Important Information	➤ The resulting wizard pages that appear depend on the Table type you choose. ➤ General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > **Choose Table Type Page** > (Select Field Order Page) > (Sort Field Order Page) > (Table Definition Page) ➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285 "Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Pivot	Select to display the Custom Query table as a table that can include multiple fields in a spreadsheet matrix.
Regular	Select to view the Custom Query table as a standard table with a column for each field in the query.

🔍 Select Field Order Page

Description	Enables you to select the order of the Custom Query fields to appear in your table.
	To access: Select **Regular** on the **Choose Table Type** page in the Presentation Settings wizard.
Important Information	➤ The uppermost field in the Available Fields dialog box appears on the left side of the table, and the lowermost field appears on the right side of the table.
	➤ General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (**Select Field Order Page**) > (Sort Field Order Page) > (Table Definition Page)
	➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285
	"Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
▲	Click to move the selected field up in the **Available Fields** list, for it to be moved to the left side of the table.
▼	Click to move the selected field down in the **Available Fields** list, for it to be moved to the right side of the table.
Available Fields	Displays the fields selected on the Custom Query Builder Main page to be included in your Custom Query.

🔍 Sort Field Order Page

Description	Enables you to select the fields by which you want to sort the table.
	To access: Select the order of fields to appear in the table on the **Select Field Order** page, and click **Next**.
	This page appears only if you selected **Regular** on the **Choose Table Type** page.
Important Information	➤ Fields are sorted first by the topmost field in the Sorted Fields dialog box, then by the next field, and so on.
	➤ General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (Select Field Order Page) > (**Sort Field Order Page**) > (Table Definition Page)
	➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285
	"Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➡	Click to move the selected field to the **Sorted Fields** box.
➡	Click to move all available fields to the **Sorted Fields** box.
⬅	Click to remove the selected field from the **Sorted Fields** box.
⬅	Click to remove all fields from the **Sorted Fields** box.

GUI Element (A-Z)	Description
⬆	Click to move the selected field up in the sort hierarchy. Fields are first sorted by the topmost field, then by the next, and so on.
⬇	Click to move the selected field down in the sort hierarchy. Fields are first sorted by the topmost field, then by the next, and so on.
▲	Click to sort the selected fields in the **Sorted Fields** box in ascending order.
▼	Click to sort the selected fields in the **Sorted Fields** box in descending order.
Available Fields	Displays the fields selected on the Custom Query Builder Main page that are available for sorting.
Sorted Fields	Displays the fields that are to be sorted in the Custom Query. Fields are first sorted by the topmost field, then by the next, and so on.

🔍 Table Definition Page

Description	Enables you to select the fields by which you want to sort the table. **To access:** Select the order of fields to appear in the table on the **Select Field Order** page, and click **Next**. This page appears only if you selected **Pivot** on the **Choose Table Type** page.
Important Information	➤ If **Return data per specified granularity** is selected for the query, HP Business Availability Center adds **Time** to the list of available fields in the **Table Definition** page. ➤ Fields are sorted first by the topmost field in the Sorted Fields dialog box, then by the next field, and so on. ➤ General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (Select Field Order Page) > (Sort Field Order Page) > (**Table Definition Page**) ➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285 "Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➡	Click to move the highlighted key column to the Selected Key Columns dialog box.
➡	Click to move all key columns to the Selected Key Columns dialog box.

GUI Element (A-Z)	Description
←	Click to remove the highlighted key column from the Selected Key Columns dialog box.
⇐	Click to remove all key columns from the Selected Key Columns dialog box.
↓	Click to move the selected key column down in the Selected Key Columns dialog box, and specify the order in the table. The topmost key column appears on the left, then the next key column, an so on.
↑	Click to move the selected key column up in the Selected Key Columns dialog box, and specify the order in the table. The topmost key column appears on the left, then the next key column, an so on.
Across Column	Select a field for the **Across Column**. Each unique value returned for that field is displayed in a separate column in the table. Examples of useful fields to select for the across column include: **time**, **location**, or any other field that returns a relatively small number of data points that are useful to compare one to another.
Available Key Columns	Select one or more fields, and move them to the Selected Key Columns list by clicking the relevant right arrow key. Consider selecting fields that contain data that you want to compare against the field selected in the **Across Column**. For example, in a query filtered to one specific transaction, if you selected **time** for the Across Column and **average response time** for the Value Field, you could select **location** and **host** fields as key columns; this would enable you to directly compare average response time of a transaction for various hosts at different locations at specific points in time.
	Note: The fields that remain in the **Available Key Columns** box still exist in the query, but are hidden in the report table returned by the query.

