HP IT Executive Scorecard

For the Windows ® operating system

Software Version: 9.03

IT Executive Scorecard Admin Guide

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Note: Some topics do not convert properly to PDF, causing format problems. Some elements of online help are completely removed from the PDF version. Those problem topics can be successfully printed from within the online help.

Contents

Getting Started with Business Analysis

HP IT Executive Scorecard is a strategy enabler that enables executives to continuously improve their business by measuring what happened and what is happening, analyzing that information, and planning new strategies using the gathered information. This enables a better strategy execution resulting in a reduction of cost and risk, and an increase in quality and value.

Getting Started with the HP IT Executive Scorecard Studio and Dashboard

The following topics provide the main steps to follow to get started with the Studio and the Dashboard:

1. Learn about HP IT Executive Scorecard. For details, see "Learn About Executive Scorecard" (on page 13).

2. Make sure the HP IT Executive Scorecard settings are configured. For details, see "Perform the Maintenance of HP IT Executive Scorecard" (on page 333).

3. Make sure the HP IT Executive Scorecard users and permissions are configured. For details, see Configure the Relevant Users and their Permissions

4. Learn about how the Executive Dashboard can help the challenges facing Executives. For details, see Plan the Executive Dashboard.

5. Create and activate Scorecards, Perspectives, Objectives, and KPIs. For details, see Create the Dashboard Contents.

6. Enrich the Dashboard contents with Breakdown KPIs, overrides, Cascading Scorecards, and more. For details, see Enrich the Dashboard Contents.

7. Review the out-of-the-box Executive pages, add components to pages, create your own components, or create your own pages. For details, see Prepare the Dashboard Display.

8. The Executive user can now view and analyze the relevant business objectives. For details, see View and Analyze the Business Objectives.

9. Perform the Maintenance of Executive Scorecard.

10. You can localize and globalize Executive Scorecard. The user interface of HP Executive Scorecard supports multiple languages. For details, see Localize and Globalize Executive Scorecard.

11. You can view the Executive Scorecard on a Mobile or a Tablet. For details, see XS for Smartphone Mini App or XS for Tablet Mini App.

Learn About Executive Scorecard

HP IT Executive Scorecard is a strategy enabler.

HP IT Executive Scorecard enables executives to continuously improve their business by measuring what happened and what is happening, analyzing that information, and planning new strategies using the gathered information. This enables a better strategy execution resulting in a reduction of cost and risk, and an increase in quality and value.

HP IT Executive Scorecard provides:

- Cascaded Objectives (Scorecards) that provide the means to define IT goals and objectives.

- Performance Measurements (KPIs and metrics) that measure performance and how the IT goals and objectives are met.

- Actionable insights into performance improvements (KPIs and Data Level Analytics) that increase the performance improvement planning effectiveness via collaboration.

- Actionable insights on the performance measurements that impact the Cascading Scorecards.

- Traceability into the performance measurement and then into the actionable insights.

HP IT Executive Scorecard Contents

HP IT Executive Scorecard:

- Is driven by the business personas challenges.

- Is aligned with the IT objectives of these challenges.

- Is based on industry standards: Information Technology Infrastructure Library (ITIL), Control Objectives for Information and related Technology (COBIT), and more.

- Its Key Performance Indicators (KPIS) are based on the IT Data Model.

- Its analytics results are presented in a Dashboard.

HP IT Executive Scorecard Solution
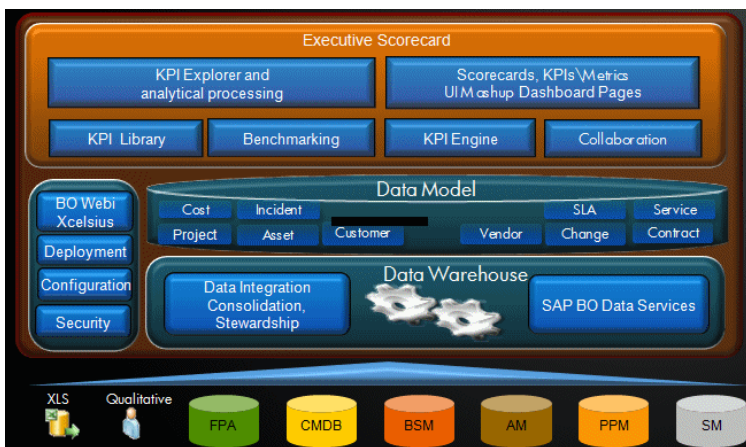
HP IT Executive Scorecard includes a data warehouse with data from a number of products. The data is gathered and analysis performed to present a set of dashboards and reports with actionable insights for executives such as CIO and VP of Operations.

The data sources of the data warehouse can be HP software products such as HP Business Service Management (BSM), HP Universal Configuration Management Database (UCMDB), Service Level Management (SLM), HP Service Manager (SM), HP Asset Manager (AM) and HP Project and Portfolio Managementas well as third party open source products.

The HP IT Executive Scorecard application provides the executive with a tool that enables to measure to which extent their organizations objectives have been achieved and to analyze and decide where to put the effort to improve these objectives.

Reporting Strategy

HP IT Executive Scorecard provides:

- Strategic measurements in the HP IT Executive Scorecard Dashboard:
  - Persona-based dashboards

  - Scorecards

  - Cascaded Scorecards

  - KPI Library (templates)

  - KPI engine

- Strategy Analytics:
  - Long term and eagle eye view analytics

  - Executive and decision maker users

  - Based on an IT Data Warehouse

  - Universes compliant with the IT Data Model

  - May correlate multi-products data.

- Operational reports:
  - Real-time or near real-time access to data.

  - Users are the same as the operational product users.

  - Silo reporting solution.

Plan the Executive Dashboard

This section includes the following topics:

Learn About the Executive Personas and their Business Challenges

The Dashboard is part of the HP IT Executive Scorecard agenda. It provides the IT executives with the capability to measure the performance of their IT organization.

Executive Personas

The figure below represents the executive personas who are potential users of the Dashboard.
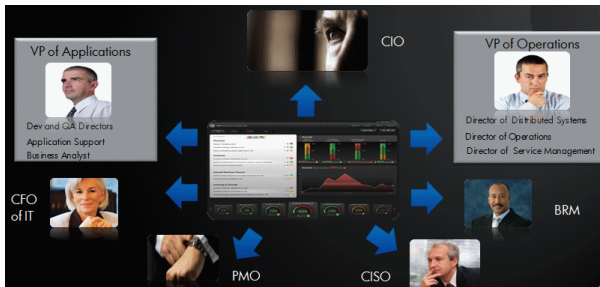
These personas represent potential roles and not necessarily individuals; in some enterprises a single individual may combine several personas or a persona may be split among several individuals. In addition, the names of personas are merely labels of convenience; what is important is the definition of the persona.

For example, major US corporations, particularly in the financial services and media industries, have as similar structure with a CIO per Business Unit and Operations & Infrastructure centralized in a shared services organization. In such a structure, one of the responsibilities of the Business Unit CIO is the Application Development for the business unit. The same Business Unit CIO uses the shared services from Operations in support of the Business Unit live applications. In such a configuration, the CIO is likely to want to see a dashboard that covers only these items as well as the same information through a full-lifecycle Business

Service (or Application Service) lens, seeing Application Development and Operations as lifecycle stages of a single Business Service entity.

This section includes the following topics:

Chief Information Officer (CIO) Business Challenges

A Chief Information Officer (CIO) is usually responsible for the information technology and computer systems that support enterprise goals. A CIO is usually a key contributor in formulating strategic goals.

Business Challenges

CIO business challenges are usually:

- Align IT value and strategy to the business.

- Define and implement improvement goals in terms of delivery, costs, risk, and quality, by eliminating waste from the process.

- Improve and understand the business and explain what IT does in business terms.

If IT delivery is not aligned with the business, there is no innovation, users go to competitors, and business revenues decline.

Day in the life of a CIO

HP IT Executive Scorecard provides:

- **Cascaded Objectives (Scorecards).** The CIO sets an objective for the staff to improve the alignment with the business and to improve the stewardship of IT investments.

- **Performance Measurements (KPIs and metrics).** The CIO measures the performance of the next KPIs to improve the alignment with the business: % of projects with business objectives, % of discretionary spending, and % of projects on budget.

- **Actionable insights into performance improvements (KPIs and Data Level Analytics).** The CIO can get more insight on the organizations whose projects are not aligned with the business. The CIO can collaborate with the PMO regarding investments that are not aligned with the business.

Dashboard out-of-the-box CIO page

A CIO out-of-the-box page is available in the Dashboard. For details on that page, see "CIO Out-of-the-Box Page" (on page 294).

For details on the KPIs, see "Reference: KPIs".

VP of Operations Business Challenges

The Directors of Operations are responsible for maintaining the uptime and performance of all business services within the enterprise.

Business Challenges

VP of Operations business challenges are usually:

- Create and optimize the enterprise infrastructure and operations strategy and align it to the business.

- Deliver to the customers IT services that need to be aligned at the cost, as well as the required service level and speed.

- Negotiate and manage all external contracts and vendors related to hardware software, and services.

- Plan, design, and implement IT processes, and procedures to align with infrastructure demands.

If IT delivery is not aligned with the business, there is no innovation, users go to competitors, and business revenues decline.

Day in the life of a VP of Operations

HP IT Executive Scorecard provides:

- **Cascaded objectives (Scorecards).** The CIO sets an objective for the VP of Operations to reduce the cost of the operations and infrastructure. The VP of Operations cascades the objective to his subordinates.

- **Performance measurements (KPIs and metrics).** The VP of Operations measures the performance of the next KPIs that relates to cost reduction: % of Change in Assets Cost, % of Change in Projects Cost, and % of Project Effort Done by External Resources.

- **Actionable insights into performance improvements (KPIs and Data Level Analytics).** The VP of Operations can:
  - Get insights on the costs that can be reduced.

  - Collaborate on the vendors that supply the most costly assets.

  - Get more insight on the suppliers of those assets (amount of time they supplied assets with low quality and compare to other suppliers performance).

Dashboard out-of-the-box VP of Operations page

A VP of Operations out-of-the-box page is available in the Dashboard. For details on that page, see "VP of Operations Page" (on page 298).

For details on the KPIs, see "Reference: KPIs".

VP of Applications Business Challenges

The VP of Applications are responsible for developing, growing, and maintaining an organization's portfolio of business software, integration technologies, and application disciplines to drive effective business outcome. The VP of Applications/Application Owner's role has become more strategic to the business, due to the fact that every line of business relies on applications.

Business Challenges

VP of Applications business challenges are usually:

- Reduce the cost of application development.

- Justify the investments.

- Provide explanations for project's delays.

- Provide explanations for application failures in production.

- Analyzing why applications are not meeting business requirements.

- Find the vendors with the best performance.

- Balance available resources with business demands.

- Be faced with the inability to quickly respond to the needs of the business.

- Be faced with the inability to deliver secure applications

If the applications are not aligned with the business, there is no innovation, users go to competitors, and business revenues decline.

Day in the life of a VP of Applications

HP IT Executive Scorecard provides:

- **Cascaded objectives (Scorecards).** The CIO sets an objective for the VP of Applications to reduce the cost of the applications. The VP of Applications cascades the objective to his subordinates.

- **Performance measurements (KPIs and metrics).** The VP of Applications measures the performance of the next KPIs that relates to cost reduction: % of Change in Assets Cost, % of Change in Projects Cost, and % of Project Effort Done by External Resources.

- **Actionable insights into performance improvements (KPIs and Data Level Analytics).** The VP of Applications can:
  - Get insights on the costs that can be reduced.

  - Collaborate on the vendors that supply the most costly assets (applications).

  - Get more insight on the suppliers of those assets (amount of time they supplied assets with low quality and compare to other suppliers performance).

Dashboard out-of-the-box VP of Applications page

A VP of Applications out-of-the-box page is available in the Dashboard. For details on that page, see .

For details on the KPIs, see "Reference: KPIs".

Project Manager Officer (PMO) Business Challenges

The Project Management Officers (PMOs), in a business or professional enterprise, define and maintain the standards of process, generally related to project management, within the organization.

Business Challenges

PMO business challenges are usually to:

- Ensure that the projects are aligned with the organizational business goals and motivate the entire organization.

- Provide the processes to the business demands and requirements.

- Ensure the coordination and communication between all project parties, in order for the project to complete on time, within budget, and with high quality.

Day in the life of a PMO

HP IT Executive Scorecard provides:

- **Cascaded objectives (Scorecards).** The CIO sets an objective for the PMO to improve project execution in order to reduce the cost, risk, and increase IT value, and quality. The PMO cascades the objectives to the departmental program and portfolio managers.

- **Performance measurements (KPIs and metrics).** The PMO measures the performance of the next KPIs to achieve the planned project execution improvement : % of Projects Budget at Risk, % of Projects on Time, and Deviation % of Planned Work Hours.

- **Actionable insights into performance improvements (KPIs and Data Level Analytics).** The PMO can get more insight on the organizations whose projects are not delivered on time and can collaborate with the program managers of the problematic projects.

Dashboard out-of-the-box PMO page

A PMO out-of-the-box page is available in the Dashboard. For details on that page, see "PMO page" (on page 307).

For details on the KPIs, see "Reference: KPIs".

Director of Service Management Business Challenges

The Directors of Service Management are responsible for the definition of the processes within the organization as well as the implementation and execution of those processes. Therefore, they are responsible for the core IT Service Management (ITSM) processes (such as incident, problem, and change management) that support the delivery of services to the business. They are also responsible for responding to internal and external audits.

Business Challenges

The Director of Service Management is faced with budget constraints and an ever increasing demand from the business:

1. High cost of service desk (support)

2. Inability to reduce severity of outages/slow time to resolution

3. Inability to communicate IT value to the business

4. Inability to adequately respond to internal or external audits

5. Inability to track software licenses and equipment distribution

6. Inability to proactively identify and isolate the root-cause of incidents

7. Inability to prioritize incidents based on the impact to the business instead of on "who asks first".

Dashboard out-of-the-box Director of Service Management page

A Director of Service Management out-of-the-box page is available in the Dashboard. For details on that page, see "Director of Service Management Page" (on page 304).

For details on the KPIs, see "Reference: KPIs".

Business Relationships Manager (BRM) Business Challenges

The Business Relationships Managers (BRMs) are responsible for liaising between IT and the business. The BRMs are responsible for understanding the business, assisting in the prioritization of projects, ensuring that the projects align with the technology that best provides maximum return on investment, and directing the IT strategy to support the overall business strategy. Business Relationship Management differs from Customer Relationship Management (CRM) in that BRM is an advocate for the business within IT without the external influences to sell product and keep a deal going.

Business Challenges

BRM business challenges are usually to:

- Predict the impact of a project delay from business calendar perspective or from service stabilization, that causes end users to search for other vendors.

- Increase customer satisfaction and handle the critical issues between IT and their customers.

- Present customers with what they are paying for.

- Understand the value of increasing ongoing IT investments from the perspective of their customers.

Day in the life of a BRM

HP IT Executive Scorecard provides:

- **Cascaded objectives (Scorecards).** The CIO sets an objective for the BRM to align customers expectations on project deliveries and executions. The BRM cascades the objectives to the departmental business relationship managers.

- **Performance measurements (KPIs and metrics).** The BRM measures the performance of the next KPIs to track project execution; for example, % of Healthy Projects ,% of Projects on Time , and % of Project Tasks on Time.

- **Actionable insights into performance improvements (KPIs and Data Level Analytics).** The BRM can get more insight regarding the different projects that are not delivered on time. The BRM can add annotations for the program manager regarding the project that is not delivered on

time, and can ask for explanations regarding this delay, in order to understand how to align with the customer expectations .

Dashboard out-of-the-box BRM page

A BRM out-of-the-box page is available in the Dashboard. For details on that page, see "BRM Page" (on page 311)"PMO page" (on page 307).

For details on the KPIs, see "Reference: KPIs".

Learn About the Executive Dashboard

The Dashboard contains for each executive persona the specific pages that have been created or customized to answer their requests and challenges.

Out-of-the-box Pages

The Dashboard contains out-of-the-box pages for:

- **Chief Information Officer (CIO).** For details, see "Chief Information Officer (CIO) Business Challenges" (on page 18).

- **VP of Operations.** For details, see "VP of Operations Business Challenges" (on page 19).

- **Project Manager Officer (PMO).** For details, see "Project Manager Officer (PMO) Business Challenges" (on page 21).

- **Director of Service Management.** For details, see "Director of Service Management Business Challenges" (on page 21).

- **Business Relationships Manager (BRM).** For details, see "Business Relationships Manager (BRM) Business Challenges" (on page 22).

These pages include the elements that represent the most common objectives of these executives. For details about these pages content, see "View and Analyze Results User Interface" (on page 287).

Out-of-the-box Capabilities

The HP IT Executive Scorecard Dashboard provides the following out-of-the-box capabilities:

- **Pages and components**. HP IT Executive Scorecard provides out-of-the-box Dashboard pages and out-of-the-box components that can be added to existing pages. You can use all these components as is or you can customize them to create your customized Dashboard display.

- **Drill down to other pages.** From their pages, the executives can cascade to their direct report's pages for a breakdown of the objectives that they measure.

- **Drill down to more detailed information.** The executives can drill down from any element (using pies, bubbles, charts, gauges, scorecard, etc…) in order to perform analytical processing on the critical results.

- **Annotations.** This functionality allows the executives to add notes in the business context of any element that can be viewed later on during strategic planning meeting, or staff meetings.

Customization

After presenting the out-of-the-box pages and components to the relevant executive and discussing the executive's requirements, the administrator can customize the pages, components, and their contents. The administrator can:

- Add pages.

- Customize the pages by adding components or removing components.

- Link the components using wiring.

- Manage the elements in the components, filter for some elements, change the time frame, and more.

Learn About the SAP BusinessObjects Enterprise for IT Executive Scorecard Universe

A SAP BusinessObjects Enterprise for IT Executive Scorecard universe represents a business universe.

A universe or business context is a set of entities. Each entity is a set of fields. Each field can be a dimension, measurement, or fact that can provide information about the business.

A formula calculates, for a specified time period, using the values of specific entities, a value that represents a specific aspect of the business. The value is assigned to a Key Performance Indicator (KPI) so that the KPI represents a specific aspect of the business.

Each universe includes a number of KPIs. The KPIs are the building blocks of the Studio and the KPI engine.

These entities that are used in the calculation of the KPIs are provided by the relevant integrated data source. Each data source corresponds to a specific Content Pack that provides the connection between the data source and Executive Scorecard.

To plan the integration of the relevant data sources and the activation of the corresponding content packs, you should:

1. Learn about KPIs (for details, see "Learn About KPIs" (on page 45) in *IT Executive Scorecard Admin Guide*).

2. Consult the list of KPIs (for details, see the KPI Library in Excel format - you can sort the list according to the business context).

   This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

3. Learn about the KPIs and their relation to universes (business contexts) (for details, see "Learn About Business Contexts" (on page 124)).

4. Understand the structure of the universes (business contexts). For details, see " Learn About the SAP BusinessObjects Enterprise for IT Executive Scorecard Universe" in *IT Executive Scorecard Universe ERDs Guide*.

5. Consult the table below to understand the link between the business context, the data source, and the content pack that need to be integrated with Executive Scorecard to bring in the requested information from the data source.

Universe (Business Context)	Data Source (Content Pack)	Description
ALM_Defect	HP Application Lifecycle Management - For details, see "Integrate the ALM Data Source" in *Data Warehouse Admin Guide*.	HP Application Lifecycle Management empowers IT to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications. ALM supports you through all phases of the application lifecycle management. By integrating the tasks involved in application management, it enables you to better align IT with your business needs. For details on the universe, see ALM Defect Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ALM_Requirement	HP Application Lifecycle Management - For details, see "Integrate the ALM Data Source" in *Data Warehouse Admin Guide*.	HP Application Lifecycle Management empowers IT to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications. ALM supports you through all phases of the application lifecycle management. By integrating the tasks involved in application management,it enables you to better align IT with your business needs. For details on the universe, see ALM Requirement Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ALM_Test	HP Application Lifecycle Management - For details, see "Integrate the ALM Data Source" in *Data Warehouse Admin Guide*.	HP Application Lifecycle Management empowers IT to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications. ALM supports you through all phases of the application lifecycle management. By integrating the tasks involved in application management,it enables you to better align IT with your business needs.
		For details on the universe, see ALM Test Universe in PDF format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).
		To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ApplicationPerformance	HP Business Service Management - For details, see "Integrate with BSM as a Data Source" in *Data Warehouse Admin Guide*.	The goal of the ApplicationPerformance universe is to allow organizations to sustain the IT application-availability to support the business at a justifiable cost. For details on the universe, see ApplicationPerformance Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
AssetManagement	HP Asset Manager - For details, see "Integrate with AM as a Data Source" (on page 1) in *Data Warehouse Admin Guide*.	HP Asset Manager empowers IT to track, measure, and control IT service assets. Asset Management includes the Software Asset Management and the Hardware Asset Management. Software Asset Management is the practice of integrating people, processes and technology to allow software licenses and usage to be systematically tracked, evaluated and managed. Its goal is to reduce IT expenditures, human resource overhead and risks inherent in owning and managing software assets. Hardware Asset Management includes overseeing software and hardware that comprise an organization's computers and network. The goal of Hardware Asset Management is to maintain effective hardware inventory controls that are critical to efforts to control software. For details on the universe, see Asset Management Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
AvailabilityManagement	HP Business Service Management - For details, see "Integrate with BSM as a Data Source" in *Data Warehouse Admin Guide*.	The goal of an Availability Management universe is to allow organizations to sustain the IT service-availability to support the business at a justifiable cost. For details on the universe, see AvailabilityManagement Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
PolicyRemediation	HP Server Automation - For details, see "Integrate the SA Data Source" and "Integrate the NA Data Source" in *Data Warehouse Admin Guide*.	HP Server Automation (SA) automates critical areas of your data center's server management including server discovery, operating system and software provisioning, application configuration, software compliance, audit and compliance, operating system patching and reporting. SA allows you to make changes more safely and consistently because you can model and validate changes before you actually commit the changes to a managed server. SA also provides methods to ensure that modifications you plan for your managed servers work the first time because they have been tested before being applied, thereby reducing downtime. For details on the universes, see PolicyRemediation Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
PolicyCompliance	HP Server Automation - For details, see "Integrate the SA Data Source" and "Integrate the NA Data Source" in *Data Warehouse Admin Guide*.	HP Server Automation (SA) automates critical areas of your data center's server management including server discovery, operating system and software provisioning, application configuration, software compliance, audit and compliance, operating system patching and reporting. SA allows you to make changes more safely and consistently because you can model and validate changes before you actually commit the changes to a managed server. SA also provides methods to ensure that modifications you plan for your managed servers work the first time because they have been tested before being applied, thereby reducing downtime. For details on the universe, see PolicyCompliance Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
PolicyComplianceStatus	HP Server Automation - For details, see "Integrate the SA Data Source" and "Integrate the NA Data Source" in *Data Warehouse Admin Guide*.	HP Server Automation (SA) automates critical areas of your data center's server management including server discovery, operating system and software provisioning, application configuration, software compliance, audit and compliance, operating system patching and reporting. SA allows you to make changes more safely and consistently because you can model and validate changes before you actually commit the changes to a managed server. SA also provides methods to ensure that modifications you plan for your managed servers work the first time because they have been tested before being applied, thereby reducing downtime.
		For details on the universe, see PolicyComplianceStatus Universe in PDF format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).
		To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ChangeManagement	HP Service Manager - For details, see "Integrate with SM as a Data Source" in *Data Warehouse Admin Guide*.	Change Management aims to ensure that standardized methods and procedures are used for efficient handling of all changes with a minimal disruption of services, a reduction in back-out activities, and the economic utilization of resources involved in the change.
		For details on the universe, see Change Management Universe in PDF format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).
		To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
DataProtection	HP Data Protector - For details, see "Integrate the DP Data Source" in *Data Warehouse Admin Guide.*	HP Data Protector (DP) reduces backup and recovery complexity and cost by protecting virtual and physical applications on all servers. HP Data Protector gives you powerful software reduplication and sophisticated multi-site reporting to improve storage utilization and performance. Simple snapshot functionality fully automates recovery, without restrictive backup windows. For details on the universe, see DataProtection Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
FinancialManagement	HP Project and Portfolio Management - For details, see "Integrate with PPM as a Data Source" in *Data Warehouse Admin Guide*.	IT Financial Management ensures that the IT infrastructure is obtained at the most effective price (which does not necessarily mean the cheapest) and calculates the cost of providing IT services so that an organization can understand the costs of its IT services. These costs may then be recovered from the customer of the service. The information imported from resource management data includes resource, time sheet, and assignment data includes resource, time sheet, and assignment data. For details on the universe, see Financial Management Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
IncidentManagement	HP Service Manager - For details, see "Integrate with SM as a Data Source" in *Data Warehouse Admin Guide*.	Incident Management aims to restore normal service operation as quickly as possible and minimize the adverse effect on business operations, thus ensuring that the best possible levels of service - quality and availability - are maintained. 'Normal service operation' is defined here as service operation within Service Level Agreement (SLA) limits. An 'Incident' is any event which is not part of the standard operation of the service and which causes, or may cause, an interruption or a reduction of the quality of the service.
		The objective of Incident Management is to restore normal operations as quickly as possible with the least possible impact on either the business or the user, at a cost-effective price.
		For details on the universe, see Incident Management Universe in PDF format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).
		To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
NetworkNodeManager	HP Network Node Manager - For details, see "Integrate the NNM Data Source" in *Data Warehouse Admin Guide*.	HP Network Node Manager provides multi-tenancy and root-cause analysis data, to help reduce costs and increase network performance.
		HP Network Node Manager (NNM) is an HP software product designed to aid network administration and to consolidate network management activities. Activities include the ongoing discovery of network nodes, monitoring events, and providing network fault management.
		The NNMi series software contains a toolset to help you maintain a healthy network across your organization. NNMi can discover network nodes (such as switches and routers) on an ongoing basis, providing an up-to-date representation of the network topology.
		For details on the universe, see NetworkNodeManager Universe in PDF format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).
		To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.
		This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
PPMCustomization	HP Project and Portfolio Management - For details, see "Integrate with PPM as a Data Source" in *Data Warehouse Admin Guide*.	The PPMCustomization universe enables customers to use parameter fields and user configured data of Request Management for their requirements. Customers could define their own business to support their own KPIs based on this universe. For details on the universe, see PPMCustomization Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ProjectPortfolioManagement	HP Project and Portfolio Management - For details, see "Integrate with PPM as a Data Source" in *Data Warehouse Admin Guide*.	Project Portfolio Management ensures that the IT Projects are managed in an appropriate way and that the organization investment is aligned to its strategic objectives and business goals. This insight can help the executives focus on the execution of their projects. For details on the universe, see Project Portfolio Management Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
RequestManagement (Demand Management)	HP Universal Configuration Management Database - For details, see "Integrate with UCMDB as a Data Source" in *Data Warehouse Admin Guide*.	Request Management is the process of aligning IT service offerings with the needs of IT's customers and clients, as well as with overall business objectives. A catalog and request management system can help IT reduce costs, provide an enhanced user experience, track results more accurately, reduce service desk workload, and improve productivity. For details on the universe, see Demand Management Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
ServiceDesk	HP Service Manager - For details, see "Integrate with SM as a Data Source" in *Data Warehouse Admin Guide*.	The ServiceDesk functions as the single contact-point for end-user incidents. ServiceDesk handles incidents, problems, and questions, and also provides an interface for other activities such as change requests, maintenance contracts, software licenses, service-level management, configuration management, availability management, financial management, and IT services continuity management Its goal is to "create" an incident. If there is a direct solution, it attempts to resolve the incident at the first level. If the service desk cannot solve the incident then it is passed to a second or third level group within the incident management system. Incidents can initiate a chain of processes. The ServiceDesk Management goals include: incident control (life-cycle management of all service requests) and communication (keeping the customer informed of progress and advising on workarounds). For details on the universe, see Service Desk Management Universe in PDF format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals). To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format. This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

Universe (Business Context)	Data Source (Content Pack)	Description
SLM	HP Business Service Management and HP Service Manager - For details, see "Integrate with BSM as a Data Source" and "Integrate with SM as a Data Source" in *Data Warehouse Admin Guide*.	Service Level Management (SLM) provides for continual identification, monitoring and review of the levels of IT services specified in the Service Level Agreements (SLAs). Service Level Management ensures that arrangements are in place with internal IT Support-Providers and external suppliers in the form of Operational Level Agreements (OLAs) and Underpinning Contracts (UCs), respectively. The process involves assessing the impact of change upon service quality and SLAs. Service Level Management is responsible for ensuring that the agreed IT services are delivered when and where they are supposed to be, liaising with Availability Management, Capacity Management, Incident Management and Problem Management to ensure that the required levels and quality of service are achieved within the resources agreed with Financial Management, producing and maintaining a Service Catalog (a list of standard IT service options and agreements made available to customers), and ensuring that appropriate IT Service Continuity plans exist to support the business and its continuity requirements.

The Service Level Manager goal is to provide the agreed services in a cost-effective, secure and efficient manner.

For details on the universe, see SLM Universe in PDF format.

This document is available in the PDFs directory in the Installation DVD, or it is accessible from the Home page in the online documentation library or from the HP Software Product Manual Site (http://h20230.www2.hp.com/selfsolve/manuals).

To view a list of the KPIs based on data gathered from this data source, their description, their formula and the business questions they answer, open the List of KPIs, and sort it according to the business context. For details, see the KPI Library in Excel format.

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IT Data Model

A data model is an abstract model that documents and organizes the business data for communication between team members and is used as a plan for developing applications, specifically how data is stored and accessed.

The IT Data Model (also known as the Conceptual Data Model) defines business concepts, entities, terms, facts, and relationships.

The entities used in HP IT Executive Scorecard are based on the IT Data Model (not 100% compliant). The entities are described in the universes. For details, see " Learn About the SAP BusinessObjects Enterprise for IT Executive Scorecard Universe" in *IT Executive Scorecard Universe ERDs Guide*.

Learn About the Scorecard KPI Engine

The Scorecard KPI engine works with KPIs and Objectives. For concept details about KPIs, see "Learn About KPIs" (on page 45). For concept details about Objectives, see "Learn About Objectives" (on page 50)

The Scorecard KPI engine discovers data coming from contexts (data sources).

A KPI provides the status of Objectives. The status can be a value, a percentage, or other. The statuses are normalized.

Each KPI receives a score. Depending on the score, the Objective is fulfilled or not.

Example:

If the Objective is Professionalism, the KPIs can be based on the following measurements. An employee is professional when:

- The number of open bugs assigned to the employee should be less than 100 during the measurement period. A Number of Open Bugs with a threshold of 100 measures that objective element. If the employee has 120 open bugs, the Score of the KPI is 80%.

- The employee should create 10 features during the measurement period. A Create 10 Features KPI, with a threshold of 9, measures that objective element. If the employee has opened only 9 features, the score of the Create 10 Features KPI is 90%.

- The employee should take 2 courses during the measurement period. A 2 Courses KPI with a threshold of 1 measures that objective element. If the employee has taken only one course, the score of the Take 2 Courses KPI is 50%.

The score of the Professionalism Objective is the average of the scores of its KPIs: 70%.

Scores can be calculated using one of the following rules:

- **Worst child**. The Objective score is the worst score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective.

- **Best child**. The Objective score is the best score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective.

- **Weighted average**. The Objective score is the average of the scores of the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the child Objectives multiplied by the relevant weights.

This section includes the following topics:

Learn About KPIs

Key Performance Indicators (KPIs) reflect and measure key drivers of business value. Value drivers represent activities that, when executed properly, guarantee future success. Value drivers move the organization in the right direction to achieve its stated financial and organizational goals.

> Examples of value drivers might be "high customer satisfaction" or "excellent product quality."

Additional information about KPIs

A KPI is a Metric. KPIs always reflect strategic value drivers. KPIs put that performance in context.

KPIs reflect how well the organization is doing in areas that most impact financial measures valued by shareholders, such as profitability and revenues.

A KPI evaluates the performance according to expectations. The context is provided using:

1. **Thresholds.** Upper and lower ranges of acceptable performance.

2. **Targets.** Predefined gains, such as 10% new customers per quarter.

3. **Benchmarks.** Based on industry wide measures or various methodologies, such as Six Sigma.

4. **Trend.** The direction of the performance of the KPI, either "up," "down," or "static."

> An example of a metric could be an MTTR (mean time to recover) which measures the average time between the occurrence of a set of incidents and their resolution. An example of a KPI could be an MTTR, which measures the average time between the occurrence of a set of incidents and their resolution, compared to a defined threshold. For example:'MTTR less than one hour'.

KPIs measure key drivers of business values using a formula. For details, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46).

KPI templates (out of the box) help you create new KPIs by activating the KPI templates. For details, see "Activate Scorecards, Perspectives, Objectives, Metrics, or KPIs Using Templates".

A complete list of KPIs is available in KPI Library in Excel format.

Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score

This section describes the information related to a KPI:

KPIs

Formula, Filter, and KPI Value

The Scorecard KPI engine calculates the **value** of the KPI using the **formula** specified for the KPI and provides the KPI's **status** and **score** using the thresholds specified for the KPI. You can also build KPI filters to restrict the range of the formula by selecting specific values for the variables used in the formula.

KPI Threshold

The engine compares the KPI **value** to the KPI **threshold**, and calculates the KPI status.

KPI Status

The KPI **status** can be **Error**, **Warning**, or **Good**.

KPI Trend

The trend shows the tendency of a changing KPI result value relative to the previous result.

The trend is:

- **Up** if the current result is higher than the previous result.

- **Down** if the current result is lower than the previous result.

- **Neutral** if the current and previous results are the same.

KPI Score

The KPI value is translated into a score using the threshold specified for the KPI.

All the **scores** are normalized to the same scale of measurement (for example from 0 to 10) to enable the calculation of an Objective that is based on the **scores** of KPI's from different types. The **score** reflects the **status** of the business **value** and its relative distance from the **threshold**.

In addition:

- All the parent child rule calculations are based on the scores of their children.

- The KPI score represents how well the KPI is doing compared to the business Objective. For details, see "Learn About Objectives" (on page 50).

> **Example:** A KPI calculates a percentage (%) and its thresholds are Good from 90% and up. When the KPI has a value of 90%-100%, the KPI's status is Good. The score for 85% is higher than the score for 65%, and the score for 97% is higher than the score for 93% even though the status is the same, this enables showing the trend of KPIs and Objectives even if the status remains the same.

The normalization process is based on the user-defined threshold for a metric. KPI thresholds have 3 sectors: good (6.6 - 10), warning (3.3 - 6.6), and error score ranges (0 - 3.3).

The Score calculation process is as follows:

1. Get the KPI result.

2. Get the status range as configured by the thresholds in the KPI definition.

3. Calculate the score as follows:
   $F(n) = ((n - a) / (b - a)) * (y - x) + x$
   where:
   - a – minimal value of the threshold range
   - b – maximal value of the threshold range
   - x – minimal value of according score range
   - y – maximal value of according score range
   - n – result value

Example: If a=2000 and b=5000, the Score value is 7.33

Example: The threshold of a metric similar to MTTR (time to fix a problem) is 1 day for good status, and 7 days for warning status. The score scale is constant: 8-10 is good status, 7-8 is the warning status and 0-7 is error status.

Any value on the MTTR scale needs to be transformed into the score scale by linear or exponential transform.Since the lower threshold is not set (it is equal to ∞), the formula is different:

Lets check the Score based on the following Results :

0.5 day →F(1) = ((0.5 - 0) / (1 - 0)) * (10 - 8) + 8 = 9 (the score is 9)

4 days →F(4) = ((4 - 1) / (7 - 1)) * (8 - 7) + 7 = 7.5 (the score is 7.5)

10 days →F(10) = (atan(10 - 7) / 1.5707)* (7-0) = 4.43 (the score is 4.43)

Additional Information

For task details, see "Modify a KPI Formula or Filter" (on page 109).

For user interface details, see "Formula Builder Dialog Box" (on page 114) or "Filter Builder Dialog Box" (on page 122).

Learn About Scorecards

A Scorecard is a high-level snapshot (visual summary) of any organizational performance. Scorecards display a collection of Objectives, and assess the performance of the organization by viewing the status of Objectives.

A Scorecard is a way to map and translate complex business information into something that is understandable to everyone. The methodology starts with targets defined by the organization, followed by Scorecard Objectives.

The following table shows how core Scorecard elements relate to key performance questions.

Scorecard Element	Key Performance Question	More Information and Example
Perspective\Strategy	What is the strategy trying to achieve?	For details about Perspectives, see "Learn About Perspectives" (on page 49). A Scorecard can include one or more Perspectives. Example: Operational excellence.
Objective	What is the objective trying to achieve?	For details about Objectives, see "Learn About Objectives" (on page 50). A Perspective can include one or more Objectives. Example: Increase responsiveness in IT to service requests for PC orders by 20% in 2010.
KPI	How will performance be measured?	For details about KPIs, see "Learn About KPIs" (on page 45). An Objective can include more than one KPI. Example: Time to order, configure, and install PC.
Threshold	What performance level is required?	24 hours.

Out-of-the-box templates of Scorecards, Perspectives, Objectives, and KPIs are provided. These templates correspond to business elements. For details, see "Learn About the KPI Library" (on page 56).

Active Scorecards, Perspectives, Objectives, and KPIs display real data in the Dashboard. For details, see "Learn About the Active KPIs " (on page 56).

Learn About Perspectives

A Perspective represents one of the strategies included in a Scorecard.

Every Scorecard definition includes out-of-the-box definitions as well as Perspectives that include Objectives that are linked to KPIs.

A Perspective represents a group of Objectives that can help the executive track and analyze the relevant business issue.

Learn About Objectives

An Objective represents an overall performance goal that is defined by an executive. An Objective is a heading for a group of KPIs of different types that can represent different aspects of the goal.

> For example, if an executive wants to measure the IT department responsiveness, an Objective that measures different aspects of the responsiveness of the IT department is created.

Each aspect is measured by a different KPI type (for example: PC purchase time, and more). These KPIs provide values, trends, and statuses.

An Objective always shows the status of a performance goal, but does not display a performance actual value. In a typical Scorecard, Objectives show cumulative performance indicators that roll up the scores of KPIs. On a Scorecard, Objectives appear at the top level of a KPI hierarchy.

Objectives should be "SMART" (Specific, Measurable, Action-Oriented, Realistic, and Time Bound). This distinction makes it possible to know if you have met your objective.

> For example, if your Reduce Costs Objective is about cost reduction, your organization may not hit the mark or may go too far. Objectives have both a negative and positive impact on organizational behavior. The "Smarter" your goal, the less variation you will experience in your results. A better objective would be for example, reduce IT operating expenses by 20% in 2011. This new objective gives you a targeted expense to reduce, a percentage goal, a time period and an organization. It meets the criteria and is achievable.

Parent-child dependency:

An Objective is a parent unit for its KPIs. An Objective uses a specific rule for the calculation of its results. The rule is based on the child KPIs score results. The available parent-child rules are:

- BEST_CHILD – The parent Objective result corresponds to the highest score of its child KPIs score values.

- WORST_CHILD – The parent Objective result corresponds to the worst score of its child KPIs score values.

- WEIGHTED_AVERAGE – The parent Objective result is the average value of its weighted child KPIs score values.

Learn About Balanced Scorecard

A balanced scorecard should translate a business units mission and strategy into tangible objectives and measures.

Balanced scorecards strive to present an immediately comprehensible picture of a complete organizational strategy. This approach recognizes that the different aspects of a business all influence each other. A balanced scorecard examines performance from several critical perspectives.

The balanced scorecards can be a great resource for managing the IT function, as they expose all the perspectives that are crucial to the executive.

Typically, a balanced scorecard depicts the following perspectives:

IT value perspective

The name IT value comes from the motivation to expose the value of IT to the business. It's main role is also to expose to the organization executives the alignment between IT and the business.

The IT value perspective portray the economic results of previous business decisions and actions. Financial metrics generally lag behind actions, and therefore might not necessarily reflect the business as it is run today. However, financial metrics often determine whether a particular strategy is successful.

Financial metrics are often reflective of the stage of a businesses life-cycle (Growth, Sustain, and Harvest). Growth financial requirements may focus on the percentage growth rates in revenues and sales growth rates in target markets, customer groups, and regions. Businesses in the sustain stage may measure return on investment, return on capital employed, and economic value added. Harvest stage analytics are designed to measure the businesses ability to maximize cash flow back to the corporation. Core financial metrics are commonly related to profitability (such as operating income, return on capital employed, and economic value added). Other financial metrics can be related to shareholder values (ROI, and Financial Risk Management) or measurements (revenue growth and mix, cost reduction/productivity improvement, and asset utilization).

Other IT value perspectives can be:

- Any significant forecast can have a real impact on the profitability of the overall enterprise.

- It is important for the executive to always know where the IT stands in relation to the expense forecast.

- Keeping expenses in line with expectations is crucial.

- The executive may be tracking specific cost reduction objectives. A set of financially-oriented objectives and metrics is a critical component of any useful Dashboard.

- How does my spending relate plan versus region.

Customer perspective

This perspective is often the second perspective to be defined when creating a balanced scorecard. This perspective focuses on aligning core customer outcome measurements; satisfaction, loyalty, retention, acquisition, and profitability to targeted customers and market segments. These value propositions represent the drivers, the lead indicators, for the core customer outcome measurements. "What must the company deliver to its customers to achieve high degrees of satisfaction, retention, acquisition, and, eventually, market share?" Alternate measurements within a customer segment can be either the share of wallet, segment-by-segment, or customer-by-customer. Beyond the core customer metrics, customer value propositions can be organized into three categories; product/service attributes, customer relationship, and image and reputation.

For example:

- Metrics for Product/service attributes could be: service, price, and quality.

- Metrics for Customer relationship could be: delivery to the customer, response and delivery time and customer experience.

- Metrics for Image could be: market share, brand recognition.

Operational excellence perspective

The operational perspective reflects the internal business processes that support the strategy. Once the financial and customer perspectives have been designed, the customers perspective will define their internal perspective. Typically, customers might not notice these processes directly, but business must excel at these processes to succeed. Looking at these critical business processes with a lean and six sigma lens, consumers of the BSC see supplemental measures of quality, yield, throughput, and cycle time that quantify potential financial and customer objectives such as reducing costs and improving the customer's experience. By removing waste and defects from end-to-end critical business processes, organizations can identify opportunities to mature their processes (sigma level or maturity scales) and reduce risk and cost. Another metric: Break Even Time (BET), can be a useful measurement of the product development cycle. This measurement stresses the importance of productivity while also capturing and comparing productivity. This measurement is an indicator rather than an outcome measurement.

Other perspectives can be:

- Executives must constantly inspect and refine the IT organization's internal processes to ensure efficiency, predictability, and long term scalability.

- Key internal IT processes may include project management, change management, support management, and network management.

- There may also be specific cycle time reduction or quality initiatives tracked at this perspective.

- Objectives and metrics related to internal process improvement are an important part of a executive balanced view of IT maturation.

Future orientation perspective

The future orientation perspective covers the human infrastructure of the organization and is the final perspective to be developed. It comes last because as you define the other strategies and objectives you may determine that there are gaps and opportunities to develop the organization. This perspective addresses performance indicators that concern employees, systems, and organizational procedures.

The three primary categories within learning and growth are employee capabilities, information systems capabilities, and motivation empowerment and alignment. Three core employee measurements are employee satisfaction, employee retention, and employee productivity. There may be variations on these metrics based on the related strategies.

For example, employee productivity may be segmented by types of employees or the ratio of those types could also be supplemental. Opportunities to re-skill the workplace may be additional measures based on new technologies, frameworks, or customer segments. Organizational objectives around learning or skills inventories based on roles could be measured as well. Gaps could result in development or outsourcing opportunities.

Other perspectives can be:

- Investment in people within the IT organization is crucial for the long term success.

- Training in pursuit of technical certification or increased capability is a very good indicator of the level of commitment that management has to the development of IT employees.

- Other key indicators include salary competitiveness, employee satisfaction, and employee turnover.

- Where is my team strong and weak?

- Am I growing staff by moving them around?

- What are the total people resources of IT and how do they divide out for Full Time Employees versus Contractors and for Onshore versus Offshore?

User-Orientation Perspective

- The executive direct customers are the senior managers of the business units.

- It is very important that the executive be in touch with the customer perspective on IT effectiveness.

- Measuring the reliability of the systems the customers depend upon.

- Support levels, project status, and overall satisfaction ratings should also be measured.

- How is my customers' satisfaction improving over time?

- How are the quantifiable elements of customer service stacking up—SLA, Request, and Projects?

- How well am I managing the customer's money?

HP IT Executive Scorecard Architecture

HP IT Executive Scorecard is a Java enterprise application. It has a large, web-based application that runs inside of a JEE6 Application Server (glassfish). Command line tools that are run to process some of the data as it collects it from the end systems and stores it in the Data Warehouse database. For details on the command lines, see the *Data Warehouse Admin Guide*.

A number of open source 3rd party jars are used for the product. These jars are used in the standard Java way by including them in the classpath and accessing them with their published APIs.
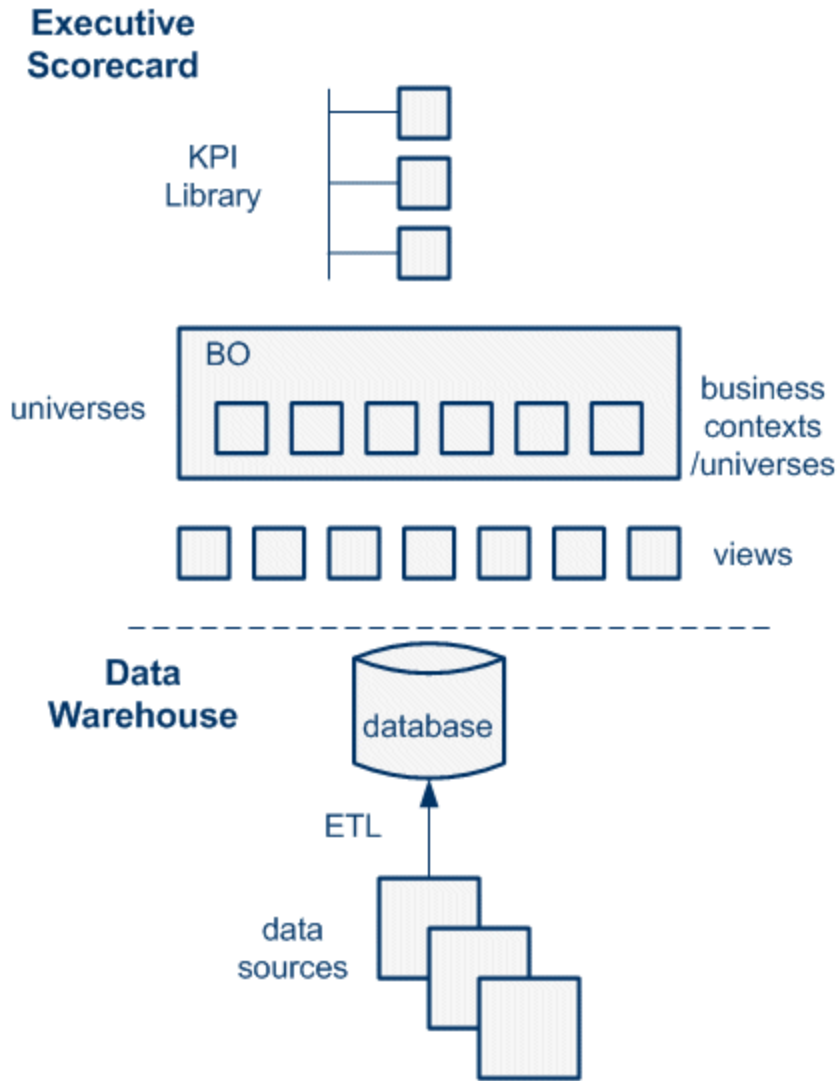
For details on the KPI Library, see "Learn About the KPI Library" (on page 56).

For details on universes (business contexts), see "Learn About Business Contexts" (on page 124).

For details on Data Warehouse, ETLs, and data sources, see "Getting Started" in *Data Warehouse Admin Guide*.

Create the Dashboard Contents

This section includes the following topics:

Create the Executive Dashboard Contents

You use the Studio to create and manage all the elements that are displayed on the Dashboard, as well as their interactions with each other: wiring, drill downs, and other features.

This section describes how to create the Executive Dashboard contents using the Studio.

