HP IT Executive Scorecard

For the Windows ® operating system

Software Version: 9.00

IT Executive Scorecard Admin Guide

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Software Release Date: June 2011

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Contents

Getting Started

HP Executive Scorecard is a strategy enabler.

HP 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.

Product Goals

HP Executive Scorecard provides:

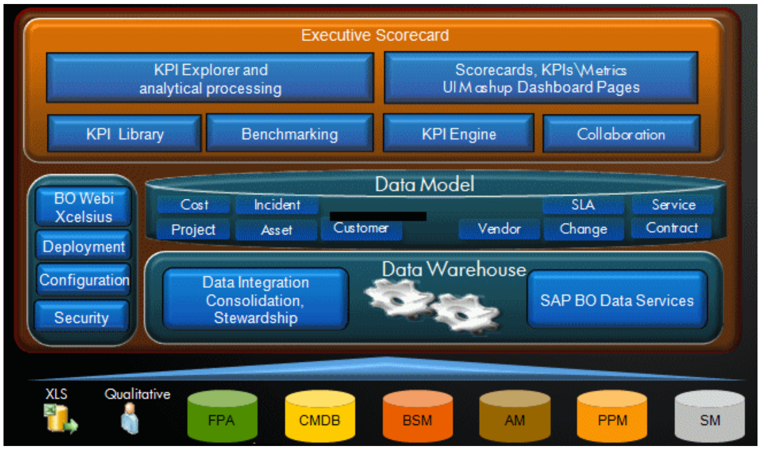
- Cascaded Objectives (Scorecards) that provide the means to define IT goals and objectives.
- Performance Measurements (KPIs and metrics) that measure performance and how the IT goals and objectives are met.
- Actionable insights into performance improvements (KPIs and Data Level Analytics) that increase the performance improvement planning effectiveness via collaboration.
- Impact: The actionable insights impact the performance measurements that impact the Cascading Scorecards.
- Traceability: The Cascading Scorecards provide traceability into the performance measurement and then into the actionable insights.

HP Executive Scorecard Contents

HP Executive Scorecard:

- Is driven by the business personas challenges.
- Is aligned with the IT objectives of these challenges.
- Is based on industry standards: ITIL, COBIT, and more.
- Its Key Performance Indicators (KPIS) are based on the IT Data Model.
- Its analytics results are presented in a Dashboard.

HP Executive Scorecard Solution



HP 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 Operations.

The data sources of the data warehouse can be HP software products such as HP Business Service Management (BSM), HP Universal CMDB (UCMDB), Service Level Management (SLM), and PPM as well as third party open source products.

The HP 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 Executive Scorecard provides:

- Strategic measurements in the HP Executive Scorecard Dashboard:
  - Persona-based dashboards
  - Cascaded Scorecards
  - KPI Library (templates)
  - KPI engine
  - Scorecards
- 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.

HP Executive Scorecard Components

HP Executive Scorecard includes several components:

- The Studio tab where the administrator creates and manages all the building elements that are used to create the displayed pages and components on the executive Dashboard.
- The Dashboard mashup where the administrator configures how to display the information that the executive wants to see. The information is displayed on pages that can include one or more components. The administrator can configure the pages, the components, and the interactions of these components with each other.
- The Dashboard, where the executive can view how well their required objectives are doing, and from where the executive can drill down to subordinates pages to breakdown the information and get a better understanding of the situation.
- The Explorer tab, where the executive can view more detailed information about their Objectives and KPIs, and can access other reports or external pages that display other facets of the situation. The executive usually accesses the Explorer tab in context, by drilling down from the relevant Objectives or KPIs in the Dashboard components.

In addition, HP Executive Scorecard includes an Admin tab, where the administrator selects or configure the relevant settings. For details, see the *General Admin Guide*.

Depending on their permissions the administrator and the executives can view,manage, or administrate tabs, pages, components, and more.

Getting Started with the HP Executive Scorecard Studio and Dashboard

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

- Configure the Relevant Users and their Permissions
- Plan the Executive Dashboard
- Create the Dashboard Contents
- Enrich the Dashboard Contents
- Prepare the Dashboard Display
- View and Analyze the Business Objectives
- Perform the Maintenance of Executive Scorecard

Plan the Executive Dashboard

This part includes the following topics:

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 6).
- **VP of Operations.** For details, see "VP of Operations Business Challenges" (on page 6).
- **Project Manager Officer (PMO).** For details, see "Project Manager Officer (PMO) Business Challenges" (on page 10).
- **Director of Service Management.** For details, see "Director of Service Management Business Challenges" (on page 12).
- **Business Relationships Manager (BRM).** For details, see "Business Relationships Manager (BRM) Business Challenges" (on page 14).

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 260).

Out-of-the-box Capabilities

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

- **Pages and components**. HP 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 Executive Personas

The Dashboard is part of the HP 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

A 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 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.

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 274).

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

A 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 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 projects done by external employees.
- **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 278).

The page presents the following information:

IT Objectives	KPIs and Analytics
Improve customer satisfaction	• % of SLAs not met • % of met objectives for IT process activities • Outages/total SLA uptime over time • % of customers satisfied with the Help Desk • Requests approval duration
Improve service delivery performance	• MTBF • MTBF to recover • Service performance not met • Service availability • Outages"Mean Time To Repair a Service" (on page 42)
Improve responsiveness	• Interactions backlog • Interaction response time • % of FCR • Change backlog • Average time to procure an asset • % of incident aging • Problem queue rate • Average project initiation time • Requests backlog • Average request duration
Project execution success	• % of project with unresolved urgent issues • % of healthy projects • % of projects on time • % of project tasks on time • Deviation of planned hours of work
Reduce cost	• % of change in service delivery cost • % of software licenses in use • % of change in projecst cost • % of change in assets cost
Improve staff effectiveness	• % of project effort done by external sources

IT Objectives	KPIs and Analytics
	• % of full time employees • Resource utilization rate • Change in training cost • Knowledge documented
Achieve process of excellence	• Average age of hardware assets • % of assets in maintenance • % of assets returned to supplier • % of assets not in stock • % of urgent changes • % of change success rate • % of authorized implemented changes • % of unauthorized implemented changes • % of reopened incidents • SLA expirations • SLA coverage • % problems with RC • % of compliant infra CIs.
Stewardship of IT investment	• Average cost of IT delivery per customer • Variance % of Actual vs planned costs • % of IT POR vs total revenue • % of at risk project budget • % of licenses purchased and not accounted for in configuration repository • % of printers, desktops vs end-users • % time when licenses are not being used • % of expired contracts
Stewardship of IT investment	• % of CIs under maintenance contract • % of business compliance issues caused by improper configuration of assets • % of assets used after lease end date • % of assets not under contracts

For details on the KPIs, see "Reference: KPIs" (on page 24).

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

A 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 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 on budget, % of on time projects, and deviation of planned hours of work.
- **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 "UI: PMO page" (on page 265).

The page presents the following information:

IT Objectives	KPIs and Analytics
Alignment with Business Strategy	• % of employees working on strategic projects • % of time invested on strategic projects • % of projects associated with business objectives
Stewardship of IT investment	• % of unhealthy projects • Actual vs planned project costs
Improve responsiveness	• Time to market of new products and services • Project initiation time • % of demands met SLAs
Project execution	• % of projects with unresolved urgent issues • % of healthy projects • % of on-time projects • % of on-time project tasks • Deviation of planned hours of work • Milestone Achievement Ratio
Improve service delivery performance	• MTBF • Service MTT Recover • Service performance not met • Service availability • Outages
Employee effectiveness	• % of employee utilization rate • % project full time employees • Average number of people assigned per project • Number of unstaffed hours • % of FTE working on project not initially assigned
Process of excellence	• Demands backlog by request type • % of approved demands • Demands vs resource capacity

For details on the KPIs, see "Reference: KPIs" (on page 24).

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 269).

The page presents the following information:

IT Objectives	KPIs and Analytics
Improve customer satisfaction	• % of SLAs not met (by services, by customers) • % of met objectives for IT process activities • Outages/total SLA uptime over time • % of customers satisfied with the Help Desk
Improve service delivery performance	• Service MTBF • Service MTT Recover • Service performance not met • Service availability • Outages
Improve responsiveness	• Interaction backlog • Incident resolution time • % FCR • Change backlog • MTT Repair
Alignment with Business Strategy	• % of employees working on strategic projects • % of time invested on strategic projects • % of projects associated with business objectives
Stewardship of IT investment	• % of unhealthy projects • Actual vs planned project costs
Improve responsiveness	• Time to market of new products and services • Project initiation time • % of demands met SLAs
Achieve process of excellence	• % of SLA expirations • % of SLA coverage • % of reopened incidents • % of escalated interactions • % of changed SLAs • % of SLAs under review • % of services not in catalog • % of SLAs actually being measured

IT Objectives	KPIs and Analytics
	• % of assets in maintenance
Stewardship of IT investment	• % of change in business service cost • % of vendor services delivered with agreed service targets • Total service delivery penalties paid

For details on the KPIs, see "Reference: KPIs" (on page 24).

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

A 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 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 : % of healthy projects, % of projects on time, and % of projects 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 282)"UI: PMO page" (on page 265).

The page presents the following information:

IT Objectives	KPIs and Analytics
Improve customer satisfaction	• % of SLAs not met • % of SLAs Met for IT processes activities • Outages/total SLA uptime over time • % of customers satisfied with the Help Desk
Reduce cost	• % of changes in business service cost • % of change in total cost of projects
Improve responsiveness	• Interactions backlog • Interaction response time • % FCR • Time to market of new products and services
Achieve process of excellence	• % of healthy projects • % of projects on time • % of project tasks on time
Stewardship of IT investment	• % of Unhealthy projects Budget Risk • Variance % of actual vs planned costs • Average cost of IT delivery for customer

For details on the KPIs, see "Reference: KPIs" (on page 24).

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 context is a set of entities. Each entity is a set of fields. Each field can be a dimension, measure, or fact. It can be measured.

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 given to a Key Performance Indicator (KPI). The KPI represents the 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.

This section includes the following topics:

"Reference: Universes (Contexts)" (on page 16)

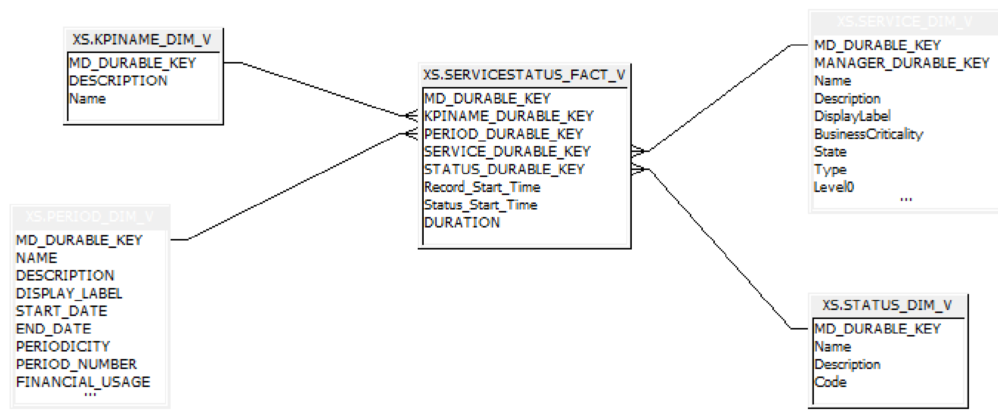
"IT Data Model" (on page 24)

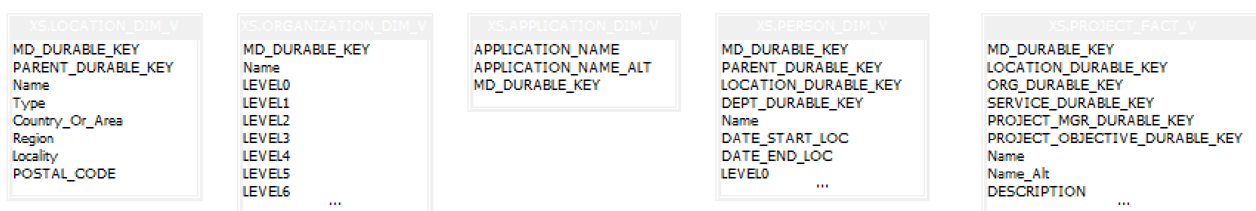
Reference: Universes (Contexts)

HP Executive Scorecards includes out-of-the-box universes (contexts) that correspond to specific aspects of the business.The entities in these contexts are IT Data Model-compliant. For details about IT Data Model, see "IT Data Model" (on page 24).

Availability Management

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.