GUI Element (A-Z)	Description
Selected Key Columns	Displays the fields selected from the **Available Key Column** list. Each selected field displays in the table, to the left of the field selected for the Across Column. You can remove individual or all selections by clicking the left arrow keys.
Value Field	Select a field for the value field. It is recommended that you select a field that returns a meaningful numerical value, for example, **response time**. Do not select date-related fields such as **Time** or **time_stamp**.

Choose Graph Type Page

Description	Enables you to choose the type of graph for the Custom Query to be displayed in.
	To access: Select **Graph** on the **Choose Presentation View** page in the Presentation Settings wizard.
Important Information	General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (Select Field Order Page) > (Sort Field Order Page) > (Table Definition Page)
	➤ **Graph View:** Choose Presentation View Page > **Choose Graph Type Page** > Define Graph Page
Useful Links	"Custom Query Builder - Overview" on page 285
	"Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Bar	Select to view the Custom Query in Bar Graph format.
Line	Select to view the Custom Query in Line Graph format.

Define Graph Page

Description	Enables you to specify the layout of the graph in which the Custom Query is displayed. **To access:** Select **Bar** or **Line** on the **Choose Graph Type** page in the Presentation Settings wizard.
Important Information	General information about the wizard is available in "Presentation Settings Wizard" on page 302.
Included in Tasks	"Build a Custom Query – Workflow" on page 287
Wizard Map	➤ **Table View:** Choose Presentation View Page > Choose Table Type Page > (Select Field Order Page) > (Sort Field Order Page) > (Table Definition Page) ➤ **Graph View:** Choose Presentation View Page > Choose Graph Type Page > **Define Graph Page**
Useful Links	"Custom Query Builder - Overview" on page 285 "Custom Query Builder Page" on page 290

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
➡	Click to move the highlighted dimension to the **Selected Dimensions** list.
➡	Click to move all key columns to the **Selected Dimensions** list.

GUI Element (A-Z)	Description
⬅	Click to remove the highlighted key column from the **Selected Dimensions** list.
⬅	Click to remove all key columns from the **Selected Dimensions** list.
⬇	Click to move the selected key column down in the **Selected Dimensions** list, and specify the order in the table. The topmost key column appears on the left, then the next key column, an so on.
⬆	Click to move the selected key column up in the **Selected Dimensions** list, and specify the order in the table. The topmost key column appears on the left, then the next key column, an so on.
Available Dimensions	Optionally, select one or more dimensions for the graph. If no dimensions are selected, the y-axis value is used as the single dimension. **Note:** The fields that remain in the **Available Dimensions** box are not sent as part of the query and do not appear in the report.
Max. Scale	Optionally, specify a maximum value for the y-axis scale.
Min. Scale	Optionally, specify a minimum value for the y-axis scale.
Selected Dimensions	The dimensions that have been selected to appear in the graph. The data for a field selected as a dimension is displayed on the graph separately, differentiated using a color coding.

GUI Element (A-Z)	Description
X-axis	Select a field to display on the x-axis. Both numerical fields and strings are supported. **Note:** If Return data per specified granularity is selected for the query, HP Business Availability Center defines the x-axis as **Time**. This cannot be modified.
Y-axis	Select one or more numerical fields to display on the y-axis (only numerical fields are supported). Fields selected for the y-axis are removed from the Dimensions list. ➤ If multiple y-axis fields are selected but no dimensions are selected, one single graph is displayed with all the fields on the same y-axis. For the graph with multiple y-axis fields to be meaningful, consider selecting fields whose values are comparable. ➤ If multiple y-axis fields are selected and one or more dimensions are selected, a separate graph is displayed for each separate y-axis.

🔍 Troubleshooting and Limitations

➤ If you leave the Custom Query Builder page while building a query, the query is lost. To avoid losing the query, click the **Generate** button to generate a report based on the query. After generating a report, if you move to a different page and then return to the Custom Query Builder page, the last query built prior to report generation is available.

➤ Once you log out of your current Web session, the query is lost.

➤ When accessing the Custom Query Builder window from the Custom Report wizard, the query is lost as soon as you close the window, unless you click **OK** to save it.

12

Excel Reports

This chapter explains how to use the capabilities of Microsoft Excel to build and view customized reports in HP Business Availability Center.

This chapter includes:

Concepts

Tasks

Reference

🔵 Configuring Excel Reports

You can build and view customized reports in HP Business Availability Center that take advantage of the charting abilities of Microsoft Excel, to display various types of data collected by HP Business Availability Center data collectors. The reports can be viewed with Microsoft Excel or any spreadsheet program capable of reading files with the **.xls** format. You cannot export information from charts into Microsoft Excel. For details on creating a Microsoft Excel Report, see "Create a Microsoft Excel Report - Workflow" on page 317.