The Executive Dashboard includes Scorecards, Perspectives, Objectives, and KPIs.

This section includes the following topics:

Learn about the Studio

The Studio is the environment you use to build the Dashboard display.

The Studio includes:

- The KPI Library pane that is a repository of the Scorecard, Perspective, Objective, and KPI templates, and of Folders.

- The Active KPIs pane that shows the active Scorecards, Perspectives, Objectives, and KPIs that you have selected to be displayed in the Dashboard.

- The Configuration details tab that presents the configuration of the selected element, and a Calculation tab that presents the calculation configuration of the selected KPI.

To create the display you can activate out-of-the-box templates, or you can create your own elements directly in the Active KPIs pane. For task details, see "How to Create the Dashboard Contents" (on page 68).

This section includes the following topics:

Learn About the KPI Library

The KPI Library is part of the Studio. It provides out-of-the-box Scorecard, Perspective, Objective, and KPI templates, as well as Folders.

Scorecard templates and their contents represent recommendations on the business aspect they represent and the information they should display.

You can use the templates as the basis for active Scorecard, Perspective, Objective, and KPI that are used to create the Dashboard display and to show data that enables the end-user to see if the enterprise objectives are met or not.

The KPI Library pane can contain several trees. A tree can be a Scorecard tree or a folder tree. A folder tree includes only folders and KPIs.

For concept details about trees, see "Learn About Trees" (on page 57).

Learn About the Active KPIs

The Active KPIs pane is part of the Studio. It contains the active Scorecards, Perspectives, Objectives, and KPIs, as well as Breakdown KPIs.

Active Scorecard, Perspective, Objectives, and KPIs are the building blocks of the elements (components and pages) the Executive end-user views in the Dashboard.

The Active KPIs pane includes out-of-the-box active Scorecards, Perspectives, Objectives, and KPIs.

You can add to the pool of out-of-the-box elements that are used to create the Dashboard display, by dragging the relevant Scorecard, Perspective, Objective, and KPI templates from the KPI Library pane to the Active KPIs pane.

The Active KPIs pane contains only one tree that can include one or more Scorecards and their contents, as well as individual KPIs (Orphan KPIs). Orphan KPIs are used when the user does not work with Scorecards, Perspectives, and Objectives. For concept details about the Scorecard tree, see "Learn About Trees" (on page 57).

You can modify the active entities in the Active KPIs pane. For task details, see "Create Active Scorecards, Perspectives, Objectives, and KPIs in the Active KPIs Pane" (on page 97).

Learn About Trees

In the Studio's KPI Library pane or Active KPIs pane, you can view the template or active Scorecards, Perspectives, Objectives, Folders, and KPIs organized in **tree** structures.

For example:
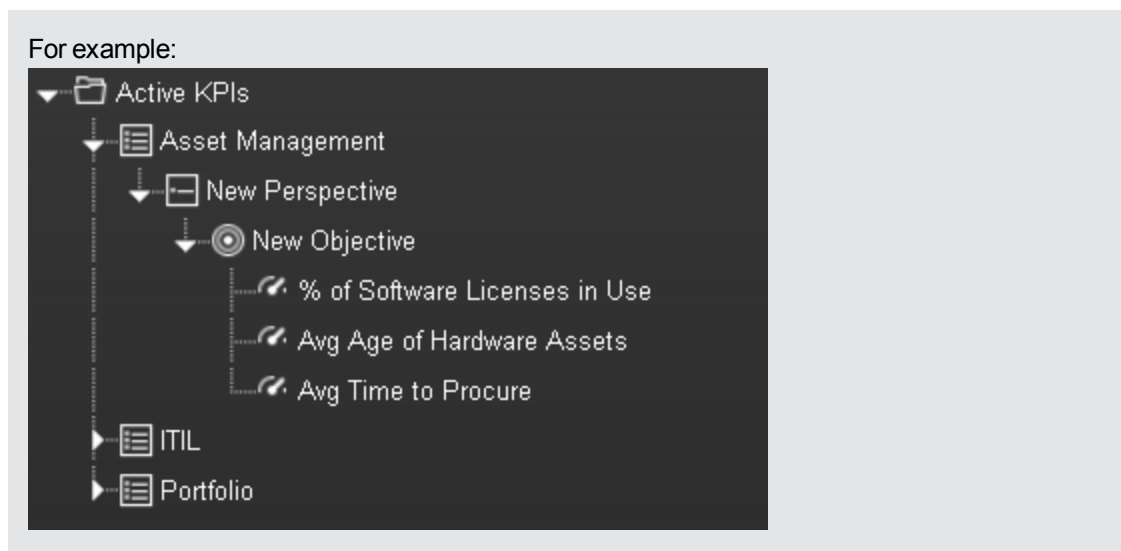
The KPI Library pane may include several trees. These trees can include Scorecards and Orphan KPIs or Folders and Orphan KPIs. Orphan Template KPIs are KPIs that are not included in any Objective in the relevant Scorecard tree or in any Folder in the relevant Folder tree. So for each Scorecard tree or Folder, the Orphan KPIs can be different.

The Active KPIs pane includes one tree that can include one or more Scorecard trees as well as Orphan KPIs.

Scorecards are indicated by ⊞ or ▤ . Each Scorecard is in itself a tree that can include a number of Perspectives (indicated by ▦ or ▬). Each Perspective includes a number of Objectives (indicated by ◉ or ◎). Each Objective includes either child Objectives or KPIs (but not both). KPIs are indicated by ▰ .

The names of the nodes (Scorecards, Perspectives, Objectives, and KPIs) are unique for the same hierarchical level. For details, see "Learn About Active Scorecard, Perspective, Objective, and KPI Unique Names" (on page 82).

Metrics are indicated by 📈 .

Each KPI can include Breakdown KPIs (indicated by). Breakdown KPIs can also include Breakdown KPIs.

> **Note:** Breakdown KPIs can be configured for active KPIs; they do not exist in the KPI Library. They are displayed only in the Active KPIs pane. For details, see "Learn About Breakdown KPIs" (on page 141).
>
> For example:
>
>
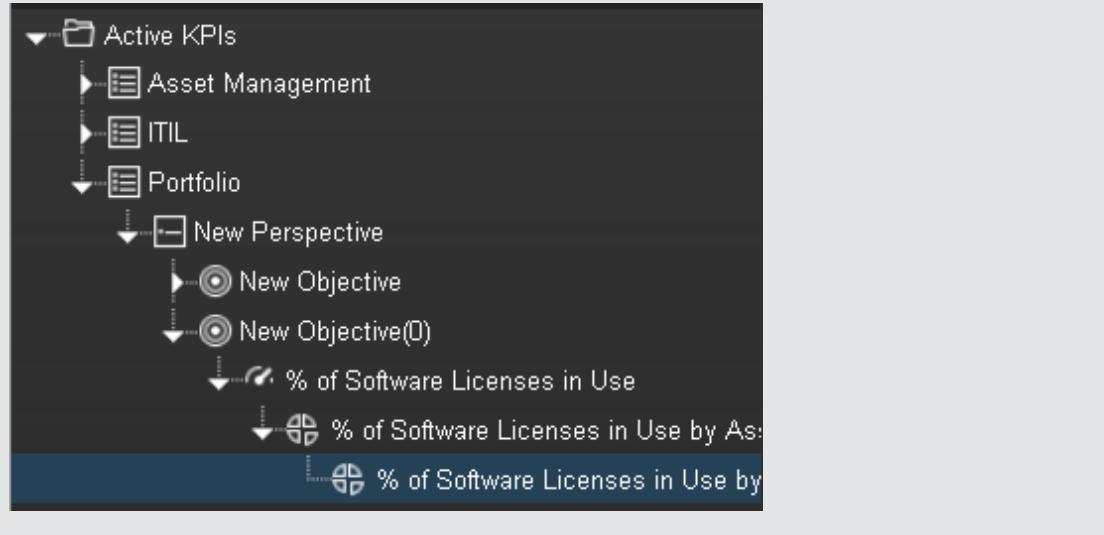
In the Active KPIs pane, you can add active KPIs, Objectives, and Perspectives to existing Scorecards. For task details, see "How to Create the Dashboard Contents" (on page 68).

Learn About Templates

Out-of-the-box templates of Scorecards, Perspectives, Objectives, KPIs, and Metrics are available in the KPI Library pane. For details about Scorecards, see "Learn About Scorecards" (on page 48). For details about Perspectives, see "Learn About Perspectives" (on page 49). For details about Objectives, see "Learn About Objectives" (on page 50). For details about KPIs and Metrics, see "Learn About KPIs" (on page 45).

The pane also includes out-of-the-box Folders; for details, see "Learn About Folders" (on page 66).

The templates are built to represent the most common business facets of an enterprise.

You can create new templates by importing new templates or updated templates. For details, see "Import or Export Trees" (on page 345).

Each template has a unique name.

This section includes the following topics:

Configuration Details Tab for a Scorecard Template

This page displays configuration information for the selected Scorecard template in the KPI Library pane.

For concept information about Scorecards, see "Learn About Scorecards" (on page 48).

To access	Click a Scorecard in the KPI Templates pane.
Relevant tasks	"Learn About Templates" (on page 58)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

General - Scorecard Template

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

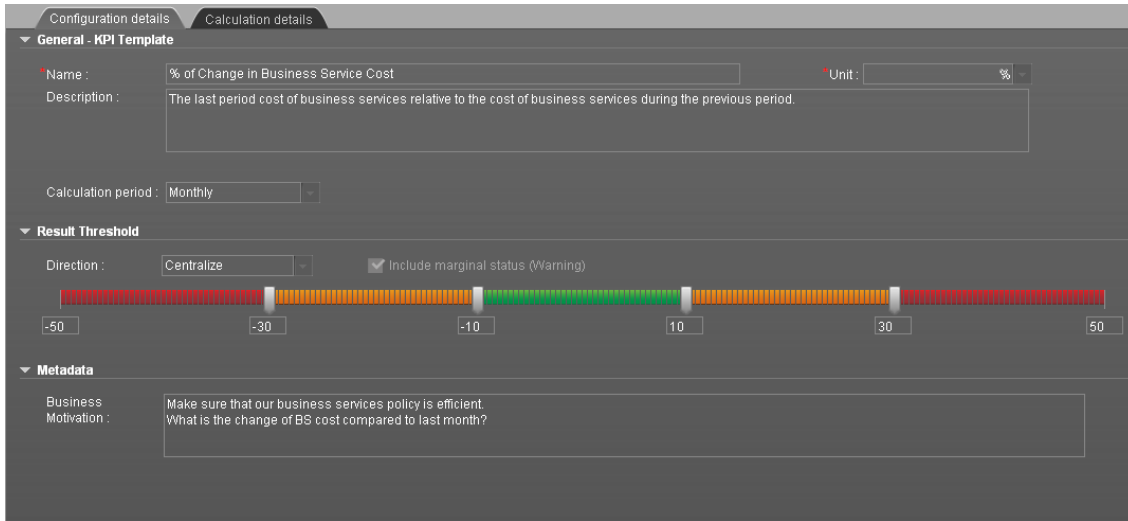| UI Element	Description
Name	The name of the Scorecard template. **Limitations:** The maximum number of characters is 250.
Description	The description of the Scorecard. **Limitations:** The maximum number of characters is 1000.
Id	The Id of the Scorecard. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of Scorecard. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Configuration Details Tab for a Perspective Template

This page enables you to display the configuration of a Perspective template.

To access	Click a Perspective in the KPI Library pane or in the Active KPIs pane.
Relevant tasks	"Learn About Templates" (on page 58)

General - Perspective

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the active Perspective template. **Limitations:** The maximum number of characters is 250.
Description	The description of the Perspective. **Limitations:** The maximum number of characters is 1000.
Id	The Id of the Perspective. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of Perspective. It is automatically assigned.. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Configuration Details Tab for an Objective Template

This page displays configuration information for the selected Objective template.

General - Objective

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the Objective template. **Limitations:** The maximum number of characters is 250.
Description	The description of the Objective template. **Limitations:** The maximum number of characters is 1000.
Id	The ID number of the Objective. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of the Objective. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

UI Element	Description
Calculation Period	The calculation period of the Objective template.
Calculate Using	The type of rule to use to calculate the Objective's score according to the scores of its children. You can select: • **Worst child**. The Objective score is the worst score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Best child**. The Objective score is the best score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Weighted average**. The Objective score is the average of the scores of the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the child Objectives multiplied by the relevant weights. When you select this rule, an additional column (**Weight**) where the user can configure the weight of each child (Objective or KPI) for the weighted average calculation. When you select this value a note is displayed explaining what is weighted average.

Assigned KPIs or Assigned KPI Templates

This section lists the KPI templates as assigned to the selected Objective template.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Table>	The table lists: • **Name.** The KPI templates assigned to the Objective template. • **Weight.** The weight of the KPI used in the calculation of the Objective score.

Calculation Details Tab for a KPI Template

This page displays the calculation details for the selected KPI template.

To access	Select a KPI template in the KPI Library pane and click the **Calculation Details** tab.
Important information	**Note:** All the values and thresholds of the Studio KPIs depend on their definition in the Configuration details and Calculation details tabs.
Relevant tasks	"Learn About Templates" (on page 58)

Business Context

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Business context>	The box displays the Business Context of the KPI template.

KPI Template Formula

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
KPI Formula	The formula used to calculate the value of the KPI.

Filter

You use the Filter area to limit the range of data used for the KPI's calculation.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Filter	The filter that limits the range of data on which the KPI is to be calculated.

Comments

The Comments area may include a description of the formula and its purpose.

Configuration Details Tab for a KPI Template

This page displays the configuration details of the selected KPI template.

To access	Click a KPI in the KPI Library pane, the **Configuration Details** tab for the selected KPI template opens automatically.
Important information	**Note:** All the values and thresholds of the Studio KPIs depend on their definition in the Configuration details and Calculation details tabs.
Relevant tasks	"Learn About Templates" (on page 58)

General KPIs

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the KPI template. **Limitations:** The maximum number of characters is 250.
Description	The description of the KPI template. **Limitations:** The maximum number of characters is 1000.
Calculation Period	The time period used to calculate the value of the KPI (using the formula specified in the Calculation details tab).

Result Threshold

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Direction	It can be: • **Centralize.** When the status of the KPI is best when it has either a specific value or its value is in a specific range, and higher or lower values are worse. • **Minimize.** When the status of the KPI is best when it is low. • **Maximize.** When the status of the KPI is best when it is high.
Threshold	The relevant thresholds are displayed in the boxes attached to the arrows. The threshold is used to assign a status to the KPI. For details on statuses, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46). An empty lowest and highest ends means that the threshold is an infinite value (minus infinity and plus infinity). In such a case, the threshold uses the lowest and highest historical values of the KPI template. **Note:** The Threshold fields values increase from left to right.
Include marginal status (yellow)	This option is selected when the status of the KPI is either **Good**, **Warning**, or **Error**. This option is not selected when the status of the KPI is only **Good**, or **Error**.

Metadata

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Business Motivation	The business motivation of the KPI.

Learn About Folders

Folders are used as containers (organizers) for KPI templates. Folders are populated with either KPI templates or other Folders (not both). The same KPI template can belong to more than one Folder.

You use Folders and their KPIs when you do not work with Scorecards and you want to use the Folder's KPIs to create the Dashboard Contents. For details, see "Use Folders and KPIs to Create the Dashboard Contents".

Configuration Details Tab for a Folder

This page displays configuration information for the selected Folder.

To access	Click a Folder in the KPI Templates pane.
Relevant tasks	"Use Folders and KPI Templates to Create the Dashboard" (on page 130)

General - Folder

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the Folder. **Limitations:** The maximum number of characters is 250.
Description	The description of the Folder. **Limitations:** The maximum number of characters is 1000.
Id	The ID number of the Folder. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of the Folder. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Assigned KPIs

This section lists the KPIs assigned to the selected Folder.

> **Note:** This section is displayed only if the Folder does not have child Folders.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The table lists the KPIs templates assigned to the Folder.

How to Create the Dashboard Contents

This task describes how to create the Executive Dashboard contents using the Studio.

The Executive Dashboard includes Scorecards, Perspectives, Objectives, and KPIs.

This task includes the following steps:

1. "Prerequisite - Interview the Dashboard End-User" (on page 68)
2. "Import out-of-the-box templates - optional" (on page 68)
3. "Activate Scorecards, their Perspectives, Objectives, and KPIs - optional" (on page 69)
4. "How to Create the Dashboard Contents" (on page 68)
5. "Create Active KPIs" (on page 69)
6. "Create Active Scorecards, their Perspectives, and Objectives" (on page 69)
7. "Customize KPIs" (on page 69)
8. "Enrich the Executive Dashboard Display" (on page 70)
9. "Calculate for the current period, recalculate for the historical period, or schedule the calculation" (on page 70)
10. "Out-of-the-box Dashboard" (on page 70)
11. "Prepare the Dashboard Display" (on page 70)

1. Prerequisite - Interview the Dashboard End-User

To design the end-user's scorecards, you must interview the end-user to understand what are his business objectives.

For details, see "Learn About the Executive Dashboard" (on page 23).

2. Import out-of-the-box templates - optional

When you start HP IT Executive Scorecard, the out-of-the-box Scorecard, Perspective, Objective, KPI templates, Folders, Orphan KPI templates, components, and Dashboard pages are automatically imported into the KPI Library pane.

You may want to import additional templates, for example, if you have upgraded to a new version and you want to keep your former templates. For details, see "How to Import or Export Trees and Nodes" (on page 347)

3. **Activate Scorecards, their Perspectives, Objectives, and KPIs - optional**

HP IT Executive Scorecard provides out-of-the-box Scorecard templates in the KPI Library. You can drag the out-of-the-box Scorecard templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Scorecards. To understand Scorecards, see "Learn About Scorecards" (on page 48).

HP IT Executive Scorecard provides out-of-the-box Perspective templates in the KPI Library. You can use the out-of-the-box Perspective templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Perspectives.To understand Perspectives, see "Learn About Perspectives" (on page 49).

HP IT Executive Scorecard provides out-of-the-box Objective templates in the KPI Library. You can use the out-of-the-box Objective templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Objectives. To understand Objectives, see "Learn About Objectives" (on page 50).

In addition, you can create and activate a KPI. For details, see "Create, Manage, and Remove KPIs".

Activate the relevant Scorecards, their Perspectives, Objectives, and KPI templates by dragging the corresponding templates from the KPI Library pane to the Active KPI Pane. For details, see "Create and Activate a Node" (on page 79) or "How to Create and Activate KPIs Using Templates" (on page 98).

You can also create active KPIs by dragging the corresponding KPI templates from Folders. For details, see "How to Create a New Node" (on page 85).

4. **Create Active Scorecards, their Perspectives, and Objectives**

You can create new active Scorecards, their Perspectives, and Objectives. For details, see "How to Create a New Node" (on page 85).

5. **Create Active KPIs**

You can create new active KPIs. For details, see "How to Create and Activate a New KPI by Cloning an Existing KPI" (on page 98).

6. **Customize Scorecards, their Perspectives, and Objectives**

You can customize out-of-the-box Scorecards, their Perspectives, and Objectives. For details, see "How to Customize an Active Scorecard, Perspective, or Objective" (on page 87).

7. **Customize KPIs**

You can customize KPIs by:

- Changing a KPI's configuration. For details, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).

- Directly creating active KPIs and assigning them to Objectives. For details, see "How to Create and Activate a New KPI by Cloning an Existing KPI" (on page 98).

- Changing their Business Context of a KPI. For details, see "Modify a KPI Business Context" (on page 124).

- Changing the formula used to calculate the KPI. For details, see "Modify a KPI Formula or Filter" (on page 109).

- Changing the filter used to limit the range of data used in the calculation of the KPI. For details, see "Modify a KPI Formula or Filter" (on page 109).

- Change the thresholds to recalculate the status of a KPI. For details, see "Recalculate Displayed Values after Configuration Change" (on page 130).

8. **Enrich the Executive Dashboard Display**

   You can enrich the Executive Dashboard display by:

   - Creating cascading Scorecards that enable the Executive to drilldown to lower levels of the same Scorecard. For details, see "How to Create Cascading Scorecards" (on page 157).

   - Creating breakdowns of KPIs to obtain more detailed information about the KPI's measurements. For details, see "How to Create a Breakdown KPI" (on page 142)"How to Create a Breakdown KPI" (on page 142) or "How to Create a Breakdown KPI of a Breakdown KPI" (on page 142).

   - Managing overrides. For details, see "How to Manage Overrides" (on page 148).

   - Adding additional information to the KPI or to an Objective. For details, see "Provide Additional Information for a KPI or an Objective" (on page 151).

9. **Calculate for the current period, recalculate for the historical period, or schedule the calculation**

   After you complete the customization and enrichment of the Scorecards and their contents, you can either:

   - Wait for the automatic scheduled calculation to take place.

   - Activate the calculation of the values, statuses, and scores of the KPIs to display the resulting information in the Dashboard. For details, see "Recalculate Displayed Values after Configuration Change" (on page 130).

   - Activate the recalculation of the values, statuses, and scores of the KPIs for a historical (past) period to display the resulting information in the Dashboard. For details, see "Recalculate Displayed Values after Configuration Change" (on page 130).

   You can schedule the calculation of specific business context automatically. For details, see "Schedule the Business Context Calculations" (on page 136).

10. **Out-of-the-box Dashboard**

    The Executive can view the relevant information on the out-of-the-box pages in the Dashboard. For details, see "View and Analyze the Business Objectives" (on page 281).

11. **Prepare the Dashboard Display**

    You can also create pages, enrich pages with additional components, create components, and wire the components so selecting a specific element in one component impacts the display of

other components in the page. For details, see .

Create the Executive Dashboard Contents User Interface

This section includes (in alphabetical order):

Active KPIs Pane

This pane displays the tree of active Scorecards, Perspectives, Objectives, KPIs, and the Orphan KPIs.

To access	Click the **Studio** tab. If the Active KPIs pane is not displayed (it is displayed by default), click the **Toggle Side By Side** button [icon] in the toolbar of the KPI Library pane.
Important information	When you select an element in the Active KPIs pane, the rightmost pane in the Studio displays the configuration of the selected element. For a Scorecard, see "Configuration Details Tab for a Scorecard" (on page 89). For a Perspective, see "Configuration Details Tab for a Perspective" (on page 91). For an Objective, see " Configuration Details Tab for an Objective " (on page 93).

	For a KPI, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101). **Note:** The contents of a field are automatically validated when you type in the relevant information where fields can be empty.
Relevant tasks	"How to Create the Dashboard Contents" (on page 68)

Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Show trees side-by-side. If the KPI Library pane or the Active KPIs pane is closed, click the button to open the closed pane (or click the vertical **KPI Library** or **Active KPIs** buttons). The pane is then displayed side-by-side with the other pane and with the Configuration/Calculation details tabs. If the KPI Library pane and the Active KPIs pane are both open, click: • The **Collapse the Active KPIs** button to hide the Active KPIs pane. • The **Collapse the KPI Library** button to hide the KPI Library.
	Create a new entity. Click to display a menu that enables you to select: • **Scorecard.** A new Scorecard is displayed at the bottom of the tree. The Configuration tab for the Scorecard is displayed in the Configuration Details pane where you can enter the details for the new Scorecard. For details, see "Configuration Details Tab for a Scorecard" (on page 89). • **Perspective.** A new Perspective is displayed at the bottom of the tree under the selected Scorecard. The Configuration tab for the Perspective is displayed in the Configuration pane where you can enter the details for the new Perspective. For details, see "Configuration Details Tab for a Perspective" (on page 91). • **Objective**. A new Objective is displayed at the bottom of the tree under the selected Perspective. The Configuration tab for the Objective is displayed in the Configuration pane where you can enter the details for the new Objective. For details, see " Configuration Details Tab for an Objective " (on page 93).
	Create a copy of the current entity. Select an entity in the tree and click the button to duplicate the entity. The entity is created in the tree below the original entity, with the same name. A number between parenthesis is added at the end of the entity's name (for example: MTTR(0)).
	Delete Currently Selected Node. Select the Scorecard, Perspective, Objective, KPI, or KPI Breakdown you want to delete and click the button.

UI Element	Description
	Create KPI Breakdown. The list of available entities for the KPI is displayed. To create a Breakdown KPI you can do one of the following: • Right-click the relevant KPI or Breakdown KPI, select **Breakdown** and then select the entity and dimension in the list that opens. • Select the relevant KPI or Breakdown KPI, and click the button in the tool bar. In the list of entities and dimensions that open select the relevant entity and dimension. To understand Breakdown KPIs, see "Learn About Breakdown KPIs" (on page 141).
	Calculation options. Displays the calculation options: **Calculate now.** Calculates all KPIs and Objectives values, statuses, and scores in the selected universe. The Calculate Now dialog box opens where you select the universe and confirm that you want to perform the calculation for the current time period. For details, see"How to Perform a Calculation After Configuration Change" (on page 131). **Recalculate.** Recalculates the selected entity for the selected historical (past) time period. The recalculation period is limited to up to a year in the past. The Recalculate dialog box opens where you can specify the universe and the time frame. For user interface details, see "Recalculate Dialog Box" (on page 135). For task details, see "Recalculate Displayed Values after Configuration Change" (on page 130). **Schedule context calculation.**Opens the Business Context Calculation Scheduling dialog box where you can schedule the context calculation. For details, see "Schedule the Business Context Calculations" (on page 136).
	Collapses and expands the tree nodes.
	Refresh the tree. Click to refresh the display of the tree.
Search	Enter the relevant string to search for all the elements (Scorecards, Perspectives, Objectives, KPIs, and Breakdown KPIs) in the tree, whose name includes the string. The filter returns the section of tree from the root down to the element whose name includes the specified string (path). It does not include elements that are not directly part of that path.The child subtree of the element is collapsed and displayed under the element. If more than one element includes the specified string, the paths to these elements are also displayed.

UI Element	Description
	For example, if the tree is as follows: After searching for the string: Objective, the resulting tree is as follows:
<tree>	The pane displays the active tree with the relevant Scorecards, Perspectives, Objectives, and KPIs. It can also include Orphan KPIs and Breakdown KPIs.

UI Element	Description

	Note:
	
	● You can move tree nodes (Scorecards, Perspectives, Objectives, and KPIs) by dragging and dropping them in the relevant location in the tree. For example, you can drag a KPI from an Objective to another Objective.
	
	● You cannot drag a Breakdown KPI from one KPI to another.
	
	● You can drag an Orphan KPI to an Objective, but you cannot drag a KPI assigned to an Objective to change it into an Orphan KPI.
	
	● When you are performing a drag and drop operations:
	
	  ■ The icon indicates that the drop is not allowed.
	
	  ■ The icon indicates that the drop is allowed.

KPI Library Pane

This pane displays the trees of available Scorecard, Perspective, Objective, and KPI templates, as well as Folders, and Orphan KPI templates.

To access	Click the **Studio** tab. If the KPI Library pane is not displayed, click the **Toggle Side By Side** button in the toolbar of the Active KPIs pane or click the vertical KPI Library button (on the left of the Studio).
Important information	When you select an element in the KPI Library pane, the rightmost pane in the Studio displays the configuration of the selected element. • For a Scorecard template, see "Configuration Details Tab for a Scorecard" (on page 89).

	• For a Perspective template, see "Configuration Details Tab for a Perspective" (on page 91).
	• For an Objective template, see " Configuration Details Tab for an Objective " (on page 93).
	• For a KPI, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).
	Note: The contents of fields is automatically validated when you type in the relevant information where fields can be empty.
Relevant tasks	"How to Create the Dashboard Contents" (on page 68)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Show trees side-by-side. If the KPI Library pane or the Active KPIs pane is closed, click the button to open the closed pane (or click the vertical **KPI Library** or **Active KPIs** buttons). The pane is then displayed side-by-side with the other pane and with the Configuration/Calculation details tabs. If the KPI Library pane and the Active KPIs pane are both open, click: • The **Collapse the Active KPIs** button to hide the Active KPIs pane. • The **Collapse the KPI Library** button to hide the KPI Library.
	Refresh the tree. Click to refresh the display of the tree. • "Configuration Details Tab for a Folder" (on page 67) • "Configuration Details Tab for a Scorecard" (on page 89) • "Configuration Details Tab for a Perspective" (on page 91) • " Configuration Details Tab for an Objective " (on page 93)
	Collapse and expands the tree nodes.
<Tree>	The tree displays the hierarchy of Scorecard templates, Perspective templates, Objective templates, and KPI templates. It can also display Folders and their KPI templates, and Orphan KPI templates. For concept details, see "Learn About Trees" (on page 57).
Show	Displays the current template tree.

UI Element	Description
	Note: To change the selection, click the arrow to the right of the box and select the template you want to display in the list of templates.

Search	Enter the relevant string to search for all the elements (Scorecard, Perspective, Objective, and KPI templates, Orphan KPI templates, and Folders) in the tree, whose name includes the string.
	
	The filter returns the section of tree from the root down to the element whose name includes the specified string (path). It does not include elements that are not directly part of that path. The child subtree of the element is collapsed and displayed under the element.
	
	If more than one element includes the specified string, the paths to these elements are also displayed.
	
	Example: If the tree is as follows:
	
	Filter :
	Strategies
	  Business Value
	    Reduce Risk
	      MTTR
	  Operational Excellence
	    Incidents Management
	      % of reopened incidents
	    Project Management
	      Employee Attrition
	
	After searching for the string: **pro**, the resulting tree is as follows:
	
	Filter : pro
	Strategies
	  Operational Excellence
	    Project Management

Create and Activate a Node

An activated Scorecard displays, in the Dashboard relevant Scorecard component, how well the corresponding objectives are met.

You can create and activate nodes using templates. For details, see "How to Create an Active Scorecard, Perspective, or Objective Using Out-of-the-Box Templates" (on page 83).

You can also, in the Active KPIs pane, create new nodes, clone existing nodes, or customize nodes.

> **Note:** In the following sections, "node" represents Scorecards, Perspectives, or Objectives.

You can create new KPIs only by cloning existing KPIs. For details, see "How to Create and Activate a New KPI by Cloning an Existing KPI" (on page 98).

This section includes the following topics:

Learn About Active Scorecards

A Scorecard is a high-level snapshot (visual summary) of any organizational performance. Scorecards display a collection of Objectives, and assess the performance of the organization by viewing the status of Objectives.

A Scorecard is a way to map and translate complex business information into something that is understandable to everyone. The methodology starts with targets defined by the organization, followed by Scorecard Objectives.

The following table shows how core Scorecard elements relate to key performance questions.

Scorecard Element	Key Performance Question	More Information and Example
Perspective\Strategy	What is the strategy trying to achieve?	For details about Perspectives, see "Learn About Perspectives" (on page 49). A Scorecard can include one or more Perspectives. Example: Operational excellence.
Objective	What is the objective trying to achieve?	For details about Objectives, see "Learn About Objectives" (on page 50). A Perspective can include one or more Objectives. Example: Increase responsiveness in IT to service requests for PC orders by 20% in 2010.
KPI	How will performance be measured?	For details about KPIs, see "Learn About KPIs" (on page 45). An Objective can include more than one KPI. Example: Time to order, configure, and install PC.
Threshold	What performance level is required?	24 hours.

Out-of-the-box templates of Scorecards, Perspectives, Objectives, and KPIs are provided. These templates correspond to business elements. For details, see "Learn About the KPI Library" (on page 56).

Active Scorecards, Perspectives, Objectives, and KPIs display real data in the Dashboard. For details, see "Learn About the Active KPIs " (on page 56).

Learn About Active Perspectives

A Perspective represents one of the strategies included in a Scorecard.

Every Scorecard definition includes out-of-the-box definitions as well as Perspectives that include Objectives that are linked to KPIs.

A Perspective represents a group of Objectives that can help the executive track and analyze the relevant business issue.

Learn About Active Objectives

An Objective represents an overall performance goal that is defined by an executive. An Objective is a heading for a group of KPIs of different types that can represent different aspects of the goal.

> For example, if an executive wants to measure the IT department responsiveness, an Objective that measures different aspects of the responsiveness of the IT department is created.

Each aspect is measured by a different KPI type (for example: PC purchase time, and more). These KPIs provide values, trends, and statuses.

An Objective always shows the status of a performance goal, but does not display a performance actual value. In a typical Scorecard, Objectives show cumulative performance indicators that roll up the scores of KPIs. On a Scorecard, Objectives appear at the top level of a KPI hierarchy.

Objectives should be "SMART" (Specific, Measurable, Action-Oriented, Realistic, and Time Bound). This distinction makes it possible to know if you have met your objective.

> For example, if your Reduce Costs Objective is about cost reduction, your organization may not hit the mark or may go too far. Objectives have both a negative and positive impact on organizational behavior. The "Smarter" your goal, the less variation you will experience in your results. A better objective would be for example, reduce IT operating expenses by 20% in 2011. This new objective gives you a targeted expense to reduce, a percentage goal, a time period and an organization. It meets the criteria and is achievable.

Parent-child dependency:

An Objective is a parent unit for its KPIs. An Objective uses a specific rule for the calculation of its results. The rule is based on the child KPIs score results. The available parent-child rules are:

- BEST_CHILD – The parent Objective result corresponds to the highest score of its child KPIs score values.

- WORST_CHILD – The parent Objective result corresponds to the worst score of its child KPIs score values.

- WEIGHTED_AVERAGE – The parent Objective result is the average value of its weighted child KPIs score values.

Learn About Active Scorecard, Perspective, Objective, and KPI Unique Names

The name of each entity (Scorecard, Perspective, Objective, or KPI) must be unique but the context in which it needs to be unique is different.

Scorecard names must be unique in the same active tree.

When you drag and drop a Scorecard template to the Active KPIs pane you create an active copy of the Scorecard template with all its sub-tree structure. If a Scorecard with the same name already exists in the Active KPIs pane, the name of the newly added Scorecard gets the (n) suffix (where n=0 the first time and n gets incremented if necessary).

Perspective names must be unique in the same Scorecard.

When you drag and drop a Perspective template to the Active KPIs pane, you create an active copy of the Perspective template. The new Perspective must have a unique name in the Scorecard tree. If the Perspective does not already exist in the Scorecard tree, it is given the same name as the Perspective template. If a Perspective with the same name already exists in the same Scorecard tree, the name of the newly added Perspective gets the (n) suffix (where n=0 the first time and n gets incremented if necessary).

Objective names must be unique under the same parent (Perspective or Objective).

When you drag and drop an Objective template to the Active KPIs pane, you create an active copy of the Objective template. The new Objective must have a unique name in the Perspective or Objective tree. If the Objective does not already exist in the Perspective or Objective tree, it is given the same name as the Objective template. If an Objective with the same name already exists in the same Perspective or Objective tree, the name of the newly added Objective gets the (n) suffix (where n=0 the first time and n gets incremented if necessary).

KPI names must be unique in the same active tree.

When you drag and drop a KPI template to the Active KPIs pane, you create an active copy of the KPI template. The new KPI must have a unique name in the Active KPIs pane. If the KPI does not already exist in the tree, it is given the same name as the KPI template. If a KPI with the same name already exists in the same tree, the name of the newly added KPI gets the (n) suffix (where n=0 the first time and n gets incremented if necessary). The same KPI might be assigned to several Objectives.

How to Create an Active Scorecard, Perspective, or Objective Using Out-of-the-Box Templates

HP IT Executive Scorecard provides out-of-the-box Scorecard, Perspective, Objective, and KPI templates in the KPI Library.

You can activate the out-of-the-box templates by dragging them from the KPI Library pane to the Active KPIs pane, if, for example, you have modified the active elements and you want to create a new set of active elements based on the template or you want to activate and modify specific elements.

The activated elements display the corresponding data in the relevant components in Dashboard.

You can create an active node (Scorecard, Perspective, or Objective) using the corresponding template.

You can also create active nodes directly in the Active KPIs pane. For details, see .

An activated Scorecard displays, in the Dashboard, how well the corresponding objectives are met.

HP IT Executive Scorecard provides out-of-the-box Scorecard templates in the KPI Library. You can use the out-of-the-box Scorecard templates to create active Scorecards in the Active KPIs pane. To understand Scorecards, see .

HP IT Executive Scorecard provides out-of-the-box Perspective templates in the KPI Library. You can use the out-of-the-box Perspective templates to create active Perspectives in the Active KPIs pane. To understand Perspectives, see .

HP IT Executive Scorecard provides out-of-the-box Objective templates in the KPI Library. You can use the out-of-the-box Objective templates to create active Objectives in the Active KPIs pane. To understand Objectives, see "Learn About Objectives" (on page 50).

> **Note:** In the following sections, "node" represents Scorecards, Perspectives, or Objectives.

In addition, you can create and activate a KPI. For details, see "Create, Manage, and Remove KPIs".

> **Note:** For details on creating and activating a KPI, see "Create, Manage, and Remove KPIs".

This task includes the following steps

1. "Create an Active Node" (on page 84)

2. "Display and modify a node's properties" (on page 84)

3. "Populate the node" (on page 85)

1. **Create an Active Node**

    You can create an active copy of the node template by dragging the template from the KPI Library pane to the Active KPIs pane. You can then modify the active copy in the Active KPIs pane.

    To create a node using a node template, proceed as follows:

    a. Click the **Studio** button (top right corner) to open the Studio.

    b. You must work with the KPI Library pane and the Active KPIs pane side-by-side, so if necessary, click the **Toggle side-by-side view** button [image] to display the **KPI Library** pane and the **Active KPIs** pane side by side.

    c. Select **Scorecard template tree** in the **Show:** list. The KPI Library pane displays the Scorecard template tree and Orphan KPIs.

    d. To create the active node, click the relevant node template in the Scorecard tree in the KPI Library pane and drag it to the Active KPIs pane.

       You can drag and drop nodes from the KPI Library pane to the Active KPIs pane:

       ○ The Scorecard template anywhere in the Active KPIs pane.

       ○ The Perspective template only to the relevant Scorecard.

       ○ The Objective template only to the relevant Perspective or to another Objective if the target Objective does not include KPIs.

       This creates a working copy of the node template with all its sub-tree structure. The new node is given a unique name. For details about the unique names, see "Learn About Active Scorecard, Perspective, Objective, and KPI Unique Names" (on page 82).

2. **Display and modify a node's properties**

    With the cursor on the new node in the Active KPIs pane, you can enter the new node's

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properties in the Configuration Details tab and click the **Save** button to save the changes.

For details, see "Configuration Details Tab for a Scorecard" (on page 89).

For details, see "Configuration Details Tab for a Perspective" (on page 91).

For details, see " Configuration Details Tab for an Objective " (on page 93).

3. **Populate the node**

   The new node includes the subtree of the template you used to create it.

   Depending on the type of node you created you can add or remove the following from the node tree:

   - Perspectives. For details, see "Create and Activate a New Node".

   - Objectives. For details, see "Create and Activate a New Node".

   - KPIs. For details, see"Create, Manage, and Remove KPIs".

   - Breakdown KPIs. For details, see "Create and Manage Breakdown KPIs" (on page 140).

How to Create a New Node

HP IT Executive Scorecard provides out-of-the-box Scorecard templates in the KPI Library. You can drag the out-of-the-box Scorecard templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Scorecards. To understand Scorecards, see "Learn About Scorecards" (on page 48).

HP IT Executive Scorecard provides out-of-the-box Perspective templates in the KPI Library. You can use the out-of-the-box Perspective templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Perspectives.To understand Perspectives, see "Learn About Perspectives" (on page 49).

HP IT Executive Scorecard provides out-of-the-box Objective templates in the KPI Library. You can use the out-of-the-box Objective templates from the KPI Library to the Active KPIs pane to activate them. In the Active KPIs pane, you can then customize, clone, or create new Objectives. To understand Objectives, see "Learn About Objectives" (on page 50).

In addition, you can create and activate a KPI. For details, see "Create, Manage, and Remove KPIs".

> **Note:** In the following sections, "node" represents Scorecards, Perspectives, or Objectives.

To create a new node:

1. "Create and activate a node" (on page 86)

2. "Display and modify a node's properties" (on page 86)

3. "Populate the node" (on page 86)

1. **Create and activate a node**

   To create a new active node, proceed as follows:

   a. Click the **Studio** button (top right corner) to open the Studio.

   b. In the **Active KPIs** pane, click the **Create a new entity** button.

   c. Select the **Scorecard**, **Perspective**, or **Objective** option in the menu that opens. Depending on your selection, the following happens in the **Active KPIs** pane:

      ○ A **New Scorecard** node is added at the bottom of the tree in the **Active KPIs** pane. The new Scorecard has an automatically generated unique name. The Scorecard is automatically selected in the tree.

      ○ A **New Perspective** node is added at the bottom of the Scorecard tree you selected before adding the Perspective (the option to create a new Perspective is only available if you have already selected a Scorecard). The new Perspective has an automatically generated unique name. The Perspective is automatically selected in the tree.

      ○ A **New Objective** node is added at the bottom of the Perspective you selected before adding the Objective (the option to create a new Objective is only available if you have already selected a Perspective).The new Objective has an automatically generated unique name. The Objective is automatically selected in the tree.

   > **Note:** The new Objective can also be created at the bottom of the Objective you have selected, if the selected Objective does not already have KPIs.

   For details on the unique name, see "Learn About Active Scorecard, Perspective, Objective, and KPI Unique Names" (on page 82).

2. **Display and modify a node's properties**

   The new node is selected and the details are displayed in the Configuration Details pane.

   Enter the node's details and click **Create** to create the node. If you click **Cancel**, the node is removed from the tree. If you try to navigate away from the Configuration Details pane, you are prompted to create the node or to cancel the creation.

   For details, see "Configuration Details Tab for a Scorecard" (on page 89).

   For details, see "Configuration Details Tab for a Perspective" (on page 91).

   For details, see " Configuration Details Tab for an Objective " (on page 93).

3. **Populate the node**

   Depending on the type of node, you can also add/remove the following nodes:

   ■ Perspectives. For details, see "Create and Activate a New Node".

   ■ Objectives. For details, see "Create and Activate a New Node".

   ■ KPIs. For details, see "Create, Manage, and Remove KPIs".

   ■ Breakdowns. For details, see "Create and Manage Breakdown KPIs" (on page 140).

How to Customize an Active Scorecard, Perspective, or Objective

You can customize existing active Scorecards, Perspectives, and Objectives in the Active KPIs pane.

> **Note:** In the following sections, "node" represents Scorecards, Perspectives, or Objectives.

To customize the node:

1. Select the relevant node. Its details are displayed in the Configuration Details pane.

2. Modify the node's details and click **Save** to save the changes. If you try to navigate away from the Configuration Details pane, you are prompted to create the node or to cancel the creation. For details, see "Configuration Details Tab for a Scorecard" (on page 89).

   For details, see "Configuration Details Tab for a Perspective" (on page 91).

   For details, see " Configuration Details Tab for an Objective " (on page 93).

3. Depending on the type of node, you can also populate the node by adding or removing the following nodes:
   - Perspectives. For details, see "Create and Activate a New Node".

   - Objectives. For details, see "Create and Activate a New Node".

   - KPIs. For details, see "Create, Manage, and Remove KPIs".

   - Breakdowns. For details, see "Create and Manage Breakdown KPIs" (on page 140).

How to Delete a Node

You can permanently delete a node (Scorecard, Perspective, or Objective.

For details on deleting a KPI, see "Create, Manage, and Remove KPIs").

To permanently delete a node:

1. In the Active KPIs pane, do one of the following:

   ▪ Select the relevant node and click the **Delete the currently selected node** button 🗑 in the pane toolbar.

   ▪ Right-click the relevant node and select the **Delete** menu option.

2. You are prompted to select one of the following options:

   ▪ **Delete all elements including KPIs. KPIs that are assigned to Objectives in other subtrees will not be deleted.** Deleting the node also deletes its subtree and the KPIs in the subtree. KPIs that are assigned to Objectives in other subtrees are not deleted. If the KPIs in the subtree of the node you want to delete also belong to another subtree, the KPIs are not deleted from the other subtree.

   > For example, if Objective A and B both include KPI C, when you delete Objective A, KPI C remains in Objective B's subtree.

   ▪ **Delete all elements except for the KPIs.** Deleting the node also deletes its subtree but does not delete the KPIs in its subtree. These KPIs remain in the other subtree structures. They become Orphan KPIs if they don't exist in any other subtrees.

2. When you are prompted to approve the deletion, click **Yes**. The tree is immediately updated.

Create and Activate a New Node User Interface

This section includes (in alphabetical order):

Configuration Details Tab for a Scorecard

This page displays configuration information for the selected active Scorecard in the Active KPIs pane.

For concept information about Scorecards, see "Learn About Scorecards" (on page 48).

To access	Click a Scorecard in the Active KPIs pane.
Important information	**Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard after about 5 minutes (this time period is configurable in **Admin > Scorecard Settings > XS Settings > Configuration reload rate(Minutes)**). If you run a calculation after making modifications that affect the results of a KPI, the changes automatically affect the Dashboard.
Relevant tasks	"Create and Activate a New Node" "Create Cascading Scorecards" (on page 154)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Navigate to the source template	Moves the cursor to the template that was used to create the current Scorecard, in the KPI Library pane. The details of the template are displayed in the Configuration Details pane.
<Areas>	"General - Scorecard" (on page 90) "Cascading Scorecard" (on page 90)

UI Element	Description
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.

General - Scorecard

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the active Scorecard. **Limitations:** • The characters: \ / : * ? " < > | are not supported. • The maximum number of characters is 250.
Description	The description of the Scorecard. **Limitations:** The maximum number of characters is 1000.
Id	The Id of the Scorecard. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of Scorecard. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Cascading Scorecard

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Manage Cascading Scorecards	Click to open the **Manage Cascading Scorecards** dialog box where you can select the Scorecards that are to be the target Scorecards for the drilldown from the current Scorecard. For details, see "Manage Cascading Scorecards Dialog Box" (on page 159).
Name	The name of the Cascading Scorecard.
Remove	Click the relevant **Remove** button to remove the selected Scorecard from the list of Cascading Scorecards.

Configuration Details Tab for a Perspective

This page enables you to display the configuration of an active Perspective.

To access	Click a Perspective in the Active KPIs pane.
Important information	**Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard after about 5 minutes (this time period is configurable in **Admin > Scorecard Settings > XS Settings > Configuration reload rate(Minutes)**). If you run a calculation after making modifications that affect the results of a KPI, the changes automatically affect the Dashboard.
Relevant tasks	"Create and Activate a New Node"

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Navigate to the source template	Moves the cursor to the template that was used to create the current Perspective, in the KPI Library pane. The details of the template are displayed in the Configuration Details pane.
<Areas>	"General - Perspective" (on page 91)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.

General - Perspective

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the active Perspective. **Limitations:** • The characters: \ / : * ? " < > | are not supported. • The maximum number of characters is 250.
Description	The description of the Perspective. **Limitations:** The maximum number of characters is 1000.
Id	The Id of the Perspective. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of Perspective. It is automatically assigned.. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Configuration Details Tab for an Objective

This page displays configuration information for the selected active Objective.

To access	Click an Objective in the Active KPIs pane.
Important information	**Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard after about 5 minutes (this time period is configurable in **Admin > Scorecard Settings > XS Settings > Configuration reload rate(Minutes)**). If you run a calculation after making modifications that affect the results of a KPI, the changes automatically affect the Dashboard.
Relevant tasks	"Create and Activate a New Active Node"

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Navigate to the source template	Moves the cursor to the template that was used to create the current Objective, in the KPI Library pane. The details of the template are displayed in the Configuration Details pane.

UI Element	Description
<Areas>	"General - Objective" (on page 94)
	"Assigned KPIs" (on page 95)
	"Metadata" (on page 96)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.

General - Objective

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the active Objective.
	Limitations:
	• The characters: \ / : * ? " < > | are not supported.
	• The maximum number of characters is 250.
Description	The description of the Objective.
	Limitations: The maximum number of characters is 1000.
Id	The ID number of the Objective. It is automatically assigned.
	This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of the Objective. It is automatically assigned.
	This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Calculation Period	The calculation period of the Objective.
	Note: Since an Objective and its children must have the same calculation period, you can modify the value in this field only when the Objective does not have child KPIs or Objectives.

UI Element	Description
Calculate Using	The type of rule to use to calculate the Objective's score according to the scores of its children. You can select: • **Worst child**. The Objective score is the worst score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Best child**. The Objective score is the best score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Weighted average**. The Objective score is the average of the scores of the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the child Objectives multiplied by the relevant weights. When you select this rule, an additional column (**Weight**) where the user can configure the weight of each child (Objective or KPI) for the weighted average calculation. When you select this value a note is displayed explaining what is weighted average.