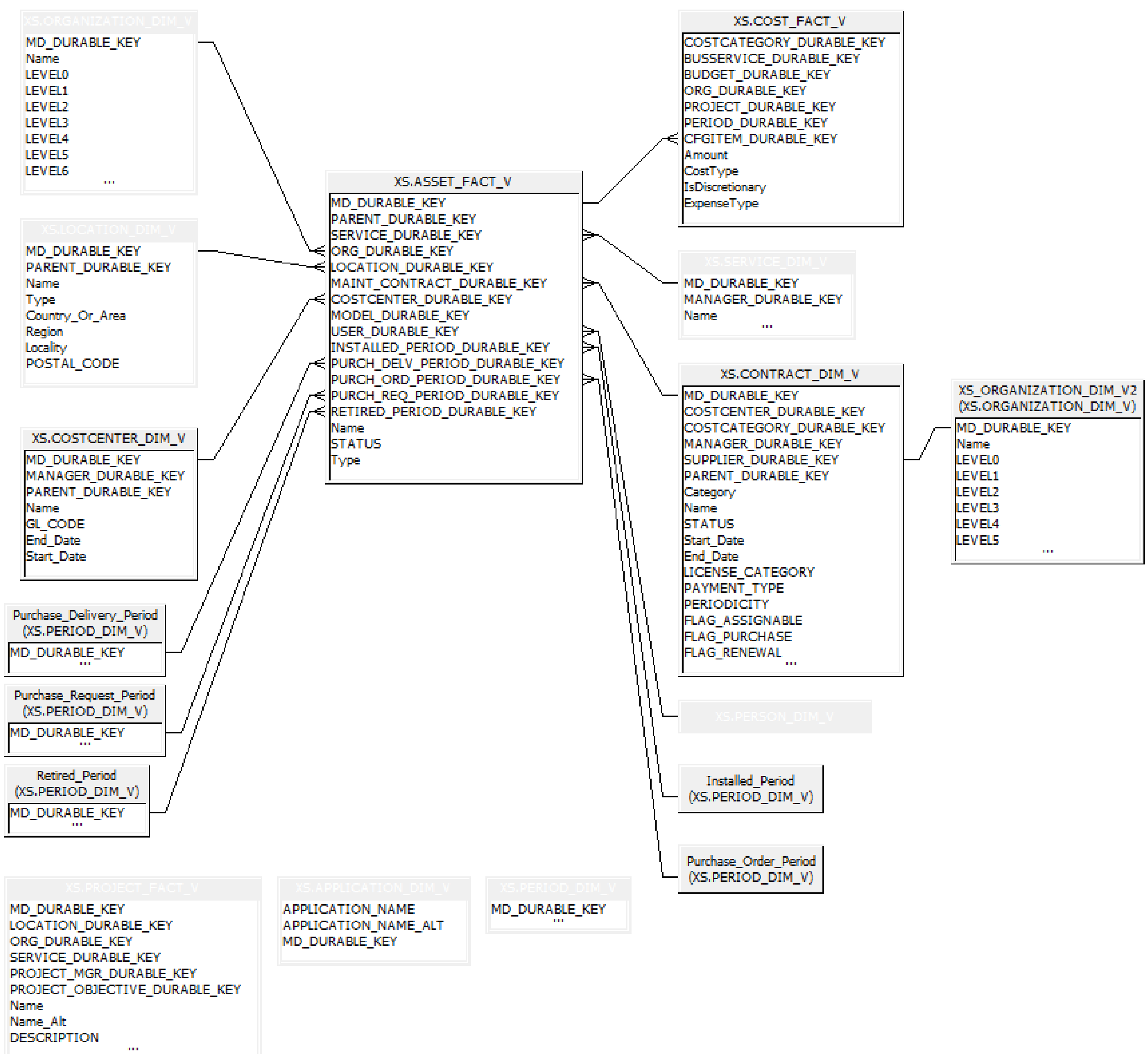


Asset Management

IT Asset Management includes the Software Asset Management and the Hardware Asset Management.

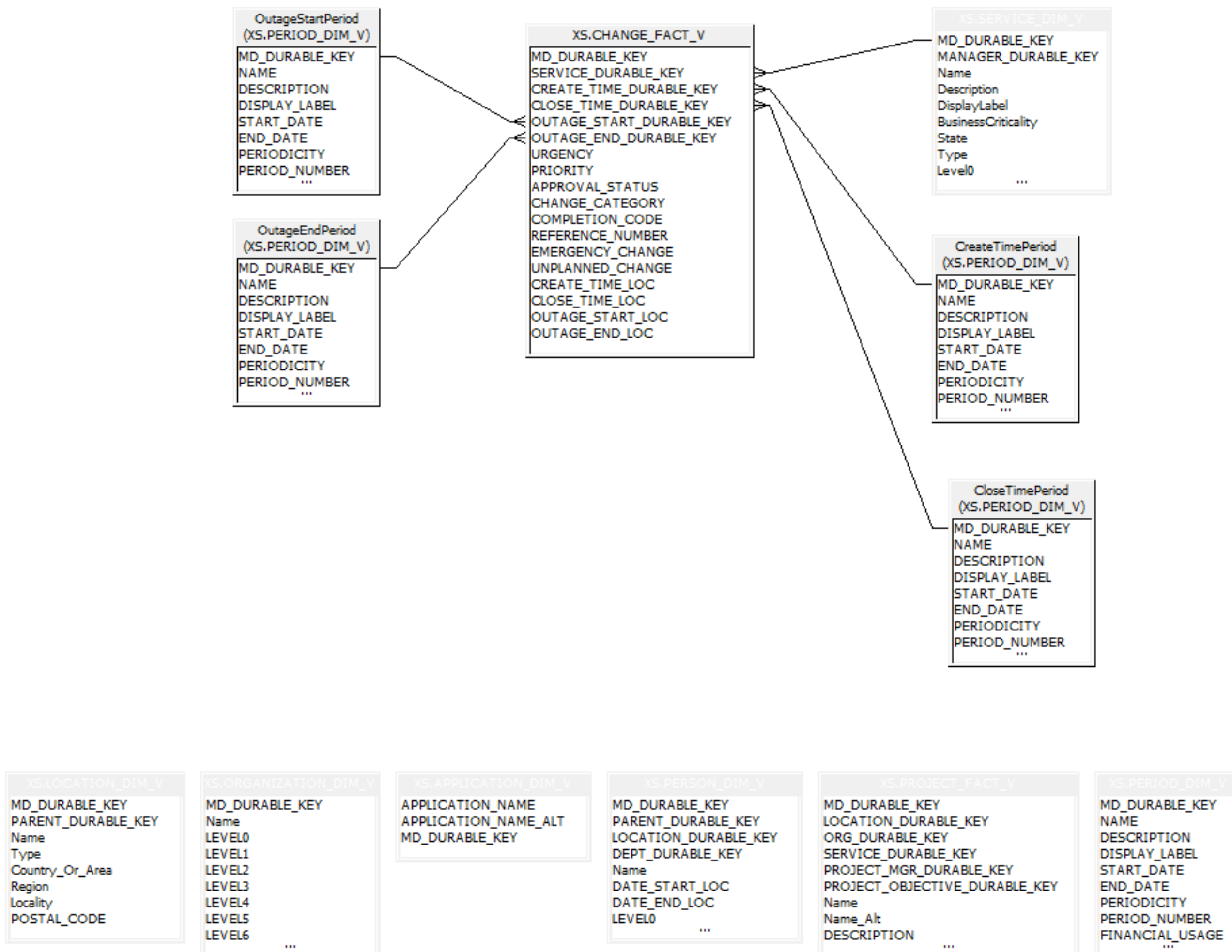
Software Asset Management is the practice of integrating people, processes and technology to allow software licenses and usage to be systematically tracked, evaluated and managed. Its goal is to reduce IT expenditures, human resource overhead and risks inherent in owning and managing software assets.

The goal of Hardware Asset Management is to maintain effective hardware inventory controls that are critical to efforts to control software. This means overseeing software and hardware that comprise an organization's computers and network.



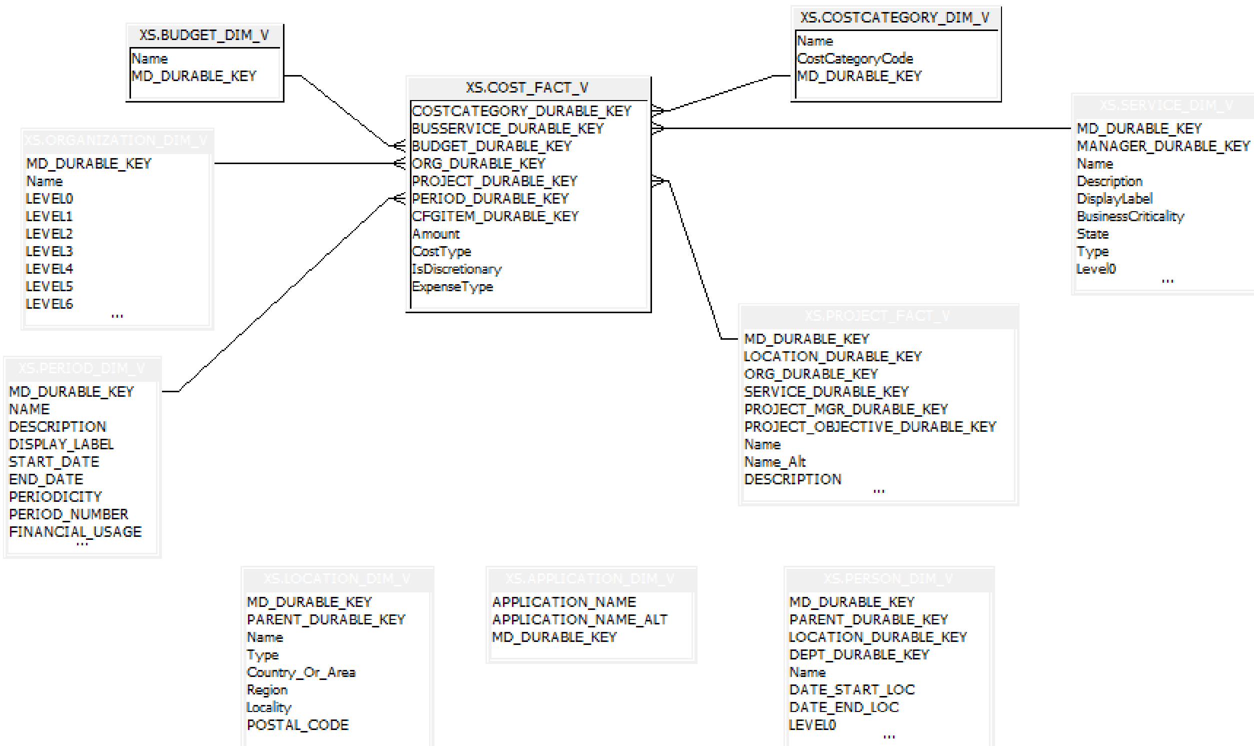
Change Management

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.