Note: Contact HP Software-as-a-Service Support for details on implementing Microsoft Excel reports in HP Software-as-a-Service.

⚒ Create a Microsoft Excel Report - Workflow

This task describes how to create Microsoft Excel reports that include HP Business Availability Center data:

This task includes the following steps:

➤ "Write a Query" on page 317

➤ "Save the Query" on page 317

➤ "Generate a Report with Microsoft Excel" on page 317

➤ "Upload the Microsoft Excel Report to the Report Manager" on page 317

➤ "View the Microsoft Excel Report" on page 317

1 Write a Query

Write a query that retrieves data from the HP Business Availability Center profile database. For details on writing queries, see "Working with the Generic Reporting Engine API" in *Solutions and Integrations*.

2 Save the Query

Save the query in a Web Query file. For details, see "Create a Microsoft Excel Web Query File" on page 318.

3 Generate a Report with Microsoft Excel

Create a Microsoft Excel report. For details, see "Generate a Report with Microsoft Excel" on page 318.

4 Upload the Microsoft Excel Report to the Report Manager

Click the **New** button in the Report Manager and select **New Excel Report** to open the Excel Report dialog box and upload the Microsoft Excel report to the Report Manager. For details, see "New Excel Report Page" on page 113.

5 View the Microsoft Excel Report

Select the Microsoft Excel report in the table on the Report Manager main page and click the **View** button to view the report.

⚒ Create a Microsoft Excel Web Query File

This task describes how to create a text file with an .iqy (IQY) extension that you then import into Excel.

To create an .iqy file:

1 Open an empty file in a text editor and copy the following content into the file:

```
WEB
1
<query_url_goes_here>

Selection=EntirePage
Formatting=None
PreFormattedTextToColumns=True
ConsecutiveDelimitersAsOne=False
SingleBlockTextImport=False
DisableDateRecognition=False
DisableRedirections=False
```

2 Locate the query you created and place it in the file instead of the line <query_url_goes_here>.

3 Save the text file with an **.iqy** (IQY) extension.

For an example of a query that extracts data from the profile database, see "Example of a Web Query" on page 320.

⚒ Generate a Report with Microsoft Excel

This task describes how to generate a report with Microsoft Excel.

To generate a report with Microsoft Excel:

1 Open a new Microsoft Excel file.

2 Select cell **A1**.

3 In Microsoft Excel 2002 or 2003, select **Data** > **Import External Data** > **Import Data**. Microsoft Excel opens the Select Data Source dialog box. Select the **.iqy** file you created (as explained in "Create a Microsoft Excel Web Query File" on page 318) and click **Open**. Excel opens the Import Data dialog box.

In Microsoft Excel 2000, select **Data** > **Get External Data** > **Run Saved Query**. Microsoft Excel opens the Run Query dialog box. Select the **.iqy** file and click **Get Data**. Excel opens the Returning External Data to Microsoft Excel dialog box.

4 Select **Existing worksheet**, and check that the value **=A1** is selected.

5 Click **Properties**. Microsoft Excel opens the External Data Range Properties dialog box.

6 Make sure the following settings are configured:

> ➤ refresh data on file open

> ➤ remove external data from worksheet before saving

> ➤ overwrite existing cells with new data, clear unused cells

7 Click **OK**. Microsoft Excel closes the External Data Range Properties dialog box and displays the Import Data dialog box (Returning External Data to Microsoft Excel dialog box in Excel 2000).

8 Click **OK** to retrieve the data.

9 Use Microsoft Excel's charting features to format the report, as required.

10 Name the file and save the Microsoft Excel workbook to a temporary location.

🐾 Example of a Web Query

The following is an example of a typical Web query file. This example illustrates the retrieval of a list of **rum_server_t** samples that failed in any given day:

```
WEB
1
http://myServer.mydomain/topaz/gdeopenapi/GdeOpenApi?method=getData&user=ad
min&password=admin&query=select time_stamp, engine_name, server_name from
rum_server_t where availability=0 and total_hits > 0 and time_stamp>1041379200 and
time_stamp<1136197020

Selection=EntirePage
Formatting=None
PreFormattedTextToColumns=True
ConsecutiveDelimitersAsOne=False
SingleBlockTextImport=False
DisableDateRecognition=False
DisableRedirections=False
```

To use this example:

 1 Type or copy the text from the above example into a text editor.

 2 Edit the URL beginning on the third line of the file as required. Leave all other values as shown.

 3 Save the file with an **.iqy** extension.

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