Assigned KPIs

This section lists the KPIs assigned to the selected active Objective.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Add KPI	Click to open the Assign KPI to Objective dialog box where you can assign the relevant KPIs to the current Objective. For details, see "Assign KPIs to Objective Dialog Box" (on page 129).
<Table>	The table lists: • **Name.** The KPIs assigned to the Objective. • **Weight.** This column is displayed only when you select **Weighted Average** in the **Calculate Using** field in the **General - Objective** area. Enter the weight you want to use for the KPI in the calculation of the Objective score. You can click the Weight value in the Assigned KPIs table to open a box where you can change the weight. After you have changed the value of the weight, the **Save** and **Discard** buttons are enabled. To save the changes you must save the Objective by clicking **Save**.

UI Element	Description
	• ![trash] Click to unassign the KPI. The list of KPIs in the Assign KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Objective by clicking **Save**.

Metadata

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Additional Info	Lists the additional information available for the Objective. It can be links to BO or Xcelcius reports, external links, or links to Dashboard pages. The table includes: • **Name**.The name of the link or the reports. • **URL**. The hyperlink to access additional external information. • ![edit] Click to open the Edit Info Link dialog box where you can edit the selected additional information. For details, see "Add/Edit Info Link Dialog Box" (on page 153). • ![delete] Click to delete the selected additional information.
Owner	The owner of the active Objective. **Note:** The list of available owners corresponds to the users that were defined in **Admin** > **Users and Roles** > **User Management**. For details, see "Manage Users and Groups" in the *General Admin Guide*.
Add Info	Click to open the **Add Info Link** dialog box where you can add additional information for the Objective. For details, see "Add/Edit Info Link Dialog Box" (on page 153).

Create Active Scorecards, Perspectives, Objectives, and KPIs in the Active KPIs Pane

HP IT Executive Scorecard provides out-of-the-box KPI templates in the KPI Library. You can drag KPI templates from the KPI Library to the Active KPIs pane to activate the KPIs.

You can create and activate KPIs using the KPI templates. For details, see "How to Create and Activate KPIs Using Templates" (on page 98).

You can create new KPIs only by cloning existing KPIs. For details, see "How to Create and Activate a New KPI by Cloning an Existing KPI" (on page 98).

This section includes the following topics:

Learn About KPIs and Metrics

Key Performance Indicators (KPIs) reflect and measure key drivers of business value. Value drivers represent activities that, when executed properly, guarantee future success. Value drivers move the organization in the right direction to achieve its stated financial and organizational goals.

> Examples of value drivers might be "high customer satisfaction" or "excellent product quality."

Additional information about KPIs

A KPI is a Metric. KPIs always reflect strategic value drivers. KPIs put that performance in context.

KPIs reflect how well the organization is doing in areas that most impact financial measures valued by shareholders, such as profitability and revenues.

A KPI evaluates the performance according to expectations. The context is provided using:

1. **Thresholds.** Upper and lower ranges of acceptable performance.

2. **Targets.** Predefined gains, such as 10% new customers per quarter.

3. **Benchmarks.** Based on industry wide measures or various methodologies, such as Six Sigma.

4. **Trend.** The direction of the performance of the KPI, either "up," "down," or "static."

> An example of a metric could be an MTTR (mean time to recover) which measures the average time between the occurrence of a set of incidents and their resolution. An example of a KPI could be an MTTR, which measures the average time between the occurrence of a set of incidents and their resolution, compared to a defined threshold. For example: 'MTTR less than

one hour'.

KPIs measure key drivers of business values using a formula. For details, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46).

KPI templates (out of the box) help you create new KPIs by activating the KPI templates. For details, see "Activate Scorecards, Perspectives, Objectives, Metrics, or KPIs Using Templates".

A complete list of KPIs is available in KPI Library in Excel format.

How to Create and Activate KPIs Using Templates

This task includes the following steps

1. "Create and Activate a KPI" (on page 98)

2. "Display and modify a KPI's properties" (on page 98)

3. "Results " (on page 98)

Create and Activate a KPI

You can create a copy of the KPI template by dragging the template to the Active KPIs pane. You can then modify the active copy in the Active KPIs pane.

To create a KPI using a KPI template, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.

2. Click the **KPI Library** bar to open the KPI Library.

3. Select **KPIs** in the **Show:** list. The list of KPIs is displayed under the **Show:** box.

4. To create the active KPI, click the relevant KPI template in the KPI tree in the KPI Library pane and drag it to the Active KPIs pane. This creates a working copy of the KPI template. Once the KPI is located in the Active KPIs pane it is activated, and the relevant data is displayed in the relevant components in the Dashboard.

Display and modify a KPI's properties

To change the KPI's properties (name and description), click the KPI in the Active KPIs pane's tree. The properties are displayed in the Properties pane. For details, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).

You can also change the way the KPI performs its calculations. For details, see "Modify a KPI Formula or Filter" (on page 109)

If you make changes to a KPI's definition, you can test your changes using the **Test KPI** button in the Calculation Details tab. For details, see "How to Test Changes Made to a KPI Configuration" (on page 113).

Results

The KPI information is displayed in the relevant components in the Dashboard.

How to Create and Activate a New KPI by Cloning an Existing KPI

This task includes the following steps

1. "Create and Activate KPIs by Cloning Existing KPIs" (on page 99)

2. "Display and modify a KPI's properties" (on page 99)

3. "Results " (on page 99)

1. **Create and Activate KPIs by Cloning Existing KPIs**

    To create a new active KPI, proceed as follows:

    a. Click the **Studio** button (top right corner) to open the Studio.

    b. In the **Active KPIs** pane, right-click the KPI you want to clone and click the **Clone**
       option or select the KPI and click the **Clone** button in the Active KPIs toolbar.
       The cloned KPI is added at the bottom of the list of KPIs for the Objective. Its name is
       followed by (n) where n represents the number of clones created from the same KPI. You
       can modify the KPI name.

2. **Display and modify a KPI's properties**

    To change the KPI's properties (name and description), click the KPI in the Active KPIs pane's
    tree. The properties are displayed in the Properties pane. For details, see "
    Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).

    You can also change the way the KPI performs its calculations. For details, see "Modify a KPI
    Formula or Filter" (on page 109).

    If you change a KPI definition, you can test your changes using the Test KPI button in the
    Calculation Details tab. For details, see "How to Test Changes Made to a KPI Configuration"
    (on page 113).

3. **Results**

    The KPI displays its information in the relevant components in the Dashboard.

How to Delete KPIs

To permanently delete an existing active KPI:

1. Click the **Studio** button (top right corner) to open the Studio.

2. In the **Active KPIs** pane, you can do one of the following:

    - Select the relevant KPI, and click the **Delete the currently selected node** button in
      the Active KPIs toolbar.

    - Right-click the relevant KPI, and select the **Delete** option in the menu that opens.

3. If the selected KPI is:
    - The child of an Objective, when you are prompted to accept the deletion, you can select to:
        ○ Un-assign this specific KPI from the Objective when you click **Yes**.

        ○ Delete this KPI from the system. If you select this option, all the listed active
          KPI instances are removed when you click **Yes**.

    - An Orphan KPI, the KPI is deleted when you click **Yes**.

Create and Manage KPIs User Interface

This section includes (in alphabetical order):

Calculation Details Tab

This page displays the calculation details for the selected KPI.

To access	Select a KPI template in the KPI Library pane or a KPI in the Active KPIs pane and click the **Calculation Details** tab.
Important information	**Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard after about 5 minutes (this time period is configurable in **Admin > Scorecard Settings > XS Settings > Configuration reload rate(Minutes)**). If you run a calculation after making modifications that affect the results of a KPI, the changes automatically affect the Dashboard.

	Note: All the values and thresholds of the Studio KPIs depend on their definition in the Configuration details and Calculation details tabs. You can modify the definitions.
Relevant tasks	"How to Create and Activate KPIs Using Templates" (on page 98) "Create, Manage, and Remove KPIs"

General Information

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Navigate to the source template	Moves the cursor to the template that was used to create the current KPI, in the KPI Library pane. The details of the template are displayed in the Configuration Details pane.
<Areas>	"Business Context " (on page 102) "KPI Formula" (on page 103) "Filter " (on page 103) "Comments" (on page 103)
Test KPI	After you make changes to the KPI configuration, click **Save** to save your changes. The **Test KPI** button is enabled. Click it to test the changes you made to the KPI configuration. The KPI value is calculated and displayed in a popup window. The window displays the new value, score, and status of the modified KPI. The result is not saved to the database. **Note:** The button is disabled for Breakdown KPIs.
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.

Business Context

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Business context>	The box displays the Business Context you selected.
Select business context	Click to open the Business Context dialog box, where you select the Business Context. That selection determines the business entities that are the basis of the calculation of the KPI value and defines the entities used in the formula. For details, see "Modify a KPI Business Context" (on page 124). **Note:** This link is displayed only when no Breakdown KPI has been defined for the KPI. If the KPI already has a Breakdown KPI then a message indicates why you cannot change the business context.

KPI Formula

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
KPI Formula	The formula used to calculate the value of the KPI.
Validate	Click to validate the formula that appears in the Formula box.
Open Formula Builder	Click to open the **Formula Builder** dialog box where you can build the relevant formula to calculate the value of the KPI. For user interface details, see "Formula Builder Dialog Box" (on page 114)

Filter

You use the Filter area to limit the range of data used for the KPI's calculation.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Filter	Specify the filter to limit the range of data you want the KPI to be calculated on.
Validate	Click to validate the filter.
Open Filter Builder	Click to open the **Filter Builder** dialog box where you can build the relevant filter that limits the range of the data the KPI calculation is based on. For user interface details, see "Filter Builder Dialog Box" (on page 122)

Comments

Use the Comments area to enter a description of the formula and its purpose in your own words.

Configuration Details Tab for a KPI

This page displays the configuration details of the selected KPI.

To access	Click a KPI in the Active KPIs pane, the **Configuration Details** tab for the selected KPI opens automatically.
Important information	You can permanently delete a KPI by clicking on the **Delete** 🗑 button in the toolbar or by selecting the **Delete** right-click menu option. For details, see "How to Delete KPIs" (on page 99). **Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard after about 5 minutes (this time period is configurable in **Admin > Scorecard Settings > XS Settings > Configuration reload rate(Minutes)**). If you run a calculation after making modifications that affect the results of a KPI, the changes automatically affect the Dashboard. **Note:** All the values and thresholds of the Studio KPIs depend on their definition in the Configuration details and Calculation details tabs. You can modify the definitions.
Relevant tasks	"How to Assign/Unassign KPIs to/from Objectives" (on page 127) "Create, Manage, and Remove KPIs"

General Information

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Navigate to the source template	Moves the cursor to the template that was used to create the active KPI, in the KPI Library pane. The details of the template are displayed in the Configuration Details pane. **Note:** This option is disabled for Breakdown KPIs.
<Areas>	"General KPIs" (on page 106) "Result Threshold" (on page 107) "Metadata" (on page 108)
Test KPI	After you change the KPI configuration, click **Save** to save your changes. The **Test KPI** button is enabled. Click it to test the changes you made to the KPI configuration. The KPI value is calculated and displayed in a popup window. The window displays the new value, score, and status of the modified KPI. The result is not saved to the database. **Note:** The button is disabled for Breakdown KPIs. For details on calculations, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46).
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last **Save** operation.

General KPIs

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the KPI or of the KPI template. **Limitations:** - The characters: \ / : * ? " < > | are not supported. - The maximum number of characters is 250.
Unit	The unit of the KPI's value.
Description	The description of the KPI. **Limitations:** The maximum number of characters is 1000.
Calculation Period	The time period used to calculate the value of the KPI (using the formula specified in the Calculation details tab).
Id	The ID of the KPI. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of the KPI. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Result Threshold

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Direction	Select: **Centralize.** When the status of the KPI is best when it has either a specific value or its value is in a specific range, and higher or lower values are worse. **Minimize.** When the status of the KPI is best when it is low. **Maximize.** When the status of the KPI is best when it is high. **Example:** - If you are measuring the Employee Attrition rate, the lower the value the best the attrition rate, so you would select Direction=Minimize. - If you are measuring revenue, the higher the value, the best the revenue, so you would select Direction=Maximize.

UI Element	Description
Threshold	Slide the arrows to select the relevant thresholds in the boxes attached to the arrows. The threshold is used to assign a status to the KPI. For details on statuses, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46).
	You can also enter the value by typing text in the box. The slider adjusts automatically.
	You can leave the lowest and highest ends empty to indicate an infinite value (minus infinity and plus infinity). In such a case, the threshold uses the lowest and highest historical values of the KPI or of the KPI template.
	Note: All the threshold values use of the lowest and highest ends uses float precision (Java Floating Point), so for example, a value of 999999 is rounded to 10000000.
	Example: As the measurement unit of the Employee Attrition rate is a percentage, the limits of the threshold are 0 and 100. You can decide that a good attrition rate for your company or group is between 0% to 5% (green), a warning rate is between 5% and 10% (yellow), and a bad rate is between 10% and 100% (red).
	Note: The Threshold fields are validated when you enter values. The values must increase from left to right.
Include marginal status (yellow)	Select when the status of the KPI can be **Good**, **Warning**, or **Error**.
	Clear when the status of the KPI is either **Good**, or **Error**.
	Note: When you select **Direction=Centralize** and the **Include marginal status (yellow)** option, the thresholds include two warning areas as follows:
	Note: The Threshold fields are validated when you enter values. The values must increase from left to right.

Metadata

User interface elements are described below (when relevant, unlabeled elements are shown in

angle brackets):

UI Element	Description
Business Motivation	Enter the business motivation of the KPI.
Additional Info	Lists the additional information available for the KPI. It can be links to BO or Xcelsius reports, external links, or links to Dashboard pages. The table includes: • **Name**.The name of the link or the reports. • **URL**. The hyperlink to access additional external information. • Click to open the Edit Info Link dialog box where you can edit the selected additional information. For details, see "Add/Edit Info Link Dialog Box" (on page 153). • Click to delete the selected additional information.
Owner	The owner of the active KPI. Note: The list of available owners corresponds to the users that were defined in **Admin** > **Users and Roles** > **User Management**. For details, see "Manage Users and Groups" in the *General Admin Guide*.
Add Info	Click to open the **Add Info Link** dialog box where you can add additional information for the KPI. For details, see "Add/Edit Info Link Dialog Box" (on page 153).

Modify a KPI Formula or Filter

You can change the existing formula of a KPI to customize it to the end-user's needs. You can also create a formula to calculate the value of the KPI.

In addition you can restrict the range of the formula by selecting, in the filter, specific values for the variables used in the formula.

This section includes the following topics:

Learn About Formulas, Filters, Thresholds, Values, Trend, and Score

This section describes the information related to a KPI:

KPIs

Formula, Filter, and KPI Value

The Scorecard KPI engine calculates the **value** of the KPI using the **formula** specified for the KPI and provides the KPI's **status** and **score** using the thresholds specified for the KPI. You can also build KPI filters to restrict the range of the formula by selecting specific values for the variables used in the formula.

KPI Threshold

The engine compares the KPI **value** to the KPI **threshold**, and calculates the KPI status.

KPI Status

The KPI **status** can be **Error**, **Warning**, or **Good**.

KPI Trend

The trend shows the tendency of a changing KPI result value relative to the previous result.

The trend is:

- **Up** if the current result is higher than the previous result.

- **Down** if the current result is lower than the previous result.

- **Neutral** if the current and previous results are the same.

KPI Score

The KPI value is translated into a score using the threshold specified for the KPI.

All the **scores** are normalized to the same scale of measurement (for example from 0 to 10) to enable the calculation of an Objective that is based on the **scores** of KPI's from different types. The **score** reflects the **status** of the business **value** and its relative distance from the **threshold**.

In addition:

- All the parent child rule calculations are based on the scores of their children.

- The KPI score represents how well the KPI is doing compared to the business Objective. For details, see "Learn About Objectives" (on page 50).

> **Example:** A KPI calculates a percentage (%) and its thresholds are Good from 90% and up. When the KPI has a value of 90%-100%, the KPI's status is Good. The score for 85% is higher than the score for 65%, and the score for 97% is higher than the score for 93% even though the status is the same, this enables showing the trend of KPIs and Objectives even if the status remains the same.

The normalization process is based on the user-defined threshold for a metric. KPI thresholds have 3 sectors: good (6.6 - 10), warning (3.3 - 6.6), and error score ranges (0 - 3.3).

The Score calculation process is as follows:

1. Get the KPI result.

2. Get the status range as configured by the thresholds in the KPI definition.

3. Calculate the score as follows:
   F(n) = ((n - a) / (b - a)) * (y - x) + x
   where:
   - a – minimal value of the threshold range

   - b – maximal value of the threshold range

   - x – minimal value of according score range

   - y – maximal value of according score range

   - n – result value

Example: If a=2000 and b=5000, the Score value is 7.33

Example: The threshold of a metric similar to MTTR (time to fix a problem) is 1 day for good status, and 7 days for warning status. The score scale is constant: 8-10 is good status, 7-8 is the warning status and 0-7 is error status.

Any value on the MTTR scale needs to be transformed into the score scale by linear or exponential transform.Since the lower threshold is not set (it is equal to ∞), the formula is different:

Lets check the Score based on the following Results :

0.5 day →F(1) = ((0.5 - 0) / (1 - 0)) * (10 - 8) + 8 = 9 (the score is 9)

4 days →F(4) = ((4 - 1) / (7 - 1)) * (8 - 7) + 7 = 7.5 (the score is 7.5)

10 days →F(10) = (atan(10 - 7) / 1.5707))* (7-0) = 4.43 (the score is 4.43)

Additional Information

For task details, see "Modify a KPI Formula or Filter" (on page 109).

For user interface details, see "Formula Builder Dialog Box" (on page 114) or "Filter Builder Dialog Box" (on page 122).

How to Modify a KPI Formula or Filter

You can modify a KPI formula or filter.

To modify the KPI formula:

1. In the Active KPIs pane, select the relevant KPI. The Configuration Details and Calculation Details tabs are displayed.

2. Click the **Calculations details** tab. For details, see "Calculation Details Tab" (on page 101).

3. You can, in the Formula area:
   a. Use the Formula Builder to help you create the relevant formula; click the **Builder** button to open the Formula Builder dialog box. For details, see "Formula Builder Dialog Box" (on page 114).

   b. Enter the new formula or modify the existing formula directly in the Formula area.

4. Click the **Validate** button to validate the formula.

5. Click **Save** to save the change.

To modify the KPI filter:

1. In the Active KPIs pane, select the relevant KPI. The Configuration Details and Calculation Details tabs are displayed.

2. Click the **Calculations details** tab. For details, see "Calculation Details Tab" (on page 101).

3. You can, in the Filter area:
   a. Use the Filter Builder to help you create the relevant filter; click the **Builder** button to open the Filter Builder dialog box. For details, see "Filter Builder Dialog Box" (on page 122).

   b. Enter the new filter or modify the existing filter directly in the Filter area.

4. Click the **Validate** button to validate the filter.

5. Click **Save** to save the change.

How to Test Changes Made to a KPI Configuration

When you change a KPI's formula or thresholds, you must test that the changes are valid.

1. After you have changed the configuration of a KPI in the Calculation details tab (for details, see "Calculation Details Tab" (on page 101)) or in the Configuration details tab (for details, see " Configuration Details Tab for a KPI" (on page 105), click **Save** to save your changes. The **Test KPI** button is enabled.

2. Click the **Test KPI** button to test the changes you made to the KPI configuration. The KPI value is calculated and displayed in a popup window. The window displays the new value, score, and status of the modified KPI. The result is not saved to the database.

3. Click **OK** to return to the Configuration details or Calculation details tab.

Customize Formula or Filter User Interface

This section includes (in alphabetical order):

Formula Builder Dialog Box

This page enables you to build KPI formulas.

To access	Click **Open Formula Builder** in the Calculation Tab in the Properties pane of a KPI .
Important information	• The KPI Formula language is not case-sensitive. • Field values are case-sensitive. • Formulas include single quotes only for entity field values and string primitives (numbers, characters between double-quotes, and dates).
Relevant tasks	"Modify a KPI Formula or Filter" (on page 109)

Functions

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Functions	• **Aggregating**. The list of aggregating functions you can use in the KPI formula. For details, see "Aggregating Functions" (on page 115). • **Mathematical**. The list of mathematical functions you can use in the KPI formula. For details, see "Mathematical Functions" (on page 116). • **Date Constants**. The list of date constants you can use in the KPI formula. For details, see "Date constant" (on page 118).
Add	• Click the **Add** button under the Functions box to add the selected function to the formula box at the end of the current expression. • Click the **Add** button under the Variables box to add the selected variable to the formula box at the end of the current expression.

- **Aggregating Functions**

    The aggregating functions are as follows:

UI Element	Description
SUM	**Formula:** SUM(<EntityName>.<FieldName>, <Filter Expression>) Returns the sum of the field values of the entities that satisfy the condition specified in the Filter Expression. **Example:** SUM(Cost.Amount, Cost.CostType="Actual")
MIN	**Formula:** MIN(<EntityName>.<FieldName>, <Filter Expression>) Returns the lowest value of the field values of the entities that satisfy the condition specified by the Filter Expression. **Example:** MIN(Cost.Amount, Cost.CostType="Actual")
MAX	**Formula:** MAX(<EntityName>.<FieldName>, <Filter Expression>) Returns the highest value of the field values of the entities that satisfy the condition specified by the Filter Expression. **Example:** MAX(Cost.Amount, Cost.CostType="Actual")
AVG	**Formula:** AVG (<EntityName>.<FieldName>, <Filter Expression>) Returns the average of the field values of the entities that satisfy the condition specified by the Filter Expression. **Example:** AVG(Cost.Amount, Cost.CostType="Actual")

UI Element	Description
COUNT	**Formula:** COUNT (<Entity Name>, <Filter Expression>) Returns the number of entities that satisfy the condition specified by the Filter Expression. **Example:** COUNT(Cost, Cost.CostType ='Actual')
COUNT_ DISTINCT	**Formula:** COUNT_DISTINCT (<Entity Name>.<Field Name>, <Filter Expression>) Returns the number of distinct values of the field in all the entities that satisfy the condition specified by the Filter Expression. **Example:** COUNT_DISTINCT(Service.Name, Service.Name <> 'UNKNOWN')
PERCENTAGE	**Formula:** PERCENTAGE ((<Entity Name>, <Filter Expression1>, <Filter Expression2>,defaultValue) Returns the ratio, expressed as percentage, of the number of entities that satisfy the condition specified by Filter Expression1 to the number of entities that satisfy the condition specified by Filter Expression 2. defaultValue is optional and can be either an integer or a float number. By default, the defaultValue is 0; this is the value that is returned if the denominator equals 0. You can change the default value. **Example:** PERCENTAGE(Cost, Cost.CostType="Actual", Cost.CostType="Planned", 0)

- **Mathematical Functions**

  The mathematical functions are as follows:

UI Element	Description
SUM_MATH	**Formula:** SUM_MATH (arg1, arg2, arg3, …) Returns the sum of the set of arguments. **Example:** SUM_MATH(6.36, 11.02, 51, -2.44, MAX(Cost.Amount, Cost.CostType='Actual'))
MIN_MATH	**Formula:** MIN_MATH (arg1, arg2, …) Returns the lowest value of the set of arguments.

UI Element	Description
	Example: MIN_MATH(SUM(Cost.Amount, Cost.CostType ='Actual'), SUM(Cost.Amount, Cost.CostType ='Planned'))
MAX_MATH	**Formula:** MAX_MATH (arg1, arg2, …) Returns the highest value of the set of arguments. **Example:** MAX_MATH(COUNT(Incident, Incident.Status='Open'), COUNT(Incident, Incident.Status='Reopened'))
AVG_MATH	**Formula:** AVG_MATH (arg1, arg2, …) Returns the arithmetic average of the set of arguments. **Example:** AVG_MATH(6.36, 11.02, 51, -2.44, SUM(Cost.Amount, Cost.CostType='Actual'))
PERCENTAGE_ MATH	**Formula:** PERCENTAGE_MATH(numerator,denominator, defaultValue) Returns the ratio, expressed as percentage of arguments: (numerator / denominator) * 100. defaultValue is optional and can be either an integer of a float number. By default, the defaultValue is 0; this is the value that is returned if the denominator equals 0. You can change the default value. **Example:** PERCENTAGE_MATH(Defect, Defect.severity = "High" , *)
RATIO_MATH	**Formula:** RATIO_MATH(numeratorVal,denominatorVal, defaultValue) The function divides numerator by denominator. If denominator is 0 then the function returns defaultValue, or zero if <defaultValue> is not provided. defaultValue is optional and can be either an integer of a float number. By default, the defaultValue is 0; this is the value that is returned if the denominator equals 0. You can change the default value. **Example:** RATIO_ MATH(SUM(Cost.Amount,Cost.CostType='Actual'), SUM(Cost.Amount,Cost.CostType='Planned'),0)

UI Element	Description
DATE_ CONVERT	**Formula:** DATE_CONVERT(<sourceFormat>, <destinationFormat>, <Mathematical Date Function>) Converts the results of <Mathematical Date Function> from the source format into the destination format. Source Format can be one of the following: 'MS', 'S', 'M', 'H'. Destination Format can be one of the following: 'S', 'M', 'H', 'D'. 'MS' = Millisecond, 'S' = Second, 'M' = Minute, 'H' = Hour, 'D' = Day **Example:** DATE_CONVERT('MS','H', AVG(Incident.OutageEnd, PERIOD_ENTITY=OutageStartPeriod) - AVG(Incident.OutageStart,PERIOD_ENTITY=OutageStartPeriod))

- **Date constant**

  The dates are as follows:

UI Element	Description
IN _PERIOD	**Formula:** <EntityName>.<FieldName> IN_PERIOD Use in Filter expressions to specify the condition relative to the start of the calculation period defined for the KPI . The condition is related to the KPI time period. **Example:** COUNT(Incident, Incident.openDate IN_PERIOD) The incidents that are counted are those that opened during the current time period. If the time frame is "weekly", the formula counts only the incidents opened per week.
END_PERIOD	**Formula:** <EntityName>.<FieldName> conditional operator END_ PERIOD Use in Filter expressions to specify the condition relative to the end of the calculation period defined for the KPI . The condition is related to the time period. **Example:** COUNT(Incident, Incident.openDate <= END_PERIOD) The incidents that are counted are those that opened until the date the time period ends.
PERIOD_ ENTITY	**Formula:** PERIOD_ENTITY=Period

UI Element	Description
	Use in Filter expressions to specify the entity that represents the PERIOD table that calculation are based on. Some of the Universes are built as Data Warehouses, which means that they already store aggregated values per period. You can specify in this field, the entity in the Universe that corresponds to the Period you want to use. The content of that entity determines the entries that are filtered for the calculation. **Example:** COUNT(Incident, PERIOD_ENTITY = CreateTimePeriod)
KPI_ PERIODICITY_ TYPE	**Formula:** KPI_PERIODICITY_TYPE=Period A constant that is replaced by the specific KPI Periodicity Type that is to be used for the calculation. **Example:** COUNT(Incident, CreateTimePeriod.Periodicity = KPI_ PERIODICITY_TYPE)
NOW	A constant that is replaced by the current calculation date during the calculation. **Example:** COUNT(Incident, NOW - Incident.CreateTime > 5*DAY)
HOUR	A constant that is replaced by the one hour during the calculation. **Example:** COUNT(Incident, NOW - Incident.CreateTime > 5*HOUR)
DAY	A constant that is replaced by the one day during the calculation. **Example:** COUNT(Incident, NOW - Incident.CreateTime > 5*DAY)
WEEK	A constant that is replaced by the one week during the calculation. **Example:** COUNT(Incident, NOW - Incident.CreateTime > 5*WEEK)

Variables

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Variables	The list of variables you can use in the KPI formula.

UI Element	Description
	The list displays the entities and fields of the Universe that corresponds to the Business context you selected in the Calculation details tab for the KPI.
	Note: When a list of specific values has been assigned to a variable in SAP BusinessObjects Enterprise for IT Executive Scorecard, the auto-complete feature is enabled for the variable, so that when you select the variable and one of the conditional operators, the list of values assigned to the variable is displayed. You can then select one of the values, or you can enter free text. The maximum number of values that are displayed is 100. For details, see "Connect an External Data Store to the IT Executive Scorecard Application" in the *Data Warehouse Admin Guide*.
<Search>	Enter a string to filter for the entities and fields whose name includes the string.
Add	• Click the **Add** button under the Functions box to add the selected function to the formula box at the end of the current expression. • Click the **Add** button under the Variables box to add the selected variable to the formula box at the end of the current expression.

Description

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Description	A description of the function you have selected in the Functions area or a description of the variable you have selected in the Variables area.

<Formula>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
+ - * /	Use these buttons to enter the relevant regular operations into the formula.
> < = <> >= <=	Use these buttons to enter the relevant conditional operators into the formula. The conditional operators are: • = (equal)**Syntax:** op1 = op2 • > (greater than) **Syntax:** op1 > op2 • < (smaller than) **Syntax:** op1 < op2 • >= (greater than or equal to) **Syntax:** op1 >= op2 • <= (smaller than or equal to) **Syntax:** op1 <= op2 • <> (not equal) **Syntax:** op1 <> op2
And Or Not Like	Use these buttons to enter the relevant logical operators into the formula. The logical operators are: • **like Syntax:** operand like char % Matches a specific pattern. % is a wildcard character meaning `match any characters'. Applicable on string type operand. • **AND**. **Syntax:** (expr1) AND (expr2) Logical AND • **OR**. **Syntax:** (expr1) OR(expr2) Logical OR • **NOT**. **Syntax:** NOT (expr) Returns the opposite of a boolean expression.
( ) , '	Use these buttons to enter the corresponding elements into the formula.
<Formula box>	The formula appears as you are building it using the variables, functions and buttons.
Validate	Click to validate the formula.
OK/Cancel	Click: • **OK** to transfer the selected formula to the **Formula** box of the Calculation details tab. • **Cancel** to cancel the changes. **Note:** In the Calculation details tab, the **Save** and **Discard** buttons become enabled and you can click **Save** to save the changes.

Filter Builder Dialog Box

This page enables you to build KPI filters to restrict the range of the formula by selecting, in the filter, specific values for the variables used in the formula.

To access	Click the **Filter Builder** button in the Calculation Tab in the Properties pane of a KPI .
Important information	• The KPI Filter language is not case-sensitive except for the values of the fields. • Filters include single quotes only for string primitives (characters between double-quotes, and dates). • Field values are case-sensitive.
Relevant tasks	"Modify a KPI Formula or Filter" (on page 109)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Variables	The list of variables you can use in the KPI filter. The list displays the entities and fields in the Universe that corresponds to the Business context you selected in the Calculation details tab for the KPI .

UI Element	Description
	Note: When a list of specific values has been assigned to a variable in SAP BusinessObjects Enterprise for IT Executive Scorecard, the auto-complete feature is enabled for the variable, so that when you select the variable and one of the conditional operators, the list of values assigned to the variable is displayed. You can then select one of the values, or you can enter free text. The maximum number of values that are displayed is 100. For details, see "Connect an External Data Store to the IT Executive Scorecard Application" in the *Data Warehouse Admin Guide*.
<Search>	Enter a string to filter for the entities and fields whose name includes the string.
Description	A description of the variable you have selected in the Variables area.
`>` `<` `=` `<>` `>=` `<=`	Use these buttons to enter the corresponding conditional operators in the filter. The condition operators are: • = (equal) **Syntax:** op1 = op2 • > (greater than) **Syntax:** op1 > op2 • < (smaller than) **Syntax:** op1 < op2 • >= (greater than or equal to) **Syntax:** op1 >= op2 • <= (smaller than or equal to) **Syntax:** op1 <= op2 • <> (not equal) **Syntax:** op1 <> op2
And Or Not Like	Use these buttons to enter the corresponding logical operators into the filter. The logical operators are: • **like Syntax:** operand like char% Matches a specific pattern. % is a wildcard character meaning `match any characters'. It is applicable on string type operand. • **AND**. **Syntax:** (expr1) AND (expr2) Logical AND • **OR**. **Syntax:** (expr1) OR(expr2) Logical OR • **NOT**. **Syntax:** NOT (expr) Returns the opposite of a boolean expression.

UI Element	Description
( ) , ·	Use these buttons to enter the corresponding elements into the filters.
<Filter box>	The filter appears as you are building it using the variables, functions and buttons.
Validate	Click to validate the filter.
OK/Cancel	Click: • **OK** to transfer the selected formula to the **Filter** box of the Calculation details tab. **Note:** In the Calculation details tab, the **Save** and **Discard** buttons become enabled and you can click **Save** to save the changes. • **Cancel** to cancel the changes.

Modify a KPI Business Context

A KPI business context or universe represents a global business facet related to the aspect of business the KPI represents.

For example, the % of Assets in Maintenance KPI represents one aspect of the AssetManagement universe.

You can change the business context of a KPI when you clone the KPI, or change its formula.

You can also add a business context and attach KPIs to the new business context. For details, see .

This section includes the following topics:

Learn About Business Contexts

A SAP BusinessObjects universe is a business representation of an organization's data that helps end-users access data using common business terms. A universe is the result of a semantic layer of metadata that creates a business oriented view of the data. A universe contains a schema of the tables that make up the dimension and measurement objects. A universe is an interface between the data warehouse and the analytics that display the data.

Universes are made up of objects and classes that are mapped to the source data and are accessed through queries and reports. They correspond to the business contexts used in HP IT Executive Scorecard.

Each universe includes classes (entities), objects with a dimension attribute, and relationships between the entities. The entity's values are used in the calculation of values and statuses of the Key Performance Indicators (KPIs) that represent them. The KPIs are the building blocks used by the HP IT Executive Scorecard engine and the Studio.

If you want to change the formula of a KPI , you must be aware of the relationships in the context (universe) of the KPI . For details, see "Learn About the SAP BusinessObjects Enterprise for IT Executive Scorecard Universe" (on page 24) and "Reference: KPIs".

The contexts, entities, and dimensions that are displayed and used in the Studio are part of the universes that are located in the **XS_Studio** library.

How to Modify a KPI's Business Context

You can modify a KPI's business context.

To change the business context of a KPI:

1. Select the relevant KPI in the Active KPIs pane.

2. Optionally, clone the KPI by clicking the **Create a copy of the current entity** button. A KPI with the same name followed by an index number between parenthesis is created in the same Objective.

3. In the Calculation details tab for the KPI, click **Select business context**.

4. In the Business Context dialog box, select the new business context, in the **Select the business context** link. Click **OK**.

5. If necessary, modify the formula and/or the filter. For details, see "Modify a KPI Formula or Filter" (on page 109).

How to Test Changes Made to a KPI Configuration

When you change a KPI's universe (business context), you must test that the changes are valid.

1. After you have changed the configuration of a KPI in the Calculation details tab (for details, see "Calculation Details Tab" (on page 101)) or in the Configuration details tab (for details, see " Configuration Details Tab for a KPI" (on page 105), click **Save** to save your changes. The **Test KPI** button is enabled.

2. Click the **Test KPI** button to test the changes you made to the KPI configuration. The KPI value is calculated and displayed in a popup window. The window displays the new value,

score, and status of the modified KPI. The result is not saved to the database.

3. Click **OK** to return to the Configuration details or Calculation details tab.

Select Business Context Dialog Box

This page enables you to select the relevant business context for the KPI. For a list of KPIs and their business contexts, see "Reference: KPIs".

To access	Click **Select business context** in the Calculation details tab for a selected active KPI or for a KPI template.
Relevant tasks	"Modify a KPI Business Context" (on page 124)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Select Business Context	Select the relevant business context. The business context determines the business entities that are available to be used in the formula used to calculate the value of the KPI.

Assign/Unassign a KPI to/from an Objective

You can assign a KPI to an Objective . You can also unassign a KPI from an Objective.

This section includes the following topics:

How to Assign/Unassign KPIs to/from Objectives

This task includes the following steps:

- "Assign a KPI to an Objective " (on page 127)
- "Unassign a KPI from an Objective" (on page 128)

Assign a KPI to an Objective

1. In the Active KPIs pane, select an Objective.

2. In the Configuration Details tab, click the **Add KPI** link.

3. In the **Assign KPI to Objective** dialog box, move the relevant KPI from the **Available KPIs** area to the **Assigned KPIs** area.

4. Click **OK**. The **Assign KPI to Objective** dialog box closes.

5. The KPI immediately appears in the Assigned KPIs list in the Configuration Details tab. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**

6. The tree in the Active KPIs pane is refreshed and the changes are displayed.

Unassign a KPI from an Objective

1. In the Active KPIs pane, select an Objective.

2. In the Configuration Details tab, in the **Assigned KPIs** section, click the **Un-assign** button for the relevant KPI. The KPI immediately disappears from the KPIs table.

3. To save the changes you must save the Objective by clicking **Save**.

Assign KPIs to Objective Dialog Box

This dialog box enables you to assign KPIs to an Objective.

To access	In the Configuration details tab for an Objective, click the **Add** link.
Relevant tasks	"How to Assign/Unassign KPIs to/from Objectives" (on page 127)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Available KPIs	Lists the KPIs available to be assigned to the Objective. You can: • Select the relevant context in the **<All Contexts>** list to display the KPIs relevant for the selected context. The period in the title represents the filter performed on the list of KPIs, to display only the KPIs that you can assign to the objective (since the calculation period in the objective and KPIs under it must match). • Enter a string in the **<Search>** box to filter for the KPIs whose name includes the string.
Assigned KPIs	Lists the KPIs that you want to assign to the Objective.
Description	The description of the KPI selected in the Available KPIs area.
→ ← ◀◀	Select the relevant KPI and move it to the relevant field using the buttons.
OK	Click to assign the selected KPIs. The list of KPIs in the Assigned KPIs area

UI Element	Description
	is immediately updated. The **Save** and **Discard** buttons become enabled. To save the changes you must save the Folder by clicking **Save**.

Use Folders and KPI Templates to Create the Dashboard

Folders are used as containers (organizers) for the KPI templates. You usually use Folders when you do not work with Scorecards. Folders include one or more KPI templates. The same KPI template can belong to more than one Folder.

This section includes the following topics:

Learn About Folders

Folders are used as containers (organizers) for KPI templates. Folders are populated with either KPI templates or other Folders (not both). The same KPI template can belong to more than one Folder.

You use Folders and their KPIs when you do not work with Scorecards and you want to use the Folder's KPIs to create the Dashboard Contents. For details, see "Use Folders and KPIs to Create the Dashboard Contents".

How to Activate a Folder KPI Template

You can create an active a KPI by dragging a Folder KPI template from the KPI Library to the Active KPIs pane. You can then modify the active copy in the Active KPIs pane.

To create a KPI using a Folder KPI template, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.

2. You must work with the KPI Library pane and the Active KPIs pane side-by-side, so if

    necessary, click the **Toggle side-by-side view** button ▢▢ to display the **KPI Library** pane and the **Active KPIs** pane side by side.

3. Select **HP Portfolio** in the **Show:** list. The KPI Library pane displays the Folder template tree and Orphan KPIs.

4. To create the active node, click the relevant KPI template in the Folder tree in the KPI Library pane and drag it to the Active KPIs pane.

    This creates an active copy of the KPI template. The new KPI is given a unique name. For details about the unique names, see "Learn About Active Scorecard, Perspective, Objective, and KPI Unique Names" (on page 82).

Recalculate Displayed Values after Configuration Change

If you have configured an active KPI and you have modified or configured its formula, filter, or threshold, the value, status, and trend of the KPI, and of the related Objectives, Perspectives, and

Scorecards, must be recalculated to display the corresponding data, in the Dashboard. You can either perform the calculation for the current period of each KPI in the selected business context or a historical calculation for each KPI in the selected business context and selected period. For details, see "Learn About Calculation and Recalculation" (on page 131).

This section includes the following topics:

Learn About Calculation and Recalculation

If you have configured an active KPI and you have modified or configured its formula, filter, or threshold, the value, status, and trend of the KPI and related Objectives, Perspectives, and Scorecards must be recalculated to display the relevant data, in the Dashboard. You can either wait for the scheduled engine calculation to occur or you can perform a recalculation. For details on the scheduled calculation, see "How to Schedule Calculations" (on page 136).

Additional details

Depending on the change and what it means for the Dashboard, you may want to:

- **Recalculate the current information.** When you change the definition of a KPI (formula or threshold), the change impacts the KPI's value and impacts the Objectives, Perspectives, and Scorecards related to the KPI. It may impact the information that is currently displayed in the Dashboard, or you might want to view the impact of the change on the current display. You can perform the calculation using the **Calculate now** feature, for each context for which you have configured KPIs. For details, see "Recalculate Displayed Values after Configuration Change" (on page 130).

- **Recalculate historical information.** When you change the definition of a KPI (formula, filter, or threshold), the change impacts the KPI's value and impacts the Objectives, Perspectives, and Scorecards related to the KPI. You may want to recalculate the historical (past) information related to the KPI you have changed. You can perform the calculation using the **Recalculate** feature, for each context for which you have configured KPIs. For details, see "Recalculate Displayed Values after Configuration Change" (on page 130).

> **Note:** When you change a KPI's formula, filter, or thresholds, you can test that the changes are valid. For details, see "How to Test Changes Made to a KPI Configuration" (on page 113).

How to Perform a Calculation After Configuration Change

This task includes the following steps:

- "Prerequisite" (on page 132)

- "Calculate for the current period" (on page 132)

- "Results" (on page 132)

1. **Prerequisite**

   You have created or modified the formula, filter, or threshold definition of a KPI. For details, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).

2. **Calculate for the current period**

   When you change the definition of a KPI (formula or threshold), the change impacts the KPI's value and impacts the Objectives, Perspectives, and Scorecards related to the KPI. You may want to perform the calculation for each KPI in the selected business context for the period specified in the KPI configuration, so the impact of the change is felt immediately in the results displayed in the Dashboard.

   To calculate the current data:

   a. In the Active KPIs pane, click the **Calculation options** button in the Active KPIs toolbar, and select the **Calculate now** option.

   b. In the Calculate Now dialog box that opens, select the relevant context and click **Calculate**. For user interface details, see "Calculate Now Dialog Box" (on page 134).

   c. Select the **I understand the implications of this process and would like to proceed with the calculation** option to proceed with the calculation.

      The calculation is performed for all KPIs and Objectives with the selected context (universe).

   > **Note:**
   >
   > - The calculation deletes the data that was available for the same period as the period selected for the calculation.
   >
   > - No backup is available.

3. **Results**

   The calculated data is displayed in the relevant components in the Dashboard.

How to Perform a Recalculation

This task includes the following steps:

- "Prerequisite" (on page 132)
- "Recalculate historical information" (on page 132)
- "Results" (on page 133)

1. **Prerequisite**

   You have created or modified the formula, filter, or threshold definition of a KPI. For details, see " Configuration Details Tab for a KPI" (on page 105) or "Calculation Details Tab" (on page 101).

2. **Recalculate historical information**

When you change the definition of a KPI (formula or threshold), the change impacts the KPI's value and impacts the Objectives, Perspectives, and Scorecards related to the KPI. You may want to recalculate the historical (past) information related to the KPI.

To recalculate the historical (past) information:

a. In the Active KPIs pane, select the KPI you have modified.

b. Click the **Calculation options** 🔧 button in the Active KPIs toolbar, and select the **Recalculate** 🔳 option.

c. In the Recalculate dialog box that opens, select the relevant context and click **Calculate**. For details, see "Recalculate Dialog Box" (on page 135).

d. Select the **I understand the implications of this process and would like to proceed with the calculation** option to proceed with the recalculation.

    The historical recalculation is performed for the KPIs configured on the relevant context for the selected context (datasource). You specify the date from which the historical calculation is performed. The calculations are performed for one year back from the selected date up to the current date.

> **Note:**
>
> ■ Recalculations cannot be performed in parallel. To perform a new recalculation you must wait until the current recalculation finishes.
>
> ■ The recalculation process is CPU-heavy. It should be performed only when necessary.

3. **Results**

    The recalculated data is displayed in the relevant components in the Dashboard.

Recalculate Displayed Values User Interface

This section includes (in alphabetical order):

Calculate Now Dialog Box

This dialog box enables you to calculate all the KPIs, Objectives, Perspectives, and Scorecards values, trends, and statuses, for the selected business context and for the time period of each KPI within the same business context.

To access	Select the relevant KPI, click the **Calculation options** button, and select the **Calculate now** option, in the Active KPIs pane.
Relevant tasks	"Recalculate Displayed Values after Configuration Change" (on page 130)

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Element	Description
Universe/context for recalculation	Select the relevant context (data source) you want to use for the recalculation.
I understand the implications of this process and would like to proceed with the calculation	Select this option to proceed with the calculation.
Calculate	Click to start the calculation. **Limitations:** For limitations, see "Recalculate Displayed Values after Configuration Change" (on page 130).

Recalculate Dialog Box

This dialog box enables you to specify how to recalculate all the KPIs, Objectives, Perspectives, and Scorecards values, trends, and statuses, for the context of the KPI whose formula, filter, or threshold you have modified, from the selected date (up to one year back) till the current date.

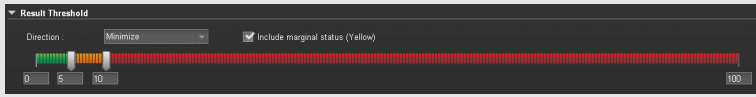| To access	Select the relevant KPI, click the **Calculation options** button, and select the **Recalculate** option, in the Active KPI pane.
Important information	You can recalculate all results for the selected universe/context from the selected date (up to one year back) till the current date.
Relevant tasks	"Recalculate Displayed Values after Configuration Change" (on page 130)

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Element	Description
Universe/context for recalculation	Select the relevant universe/context for which you want to recalculate all results.
Recalculation start date	Select the date from which to start the historical recalculation. The recalculation is performed for the period starting from the specified date till the current date. **Limitation:** The recalculation period is limited to 1 year back from the date you specified in the **Recalculation Start Date**.
I understand the implications of this process and would like to proceed with the calculation	Select this option to proceed with the recalculation.
Calculate	Click to start the recalculation. **Limitations:** For limitations, see "Recalculate Displayed Values after Configuration Change" (on page 130).

Schedule the Business Context Calculations

You can schedule to run the business context calculations periodically. This means that the values, statuses, trends, and scores of the KPIs associated with the business context are calculated and the Scorecards and components in the Dashboard reflect these calculations and results.

This section includes the following topics:

How to Schedule Calculations

To schedule a business context calculation:

1. In the Active KPIs pane, select the relevant KPI, click the **Calculation options** button, and select the **Schedule context calculation** option.

2. In the Business Context Calculation Scheduling dialog box, select the relevant business context in the list, and in the Schedule details area, enter the day and time of the scheduled calculation. Click **Save**. For details, see "Business Context Calculation Scheduling Dialog Box" (on page 138).

At the scheduled time, the following processes take place:

- The calculations of the KPIs associated with the business context are performed for the current period.

- The Objectives including these KPIs are also calculated for the current period.

- The Scorecards and components that include these KPIs are refreshed when you open the Dashboard.

Business Context Calculation Scheduling Dialog Box

This dialog box enables you to specify how to recalculate all results for the selected universe/context from the selected date (up to one year back) till the current date.

To access	Select the relevant KPI, click the **Calculation options** 🔧 button, and select the **Schedule context calculation** 🕒 option, in the Active KPI pane.
Important information	At the scheduled time, the following processes take place: • The calculations of the KPIs associated with the business context are performed for the current period. • The Objectives including these KPIs are also calculated for the current period. • The Scorecards and components that include these KPIs are refreshed when you open the Dashboard.
Relevant tasks	"How to Schedule Calculations" (on page 136)

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Element	Description
Business context	In the list of business contexts, select the business context for which you want to schedule the calculations. **Note:** Contexts that have not been assigned a calculation schedule have a ⚠ icon. Their KPIs have not been calculated. The Schedule details area is displayed as follows:
Schedule details	Select the days of the week when you want to perform the business context calculations.
Calculation start time	Enter the time when you want to start the business context calculation.
Last run	The date and time when the last calculation was performed.
Next run	The date and time when the next calculation is to be performed.

Enrich the Dashboard Contents

You can enrich the Executive Dashboard contents by:

- Creating cascading Scorecards that enable the Executive to drilldown to lower levels of the same Scorecard. For details, see "Create Cascading Scorecards".

- Creating breakdowns of KPIs or Metrics to obtain more detailed information about the KPI or Metric measurements. For details, see "Manage KPI Breakdowns" or "Manage Breakdown Metrics"

- Specify owners and thresholds for specific dimension's values of Breakdown KPIs so only some users can view some of the breakdowns and some users may have different thresholds for the Breakdown KPIs. For details, see "Manage Overrides".