Financial Management

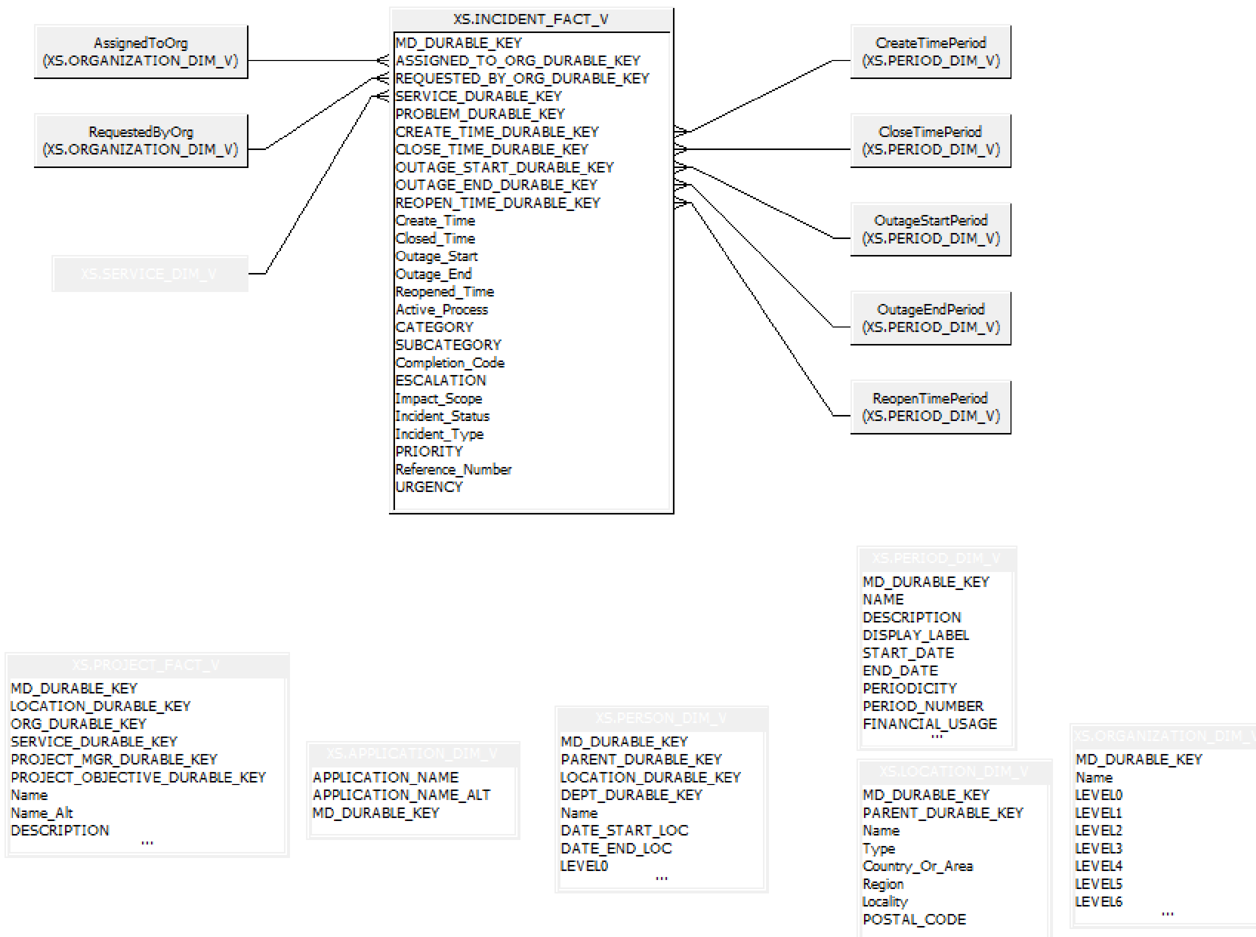
The goal of an IT Financial Management universe is to ensure that the IT infrastructure is obtained at the most effective price (which does not necessarily mean the cheapest) and to calculate the cost of providing IT services so that an organization can understand the costs of its IT services. These costs may then be recovered from the customer of the service.



Incident Management

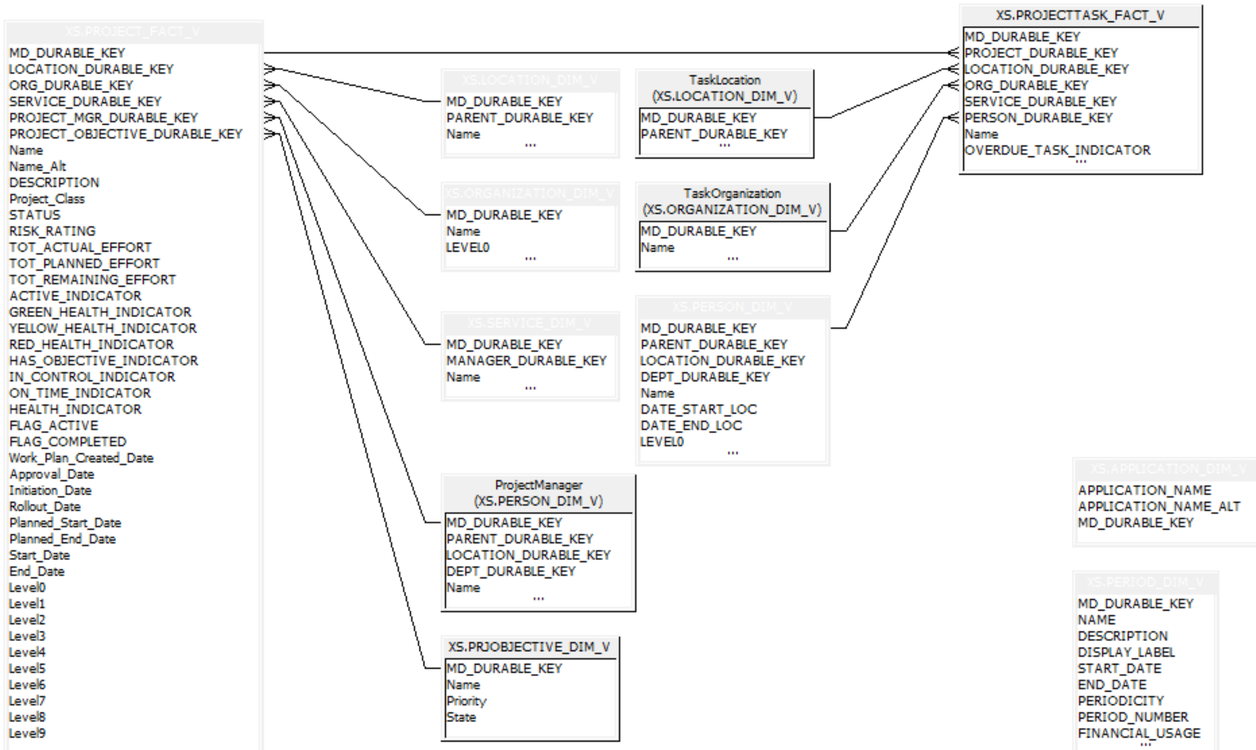
Incident Management aims to restore normal service operation as quickly as possible and minimize the adverse effect on business operations, thus ensuring that the best possible levels of service - quality and availability - are maintained. 'Normal service operation' is defined here as service operation 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.



Project Portfolio Management (PPM)

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.

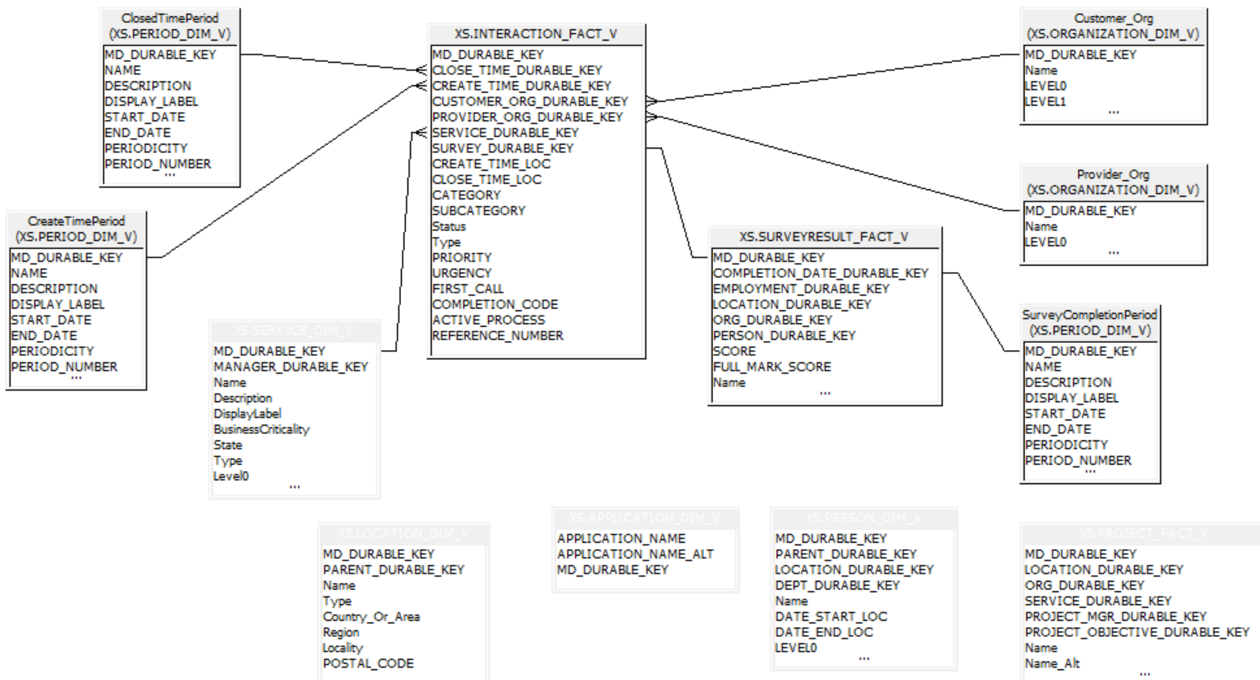


ServiceDesk Management

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 2nd/3rd 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).

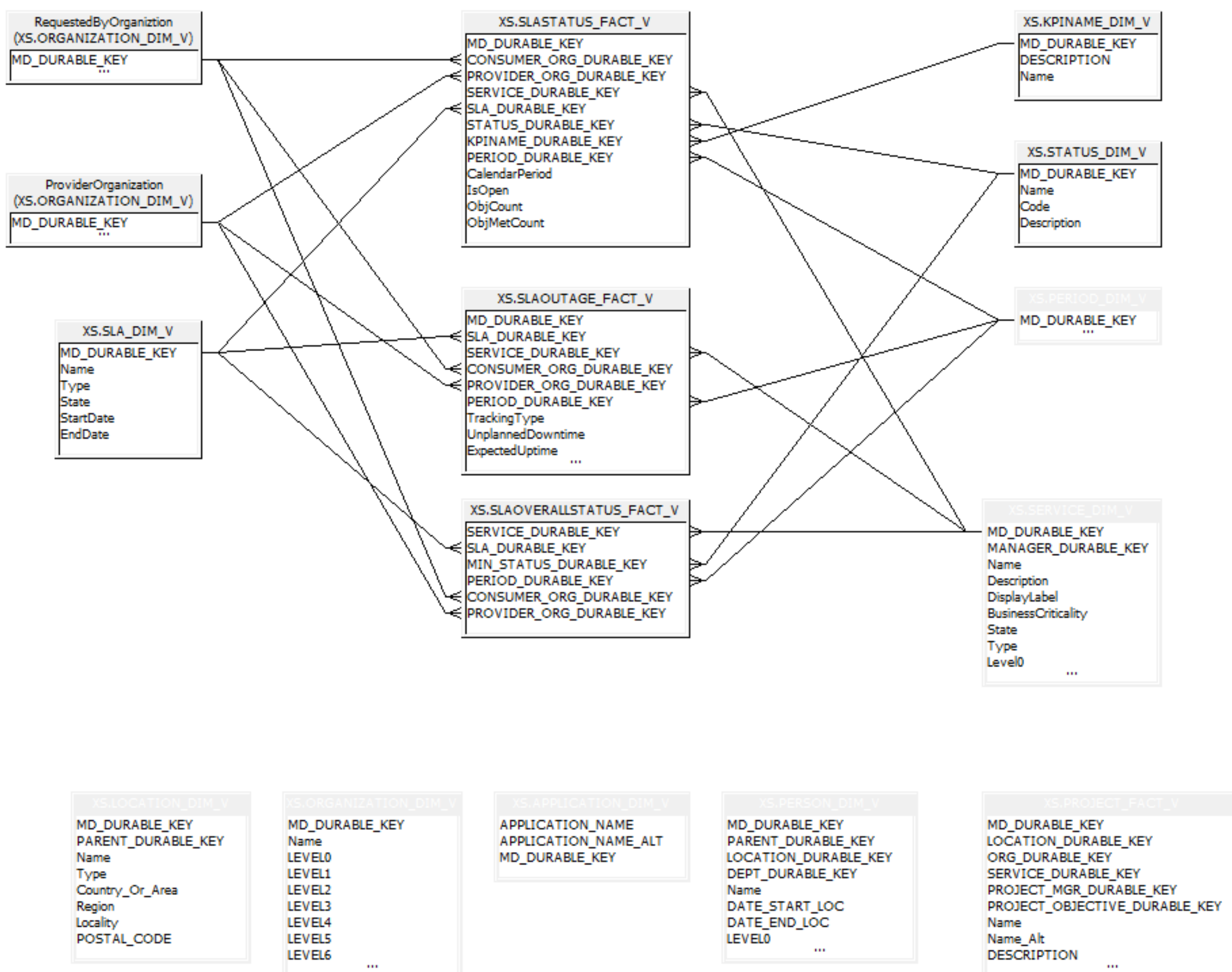


SLM Management

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 the primary interface with the customer (as opposed to the user serviced by the Service Desk). 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.



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 Executive Scorecard are based on the IT Data Model (not 100% compliant). The entities are described in the universes. For details, see "Reference: Universes (Contexts)" (on page 16).

Reference: KPIs

The KPIs available in the HP Executive Scorecard are:

% of Actual vs Planned Projects Cost

Description:	The actual costs relative to the planned projects cost.
Business Motivation:	Make sure our business agility from the projects perspective is efficient.
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.CostType ='Actual' And Project.StartDate IN_PERIOD), SUM(Cost.Amount, Cost.CostType ='Planned' And Project.StartDate IN_PERIOD))
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis HP Project and Portfolio Management

% of Assets in Maintenance

Description:	The number of assets in maintenance relative to the total number of assets.
Business Motivation:	Make sure we have enough assets to work efficiently.
Formula:	PERCENTAGE(Asset,Asset.Status Like 'Return for mainten%', Asset.Status<>'Retired(or consumed)')
Context or Universe:	AssetManagement
Data Source	HP Asset Manager

% of Assets Returned to Supplier

Description:	The number of assets returned to the suppliers relative to the total number of assets.
Business Motivation:	Make sure we have enough assets to work efficiently. Should we change suppliers?
Formula:	PERCENTAGE(Asset, Asset.Status= 'Return to supplier' ,Asset.Status <>'Retired(or consumed)')
Context or Universe:	AssetManagement
Data Source	HP Asset Manager

% of Capex vs Opex Spending

Description:	The capitalized expense relative to operational expense.
Business Motivation:	How does Capex spending compare to Opex spending? Is the organization within its PoR for capital (Capex) and operating (Opex) expenses? I What percentage of spending is capital expenses versus operating expenses? I Where is the organization spending the majority of its actual expenses–on capital or operating expenses?
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.ExpenseType = 'CAPEX' and PERIOD_ENTITY=Period), SUM(Cost.Amount, Cost.ExpenseType = 'OPEX' and PERIOD_ENTITY=Period),100)
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

% of Change in Assets Cost

Description:	The last period asset cost relative to the previous period.
Business Motivation:	Make sure our assets costs are under control. Make sure our asset management is improving.
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Asset.Status='In use' And PERIOD_ENTITY= InstalledPeriod), SUM(Cost.Amount, Asset.Status='In use' And PERIOD_ENTITY= InstalledPeriod(-1)),100)-100

Context or Universe:	AssetManagement
Data Source	HP Asset Manager

% of Change in Business Service Cost

Description:	The last period cost of business services relative to the previous period.
Business Motivation:	Make sure that our business services policy is efficient. What is the change in Business Service Cost compared to last month?
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.CostType ='Actual' And PERIOD_ENTITY=Period), SUM(Cost.Amount, Cost.CostType ='Actual' And PERIOD_ENTITY=Period(-1)),100)-100
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

% of Change in Projects Cost

Description:	The last period change in cost of projects relative to the previous period.
Business Motivation:	Make sure that our project costing policy is efficient.
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Project.Name<> 'INVALID' And Project.Name <> 'UNKNOWN' And Cost.CostType ='actual' And PERIOD_ENTITY =Period), SUM(Cost.Amount, Project.Name<> 'INVALID' And Project.Name <> 'UNKNOWN' And Cost.CostType ='actual' And PERIOD_ENTITY =Period(-1)),100)-100
Context or Universe:	FinancialManagement
Data Source	HP Project and Portfolio Management

Change Success Rate

Description:	The number of successful changes relative to the total number of changes.

Business Motivation:	Make sure our change processes are efficient.
Formula:	PERCENTAGE(Change, Change.CompletionCode='Successful' and PERIOD_ENTITY =CreateTimePeriod,PERIOD_ENTITY =CreateTimePeriod,100)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

% of Changes Resulted in Outage

Description:	The number of changes opened during the measurement period that resulted in unexpected outage, relative to the total number of changes.
Business Motivation:	Make sure change implications and risk assessments are correct.
Formula:	PERCENTAGE(Change,Change.OutageStart is not NULL And PERIOD_ENTITY=CreateTimePeriod, PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

% of Escalated Incidents

Description:	The number of escalated incidents relative to the total incidents opened during the measurement period. This analysis enables organizations to identify inefficiencies in the incident routing process. Routed incidents include those that move between assignment groups. This metric measures service desk efficiency by determining how quickly incidents are assigned correctly.
Business Motivation:	Make sure that our incident management process is efficient and that the major number of incidents are solved by the first or second support tiers. To determine when and how often incidents are routed incorrectly so that organizations can identify measures to reduce the frequency and occurrence of misrouted incidents. Some ways to improve correct routing include additional training, process re-engineering, restructuring assignment groups, improving knowledge documentation, and reclassifying incidents categories.
Formula:	PERCENTAGE(Incident, Incident.Escalation='Y' And PERIOD_ENTITY=CreateTimePeriod, PERIOD_ENTITY=CreateTimePeriod)

Context or Universe:	IncidentManagement
Data Source	HP Service Manager

% of FCR

Description:	(% first call resolution of service requests) The number of interactions that were solved by the first line without assistance from other support lines, relative to the total number of interactions that occurred during the measurement period. This metric enables organizations to identify the percentage and call counts that the initial customer contact completes for non-Employee Self Service (ESS) calls. The metric is commonly one of the crucial drivers of customer satisfaction. By monitoring first call resolution, Call Center managers can determine how well the service is performing and whether additional staff or knowledge tools are necessary to facilitate high call volumes.
Business Motivation:	Make sure that the service desk management process is efficient and that the majority of interactions are solved by the first level support. If this number is too high you probably need to improve the self help tools in your organization.
Formula:	PERCENTAGE(Interaction, Interaction.FirstCall='Y' and Interaction.Status='closed' And PERIOD_ENTITY=ClosedTimePeriod, Interaction.Status='closed' And PERIOD_ENTITY=ClosedTimePeriod,50)
Context or Universe:	ServiceDesk
Data Source	HP Service Manager

% of Healthy Projects

Description:	The number of healthy projects relative to the total number of projects.
Business Motivation:	Make sure that the general health of my projects is on track.
Formula:	PERCENTAGE(Project, Project.HealthIndicator='GREEN' And Project.FlagActive='Y' , Project.FlagActive='Y',100)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Interactions in Backlog

Description:	The number of open interactions that are older than 28 days (or any other given time frame) relative to the total number of open interactions. This number reflects the size of the backlog of old unresolved interactions.
Business Motivation:	To enable organizations to understand which parts of their service desk are the busiest. When combined with metrics that show call center efficiency, organizations can determine how to optimize their resources.
Formula:	PERCENTAGE(Interaction, (Now-Interaction.CreateTime>= 28*Day) And Interaction.Status='Open' And PERIOD_ENTITY=CreateTimePeriod, Interaction.Status='Open' And PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ServiceDesk
Data Source	HP Service Manager

% of IT POR vs Total Revenue

Description:	The IT Plan of Record relative to the Total Planned Company Revenue Goal (where the goal is manually entered).
Business Motivation:	Make sure we are on target for spending against the corporate plan.
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.CostType='Actual' and PERIOD_ENTITY=Period),100000,20)
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

% of SLAs Met

Description:	The number of met SLAs relative to the total number of SLAs.
Business Motivation:	Make sure that our SLAs meet the goal, over time.
Formula:	Percentage(SLAOverAllStatus, Status.Name = 'ok' and Period.Periodicity =KPI_PERIODICITY_TYPE And PERIOD_ENTITY=Period, Period.Periodicity = KPI_PERIODICITY_TYPE And PERIOD_ENTITY=Period,100)
Context or Universe:	SLM

Data Source	HP Service Manager HP Business Service Management

% of Project Effort Done by External Resources

Description:	The number of outsourced projects relative to the total number of projects.
Business Motivation:	Make sure the project outsourcing policy is efficient.
Formula:	PERCENTAGE_MATH(SUM(ProjectTask.ActualHours, ProjectTask.ExternalResource='Y' And (Project.FlagActive='Y' or ProjectTask.EndDate IN_PERIOD)), SUM(ProjectTask.ActualHours, Project.FlagActive='Y' or ProjectTask.EndDate IN_PERIOD),0)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Project Tasks on Time

Description:	The number of overdue project tasks relative to the total number of projects completed during the measurement period.
Business Motivation:	Make sure our general project management is meeting the expected deliveries.
Formula:	PERCENTAGE(ProjectTask, ProjectTask.OverdueTaskIndicator=0 And (ProjectTask.EndDate is NULL or ProjectTask.EndDate IN_PERIOD), ProjectTask.EndDate is NULL or ProjectTask.EndDate IN_PERIOD,100)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Projects Associated with Business Objectives

Description:	The number of projects aligned with a business objective relative to the total number of projects that were started during the measurement period.
Business Motivation:	Make sure that our investments are focused on the organization's strategical goals.

Formula:	PERCENTAGE(Project, Project.HasObjectiveIndicator=1 And (Project.FlagActive='Y' or Project.EndDate IN_PERIOD), Project.FlagActive='Y' or Project.EndDate IN_PERIOD,100)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Projects Budget in Risk

Description:	The budget of unhealthy or risky projects relative to the total budget.
Business Motivation:	Make sure our project budget is attributed to healthy projects.
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Project.RiskRating <> '0' And Project.StartDate IN_PERIOD), SUM(Cost.Amount, Project.StartDate IN_PERIOD))
Context or Universe:	FinancialManagement
Data Source	HP Project and Portfolio Management

% of Projects on Time

Description:	The number of projects, completed on time, relative to the total number of projects that were completed during the measurement period.
Business Motivation:	Make sure our general project management is meeting the expected deliveries.
Formula:	PERCENTAGE(Project, Project.OnTimeIndicator=1 And (Project.EndDate is NULL or Project.EndDate IN_PERIOD), Project.EndDate is NULL or Project.EndDate IN_PERIOD,100)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Projects with Unresolved Urgent Issues

Description:	The number of projects with unresolved urgent issues, relative to the total number of projects that ended during the measurement period.

Business Motivation:	Make sure our general project management is meeting the expected deliveries.
Formula:	PERCENTAGE(Project, Project.InControlIndicator<0 And (Project.FlagActive='Y' or Project.EndDate IN_PERIOD), Project.FlagActive='Y' or Project.EndDate IN_PERIOD)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Reopened Incidents

Description:	The number of closed incidents that were re-opened, relative to the total number of incidents closed during the measurement period. This KPI is meaningful only if your Incident Management process allows reopening calls.
Business Motivation:	Make sure our incident closing process is efficient.
Formula:	PERCENTAGE(Incident, Incident.ReopenedTime is not Null And PERIOD_ENTITY = CloseTimePeriod , PERIOD_ENTITY = CloseTimePeriod)
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

% of Satisfied Customers

Description:	The number of satisfied customers relative to the total number of customers. Customer satisfaction is based on the Customer satisfaction criteria and on customer satisfaction surveys and feedback.
Business Motivation:	Make sure our deliveries of products and services are meeting customer expectations.
Formula:	PERCENTAGE(SurveyResult,SurveyResult.Score=5 And SurveyResult.Type='Service Desk Satisfaction' And PERIOD_ENTITY =SurveyResultPeriod, SurveyResult.Type ='Service Desk Satisfaction' And PERIOD_ENTITY=SurveyResultPeriod,100)
Context or Universe:	ServiceDesk
Data Source	??????