- Provide additional information for a KPI, such as links to other pages, BO or Xcelsius reports, or external URLs. For details, see "Provide Additional Information for a KPI or an Objective".

This section includes the following topics:

Enrich the Executive Dashboard Contents

You can enrich the Executive Dashboard contents by:

- Creating cascading Scorecards that enable the Executive to drilldown to lower levels of the same Scorecard. For details, see "Create Cascading Scorecards".

- Creating breakdowns of KPIs or Metrics to obtain more detailed information about the KPI or Metric measurements. For details, see "Manage KPI Breakdowns" or "Manage Breakdown Metrics"

- Specify owners and thresholds for specific dimension's values of Breakdown KPIs so only some users can view some of the breakdowns and some users may have different thresholds for the Breakdown KPIs. For details, see "Manage Overrides".

- Provide additional information for a KPI, such as links to other pages, BO or Xcelsius reports, or external URLs. For details, see "Provide Additional Information for a KPI or an Objective".

Create and Manage Breakdown KPIs

You can create and manage Breakdowns for a KPI according to the KPI dimensions.

This section includes the following topics:

Learn About Breakdown KPIs

A KPI represents a business context (universe). The value of the KPI is calculated based on the entities (facts or dimensions) that provide information on the business context. A business context can include lots of facts or dimensions.

> For example, the Attrition Rate KPI for the whole company is composed of the attrition rates for each organization in the company, and those are composed of the attrition rates of each group in the organization. The Attrition rate KPI is calculated using the number of employees in the company and the number of employees who have left the company to pursue other interests or who have retired.
>
> Another example is a ticket that includes information about the department, the subject, the location of the problem, and additional information.

The administrator creates multiple levels of Breakdown KPIs depending on the definition of the KPI and on the KPI universe. These definitions provide the different levels of breakdown that enable you to obtain very detailed information.

> For example, the executive wants to know what is the attrition rate for the whole enterprise. If the dimensions of the Attrition Rate KPI are organizations in the enterprise, groups, and location, then the administrator can create Breakdown KPIs of the attrition rate per organization, and groups, and then per location. This would provide the executive with the capability to drilldown from the attrition rate for the whole enterprise, through the organizations and sub-organizations of the enterprise to the attrition rate of the smallest organization in a specific location.

In the Studio, you can configure Breakdowns according to their dimensions. For each KPI, a list of the relevant entities is provided in a menu and the dimensions of these entities in submenus. KPIs can have many levels of breakdowns (limited to 6 levels).

> **Note:** When you configure the breakdown you are locking the context of the KPI for which you are creating the Breakdown because the Breakdown inherits the definitions of the KPIs (for example, the Period definition). You cannot specify a different definition for the Breakdown, and you cannot change the definition of the KPI for which you have created Breakdowns. To unlock the KPI context you must remove the Breakdown.

For task details, see .

For user interface details, see .

How to Create a Breakdown KPI

You can create and manage Breakdowns for a KPI.

For concept details about Breakdowns, see "Learn About Breakdown KPIs" (on page 141).

To create a Breakdown KPI, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.

2. In the Active KPIs pane, perform one of the following actions:

   ▪ Select the relevant KPI, and click the **Create a breakdown for the KPI** ⬚ button in the toolbar.

   ▪ Right-click the relevant KPI, and select **Breakdown** in the menu that opens.

3. In the list of entities that opens, select the required dimension.

4. The Breakdown KPI is inserted as a child of the KPI with the Breakdown ⬚ icon.

   Example of a Breakdown KPI:

5. You can add more breakdown levels depending on the selected dimensions. The dimensions you selected in higher levels of the breakdown are disabled for lower levels. For details, see "How to Create a Breakdown KPI of a Breakdown KPI" (on page 142). Example of a Breakdown of a Breakdown KPI:

How to Create a Breakdown KPI of a Breakdown KPI

You can create and manage Breakdown KPIs for a Breakdown KPI.

For concept details about Breakdowns, see "Learn About Breakdown KPIs" (on page 141).

To create a Breakdown of a Breakdown, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.

2. In the Active KPIs pane, perform one of the following actions:

   - Select the relevant Breakdown KPI, and click the **Create a breakdown for the KPI**
     button in the toolbar.

   - Right-click the relevant Breakdown KPI, and select **Breakdown** in the menu that
     opens.

3. In the menu that opens, select the required entity, and if relevant select the required dimension.
   A new Breakdown KPI is inserted as a child of the Breakdown KPI in the relevant Scorecard

   tree with the **Breakdown** icon. Example of a Breakdown KPI of a Breakdown KPI:

4. You can add more breakdown levels depending on the selected dimensions. The dimensions
   you selected in higher levels of the breakdown are disabled for lower levels.

How to Remove a Breakdown

To remove a Breakdown, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.

2. In the Active KPIs pane, perform one of the following actions:

   - Select the relevant Breakdown KPI, and click the **Delete the currently selected node**
     button in the toolbar.

   - Right-click the relevant Breakdown KPI, and select **Delete** option in the menu that
     opens. If you select a Breakdown that has child Breakdowns, these child Breakdowns are
     also deleted after you confirm the action.

3. Confirm the deletion when you are prompted to do so.

Configuration Details Tab for a Breakdown KPI

This page displays the configuration details of the selected Breakdown KPI. For concept details about Breakdown KPIs, see "Learn About Breakdown KPIs" (on page 141).

To access	Select a Breakdown KPI in the Active KPIs pane.
Important information	"Learn About Breakdown KPIs" (on page 141)
Relevant tasks	"Create and Manage Breakdown KPIs" (on page 140)

General Information

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Areas>	"General - KPI Breakdown" (on page 145) "Result Threshold" (on page 145) "Overrides" (on page 146)"Configuration Details Tab for a Breakdown KPI" (on page 144)

UI Element	Description
Test KPI	**Note:** The button is disabled for Breakdown KPIs.
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last **Save** operation.

General - KPI Breakdown

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Entity	The name of the entity you selected when creating the Breakdown KPI.
Dimension	The name of the dimension you selected when creating the Breakdown KPI.
Name	The name of the Breakdown KPI. Its format is `<KPI_name> by <entity_name> <dimension_name>`.
Description	The description of the KPI. **Limitations:** The maximum number of characters is 1000.
Id	The ID of the parent KPI. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Type	The type of the parent KPI. It is automatically assigned. This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.

Result Threshold

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Direction	Displays the threshold direction selected for the parent KPI. For details, see "Configuration Details Tab for a KPI" (on page 105). **Example:**

UI Element	Description
	• If you are measuring the Employee Attrition rate, the lower the value the best the attrition rate, so you would select Direction=Minimize. • If you are measuring revenue, the higher the value, the best the revenue, so you would select Direction=Maximize.
Threshold	Displays the threshold values selected for the parent KPI. For details, see "Configuration Details Tab for a KPI" (on page 105). Enter in each of the boxes the values to be used as a threshold. The threshold is used to assign a status to the KPI. For details on statuses, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46). **Example:** As the measurement unit of the Employee Attrition rate is a percentage, the limits of the threshold are 0 and 100. You can decide that a good attrition rate for your company or group is between 0% to 5% (green), a warning rate is between 5% and 10% (yellow), and a bad rate is between 10% and 100% (red).
Include marginal status (yellow)	Displays whether you selected this option or not when you configured the parent KPI. For details, see " Configuration Details Tab for a KPI" (on page 105). Select when the status of the KPI can be **Good**, **Warning**, or **Error**. Clear when the status of the KPI is either **Good**, or **Error**. **Note:** When you select **Direction=Centralize** and the **Include marginal status (yellow)** option, the thresholds include two warning areas as follows: **Note:** • The Threshold fields are validated when you enter values. • You must assign the values in increasing order from left to right.

Overrides

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Add a breakdown override	Click to open the Add a Breakdown Override dialog box. For details, see "Add or Edit a Breakdown Override Dialog Box" (on page 150).
Name	The name of the override you just created. Its format is: <KPI_name>: <result_kpi_to_override> ▼ **Overrides** Add a Breakdown Override Name MTTR(1): 0.0, OK ✏ ✖
✏	**Edit.** Click to edit the selected override. For details, see "Add or Edit a Breakdown Override Dialog Box" (on page 150).
✖	**Remove.** Click to delete the selected override.

Manage Overrides

This section includes the following topics:

Learn about Overrides

When you configure a Breakdown KPI, its configuration (for example, formula, or period) is the same as the parent KPI's configuration. For details on Breakdown KPIs, see "Learn About Breakdown KPIs" (on page 141).

You may want to have a different threshold or owner for specific "branches" of the Breakdown KPIs. In addition, you may want to change the thresholds of some of the Breakdown KPIs.

Example

For example if you define a breakdown by Incident Status for the MTTR KPI, the Dashboard displays information about:

- MTTR
  - MTTR New

  - MTTR Open

- MTTR Fixed

- MTTR Closed

Where **Open**, **New**, **Closed**, and **Fixed** are the values of the incident status.

If you create a breakdown of breakdown by Priority for the MTTR by Incident Status Breakdown KPI, the Dashboard displays information about:

- MTTR

- MTTR New
  - MTTR New High

  - MTTR New Medium

  - MTTR New Low

- MTTR Open
  - MTTR Open High

  - MTTR Open Medium

  - MTTR Open Low

- MTTR Fixed
  - MTTR Fixed High

  - MTTR Fixed Medium

  - MTTR Fixed Low

- MTTR Closed
  - MTTR Closed High

  - MTTR Closed Medium

  - MTTR Closed Low

Where **High**, **Medium**, and **Low** are the values of the priority.

As you can specify a different threshold or owner to Breakdown KPIs using overrides, you might want to assign MTTR New to a specific owner, and MTTR Fixed High to another owner with different thresholds to better monitor MTTR.

How to Manage Overrides

You can override a KPI's owners and thresholds for specific dimension's values of the KPI's Breakdown KPIs.

The override enables the end-user to add, in the Explorer, annotations for the owner of the Breakdown KPI instead of for the owner of the parent KPI. The parent KPI and the Breakdown KPI have the same thresholds but you can use the override so that to configure different thresholds to better fine-tune the monitoring of the objectives of an enterprise department and its different sections.

For concept details about Breakdowns, see .

To create an override:

1. Select in the Active KPI pane, the relevant Breakdown KPI.

2. In the Configuration details pane for that KPI, click **Add a Breakdown Override** link in the Override area.

3. In the Add Breakdown Override dialog box that opens, select the relevant **Result KPI to Override**, enter the relevant thresholds and select the owner. For details about the user interface, see "Add or Edit a Breakdown Override Dialog Box" (on page 150)

4. Click **OK**. The dialog box closes and the new override is displayed in the Override area of the Configuration details pane of the Breakdown KPI.

5. To save the change, click **Save** in the Configuration details pane.

Add or Edit a Breakdown Override Dialog Box

This page displays the override details of the selected Breakdown KPI. For concept details about overrides, see "Learn about Overrides" (on page 147).

To access	In the Configuration details tab of a Breakdown KPI click the **Add a Breakdown Override** link in the Overrides area.
	In the Overrides area of the Configuration details tab of a Breakdown KPI, click the **Edit** button.
Important information	Overrides work only for the dimension's value you select in the **KPI result to override** field.
	Override configurations are not propagated to:
	• The parent KPI or parent Breakdown KPI.
	• Other dimension's values for the same Breakdown KPI.
	• The child Breakdown KPIs.
Relevant tasks	"How to Manage Overrides" (on page 148)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Root KPI	Displays the name of the parent KPI.
KPI result to Override	The field lists the values of the dimension you selected for the Breakdown KPI. You can assign a different threshold, and a different owner for each one of the dimension's values.
Adjust threshold	Slide the arrows to select the relevant thresholds in the boxes attached to the

UI Element	Description
and owner details	arrows. The threshold is used to assign a status to the Breakdown KPI. **Note:** You can only modify the central values of the threshold. You cannot modify the lowest and highest ends. The lowest and highest ends as well as the threshold structure (minimize, maximize, centralize, or Include marginal status (yellow)) can only be configured at the level of the parent KPI. For details on statuses, see "Learn About KPI Formula and Filter, Threshold, Value, Trend, and Score" (on page 46).
Owner	Select the owner of the override.
OK	Click to save the changes. The override information is added to the **Overrides** area in the Configuration details tab of the Breakdown KPI. The changes are saved only after you click the **Save** button in that tab. After you save the change, the Breakdown KPI appears in the Overrides area in the Configuration details tab. You can then edit or delete these overrides from that list.
Cancel	Click to discard the changes you have made.

Provide Additional Information for a KPI or an Objective

This section includes the following topics:

Learn About a KPI or Objective Additional Information

You can add information to a KPI or to an Objective configuration. That information can be a link to:

- A relevant Dashboard page.

- An external URL.

- A BO reports that can provide more information about the KPI or the Objective; for example, its value over time.

- An Xcelcius report configured in the system.

To add more information to a KPI or an Objective, see "How to Provide Additional Information for a KPI or an Objective" (on page 152).

This additional information can help the Executive by providing external information related to a KPI or an Objective, or more details about the KPI or Objective's value, status, and score, in the right pane of the Explorer tab.

It is also available by clicking the **Additional info** icon in KPI or Objective tooltips. For details, see "KPI Tooltip" (on page 288) or "Objective Tooltip" (on page 291)

How to Provide Additional Information for a KPI or an Objective

You can provide additional information for active KPIs or Objectives. That information can be links to other Dashboard pages, external pages, BO reports, or Xcelsius reports.

To add additional information for the KPI or the Objective:

1. Select in the Active KPI pane, the relevant KPI or Objective.

2. In the Configuration details pane for that KPI or Objective, click **Add** link in the **Metadata** area.

3. In the **Add** dialog box that opens, select the information type. The fields in the lower section of the dialog box change depending on the information type. Enter the relevant information. For details about the user interface, see "Add/Edit Info Link Dialog Box" (on page 153).

4. Click **Add**. The dialog box closes and the new information is displayed in the **Metadata** area of the Configuration details pane of the KPI or Objective.

5. To save the change, click **Save**.
   The end-user can view and access the additional information by selecting the relevant active KPI or Objective in the Explorer tab. The additional information is listed in the rightmost pane of the Explorer tab. For details, see "Explorer Tab" (on page 314).

Add/Edit Info Link Dialog Box

This page provides the capability to specify additional information for an active KPI or Objective.

To access	In the Configuration details tab of an active KPI or Objective, click the **Add** link in the Additional Info area or click the **Edit** button.
Relevant tasks	"How to Provide Additional Information for a KPI or an Objective" (on page 152)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Information type	Select the type of information you want to provide: ● **External link.** When you want the user to access an external link from the KPI in the Dashboard. ● **BO report**. When you want the user to access the selected BO report from the KPI in the Dashboard. ● **Dashboard page.** When you want the user to open a specific page in the Dashboard. ● **Xcelsius report**. When you want the user to access the Xcelsius report from the KPI or Objective in the Dashboard.
Link name	**Note:** This field appears when you select **External link** in the **Information type** list. Enter the name of the link as you want it to appear in the **Additional Info** table in the **Metadata** area in the **Configuration details** tab.
URL	**Note:** This field appears when you select **External link** in the **Information type** list. Enter the URL of the external page you want the user to open.
Report name	**Note:** This field appears when you select **BO report** or **Xcelsius report** in the **Information type** list.

UI Element	Description
	Select the relevant report from the list of all the reports the user has permission to see.
Dashboard page	**Note:** This field appears when you select **Dashboard page** in the **Information type** list. Select the relevant Dashboard page from the list of all the pages that are currently configured in the Dashboard that the user has permission to see.
Add/Cancel	Click **Add**. The dialog box closes and the new information is displayed in the **Metadata** area of the Configuration details pane of the KPI. You can then save the changes by clicking **Save**.

Create Cascading Scorecards

This section includes the following topics:

Learn About Cascading Scorecards

Cascading is the ability of the Scorecard to track performance measurement in a top-down approach based on Scorecard objective ownership. This allows executives to measure their direct reports's performance by cascading from their Scorecard to the Scorecard of their direct report Scorecard objectives.

Geographical Distribution.

In large organizations, the role of the CIO is often extended across divisions or branches of the company with some centralized IT functions and some functions distributed among the departments.

Functional Distribution of IT.

A company with many large divisions may have a single "Office of the CIO" at the corporate level coupled with "Divisional CIOs" having dual reporting responsibilities to the Business Unit GM and the Corporate CIO.

Organizational Distribution of IT.

The CIO can measure his direct reports (Head of infrastructure and operations).

Decentralized Distribution of IT.

A common model in US Financial Service and Media is decentralized IT function with Infrastructure/Operations shared services, sometimes with no Enterprise-level CIO.

For task details, see "How to Create Cascading Scorecards" (on page 157).

For user interface details, see "Manage Cascading Scorecards Dialog Box" (on page 159) or "Configuration Details Tab for a Scorecard" (on page 89).

How to Create Cascading Scorecards

This task describes how to enable an executive to check (drilldown to) the Scorecard of a subordinate in the company's hierarchy.

For concept details, see "Learn About Cascading Scorecards" (on page 154).

This section includes the following topics:

- "Configure the Cascading Scorecards for a Scorecard" (on page 157)

- "Remove a Cascading Scorecard" (on page 157)

Configure the Cascading Scorecards for a Scorecard

To configure the Cascading Scorecards of a specific Scorecard, you must have more than one activated Scorecards in the Active KPIs pane.

1. To provide the executive with the capability of drilling down to a subordinate's Scorecard, both Scorecards have to be defined in the Studio and have to be active Scorecards.

2. In the Active KPIs pane, select the parent Scorecard from which the executive can drilldown.

3. In the corresponding **Configuration Details** pane, click the **Manage Cascading Scorecards** link.

4. In the **Manage Cascading Scorecards** dialog box that opens, move the relevant Scorecards from the **Available Scorecards** to the **Assigned Scorecards** areas and click **OK**.

5. The **Manage Cascading Scorecards** dialog box closes.

6. The Cascading Scorecards immediately appears in the Cascading Scorecards list in the Configuration Details tab. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**. If the Scorecard component is already part of the page, the user must refresh the page to see the Cascading Scorecard.

Remove a Cascading Scorecard

To remove a Cascading Scorecard so it is not assigned to the parent Scorecard:

1. In the Active KPIs pane, select the parent Scorecard.

2. In the corresponding **Configuration Details** pane, in the **Manage Cascading Scorecards** area, click the **Remove** button of the relevant Cascading Scorecard.
   The Cascading Scorecard is immediately removed from the list in the **Manage Cascading Scorecards** area.

3. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**.

> **Note:** You can also click the **Manage Cascading Scorecards** link, and in the **Manage Cascading Scorecards** dialog box that opens, move the relevant Scorecards from the **Assigned Scorecards** to the **Available Scorecards** areas and click **OK**. The **Manage Cascading Scorecards** dialog box closes. The cascading Scorecard is immediately removed from the list in the **Manage Cascading Scorecards** area. The **Save** and

Discard buttons are enabled. To save the changes click **Save**.

Manage Cascading Scorecards Dialog Box

This dialog box enables you to assign Cascading Scorecards to the selected Scorecard.

To access	In the Configuration details tab for a Scorecard, click the **Manage Cascading Scorecards** link.
Relevant tasks	"How to Create Cascading Scorecards" (on page 157)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Available Scorecards	Lists the Scorecards available to be assigned as Cascading Scorecards of the parent Scorecard.
Assigned Scorecards	Lists the Scorecards that you have selected to become the Cascading Scorecards of the parent Scorecard.
	Select the relevant Scorecard and move it to the relevant field using the buttons.
OK	Click to assign the selected Scorecards. The list of Scorecards in the Cascading Scorecards area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must click **Save** in the Configuration details tab.

Add a Business Context to the Studio

This section includes the following topics:

Learn About Business Contexts

A SAP BusinessObjects universe is a business representation of an organization's data that helps end-users access data using common business terms. A universe is the result of a semantic layer of metadata that creates a business oriented view of the data. A universe contains a schema of the tables that make up the dimension and measurement objects. A universe is an interface between the data warehouse and the analytics that display the data.

Universes are made up of objects and classes that are mapped to the source data and are accessed through queries and reports. They correspond to the business contexts used in HP IT Executive Scorecard.

Each universe includes classes (entities), objects with a dimension attribute, and relationships between the entities. The entity's values are used in the calculation of values and statuses of the Key Performance Indicators (KPIs) that represent them. The KPIs are the building blocks used by the HP IT Executive Scorecard engine and the Studio.

If you want to change the formula of a KPI , you must be aware of the relationships in the context (universe) of the KPI . For details, see "Learn About the SAP BusinessObjects Enterprise for IT Executive Scorecard Universe" (on page 24) and "Reference: KPIs".

The contexts, entities, and dimensions that are displayed and used in the Studio are part of the universes that are located in the **XS_Studio** library.

How to Add a Business Context to the Studio

A KPI business context or universe represents a global business facet related to the aspect of business the KPI represents.

> For example, the % of Assets in Maintenance KPI represents one aspect of the AssetManagement universe.

You can add a business context to the Studio and the XS engine and attach KPIs to the new business context in the Studio.

To add a universe (context) to Executive Studio

If you do not have Data Warehouse and SAP BusinessObjects Enterprise for IT Executive Scorecard installed, you can create new business contexts, using "Create and Manage Business Contexts Using Easy XS".

Reference: Universe Creation Guidelines

This section explains how you can create Universes that can be used by the HP IT Executive Scorecard Studio and the XS Engine.

Guidelines

1. Folders represent the name of the entity that is presented.

2. Classes in the folder represent the attributes of that entity.

3. Classes should be of type Date, String, or Numeric.

4. Entities (represented by folders) in the same universe must have a relationship between them.

5. Hierarchical relationships should be flattened to attributes (Level1, Level2, …). These relationships can be defined in a joined table.

Limitations

1. No current support for folders within folders or other hierarchies.

2. Ensure that there aren't multiple joins between entities represented in the Universe (This is a Universe limitation). Use aliases to copy.

3. Folder names should be unique.

4. Count, in a formula, can only be performed on Numeric and String fields.

5. Conditions on objects not supported.

6. Details on objects not supported.

7. Do not put mappings in the universe – where fields are translated from the value in the database to the value that the universe returns.

Field Types

-   **Dimensions**
    -   Fields that can be broken down per KPIs should be marked as Dimensions – see the top mark in the figure below.

    -   If the field can only have a limited set of values, then turn on the List of Values field below – see the second mark in the figure below. The studio will only show the first 100 values.

    -   Warning - this should only be turned on for fields that have a small set of values – all the

values will be loaded into memory in the studio.

- **Measures**
  - Fields that are only used as measures in KPI formulas should be marked as Measures. Make sure to configure as in figure below.

Prepare the Dashboard Display

This section includes the following topics:

Learn about the Dashboard

Dashboard administrators can create role-based workspaces for different types of senior management users.

The Dashboard administrator sets up pages that include components that are of interest to specific users or groups of users. For each page, the administrator defines the layout of components on the page, and the interaction of the page components with one another.

> **Note:** When configuring the layout of a page, you can repeatedly split the layout up to 4 times (to produce up to 16 boxes).

The Dashboard workspace includes the following:

Pages

Pages are collections of components displayed together, and interacting with one another. You can open pages from the Page Gallery, which contains out-of-the-box pages and custom pages grouped by categories. For details, see "View and Analyze Results User Interface" (on page 287).

You can also easily create new pages using the available components and external components. For details, see "Add a Page to the Dashboard" (on page 169).

> **Note:** The administrator configures the **Max number of open pages** and the **Maximum number of active pages**, so if the user opens 5 pages and the maximum number of open pages is set at 3, Dashboard deactivates the 2 least viewed pages to save on browser memory. The pages are reactivated as soon as they are selected by the viewer. The default is unlimited and the administrator configures these settings in **Admin > Foundation Settings > Pages**. For details, "How to Modify the Maximum Number of Pages" (on page 334).

Layout

The layout refers to how components are arranged on a page; components can be arranged horizontally, vertically, and in tabs. For details, see "How to Configure a Page Layout" (on page 172) or "How to Configure Page Layout – Use-Case Scenario" (on page 173).

> **Note:** When configuring the layout of a page, you can repeatedly split the layout up to 4 times (to produce up to 16 boxes).

Components

These are areas on a page that display information relevant to Dashboard users' business tasks. The Component Gallery contains application components that can be used within the Dashboard, grouped by their source applications. For details, see "Add Components to a Page User Interface" (on page 185). You can add components to a page from the Component Gallery. You can also add external URL-based components, which can interact with other components on a page. For details, see "How to Create an External Component" (on page 268).

> **Note:** You can add to a page, as many components as you want. The weight of the component may impact the browser performance.

Wiring

Within a page, components can pass information to one another, so that one component can react to a change in another.

> For example, you can set up a page so that if you select a KPI in one component, the other components on the page focus on that KPI as well. Default pages have predefined wiring.

You can define wiring for non-out-of-the-box pages. For details, see "How to Set Up Wiring Between Components" (on page 275).

Personalization

You can personalize a page by adding a picture of the page owner. For details, see "Personalize the Dashboard" (on page 279).

How to Prepare the Dashboard Display

You can prepare and customize the Dashboard display by:

- Using out-of-the-box pages. For details, see "View and Analyze Results User Interface" (on page 287).

- Adding pages. For details, see "How to Add a Page to the Dashboard" (on page 170).

- Customizing pages by adding or removing out-of-the-box components. For details, see "Add Components to a Page User Interface" (on page 185).

- Creating components and adding them to pages. For details, see "How to Add Components to a Dashboard Page" (on page 184).

- Setting up wiring between components. For details, see "How to Set Up Wiring Between Components" (on page 275).

- Create new components. For details, see "How to Create an External Component" (on page 268).

Manage Pages

Dashboard provides out-of-the-box pages and components. You can customize a Dashboard display by customizing these pages and components. You can also create your own pages and components and combine them to create a customized Dashboard.

This section includes the following topics:

How to Open a Page

Dashboard is provided with default pages. For details, see "View and Analyze Results User Interface" (on page 287). The default pages are located in the Page Gallery, together with any pages you have created and saved.

To open a page, you can:

- Click the relevant tab.

- Click ![icon] in the Dashboard toolbar, and in the Page Gallery that opens, right-click the page and

  select ![icon] **Open page** option. You can also double-click the relevant page or click the page

  thumbnail and then the **Open page** ![icon] button in the Page Gallery toolbar.
  For details on how to use the Page Gallery, see "Page Gallery Dialog Box" (on page 168).

How to Close a Page or Delete a Page

To close a page, click the close ■ button in the page tab. The page is closed in your workspace, but it is not removed from the Page Gallery.

To delete a page from the page gallery, click the **Page Gallery** ![icon] button, select the page, and delete it.

For user interface details, see "Page Gallery Dialog Box" (on page 168).

How to Modify Page Categories

Dashboard contains default categories within the Page Gallery to help you organize pages.

This section describes how to work with categories within the Page Gallery y to help you organize pages.

You can add categories, edit or delete user-defined categories, and add or remove pages from categories.

For user interface details regarding pages, see "Page Gallery Dialog Box" (on page 168).

> **Note:** Categories are not mutually exclusive; you can assign a page to more than one category.

The following tasks are optional, and can be performed in any order:

How to Create a New Category

Dashboard is provided with categories to which pages are assigned.

To add a new category:

1. Click the Page Gallery button on the Page Management toolbar, then click the **New Category** button (on the left section of the dialog box).

2. In the New Category dialog box, enter the name of the new category.

3. Click **OK**.

You can then assign existing pages to the category, or add new external components to the category.

How to Rename a User-Defined Page Category

To rename a user-defined page category:

1. Select the category and click the **Edit Category Name** button.

2. In the Edit Category dialog box, change the name of the category.

3. Click **OK**.

Note that default categories (marked with a icon) cannot be renamed.

How to Delete a User-Defined Page Category

To delete a user-defined page category, select the category and click the **Delete Category** button.

Note that default categories (marked with a icon) cannot be deleted.

How to Assign a Page to a Category

To assign a page to a category, right-click the page and select the **Categorize** (page or component) option. In the Categorize Page dialog box that opens, select one or more categories to which you want to assign the page or component, and click **OK**.

How to Modify the Category Assignments of a Page

To change the category assignments of a page, right-click it and select the **Categorize** (page or component) option. In the Categorize Page dialog box that opens, modify the selection of categories, and click **OK**.

Page Gallery Dialog Box

This dialog box enables you to select a page and open it in the Dashboard workspace, and to manage the Page Gallery. Within the Page Gallery, pages are assigned to categories. You can add, edit, or delete page categories; assign pages to categories; and open, edit, or delete pages.

To access	In Dashboard, click the Page Gallery ▦ button.
Important information	To open a page in the Dashboard workspace, double-click a page within the Page Gallery.
Relevant tasks	"How to Prepare the Dashboard Display" (on page 164)

Categories (left side)

User interface elements are described below:

UI Element	Description
✳	**New Category.** Click to create a new category; you can then assign pages to this category. For details see "How to Modify the Category Assignments of a Page" (on page 167).
✎	**Edit Category Name.** Select a user-defined category and click to rename (default categories cannot be renamed).

🗑	**Delete Category.** Select a user-defined category and click to delete (default categories cannot be deleted).
Categories	This contains a list of categories to which pages are assigned. A category can have the following indications after its name: • A number following the category name shows how many pages are in the category. • 🔒 indicates that the category is a default category, and cannot be renamed or deleted. • ▣ indicates that this category groups all the pages that are not assigned to a category. You can use the toolbar to manage a category, or select a category to display its pages on the right side of the dialog box. Note that categories are not mutually exclusive; you can assign a page to more than one category.

Pages (right side)

User interface elements are described below:

UI Element	Description
📋	**Open Page**. Select a page and click to open it in the Dashboard workspace.
🗗	**Categorize Page**. Select a page and click to assign it to a category.
🗐	**Clone Page.** Select a page and click to create a copy of the page. You can then make changes to the page and save it with a new name. A dialog box enables you to name the new page, give the page a description, and select a category for the page. The description appears as a tooltip for the page within the Page Gallery.
🗑	**Delete Page.** Select a page and click to delete it from the gallery.
Pages	This shows the default pages available for display in Dashboard, as well as custom pages that you have saved. You can select a page and use the toolbar to edit page definitions, or double-click a page to open it in the Dashboard workspace.
Search box	Enter a text string to search for a specific page.

Add a Page to the Dashboard

This section includes the following topics:

How to Add a Page to the Dashboard

Dashboard is provided with default pages. For details, see "View and Analyze Results User Interface" (on page 287). The default pages are located in the Page Gallery, together with any pages you have created and saved.

You can also add a new page to the Dashboard.

To add a page, you can:

1. Click the **New Page** button in the Dashboard toolbar.

2. In the New Page tab that opens, you can format the page. For details, see "How to Configure a Page Layout" (on page 172).

3. To save the page, click the **Save or Save As** button.

4. In the Save to Page Gallery dialog box that opens, enter the name, description, and categories of the page. For details, see "Save to Page Gallery Dialog Box" (on page 171).
   The new page is now listed in the Page Gallery.

   The new page also appears in the Dashboard as a new tab.

5. To display the page, in Dashboard, click the **Page Gallery** button in the Dashboard toolbar. For details, see "Page Gallery Dialog Box" (on page 168).

Save to Page Gallery Dialog Box

This dialog box enables you to save a page to the Page Gallery.

To access	In Dashboard, click the **Save or Save As** button.
Relevant tasks	"How to Prepare the Dashboard Display" (on page 164)

User interface elements are described below:

UI Element	Description
Name	Enter the name of the page as you want it to appear in the tab and in the Page Gallery.
Description	Enter the description of the page.

<Categories>

Select the categories where you want the page to appear. You can select more than one category. You can also create new categories.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
✳	**New category.** Click to create a new category. The New Category dialog box opens where you can enter the name of a new category and click **OK** to save it.

UI Element	Description
	Edit Category Name. Select the relevant category, and click the button to edit the category. The Edit Category Name dialog box opens where you can change the name of the category and click **OK** to save the change.
	Delete Category. Select the relevant category, and click the button to delete it.
<List of categories>	The area lists the available categories. **Note:** • When you select/clear **Categories** all categories are selected/unselected. • indicates that you cannot edit the corresponding category.

Configure a Page Layout

This section includes the following topics:

How to Configure a Page Layout

In the Dashboard, in the relevant page tab, you can configure how the components are displayed.

You can configure the page with:

• A horizontal layout (the components are displayed side by side)

• A vertical layout (the components are displayed one above the other).

• A combination of horizontal and vertical layout.

• Tabs (the components are displayed in tabs).

It is recommended that you plan in advance which components you want to place on your page and how they should be arranged, and then configure your page layout accordingly.

For user interface details, see "Layout Tools" in "Dashboard Workspace" (on page 176)..

For an example of a layout definition, see "How to Configure Page Layout – Use-Case Scenario" (on page 173).

How to Configure Page Layout – Use-Case Scenario

The following section provides an example of how an administrator configures the layout of components on a page.

It is recommended that you plan in advance which components you want to place on your page and how they should be arranged, and then configure your page layout accordingly.

Background

Adam, an administrator at ACME corporation, wants to set up a page with two components in tabs on the left side of the page, and a vertical area (with components arranged one above the other) on the right side of the page.

Open a page

Adam opens a new page, which has a single vertical layout by default:

Switch the page layout to horizontal

From the layout tools in the upper left area, he clicks **Switch to Horizontal**.

The layout is now oriented horizontally:

Split the page

Adam then clicks **Split** to divide the layout into a left and right pane:

Create a tab layout in the left pane

Within the layout on the left side, he clicks **Switch to tabs** to create a tabbed area in the left

pane:

Result

Within the layout, Adam can now add components to the two areas; the components added to the left side of the screen are displayed in tabs, and the components added to the right side are displayed vertically:

Dashboard Workspace

The Dashboard workspace enables you to view default pages, and to create new pages containing components. Each page is displayed as a tab within the workspace.

To access	Dashboard is displayed when you log in HP IT Executive Scorecard. You can also access the display by closing the other tabs.
Important information	For a list of default pages, see "View and Analyze Results User Interface" (on page 287).
	For a list of default components, see "Add Components to a Page User Interface" (on page 185).
	The Page Management toolbar on the upper right side of the workspace, enables you to create pages, add components to pages, and define how components interact between one another. For details, see "Page Management Toolbar" (on page 177).
	When a layout is empty, the layout tools on the upper left area enable you to define the layout. Icons in the center of the layout indicate the type of layout: horizontal, vertical, or tabbed. For details, see "Layout Tools" (on page 178).
	The component toolbar on the upper right of each component enables you to administer the component. For details, see "Component Toolbar" (on page 179)
Relevant tasks	"How to Configure a Page Layout" (on page 172)

Page Management Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Select Page	Select a page from this dropdown list to open the page in your workspace. The list contains the pages that are defined in the Page Gallery.
	If you start typing a page name in this box, the list is filtered.
	Refresh. Click to refresh the page.
	Save or **Save As**. Click to save the current page to the Page Gallery. A dialog box enables you to name the page, give the page a description, and select a category for the page. The description appears as a tooltip for the page, within the Page Gallery.
	Page Gallery. Click to open the Page Gallery. The Page Gallery contains default pages, as well as pages you have saved. You can then edit page definitions, or open pages. For user interface details, see "Page Gallery Dialog Box" (on page 168).
	New Page. Click to create a new page. After opening a new page you can configure its layout, add components to the page, and define wiring between the components. For task details, see "Add a Page to the Dashboard" (on page 169).
	Edit Page Layout. Click to modify the layout of an existing page. The current layout of the page is displayed. You can use the Layout tools in the top left corner of each layout to modify the layout areas. For details, see "Layout Tools" (on page 178).
	Exit Editing. When you are done, click this button to stop editing.
	Components. Click to open the Component Gallery. It contains default components, as well as components you have added. You can then edit component definitions, or add components to a page. For user interface details, see "Component Gallery Dialog Box" (on page 182).
	Page Wiring. Click to define the wiring between components; this determines how components interact with one another. For user interface details, see "Wiring Dialog Box" (on page 278).
	Start/Stop Slideshow. Click to start a slideshow of open pages. A dialog box enables you to define how often the pages are rotated.

Slideshow

Click OK to start the slideshow. To stop the slideshow, click the slideshow button again.

Rotate between pages every : 30 seconds

OK   Cancel

If Dashboard includes multiple pages, up to 5 of the most popular pages are immediately available for display when you switch to them. The other pages are least viewed pages, meaning that are silently deactivated in the background. When you select them, it might take a few seconds until they load and display their content.

If a slideshow is running, click this button to stop the slideshow.

Layout Tools

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Layout Tools:	
🗑	**Remove Layout.** Click to remove a layout from the page.
🖼	**Add Component.** Click to open the Component Gallery. You can then double-click a component to place it in the layout area. For user interface details, see "Component Gallery Dialog Box" (on page 182).
▭	**Split**. Click to divide a vertical layout into two layouts, one above the other. **Note:** When configuring the layout of a page, you can repeatedly split the layout up to 4 times (to produce up to 16 boxes).
▯▯	**Split**. Click to divide a horizontal layout into two layouts, side by side. **Note:** When configuring the layout of a page, you can repeatedly split the layout up to 4 times (to produce up to 16 boxes).
▤	**Switch to Vertical.** Click to change the layout from vertical or tabbed to horizontal. Components placed in this area will be added one above the other.

	Switch to Horizontal. Click to change the layout from horizontal or tabbed to vertical. Components placed in this area will be added side by side.
	Switch to Tabs. Click to change the layout from vertical or horizontal, to a tab layout. Components placed in this area will be added as tabs.
Layout Icons:	
	<Horizontal layout>. This icon in the center of a layout indicates that the layout is horizontal. Components placed in this area will be added side by side.
	<Vertical layout>. This icon in the center of a layout indicates that the layout is vertical. Components placed in this area will be added one above the other.
	<Tabbed layout>. This icon in the center of a layout indicates that the layout is horizontal. Components placed in this area will be added as tabs.

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Click to open one of the following: ● **Preferences**. Enables you to rename a component, and customize refresh rates. ● **Wiring**. Enables you to customize how this component interacts with the other components on the page. For details, see "Wiring Dialog Box" (on page 278). ● **Refresh**. Click to manually refresh the component. ● **Help**. Click to access help on the component. **Note:** : Depending on the component, some of these options may not be available.
	Click to define filtering for the component, when a component supports internal filtering.

	Click to display the component in a separate popup window. **Note:** : The popup window that opens supports wiring, and data refresh.
	Click to temporarily collapse a component (the button on the left is for horizontal components; the button on the right is for vertical components).
	Click to restore a collapsed component (the button on the left is for horizontal components; the button on the right is for vertical components). **Note:** : When you collapse a horizontal layout, it collapses into a narrow stripe. Click the stripe to restore the component.
	In a vertical or horizontal layout, click to close a component and remove it from the page. In a tabbed layout each tab has a button which closes the tab; the main close button removes the layout.

Add Components to a Page

This section includes the following topics:

How to Modify Component Categories

Dashboard contains default categories within the Components Gallery to help you organize components.

This section describes how to work with categories within the Components Gallery to help you organize components.

You can add categories, edit or delete user-defined categories, and add or remove components from categories.

For user interface details regarding components, see "Component Gallery Dialog Box" (on page 182).

> **Note:** Categories are not mutually exclusive; you can assign a component to more than one category.

The following tasks are optional, and can be performed in any order:

How to Create a New Category

Dashboard is provided with categories to which components are assigned. To add a new category:

1. Click the ComponentsGallery button on the Page Management toolbar, then click the **New Category** ![icon] button (on the left section of the dialog box).

2. In the New Category dialog box, enter the name of the new category.

3. Click **OK**.

You can then assign existing components to the category, or add new external components to the category.

How to Rename a User-Defined Category

To rename a user-defined category:

1. Select the category and click the **Edit Category Name** ![icon] button.

2. In the Edit Category dialog box, change the name of the category.

3. Click **OK**.

Note that default categories (marked with a ![icon] icon) cannot be renamed.

How to Delete a User-Defined Category

To delete a user-defined category, select the category and click the **Delete Category** ![icon] button.

Note that default categories (marked with a ![icon] icon) cannot be deleted.

How to Assign a Component to a Category

To assign a component to a category, select it and select the **Categorize** ![icon] button in the toolbar (right side). In the Categorize Component dialog box that opens, select one or more categories to which you want to assign the page or component, and click **OK**.

How to Modify Category Assignments of a Component

To change the category assignments of a component, select it and select the **Categorize** ![icon] button in the toolbar (right side). In the Categorize Component dialog box that opens, modify the selection of categories, and click **OK**.

Component Gallery Dialog Box

Use the dialog box to add components to a page in the Dashboard.

To access	In the Executive Dashboard, click the **Components** ⬚ button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Left Pane

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
✳	**New category.** Click to create a new category. The New Category dialog box opens where you can enter the name of a new category and click **OK** to save it.
✎	**Edit Category Name.** Select the relevant category, and click the button to edit the category. The Edit Category Name dialog box opens where you can change the name of the category and click **OK** to save the change.

UI Element	Description
	Edit Category Name ✕ *Name : Internal OK Cancel
🗑	**Delete Category.** Select the relevant category, and click the button to delete it.
<List of categories>	The pane lists the categories. **Note:** • When you select/clear **Categories** all categories are selected/unselected. • ⬚ indicates that you cannot edit the corresponding category. • ⬚ indicates that this category groups all the components that are not assigned to a category.

Right Pane

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
✳	**Add External Component.** Click to add an external component to the gallery of components. The New Component dialog box opens. For details, see "New/Edit Component Dialog Box" (on page 270).
✏	**Edit Component Properties.** Select the relevant component, and click the button to edit the component. The Edit Component dialog box opens where you can change the selected component configuration. For details, see "New/Edit Component Dialog Box" (on page 270).
🗑	**Delete Component.** Select the relevant component, and click the button to delete it.
▣	**Categorize Component.** Select the relevant component, and click the button to specify the component's category. The Categorize Component dialog box opens where you can select one or more categories.

UI Element	Description
Search	Enter a string to display all the components whose name includes the string.
Component	The dialog box displays snapshots of the components that are available. An external component displays a question mark in the Component Gallery.

How to Add Components to a Dashboard Page

Dashboard is provided with default components, as described in "Add Components to a Page User Interface" (on page 185). The default components are located in the Component Gallery, together with any external components you have added.

To add a component to a page:

1. In the Executive Dashboard, select the relevant page (click the **Page Gallery** button if the page you want does not already appear in the Dashboard).

2. Click the **Components** button.

3. In the Component Gallery page that opens, double-click a component to place it in the layout area, or select a component and drag it to an area on the page, and close the Component Gallery page. For user interface details, see "Component Gallery Dialog Box" (on page 182).

   - If the target area is hidden by the Component Gallery dialog box, click the Component Gallery dialog box title bar and drag it to another location on your screen.

   - If you are dragging a new component to a target area that already has a component defined, drag the new component to the title bar of the target area, and not to the part of the component that is colored white.

4. You can add the following components:
   - KPI List component. For details, see "KPI List Component" (on page 208).

   - Historical View component. For details, see "Historical View Component" (on page 191).

   - KPI Rolodex component. For details, see "KPI Rolodex Component " (on page 214).

   - KPI View component. For details, see "KPI View Component" (on page 200).

   - Scorecard component. For details, see "Scorecard Component" (on page 219).

   - Web Intelligence Report Viewer component. For details, see "Web Intelligence Report Viewer Component" (on page 223).

   - Xcelsius Report component. For details, see "Xcelsius Report Viewer Component" (on page 234).

   - Web Intelligence Static Report Component Viewer component. For details, see "Web Intelligence Report Component Viewer (Display)" (on page 231).

5. In the component, click the **Filter** button:
   - KPI List component filter. For details, see "KPI List - Configure Component Dialog Box" (on page 204).

   - Historical View component filter. For details, see "Historical View Component Filter Dialog Box" (on page 187).

   - KPI Rolodex component. For details, see "KPI Rolodex - Configure Component Dialog Box" (on page 210).

   - KPI View component. For details, see "KPI View - Configure Component Dialog Box" (on page 195).

   - Scorecard component. For details, see "Scorecard - Configure Component Dialog Box" (on page 217)"Scorecard Component" (on page 219).

   - Web Intelligence Full Report Viewer component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222)"Web Intelligence Report Viewer Component" (on page 223)

   - Xcelsius Report component. For details, see "Xcelsius Report Viewer - Configure Component Dialog Box" (on page 233).

   - Web Intelligence Static Reports Viewer component. For details, see "Web Intelligence Static Report Component Viewer - Configure Component Dialog Box" (on page 229).

6. In the component Filter dialog box that opens, select the information you want to display and click **OK**.

7. The component displays the required information.

Add Components to a Page User Interface

This section includes (in alphabetical order):

Historical View Component Filter Dialog Box

Use the dialog box to configure the Historical View Component component displayed in the Dashboard.

To access	In the Historical View component in the Dashboard, click the **Filter** ![filter icon] button.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Search>	Enter the relevant string to display, in the tree, only the KPIs whose name includes the string. In addition, the child KPIs of the filtered KPIs are also listed even when the child KPIs names do not include the string.
⌄	**Advanced search.** Opens additional fields to help you refine the component's filter:

UI Element	Description
	• **Status:** Select one of the **All**, **Good**, **Warning**, or **Error** values to display only the KPIs with the selected status, in the Active KPIs area.
	• **Type:** Select either **KPIs** or **Objectives** to display: ■ Only the KPIs with the selected status. ■ The Objectives and those of their KPIs that have the selected status.
Active KPIs	The left-side box lists all the active Scorecards, Perspectives, Objectives, and their KPIs, and Breakdown KPIs listed in the Active KPIs pane in the Studio. The KPIs are highlighted. To select/unselect the elements you want to display in the report, use the right and left arrows → ← to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
Selected KPIs	The right-side box lists all the selected KPIs that you want to display in the component. To select/unselect the elements you want to display in the report, use the right and left arrows → ← to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
<Status sort>	Select : • **Alphabetical sort** to sort the selected KPIs in ascending alphabetical order. You can then click ⬆⬇ to select the ascending or descending order. • **Status sort** to sort the selected KPIs according to their status (KPIs with the **Error** status, followed by KPIs with a **Warning** status, and then KPIs with a **Good** status).
⬆⬇	Click to display the KPIs in ascending or descending alphabetical order.
Display short format name for Breakdown KPI	**Note:** • You can select this option only when Breakdown KPIs have been defined and you have moved at least one of them to the Selected KPIs list. • The name of a Breakdown KPI can be long because it is composed of the name of the KPI followed by the names of the entity and dimension you selected when you created it. In the Dashboard components, this can cause problems because the complete name of the Breakdown KPI is not displayed.

UI Element	Description
	To display, in the component, only the name of the entity and dimension instead of the complete name of the Breakdown KPI:
	1. Move the relevant Breakdown KPI to the Selected KPIs area. The **Display short format name for Breakdown KPI** option is enabled.
	2. Select the **Display short format name for Breakdown KPI** option and click **OK**.
	The component display shows the short names of the Breakdown KPIs. A tooltip displays the full name of the Breakdown KPIs.
	For details on Breakdown KPIs, see "Configuration Details Tab for a Breakdown KPI" (on page 144).
Chart Type	The **line chart** option is the only available option.
Display Period	Select the time period to be displayed in the component:
	• **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still proceeding, the values from the previous period, depending on the time period selected in the **Overtime Period** list.
	• **<Longest_period>.** Each KPI has its own period (as configured in the Configuration details tab in the Studio). When you move KPIs from the Available KPIs to the Selected KPIs area in the filter, the longest period for all the selected KPIs is displayed as an additional option near the Display Period field.
	For example if one of the selected KPI's period is **Weekly** and another is **Yearly**, the Display Period field lists: **Current**, **Yearly**, and **Last Closed**.
	When you select the **<Longest_period>** another field opens on the right. It lists only the corresponding periods when KPI's values, statuses, and scores were calculated by the engine. For example, if you select **Quarterly**, and the engine did not calculate the value of any KPI with the **Quarterly** period during the first and second quarters of 2008, these periods are not listed in the second field of the Display Period field. This list is independent from the selected KPIs.
	• **Last Closed.** The values of only the KPIs whose calculation period has completed for the time period selected in the **Overtime Period** list.
Overtime Period	Select one of the following options:
	• **Half a year to date.** The report's display period starts 6 months prior to the current date.
	• **Year to date.** The report's display period starts 1 year prior to the current date.

UI Element	Description
	• **2 years to date.** The report's display period starts 2 years prior to the current date. • **3 years to date.** The report's display period starts 3 years prior to the current date. **Note:** ● The leftmost point on the X-axis (beginning of the report's time frame) corresponds to the first day of the Overtime Period from the last date of the period selected in the **Display Period** field. For example, if you select the 4th Quarter of 2010 in the **Display Period** field, and **2 years to date** in the **Overtime Period** field, the rightmost point in the X-axis is the end of the 4th Quarter of 2010 (December 31st, 2010), and the leftmost point is the last day of the 4th Quarter of 2008 (December 31st, 2008). ● Each point in the chart between the two end points represents the end of a Quarter between December 31st, 2008, and December 31st, 2010. ● The rightmost point on the X-axis (end of the report's time frame) corresponds to the last day of the period selected in the **Display Period** field. ● If you are displaying the Historical View component for one KPI only and that KPI has no data at the beginning of the selected time frame, the leftmost point on the X-axis corresponds to the first day the KPI has data. ● If the report includes more than one chart, the X-axis spans the whole selected time frame.

Historical View Component

The KPI Overtime component displays the over time value, trend, status of the KPIs you selected in the Historical View Component Filter.

To access	View the report in the relevant page in the Dashboard
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Component Menu. Opens a menu where you can select: **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). **Help**. Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the Component Filter dialog box for the relevant component.

UI Element	Description
	Open in a new window. Opens the component in a new window.
	Collapse component. Collapses the component. To expand the collapsed component, click the button on the collapsed component.
	Remove Component. Removes the component from the page.

Component Contents

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Legend>	The legend displays for each selected KPI: • The color used to represent the KPI in the graph. • The name of the KPI. Double-click the name to open the Explorer tab filtered for the selected element. • The value of the KPI with its unit. • The trend is calculated over the period currently displayed. • The status of the KPI during the period currently displayed: ▪ indicates that the status is **Good**. ▪ indicates that the status is **Warning**. ▪ indicates that the status is **Error**. ▪ indicates that the status was not calculated or that there was en error in the calculation.
	Indicates that this KPI value has an annotation. When you move the mouse over such a point, a tooltip displays the

UI Element	Description
	annotation information related to the point. For details, see "KPI Tooltip" (on page 288).
	The tooltip displays a maximum of three annotations. If there are more than 3 annotations, the first 2 are displayed followed by **Show More…**. Click **Show More...** open the Explorer tab in context, to view the whole list of annotations. For details, see "Explorer Tab" (on page 314).
◼	Indicates a regular "point" corresponding to a division of the time period selected for the report. Double-click the "point" to display the KPI's detailed information in the Explorer tab for the period of time defined by the "point". For details, see "Explorer Tab" (on page 314).
🟡	(yellow point) Indicates that there is no calculated data for the selected KPI for the selected period. This can be due to an incorrect formula (for example: division by zero), an arithmetic error, or other reasons. Double-click the problematic point to open the Explorer page and to display at the top of the page, a short description of the reason why there is no data for that point.
<Threshold>	Click the relevant KPI in the legend to bring the KPI chart into focus and to display the thresholds of the KPI.

UI Element	Description
<Y-axis>	The Y-axis displays the values of the KPI in the relevant unit.

If the report includes more than one KPI and:

- The KPIs all have the same unit, the graph has one Y-axis.

- The KPIs have two different units, the graph shows one Y-axis showing one unit on the left, and one Y-axis showing the values in the other unit on the right.

- The KPIs have more than three units, the report displays one graph per KPI.

 |
| **<X-axis>** | The X-axis displays the time frame selected for the report, split into equal segments, depending on the Display Period selected in the filter. For details, see "Historical View Component Filter Dialog Box" (on page 187). |

KPI View - Configure Component Dialog Box

Use the dialog box to configure the KPI View component displayed in the Dashboard.

To access	In the KPI View component in the Dashboard, click the **Filter** ▼ button.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
\<Search\>	Enter the relevant string to display, in the tree in the Active KPIs box, only the KPIs whose name includes the string. In addition, the child KPIs of the filtered KPIs are also listed even when the child KPIs names do not include the string.

⌄	**Advanced search.** Opens additional fields to help you refine the component's filter:
	
	• **Status:** Select one of the **All**, **Good**, **Warning**, or **Error** values to display only the KPIs with the selected status, in the Active KPIs area.
	
	• **Type:** Select:
	   ■ **KPIs.** To display Only the KPIs with the selected status.
	
	   ■ **Objectives.** The Objectives and those of their KPIs that have the selected status.

Active KPIs	The left-side box lists all the active Scorecards, Perspectives, Objectives, and their KPIs, and Breakdown KPIs listed in the Active KPIs pane in the Studio. The KPIs are highlighted. To select/unselect the elements you want to display in the report, use the right and left arrows [→] [←] to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
Selected KPIs	The right-side box lists all the selected KPIs that you want to display in the KPI Overtime report. To select/unselect the elements you want to display in the report, use the right and left arrows [→] [←] to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
\<Status sort\>	Select : • **Alphabetical sort** to sort the selected KPIs in ascending alphabetical order. You can then click [F↑ ↓] to select the ascending or descending order. • **Status sort** to sort the selected KPIs according to their status (KPIs with the **Error** status, followed by KPIs with a **Warning** status, and then KPIs with a **Good** status).
[F↑ ↓]	Click to display the KPIs in ascending or descending alphabetical order.

UI Element	Description
Display short format name for Breakdown KPI	**Note:** • You can select this option only when Breakdown KPIs have been defined and you have moved at least one of them to the Selected KPIs list. • The name of a Breakdown KPI can be long because it is composed of the name of the KPI followed by the names of the entity and dimension you selected when you created it. In the Dashboard components, this can cause problems because the complete name of the Breakdown KPI is not displayed. To display, in the component, only the name of the entity and dimension instead of the complete name of the Breakdown KPI: 1. Move the relevant Breakdown KPI to the Selected KPIs area. The **Display short format name for Breakdown KPI** option is enabled. 2. Select the **Display short format name for Breakdown KPI** option and click **OK**. The component display shows the short names of the Breakdown KPIs. A tooltip displays the full name of the Breakdown KPIs. For details on Breakdown KPIs, see "Configuration Details Tab for a Breakdown KPI" (on page 144).
Chart Type	Select one of the following options:

UI Element	Description

- **Bar.** The display is a bar, layed out horizontally, or vertically, depending on your selection in the **Layout** field.

  For example, when you select **Layout=Vertical** and **Chart Type=Bar**, the result is as follows:

- **Gauge.** The display is a set of gauges, layed out horizontally, or vertically, depending on your selection in the **Layout** field.

  For example, when you select **Layout=Horizontal** and **Chart Type=Gauge**, the result is as follows:

UI Element	Description
Layout	Select: ● **Vertical.** The layout of the results is vertical (KPI name above graph). ● **Horizontal.** The layout of the results is horizontal (KPI name on the left of the graph.
Display Period	Select the time period to be displayed in the component: ● **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still proceeding, the values from the previous period, depending on the time period selected in the **Overtime Period** list. ● **<Longest_period>.** Each KPI has its own period (as configured in the Configuration details tab in the Studio). When you move KPIs from the Available KPIs to the Selected KPIs area in the filter, the longest period for all the selected KPIs is displayed as an additional option near the Display Period field. For example if one of the selected KPI's period is **Weekly** and another is **Yearly**, the Display Period field lists: **Current**, **Yearly**, and **Last Closed**. When you select the **<Longest_period>** another field opens on the right. It lists only the periods when the engine performed calculations.. For example, if you select **Quarterly**, and the engine did not calculate the value of any KPI with the **Quarterly** period during the first and second quarters of 2008, these periods are not listed in the second field of the Display Period field. ● **Last Closed.** The values of only the KPIs whose calculation period has completed for the time period selected in the **Overtime Period** list.

KPI View Component

The KPI View component displays the list of selected KPIs and their value, trend, and status for the measurement period in bar or gauge format.

To access	In the Dashboard, access the component, or a page where the component is located.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Component Menu. Opens a menu where you can select: **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). **Help.** Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the Component Filter dialog box for the relevant component.
	Open in a new window. Opens the component in a new window.

UI Element	Description
	Collapse component. Collapses the component. To expand the collapsed component, click the button on the collapsed component.
	Remove Component. Removes the component from the page.

## Component Contents

Depending on the configuration you selected in the KPI View - Configure Component dialog box, the KPI View displays a bar or a gauge for each selected KPI.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
\<bars\>	The bar displays for each KPI: ● The title (above the bar for vertical layout or to the left of the bar for a horizontal layout) is the name of the KPI. Double-click the title to open the Explorer tab filtered for the selected KPI. ● 📄 (or 📄 when a new annotation has been added to the KPI) Move the cursor above the icon to display the KPI tooltip that provides detailed information about the KPI and access to the Explorer in the context of the KPI. For details, see "KPI Tooltip" (on page 288). ● The value (at the top of the colored bar for vertical layout or to the right of the bar for a horizontal layout) represent the highest threshold value. ● The value (at the bottom of the colored bar for vertical layout or to the left of the bar for a horizontal layout) represent the lowest threshold value. ● The colors of the small bars represent the thresholds defined for the KPI. ● The arrow indicates the value of the KPI with its unit. The color of the text corresponds to the KPI status. ● The text (at the bottom of the bar for vertical layout or under the KPI name on the left of the bar for a horizontal layout) indicates the display period of the KPI. ● The icon to the left of the display period indicates the trend ➖⬆️⬇️ calculated over the display period. ● The icon to the left of the display period indicates the status of the KPI during the display period: ■ ✅ indicates that the status is **Good**. ■ ⚠️ indicates that the status is **Warning**. ■ ❌ indicates that the status is **Error**. ■ ▨ indicates that the status was not calculated or that there was en error in the calculation.

UI Element	Description
\<Gauge\>	The bar displays for each KPI:

- The title (above the gauge for vertical layout or to the left of the gauge for a horizontal layout) is the name of the KPI. Double-click the title to open the Explorer tab filtered for the selected KPI.

- ▤ (or ▣ when a new annotation has been added to the KPI) Move the cursor above the icon to display the KPI tooltip that provides detailed information about the KPI and access to the Explorer in the context of the KPI. For details, see "KPI Tooltip" (on page 288).

- The value (to the right of the gauge) represent the highest threshold value.

- The value (to the left of the gauge) represent the lowest threshold value.

- The colors of the small bars represent the thresholds defined for the KPI.

- The arrow indicates the value.

- The value in the center of the gauge displays the value of the KPI with its unit. The color of the text corresponds to the KPI status.

- The text (at the bottom of the gauge for vertical layout or under the KPI name on the left of the gauge for a horizontal layout) indicates the display period of the KPI.

- The icon to the left of the display period indicates the trend ▬ ⇧ ⇩ calculated over the display period.

- The icon to the left of the display period indicates the status of the KPI during the display period:
  - ✅ indicates that the status is **Good**.
  - ⚠ indicates that the status is **Warning**.
  - ❌ indicates that the status is **Error**.

KPI List - Configure Component Dialog Box

Use the dialog box to configure the KPI List component displayed in the Dashboard.

To access	In the KPI List component in the Dashboard, click the **Filter** button.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Search>	Enter the relevant string to display, in the tree, only the KPIs whose name includes the string. In addition, the child KPIs of the filtered KPIs are also listed even when the child KPIs names do not include the string.
⌄	**Advanced search.** Opens additional fields to help you refine the component's filter: • **Status:** Select one of the **All**, **Good**, **Warning**, or **Error** values to display only the KPIs with the selected status, in the Active KPIs area. • **Type:** Select: ▪ **KPIs.** To display only the KPIs with the selected status. ▪ **Objectives.** To display only the Objectives and those of their KPIs that have the selected status.
Active KPIs	The left-side box lists all the active Scorecards, Perspectives, Objectives, and their KPIs, and Breakdown KPIs listed in the Active KPIs pane in the Studio. The KPIs are highlighted. To select/unselect the elements you want to display in the report, use the right and left arrows ⟶ ⟵ to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
Selected KPIs	The right-side box lists all the selected KPIs that you want to display in the component. To select/unselect the elements you want to display in the report, use the right and left arrows ⟶ ⟵ to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
<Status sort>	Select : • **Alphabetical sort** to sort the selected KPIs in ascending alphabetical order. You can then click ⬆⬇ to select the ascending or descending order. • **Status sort** to sort the selected KPIs according to their status (KPIs with the **Error** status, followed by KPIs with a **Warning** status, and then KPIs with a **Good** status).
⬆⬇	Click to display the KPIs in ascending or descending alphabetical order.

UI Element	Description
Display short format name for Breakdown KPI	**Note:** • You can select this option only when Breakdown KPIs have been defined and you have moved at least one of them to the Selected KPIs list. • The name of a Breakdown KPI can be long because it is composed of the name of the KPI followed by the names of the entity and dimension you selected when you created it. In the Dashboard components, this can cause problems because the complete name of the Breakdown KPI is not displayed. To display, in the component, only the name of the entity and dimension instead of the complete name of the Breakdown KPI: 1. Move the relevant Breakdown KPI to the Selected KPIs area. The **Display short format name for Breakdown KPI** option is enabled. 2. Select the **Display short format name for Breakdown KPI** option and click **OK**. The component display shows the short names of the Breakdown KPIs. A tooltip displays the full name of the Breakdown KPIs. For details on Breakdown KPIs, see "Configuration Details Tab for a Breakdown KPI" (on page 144).
Chart Type	One option is available • ⊞ **List.** The display is list of selected KPIs with their data, as follows:
Display Period	Select the time period to be displayed in the component:

UI Element	Description
	• **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still proceeding, the values from the previous period, depending on the time period selected in the **Overtime Period** list. • **<Longest_period>.** Each KPI has its own period (as configured in the Configuration details tab in the Studio). When you move KPIs from the Available KPIs to the Selected KPIs area in the filter, the longest period for all the selected KPIs is displayed as an additional option near the Display Period field. For example if one of the selected KPI's period is **Weekly** and another is **Yearly**, the Display Period field lists: **Current**, **Yearly**, and **Last Closed**. When you select the **<Longest_period>** another field opens on the right. It lists only the corresponding periods when the engine performed calculations. For example, if you select **Quarterly**, and the engine did not calculate the value of any KPI with the **Quarterly** period during the first and second quarters of 2008, these periods are not listed in the second field of the Display Period field. • **Last Closed.** The values of only the KPIs whose calculation period has completed for the time period selected in the **Overtime Period** list.

KPI List Component

The KPI List component displays the list of selected KPIs and their value, trend, and status for the measurement period.

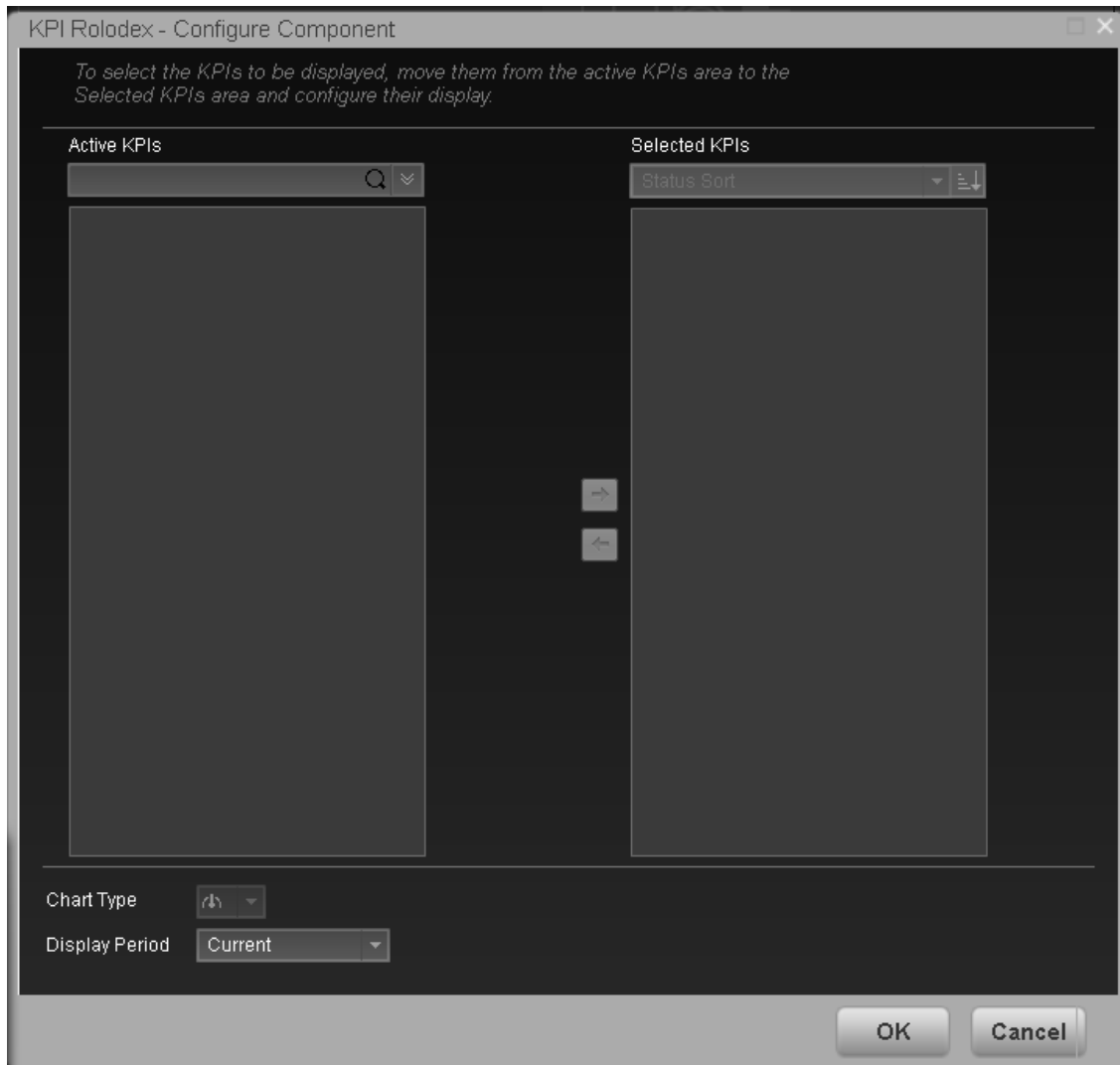| To access	In the Dashboard, access the KPI List component or a page where the component is located.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
🗒	**Component Menu.** Opens a menu where you can select: 🔧 **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. 🔄 **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). 🌐 **Help**. Opens the online documentation page relevant to the component you are currently configuring.
■	**Configure Component.** Opens the Component Filter dialog box for the relevant component.

UI Element	Description
⊡	**Open in a new window.** Opens the component in a new window.
⌃	**Collapse.** Collapses the component. To expand the collapsed component, click the **Expand** ⌄ button on the collapsed component.
✖	**Remove Component.** Removes the component from the page.

<Component Contents>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Component contents>	The following information is displayed for each KPI, from left to right: % of Assets in Maintenance ⊡ 50 ⊖ FY2011/03 (Mar) ❌ • The name of the KPI. Double-click the name to open the Explorer tab filtered for the selected element. • ▤ (or ▤★ when a new annotation has been added to the KPI) Move the cursor above the icon to display the KPI tooltip that provides detailed information about the KPI and access to the Explorer in the context of the KPI. For details, see "KPI Tooltip" (on page 288). • The value of the KPI. • ⊖⇧⇩ The trend icon indicates the trend of the KPI value calculated over the display period. • The current period or the last period depending on your selection in **Display Period** in the KPI List - Configure Component Dialog Box. For details, see "KPI List - Configure Component Dialog Box" (on page 204). • The status of the KPI during the display period. It can be: ▪ ✅ indicates that the status is **Good**. ▪ ⚠️ indicates that the status is **Warning**. ▪ ❌ indicates that the status is **Error**. ▪ ▨ indicates that the statusis **No data**, meaning that the status was not calculated or that there was en error in the calculation. **Note:** Move the mouse over the status icon to display the score.
<Tooltip>	Move the mouse over the name of a KPI in the list to display a tooltip that include detailed information about the KPI. For details, see "KPI Tooltip" (on page 288).

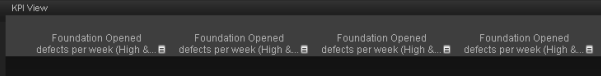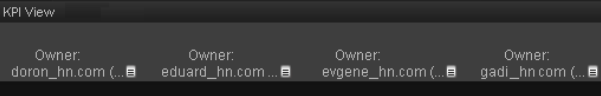## KPI Rolodex - Configure Component Dialog Box

Use the dialog box to configure the KPI Rolodex component displayed in the Dashboard.

To access	In the KPI Rolodex component in the Dashboard, click the **Filter** 🔽 button.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):
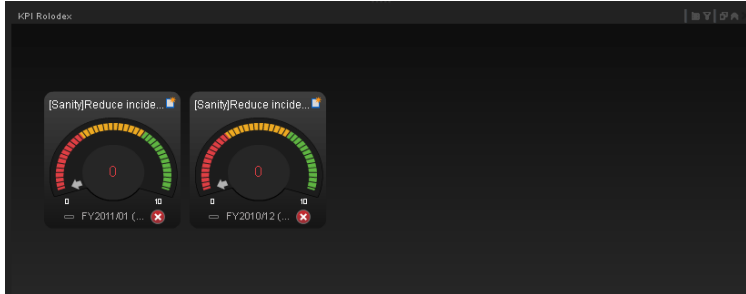
UI Element	Description
	Enter the relevant string to display, in the tree, only the KPIs whose name includes the string. In addition, the child KPIs of the filtered KPIs are also listed even when the child KPIs names do not include the string.
	Advanced search. Opens additional fields to help you refine the component's filter: • **Status:** Select one of the **All**, **Good**, **Warning**, or **Error** values to display only the KPIs with the selected status, in the Active KPIs area. • **Type:** Select either **KPIs** or **Objectives** to display: 　▪ Only the KPIs with the selected status. 　▪ The Objectives and those of their KPIs that have the selected status.
Active KPIs	The left-side box lists all the active Scorecards, Perspectives, Objectives, and their KPIs, and Breakdown KPIs listed in the Active KPIs pane in the Studio. The KPIs are highlighted. To select/unselect the elements you want to display in the report, use the right and left arrows to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
Selected KPIs	The right-side box lists all the selected KPIs that you want to display in the KPI Overtime report. To select/unselect the elements you want to display in the report, use the right and left arrows to move the elements from the Available KPIs to the Selected KPIs and back. You can also double-click the element to move it from one box to the other.
<Status sort>	Select : • **Alphabetical sort** to sort the selected KPIs in ascending alphabetical order. You can then click to select the ascending or descending order. • **Status sort** to sort the selected KPIs according to their status (KPIs with the **Error** status, followed by KPIs with a **Warning** status, and then KPIs with a **Good** status).
	Click to display the KPIs in ascending or descending alphabetical order.

UI Element	Description
Display short format name for Breakdown KPI	**Note:** • You can select this option only when Breakdown KPIs have been defined and you have moved at least one of them to the Selected KPIs list. • The name of a Breakdown KPI can be long because it is composed of the name of the KPI followed by the names of the entity and dimension you selected when you created it. In the Dashboard components, this can cause problems because the complete name of the Breakdown KPI is not displayed. To display, in the component, only the name of the entity and dimension instead of the complete name of the Breakdown KPI: 1. Move the relevant Breakdown KPI to the Selected KPIs area. The **Display short format name for Breakdown KPI** option is enabled. 2. Select the **Display short format name for Breakdown KPI** option and click **OK**. The component display shows the short names of the Breakdown KPIs. A tooltip displays the full name of the Breakdown KPIs. For details on Breakdown KPIs, see "Configuration Details Tab for a Breakdown KPI" (on page 144).
Chart Type	**Gauge.** The display is a set of gauges, layed out horizontally.
Display Period	Select the time period to be displayed in the component: • **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still proceeding, the values from the previous period, depending on the time period selected in the **Overtime Period** list. • **<Longest_period>.** Each KPI has its own period (as configured in the Configuration details tab in the Studio). When you move KPIs from the Available KPIs to the Selected KPIs area in the filter, the longest period for all the selected KPIs is displayed as an additional option near the Display Period field. For example if one of the selected KPI's period is **Weekly** and another is **Yearly**, the Display Period field lists: **Current**, **Yearly**, and **Last Closed**.

UI Element	Description
	When you select the **<Longest_period>** another field opens on the right. It lists only the corresponding periods when the engine performed calculations.
	For example, if you select **Quarterly**, and the engine did not calculate the value of any KPI with the **Quarterly** period during the first and second quarters of 2008, these periods are not listed in the second field of the Display Period field.
	• **Last Closed.** The values of only the KPIs whose calculation period has completed for the time period selected in the **Overtime Period** list.

KPI Rolodex Component

The KPI Rolodex component displays the selected KPIs and their value, trend, and status for the measurement period in gauge format.

To access	In the Dashboard, access the component or a page where the component is located.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Component Menu. Opens a menu where you can select: **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). **Help**. Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the Component Filter dialog box for the relevant component. For details, see "KPI Rolodex - Configure Component Dialog Box" (on page 210).
	Open in a new window. Opens the component in a new window.

UI Element	Description
	Collapse component. Collapses the component. To expand the collapsed component, click the button on the collapsed component.
	Remove Component. Removes the component from the page.

<Component Contents>

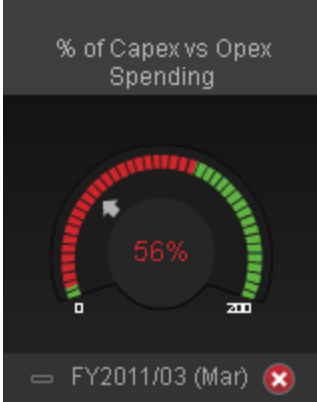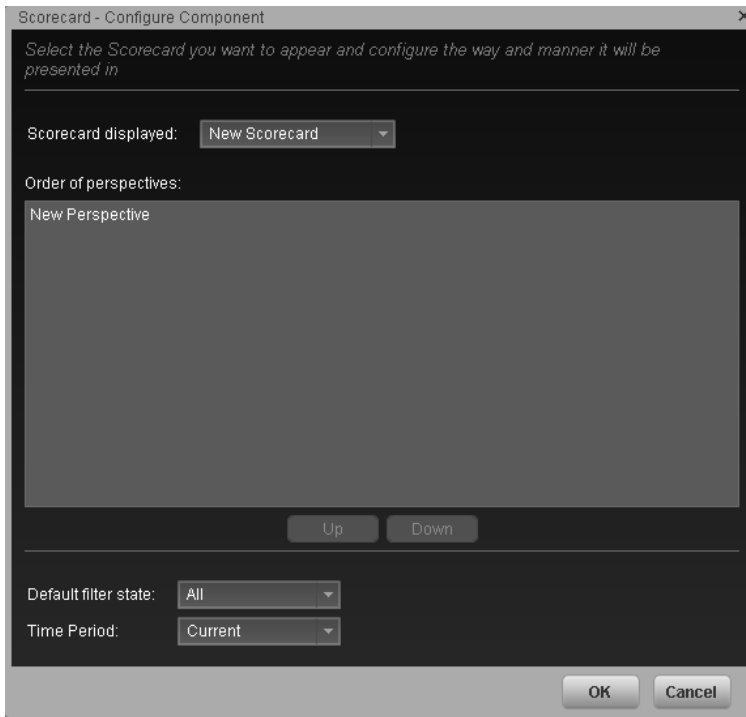User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Component contents>	The component displays a gauge for each selected KPI. The order of the gauges in the component, correspond to the order of the KPIs in the Selected KPIs area in the KPI Rolodex - Configure Component dialog box. For details, see "KPI Rolodex - Configure Component Dialog Box" (on page 210). • The name of the KPI above the gauge. Double-click the name to open the Explorer tab filtered for the selected element. • move the cursor above the icon to display the KPI tooltip that provides detailed information about the KPI and access to the Explorer in the context of the KPI. For details, see "KPI Tooltip" (on page 288). • (or when a new annotation has been added to the KPI) Move the cursor above the icon to display the KPI tooltip that provides detailed information about the KPI and access to the Explorer in the context of the KPI. For details, see "KPI Tooltip" (on page 288). • The value (to the right of the gauge) represent the highest threshold value. • The value (to the left of the gauge) represent the lowest threshold value. • The colors of the small bars represent the thresholds defined for the KPI. • The arrow indicates the KPI value. • The value in the center of the gauge displays the value of the KPI with its unit. The color of the text corresponds to the KPI status. • The text at the bottom of the gauge indicates the display period of the KPI. • The icon to the left of the display period indicates the trend calculated over the display period.

UI Element	Description

	• The icon to the left of the display period indicates the status of the KPI during the display period:
	
	   ▪ ✅ indicates that the status is **Good**.
	
	   ▪ ⚠️ indicates that the status is **Warning**.
	
	   ▪ ❌ indicates that the status is **Error**.
	
	   ▪ ▨ indicates that status was not calculated or that there was en error in the calculation.

<Tooltip>	Move the mouse over the name of a KPI to display a tooltip that include additional information about the KPI. For details, see "KPI Tooltip" (on page 288).
◀▶	Use the arrows to scroll between the "pages" of gauges. The width of the "page" or the number of gauges displayed on a "page" depend on the width of the component in the Dashboard. When you get to the leftmost page, the left arrow disappears. When you get to the rightmost page, the right arrow disappears.
<Page indicator>	When the Rolodex component includes more than one page, to see what page is currently displayed, move the mouse over the arrow (right or left) to display a white ribbon with dots. The white dot indicates the page that is currently displayed (in the example, the first page) and the black dots indicate the number of other pages in the component (one black dot per page). The order of black and white dots indicates the location of the current page in the component.

Scorecard - Configure Component Dialog Box

Use the dialog box to configure the Scorecard you want to display in the Scorecard component.

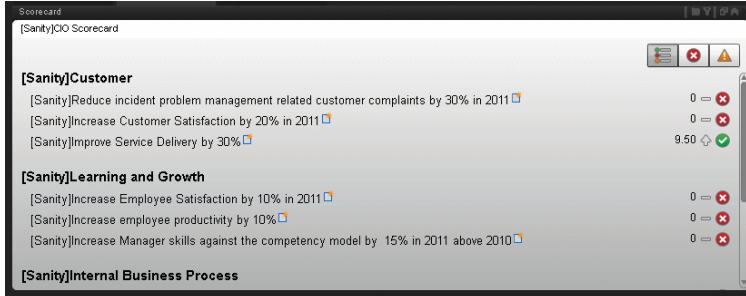| To access	In the Scorecard component in the Dashboard, click the **Filter** 🔽 button.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Scorecard displayed	Select the Scorecard you want to display in the component. The list of the Scorecard's Perspectives is displayed in the Order of Perspectives box.
Order of perspectives	Select a Perspective and use the **Up** and **Down** buttons to order the Perspectives as you want to display them in the Scorecard component in the Dashboard.
Default filter state	Select the icon that is automatically selected in the Scorecard display:

UI Element	Description
	• **All** • **Warning** • **Exception**
Display Period	Select the time period to be displayed in the component: • **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still proceeding, the values from the previous period, depending on the time period selected in the **Overtime Period** list. • **<Longest_period>.** Each KPI has its own period (as configured in the Configuration details tab in the Studio). When you move KPIs from the Available KPIs to the Selected KPIs area in the filter, the longest period for all the selected KPIs is displayed as an additional option near the Display Period field. For example if one of the selected KPI's period is **Weekly** and another is **Yearly**, the Display Period field lists: **Current**, **Yearly**, and **Last Closed**. When you select the **<Longest_period>** another field opens on the right. It lists only the corresponding periods when the engine performed calculations. For example, if you select **Quarterly**, and the engine did not calculate the value of any KPI with the **Quarterly** period during the first and second quarters of 2008, these periods are not listed in the second field of the Display Period field. • **Last Closed.** The values of only the KPIs whose calculation period has completed for the time period selected in the **Overtime Period** list.

Scorecard Component

The Scorecard component (Balanced Scorecard) displays the list of selected Perspectives and their Objectives with their value, trend, and status for the measurement period.

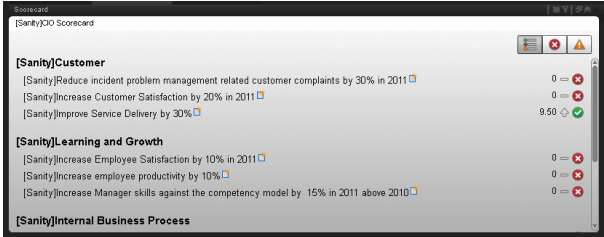|	
To access	In the Dashboard, access the Scorecard component or a page where the component is located.
Important information	All the time periods used in the component are periods of the fiscal year (For example, the end of the fiscal year depends the fiscal year you have set at the system level).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

Component Toolbar

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Component Menu. Opens a menu where you can select: **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). **Help**. Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the Scorecard - Component Filter dialog box for the relevant component. For details, see "Scorecard - Configure Component Dialog Box" (on page 217).
	Open in a new window. Opens the component in a new window.

UI Element	Description
	Collapse component. Collapses the component. To expand the collapsed component, click the button on the collapsed component.
	Remove Component. Removes the component from the page.

<Component Contents>

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Component contents>	The following information is displayed, from left to right: - The name of the Scorecard. Double-click the name to open the Explorer tab filtered for the selected element. - Indicates that the Scorecard has Cascading (subordinate) Scorecards. Click the arrow to display the list of the Cascading Scorecards and select the relevant one to display its information.To return to the parent Scorecard, click the X to close the Cascading Scorecard display. Note that you can only access one level down (meaning that if the Cascading Scorecard has subordinates, to access their information, you must create a Scorecard component for the first level of CascadingScorecard). - The name of the Perspective you selected in the Scorecard - Component Filter dialog box. For details, see "Scorecard - Configure Component Dialog Box" (on page 217).

UI Element	Description

	• The Perspective's Objectives, sorted by status (with the error status first) with:
	  ■ The score of the Objective.
	
	  ■ 📄 (or 📄 when a new annotation has been added to the Objective) Move the cursor above the icon to display the Objective tooltip that provides detailed information about the Objective and access to the Explorer in the context of the Objective. For details, see "Objective Tooltip" (on page 291).
	
	  ■ ⬜⬆⬇ The trend icon that indicates the trend of the Objective over the display period.
	
	  ■ The status of the Objective during the display period. It can be:
	   ○ ✅ indicates that the status is **Good**.
	   ○ ⚠️ indicates that the status is **Warning**.
	   ○ ❌ indicates that the status is **Error**.
	   ○ ▨ indicates that status was not calculated or that there was an error in the calculation.

[icons]	Click the left button to display all Objective's statuses (**Good**, **Warning**, or **Error**). Click the middle button to display only the Objectives with an **Error** Status. Click the right button to display only the Objectives with a **Warning** status. The default selection is configured in the **Default filter state** field in the Scorecard - Component Filter dialog box. For details, see "Scorecard - Configure Component Dialog Box" (on page 217).
<Tooltip>	Move the mouse over the name of an Objective in the list to display a tooltip that include detailed information about the KPI. For details, see "Objective Tooltip" (on page 291).

Web Intelligence Report Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Web Intelligence Report Viewer component.
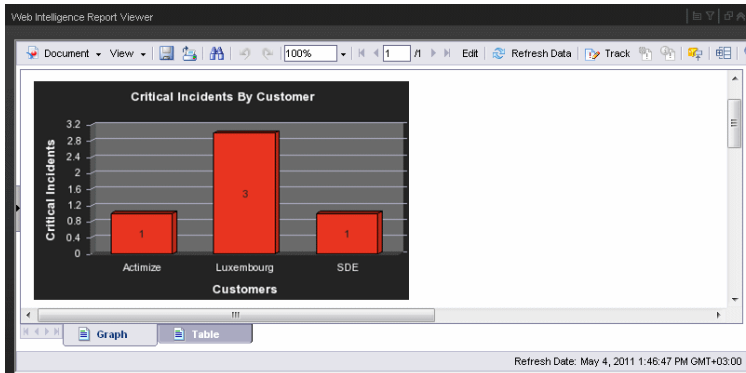

To access	In the Dashboard, in the Web Intelligence Report Viewer component click the **Configure Component** ■ button.
Important Information	A Web Intelligence Report Viewer component displays only one BO report.If you want to display more than one BO Report in the Dashboard, you can create multiple Web Intelligence Report Viewer components and rename each component.

The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235). |
| **Relevant tasks** | "How to Add Components to a Dashboard Page" (on page 184) |

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Report List>	Select the BO report you want to display in the Web Intelligence Report Viewer component. For details about the reports, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Web Intelligence Report Viewer Component

This component enables the user to view the selected BO report.

To access	In the Dashboard, access the relevant Web Intelligence Report Viewer component or a page where the component is located.
Important Information	A Web Intelligence Report Viewer component displays only one BO report.If you want to display more than one Web Intelligence Report Viewer in the Dashboard, you can create multiple Web Intelligence Report Viewer components and rename each component. The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
▤	**Component Menu.** Opens a menu where you can select: 🔧 **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. ⟲ **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). ❓ **Help**. Opens the online documentation page relevant to the component you are currently configuring.

UI Element	Description
	Configure Component. Opens the BO Report Viewer - Configure Component dialog box for the relevant component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222).
	Open in a new window. Opens the component in a new window.
	Collapse. Collapses the component. To expand the collapsed component, click the **Expand** button on the collapsed component.
	Remove Component. Removes the component from the page.
<Component contents>	The selected report is displayed in the component. For details about the reports, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Web Intelligence Dynamic Report Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Web Intelligence Dynamic Report Viewer component.

To access	In the Dashboard, in the Web Intelligence Dynamic Report Viewer component click the **Configure Component** ■ button.
Important Information	A Web Intelligence Dynamic Report Viewer component displays only one SAP BusinessObjects report.If you want to display more than one SAP BusinessObjects report in the Dashboard, you can create multiple Web Intelligence Dynamic Report Viewer components and rename each component.
	The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Report List>	Select the SAP BusinessObjects report you want to display in the Web Intelligence Dynamic Report Viewer component. For details about the

UI Element	Description
	reports, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Web Intelligence Dynamic Report Viewer Component

This component enables the user to view the selected SAP BusinessObject report while keeping some of the interactive capabilities of the original report in the Dashboard component.

To access	In the Dashboard, access the relevant Web Intelligence Report Viewer component or a page where the component is located.
Important Information	A Web Intelligence Report Viewer component displays only one SAP BusinessObject report.If you want to display more than one Web Intelligence Report Viewer in the Dashboard, you can create multiple Web Intelligence Report Viewer components and rename each component.
	If the SAP BusinessObject report you selected to add to this component has interactive capabilities (for example: drill down, wired elements in the reports), these capabilities are maintained in the Dashboard component.
	The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Component Menu. Opens a menu where you can select:
	Preferences. Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**.
	Wiring. Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278).
	Help. Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the SAP BusinessObject Report Viewer - Configure Component dialog box for the relevant component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222).
	Open in a new window. Opens the component in a new window.
	Collapse. Collapses the component.

UI Element	Description
	To expand the collapsed component, click the **Expand** ■ button on the collapsed component.
✖	**Remove Component.** Removes the component from the page.
<Component contents>	The selected report is displayed in the component. For details about the reports, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Web Intelligence Static Report Component Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Web Intelligence Static Report Component Viewer component.

To access	In the Dashboard, in the Web Intelligence Static Reports Viewer component click the **Configure Component** ■ button.
Important Information	A Web Intelligence Static Report Component Viewer component displays only one BO report.If you want to display more than one BO report in the Dashboard, you can create multiple Web Intelligence Static Report Component Viewer components and rename each component. You can create your own BO reports using BO and display them in the Web Intelligence Reports Static Viewer component. For details, see BO documentation.

> **Note:** To view a list of the available Xcelsius reports, you must copy the reports .**swf** files to the following location: **<installation directory>\agora\xcelsius** folder.

The component analyzes the original BO report and returns tables and graphs. The tables become tables in html format, the graphs become images in the Web Intelligence Static Report Component Viewer component. The structure of the original BO report may also be changed as tables are moved to the beginning of theWeb Intelligence Static Report Component Viewer component display and graphs are moved to the end of the component display.

The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Report List>	Select the BO report you want to display in the Web Intelligence Static Report Component Viewer component. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Web Intelligence Report Component Viewer (Display)

This component enables the user to view a selected BO report. You can create your own BO reports and display them in the Dashboard using the Web Intelligence Static Report Component Viewer component.

To access	In the Dashboard, access the Web Intelligence Static Report Component Viewer component or a page where the component is located.
Important Information	A Web Intelligence Static Report Component Viewer component displays only one BO report. If you want to display more than one BO report in the Dashboard, you can create multiple Web Intelligence Static Report Component Viewer components and rename each component.
	You can create your own BO reports using BO and display them in the Web Intelligence Static Report Component Viewer component. For details, see BO documentation.
	The size of Web Intelligence reports can impact how the reports are displayed in the Dashboard page. The sizes are 374 pixels (width) x 199 pixels (height), 583 pixels (width) x 204 pixels (height), or 374 pixels (width) x 324 pixels (height). The

	description of each Web Intelligence report includes its size. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
🔲	**Component Menu.** Opens a menu where you can select: 🔧 **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. 🔄 **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). ❓ **Help**. Opens the online documentation page relevant to the component you are currently configuring.
⬛	**Configure Component.** Opens the Xcelsius Report Viewer - Configure Component dialog box for the relevant component. For details, see "Xcelsius Report Viewer - Configure Component Dialog Box" (on page 233).
⬛	**Open in a new window.** Opens the component in a new window.
🔼	**Collapse component.** Collapses the component. To expand the collapsed component, click the 🔽 button on the collapsed component.
❌	**Remove Component.** Removes the component from the page.
<Component contents>	The selected report is displayed in the component. For details, see "Reference: Web Intelligence Reports and Operational Reports" (on page 235).

Xcelsius Report Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Xcelsius Report Viewer component.

To access	In the Dashboard, in the Xcelsius Report component click the **Configure Component** ⬛ button.
Important Information	An Xcelsius Report component displays only one Xcelsius report.If you want to display more than one Xcelsius Report in the Dashboard, you can create multiple Xcelsius Report components and rename each component. Xcelsius Reports files have a **.swf** suffix. **Note:** To view a list of the available Xcelsius reports, you must copy the reports .**swf** files to the following location: **<installation directory>\agora\xcelsius** folder.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Report List>	Select the Xcelsius report you want to display in the Xcelsius Report Viewer component. For details, see the *Data Warehouse Admin Guide*.

Xcelsius Report Viewer Component

This component enables the user to view the selected Xcelsius report.

To access	In the Dashboard, access the Xcelsius Report component or a page where the component is located.
Important Information	An Xcelsius Report component displays only one Xcelsius report.If you want to display more than one Xcelsius Report in the Dashboard, you can create multiple Xcelsius Report components and rename each component. **Note:** To view a list of the available Xcelsius reports, you must copy the reports .**swf** files to the following location: **<installation directory>\agora\xcelsius** folder.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
🔲	**Component Menu.** Opens a menu where you can select: 🔧 **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field and clicking **OK**. 🔁 **Wiring.** Depending on the component you are currently configuring, opens the Wiring dialog box where you can wire the current component to other components. For details, see "Wiring Dialog Box" (on page 278). 🔵 **Help**. Opens the online documentation page relevant to the component you are currently configuring.
▪	**Configure Component.** Opens the Xcelsius Report Viewer - Configure Component dialog box for the relevant component. For details, see "Xcelsius Report Viewer - Configure Component Dialog Box" (on page 233).
🔳	**Open in a new window.** Opens the component in a new window.
🔼	**Collapse.** Collapses the component. To expand the collapsed component, click the **Expand** 🔽 button on the collapsed component.
✖	**Remove Component.** Removes the component from the page.
<Component contents>	The selected report is displayed in the component. For details, see the *Data Warehouse Admin Guide*.

Reference: Web Intelligence Reports and Operational Reports

The Web Intelligence reports display information related to the business models provided by the different data sources. The reports can be added to the Web Intelligence Report Viewer component and to the Web Intelligence Static Report Component Viewer component in the Dashboard.

To access	In the Dashboard, add this report to a Web Intelligence component by configuring the component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222) or "Web Intelligence Static Report Component Viewer - Configure Component Dialog Box" (on page 229). The report is then displayed in these components in the Dashboard. For details, see "Web Intelligence Report Viewer Component" (on page 223) or "Web Intelligence Report Component Viewer (Display)" (on page 231). **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).
Important information	The Web Intelligence report categories are: • "ALM Defect Reports" (on page 235) • "Reference: Web Intelligence Reports and Operational Reports" (on page 235) • "Reference: Web Intelligence Reports and Operational Reports" (on page 235) • "Asset Reports" (on page 252) • "Change Reports" (on page 253) • "Incident Reports" (on page 254) • "Interaction Reports" (on page 257) • "Operational Reports" (on page 264) • "Project Reports" (on page 258) • "Service Status Reports" (on page 262) • "Reference: Web Intelligence Reports and Operational Reports" (on page 235)
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

This section describes the Web Intelligence reports categories:

ALM Defect Reports

Name of Report	Description	Graph
Average Cycle Duration for Top 3 Active Projects Report	The report displays the average duration, in days, of the project cycle for the 3 active projects with the longest average cycle duration. Each active project is represented by a horizontal bar. The length of the bar indicates the average duration of the project cycle. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Average Defect Fix Duration for Urgent Severity by Project in Current Quarter Report	The report displays the average time it takes, in hours, to fix an urgent severity defect by active project for the current fiscal quarter. Each project is represented by a slice of the pie, the number close to the slice displays the average defect fix duration, and the legend lists the project names. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Average Fix Time per Defect for Top 3 Active Projects Report	The report displays the average time it takes, in hours, to fix a defect with any severity for the 3 active projects with the highest average time. Each project is represented by a horizontal bar and each bar displays the corresponding average defect fix duration. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Average Number of Cycles per Active Project Report	The report displays the average number of cycles that have been performed for each active project. Each project is represented by a slice of the pie, the number close to the slice displays the average number of cycles, and the legend lists the project names. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Defects Opened vs Closed for Active Project with Most Defects in	The report displays the amount of open and closed defects over time, for the current fiscal quarter, with a day granularity, for the	

Name of Report	Description	Graph
Current Quarter Report	project with the largest difference between open and closed defects. The red line represents the open defects. The green line represents the closed defects. The legend lists the type of defect (open or closed). The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	
Defects Opened vs Closed for Top 3 Active Projects in Current Quarter Report	The report displays the number of open defects and the number of closed defects for the 3 projects active during the current quarter. The 3 projects are the projects with the largest difference between their number of open and close defects. Each project is represented by two bars, the red bar represents the number of open defects, the green bar represents the number of closed defects. The legend lists the type of defect (open or closed). The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	

Name of Report	Description	Graph
Defects Reopened per Severity for Top 3 Active Projects Report	The report displays the number of defects that have been reopened per severity for the 3 projects with the highest number of reopened defects. The report displays a bar for each one of the three projects. The bars are divided into sections corresponding to the different severities. Each section displays the number of reopened defects for the severity. The legend lists the severities. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	
Number of Defects per Status for Top 3 Projects Report	The report displays the number of defects per status for the 3 active projects with the highest number of defects. The x-axis represents the projects names, the y-axis represents the number of defects, and the z-axis represents the statuses. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	

Name of Report	Description	Graph
Number of Detected Defects per Cycle for Top 3 Active Projects Report	The report displays the number of defects detected in each cycle for the 3 active projects with the highest number of defects. The report displays a horizontal bar per active project, each bar is split into sections corresponding to the cycles, and each section displays the number of defects detected during that cycle. The legend lists the cycles. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	**Number of Detected Defects per Cycle for Top 3 Active Projects**
Number of Prolonged Defects for Top 3 Projects Report	A defect is prolonged if it is still not currently fixed, or if it was fixed after its estimated time. The report displays the number of prolonged defects for the 3 projects with the highest number of prolonged defects. The report displays a horizontal bar per active project, each bar displays the number of prolonged defects corresponding to the project. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	**Number of Prolonged Defects for Top 3 Projects**

Name of Report	Description	Graph
Number of Reopened Defects by Cycle Report	The report displays the number of defects that were reopened for each cycle of each active project. The report displays a ring per cycle, and each ring displays the number of reopened defects. The legend lists the cycles. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Percentage of Non-Reproducible Defects for Top 3 Active Projects in Current Quarter Report	The report displays the percentage of non-reproducible defects versus the percentage of reproducible defects, for the 3 projects with the highest number of non-reproductible defects, that are active in the current fiscal quarter. The report displays, for each project, a bar scaled from 0 to 100, where one section of the bar represents the number of non-reproducible defects and the other section the number of reproducible defects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Name of Report	Description	Graph
Percentage of Reopened Defects for Top 3 Active Projects Report	The report displays the percentage of reopened defects versus the percentage of non-reopened defects, for the 3 active projects with the highest percentage of reopened defects. The report displays, for each project, a bar scaled from 0 to 100, where one section of the bar represents the number of reopened defects and the other section the number of defects that were not reopened. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Total Fix Time per Project for Top 3 Active Projects Report	The report displays the time it took, in hours, to fix all the defects for the 3 active projects with the longest defect fix time. The report displays, for each project, a bar that indicates, in hours, the time it took to fix all the defects of the corresponding project. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

ALM Requirement Reports

These reports are based on the business model taken from the HP Application Lifecycle

Management data source.