% of Service Availability

Description:	The average service availability over the measurement period.
Business Motivation:	Make sure our service availability is meeting customer expectations.
Formula:	PERCENTAGE_MATH(SUM(ServiceStatus.Duration, KpiName.Name='Application Availability' and Status.Name= 'ok' and PERIOD_ENTITY=Period), SUM(ServiceStatus.Duration, KpiName.Name ='Application Availability' and PERIOD_ENTITY=Period),100)
Context or Universe:	AvailabilityManagement
Data Source	HP Business Service Management

% of Service level Objectives for IT Process Activities which Were Met

Description:	The number of service level objectives for IT process activities that were met relative to the total number of IT process activities during the measurement period.
Business Motivation:	Make sure the processes for IT responses to incidents within the SLAs are efficient.
Formula:	PERCENTAGE_MATH(SUM(SLAStatus.ObjMetCount, KpiName.Name='Incident Response Time' And PERIOD_ENTITY=Period), SUM(SLAStatus.ObjCount,KpiName.Name ='Incident Response Time' And PERIOD_ENTITY=Period),100)
Context or Universe:	SLM
Data Source	HP Service Manager

% of Service Performance Met

Description:	The number of periods when service performance was met, relative to the total number of periods in the measurement time frame.
Business Motivation:	Make sure our service performance is meeting expectations.
Formula:	PERCENTAGE_MATH(SUM(ServiceStatus.Duration, Measure.Name= 'Application Performance' and Status.Name= 'ok' and PERIOD_ENTITY=Period), SUM(ServiceStatus.Duration, KpiName.Name = 'Application Performance' and PERIOD_ENTITY=Period),100)
Context or Universe:	AvailabilityManagement
Data Source	HP Business Service Management

% of SLA Expirations

Description:	The number of SLAs that expired (that are still active but passed their end date) relative to the total number of SLAs during the measurement period.
Business Motivation:	Make sure we are providing the best service to our customers. Make sure our services are up to date.
Formula:	PERCENTAGE(SLA, SLA.EndDate <= NOW And SLA.State= 'Running', SLA.Name <> 'INVALID' and SLA.Name <> 'UNKNOWN')
Context or Universe:	SLM
Data Source	HP Service Manager

% of Software Licenses in Use

Description:	The number of used software licenses relative to the total purchased software licenses.
Business Motivation:	Make sure our software license purchasing is efficient.
Formula:	PERCENTAGE(Asset,Asset.Type ='Software license' And Asset.Status='In use', Asset.Type='Software license' And Asset.Status<>'Retired(or consumed)',100)
Context or Universe:	AssetManagement
Data Source	HP Asset Manager

% of Time Invested on Strategic Projects

Description:	The amount of time invested in strategical projects relative to the total amount of time invested in all projects.
Business Motivation:	Make sure our business agility from the projects perspective is efficient.
Formula:	PERCENTAGE_MATH(SUM(ProjectTask.ActualHours, Project.HasObjectiveIndicator=1 And (Project.FlagActive='Y' Or Project.EndDate IN_PERIOD)),SUM(ProjectTask.ActualHours, Project.FlagActive='Y' Or Project.EndDate IN_PERIOD),100)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

% of Unauthorized Implemented Changes

Description:	The number of unplanned implemented changes relative to the total number of implemented changes during the measurement period.
Business Motivation:	Make sure our change policy is efficient.
Formula:	PERCENTAGE(Change,Change.ApprovalStatus ='Denied' And PERIOD_ENTITY =CreateTimePeriod,PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

% of Unplanned Changes

Description:	The number of unplanned changes opened during the measurement period, relative to the total number of changes.
Business Motivation:	Make sure the change process is efficient and controlled
Formula:	PERCENTAGE(Change,Change.UnplannedChange ='Y' And PERIOD_ENTITY=CreateTimePeriod, PERIOD_ENTITY =CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

% of Emergency Changes

Description:	The number of opened, urgent changes relative to the total number of changes opened during the measurement period.
Business Motivation:	Make sure that the potential risk of urgent changes does not impact the quality and performance of the projects and that our change management process is efficient.
Formula:	PERCENTAGE(Change, Change.EmergencyChange='Y' And PERIOD_ENTITY=CreateTimePeriod, PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

% Variance of Actual vs Planned Costs

Description:	The actual costs relative to the planned costs of an activity.
Business Motivation:	Make sure the actual costs of an activity stay on track. What is the percentage of actual versus planned spending? How do the actual versus planned costs stay in the defined boundaries?
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.CostType ='Actual' and PERIOD_ENTITY=Period), SUM(Cost.Amount, Cost.CostType='Planned' and PERIOD_ENTITY=Period),100)-100
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

Avg Age of Hardware Assets

Description:	The average age of hardware assets.
Business Motivation:	Make sure our policy of hardware asset renewal is on track.
Formula:	DATE_CONVERT('ms', 'd', NOW() -AVG(InstalledPeriod.StartDate,Asset.Type <>'Software license' And Asset.Status='In use'))/30
Context or Universe:	AssetManagement
Data Source	HP Asset Manager

Avg Cost of IT Delivery Per Customer

Description:	The average cost of IT delivery per customer calculated as the cost of IT service delivery divided by number of end users / customers.
Business Motivation:	Make sure our IT delivery costs are on track. What is the cost of IT per user?
Formula:	SUM(Cost.Amount,Cost.CostType='Actual' and PERIOD_ENTITY=Period)/Count(Organization, Organization.Name <> 'UNKNOWN' And Organization.Name <> 'INVALID')
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

Avg Delivery Time of New Products or Services

Description:	The average delivery time of new products/services defined as the time it takes

	from the conception of a project until it is delivered to customer.
Business Motivation:	Make sure our business agility from the projects perspective is efficient.
Formula:	DATE_CONVERT('ms','d', (AVG(Project.RolloutDate, Project.Status='Complete' And Project.InitiationDate is not NULL And Project.RolloutDate IN_PERIOD) - AVG(Project.InitiationDate, Project.Status='Complete' And Project.InitiationDate is not NULL And Project.RolloutDate IN_PERIOD))/30)
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

Avg Interaction Closure Duration

Description:	The average time elapsed from the interaction creation time till the interaction close time.
Business Motivation:	Make sure our interaction processes are efficient.
Formula:	DATE_CONVERT('ms','h', AVG(Interaction.ClosedTime, PERIOD_ENTITY=CreateTimePeriod) - AVG(Interaction.CreateTime, PERIOD_ENTITY=CreateTimePeriod))
Context or Universe:	ServiceDesk
Data Source	HP Service Manager

Avg Outage Duration

Description:	The average duration of outages associated with an incident.
Business Motivation:	Make sure our outage resolution policy is efficient.
Formula:	DATE_CONVERT('ms','h', AVG(Incident.OutageEnd, PERIOD_ENTITY=OutageStartPeriod) - AVG(Incident.OutageStart, PERIOD_ENTITY=OutageStartPeriod))
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

Avg Project Initiation Time

Description:	The average time it takes to initiate a project (until all resources are assigned and the planning is completed).
Business Motivation:	Make sure our project planning policy is efficient.
Formula:	DATE_CONVERT('ms','d', AVG(Project.ApprovalDate, Project.InitiationDate is not NULL and Project.ApprovalDate IN_PERIOD)- AVG(Project.InitiationDate , Project.InitiationDate is not NULL and Project.ApprovalDate IN_PERIOD))
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

Avg Time to Procure Hardware

Description:	The average time needed to procure an item defined as the time lag between a request for procurement and the contract signing or the purchase.
Business Motivation:	Make sure our procuration policy is efficient.
Formula:	DATE_CONVERT('ms','d', AVG(PurchaseOrderPeriod.EndDate, Asset.Type<>'Software license' And PurchaseRequestPeriod.Periodicity<>'INVALID' and PurchaseRequestPeriod.Periodicity<>'UNKNOWN' and PERIOD_ENTITY = PurchaseOrderPeriod) - AVG(PurchaseRequestPeriod.EndDate, Asset.Type<>'Software license' And PurchaseRequestPeriod.Periodicity<>'INVALID' and PurchaseRequestPeriod.Periodicity<>'UNKNOWN' and PERIOD_ENTITY = PurchaseOrderPeriod))
Context or Universe:	AssetManagement
Data Source	HP Asset Manager

Changes Backlog Size

Description:	The backlog of opened change requests that are pending a decision.
Business Motivation:	Achieve Process Excellence

Formula:	COUNT(Change, Change.ApprovalStatus='Pending' And PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

Deviation % of Planned Work Hours

Description:	The sum of the Actual Effort and the Remaining Estimated Effort, relative to the Planned Effort for project tasks started during the measurement period.
Business Motivation:	Make sure our project planning processes are efficient.
Formula:	PERCENTAGE_MATH(SUM(ProjectTask.ActualHours, ProjectTask.StartDate IN_PERIOD)+SUM(ProjectTask.EstimatedRemainingHours, ProjectTask.StartDate IN_PERIOD), SUM(ProjectTask.PlannedHours, ProjectTask.StartDate IN_PERIOD),100)-100
Context or Universe:	ProjectPortfolioManagement
Data Source	HP Project and Portfolio Management

Downtime % of SLA

Description:	The number of outages relative to the total SLA uptime, during the measurement period.
Business Motivation:	Make sure that our service delivery is meeting customer expectations.
Formula:	PERCENTAGE_MATH(SUM(SLAOutage.UnplannedDowntime, PERIOD_ENTITY=Period), SUM(SLAOutage.ExpectedUptime, PERIOD_ENTITY=Period))
Context or Universe:	SLM
Data Source	HP Service Manager

Incident Aging

Description:	The number of open incidents older than 5 days (or any other given time frame) relative to the total number of open incidents. This metric measures the efficiency of the service desk by determining how quickly technicians address the incidents and group the incidents into aging categories.
Business Motivation:	Enable service managers to:

	1. Identify how long the service desk takes to resolve most incidents. 2. Identify areas of process improvement that help the service desk address incidents in a timely manner
Formula:	Percentage(Incident, Incident.Status ='Reopened' or Incident.Status='Open' and (Now-Incident.CreateTime>5*day), Incident.Status='Reopened' or Incident.Status='Open')
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

Incidents Backlog Size

Description:	This metric identifies the trend in the number of incidents. Managers can track the total number of opened incidents within a specified time period to determine the effectiveness of incident prevention initiatives that include training, automation, proactive processes, and maintenance.
Business Motivation:	To determine an unexpected increase or decrease in incident activity. Regional managers can use the metric as a template to understand incident counts in their areas of interest by applying the required filters.
Formula:	COUNT(Incident, Incident.Status Like 'Pending%' And PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

Incident Resolution Time

Description:	To help call center managers and service managers identify: 1. The top incident categories by their impact on the organization. 2. Managers can then apportion and train resources to address the state of the organization’s support activities and lead any issues where trends dictate that particular incident categories are more visible. 3. Whether the top incident trends track each other to identify otherwise hidden relationships between top incident categories.
Business Motivation:	This metric measures the total time for the service desk to address incidents of a particular category.
Formula:	DATE_CONVERT('ms','h', AVG(Incident.ClosedTime, Incident.ClosedTime is Not Null and PERIOD_ENTITY=CreateTimePeriod)- AVG(Incident.CreateTime, Incident.ClosedTime

	is Not Null and PERIOD_ENTITY=CreateTimePeriod))
Context or Universe:	IncidentManagement
Data Source	???? Financial Planning Analysis HP Project and Portfolio Management HP Asset Manager HP Service Manager HP Universal Configuration Management Database HP Business Service Management

Innovation Delivery

Description:	The discretionary cost divided by the actual cost.
Business Motivation:	Make sure our discretionary spending is aligned with our innovation goals. What are the discretionary and non-discretionary values for the fiscal period? How does discretionary spending compare to non-discretionary spending? What percentage of the total discretionary and non-discretionary?
Formula:	PERCENTAGE_MATH(SUM(Cost.Amount, Cost.IsDiscretionary='Y' and PERIOD_ENTITY=Period), SUM(Cost.Amount, PERIOD_ENTITY=Period),30)
Context or Universe:	FinancialManagement
Data Source	Financial Planning Analysis

Mean Time Between Failures of Services

Description:	The Mean Time Between Failures (MTBF) metric measures the The average time between failures of the services.

Business Motivation:	Enables service managers to identify the most troublesome incidents. Managers can determine how to address the incident categories that have the lowest mean time between failures. Assists managers in continuous improvement of the most frequently occurring incident categories.
Formula:	DATE_CONVERT('s','h', SUM(ServiceStatus.Duration, Status.Name='ok' And PERIOD_ENTITY=Period) /COUNT_DISTINCT(ServiceStatus.StatusStartTime, Status.Name='ok' And PERIOD_ENTITY=Period))
Context or Universe:	AvailabilityManagement
Data Source	HP Business Service Management

Mean Time To Repair a Service

Description:	To help call center managers and service managers identify: • The top incident categories by their MTTR for the organization. Managers can then apportion and train resources to address the state of the organization's support activities and lead any issues where trends dictate that particular incident categories are more visible. • Whether there are relationships between the trends of difficult issues to address based on their resolution times.
Business Motivation:	The Mean Time to Repair (MTTR) report illustrates the influence of the average incident time, in hours, to resolve incidents of a particular category so that service managers can determine which issues require additional training or third-party relationships to address. The subclass of the report enables service managers to determine which types of issues are most difficult to resolve. Managers learn where training or third-party support is necessary. They can focus on issues that take longer to address but do not necessarily occur in large numbers.
Formula:	DATE_CONVERT('s','h', SUM(ServiceStatus.Duration, Status.Name='Critical' and PERIOD_ENTITY=Period) /COUNT_DISTINCT(ServiceStatus.StatusStartTime, Status.Name='Critical' and PERIOD_ENTITY=Period))
Context or Universe:	AvailabilityManagement
Data Source	HP Business Service Management

Number of Closed Incidents

Description:	The amount of incidents closed during the specific period
Business Motivation:	Improve Service Delivery Performance

Formula:	COUNT(Incident,PERIOD_ENTITY=ClosedTimePeriod)
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

Number of Completed Changes

Description:	Tracks the number of Normal and Standard changes, as well as, the total number of changes being completed on a daily/weekly/monthly basis
Business Motivation:	Achieve Process Excellence
Formula:	COUNT(Change,Change.CompletionCode='Successful' And PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	ChangeManagement
Data Source	HP Service Manager

Number of Opened Incidents

Description:	The amount of new incidents opened during the specific period
Business Motivation:	Improve Service Delivery Performance
Formula:	COUNT(Incident,PERIOD_ENTITY=CreateTimePeriod)
Context or Universe:	IncidentManagement
Data Source	HP Service Manager

Learn About the Scorecard KPI Engine

The Scorecard KPI engine works with KPIs and Objectives. For concept details about KPIs, see "Learn About KPIs and Metrics" (on page 104). For concept details about Objectives, see "Learn About Objectives" (on page 94)

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 and Metrics" (on page 104)

"Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116)

"Learn About Objectives" (on page 94)

"Learn About Perspectives" (on page 94)

"Learn About Balanced Scorecard" (on page 47)

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 and Metrics

A KPI is a metric, but a metric is not always a KPI. The key difference is that KPIs always reflect strategic value drivers whereas metrics may represent the measurement of any business activity.