The ALM Requirement reports provide information about the requirements. The statuses and cycles that appear in the reports have been defined in Application Lifecycle Management.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Number of Open High Priority Requirements for Top 3 Projects Report	The report displays the number of open high priority requirements per type of requirement, for the 3 active projects with the largest number of open requirements. The report displays a bar for each one of the three projects. The bars indicate the number of open high priority requirements for the project. The legend lists the projects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	
Number of Open Requirements per Type for Top 3 Projects Report	The report displays the number of open requirements, for the 3 active or inactive projects with the highest number of open requirements. The x-axis represents the project names, the y-axis represents the number of requirements, and the z-axis represents the types of requirements. The report can be displayed in graphic or table format. **Note:** The size of the	

Name of Report	Description	Graph
	report display is: 374 pixels (width) x 324 pixels (height).	
Number of Requirements per Cycle for Top 3 Projects in Current Quarter Report	The report displays the number of requirements, per cycle, for the 3 projects with the highest number of requirements, that are active or inactive in the current fiscal quarter. The report displays, for each project, a bar with sections representing the cycles, and each section indicates the number of requirements corresponding to the cycle. The legend lists the cycles. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Number of Requirements per Status for Top 3 Projects in Current Quarter Report	The report displays the number of open requirements, per requirement status, for the 3 projects with the highest number of requirements, that active or inactive in the current fiscal quarter. The x-axis represents the project names, the y-axis represents the number of requirements, and the z-axis represents the statuses. The report can be displayed in graphic or table format.	

Name of Report	Description	Graph
	Note: The size of the report display is: 374 pixels (width) x 324 pixels (height).	

ALM Test Instance Reports

These reports are based on the business model taken from the HP Application Lifecycle Management data source.

The ALM Test Instance reports provide information about the tests that are created to test specific features and test instances that are run to test specific features in specific conditions. The statuses and cycles that appear in the reports have been defined in Application Lifecycle Management.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Average Delay in Test Instance Run for Top 3 Active Projects Report	A test is delayed when it is still running after it should have been completed or it is still running at measurement time. The report displays the average delay in test instance run for the 3 active projects with the highest average delay. The report displays, for each project, a bar that represents the average delay. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Average Delay in Test Instance Run by Cycle Report	A test is delayed when it is still running after it should have been completed or it is still running at measurement time. The report displays the average delay in test instance run for the 3 cycles with the highest average delay. The report displays, for each cycle, a bar that represents the average delay. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Number of Cycles by Active Project Report	The report displays the number of cycles that occurred in currently active projects. The pie displays a slice for each active project and the number near each slice represents the number of cycles that occurred for the corresponding active project. The legend lists the project names. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

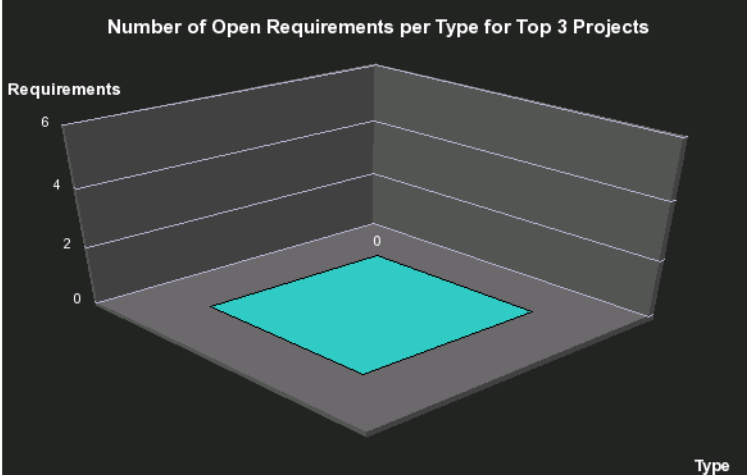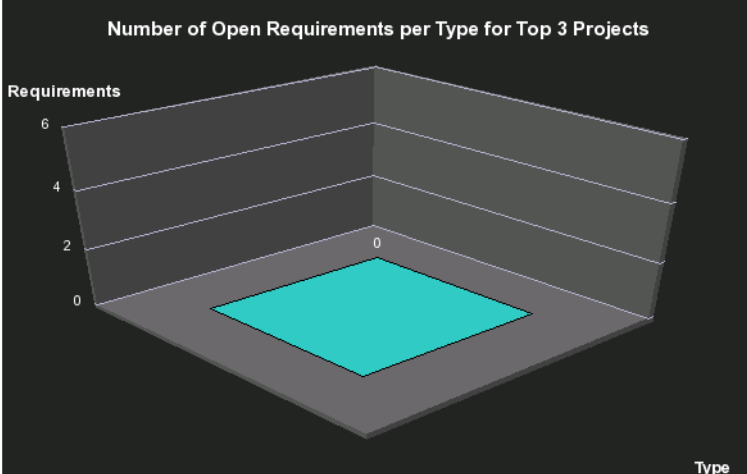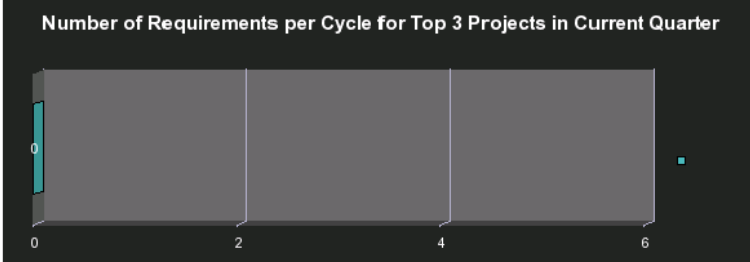| Name of Report	Description	Graph
Number of Irrelevant Tests by Test Status Report	An irrelevant test is a test that is not linked to a defect or to a requirement. The report displays the number of irrelevant tests by test status for each status that indicates that the test has not succeeded. The ring displays sections for each one of the relevant statuses and each section displays the number of irrelevant tests.The legend lists the statuses.Number of Irrelevant Tests by Test Status The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	Number of Irrelevant Tests by Test Status
Number of Tests by Test Status for Top 3 Active Projects Report	The report displays the number of tests by test status for the 3 active projects with the highest number of tests. The x-axis represents the projects names, the y-axis represents the number of tests, and the z-axis represents the test statuses. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	Number of Tests by Test Status for Top 3 Active Projects

Name of Report	Description	Graph
Number of Tests by Test Status for Top 3 Cycles Report	The report displays the number of tests by test status for the 3 cycles wit the highest number of tests. The report displays bars for each cycle, each bar displays sections corresponding to the test statuses, and each section displays the number of corresponding tests. The legend lists the statuses. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Number of Tests by Test Type for Top 3 Active Projects Report	The report displays the number of tests by test type for the 3 active projects with the highest number of tests. The report displays bars for each currently active project, each bar displays sections corresponding to the test types, and each section displays the number of corresponding tests. The legend lists the types. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Name of Report	Description	Graph
Number of Tests by Test Type for Top 3 Cycles Report	The report displays the number of tests by test type for the 3 cycles with the highest number of tests. The report displays bars for each cycle, each bar displays sections corresponding to the test types, and each section displays the number of corresponding tests. The legend lists the types. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Percentage of Test Instances Linked to Defects for Top 3 Active Projects Report	The report displays the number of test instances linked by defects for the 3 currently active projects with the highest number of test instances. The report displays bars scaled from 0 to 100, for each active project, and each bar includes one section that displays the number of test instances linked to defects, the other section displays the number of test instances that are not linked to defects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Percentage of Test Instances Linked to Defects for Top 3 Cycles Report	The report displays the number of test instances linked by defects for the 3 cycles wit the highest number of test instances. The report displays bars scaled from 0 to 100, for each cycle, each bar includes one section that displays the number of test instances linked to defects, the other section displays the number of test instances that are not linked to defects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Percentage of Tests Linked to Defects for Top 3 Active Projects Report	The report displays the percentage of test linked to defects for the 3 currently active projects with the highest percentage of tests linked to defects. The report displays bars scaled from 0 to 100, for each active project and each bar includes one section that displays the number of tests linked to defects, the other section displays the number of tests that are not linked to defects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Percentage of Tests Linked to Defects for Top 3 Cycles Report	The report displays the number of tests linked to defects for the 3 cycles with the highest number of tests linked to defects. The report displays bars scaled from 0 to 100, for each cycle and each bar includes one section that displays the number of tests linked to defects, the other section displays the number of tests that are not linked to defects. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Asset Reports

These reports are based on the business model taken from the HP Asset Manager data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Average Cost Per Server Types Report	The report displays the average cost of all the assets connected to the server, per server type. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Physical to Virtual Server Ratio Report	The report displays the number of physical servers divided by the number of virtual servers for all types of server. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Name of Report	Description	Graph
Server Growth Rate Report	The report displays the number of servers that were added to the pool of servers from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	
Total Number of Servers Report	The report displays the total number of servers broken down by type. The ring displays sections for each one of the relevant servers and each section displays the number of total number of servers of that type. The legend lists the server types. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Change Reports

These reports are based on the business model taken from the HP Service Manager data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Emergency Changes by Services Report	The report displays the number of emergency changes, by type of change, performed from the beginning of the current fiscal quarter till today, by the 3 services with the largest number of emergency changes, in descending order. An emergency change is a change with a critical or high status. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Incident Reports

These reports are based on the business model taken from the HP Service Manager data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Critical Incidents by Customer Report	The report displays the number of critical incidents that were opened, per customer, from the time the customer has been added to the pool of customers. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Critical Incidents for Top 3 Services Report	The report displays the number of critical incidents for the 3 services with the highest number of critical incident, in descending order. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Incident Closure Time for the Top 3 Services Report	The report displays the time it took to close incidents, in descending order, for the 3 services with the highest closure time from the beginning of the current fiscal quarter till today, in descending order. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	
Number of Incidents Caused by Changes vs Total Number of Incidents	The report displays the number of incidents caused by changes divided by the total number of incidents that occurred from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format.	

Name of Report	Description	Graph
	Note: The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Percentage of Breached Incidents Report	The report displays the percentage of incidents breached by the 3 organizations with the highest number of breached incidents that occurred from the beginning of the current fiscal quarter till today, in descending order. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Percentage of Incidents Attended by Service Report	The report displays the percentage of incidents attended by a service from the beginning of the current fiscal quarter till today. The legend lists the names of the services. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Percentage of Service Requests Posted via Web (Self-Help) Report	The report represents the number of service requests posted via the web (self-help) divided by the total number of service requests that occurred from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Interaction Reports

These reports are based on the business model taken from the Service Level Management data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
High Priority Interactions by Customers Report	The report displays the high priority interactions per customers in descending order. An interaction represents any conversation between the Help Desk and a customer. An interaction is always registered in the context of another object (for example: problem, incident, or request for change). The legend lists the priorities. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
No. of Interactions by Category in Last Quarter Report	The report represents the number of interactions per category from the beginning of the current fiscal quarter till today. An interaction represents any conversation between the Help Desk and a customer. An interaction is always registered in the context of another object (for example: problem, incident, or request for change). The legend lists the categories. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Project Reports

These reports are based on the business model taken from the HP Project and Portfolio Management data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
Actual Project Efforts for Top 3 Services Report	The report displays the actual active project efforts for the 3 services with the highest number of invested days, in descending order. A project effort represents the number of days, from the beginning of the project till today, that have been already been invested in the project. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Actual vs. Planned Cost for Top 3 Projects Report	The report displays the actual vs. planned cost for the 3 active projects with the highest actual cost. The active projects are displayed in descending order. For each active project, the top bar represents the actual cost and the lower bar represents the planned cost. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Name of Report	Description	Graph
Average Cost of Active Project by Location and Organization Report	The report displays the average cost of the projects that are currently active by location and organization. The x-axis represents the organizations, the y-axis represents the average cost, and the z-axis represents the locations. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	
Percentage of Time Spent on New Projects Report	The report displays the time spent on new projects divided by the total time spent on projects from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Name of Report	Description	Graph
Project Cost Allocation by Business Objective Report	The report displays the project cost allocation for the 3 business objectives with the highest cost, from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 324 pixels (height).	 Project Cost Allocation by Business Objective in Current Quarter
Project Delay by Top 3 Most Costly Projects Report	The report displays the project delay by the top 3 most costly active projects from the beginning of the current fiscal quarter till today. The delay is calculated as the time between the current date and the planned end date if the current date has passed the planned end date, or between the actual end of the project and the planned end date if the project is completed and the actual end date has passed the planned end date. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	 Project Delay by Top 3 Most Costly Active Projects

Name of Report	Description	Graph
Project Health for Active Projects Report	The report displays the project health of active projects. Project health information is provided by the HP Project and Portfolio Management data source. The pie graph provides the following information: ● Good health is represented by the green color. ● Impacted health is represented by the yellow color. ● Compromised health is represented by the red color. The legend lists the types of health. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	

Service Status Reports

These reports are based on the business model taken from the Service Level Management data source.
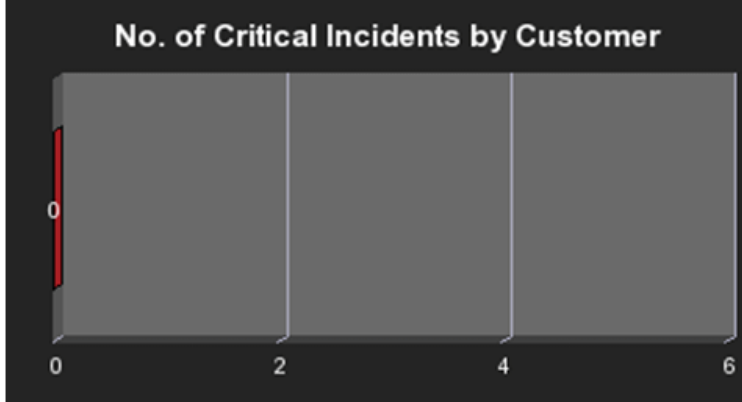
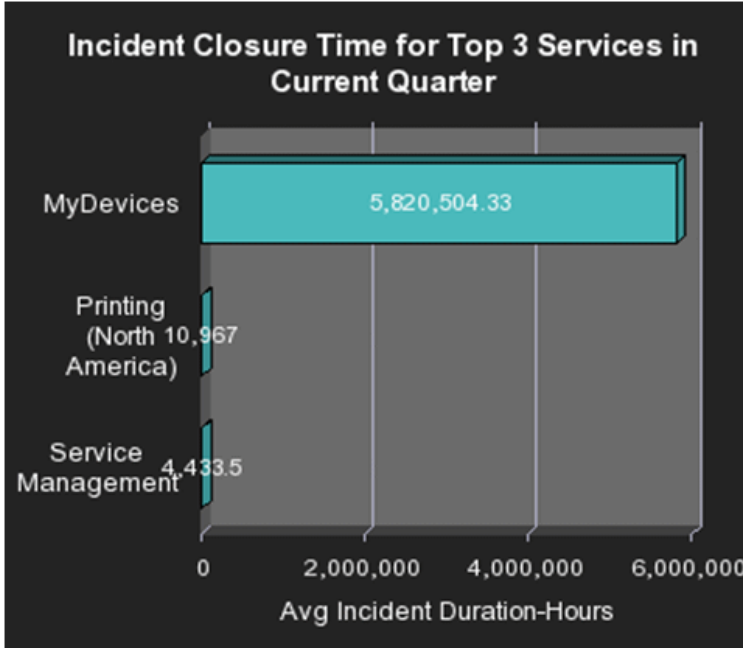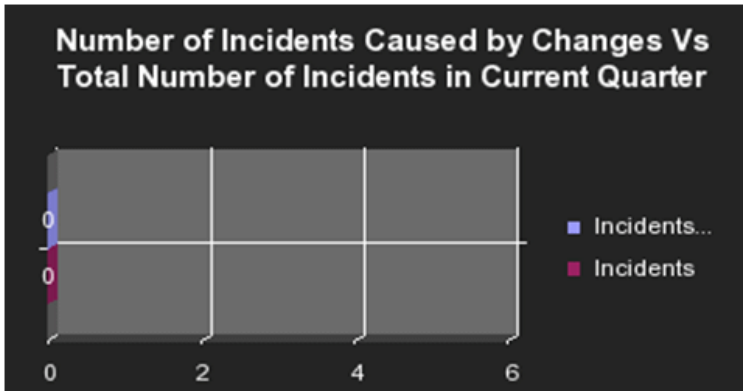This category of Web Intelligence reports includes the following reports:

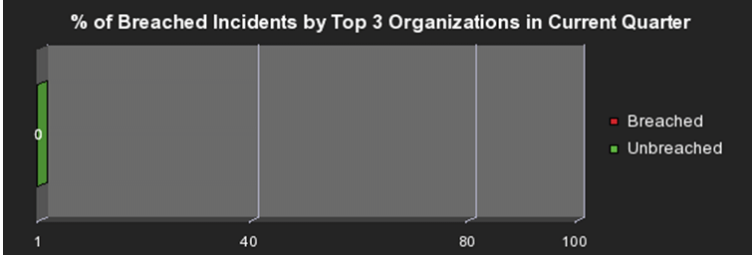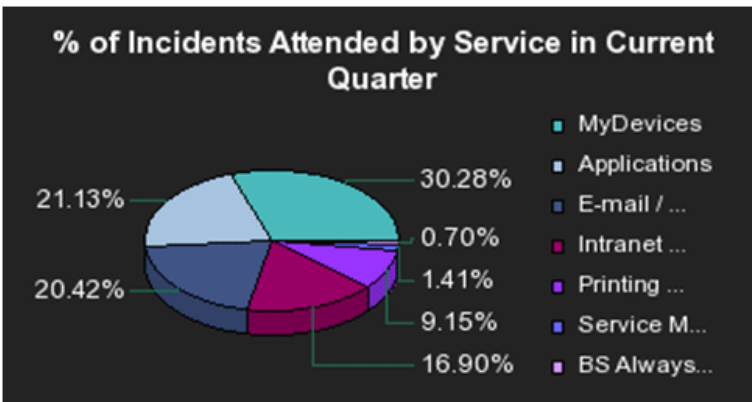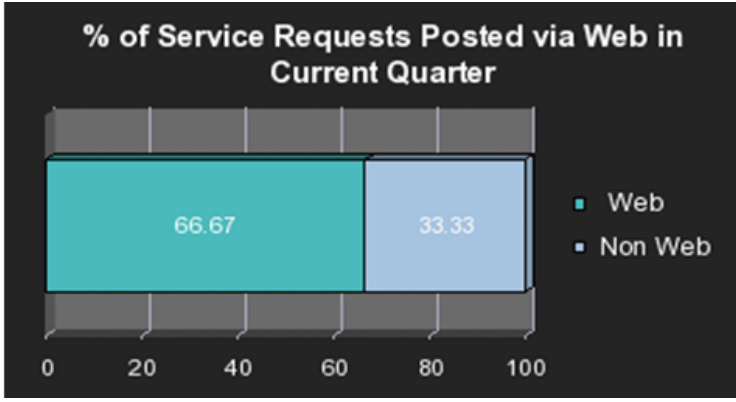| Name of Report	Description	Graph
Mean Time Between Failures for Top 3 Services Report	The report represents the Mean Time Between Failures (MTBF) for the top 3 services from the beginning of the current fiscal quarter till today. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

SLA Reports

These reports are based on the business model taken from the Service Level Management data source.

This category of Web Intelligence reports includes the following reports:

Name of Report	Description	Graph
SLA Not Met by Consumers Report	The report displays the number of non-met SLAs for the top 3 consumers or customers using services monitored by these SLAs. The legend lists the SLA statuses. The report can be displayed in graphic or table format.	
SLA Not Met by Top 3 Services Report	The report displays the number of non-met SLAs for the top 3 service providers with the most non-met SLAs, from the beginning of the current fiscal quarter till today. The legend lists the SLA statuses. The report can be displayed in	

Name of Report	Description	Graph
	graphic or table format. **Note:** The size of the report display is: 374 pixels (width) x 199 pixels (height).	
Top 3 Services Suppliers Report	The report displays the top 3 service suppliers from the beginning of the current fiscal quarter till today. The legend lists the suppliers. The report can be displayed in graphic or table format. **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).	

Operational Reports

These reports are based on the business model corresponding to the KPI universe.

This category of Web Intelligence reports includes the following reports:

KPI Status Report

The report displays KPI-related data from the KPI universe.

The report can be displayed in graphic or table format.

To access	In the Dashboard, add this report to a Web Intelligence component by configuring the component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222) or "Web Intelligence Static Report Component Viewer - Configure Component Dialog Box" (on page 229). The report is then displayed in these components in the Dashboard. For details, see "Web Intelligence Report Viewer Component" (on page 223) or "Web Intelligence Report Component Viewer (Display)" (on page 231). **Note:** The size of the report display is: 583 pixels (width) x 204 pixels (height).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
KPI Name	The name of the KPI.
Context	The universe (context) of the KPI.
KPI Trend Description	The KPI trend.
KPI Score	The KPI score.
CalculationValue	The value of the KPI calculated by the KPI formula.
Status description	The status of the KPI. It can be: • Yellow (warning)

UI Element	Description
	• Green (OK) • Red (critical) • <no color> (no data)

Objective Status Report

The report displays Objective-related data from the KPI universe.

The report can be displayed in graphic or table format.

To access	In the Dashboard, add this report to a Web Intelligence component by configuring the component. For details, see "Web Intelligence Report Viewer - Configure Component Dialog Box" (on page 222) or "Web Intelligence Static Report Component Viewer - Configure Component Dialog Box" (on page 229).
	The report is then displayed in these components in the Dashboard. For details, see "Web Intelligence Report Viewer Component" (on page 223) or "Web Intelligence Report Component Viewer (Display)" (on page 231).
	Note: The size of the report display is: 583 pixels (width) x 204 pixels (height).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
ScorecardName	The name of the Scorecard.
PerspectiveName	The name of the Perspective.
BusinessObjectiveName	The name of the Objective.
Objective Trend Description	The trend of the Objective.
BusinessObjectiveScore	The score of the Objective.
Objective Status Description	The status of the Objective. It can be: • Yellow (warning) • Green (OK)

UI Element	Description
	• Red (critical) • <no color> (no data)

Create an External Component

This section includes the following topics:

How to Create an External Component

The following task describes how to create a component using a URL. You can use a static URL, where the component simply opens the URL that you enter. You can also create a dynamic URL, where the component URL responds to other components on the page.

> **Note:** The URL for an external component must begin with one of the following: **https://**, **http://**, or **ftp://**.

This task includes the following steps:

-
-

Create a simple URL component

1. In the Dashboard, click the **Components** button in the Dashboard toolbar, or in an empty

    component of the Dashboard, click the **Add Component** button.

2. In the Component Gallery dialog box that opens, click the **Add External Component** button.

3. In the New Component dialog box that opens, enter the name, URL, and description, and click **OK**. For user interface details, see .

4. Optionally. In the Categorize Component area, select one or more categories to which you want the component assigned.

    The new component is added to the Component Gallery, and can then be added to any page.

Create a dynamic URL

1. In the Dashboard, click the **Components** button in the Dashboard toolbar, or in an empty

    component of the Dashboard, click the **Add Component** button.

2. In the Component Gallery dialog box that opens, click the **Add External Component** button.

3. In the New Component dialog box that opens, enter a name for the component and the static portion of the URL.

4. Optionally. In the **Categorize Component** area, select one or more categories to which you want the component assigned.

5. In the **Wiring Context** area, select one or more contexts whose attributes can be used to define the URL pattern. For details, see .

6. In the **URL Parameters and Values** area, click the **New Parameter** button.

7. In the **New Parameter** dialog box that opens select the URL Part (the area of the URL where you want to add the parameter), and the name of the parameter, and click **OK**. The parameter is added to the **URL Parameter and Value** table.

8. Drag the relevant attribute from the **Attributes** list. The attributes displayed in the list are based on the contexts you selected in the Wiring Context area.
    The **URL Pattern** area shows the dynamic URL you have built, using the static URL in the upper area of the dialog box, and the URL parameters that you defined.

9. Click **OK** to save the component.

    The new component is added to the Component Gallery, and can then be added to any page.

New/Edit Component Dialog Box

Use the dialog box to create a new Dashboard component or to edit an existing Dashboard component.

To access	In the Component Gallery, click the **Add External Component** [icon] button or select a component and click the **Edit Component Properties** [icon] button.
Important Information	URLs for external components must begin with one of the following: https://, http://, or ftp://.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 184)

<Upper Pane>

User interface elements are described below:

UI Element	Description
	Refresh. If you have edited the static part of the URL, click refresh to update the URL pattern below.
Name	Enter the name you want to assign to the component.
URL	Enter the URL of the component. If you are creating a dynamic URL using parameters, enter the static part of the URL here. **Example:** The URL to search for the string **hp** in Google.com uses the following format: **http://www.google.com/search?q=hp**. The static part of this URL is the section before the question mark: **http://www.google.com/search**.
Description	The description of the component.

Categorize Component Area

Click on the drop down element to display a list of the existing categories. You can select one or more categories. You can also create new categories. For details, see the Left Pane section of the .

Configure Wiring

This area enables you to select one or more contexts whose attributes are used to define the URL pattern.

User interface elements are described below:

UI Element	Description
Wiring Context	Lists the wiring contexts you have already configured. Each line represents a context whose attributes can be used to create the URL pattern.
➕	**Add Context**. Click to add a context whose attributes can be used to define the URL pattern. **Note:** You must enter a URL in the URL box before you click the **Add Context** button. The Select Contexts dialog box enables you to select which context to add. You can select: • **KPIChange**. The context is sent to the target component, when you select a KPI in the source component. • **ObjectiveChanged**.The context is sent to the target component, when you select an Objective in the source component.
🗑	**Remove**. Select a wiring context and click the button to remove it from the list.

URL Parameters and Values Area for KPI

This area enables you to add URL parameters and values to build the URL pattern, using wiring context attributes.

User interface elements are described below:

UI Element	Description
	New Parameters. Click to add a URL parameter. Select the area of the URL where you want to add the parameter in the **URL Part**:

 Path. The parameter is used in the path part of the URL.

Query String. The parameter is used in the query string of the URL.

Fragment. The parameter is used in the rest of the URL.

Type the parameter name in the **Name** box in the URL Parameters dialog box that appears.

Example: To create a dynamic URL based on http://www.google.com/search?q=hp, add a URL parameter named q.

 |

UI Element	Description
🗑	**Remove.** Select a URL parameter and click this button to remove it from the list.
URL Parameter and Value	Lists the URL parameters you have already configured. Each line represents the name of a URL parameter which is used to create the URL pattern, and its value. After defining a parameter name, drag an attribute from the **Attributes** area to the **Value** area of the URL parameter. To edit a parameter value, click the value itself and edit its contents.
Attributes	This contains a list of the attributes that can be used to build the URL pattern. This list is dependent on the contexts you select in the Wiring Context area. • If you select KPIChange in the Wiring Context area, the attribute **<<kpiId>>** is available to build your URL pattern. The parameter represents the ID of the KPI on which you click in the source component to run the external URL with the ID of the KPI as a parameter. • If you select ObjectiveChanges in the Wiring Context area, the attributes **<<id>>** and **<<type>>** are available to build your URL pattern. The <<id>> parameter represents the ID of the Objective and the <<type>> parameter represents the type of the Objective on which you click in the source component to run the external URL with the ID of the KPI as a parameter. To use an attribute as the value of a URL parameter, drag the attribute from this area to the Value area of the parameter.
URL Pattern	This shows the URL pattern that was built using the static URL that you entered in the URL field, and the URL parameters that you defined in the URL Parameters area.

UI Element	Description

	Example: The result of the creation of a dynamic URL based on http://www.google.com/search?q=.
	
	 Enter a URL and define parameters for every context you want to use, to create the URL pattern
	 *Name : google search
	 *URL : http://www.google.com/search
	 Description :
	 ▸ **Categorize Component**
	 Wiring Context URL Parameters and Values for KPIChange
	 + | 🗑 URL Parameters: **Attributes :**
	 KPIChange ✳ | 🗑 << kpiId >>
	         URL Parameter Value
	         q << kpiId >>
	
	 * You can drag attributes from the attribute list or press Alt + Ctrl + I to insert the selected attribute into the parameter value.
	 URL pattern : http://www.google.com/search?q=<< kpiId >>
	
	 OK Cancel Help

Set Up Wiring Between Components

This section includes the following topics:

How to Set Up Wiring Between Components

Component wiring defines how the components on the same Dashboard page can interact with each other. When two components are wired and the first component sends a wiring context indicating what has changed in the first component, then the second component responds to this change.

> For example, the selection of one KPI in the KPI View component causes the display of the details of the same KPI in the Historical View component on the same page, if the two components are wired and the KPI View component is the source.

Note that if you select an Objective in the Scorecard component, the details of all the Objective's KPIs are displayed in the components that are wired to the Scorecard component on the same page.

Out-of-the-box pages have predefined wiring; you can also modify their default wiring definitions.

To configure the wiring between components on a page:

1. In Dashboard, open the relevant page, and click the **Wiring** button in the Dashboard toolbar. The Wiring dialog box appears. For user interface details, see "Wiring Dialog Box" (on page 278). The Wiring button is usually disabled for out-of-the-box pages that are read-only.

2. The **Source Components** on the left side of the Wiring dialog box lists the components whose wiring context is to be sent to one or more target components. Select the relevant source component. For example, select Scorecard.

3. The **Contexts** box lists the contexts that can be sent from the selected source component. Select the relevant context. For example, select ObjectiveChanged. For a list of the contexts and their description, see "Wiring Dialog Box" (on page 278).

4. In the list of Target Components on the right side of the Wiring dialog box, select one or more component that will receive contexts from the source component. For example, select KPI View.

5. Click **OK**.

   The **Summary of Page Wiring** area displays all of the wiring defined for the page.

6. In the Dashboard page, move the cursor over the icon of the relevant objective in the Scorecard component. The tooltip displays the KPIs of the Objective, for example: **% Capex**

vs Opex Spending.

7. In the Scorecard component, click the relevant Objective. The KPI View component that is wired to the Scorecard component immediately refreshes to display the KPI View for the Objective's KPIs, for example: **% Capex vs Opex Spending**. In addition, the time period of the KPI View component is reset to the Scorecard time period. A message indicates that the display of the KPI View is wired to the Scorecard component.

8. To restore the original display of the KPI View component, click X on the yellow message.

Wiring Dialog Box

This dialog box enables you to define the wiring between the components on a page, that determines how components interact with one another. After you place components on a page, you can use this dialog to define the source components that are to send contexts to target components. When you finish setting up the wiring, save the page.

To access	Click the **Wiring** ⟳ button located in the Dashboard toolbar.
Relevant tasks	"How to Set Up Wiring Between Components" (on page 275)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Source components	This column displays all of the page components that have the ability to send contexts to other components. Select a source component, then select the context and the target components.
Contexts	After you select a source component in the left column, the context box contains a list of the contexts that can be sent from this source to the target components.
	Select the context you want to send to one or more targets, and then select the target component.
	The contexts are:
	• **ShowOvertime.** When the user selects a KPI in the KPI Viewer component, a

	ShowOvertime event is published. The Historical View component wired to the KPI Viewer component receives that event and its display is updated to show the selected KPI's history. ● **ObjectiveChanged**. When the user selects an Objective in the Scorecard component, an ObjectiveChanged event is published. The KPI Viewer component that is wired to the Scorecard component receives that event and update its display to show the details of Objective's children (Objectives, KPIs, or Breakdown KPIs).
Target components	This column displays all the page components that have the ability to receive contexts from other components on the page. After you select a source component and context, this displays all of the page components with the ability to receive this context from the specified source. Select one or more target components that can receive contexts from the source component by clicking the check box.
Summary of page wiring	This displays a summary of the wiring that has been defined for the page. Each line shows a source, the context it sends, and the target component receiving this context from this source.

Personalize the Dashboard

To add the user's picture to the Dashboard frame.

1. Move the cursor above the graphic next to **User**:

2. Click the **Add Image** button that is displayed.

3. In the **Add/Edit image** dialog box that opens, locate the relevant picture. The image is displayed in the dialog box. The change is saved only when you click **Submit**.

The relevant picture is now displayed in the Dashboard frame.

It is also displayed in the annotations sent by the same user.

Limitations

You can only upload images as follows:

- The size of the picture must be less than 5 MB.

- The allowed extensions are: .png, .jpg, .jpeg, .gif, .tif, or .bmp

- For best display, the recommended image ratio is 3 x 4.

During the image upload, the image is automatically resized to 100 x 100 pixels and the size of the file is reduced.

View and Analyze the Business Objectives

This section includes the following topics:

Learn about the Explorer Page

You use the Explorer page to view detailed information about the selected Objective, KPI, Breakdown KPI, or Orphan KPI. You can access the page by clicking the **Explorer** tab in HP IT Executive Scorecard.

You can also access the Explorer page from the Objective or KPI tooltip in the Dashboard. For details, see or .

The Explorer page includes the following features:

- The **Active KPIs** pane lists all the Scorecards, Perspectives, Objectives, KPIs, Breakdown KPIs, and Orphan KPIs, active in the HP IT Executive Scorecard. You click one of these elements to display its detailed information in the other panes. The pane also displays information about the status, trend, and score of the nodes.

- The **Explorer** tab displays, depending on the selected item, over time information for the current period as defined in the selected item configuration. You can also display past information by selecting a past period of time.

- The **Calculation Details** tab displays, depending on the selected item, the information displayed in the Calculation tab in the Studio for the selected item. For example, for a KPI, the tab displays the formula used to calculate the KPI status, filter information, and thresholds.

- The **Goal Map** tab provides a tree of nodes that represents the impact of the selected KPI or Breakdown KPI on the relevant Objectives, Perspectives, and Scorecards, or of the selected Objective on the relevant Perspectives, and Scorecards.

- The **Annotations** area enables you, depending on the selected item, to view the annotations attached to the selected item and to add annotations if needed.

- The **Additional Information** area displays, depending on the selected item, the item additional information as configured in the Studio.

For details, see .

How to View the Resulting Displays

In the relevant pages in Dashboard, you can view and analyze the business objectives you set for yourself, your department, or your enterprise. This information is displayed in the relevant Scorecards and components.

Once the Administrator has set up the relevant pages in Dashboard, you can view the information contained in the pages and analyze it using the capabilities described below.

This section includes the following topics:

- "View the relevant objectives in your pages" (on page 282)

- "Analyze your objectives using the components on your pages" (on page 282)

- "Drill down to your subordinate's Scorecards" (on page 283)

- "Display more information about a specific Objective or KPI" (on page 283)

- "Use the wiring feature to display more details about a KPI" (on page 285)

- "Drill down to more details about the Objectives, KPIs, or Breakdown KPIs in the Explorer tab" (on page 285)

- "How to View the Resulting Displays" (on page 281)

- "Understand the meaning of an Objective or KPI" (on page 285)

- "How to View the Resulting Displays" (on page 281)

- "How to View the Resulting Displays" (on page 281)

- "Add annotations to a specific Objective or KPI" (on page 286)

- "Print, email, or PDF the relevant annotation" (on page 286)

- "How to View the Resulting Displays" (on page 281)

- "How to View the Resulting Displays" (on page 281)

View the relevant objectives in your pages

The administrator has prepared pages for your use. These pages reflect the objectives you set for yourself or your department.

In the Dashboard, click the relevant tab. It includes several components that can enable you to analyze these objectives.

Analyze your objectives using the components on your pages

Depending on your permissions, the pages may include Scorecard components. Each Scorecard component represents the results of the list of selected Perspectives and their Objectives with their value, trend, and status for the measurement period. It represents strategic goals for the organization headed by the executive for whom the page was created. For details, see "Scorecard Component" (on page 219).

In addition, the pages may include other components that provide additional information:

- KPI List component. For details, see "KPI List Component" (on page 208).

- Historical View component. For details, see "Historical View Component" (on page 191).

- KPI Rolodex component. For details, see "KPI Rolodex Component " (on page 214).

- KPI View component. For details, see "KPI View Component" (on page 200).

- Scorecard component. For details, see "Scorecard Component" (on page 219).

- Web Intelligence Reports Viewer component. For details, see "Web Intelligence Report Component Viewer (Display)" (on page 231).

- Web Intelligence Full Report Viewer component. For details, see "Web Intelligence Report Viewer Component" (on page 223).

- Xcelsius Report component. For details, see "Xcelsius Report Viewer Component" (on page 234).

Drill down to your subordinate's Scorecards

If the administrator has prepared the relevant capability, you can drill down from your Scorecard to your subordinate Scorecard.

If the Scorecard component you are analyzing has drilldowns to subordinate (cascading) Scorecards, a small black arrow is displayed to the right of the Scorecard title.

Click the arrow to display the list of subordinate Scorecards and select the relevant one to display it.

To return to the parent Scorecard, click the X to close the subordinate Scorecard display. Note that you can only access one level down (meaning that if the subordinate Scorecard has subordinates, to access their information, you must create a Scorecard component for the first level of subordinate Scorecard).

For details, see "Learn About Scorecards" (on page 48).

Display more information about a specific Objective or KPI

From a Scorecard component, move the cursor above the ▤ icon at the end of the Objective's name to view over time information about the Objective, details about the Objective's KPIs and the annotations added to the Scorecard by users.

You can also add annotations, send the tooltip by email, PDF it, or print it. For details, see "Objective Tooltip" (on page 291).

From any other out-of-the-box component, moving the cursor above the ▤ icon at the end of the KPI's name to view over time information about the KPI, its value, trend, and status,and the annotations added to the KPI by other users.

You can also add annotations, send the tooltip by email, PDF it, or print it. For details, see "KPI Tooltip" (on page 288).

Use the wiring feature to display more details about a KPI

Component wiring defines how components on the same page interact with each other. When two components are wired, you may select one element on the first component, and immediately, the second component's display changes to view the relevant information for the selected element.

> For example, you select one KPI in the KPI View component that is wired to the Historical View and the details of the same KPI are immediately displayed in the Historical View component, on the same page, using the format of the Historical View component.

For details, see "How to Set Up Wiring Between Components" (on page 275)

Drill down to more details about the Objectives, KPIs, or Breakdown KPIs in the Explorer tab

From an Objective or KPI tooltip, click **More Info** to open the Explorer tab filtered for the Objective, KPI, or Breakdown KPI. The Explorer tab provides over time information, details about the Objective or KPI's configuration, the complete list of annotations, the location of the Objective or KPI in the active tree, and a Goal map for the element. For details, see "Explorer Tab" (on page 314).

Understand the meaning of an Objective or KPI

The Objectives that are displayed in the pages and components represent the overall performance goal that you want to track. For details, see "Learn About Objectives" (on page 50).

The Objectives include groups of KPIs of different types that can represent different aspects of the goal. For details, see "Learn About KPIs" (on page 45).

> For example, if you want to measure the IT department responsiveness, you create an Objective that measures different aspects of the IT department related to responsiveness. Each aspect is measured by a different KPI types (for example: project initiation time, PC purchase time, and more). These KPIs provide values, trends, and statuses that help you track your goals.

Drilldown to Breakdown KPI information

A KPI represents a business context. The value of the KPI is calculated based on the entities (facts or dimensions) that provide information on the business context. A business context can include lots of facts or dimensions.

The administrator creates multiple levels of KPI Breakdowns depending on the definition of the KPI and on the KPI's business context. These definitions provide the different levels of Breakdown that enable you to obtain very detailed information about the business aspect that you are measuring.

For details, see "Learn About Breakdown KPIs" (on page 141).

Access Explorer to display detailed information about a selected KPI or Objective

You can view more detailed information for a selected KPI or Objective by moving the cursor over the relevant item in the page, component, or Scorecard component, in the Dashboard. In the tooltip

that opens, click **More info**. The Explorer tab opens for the selected item.

You can also click the **Explorer** tab to display the Active KPIs tree, and by clicking the Objectives and KPIs in the tree, display detailed information about the selected item in the Explorer tab.

The information includes the items description, value or score, value over time, annotations sent by other users, links to relevant pages, external URLs, reports, and more.

For additional details, see "Explorer Tab" (on page 314).

Add annotations to a specific Objective or KPI

1. In Explorer, click the relevant Objective or KPI in the Active KPIs tree.

2. Examine the information displayed in the Explorer Details, Calculation Details, Goal Map tabs.

3. If you have comments, click the **Add annotation** button at the bottom of the Annotations area.

4. In the box that opens, enter your annotation, and click **Add** to add the annotation to the list of annotations in the Annotations area.

5. The annotation is added to the list.

For additional details, see "Explorer Tab" (on page 314).

Print, email, or PDF the relevant annotation

You can email the owner of the Objective or KPI you are analyzing.

You can also save a snapshot of the information displayed in the Explorer details tab (chart, annotations, and additional information for the KPI or Objective), in PDF format, or you can print that snapshot.

For additional details, see "Explorer Tab" (on page 314)

Understand the impact of one KPI on Objectives, Perspectives, and Scorecards

1. In Explorer, click the relevant Objective or KPI in the Active KPIs tree.

2. Examine the information displayed in the Goal Map tab. The Goal Map provides a tree of nodes that represents the display of the impact of the selected KPI on the relevant Objectives, Perspectives, and Scorecards, or of the selected Objective on the relevant Perspectives, and Scorecards. The Goal Map displays the impact configuration only for the current period of the selected KPI or Objective. The information displayed on the Goal Map depends on the user permission. You can double-click on a node (KPI or Objective) to select the KPI or Objective in the Active Tree and to display the Explorer Details tab for the selected node and the current period. For details, see "Explorer Tab" (on page 314).

View and Analyze Results User Interface

This section includes the following topics:

KPI Tooltip

The KPI Tooltip displays detailed information about the KPI.

To access	Move the cursor above the name of a KPI in a Dashboard component.
Important information	When a KPI does not display data because there is no calculated data (for example, the formula is incorrect, or includes a division by zero), the KPI Tooltip is available but displays **No data** and clicking the KPI in the KPI Tooltip displays the Explorer tab with a short explanation of the No data problem. When a KPI does not display data because the calculation period corresponds to a time when the KPI had not yet been configured in the Studio, the KPI Tooltip is not available.
Relevant tasks	"View and Analyze the Business Objectives" (on page 281)

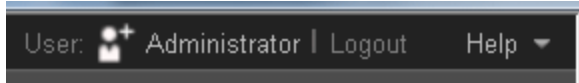User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name>	The name of the KPI.
<Over Time value>	The graph displays the over time value of the KPI for 5 periods in the past from the current period. The periods displayed are based on the period configured for the KPI.

UI Element	Description
	For example, if the KPI period is 1 month, the graph displays the value of the KPI over the past 5 months.
	A large point in the graph indicates that an annotation was added to that point. Move the cursor above the point to see the annotation.
	You can add a new annotation to the over time chart only if there is already an annotation attached to the over time chart. To add an annotation to the chart, you can click the **More info** link to open Explorer filtered for the selected KPI.
<KPI and Breakdown KPIs>	This section displays: • The name of the KPI, its value, trend, and status. • If the KPI has 3 Breakdown KPIs or less, the 3 Breakdown KPIs with the lowest score are displayed in the tooltip with their name, value, trend, and status. • If the KPI has more than 3 Breakdown KPIs, a **Show more** link appears below the list of Breakdown KPIs. Click the link to open Explorer filtered for the selected KPI, where you can see all the Breakdown KPIs of the selected KPI.
Annotations	Lists the last 3 annotations sent by all users (including the current user). If more than 3 annotations have been sent for the selected KPI, only 2 are displayed followed by a **Show more** link. Click the link to open Explorer filtered for the selected KPI, where you can see all the annotations of the selected KPI.
	Add annotation. Opens a box where you can add your annotation: Enter the text of the annotation and click **Add** to add the annotation to the list or **Discard** to discard the annotation.
	Send mail. Opens an Outlook email, with the owner of the selected Objective, KPI, or Breakdown KPI listed in the **To** box, **Regarding: <Objective_KPI_Breakdown_KPI_name>** in the **Subject** box, and the text of the latest annotation in the body of the email.
	Save snapshot. Opens your list of directories, where you can select the location of the PDF you are creating.

UI Element	Description
	Print. Opens a dialog box where you can select and configure the printer, and send the tooltip to print.
	Reports. Opens a popup that lists all the additional info configured for the KPI: reports, Dashboard pages, or external URLs.
More Info	Click to open Explorer filtered by the selected KPI.

Objective Tooltip

The Objective Tooltip displays detailed information about the Objective.

To access	Move the cursor above the name of an Objective in a Dashboard component.
Important information	When an Objective displays data but some of its KPIs do not have calculated data (for example, their formula is incorrect, or includes a division by zero), the Objective Tooltip is available but displays **Objective has been calculated with partial data** and clicking the Objective in the Objective Tooltip displays the Explorer tab with the same message. When an Objective does not display data because none of its KPIs has data, the Objective Tooltip is available. When an Objective does not display data because the calculation period of the Objective corresponds to a time when none of its KPIs had not yet been configured in the Studio, the Objective Tooltip is not available.
Relevant tasks	"View and Analyze the Business Objectives" (on page 281)

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name>	The name of the Objective.

UI Element	Description
\<Over Time value\>	The graph displays the over time value of the Objective for 5 periods in the past from the current period. The periods displayed are based on the period configured for the Objective. For example, if the Objective period is 1 month, the graph displays the value of the Objective over the past 5 months. A large point in the graph indicates that an annotation was added to that point. Move the cursor above the point to see the annotation. You can add a new annotation to the over time chart only if there is already an annotation attached to the over time chart. To add an annotation to the chart, you can click the **More info** link to open Explorer filtered for the selected Objective.
\<KPI and Breakdown KPIs\>	This section displays: • The name of the Objective, its value, trend, and status. • If the Objective has 3 KPIs or less, the 3 KPIs with the lowest score are displayed in the tooltip with their name, value, trend, and status. • If the Objective has more than 3 KPIs, a **Show more** link appears below the list of KPIs. Click the link to open Explorer filtered for the selected Objective, where you can see all the KPIs of the selected Objective.
Annotations	Lists the last 3 annotations sent by all users (including the current user). If more than 3 annotations have been sent for the selected Objective, only 2 are displayed followed by a **Show more** link. Click the link to open Explorer filtered for the selected Objective, where you can see all the annotations of the selected Objective.
	Add annotation. Opens a box where you can add your annotation: Enter the text of the annotation and click **Add** to add the annotation to the list or **Discard** to discard the annotation.
	Send mail. Opens an Outlook email, with the owner of the selected Objective, KPI, or Breakdown KPI listed in the **To** box, **Regarding: \<Objective_KPI_ Breakdown_KPI_name\>** in the **Subject** box, and the text of the latest annotation in the body of the email.

UI Element	Description
	Save snapshot. Opens your list of directories, where you can select the location of the PDF you are creating.
	Print. Opens a dialog box where you can select and configure the printer, and send the tooltip to print.
	Reports. Opens a popup that lists all the additional info configured for the Objective: reports, Dashboard pages, or external URLs.
More Info	Click to open Explorer filtered by the selected Objective.

CIO Out-of-the-Box Page

The CIO page provides the tools that help the CIO plan, expand and monitor the strategies that help managing the business challenges of that role.

The following information describes the out-of-the-box CIO page available in HP IT Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 294)
- "CIO Page Scorecard Contents" (on page 294)
- "Analytics" (on page 296)
- "Page Layout" (on page 297)

Organizational Goals and Challenges

The CIO's organizational goals are described in "Chief Information Officer (CIO) Business Challenges" (on page 18).

- Ensure that the projects aligned with organizational business goals and motivate the entire organization forward
- Provide the processes to the business demands and requirements
- Ensure coordination and communication between all project parties, in order that the project will end on time, budget and quality

CIO Page Scorecard Contents

The Scorecard component appearing on the CIO Page includes the following strategies, objectives, and KPIs:

Strategy	Objective	KPI
IT Value	Reduce Cost	% of Change in Business Service Cost % of Change in Assets Cost
	Stewardship of IT Investment	% Variance of Actual vs Planned Costs - Avg Cost of IT Delivery Per Customer % of IT POR vs Total Revenue % of Projects Budget at Risk % Actual vs Planned Projects Cost
	Alignment with Business Strategy	% of Capex vs Opex Spending - Innovation Delivery % of Time Invested on Strategic Projects

Strategy	Objective	KPI
		• % of Projects Associated with Business Objectives
Customer	Improve Service Delivery Performance	• % of Available Services • % of Met Service Performance • Avg Outage Duration • Mean Time Between Failures of Services • Mean Time To Repair a Service • Number of Opened Incidents • Number of Closed Incidents
	Improve Customer Satisfaction	• % of Met SLAs • % of Service level Objectives for Met IT Process Activities • Downtime % of SLA • % of Satisfied Customers
Operational Excellence	Improve Project Execution	• % of Healthy Projects • % of Project Tasks on Time • % of Projects on Time • % of Projects with Unresolved Urgent Issues • Avg Delivery Time of New Products or Services • Avg Project Initiation Time • Deviation % of Planned Work Hours
	Improve Responsiveness	• % of FCR • Avg Time to Procure Hardware • Incident Aging • % of Interactions in Backlog • Avg Interaction Closure Duration
	Achieve Process Excellence	• % of Reopened Incidents • % of Emergency Changes • % of SLA Expirations

Strategy	Objective	KPI
		• Avg Age of Hardware Assets
		• Change Success Rate
		• % of Unauthorized Implemented Changes
		• % of Escalated Incidents
		• % of Assets in Maintenance
		• % of Assets Returned to Supplier
		• % of Changes Resulted in Outage
		• % of Unplanned Changes
		• Changes Backlog Size
		• Number of Completed Changes
		• Incidents Backlog Size
		• Incident Resolution Time
		• % of Software Licenses in Use
Future Orientation	Improve Staff Effectiveness	• % of Project Effort Done by External Resources

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see "Web Intelligence Report Viewer Component" (on page 223).

- "Physical to Virtual Server Ratio Report" (on page 252)
- "Server Growth Rate Report" (on page 253)
- "Total Number of Servers Report" (on page 253)
- "Mean Time Between Failures for Top 3 Services Report" (on page 263)
- "Emergency Changes by Services Report" (on page 254)
- "Number of Incidents Caused by Changes vs Total Number of Incidents" (on page 255)
- "Percentage of Breached Incidents Report" (on page 256)
- "Critical Incidents by Customer Report" (on page 254)
- "Critical Incidents for Top 3 Services Report" (on page 255)
- "Incident Closure Time for the Top 3 Services Report" (on page 255)
- "Actual Project Efforts for Top 3 Services Report" (on page 259)
- "Actual vs. Planned Cost for Top 3 Projects Report" (on page 259)

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Page Layout

For example, a typical out-of-the-box CIO page is as follows:

VP of Operations Page

The VP of Operations page provides the tools that help the VP of Operations plan, expand and monitor the strategies that help managing the business challenges of that role.

The following information describes the out-of-the-box VP of Operations page available in HP IT Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 298)
- "VP of Operations Scorecard" (on page 298)
- "Analytics" (on page 299)
- "Page Layout" (on page 300)

Organizational Goals and Challenges

The VP of Operations organizational goals are described in "VP of Operations Business Challenges" (on page 19).

- Ensure that the projects aligned with organizational business goals and motivate the entire organization forward
- Provide the processes to the business demands and requirements
- Ensure coordination and communication between all project parties, in order that the project will end on time, budget and quality

VP of Operations Scorecard

The Scorecard component appearing on the VP of Operations Page includes the following strategies, objectives, and KPIs. For details on the KPIs, see "Reference: KPIs".

Strategy	Objective	KPI
IT Value	Reduce Cost	- % of Change in Assets Cost
	Stewardship of IT Investment	- % Actual vs Planned Projects Cost
Customer	Improve Service Delivery Performance	- % of Available Services - % of Met Service Performance - Avg Outage Duration - Mean Time Between Failures of Services - Mean Time To Repair a Service - Number of Opened Incidents - Number of Closed Incidents
	Improve Customer Satisfaction	- % of Met SLAs

Strategy	Objective	KPI
		• % of Service level Objectives for Met IT Process Activities • Downtime % of SLA • % of Satisfied Customers
Operational Excellence	Improve Responsiveness	• % of FCR • Avg Time to Procure Hardware • Incident Aging • % of Interactions in Backlog • Avg Interaction Closure Duration
	Achieve Process Excellence	• ▪ % of Reopened Incidents ▪ % of Emergency Changes ▪ % of SLA Expirations ▪ Avg Age of Hardware Assets ▪ Change Success Rate • ▪ Change Success Rate ▪ % of Unauthorized Implemented Changes ▪ % of Escalated Incidents ▪ % of Assets in Maintenance ▪ % of Assets Returned to Supplier ▪ % of Changes Resulted in Outage ▪ % of Unplanned Changes ▪ Changes Backlog Size ▪ Number of Completed Changes ▪ Incidents Backlog Size ▪ Incident Resolution Time ▪ % of Software Licenses in Use

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see .

- "Mean Time Between Failures for Top 3 Services Report" (on page 263)
- "Top 3 Services Suppliers Report" (on page 264)
- "Critical Incidents for Top 3 Services Report" (on page 255)
- "Total Number of Servers Report" (on page 253)

Page Layout

For example, a typical out-of-the-box VP of Operations page looks as follows:

VP of Applications Page

The VP of Applications page provides the tools that help the VP of Applications plan, expand and monitor the strategies that help managing the business challenges of that role.

The following information describes the out-of-the-box VP of Applications page available in HP IT Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 300)
- "VP of Applications Scorecard" (on page 301)
- "Analytics" (on page 302)
- "Page Layout" (on page 302)

Organizational Goals and Challenges

The VP of Applications organizational goals are described in "VP of Applications Business Challenges" (on page 19).

- Ensure that the projects aligned with organizational business goals and motivate the entire organization forward
- Provide the processes to the business demands and requirements

- Ensure coordination and communication between all project parties, in order that the project will end on time, budget and quality

VP of Applications Scorecard

The Scorecard component appearing on the VP of Applications Page includes the following strategies, objectives, and KPIs. For details on the KPIs, see "Reference: KPIs".

Strategy	Objective	KPI
Customer	Improve Customer Satisfaction	% of Approved Project Scope Changes - Demands Backlog - Project Scope Changes Backlog - Proposals Backlog
	Improve Project Execution	% of Healthy Projects % of Projects on Time % of Projects with Unresolved Urgent Issues - Detected vs. Closed Defect Ratio
Customer	Improve Quality of Delivery	- Average Time to Resolve Production Defect - Mean time between failures of services - Mean time to repair a service
Future Orientation	Improve Knowledge Management	% of Documented Requirements
	Improve Staff Effectiveness	% of Rejected Defects % of Reopened Defects % of Tests Resulting in Defects - Average Time to Review Requirement - Defect Resolution Time
IT Value	Alignment with Business Strategy	% of Projects Associated with Business Objectives % of Time Invested on Strategic Projects - Innovation Delivery
	Improve ROI of Automation	% of Failed Tests % of Successful Test Runs

Strategy	Objective	KPI

	Stewardship of IT Investment	• % of Actual vs Planned Projects Cost
		• % of Change in Project Cost
		  % of IT POR vs Total Revenue
		  % of Projects Budget at Risk

Operational Excellence	Accelerate Agility	• Average Age of Active Demands • Average Age of Active Proposals • Average Cycle Duration • Avg Delivery Time of New Products or Services • Avg Project Initiation Time • Average Time to Evaluate Proposal • Average Time to Evaluate Scope Change • Time to Resolve Project Scope Change
	Achieve Process Excellence	• % of Authorized Tests • % of Completed Tests • % of Requirements Traced to Tests • % of Reviewed Requirements • % of Tested Requirements
	Improve Quality	• % of Actual vs. Planned Tests Executed • % of Critical Defects • Number of Escaped Defects
	Increase Automation Adoption	• % of Automated Tests

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see "Web Intelligence Report Viewer Component" (on page 223).

- "Number of Open High Priority Requirements for Top 3 Projects Report" (on page 243)
- "Percentage of Tests Linked to Defects for Top 3 Cycles Report" (on page 251)
- "Number of Reopened Defects by Cycle Report" (on page 241)

Page Layout

For example, a typical out-of-the-box VP of Applications page looks as follows:

Director of Service Management Page

The following information describes the out-of-box Director of Service Management page available in HP IT Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 304)
- "Director of Service Management Page Scorecard" (on page 304)
- "Analytics" (on page 305)
- "Page Layout" (on page 305)

Organizational Goals and Challenges

The Director of Service Management's organizational goals are described in "Director of Service Management Business Challenges" (on page 21).

Director of Service Management Page Scorecard

The Scorecard component appearing on the Director of Service Management Page includes the following strategies, objectives, and KPIs. For details about the KPIs, see "Reference: KPIs".

Strategy	Objective	KPI
IT Value	Reduce Cost	• % of Change in Business Service Cost
	Stewardship of IT Investment	• Avg Cost of IT Delivery Per Customer
Customer	Improve Customer Satisfaction	• % of Met SLAs • % of Satisfied Customers • % of Service level Objectives for Met IT Process Activities • Downtime % of SLA
	Improve Service Delivery Performance	• % of Available Services • % of Met Service Performance • Avg Outage Duration • Number of Closed Incidents • Number of Opened Incidents • Mean Time To Repair a Service • Mean Time Between Failures of Services
Operational Excellence	Achieve Process Excellence	• % of Reopened Incidents • % of Emergency Changes • % of Escalated Incidents

Strategy	Objective	KPI
		• % of SLA Expirations • Incidents Backlog Size • % of Unauthorized Implemented Changes • Change Success Rate • % of Unplanned Changes • % of Changes Resulted in Outage
	Improve Project Execution	• Avg Delivery Time of New Products or Services
	Improve Responsiveness$$$$	• % of FCR • % of Interactions in Backlog • Incident Aging • Avg Interaction Closure Duration

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see "Web Intelligence Report Viewer Component" (on page 223).

- "SLA Not Met by Consumers Report" (on page 263)
- "Critical Incidents by Customer Report" (on page 254)
- "Top 3 Services Suppliers Report" (on page 264)
- "Mean Time Between Failures for Top 3 Services Report" (on page 263)

Page Layout

For example, a typical out-of-the-box Director of Service Management page is as follows:

PMO page

The Project Manager Officer (PMO) page provides the tools that help the PMO plan, expand and monitor the strategies that help managing the business challenges of that role.

The following information describes the out-of-box PMO page available in HP IT Executive Scorecard Dashboard.

Organizational Goals and Challenges

The PMO's organizational goals are described in .

PMO Page Scorecard

The Scorecard component appearing on the PMO Page includes the following strategies, objectives, and KPIs. For details on the KPIs, see "Reference: KPIs".

Strategy	Objective	KPI
IT Value	Alignment with Business Strategy	% of Capex vs Opex Spending % of Projects Associated with Business Objectives % of Time Invested on Strategic Projects - Innovation Delivery
	Stewardship of IT Investment	% Actual vs Planned Projects Cost % of Change in Projects Cost % of IT POR vs Total Revenue % of Projects Budget at Risk
Operational Excellence	Achieve Process Excellence	% of Software Licenses in Use
	Improve Project Execution	% of Healthy Projects % of Project Tasks on Time % of Projects on Time

Strategy	Objective	KPI
		- % of Projects with Unresolved Urgent Issues - Avg Delivery Time of New Products or Services - Avg Project Initiation Time - Deviation % of Planned Work Hours
Future Orientation	Improve Staff Effectiveness	- % of Project Effort Done by External Resources

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see "Web Intelligence Report Viewer Component" (on page 223) and .

- "Actual vs. Planned Cost for Top 3 Projects Report" (on page 259)

- "Project Health for Active Projects Report" (on page 262)

- "Actual Project Efforts for Top 3 Services Report" (on page 259)

- "Percentage of Time Spent on New Projects Report" (on page 260)

Page Layout

For example, a typical out-of-the-box PMO page looks as follows:

PMO User story - Scenario

1. Dan is the CIO. While preparing for a monthly project review with his PMO, he logs in to his HP IT Executive Scorecard to gain insights on how his organization met its IT business objectives.

2. While checking the performance of his IT organization, Dan looks at his Operational Excellence Perspective and sees that the status of the Improve Project Execution objective is red.

3. To understand why he has not met his Project Execution objective, Dan would like to view the Scorecard of his direct report, Peter. Peter's Scorecard includes the cascaded objectives provided by Dan.

4. Peter is the Project Manager Officer responsible for the entire project execution within IT. Dan accesses Peter's Scorecard to get additional insights as to the possible reasons for not meeting the set objective.

5. Dan views a negative trend in project performance over the past few months (% of Projects on Time and % of Healthy Projects), and checks the annotations section to see whether a plan is in place.

6. He writes up a new annotation to Peter requesting clarifications. "Peter – Appears that we have poor project execution performance, please provide insight and set a plan by EOW".

7. Peter receives an email from Dan regarding the problematic KPIs. He accesses his Dashboard in context.

8. Peter sees that the Improve Project Execution objective is red. He also sees that the status of Stewardship of IT Investments objective is red.

9. To understand why he has not met his Project Execution and Stewardship of IT Investments Objectives, he would like to get more insight on the KPIs performance.

10. He accesses the KPI explorer in the context of the "improve project execution" objective. He sees that the reason for not meeting the objective is due to the low percentage of healthy projects and projects delivered on time.

11. He also sees a negative trend for those KPIs over the past few months, and checks the annotations section to see whether a plan is in place.

12. He also sees that the reason for not meeting the Stewardship of IT Investment objective is due to high percentage of budget assigned to at-risk projects.

13. He also sees a negative trend in the budget for projects that have been at risk over the past few months, and checks the annotations section to see action items.

14. Peter expands the KPIs to a breakdown by Organization, and then by region, and realizes that he needs to contact Samuel the Program Manager in a Michigan organization that is responsible for the implementation of the Trading service. Peter identifies this easily as Samuel is the owner of those KPIs.

15. He writes up a new annotation to Samuel requesting clarifications and action items regarding the health of the project he is responsible for: "Samuel – Appears that we have poor project execution performance, please provide insight and set action items accordingly by EOW".

16. Samuel receives an email from Peter regarding the problematic KPI. He accesses his Dashboard in context, and is directed to the KPI Explorer.

17. Peter also sends a notification to Jack. Jack is the Business Relationships Manager who works with the hedge funds organization that is dependent on the delivery, quality, risk, and cost of critical projects for the Trading service.

18. He writes up another annotation to Jack requesting that he be on top of the project health issues and that he aligns expectations with the customer. "Jack – Appears that we have some health issues with the delivery of the Trading service project, please make sure you are on top of those issues, work with Samuel, and align expectations with the hedge funds LOB manager."

19. Samuel writes up a new annotation both to Peter and Jack that he is on top of the issue and will initiate a task force to analyze and provide a get-well plan. "Setting a task force to handle this issue and provide action items accordingly".

20. Optional, drill down to PPM:
    a. Samuel the program manager scheduled a meeting with the team that is responsible for the implementation of the Trading Service project.

    b. Samuel opens the HP IT Executive Scorecard to view the KPIs that indicate the bad performance, including trends, and past annotations.

    c. From this context Samuel selects a link to the PPM operational reports that present all delayed tasks, unexpected issues, and unavailable resources in the relevant pool for the last year since the project started.

    d. The team then brainstorm on some potential functionality that can be reduced from the project.

    e. Samuel contacts Jack in order to schedule a meeting with the Hedge Funds LOB manager to align expectations regarding functionality to be removed or consider delay in project delivery.

BRM Page

The Business Relationships Manager (BRM) page provides the tools that help the BRM plan, expand and monitor the strategies that help managing the business challenges of that role.

The following information describes the out-of-the-box BRM available in HP IT Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 311)
- "BRM Page Scorecard" (on page 311)
- "BRM Page" (on page 311)
- "Analytics" (on page 312)

Organizational Goals and Challenges

The BRMs's organizational goals are described in "Business Relationships Manager (BRM) Business Challenges" (on page 22).

BRM Page Scorecard

The Scorecard component appearing on the BRM Page includes the following strategies, objectives, and KPIs:

Strategy	Objective	KPI
Customer	Improve Customer Satisfaction	- % of Met SLAs - % of Satisfied Customers - % of Service level Objectives for Met IT Process Activities - Downtime % of SLA
	Improve Service Delivery Performance	- % of Service Availability - % of Service Performance Met - Avg Outage Duration - Number of Closed Incidents - Number of Opened Incidents - Mean Time To Repair a Service - Mean Time Between Failures of Services
Operational Excellence	Achieve Process Excellence	- % of Reopened Incidents - % of Escalated Incidents - % of SLA Expirations

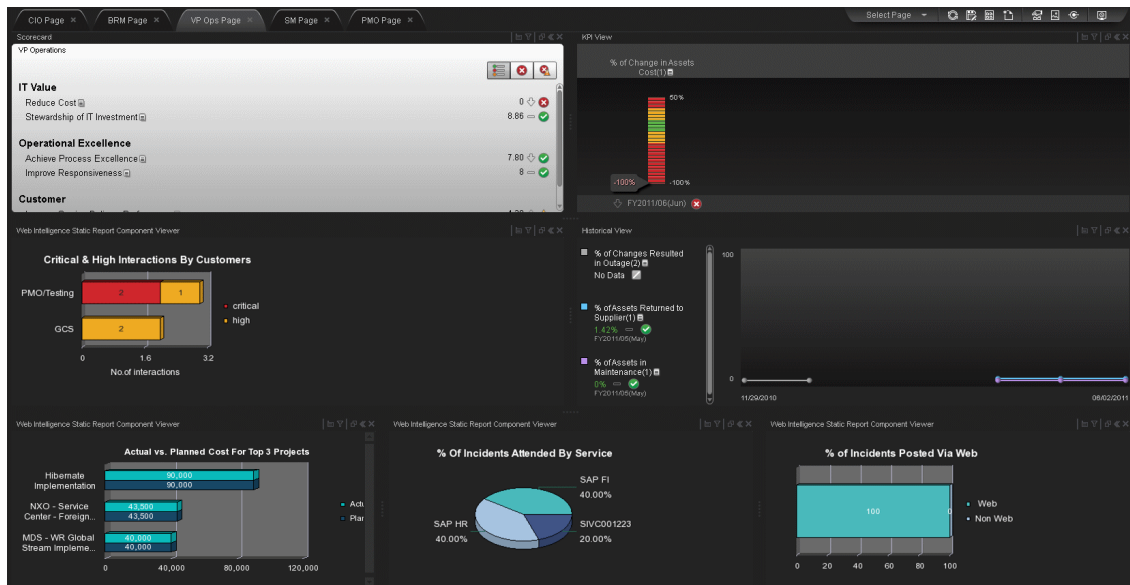| Strategy	Objective	KPI
		• Incidents Backlog Size • Incident Resolution Time
	Improve Responsiveness	• % of FCR • % of Interactions in Backlog • Incident Aging • Avg Interaction Closure Duration

Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Report Viewer components. For details, see "Web Intelligence Report Viewer Component" (on page 223).

- "Mean Time Between Failures for Top 3 Services Report" (on page 263)
- "Number of Incidents Caused by Changes vs Total Number of Incidents" (on page 255)
- "Critical Incidents by Customer Report" (on page 254)
- "Percentage of Breached Incidents Report" (on page 256)
- "Incident Closure Time for the Top 3 Services Report" (on page 255)
- "Percentage of Incidents Attended by Service Report" (on page 256)
- "Critical Incidents for Top 3 Services Report" (on page 255)
- "No. of Interactions by Category in Last Quarter Report" (on page 258)
- "Percentage of Service Requests Posted via Web (Self-Help) Report" (on page 257)
- "High Priority Interactions by Customers Report" (on page 258)
- "SLA Not Met by Consumers Report" (on page 263)
- "SLA Not Met by Top 3 Services Report" (on page 263)

Page Layout

For example, a typical out-of-the-box BRM page is as follows:

Explorer Tab

Use the tab to display detailed Objective KPI, Breakdown KPI, or Orphan KPI information.

To access	• Click the **Explorer** tab to access detailed information about all the Objectives, KPIs, Breakdown KPIs, or Orphan KPIs that are active in Executive Studio. In the Explorer tab, click the relevant item to display detailed information about that item.
	• Click **More info** in the Scorecard component Objective tooltip or KPI tooltip to access detailed information about the specific Objective or KPI.
	• Double-click a point in the Historical View component to open the Explorer tab for the period of time corresponding to that point and to the KPI. For details, see "Historical View Component" (on page 191).
	• Double-click a KPI name in any of the components except for the Rolodex component. For details, see "Add Components to a Page User Interface" (on page 185).
Important information	If you do not have permission to display the Explorer tab, then when you double-click a point in the KPI Overtime component or the KPI name in the other components, the Explorer tab displays only the details for the selected KPI. You are not able to display all the nodes in the Active tree.
	Click X in the top right corner of the Explorer tab to access or return to the Dashboard.
	The page includes the following areas:
	"Active KPIs" (on page 315)
	"Explorer Details Tab" (on page 316)
	"Calculation Details Tab" (on page 318)
	"Annotations Area" (on page 321)
	"<Additional Information> Area" (on page 322)
	"Goal Map Tab" (on page 320)
Relevant tasks	"How to View the Resulting Displays" (on page 281)

Active KPIs

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Search>	Enter the relevant string to display, in the tree, the nodes whose name includes the string. In addition, the child nodes of the filtered nodes are also listed even when the child node names do not include the string. **Note:** If the display is filtered (in case you accessed the Explorer from one of the components in the Dashboard, the <Search> box displays information about the filter. For example:
⩒	**Expand the query.** Opens additional fields to help you refine the component's filter: • **Status:** Select one of the **All**, **Good**, **Warning**, or **Critical** values to display only the KPIs with the selected status, in the Active KPIs area.

UI Element	Description
	Type: Select: **All.** To display all the elements in the tree. **KPIs.** To display only the KPIs with the selected status. **Objectives.** To display only the Objectives and those of their KPIs that have the selected status.
Active KPIs	The pane lists all the Scorecards, Perspectives, Objectives, KPIs, Breakdown KPIs, and Orphan KPIs, active in the HP IT Executive Scorecard. Click one of the Objectives, KPIs, Breakdown KPIs, or Orphan KPIs to display their detailed information in the other panes. The area also displays on the right of the pane, for each selected item: - The name of the item. - The value of the item. ⊟ ⇧ ⇩ The trend icon indicates the trend of the value calculated over the current period. - The status of the item, during the current period. It can be: ☑ indicates that the status is **Good**. ⚠ indicates that the status is **Warning**. ☒ indicates that the status is **Critical**.

Explorer Details Tab

The tab displays the selected item over time information for the current period as defined in the item configuration. You can also display past information by selecting a past period of time.

For an Objective, KPI, Breakdown KPI, or Orphan KPI:

The figure below shows an example of Explorer details for an Objective.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Item name>	The title on the top left corner lists: • The name of the selected item. • The value of the selected item. • The trend icon indicates the trend of the value calculated over the current period configured for the selected Objective and KPI. • The status of the Objective, KPI, Breakdown KPI, or Orphan KPI during the current period. It can be: ▪ indicates that the status is **Good**. ▪ indicates that the status is **Warning**. ▪ indicates that the status is **Error**. The current period corresponding to the period configured for the selected item.
5 months	To display historical information, select the relevant past periods of time corresponding to the period configured for the selected item.
	Select one of the following chart types: to display the information in line chart format. to display the information in bar chart format. to display the information in table format.
	Indicates a regular "point" corresponding to a division of the time period. You can move the cursor above the graph to display a line that shows the exact date of a specific point.

UI Element	Description
	(yellow point) Indicates that there is no calculated data for the selected item for the selected period. This can be due to an incorrect formula (for example: division by zero), an arithmetic error, or other reasons. Double-click the problematic point to open the Explorer page where a short description of the reason why there is no data for that point, is displayed at the top of the page.
<Threshold>	The chart automatically displays the thresholds if you have selected an Objective.
<Y-axis>	The Y-axis displays the values of the selected item in the relevant unit.
<X-axis>	The X-axis displays the time frame of the selected item, split into equal segments"Historical View Component Filter Dialog Box" (on page 187).

Calculation Details Tab

A typical Calculation Details tab for a KPI:

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Formula	The formula used to calculate the value of the Objective, KPI, or Breakdown KPI.
Filter	The filter used to limit the range of data used to calculate the value of the Objective, KPI or Breakdown KPI.
Thresholds	The threshold definition of the Objective, KPI or Breakdown KPI.
Unit	The unit of the KPI or Breakdown KPI.
Calculation Period	The period of the KPI or Breakdown KPI.
Calculated using	The type of rule used to calculate the Objective's score according to the score of its children. It can be: • **Worst child**. The Objective score is the worst score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Best child**. The Objective score is the best score of all the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the Objectives assigned to the parent Objective. • **Weighted average**. The Objective score is the average of the scores of the KPIs assigned to the parent Objective (when the Objective has child KPIs) or of the child Objectives multiplied by the relevant weights. When you select this

UI Element	Description
	rule, an additional column (**Weight**) where the user can configure the weight of each child (Objective or KPI) for the weighted average calculation. When you select this value a note is displayed explaining what is weighted average. .

Goal Map Tab

The Goal Map provides a tree of nodes that represents the display of the impact of the selected KPI, Breakdown KPI, or Orphan KPI on the relevant Objectives, Perspectives, and Scorecards, or of the selected Objective on the relevant Perspectives, and Scorecards.

The Goal Map displays the impact configuration only for the current period of the selected KPI, Breakdown KPI, or Orphan KPI.

In addition, the display of the Goal Map depends on the user permission.

You can double-click on a KPI, Breakdown KPI, or Orphan KPI to select it in the Active Tree and to display the Explorer Details tab for the selected item and the current period.

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
	Represents the parent Scorecard of the selected KPI, Breakdown KPI, or Orphan KPI. The name of the Scorecard is displayed near the icon.
	Represents the parent Perspective of the selected KPI, Breakdown KPI, or Orphan KPI.

UI Element	Description
	The name of the Perspective is displayed near the icon.
	Represents one of the following: ● The selected Objective. The name, score, trend, and status of the Objective is displayed near the icon. ● The parent Objective of the selected KPI, Breakdown KPI, or Orphan KPI.
	Represents the selected KPI, Breakdown KPI, or Orphan KPI. The name, value, trend, and status of the KPI, Breakdown KPI, or Orphan KPI is displayed near the icon.
<Toolbar>	For details, see "Annotations Area" (on page 321).

Annotations Area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Annotation>	Lists the annotations sent for the selected Objective, KPI, Breakdown KPI, or Orphan KPI. The annotation includes the sender's name and photo (if available), the date and time when the annotation was sent, and the contents of the annotation. The listed annotations correspond to the annotations entered by users for the selected period of time (current period of time in addition to the historical period of time selected in the graph). The sender can also:

UI Element	Description
	• Edit an annotation. An edit box opens around the text of the annotation. A **Save** icon is displayed. • Discard an annotation. A confirmation message is issued. Click **OK** to discard.
	Add annotation. Opens a box where you can add your annotation: Enter the text of the annotation and click **Add** to add the annotation to the list or **Discard** to discard the annotation.
	Send mail. Opens an Outlook email, with the owner of the selected Objective, KPI, or Breakdown KPI listed in the **To** box, **Regarding: <Objective_KPI_Breakdown_KPI_name>** in the **Subject** box, and the text of the latest annotation in the body of the email.
	Save snapshot. Opens your list of directories, where you can select the location of the PDF you are creating.
	Print. Displays the Print dialog box where you can select the printer and how to print the annotation. The printout includes: • The graph area with the tab that was selected while you clicked the Print button. • The Annotations Area. • The Additional Information Area relevant for the selected tab.

<Additional Information> Area

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Short description	The description of the Objective, KPI, Breakdown KPI, or Orphan KPI selected in the Active KPIs pane.
Business motivation	The business motivation of the Objective, KPI, Breakdown KPI, or Orphan KPI selected in the Active KPIs pane.
Owner	The owner of the Objective, KPI, Breakdown KPI, or Orphan KPI selected in the Active KPIs pane.
Additional info	Links to external pages, Dashboard pages, BO or Xcelsius reports as configured in the Objective, KPI, Breakdown KPI, or Orphan KPI configuration.

Work with TeleManagement Forum KPIs

TeleManagement (TM) Forum is a global, non-profit industry association focused on simplifying the complexity of running a service provider's business through a wealth of knowledge, intellectual capital, collaboration and standards. As a not-for-profit organization, TM Forum is driven by a Board of senior executives from across the industry.

Developed by service providers, for service providers, TM Forum's Business Metrics and Benchmarking Programs define and gather quantitative metrics ranging from tactical to business performance data and conduct qualitative surveys on topics of service provider interest. There are two primary aspects to Business Metrics Automation (BMA): Inclusion of the appropriate, standard TM Forum Business Metrics in products and systems used by service providers and support for the programmatic interface into the Forum's secure Benchmarking Database, via controlled, secure data transfer. Service providers can also implement these aspects directly in their internal systems and can then work with the BMA interface.

The following figure presents the complete set of TM Forum Business metrics in release 5. The 2 groups currently implemented in Executive Scorecardhave been highlighted.

For many service providers, the easier approach is simply to use products from suppliers who have added the Business Metrics and BMA interface to their commercial off the shelf (COTS) products. These products bear a mark indicating that they have been tested for their inclusion of the appropriate group of metrics (such as the set of revenue assurance metrics for a revenue assurance product) and the BMA interface functionality. Service providers can ensure consistent, accurate, and apples-to-apples comparisons for both benchmarking studies and internal dashboards by procuring products with TM Forum Business Metrics built in. TM Forum's Business Benchmarking Program manages and delivers metric-based business performance benchmarking studies on topics including Broadband, Mobile, Business IP Services, and Self-Service.

HP IT Executive Scorecard is certified (from this version and above) in the following areas: **Customer Problem Resolution** and **Service Problem Management**.The certification provides a secure interaction with the TM Forum Business Benchmarking database, including uploading data for the specified standard metrics in the correct format, generating queries, and downloading the query results.

HP IT Executive Scorecard offers the standard metrics in the following areas: **Customer Problem Resolution** and **Service Problem Management**.

A special tool extracts the results from the TM Forum-related KPIs from the Results database, the values extracted are mapped to TM Forum business metrics and business metrics details. This information is then structured as XML and changed into an XML file and the XML files are sent to the TM Forum Benchmarking database via the TM Forum secure Web Portal.

Learn More

TM Forum-Related KPIs Location in the Studio

After they have been imported, the TM Forum-related KPIs are listed in the Active KPIs pane, in the **Industry Standards** Scorecard, in the **TM Forum** Perspective, and are distributed under two Objectives: **Customer Problem Resolution** and **Service Problem Management**.

Tip: Though these KPIs also appear by default in the KPI Template pane, it is recommended not to drag and drop these KPIs from the KPIs Template pane to the Active KPIs pane to activate them, because in such a case, the Breakdown KPIs do not appear in the Active KPIs pane and these Breakdown KPIs are important for TMF. It is recommended instead to import the TMF-related tree of Scorecards, Perspectives, Objectives, KPIs, and Breakdown KPIs directly as described below into the Active KPIs pane.

TM Forum-Related KPIs

A folder of XML files is available to be imported into the Studio to provide the relevant components needed to create the corresponding TM Forum-related KPIs.

Each file corresponds to a KPI. For details about the KPIs, see "Work with TeleManagement Forum KPIs" (on page 323).

Data Displayed by the TM Forum-Related KPIs

The data displayed by the TM Forum-related KPIs is extracted from the Incident and Interaction Data in the IT Infrastructures Library (ITIL) of HP Service Manager related to SQM or CME.

Tasks

This section includes:

"Work with TeleManagement Forum KPIs" (on page 323)

"Import Source Data using ETL tool" (on page 326)

"Import the TM Forum-related KPIs into the Active KPIs pane in the Studio" (on page 326)

"Calculate All Breakdown Paths" (on page 328)

"Work with TeleManagement Forum KPIs" (on page 323)

"Check Certification Results in BMA Portal" (on page 329)

"View the TM Forum-Related KPIs in the Dashboard" (on page 330)

1. **Make sure that the integration with the HP Service Manager data source has been performed**

   For details, see "Integrate with SM as a Data Source" in *Data Warehouse Admin Guide*.

2. **Import Source Data using ETL tool**

   Use the following commands to import the source data into the Studio:

   - dw_abc_load_batch -streamId Upstream -register -starttime 22:30

   - dw_abc_run_steps -streamId Upstream

   For more information about these commands and how to use them, see "How to Run the ETLs" in *Data Warehouse Admin Guide*.

3. **Import the TM Forum-related KPIs into the Active KPIs pane in the Studio**

   a. Copy the files from the **<install-root>\tools\TMF\ContentApp** directory in the Executive Scorecard DVD to the following directory:
      C:\<installation directory>\agora\glassfish\glassfish\domains\BTOA\config\kpiconfiguration\import\load

   b. Activate **<installation directory>\agora\jdk\bin\j-Console.exe.**

   c. Select **Remote process** and enter **localhost:10008** in the field below.

d. Click the **MBeans** tab.

e. Expand the **KPILoader** and click the **importKPIs** button. Close the j-Console.

4. **Calculate All Breakdown Paths**

   In the Active KPI Pane in the Studio, under the Industry Standards Scorecard, under the TM Forum Perspective, the KPIs are distributed between the Customer Problem Resolution Objective and the Service Problem Management Objective.

   Click the TM Forum Perspective, and click 🔧 and select the **Calculate now** option, and in the Calculate now dialog box, select the ServiceDesk universe. This operation calculates the values, statuses, and trends of all the KPIs and Breakdown KPIs as well as the values of the related Objectives, Perspectives, and Scorecards and displays the relevant data in the Dashboard.

   For details on calculating KPIs, see .

5. **Generate XML Data and Send the Data to the BMA Portal for Certification**

   a. Set the XS server information and BMA web service information in the **xmlTemplateConfig.properties** file. The file is used to store information about the XS server and the BMA web service.

   ```
   #CPR --- Customer Problem Resolution
   CPR = CPR-BB-Max-Data,CPR-IP-Min-Short-Data
   CPR_Data = CPR-BB-Max-Data,CPR-IP-Min-Short-Data
   CPR_App = CPR-BB-Max-App,CPR-BB-Min-App
   #SPM --- Service Problem Management
   SPM = SPM-BB-Max-Data,SPM-IP-Min-Short-Data
   SPM_Data = SPM-BB-Max-Data,SPM-IP-Min-Short-Data
   SPM_App = SPM-BB-Max-App,SPM-BB-Min-App
   #All metric names - the names of the separate Metric XML files
   that are created by the import operation.
   #batch file and that are sent to the BMA site.
   Metric_All = CPR-BB-Max-Data,CPR-IP-Min-Short-Data,CPR-BB-Max-
   App,CPR-BB-Min-App,
   SPM-BB-Max-App,SPM-BB-Max-Data,SPM-BB-Min-App,SPM-IP-Min-Short-
   Data
   #Periods (Don't change the Periods name) - The periods for which
   you want to calculate the metrics.
   Periods = FY2011/04(Apr),FY2011/05(May),FY2011/06(Jun)
   #Login TMF info (Don't change the key name) - the username and
   password are provided by BMA:
   #BMA WS login name:
   ws_name = xyz
   #BMA Web Service login password:
   ws_password = xyz
   #BMA Web Service URL:
   ws_url = http://
   #BMA Web Service port:
   ws_port =
   # The host name of the XS Server:
   ```

```
server = xyz
# The port of the Executive Scorecard server:
port = 10004
```

b. For each metric group, generate the relevant XML file based on the templates using the command:
    java -jar BMA_16.jar <metric_group_code> <research_stream> 0

    where metric_group_code can be:

    ○ **CPR** - Customer Problem Resolution

    ○ **SPM** - Service Problem Management

    and <research_stream>. For certification, TM Forum has defined Research Streams which corresponds to different types of industry. Current research streams are:

    ○ **BB** (Broadband) - Includes xDSL, cable fiber and satellite.

    ○ **Mobile** - Includes 2G, 3G and 4G. It represents network equipment used to be provide the service.

    ○ **IP** - IP Business Services.

    > Example: java -jar BMA_16.jar CPR BB 0

c. For each metric group, send the relevant XML file to the BMA web service using the command:
    java -jar BMA_16.jar <metric group code> BB 1

    For example: java -jar BMA_16.jar CPR BB 1, where CPR represents the Customer Problem Resolution metric group and BB means Broadband.

6. **Check Certification Results in BMA Portal**

   Access the BMA portal and check the certification results.

   A typical certification results screen is as follow:

Test Date	Study	Required	Extended	App Test	
11/2/2011 7:01:29 AM	SPM-IP-Min-Short-Data	Pass	Pass	0	View
11/2/2011 6:43:44 AM	SPM-BB-Min	Pass	Fail	1	View
11/2/2011 6:43:21 AM	SPM-BB-Max-Data	Pass	Pass	0	View
11/2/2011 6:42:53 AM	SPM-BB-Max	Pass	Fail	1	View
11/2/2011 6:38:14 AM	CPR-IP-Min-Short-Data	Pass	Pass	0	View
11/2/2011 6:34:52 AM	CPR-BB-Min	Pass	Fail	1	View
11/2/2011 6:34:28 AM	CPR-BB-Max	Pass	Fail	1	View
11/2/2011 6:34:15 AM	CPR-BB-Max-Data	Pass	Pass	0	View

The failed tests in the above picture, are due to optional (Extended) Business Metrics not supported by HP Service Manager.

7. **View the TM Forum-Related KPIs in the Dashboard**

Create a page in Dashboard to display components that include the TM Forum-Related KPIs. For details, see "Add a Page to the Dashboard" (on page 169).

For example:

Click the ☰ or ⬛ to display the tooltip of the Objective and click the relevant KPI or Breakdown KPI.

The Explorer tab opens and displays the KPI or Breakdown KPI details:

For details about the Explorer tab, see "Explorer Tab" (on page 314)

TM Forum-Related KPIs

Customer Problems Resolution

The Metric IDs are standard in TM Forum.

Metric ID	KPI Name	Description
A-CE-2a	Time to Resolve an Incident	Incident resolution time Time for resolving incidents (customer contact through informing customer of resolution) / total number of incidents resolved. 1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-CE-2b	Mean Time To Resolve Customer Incident	Mean time to resolve customer incident Time for resolving incidents (customer contact through informing customer of resolution) / total number of incidents resolved. 1. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional) 2. By Service Component: Voice Services, Data Services (2) (Optional)
A-CE-4a	Metric ID	% of incidents that are reported more than once by the customer Number of incident re-reports / total number of customer reported incidents 1. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional)
A-CE-4c	% Of Problems Reported By Customers	% of problems reported by customers Total number of problems reported by CUSTOMERS / Total number of problems reported 1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-3b	% Maintenance Time Used For Repair	% maintenance time used for repair Repair time / Total assurance time (Maintenance + Repair)

Service Problem Management

The Metric IDs are standard in TM Forum.

Metric ID	KPI Name	Description
A-CE-2c	% Of Problems Resolved By Due Date	% of problems resolved by due date Number of problems resolved to customer satisfaction by committed date / total number of problems occurring during the reporting period
A-CE-4c	% Of Problems Reported By Customers	% of problems reported by customers Total number of problems reported by CUSTOMERS / Total number of problems reported 1. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-2a	Service Problem Resolution Time	Service Problem Resolution Time Aggregate time to resolve SO service problems for Assurance Meta Process Blocks (1-4) inclusive / number of closed problem reports 1. By Problem Severity: Critical, Major, Minor (3) (Optional) 2. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional)
A-OE-2b	Mean Time To Resolve Service Problems	Mean Time to resolve service problems Time to resolve SO Service Problems by process block (Meta Blocks 1-4) / Number of Service Problems closed within period 1. By META process blocks: resource data collection and processing, service problem management, resource trouble detection/handling, customer QoS/SLA management (4) 2. By Customer Segment: Consumer & SME, Large Enterprise & Government (2) (Optional) 3. By Problem Severity: Critical, Major, Minor (3) (Optional)
A-OE-3a	% Problems By Cause Type	% problems by cause type Number of problem reports of type X / Total number of problem reports 1. By Cause Type: customer caused, technology caused, workforce caused, data mismatch problems for internal systems, other (5)
A-OE-3b	% Maintenance Time Used For Repair	% maintenance time used for repair Repair time / Total assurance time (Maintenance + Repair)
A-OE-3c	Mean Time Between Failures	Mean time between failures ((Revenue System Size) - (MTTR*number of trouble tickets closed in month)) / number of trouble tickets closed in month
A-OE-6a	NOC FTE Efficiency	NOC FTE Efficiency Total Number of problem reports resolved / Total number of NOC FTEs working on problem resolution

Perform the Maintenance of HP IT Executive Scorecard

This section includes the following topics:

Add Additional Pages to Dashboard and Grant Permissions

Users can be granted permissions to perform the following operations on user-defined pages and components: **View page**, **Manage Page** (change and delete specific page) and **Administrate pages** (add pages and full control on all pages in the system).

To create a new page in the Dashboard :

1. Contact your administrator who creates the relevant page in HP IT Executive Scorecard. For details, see "User Management Page " in *General Admin*.

2. The administrator should define the page Instance and Resource and give you the needed permissions to update the page. For details, see "Manage Resources" in *General Admin*.

3. The administrator gives you (the Dashboard designer) the needed permissions to update the page. For details, see "How to Configure User Permissions in Dashboard" (on page 333) in *General Admin*.

4. The administrator gives the relevant user (executive) the needed permissions to view the page. For details, see "How to Configure User Permissions in Dashboard" (on page 333) in *General Admin*.

How to Configure User Permissions in Dashboard

The maintenance of HP IT Executive Scorecard is performed using the Admin tab.

Permissions to work with Dashboard components and pages are defined in **Admin > Users and Roles > User Management**.

The operations that can be defined for a user are dependent on the area within Dashboard, as follows:

- **Predefined Pages.** These pages are defined out-of-the-box. They have a pre-defined layout but entities are not selected. Users with the relevant permissions can select the relevant entities using the component filters. Depending on their permissions, users can change the component layout in the page and the selections in the component filters. Note that out-of-the-box pages cannot be deleted. More information about the permissions is available in " Select a Permission Page " in *General Admin*.

- **User Pages and User Components.** Users can be granted permissions to perform the following operations on user-defined pages and components: **View page**, **Manage Page** (change and delete specific page) and **Administrate pages** (add pages and full control on all pages in the system).

For details, see "User Management Page " in *General Admin*.

How to Modify the Maximum Number of Pages

The maintenance of HP IT Executive Scorecard is performed using the Admin tab.

By default, an unlimited number of pages can be open at the same time.

If you have multiple pages open, up to 5 of the most popular pages are immediately available for display when you switch to them.

The other pages are least viewed pages, meaning that are silently deactivated in the background. When you select them, it might take a few seconds until they load and display their content.

This section describes how to modify these limits. Note that if you increase these limits, performance may be impaired.

Modify the maximum number of open pages

To modify the maximum number of open pages:

1. Select **Admin > Foundation Settings > Pages**.

2. Modify the **Maximum number of open pages** entry as needed.

For details, see "Manage Foundation Settings " in *General Admin*.

Note that if you increase the maximum number of pages, performance may be impaired.

Modify the maximum number of active pages

To modify the maximum number of active pages:

1. Select **Admin > Foundation Settings > Pages**.

2. Modify the **Maximum number of loaded pages** entry as needed.

For details, see "Manage Foundation Settings " in *General Admin*.

How to Show or Hide Debug Properties

The maintenance of HP IT Executive Scorecard is performed using the Admin tab.

To display or hide the debug properties (ID and Type) displayed in the Configuration details tab for all templates or active nodes, select **Admin > Scorecard Settings > XS Settings > Debug Mode**, and:

- Select the **Application Debug Mode** option to display the debug information in the Configuration details tabs.

- Clear the **Application Debug Mode** option to hide the debug information in the Configuration details tabs.

Configure Scorecard Settings

The Scorecard Settings enables you to define various HP IT Executive Scorecard settings and includes the following pages:

Dashboard Settings Page

Enables you to set the settings for the Dashboard, where an executive can view the progress of the required objectives. For details,see "Dashboard Settings Page" (on page 336).

Score Thresholds Page

Enables you to set the score thresholds for the KPIs in the HP IT Executive Scorecard. For details, see "Score Thresholds Page" (on page 338).

XS Settings Page

Enables you to set various scorecard settings.The HP IT Executive Scorecard is a way to map and translate complex business information into something that's understandable to everyone. For details, see "XS Settings Page" (on page 340).

Engine Settings Page

Enables you to configure settings for the HP IT Executive Scorecard KPI engine, which performs discovery on data coming from contexts (data sources). For details, see "Engine Settings Page" (on page 342).

This section includes the following topics:

How to Configure Dashboard Settings

This page enables you to configure Dashboard settings according to the following task:

Set Dashboard Settings

1. Select **Admin** > **Scorecard Settings** > **Dashboard Settings**.

2. Click the row of the relevant setting and enter the value.

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

Dashboard Settings Page

This page enables you to configure specific dashboard settings .

To access	Select **Admin > Scorecard Settings > Dashboard Settings**
Relevant Tasks	

Dashboard Settings Table

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

Name	The name of the dashboard feature.
Description	The description of the dashboard feature.
Value	The current dashboard feature value . Click the relevant row and enter a value.

Dashboard Settings Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Max search results in the filter	The maximum number of search results allowed in the filter. The default value is **1000**.

How to Configure Score Thresholds

This page enables you to configure the KPI score thresholds according to the following task:

Set Score Thresholds

1. Select **Admin** > **Scorecard Settings** > **Score Thresholds**.

2. Click the row of the relevant score threshold and enter the value.

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

Score Thresholds Page

This page enables you to configure the score threshold settings for the KPIs in HP IT Executive Scorecard.

To access	Select **Admin** > **Scorecard Settings** > **Score Thresholds**
Relevant Tasks	"How to Configure Score Thresholds" (on page 337)

Score Thresholds Table

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

Name	The name of the score setting.
Description	The description of the score threshold.
Value	The current score threshold value . Click the relevant row and enter a value.

Score Threshold Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

> **Note:** Each **Score Max Value** must be greater than 0 and less than the next one (**Error Score**

Max Value < **Warning Score Max Value** < **Good Score Max Value**)

UI Element	Description
Error Score Max Value	The maximum value on the KPI scale, below which the value is scored as an error. KPIs that score values equal to or below this value, receive an error score. **Example:** If the maximum error score is 3.3, then a score on the scale from 0 - 3.3 is an error. Default: **3.3**
Warning Score Max Value	The maximum value on the KPI scale, below which the value is scored as a warning. KPIs that score values equal to or below this value, receive a warning score. **Example:** If the maximum warning score is 6.6, then a score on the scale from 3.3 - 6.6, is a warning. Default: **6.6**
Good Score Max Value	The maximum value on the KPI scale, below which the value is scored as good. KPIs that score values equal to or below this value, receive a good score. **Example:** If the maximum good score is 6.6, then a score on the scale from 6.6 - 10, is good. Default: **10**

How to Configure XS Settings

The XS Settings page enables you to configure specific HP IT Executive Scorecard settings according to the following task:

To configure XS settings:

1. Select **Admin** > **Scorecard Settings** > **XS Settings**.

2. Click the row of the relevant setting and enter the value.

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

XS Settings Page

This page enables you to configure specific XS settings .

To access	Select **Admin** > **Scorecard Settings** > **XS Settings**.
Relevant Tasks	"How to Configure XS Settings" (on page 339)

XS Settings Table

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

Name	The name of the XS setting.
Description	The description of the XS setting.
Value	The current XS setting value . Click the relevant row and enter a value.

Universe Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
BO Default Universe Name	The business object default universe name. The default value is **FinancialManagement**.
BO Period Universe Name	The business object period universe name. The default value is **Core_ Dimensions_Universe**.

Dashboard Update Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Configuration Reload rate (Minutes)	The configuration reload rate in minutes. The default value is **5** minutes.

Debug Mode Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Application Debug Mode	Select to activate the debug mode.