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

Metrics always show a number that reflects performance. KPIs put that performance in context.

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 a MTTR (mean time to recover) 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’. Usually metrics are not matched against a threshold.

KPIs measure key drivers of business values using a formula. For details, see "Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116).

KPI templates (out of the box or customized) help you create new KPIs by activating the KPI templates. For details, see "How to Create and Activate KPIs Using Templates" (on page 80) or "How to Add or Configure a KPI Template" (on page 135).

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

This section describes the information related to a KPI:

- **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.
- **Threshold.** The engine compares the KPI **value** to the KPI **threshold**, and calculates the KPI status.
- **Status.** The KPI **status** can be **Error**, **Warning**, or **Good**.
- **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 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**:
  - 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 94).
    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.

For task details, see "Modify a KPI Formula or Filter" (on page 113).

For user interface details, see "Formula Builder Dialog Box" (on page 117) or "Filter Builder Dialog Box" (on page 124).

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: project initiation time, 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.

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.

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 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	Example
Perspective\Strategy	What is the strategy trying to achieve? Example: Operational excellence.	For details about Perspectives, see "Learn About Perspectives" (on page 94). A Scorecard can include one or more Perspectives.
Objective	What is the objective trying to achieve? Example: Increase responsiveness in IT to service requests for PC orders by 20% in 2010.	For details about Objectives, see "Learn About Objectives" (on page 94). A Perspective can include one or more Objectives.
KPI	How will performance be measured? Example: Time to order, configure, and install PC.	For details about KPIs, see "Learn About KPIs and Metrics" (on page 104). An Objective can include more than one KPI.
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 55).

Out-of-the-box active Scorecards, Perspectives, Objectives, and KPIs are provided. These active nodes display real data in the Dashboard. For details, see "Learn About the Active KPIs " (on page 55).

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?

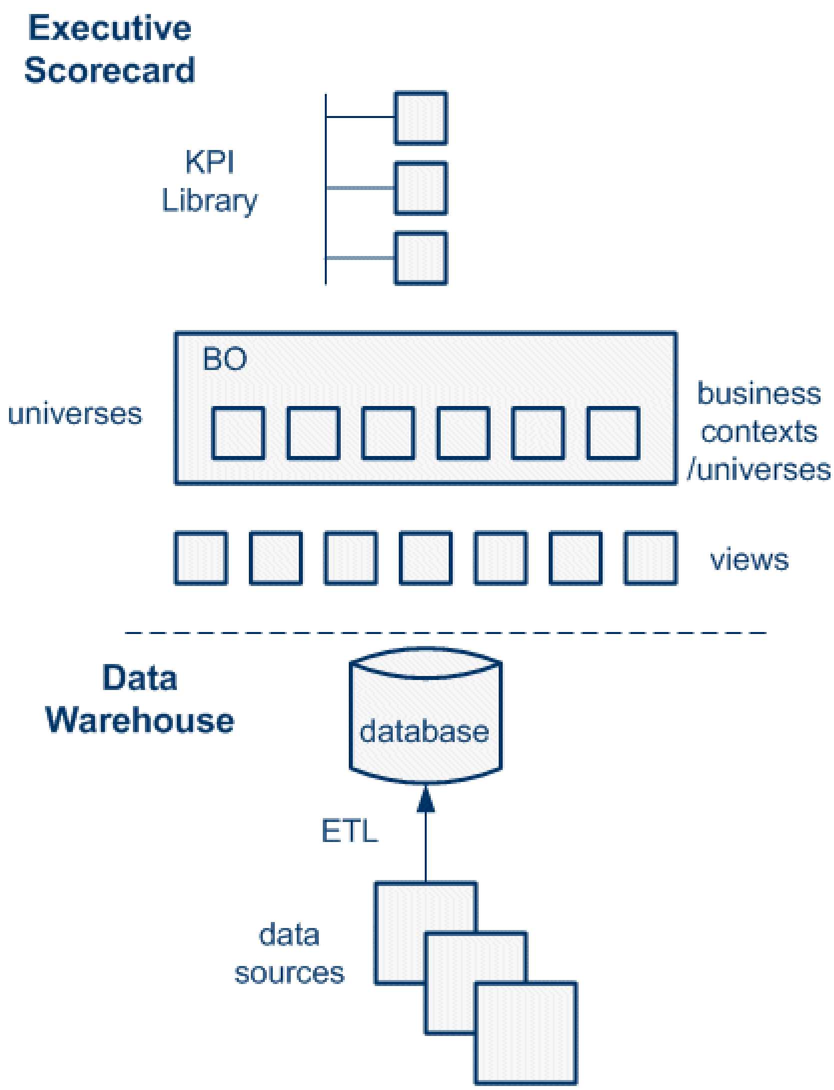
User-Orientation Perspective

- 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 Executive Scorecard Architecture

HP 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 55).

For details on universes (business contexts), see "Learn About Business Contexts" (on page 178).

For details on Data Warehouse, ETLs, and data sources, see the *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:

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

6. "Customize KPIs" (on page 53)
7. "Enrich the Executive Dashboard Display" (on page 54)
8. "Calculate for the current period, recalculate for the historical period, or schedule the calculation" (on page 54)
9. "Out-of-the-box Dashboard" (on page 54)

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 4).

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

   When you start HP 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.

   In addition, out-of-the-box active Scorecards, and their Perspectives, Objectives, and KPIs are automatically imported into the Active KPIs pane.

   You may want to import additional templates. For details, see "How to Import or Export Trees and Nodes" (on page 303)

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

   If you have imported or created additional templates, you may want to activate the relevant Scorecards, their Perspectives, Objectives, and KPI templates by dragging them from the KPI Library pane to the Active KPI Pane. For details, see "How to Create and Activate a New Node" (on page 91)"Create Active Scorecards, Perspectives, Objectives, and KPIs" (on page 90).

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

   You can customize Scorecards, their Perspectives, and Objectives by:

   - Directly creating active Scorecards, their Perspectives, and Objectives. For details, see"How to Create and Activate a New Node" (on page 91).
   - Creating new templates or customizing these templates and using them to create active Scorecards, their Perspectives, and Objectives. For details, see "How to Create Templates" (on page 130).

5. **Customize KPIs**

   You can customize KPIs by:

   - Directly creating active KPIs and assigning them to Objectives. For details, see "How to Create and Activate a New KPI " (on page 103).
   - Creating new KPI templates or customizing these templates and using them to create active KPIs. For details, see "Manage Templates" (on page 130).
   - Changing their Business Context of a KPI. For details, see "Modify a KPI's Business Context" (on page 125).

- Changing the formula used to calculate the KPI. For details, see "How to Modify a KPI's Formula or Filter" (on page 115).
- Changing the filter used to limit the range of data used in the calculation of the KPI. For details, see "How to Modify a KPI's Formula or Filter" (on page 115).
- Change the thresholds to recalculate the status of a KPI. For details, see "Recalculate Displayed Values after Configuration Change" (on page 155).

6. **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 "Create Cascading Scorecards" (on page 173).
   - 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 163) or "How to Create a Breakdown KPI of a Breakdown KPI" (on page 163).
   - Managing overrides. For details, see "How to Manage Overrides" (on page 168).
   - Adding additional information to the KPI or to an Objective. For details, see "Provide Additional Information for a KPI or an Objective" (on page 171).

7. **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 155).
   - 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 155).

   You can schedule the calculation of specific business context automatically. For details, see "Schedule the Business Context Calculations" (on page 159).

8. **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 253).

9. **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 "How to Prepare the Dashboard Display" (on page 181).

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 use out-of-the-box templates, or you can create your own elements. For task details, see "How to Create the Dashboard Contents" (on page 52).

This section includes the following topics:

"Learn About the KPI Library" (on page 55)

"Learn About the Active KPIs " (on page 55)

"Learn About Trees" (on page 147)

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 what the business aspect they represent and what 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.

You can modify the template of the entities in the KPI Library. When you modify an entity in the KPI library, the change is available to create new active elements. For task details, see "How to Create Templates" (on page 130).

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 147).

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.

To add to the pool of out-of-the-box elements that are used to create the Dashboard display, you can drag 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 more that one Scorecard and their contents, and 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 147).

You can modify the active entities in the Active KPIs pane. For task details, see "Create Active Scorecards, Perspectives, Objectives, and KPIs" (on page 90).

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.

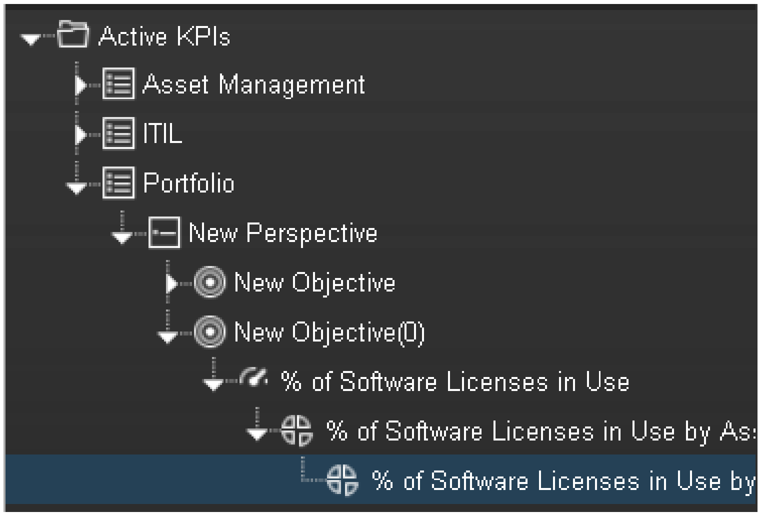
The Active KPIs pane includes one tree that can include one or more Scorecard trees as well as Orphan KPIs.

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 Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95).

Each KPI can include KPI Breakdowns (indicated by). KPI Breakdowns can also include KPI Breakdowns.

Note: Breakdown KPIs can only be configured for active KPIs and not for KPI templates. They are displayed only in the Active KPIs pane. For details, see "Learn About Breakdown KPIs" (on page 164).



In the KPI Library, you can add KPI, Objective, and Perspective templates to existing Scorecard templates. 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 52).

Create the Executive Dashboard Contents User Interface

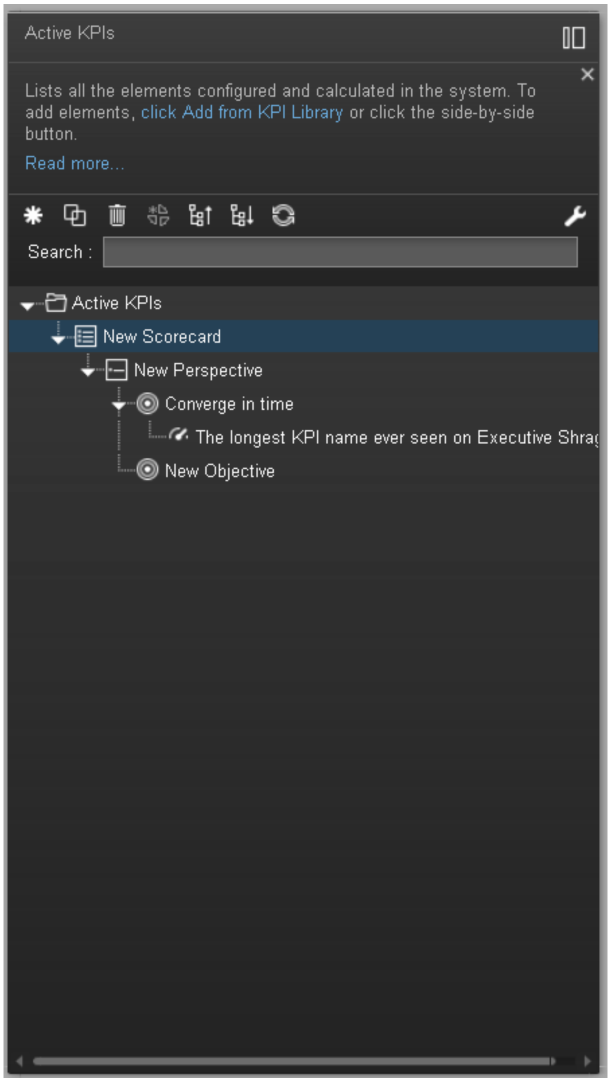
This section includes (in alphabetical order):

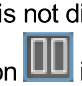
"Active KPIs Pane" (on page 58)

"KPI Library Pane" (on page 63)

Active KPIs Pane

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

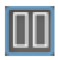
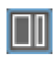
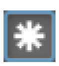


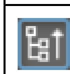
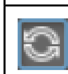
To access	Click the **Studio** tab. If the Active KPIs pane is not displayed (it is displayed by default), click the **Toggle Side By Side** button  in the toolbar of the KPI Library pane.
Important information	When you select an element in the Active KPIs pane, the rightmost pane in the Studio displays the configuration of the selected element. For a Scorecard, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96). For a Perspective, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98).