Studio Update Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Meta Data reload rate (Days)	The number of days after which the meta data is reloaded. The default value is **7**.
Users Info Reload Rate (Minutes)	The number of minutes after which user info is reloaded. The default value is **5** minutes.

How to Configure Engine Settings

The **Engine Settings** page enables you to configure specific engine settings according to the following task:

Set Engine Values:

1. Select **Admin** > **Scorecard Settings** > **Engine Settings**.

2. Click the row of the relevant engine function and enter the value in milliseconds.

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

Engine Settings Page

This page enables you to configure the engine settings for HP IT Executive Scorecard.

To access	Select **Admin** > **Scorecard Settings** > **Engine Settings**
Relevant Tasks	"How to Configure Engine Settings" (on page 341)

Engine Settings Table

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the engine setting.
Description	The description of the engine setting.
Value	The current engine setting value . Click the relevant row and enter a value.

Engine Settings Parameters

User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Engine Health Timer	The amount of time in milliseconds, after which KPI calculations are sent. The default value is 600,000, which equals 10 minutes.

Localize and Globalize Executive Scorecard

You can localize and globalize Executive Scorecard. The user interface of HP Executive Scorecard supports multiple languages.

Out-of-the-box KPI Library Pane Contents

The localized installation adds the language libraries of XML files in specific folders. You copy and then import these files to display the out-of-the-box template Scorecards, Perspectives, Objectives, Folders, and KPIs in the KPI Library in the selected language.

To localize the out-of-the box content of the KPI Library: Scorecards, Perspectives, Objectives, and KPIs, proceed as follows:

Prerequisite

You have performed the upgrade to the current version.

Copy the libraries

1. In the Executive Scorecard server, the
   **<XS server>\agora\glassfish\glassfish\domains\BTOA\config\
   kpitemplates\import\languages\<language_code>_<country_code>** folder relevant for the language you want to use in the application. These .xml files represent both KPIs and KPI directories.

   The language code and country codes are as follows:

Language	Language Code	Country Code
Brazilian Portuguese	pt	BR
French	fr	FR
Spanish	es	ES
German	de	DE
Japanese	ja	JP
English	en	US
Dutch	nl	NL
Italian	it	IT
Simplified Chinese	zc	CN
Korean	ko	KR

2. Copy the.xml files to the **<XS_**

server>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\load
folder.

> **Tip:**
>
> If the folder contains other sets of files (for different languages), it is recommended to keep in the folder only the required set of language files and to move the other files outside the folder to prevent the loading of both set of language files and an unknown result.

> **Important Note:**
>
> When working with Chinese, before importing the KPI XML files, open the **IndustryStandard_zh_CN.xml** file in **<XS server>\agora\glassfish\glassfish\domains\BTOA\config\ kpitemplates\import\languages\zh_CN** and change the following line from:
> **<objective name="事件管理" uuid="2c86791c-833c-45c5-bf37-92568a5ec328" rule="WEIGHTED_AVERAGE" period="MONTHLY">**
> to
> **<objective name="突发事件管理" uuid="2c86791c-833c-45c5-bf37-92568a5ec328" rule="WEIGHTED_AVERAGE" period="MONTHLY">**. Save the changes, then import the relevant KPI XML files.

3. Import the out-of-the-box language files using the **KPILoader** > **importKPIs()** procedure described in in the *IT Executive Scorecard Admin Guide*.

Out-of-the-box Dashboard Content (Pages and Components)

The localized installation adds the language libraries of XML files in specific folders. You copy and then import these files to display the out-of-the-box template pages and components in the selected language, in the Dashboard.

To localize the out-of-the box pages and components, proceed as follows:

Prerequisite

You have performed the installation and post-installation procedures or the upgrade to the current version.

Copy the libraries

1. In the Executive Scorecard server, locate the
   <XS server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\import\languages\<language_code>_<country_code> folder relevant to the language you want to install. These .uim.xml files represent the components and the pages used in the Dashboard.

2. The language code and country codes are as follows:

3. ▪ **Components_<lang>_<country_code>.uim.xml**

   ▪ **Pages_<lang>_<country_code>.uim.xml**,

   where **lang** is the language code and **country_code** is the code of the country:

Language	Language Code	Country Code
Brazilian Portuguese	pt	BR
French	fr	FR
Spanish	es	ES
German	de	DE
Japanese	ja	JP
English	en	US
Dutch	nl	NL
Italian	it	IT
Simplified Chinese	zc	CN
Korean	ko	KR

4. Copy these files to the
   **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\
   import\toload** folder.

   > **Tip:**
   >
   > If the folder contains several sets of files (for different languages), it is recommended to keep in the folder only the required set of language files and to move the other files outside the folder to prevent the loading of both set of language files and an unknown result.

5. Import the out-of-the-box language files (**only for the pages and components - events are not localized**) using the relevant procedure described in "How to Import or Export Out-of-the-box Pages, Components, and Events" (on page 358).

Import or Export Trees

This section includes the following topics:

Learn About Importing or Exporting Trees

You use the import or export feature when you want to import or export out-of-the-box templates, automatically update existing templates, or import new templates, or active trees into the Executive Studio.

The import and export feature is the process used to move from staging environment to production.

The export feature collects the contents of the Active KPIs tree (Scorecards, Perspectives, Objectives, KPIs, and Orphan KPIs) or of the KPI Library trees (Scorecard, Perspective, Objective, and KPI templates, Folders, and Orphan KPIs). It converts the contents to a configuration.xml file that describes the structure of the active tree or to a <tree_name>.xml file for each tree in the KPI Library. These files include the UUID and KPI name of the KPIs included in the trees. In addition, the process creates a <kpi_name>.xml file per KPI in the system; that file describes the configuration of the KPI. The XML files are created in a specific directory on the machine. For details about the directory, see "Template Locations" (on page 346)

The import feature collects the content of a specific directory on the machine. The directory can include configuration.xml files, and <kpi_name>.xml files according to the same format used by the export feature or can include .xml files (the structure of these files should follow the XSD legal model; for details, see "Reference - XML Files Used in Import and Export Operations" (on page 349)) with other names. The import feature uses these files to upload the information in the specific area in the Active KPIs tree or in the KPI Library trees. For details about the directory, see "Template Locations" (on page 346).

The import and export operations work with XML files with a specific structure. Each configuration.xml file includes information about the hierarchy from the lowest node to the tree root. That information is used to add the new node is added to the relevant location in the relevant tree, or the imported node overrides the relevant node. Each <KPI_name>. xml file includes information about the KPI configuration. That information is used so that the relevant configuration and calculation details are added to the relevant KPI. For details about the XML file structure, see "Reference - XML Files Used in Import and Export Operations" (on page 349).

The export operation uses the KPI's UUID to identify the KPI.

In addition, you can import KPIs from Excel files. You can use this capability to import KPIs without consideration about their location in the tree. You can also create an .xml file that provides information about a tree structure and that refers to KPIs that are imported from the Excel file. The import feature uses these files to upload the information in the specific area in the Active KPIs tree or in the KPI Library trees. For details about the directory, see "Template Locations" (on page 346)

Note: When the server on which the Executive Studio is located starts, if the system detects files in the
<XS_server>\agora\glassfish\glassfish\domains\Config\KPI Template\ Import
directory, it automatically uploads that information. This feature is used when you logon to the Executive Studio for the first time, to upload the out-of-the-box templates.

Template Locations

When working with XML files, the files are located in the following directories:

- **<XS_server>\agora\glassfish\glassfish\domains\Config\KPIConfiguration\Export** or **Import** for files corresponding to nodes in the Active KPI pane.

- **<XS_server>\agora\glassfish\glassfish\domains\Config\KPITemplate\ Export** or **Import** for files corresponding to template nodes in the KPI Library.

The Import directory includes the **Error**, **Load**, and **Loaded** directories.

Before you import a tree, the relevant XML files or the KPI Excel files must be located in the **Load** directory. After the import operation, the file is moved to:

- The **Loaded** directory if the import operation succeeds.

- The **Error** directory if the import operation fails. In this case, an error file explaining the problem is added to the Error directory.

How to Import or Export Trees and Nodes

You can import existing template trees or sub-trees, active trees, active sub-trees, or orphan KPIs into the KPI Library or the Active KPIs pane.

You can export complete trees (with their Scorecards, Perspectives, Objectives, and KPIs) from the KPI Library or from the Active KPIs pane.

The import or export flows are meant to be used when moving from staging to production and not as a way to update system configuration. If you want to use the import or export flows to update the system configuration, you must delete all the nodes in the active KPIs pane, before performing the import operation.

The import and export flows are also meant to be used for localization purposes, when you want to work with other languages than English.

To learn about importing and exporting nodes, see "Learn About Importing or Exporting Trees" (on page 345).

To import a node:

1. Before importing any entity, you must create a XML file with appropriate structure. For details, see "Learn About Importing or Exporting Trees" (on page 345).

2. Save the XML file to:
   - **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpitemplates\import\load** folder for importing to the KPI Library pane.

   - **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpiconfiguration\import\load** folder for importing to the Active KPIs pane.

3. Make sure you have JDK installed.

4. Run **jconsole** in the **<XS_server>\agora\jdk\bin**.

5. In the window that opens, select the **Remote Process** option, enter **<host_name>:<port_ number>** and click **Connect**.

6. After the application completes its loading, click the **MBeans** tab.

7. Click **com.hp.btoe.studio.jmx**.

8. You can now:
   - **Import the tree structure or the Orphan KPIs to the Active KPIs pane.** Expand **KPILoader**, select the **Operations** branch, and click **importKPIs**. In the Operation invocation area, click the **importKPIs** button.

If the import operation is successful, the message **Method successfully invoked** is returned, and the imported entity is displayed in the Active KPIs pane in the Studio.

In addition, the XML file is moved to the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpiconfiguration\import\loaded** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpitemplates\import\errors** folder.

Note that the message Method successfully invoked might be displayed in some cases in case of failure of the import operation. For details, see "Learn About Importing or Exporting Trees" (on page 345).

- **Import KPIs from an Excel file.** Expand **KPILoader**, select the **Operations** branch, and click **importKPIsFromExcel**. In the Operation invocation area, click the **importKPIsFromExcel** button. If successful, the message **Method successfully invoked** is returned.

- **Import the template tree or Orphan KPI Templates to the KPI Library.** Expand **KPITemplateLoader**, select the **Operations** branch, and click **importKPITemplates**. In the Operation invocation area, click the **importKPITemplates** button.

If the import operation is successful, the message **Method successfully invoked** is returned, and the imported entity is displayed in the KPI Library pane in the Studio.

In addition, the XML file is moved to **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\ import\loaded** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\ import\errors** folder.

Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation. For details, see "Learn About Importing or Exporting Trees" (on page 345).

- **Import KPITemplates From Excel.** Expand **KPITemplateLoader** and click **importKPITemplatesFromExcel**. In the Operation invocation area, click the **importKPITemplatesFromExcel** button. If the import operation is successful, the message **Method successfully invoked** is returned.

Note: If information is missing from the Load directory, part of the import operation might not be performed.

Example:
- If one or more of the KPI XML files are missing from the **<XS_server>\agora\glassfish\glassfish\domains\Config\KPITemplate\Import**

> **\Load** directory, the trees that include the missing KPIs (represented by the configuration.xml or by the <tree_name>.xml files) are not imported. In addition, the relevant error files are entered in the **<XS_server>\agora\glassfish\glassfish\domains\Config\KPITemplate\ Import \Error**s directory. For additional details about the directories, see "Learn About Importing or Exporting Trees" (on page 345).
>
> ○ If one or more of the mandatory properties of a KPI (for example, the formula) are missing from the **<XS_server>\agora\glassfish\glassfish\domains\Config\KPITemplate\ Import \Load** directory, the KPI is not imported. In addition, the relevant error files are entered in the **<XS_server>\agora\glassfish\glassfish\domains\Config\KPITemplate\ Import \Errors** directory. For additional details about the directories, see "Learn About Importing or Exporting Trees" (on page 345).

To export a node:

1. Make sure you have JDK installed.

2. Run **jconsole** in **<XS_server>\agora\jdk\bin**.

3. In the window that opens, select the **Remote Process** option, enter **<host_name>:<port_ number>** and click **Connect**.

4. After the application completes its loading, click the **MBeans** tab.

5. Click **com.hp.btoe.studio.jmx**.

6. You can now:
   - **Export active KPIs from the Active KPIs pane.** Expand **KPIExport**, select the **Operations** branch, and click **exportKPIs**. In the Operation invocation area, click the **exportKPIs**button. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpiconfiguration\export** folder.

   - **Export KPITemplate from the KPI Library pane.** Expand **KPITemplateExport**, select the **Operations** branch, and click **exportKPITemplates**. In the Operation invocation area, click the **exportKPITemplates** button. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\ config\kpitemplates\export** folder.

For details about the structure of the XML files, see "Reference - XML Files Used in Import and Export Operations" (on page 349).

Reference - XML Files Used in Import and Export Operations

Import and export work with XML files. The XML files have the following structures:

Example of a KPI XML File:

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<KPI tenantId="0">
    <name>% Actual vs Planned Costs</name>
    <description>The actual costs relative to the budgeted costs of
an activity.
    </description>
    <type>LEAF</type>
    <period>MONTHLY</period>
    <dimension></dimension>
    <formula>PERCENTAGE_MATH(
SUM(Cost.Amount,Cost.CostType='Actual' and PERIOD_ENTITY=Period),
SUM(Cost.Amount,Cost.CostType='Planned' and PERIOD_ENTITY=Period)
)
    </formula>

    <thresholdType type="MINIMIZE">
        <rangeFrom>0.0</rangeFrom>
        <rangeTo>4.0</rangeTo>
        <goodFrom>0.0</goodFrom>
        <goodTo>2.0</goodTo>
        <warningFrom>2.0</warningFrom>
        <warningTo>3.0</warningTo>
    </thresholdType>
    <unit>%</unit>
    <filter></filter>
    <dataSource>test</dataSource>
    <uuid>3c7a1c22-5c10-4703-a22b-4a1eac317a5c</uuid>
</KPI>
```

Where:

Tag	Explanation	Example
<name>	The name of the KPI. **Limit:** • The name can be up to 265 characters or symbols. • The forward slash (/) symbol is not supported.	<name>% Actual vs Planned Costs</name>
<description>	The description of the KPI **Limit:** • The name can be up to 1000 characters or symbols. • The forward slash (/) symbol is not supported.	<description> The actual costs relative to the budgeted costs of an activity.</description>
<type>	This is type of the entity. It can be: • **LEAF** • **PARENT** • **BREAKDOWN** • **BD_PARENT** **Note:** The entry must be in uppercase.	<type>LEAF</type>
<period>	The period of the KPI. It can be: • **WEEKLY**	<period>MONTHLY</period>

	• **MONTHLY** • **QUARTERLY** • **YEARLY** **Note:** The entry must be in uppercase. For details, see "Configuration Details Tab for a KPI" (on page 105).	
< **businessQuestions** >	The Business motivation displayed in the Metadata area in the KPI's **Configuration details** tab. For details, see "Configuration Details Tab for a KPI" (on page 105). **Limit:** • The name can be up to 1000 characters or symbols. • The forward slash (/) symbol is not supported.	<businessQuestions>What are the actual cost and planned cost values? What is the percentage of actual versus planned spending? How do the actual versus planned costs measure against the thresholds? Is actual versus planned spending on target or in the minimum or maximum</businessQuestions>
<comments>	The comments displayed in the Comments area in the KPI's **Calculation details** tab. For details, see "Calculation Details Tab" (on page 101).	<comments>My comments</comments>
<formula>	The formula used to	<formula>PERCENTAGE_

	calculate the value of the KPI.	MATH(SUM(Cost.Amount,Cost.CostType='Actual' and PERIOD_ENTITY=Period),100000)</formula>
<thresholdType type=" ">	The direction of the Result threshold. It can be: • **MAXIMIZE** • **CENTRALIZE** • **MINIMIZE** **Note:** The entry must be in uppercase. For details, see "Configuration Details Tab for a KPI" (on page 105).	<thresholdType type="MAXIMIZE"> % and 10% (green), and a bad rate is between 10% and 100% (red).
<rangeFrom>	Lower value of the error range.	<rangeFrom>0.0</rangeFrom>
<rangeTo>	Higher value of the error range.	<rangeTo>100.0</rangeTo>
<goodFrom>	Lower value of the good range.	<goodFrom>90.0</goodFrom>
<goodTo>	Higher value of the good range.	<goodTo>100.0</goodTo>
<warningFrom>	Lower value of the warning range.	<warningFrom>80.5</warningFrom>
<warningTo>	Higher value of the warning range.	<warningTo>90.0</warningTo>

<unit>	The KPI's unit. It can be: • **%** • **$US** (The entry must be in uppercase.) • **Days** (The entry must be init cap.)	<unit>%</unit> <unit>$US</unit> <unit>Days</unit>
<filter>	The formula used to calculate the KPI's value.	<filter>Budget.Name = 1</filter>
<dataSource>	The business context/universe. The business context/universe's entities are the basis of the calculation and provide the entities used in the formula.	<dataSource>FinancialManagement</dataSource>
<uuid>	Set UUID to identify the KPI. You can set your own UUID for the KPI. For example <uuid>This is MY KPI</uuid>	<uuid>1c9eab96-5013-412c-a428-17a1ae39317b</uuid>

Example of a Folder tree XML File:

```
<?xml version="1.0" encoding="UTF-8"?>
<tree xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:noNamespaceSchemaLocation="../xsd/templates/Template_
tree.xsd" name="Industry Standard" tenantId="0">
    <folder name="ITIL" description="ITIL">
        <folder name="Asset Management" description="Asset
Management">
            <template name="Average Age of Hardware Assets"/>
        </folder>
```

```
        <folder name="Change Management" description="Change
Management">
            <template name="Change Risk"/>
        </folder>
        <folder name="Financial Management" description="Financial
Management">
            <template name="% of budget deviation relative to total
budget"/>
            <template name="% Project Budget over or under"/>
            <template name="Actual vs. budgeted costs"/>
        </folder>
        <folder name="Incident Management" description="Financial
Management">
            <template name="% of escalated incidents"/>
            <template name="% incidents solved within SLA time"/>
        </folder>
        <folder name="Problem Management" description="Financial
Management">
            <template name="% of problems resolved on time"/>
        </folder>
    </folder>
    <folder name="All working KPI's" description="just a copy of
all tempaltes">
        <template name="% of Reopened Incidents"/>
        <template name="% of critical and high incidents"/>
    </folder>
</tree>
```

Example of a Scorecard tree XML File:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<tree xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:noNamespaceSchemaLocation="../xsd/templates/Template_
tree.xsd" name="Industry Standard" tenantId="0">
    <scorecard name="CIO Scorecard" description="Business Value">
        <perspective name="Customer" description="?">
            <objective name="Reduce incident/problem management
related customer complaints by 30% in 2011"
                        rule="BEST_CHILD" period="MONTHLY">
                <template name="% of Reopened Incidents"/>
                <template name="% of escalated incidents"/>
            </objective>
            <objective name="Improve Service Delivery by 30%"
rule="BEST_CHILD" period="MONTHLY">
                <template name="% of Service Level Objectives for
```

```
Met IT Process Activities"/>
                <template name="Service request avg response
time"/>
                <template name="Service request backlog"/>
            </objective>
            <objective name="Increase Customer Satisfaction by 20%
in 2011" rule="BEST_CHILD" period="MONTHLY">
                <template name="Reported exceptions to SLA"/>
                <template name="Customer Satisfaction"/>
                <template name="Critical time outage"/>
            </objective>
        </perspective>
        <perspective name="Internal Business Process"
description="?">
            <objective name="Improve Project Delivery by increasing
throughput by 15%" rule="BEST_CHILD"
                        period="MONTHLY">
                <template name="Employee Utilization Rate"/>
                <template name="% of projects on time"/>
                <template name="Deviation % of Planned Work
Hours"/>
                <template name="TTM"/>
            </objective>
        </perspective>
        <perspective name="Financial" description="?">
            <objective name="Reduce unhealthy projects budget risk
by 10% in 2011" rule="BEST_CHILD" period="MONTHLY">
                <template name="Unhealthy projects"/>
                <template name="% of Capital Exposure at Risk"/>
                <template name="Unhealthy projects budget risk"/>
            </objective>
            <objective name="Increase Employee Utilization by 3% in
1st Qtr 2011" rule="BEST_CHILD" period="MONTHLY">
                <template name="Employee Utilization Rate"/>
                <template name="FCR"/>
            </objective>
            <objective name="Reduce IT budget by 20% in 2011"
rule="BEST_CHILD" period="MONTHLY">
                <template name="% FTE"/>
                <template name="Service Actual to Plan"/>
                <template name="% Outages/Total SLA uptime"/>
                <template name="Business Service Cost Reduction"/>
            </objective>
        </perspective>
        <perspective name="Learning and Growth" description="?">
            <objective name="Increase Manager skills against the
```

```
competency model by  15% in 2011 above 2010"
                        rule="BEST_CHILD" period="MONTHLY">
                <template name="Percentage of managers meeting or
exceeding leadership competency model"/>
            </objective>
            <objective name="Increase Employee Satisfaction by 10%
in 2011" rule="BEST_CHILD" period="MONTHLY">
                <template name="Employee Attrition"/>
                <template name="Job Satisfaction"/>
                <template name="Employee Satisfaction"/>
            </objective>
            <objective name="Increase employee productivity by 10%"
rule="BEST_CHILD" period="MONTHLY">
                <template name="Employee Utilization Rate"/>
            </objective>
        </perspective>
    </scorecard>
</tree>
```

Example of a KPI Excel File:

The Excel table must include the following columns in the following order:

- ID
- KPI
- Description
- Business Questions
- Context
- Formula
- Unit Type
- Time Period
- Direction
- Range From
- Range To
- Good From
- Good To
- Warning From
- Warning To

For details about the above column contents, see " Configuration Details Tab for a KPI" (on page 105) and "Calculation Details Tab" (on page 101).

Import or Export Out-of-the-box Pages, Components, and Events

This section includes the following topics:

Learn About Importing or Exporting Pages, Components, and Events

You use the import or export feature when you want to import or export out-of-the-box pages, components, or events into the Dashboard.

Out-of-the-box pages are available in the Dashboard. Pages can include components. Components in a page can be wired and can interact with each other using events. For details, about the Dashboard, see "Learn about the Dashboard" (on page 163).

The import and export feature is the process used to move from the staging environment to production.

The export feature collects the contents of the pages, components, and events. It converts the contents to **components.uim.xml**, **pages.uim.xml**, and **events.uim.xml** files that describes the structure and content of the pages, components, and events. These files include the UUID of the pages and components.

The export operation uses the page, component, or event UUID to identify the page, component, or event.

The import feature collects the contents of a specific directory on the machine. The directory can include **components.uim.xml**, **pages.uim.xml**, and **events.uim.xml** files according to the same format used by the export feature. The import feature uses these files to upload the information into the database.

After the import operation, the file is moved to:

- The **Loaded** directory if the import operation succeeds.

- The **Errors** directory if the import operation fails.

Note: When the server on which the Dashboard is located starts, if the system detects files in the
<XS_server>\agora\glassfish\glassfish\domains\BTOA\uimashup\import\toload
directory, it automatically uploads that information.

How to Import or Export Out-of-the-box Pages, Components, and Events

You can import existing out-of-the-box pages, components and events into the Dashboard page.

The import or export flows are meant to be used for localization purposes (when you want to work with other languages than English) or when moving from staging to production and not as a way to update system configuration.

To learn about importing and exporting pages, components, and events, see "Learn About Importing or Exporting Pages, Components, and Events" (on page 358).

To import pages, components, or events:

1. Make sure you have JDK installed.

2. Run **jconsole** in the **Start** menu.

3. In the window that opens, select the **Remote Process** option, enter **<host_name>:<port_number>** and click **Connect**.

4. After the application completes its loading, click the **MBeans** tab.

5. Click **Foundations**.

6. To import all the pages, components, and events at once, expand **UIMDataLoader**, select **Operations** and in the Operation invocation area, click the **loadAllData** button.
   Or, you can also import pages, components and events separately as follows:

   - **Import the pages.** Expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **loadPagesData** button.

     If the import operation is successful, the message **Method successfully invoked** is returned, and the imported entities are displayed in the Page Gallery.

     In addition, the XML file is moved to the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\loaded** folder.

     If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\errors** folder.

     Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation. For details, see "Learn About Importing or Exporting Trees" (on page 345).

     > **Note:** If you want to import pages in another language, the existing (English) categories are not removed, so both translated and non-translated categories appear in the list of categories. To select the categories you want to delete, expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **displayAllCachedGalleryCategories** button to view the current categories to display a table that lists all the out-of-the-box categories. Once you know which categories you want to delete, expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **deletePageCategoryByName** button and specify the relevant page category you want to delete.

   - **Import the components.** Expand **Foundations > UIMDataLoader** and select **Operations**. In the Operation invocation area, click the **loadComponentsGallery** button. If

successful, the message **Method successfully invoked** is returned, and the imported entities are displayed in the Component Gallery..

In addition, the XML file is moved to the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\loaded** folder.

If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\errors** folder.

Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation. For details, see "Learn About Importing or Exporting Trees" (on page 345).

> **Note:** If you want to import components in another language, the existing (English) categories are not removed, so both translated and non-translated categories appear in the list of categories. To select the categories you want to delete, expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **displayAllCachedGalleryCategories** button to view the current categories. Once you know which categories you want to delete, expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **deleteComponentCategoryByName** button and specify the relevant component category you want to delete.

- **Import the events.** Expand **Foundations > UIMDataLoader**, and select **Operations**. In the Operation invocation area, click the **loadEvents** button.

  If the import operation is successful, the message **Method successfully invoked** is returned.

  In addition, the XML file is moved to **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\loaded** folder.

  If the import operation fails, an explanation of the failure is added in the relevant file in the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup\ import\errors** folder.

  Note that the message **Method successfully invoked** might be displayed in some cases in case of failure of the import operation. For details, see "Learn About Importing or Exporting Trees" (on page 345).

> **Note:**
>
> - If information is missing from the Load directory, part of the import operation might not be performed.
>
> - When a file is copied to the **<XS_server>\agora\glassfish\glassfish\domains\BTOA\config\uimashup**

> **import\loaded** folder during the import process, a timestamp (Milliseconds since midnight, January 1, 1970 UTC) is added to its name, for example: **Components_pt_ BR_130810232011.xml**. This way, you can see which file is currently assigned to the database.

To export pages, components, or events:

1. Make sure you have JDK installed.

2. Run **jconsole** in the **Start** menu.

3. In the window that opens, select the **Remote Process** option, enter **<host_name>:<port_ number>** and click **Connect**.

4. After the application completes its loading, click the **MBeans** tab.

5. Click **Foundations**.

6. You can now:
   - **Export pages.** Expand **Foundations > UIMDataLoader** and select **Operations**. In the Operation invocation area, click the **exportPages** button and specify the **pathToExportLocation**. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the folder you specified.

   - **Export components and events.** Expand **Foundations > UIMDataLoader** and select **Operations**. In the Operation invocation area, click the **exportMetaData** button and specify the **pathToExportLocation**. If the export operation is successful, the message **Method successfully invoked** is returned, and the result is XML files in the folder you specified.

Glossary

A

ABC

Audit, Balance, and Control (ABC). ABC is an application that triggers the ETL processes. Audit ensures consistency during ETL processing. It measures the number of records in and the number of records out for each step and displays these runtime statistics in a collection of audit reports. Balance verifies that data in the data warehouse matches data in the source system. For example, if the data warehouse stores project dollar amounts then the balance process verifies that the aggregate project dollars in the data warehouse matches the aggregate project dollars in the source application data. Control governs ETL processes. Control makes sure that there is a proper restart and recovery when a system error occurs. Control also manages job dependencies at runtime.

ABC Batch

An instantiated ABC job stream built from the job stream definition. The execution is sequential: one batch must finish execution before a new batch for the same job stream can start. In the case where there is both upstream and downstream ETL, an upstream batch and a downstream batch can run concurrently. Each executable batch has a unique ID.

ABC Job stream

A flow of individual execution (job stream) steps and a description of related dependencies. A job stream can have one or more start steps, one or more end steps, and execute several parallel branches. A stream ID value identifies the individual stream. The ABC job stream contains one-to-many job stream steps.

ABC Job stream step

An individual step that invokes a command line utility or executes an SAP BusinessObjects Data Services job. An ABC job stream step is unique within an ABC job stream.

ad hoc query

A spontaneous request for information that is formulated and run a single time. Ad hoc queries are constructed with a SQL statement or by using a data access tool.

aggregation

The accumulation of related data into a single table.

Allocation engine

A process that communicates with the Financial Planning & Analysis (FPA) web application. It provides status information about allocations when changes are made to stages or rules. It selects costs, updates relationships, and splits costs across the data model. 208 By using allocation scenarios, stages, and rules, financial analysts can allocate the costs to compare planned versus actual costs and use the results for proper cost and budget management.

Allocation scenario

A tool that enables you to analyze planned costs and actual costs by

categorizing them. You can use categorized costs to compare planned (budgeted) costs to the actual costs.

Allocation stage

Allocation stages are a required component of the allocation engine. They identify a dimension that is associated with a Cost fact table. You can define Actual Cost and Planned Cost stages.

Analytic

Analytics are reports that summarize or aggregate data. Analytics help managers to identify trends, analyze volumes of data, plan, forecast, and make business or strategic decisions.

Analytic application

Analytic applications produce a series of logically integrated interactive reports, including dashboards and scorecards. These reports support management decisions that usually involve demographic analysis, trend analysis, pattern recognition, drill-down analysis, and profiling. For example, Financial Planning & Analysis (FPA), IT Performance Analytics (ITPA), and IT Financial Management (ITFM) are analytic applications.

analytics

A report that summarizes or aggregates data. Analytics help managers to identify trends, analyze volumes of data, plan, forecast, and make business or strategic decisions.

Application Content Pack

assignment group

A list of users who are responsible for an incident. When an incident opens or escalates, a notification mechanism alerts the users in the group.

B

backfill record

A snapshot from the source system used to complete partial data entities in the change data capture (CDC) records for a given cycle. Backfill records are used to ensure that completed data is loaded into the target environment.

BODS

SAP BusinessObjects Data Services is the access mechanism that performs the physical data extraction from the source repository to the staging database.

BOE

SAP Business Object Enterprise

Business driver

Business drivers are the tasks, information, and people that support and promote the goals of the enterprise. 209 They are also the requirements that describe the business goals, for example, more quality data and faster response to queries. 3 Business drivers are problems that are important enough to mean the difference between success and failure for an organization.

Business impact analysis report

A business impact analysis report describes potential risks to the organization. A good business impact analysis report should identify the cost of outages in terms of lost revenue, replacement of equipment, salaries, and other opportunity costs.

Business intelligence

Business intelligence describes the result of in-depth analysis of detailed business data, including database and application technologies and analysis practices. Business intelligence is sometimes used synonymously with decision support but

is much broader, potentially encompassing knowledge management, enterprise resource planning, data mining, and other practices.

business intelligence analysis

Business intelligence describes the result of in-depth analysis of detailed business data, including database and application technologies and analysis practices. Business intelligence is sometimes used synonymously with decision support but is much broader, potentially encompassing knowledge management, enterprise resource planning, data mining, and other practices.

business process

A set of business services that support a single corporate purpose.

business service

A business service is the combination of one or more business applications plus the supporting configuration items that enable delivery of the business service to the customer. The products that IT offers its customers are internal and external business services. A business service supports zero-to-many organizations, and a business service incident usually impacts associated organizations. An organization can rely on one-to-many business services; however, an incident that affects the organization may not always affect the associated business service. Enterprise resource planning (ERP) is a good example of a business service. ERP is a business management system that integrates all facets of the business, including planning, manufacturing, sales, and marketing. There can be many component business applications such as inventory control, order tracking, customer service, finance, and human resources.

Business service downtime impact

Business service downtime impact (BSDI) is a metric that quantifies the cost of service downtime in monetary terms, including productivity and business opportunity impact.

C

CapEx

Capital expenditure. Funds used to buy or upgrade physical assets such as the purchase of property or equipment.

catalog

A list of declared available executables.

change data capture

FPA uses the change data capture (CDC) technique to detect inserts and updates from source data based on the previously extracted change timestamp for each entity. Delete records are detected using a full key compare against the Transactional Snapshot (TSNP). BTO Analytics uses the change data capture (CDC) technique to detect inserts and updates from source data based on the previously extracted change timestamp for each entity. Delete

composite key

Composite keys are primary keys that consist of more than one column. Composite keys are also known as concatenated keys or aggregate keys.

configuration item

A component of infrastructure such as a hardware component in a larger hardware system, a software application, or any other identifiable item that supports a business service. Configuration items (CI) are components of your infrastructure or a business service. CIs are catalogued in your Configuration

Management Database (CMDB). A CI
can be a hardware

Configuration Management Database

A well-designed Configuration
Management Database (CMDB) is a
critical building block that stores
configuration, asset, and incident data.
The CMDB integrates information about
assets, incidents, problems, change
requests, and configuration items (CIs).

consolidated model

During the ETL process, FPA gathers
information from one or more source
systems and conforms the data into a
single consolidated entity before loading
it into the data warehouse. BTO Analytics
uses the consolidated model. During the
ETL process, BTO Analytics gathers
information from one or more source
systems and conforms the data into a
single consolidated

Content Packs

Set of artifacts that can be deployed upon
the run time platform (DWH or
Application) in a dynamic manner, thus
extending its capabilities.

Core Content Pack

The Schema and ETLs that are common
to all data sources and build the target
Data Warehouse.

Core model

In the core model, data marts are
architected to share the same master set
of conformed dimensions and
standardized facts across the enterprise.

corporate information factory

The framework that surrounds the data
warehouse. Corporate information
factories typically contain an operational
data store, a data warehouse, data marts,
decision support systems applications,
exploration warehouses, data mining

warehouses, alternate storage, and other
data management systems.

cost variance

The difference between the planned cost
and the actual cost of a project.

Crosstab

Crosstab (cross tabulation), also known
as a contingency table, is a combination
of two or more variable tables. A
contingency table analyzes whether the
value of one variable is associated with or
contingent on another.

CSNP

Consolidated Snapshot.

cube

Cubes are groups of related dimensions
and measures that are used for data
analysis. A multi-dimensional structure
that contains an aggregate value at each
point. The edges of the cube contain the
dimension members, and the body
contains the data values.

Cube

Cubes are groups of related dimensions
and measures that are used for data
analysis.

cycle

The cycles that appear in the reports
have been defined in Application
Lifecycle Management.

D

Dashboard

Dashboards are reporting tools that
consolidate, aggregate, and arrange
measurements and metrics on a single
screen so information can be monitored
at-a-glance.

Data architecture

1 Data architecture is the framework design used to organize data resources for collection and future access. 2 Data architecture is the data, processes, and technologies that an organization uses to create and operate information systems.

data flow

A reusable object that contains steps to define the transformation of data from source to target.

Data integration

Data integration consolidates records with similar information to produce a single version of data in the data warehouse. Data integration includes the steps from acquisition through publication, such as extraction, cleansing, consolidation, removing duplication, key generation, transformation, and aggregation, of source data before loading to the target table.

Data mart

Data marts are highly focused versions of a data warehouse. They are data stores that contain data for a specific business function within an organization, for example, finance or sales.

Data mining

Data mining is the process of analyzing data to identify relationships, trends, or patterns in the data.

data model

Data models describe the source, extraction, consolidation, and target components for a single entity.

Data quality

Data quality is the degree of data excellence. For example, the data is stored according to data type, it is consistent, complete, not redundant, follows business rules, and corresponds to established domains. The data should be timely, well understood, and satisfy the needs of the business. The user should be satisfied with the validity of the data and the information derived from that data.

Data Warehouse

Data warehouses are a repository of integrated information that is available for queries and analysis. Users can run queries against a database without having to know anything about the underlying data structures in the database.

defect

A defect is characterized by the location where it was detected.

Dimension

1 Dimensions are entities that describe, qualify, or otherwise add meaning to facts in a star schema fact table. Dimensions are the items in the analysis of facts by product, market, time, and period, for example. 2 Dimensions describe the measurements (facts) that business users want to analyze.

discretionary

Discretionary expenditure or managed cost. Nonessential costs such as advertising, maintenance, or research and development that may be eliminated without disrupting operations.

Downstream

Downstream ETL is a process that retrieves data from the data warehouse and passes it to a consumer application.

drill down

In reports, you can click the magnifying glass icon on the right of the standard toolbar to start drill mode. Items in the

analytic become clickable and enable you to drill lower in the hierarchy within the same analytic. For example, drill down from the year to examine data for a quarter.

drill through

In reports, you can click a data point in the chart or other link to get more information from a child analytic. Drill through analytics are Details analytics.

drill up

In reports, you can click the magnifying glass icon on the right of the standard toolbar to start drill mode. Items in the analytic become clickable and enable you to drill higher in the hierarchy within the same analytic. For example, drill up from the month to examine data for a quarter.

E

efficiency and effectiveness

Efficiency describes how well IT meets customer expectation with minimal resources, expense, or unnecessary effort. Effectiveness measures the degree of success in achieving a given goal. Unlike efficiency, effectiveness does not measure the resources expended, the expense incurred, or the effort, but only the degree of success. IT can be effective without being efficient. FPA enables you to construct scenarios that alter resources, expenses, or other efficiency components to improve effectiveness.

enterprise key

The enterprise key is used to generate the durable key in the target entities.

ETL

The Extract, Transform, and Load (ETL) process is an end-to-end transfer of external source data through several staging layers and into the target layer of the data warehouse. The source data can reside in a single database or multiple databases. The data warehouse uses the ETL process to extract, consolidate, and transform the source data into a meaningful target model that populates relevant business analytics.

executable

A program that executes an ETL task: Any custom script or program that complies with the data warehouse ABC API. An SAP BusinessObjects Data Services job that complies with the data warehouse ABC utilities.

EXT

Extract Staging.

external key

A string used to identify an object in an external store such as a record in a database.

Extract (ETL)

The extract process extracts delta data from the source systems and writes it to delimited flat files on the file system. The data warehouse uses the Change Data Capture (CDC) technique for extracting data from the source tables. FPA extracts data if the last modification date is greater than or equal to the maximum last modification date value.

F

fact

The central table in a star schema that contains the measures that the business users want to analyze.

Fact table

Fact tables are the central tables in star schemas. Facts are information about the business that are typically numeric and

additive. Fact tables contain the measures that the business users wish to analyze to find new trends or to understand the success or failure of the organization.

Financial Planning & Analysis

Financial Planning & Analysis (FPA) is a component of BTO Analytics that helps organizations make better IT financial decisions by reducing the effort involved with managing IT finance and giving business the financial transparency it demands. FPA does this by consolidating and allocating planned and actual costs from HP Asset Manager and HP Project and Portfolio Management to help IT manage those costs more effectively.

foreign key

The field in a table that refers to the primary key of another table in the same data source. Every relationship in the model must be supported by a foreign key. Foreign keys enforce referential integrity by completing an association between two entities.

FPA

Financial Planning and Analysis

FQDN

Fully Qualified Domain Name The DNS domain defined in the main configuration must be accessed by an FQDN so that each cookie is sent to all servers.

G

Governance

Governance is a structures process or group used to control change and provide oversight. Governance groups are commonly used to control changes in data models, data modeling practices, and architecture standards.

Granularity

The level of the measures within a fact table represented by the lowest level of the dimensions.

H

Hierarchy

Hierarchies use ordered levels to organize data. For example, in a time dimension, a hierarchy might be used to aggregate data from the month level to the quarter level to the year level.

historical data

Data from previous time periods that is used for trend analysis and comparisons.

I

Impact analysis

Impact analysis is the process of analyzing the effect if a business process fails or loses efficiency.

Impact rules

Impact rules define the effect of an incident on a business service, application, or the organization. Impact rules are associated with these characteristics: • Incident type, such as degraded performance, limited capacity, corruption, an outage, or a request for information. • Scope of the impact. For example, the impact might affect one user, an entire department, a business unit, or the entire enterprise. • A schedule that defines when the rule applies. An outage at midnight might not be as expensive as an outage during normal business hours. • Fixed amount, fixed rate, or stepped rate impact calculation. These variables make each rule unique. As you expand the number of impact rules to cover different scenarios, your impact calculations become more

precise. For example, if all variables are the same except for the scope, the impact cost is exponentially greater as a larger segment of the organization is affected. Different rules also enable you to calculate the impact of an outage at these levels: • Business service level, which has immediate impact. • Organization level, which extends the impact to include customer good will, lost revenue, and more. BTO Analytics uses impact rules to calculate the impact of historical events as well as hypothetical scenarios.

Integration Content Pack

The dynamic deployable part of a Content Pack that allows to integrates to a specific data source.

ITIL best practices

BTO Analytics users need to adhere to the best practices advocated by the IT Infrastructure Library (ITIL). When you adhere to the ITIL best practices and processes for problem, change, and service level management, you have a business maturity model that is compatible with BTO Analytics processes and objectives. To validate the benefits of ITIL best practices, you can evaluate comparative industry process metrics to confirm the improved efficiency and effectiveness of your internal processes. BTO Analytics follows ITIL version 3 guidelines for naming conventions and to categorize analytics.

J

join

Tables from a single data source where one table is considered the parent or primary table are consolidated with a join. In a join, all records from the parent table are imported, and records that have a

matching foreign key are imported from child tables.

L

LDAP

Database from where users and groups can be mapped to BOE.

Load (ETL)

The load process adds new records, updates existing records, and flags deleted records in the data warehouse target layer fact and dimension tables.

log

A log displays an alert that an issue occurred during execution. The information in the execution log can become an alert when configured by the alert system.

LW-SSO

Lightweight Single Sign-On integration for BTO products without additional infrastructure.

M

measure

A value collected by the executable during execution, such as the number of rows processed during an ETL job, or an amount extracted from a table that describes expenses in a source application. The ABC application does not make any assumptions about the business tasks performed by the executable or impose any semantic requirements on computed measure values. The ABC application provides an interface for the executable to store measures. The ABC reports provide drill-down capabilities into the stored measures.

Measurement

A measurement is any quantitative data that is loaded on demand to Executive Scorecard based on a KPI or any report requirement. A measurement can be either an aggregation (example – amount of incidents for each service for the last hour) or a single sample per domain definition (example - project total expenses).

merge

Tables that exist across multiple data sources, and where reconciliation is done are consolidated with a merge. In a merge, all records from all tables are imported, and reconciliation is done where appropriate. Merges join tables where they overlap and also import all other records.

Metadata

1 Metadata includes a description of data models, a description of the layouts used in database design, the definition of the system of record, the mapping of data from the system of record to other places in the environment, and specific database design definitions. 2 Metadata usually refers to agreed-upon definitions and business rules stored in a centralized repository to ensure that business users across departments and systems use common terminology for key business terms. Metadata can include information about data currency, ownership, source system, derivation (such as profit equals revenues minus costs), or usage rules. Metadata prevents data misinterpretation and poor decision making due to limited understanding of the true meaning and use of corporate data. Source: SAP® Business Objects. SAP Help Portal (http://help.sap.com).

Metric

1 Metrics measure quality. They establish and collect measurements of success or failure. 2 The executable that collects the measures and generates the status. The ABC application provides an interface for the executable to store metrics.

MSC

Multiple Source Consolidated.

MSI

Multiple Source Identity.

multi-dimensional

The aggregation of data by the dimensions of the business. For example, sales by region by product by time.

MyTerm

N

Near-real-time

Near-real-time provides users with rapid updates from transactional systems.

non-discretionary

Non-discretionary expenditure. Essential costs that cannot be eliminated without disrupting operations.

O

OLAP

Online analytical processing (OLAP) is an application that enables multidimensional analysis and visualization of data.

online analytical processing

OLAP. An application that allows multi-dimensional manipulation, display, and visualization of data.

operational data store

A database designed to integrate data from multiple sources to make analysis and reporting less complicated.

OpEx

Operational expenditure. The ongoing cost for running a product, business, or system, such as the cost of research and development.

organization

Part of the business that provides a product or service to an internal or external customer.

P

Predictive analysis

Predictive analysis uses data mining techniques to predict future behavior, probability, and trends. The more historical data that you have, the more accurately you can predict the likelihood of future events. For example, auto insurance companies use safety predictors such as age, gender, and driving record when they issue car insurance policies. Mortgage underwriters use financial predictors such as income, debt ratio, and payment history when they issue home mortgages.

primary key

Primary keys are the fields that make up the unique value for each record. In the source application, this is represented by the business key. In the data warehouse, it is the surrogate key.

prioritization

When the number of services required exceeds your capacity, you must establish rules to organize open incidents into a work queue. The most urgent incidents are at the beginning of the queue; incidents with lower priority are at the bottom of queue.

process

A process is an execution of a job stream step in a specific batch. A single job stream step may lead to multiple processes in cases of retries.

R

real-time

Instantaneous, on demand reporting, versus scheduled, prebuilt reporting.

reconciliation

Data reconciliation helps ensure the quality of the data.

report

A pre-defined document that targets a specific audience or user.

report library

A set of programs that have been created, tested, quality assured, documented, and made available to the user community.

resource allocation

The challenge for IT is to reduce costs without compromising services. Reducing personnel can reduce costs, but may seriously affect services that require high service levels and minimal outages. FPA enables you to plan for resource needs, the cost of reducing head count, and validate that resources levels are correct for your service requirements.

risk

The possibility of a measurable monetary loss or an intangible opportunity cost.

S

Shared Secret

The key used to authenticate communication with the BOE server.

slowly changing dimension

A slowly changing dimension (SCD) is a dimension that contains data that changes over time. For SCD type 1 changes, the new data overwrites the original data. For SCD type 2 changes a new record is generated. FPA makes a copy of the record and flags the original record as historical. Both the new and old record share the same durable key, indicating that they are the same piece of data.

Snowflake schema

A snowflake schema is a data model that has a centralized fact table that references multiple dimension tables, and the dimension tables reference multiple related tables.

SSI

Single Source Identity.

SSNP

Single Source Snapshot.

staging

A collection area where data is transformed for presentation, integration, or enhancement.

Star schema

Star schemas are simpler than snowflake schemas. A star schema is a data model that has one or more centralized fact tables that reference a single layer of dimension tables. The dimension tables do not reference other tables.

status

The statuses that appear in the reports have been defined in Application Lifecycle Management.

stream step detail

A sub-task of the executable job stream step. There are no assumptions about the content of the executable; therefore, the stream step detail is not modeled. The ETL designer is responsible to define the job stream step details.

surrogate key

A surrogate key is a primary key for the dimension tables. It is the field that makes up the unique value for each record in the data warehouse. Surrogate keys are numeric and are controlled by the ETL process.

T

Target Database

Contains tables that describe the format of the data that produces business intelligence analytics.

test

Tests are the model created to test specific features. Test instances correspond to tests that are run in specific conditions. They can be run once or several times in a cycle.

Token

LW-SSO uses Symmetric Encryption to validate and create a token. The initString parameter within the configuration is used for initialization of the secret key. An application creates a token, and each application that uses the same initString parameter validates the token. The initString should be shared only between applications integrating with each other using LW-SSO.

Transform (ETL)

During the transformation process, DWH transforms data into the format of the target tables and populates the load-ready target staging tables. The Transformation layer contains load-ready tables that match the internal structure of the data warehouse target tables.

TSNP

Transactional Snapshot.

U

union

Tables that occur in either single or multiple data sources and have records that are assumed to be equal and independent are consolidated with a union. In a union, all records from all sources are imported but are not reconciled. They are simply added to the rowset.

universe

The universe contains a schema of the tables and joins that make up the universe and dimension and measurement objects. The universe is an interface between the data warehouse and the analytics that display the data. The universe contains analytic views that enable you to see published and up-to-date allocation cost and planned cost data as well as unpublished data or published data that is not up-to-date. The views also ensure the consistency of data warehouse quality by showing only data that is successfully extracted, transformed, and loaded. Analytic views provide the mechanism to reduce the dependencies of analytic semantic models to data warehouse physical models.

upstream

Upstream ETL retrieves data from one or more external applications, consolidates it into a target data model, and stores it in the data warehouse.

W

Work flow

A work flow is a reusable object containing steps to define the order of job execution. Work flows call data flows but cannot manipulate data. You can call work flows from inside other work flows or jobs and can pass information into or out of work flows using parameters. You can reuse work flows by dragging existing ones from the object library. Source: SAP® Business Objects SAP Help Portal (http://help.sap.com)

X

XFR

Dimensional Transform.

XREF

Cross Reference.

XREF Database

Manages and contains cross reference data and information relationships.