	For an Objective, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99). For a KPI, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105). **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 52)

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 **Hide the active KPIs**  button to hide the Active KPIs pane. • The **Hide the KPI Library**  button to hide the KPI Library.
	**Create New Node.** 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 pane where you can enter the details for the new Scorecard. For details, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96). • **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 or a Perspective Template" (on page 98). • **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 or an Objective Template" (on page 99).

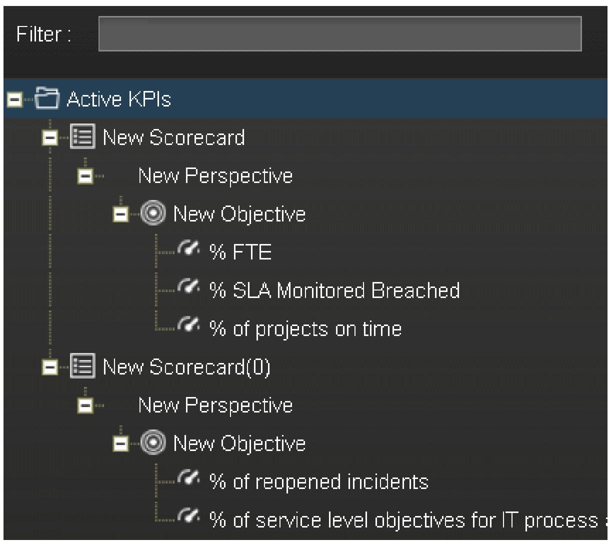
UI Element	Description
	**Create a copy of the current entity.** Select an entity in the tree and click the button to duplicate the entity. The entity is created in the tree below the original entity, with the same name. A number between parenthesis is added at the end of the entity's name (for example: MTTR(0)).
	**Delete Currently Selected Node.** Select the Scorecard, Perspective, Objective, KPI, or KPI Breakdown you want to delete and click the button.
	**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 164).
	**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 user interface details, see "Calculate Now Dialog Box" (on page 157). For task details, see "Recalculate Displayed Values after Configuration Change" (on page 155)  **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 158). For task details, see "Recalculate Displayed Values after Configuration Change" (on page 155).  **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 159).
	Collapses and expands the tree nodes.
	**Refresh the tree.** Click to refresh the display of the tree.
Filter	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.

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>

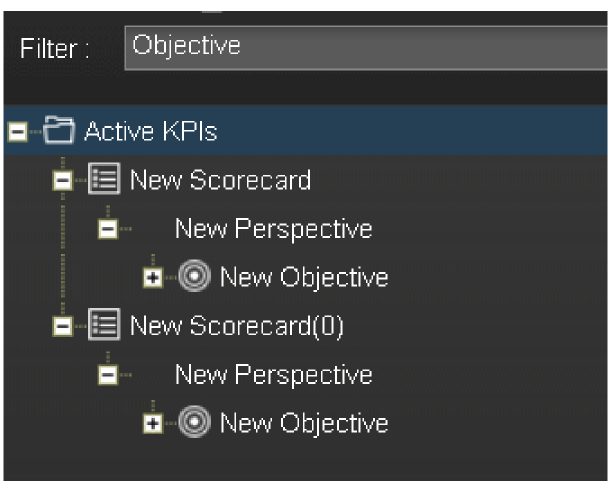
The filter returns the section of tree from the root down to the element whose name includes the specified string (path). It does not include elements that are not directly part of that path.The child subtree of the element is collapsed and displayed under the element.

If more than one element includes the specified string, the paths to these elements are also displayed.

For example, if the tree is as follows:



After searching for the string: Objective, the resulting tree is as follows:



</td></tr>
<tr><td>**<tree>**</td><td>

The pane displays the active tree with the relevant Scorecards, Perspectives, Objectives, and KPIs.

It can also include Orphan KPIs and Breakdown KPIs.

</td></tr>
</table>

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>

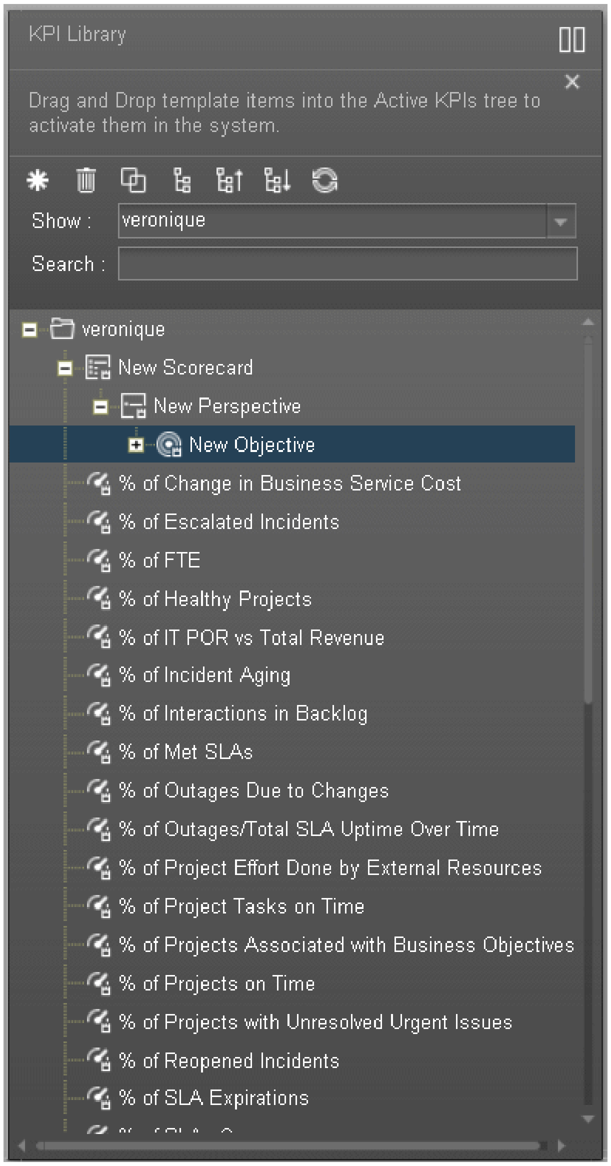
Note:

- 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.

</td></tr>
</table>

KPI Library Pane

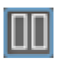
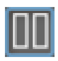
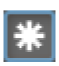
This pane displays the trees of available Scorecard, Perspective, Objective, and KPI templates, as well as Folders, and Orphan KPI templates.

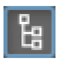
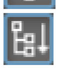


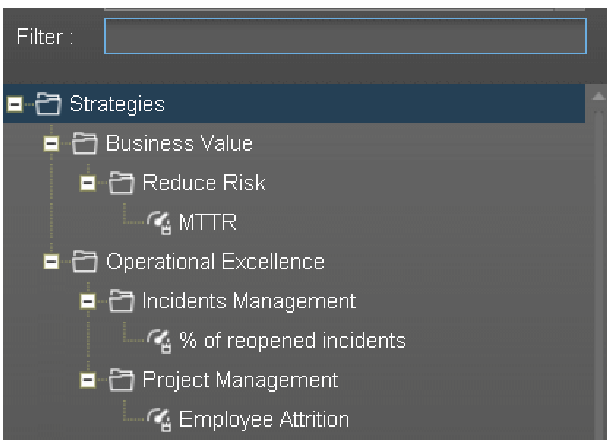
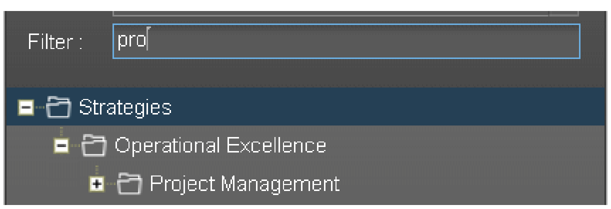
To access	Click the **Studio** tab. If the KPI Library pane is not displayed, click the **Toggle Side By Side** button  in the toolbar of the Active KPIs pane or click the vertical KPI Library button (on the left of the Studio).
Important information	When you select an element in the KPI Library pane, the rightmost pane in the Studio displays the configuration of the selected element. • For a Scorecard template, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96).

	• For a Perspective template, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98). • For an Objective template, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99). • For a KPI, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105). • For a Folder, see "Configuration Details Tab for a Folder" (on page 153). **Note:** The contents of fields is automatically validated when you type in the relevant information where fields can be empty.
Relevant tasks	"Manage Templates" (on page 130)

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 **Hide the active KPIs**  button to hide the Active KPIs pane. • The **Hide the KPI Library**  button to hide the KPI Library.
	**Create New Template Node.** Click to display a menu that enables you to select: • **Folder**. A new Folder is displayed at the bottom of the tree. The Configuration tab for the Folder is displayed in the Configuration pane where you can enter the details for the new Folder. For details, see "Configuration Details Tab for a Folder" (on page 153). • **Scorecard.** A new Scorecard template is displayed at the bottom of the tree. The Configuration tab for the Scorecard template is displayed in the Configuration pane where you can enter the details for the new Scorecard template. For details, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96). • **Perspective.** A new Perspective template is displayed at the bottom of the tree under the selected Scorecard template. The Configuration tab for the Perspective template is displayed in the Configuration pane where you can enter the details for the new Perspective template. For details, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98). • **Objective**. A new Objective template is displayed at the bottom of the tree under the selected Perspective template. The Configuration tab for the Objective template is displayed in the Configuration pane where you can enter the details for

UI Element	Description
	the new Objective template. For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).
	**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 its name (for example: MTTR(0)).
	**Delete Currently Selected Node.** Select the Scorecard, Perspective, Objective, or KPI template, or the Folder you want to delete and click the button.
	**Manage Library Tree.** Click to display a list of options: • **Create tree** to create a new tree. For details, see "How to Create a Tree of Templates" (on page 141). • **Rename tree** to rename an existing tree. For details, see "How to Rename a Tree of Templates" (on page 146). • **Delete tree** to delete an existing tree. For details, see "How to Delete a Tree of Templates" (on page 146).
 	Collapse and expands the tree nodes.
	**Refresh the tree.** Click to refresh the display of the tree.
<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 147). **Note:** • You can move tree nodes (Scorecard, Perspective, Objective, and KPI templates, as well as Folders) by dragging and dropping them in the relevant location in the tree. For example, you can drag a KPI template from an Objective template to another Objective template. • You can drag an Orphan KPI template to an Objective template, but you cannot drag a KPI template assigned to an Objective template to change it into an Orphan KPI template. • 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.
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.
Filter	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. For example, if the tree is as follows:  After searching for the string: **pro**, the resulting tree is as follows: 

Use Out-of-Box Templates to Create the Dashboard

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

HP Executive Scorecard also provides out-of-the-box active Scorecards, Perspectives, Objectives, and KPIs.

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

This section includes the following topics:

Create and Activate a Node Using a Node Template

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

HP Executive Scorecard provides out-of-the-box Scorecard templates in the KPI Library. You can use the out-of-the-box Scorecards, you can customize them, or you can create new Scorecards. You can also remove Scorecards from the KPI Library. To understand Scorecards, see "Learn About Scorecards" (on page 93).

HP Executive Scorecard provides out-of-the-box Perspective templates in the KPI Library. You can use the out-of-the-box Perspectives, you can customize them, or you can create new Perspectives. You can also remove Perspectives. To understand Perspectives, see "Learn About Perspectives" (on page 94).

HP Executive Scorecard provides out-of-the-box Objective templates in the KPI Library. You can use the out-of-the-box Objectives, you can customize them, or you can create new Objectives. You can also remove Objectives. To understand Objectives, see "Learn About Objectives" (on page 94).

Important 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" (on page 103).

This section includes the following topics:

How to Create and Activate a Scorecard, Perspective, or Objective Using Templates

You can create and activate a node (Scorecard, Perspective, or Objective). For details on creating and activating a KPI, see "Create, Manage, and Remove KPIs" (on page 103).

You can also create and activate nodes directly. For details, see "Create Active Scorecards, Perspectives, Objectives, and KPIs" (on page 90).

This task includes the following steps

1. "Create and Activate a Node" (on page 68)
2. "Display and modify a node's properties" (on page 68)
3. "Populate the node" (on page 68)

1. **Create and Activate a 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  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 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 Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95).

   Note: You can also create a new node template and use it to create a new node. For details, see "How to Create Templates" (on page 130).

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

   For details, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96).

   For details, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98).

   For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

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" (on page 90).
- Objectives. For details, see "Create and Activate a New Node" (on page 90).
- KPIs. For details, see"Create, Manage, and Remove KPIs" (on page 103).
- Breakdown KPIs. For details, see "Create and Manage Breakdown KPIs" (on page 162).

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	Example
Perspective\Strategy	What is the strategy trying to achieve? Example: Operational excellence.	For details about Perspectives, see "Learn About Perspectives" (on page 94). A Scorecard can include one or more Perspectives.
Objective	What is the objective trying to achieve? Example: Increase responsiveness in IT to service requests for PC orders by 20% in 2010.	For details about Objectives, see "Learn About Objectives" (on page 94). A Perspective can include one or more Objectives.
KPI	How will performance be measured? Example: Time to order, configure, and install PC.	For details about KPIs, see "Learn About KPIs and Metrics" (on page 104). An Objective can include more than one KPI.
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 55).

Out-of-the-box active Scorecards, Perspectives, Objectives, and KPIs are provided. These active nodes display real data in the Dashboard. For details, see "Learn About the Active KPIs " (on page 55).

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: project initiation time, 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.

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.

Learn About 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 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 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 Scorecard, Perspective, or Objective tree. 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).

Create and Activate a New Node User Interface

This section includes (in alphabetical order):

" Configuration Details Tab for an Objective or an Objective Template" (on page 99)

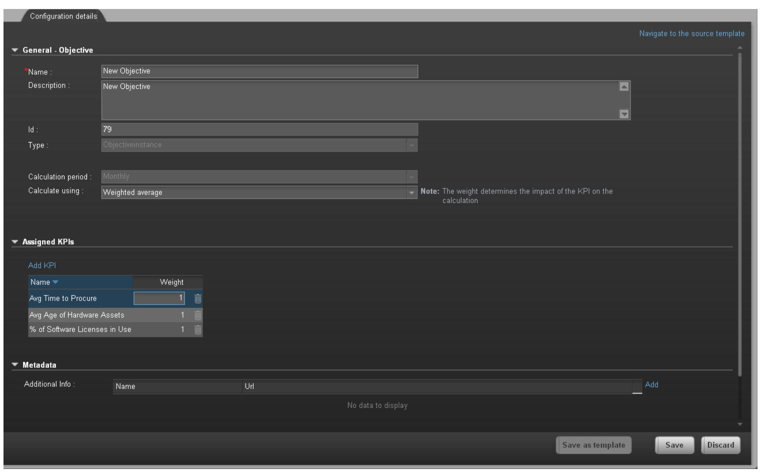
"Configuration Details Tab for a Perspective or a Perspective Template" (on page 98)

"Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96)

Configuration Details Tab for an Objective or an Objective Template

This page displays configuration information for the selected active Objective or Objective template.

An example of the Configuration Details tab for an active Objective is as follows:



To access	Click an Objective in the KPI Library pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130)

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. **Note**: This option is displayed only for activated Objectives.
<Areas>	"General - Objective" (on page 72) "Assigned KPIs or Assigned KPI Templates" (on page 73) "Metadata" (on page 74)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Perspectives Click to create a template using the current configuration of the Objective. For details, see "Save as Template Dialog Box" (on page 138).

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 or of the Objective template. **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. **Note:** 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.

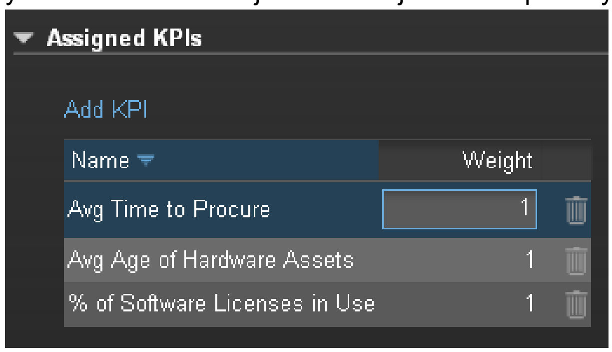
UI Element	Description
	Note: This information is displayed only when in debug mode. To set the debug mode, click **Admin > Scorecard Settings > XS Settings**, and in **Debug Mode**, select the **Application Debug Mode** setting.
Calculation Period	The calculation period of the Objective. **Note:** Since 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.
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 KPIs assigned to the selected active Objective or 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
Add KPI	**Note:** This link is displayed only for active Objectives. 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" (on page 129).
Add KPI Templates	**Note:** This link is displayed only for Objective templates. Click to open the **Assign KPI Template to Objective Template** dialog box where you can assign the relevant KPI templates to the current Objective template. For details, see "Assign KPI Template to Objective Template Dialog Box" (on page 140). **Note:** The KPI is not immediately assigned. To do that you must click the **Save**

UI Element	Description
	button when returning to the Configuration details tab.
<Table>	The table lists: • **Name.** The KPIs/ KPI templates assigned to the Objective/Objective template. • **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 or Objective template by clicking **Save**.  •  Click to unassign the KPI. The list of KPIs or KPI templates in the Assign KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Objective template by clicking **Save**.

Metadata

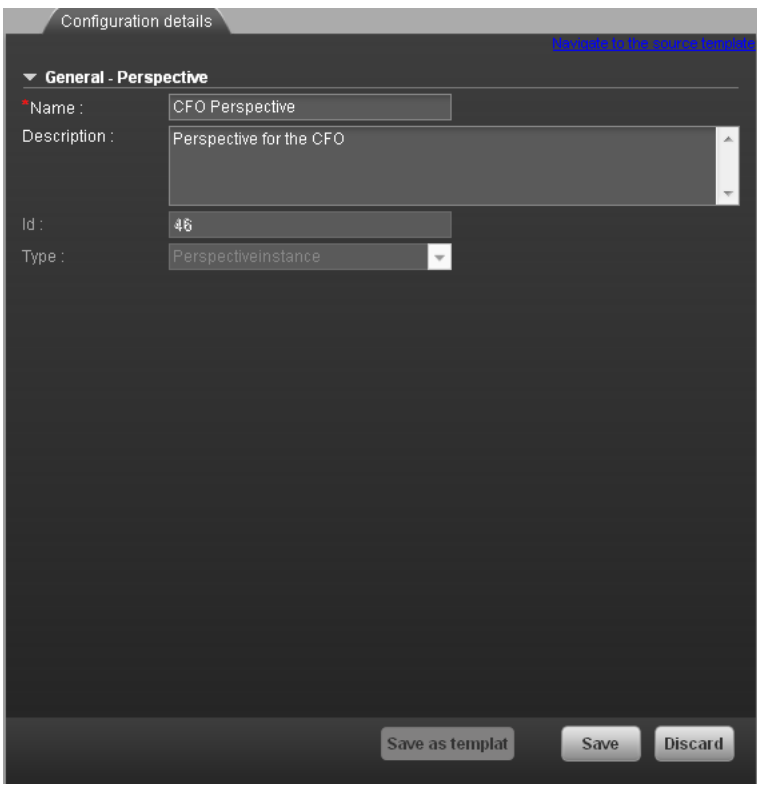
This section is displayed only for active Objectives.
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Additional Info	**Note**: this information is displayed only for Active Objectives. 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. •  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

UI Element	Description
	172). • 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 How to Manage Users and Groups in the *General Admin Guide*.
Add Info	**Note**: this information is displayed only for Active Objectives. 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 172).

Configuration Details Tab for a Perspective or a Perspective Template

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



To access	Click a Perspective in the KPI Library pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130)

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. **Note**: This option is displayed only for activated Perspectives.
<Areas>	"General - Perspective" (on page 77)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Perspectives. Click to create a template using the current configuration of the active Perspective. For details, see "Save as Template Dialog Box" (on page 138).

General - Perspective

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

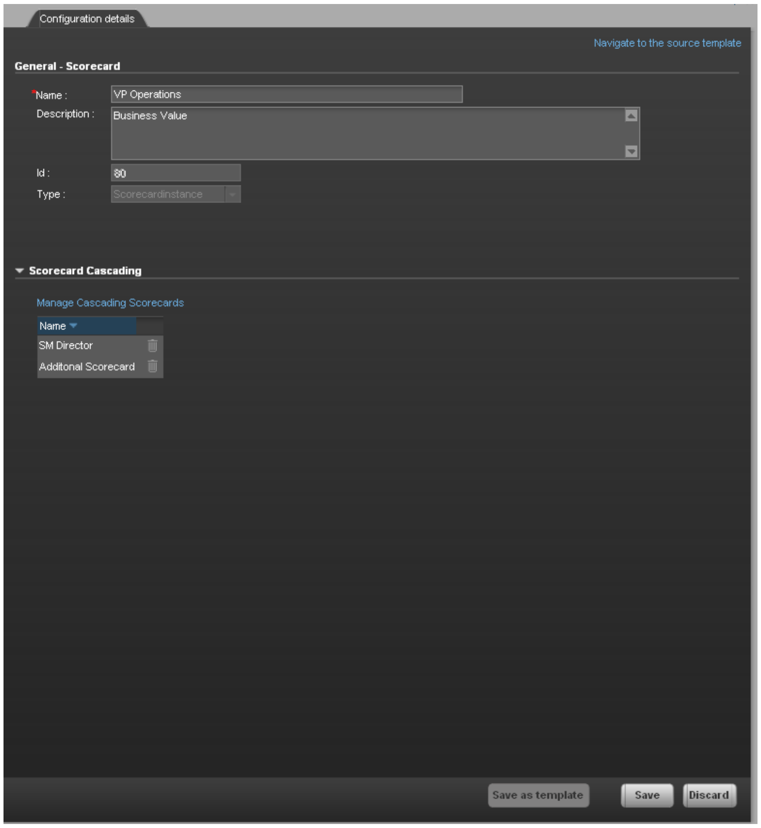
UI Element	Description
Name	The name of the active Perspective or of the Perspective template. **Limitations:** • The characters: \ / : * ? " < > | are not supported. • The maximum number of characters is 250.
Description	The description of the Perspective. **Limitations:** The maximum number of characters is 1000.
Id	The Id of the Perspective. It is automatically assigned. **Note:** 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.. **Note:** 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 Scorecard or a Scorecard Template

This page displays configuration information for the selected active Scorecard (in the Active KPIs pane) or Scorecard template (in the KPI Library pane).

For concept information about Scorecards, see "Learn About Scorecards" (on page 93).

An example of the Configuration Details tab for an active Scorecard is as follows:



To access	Click a Scorecard in the KPI Templates pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130) "Create Cascading Scorecards" (on page 173)

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. **Note**: This option is displayed only for activated Scorecards.
<Areas>	"General - Scorecard" (on page 79)

UI Element	Description
	"Cascading Scorecard" (on page 79)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Scorecards. Click to create a template using the current configuration of the active Scorecard. For details, see "Save as Template Dialog Box" (on page 138).

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 Scorecard template or 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. **Note:** 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. **Note:** 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

Note: This area is displayed only for active Scorecards.

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 177).
Name	The name of the Cascading Scorecard.
Remove	Click the relevant **Remove** button to remove the selected Scorecard from the list of Cascading Scorecards.

Create and Activate a KPI Using a KPI Template

HP Executive Scorecard provides out-of-the-box KPI templates in the KPI Library. You can use the out-of-the-box KPIs, you can customize them, or you can create new KPIs. You can also remove KPIs from the KPI Library. To understand KPIs, see"Learn About KPIs and Metrics" (on page 104)"Learn About Scorecards" (on page 93).

This section includes the following topics:

"How to Create and Activate KPIs Using Templates" (on page 80)

"Learn About KPIs and Metrics" (on page 104)

"Create and Manage KPIs User Interface" (on page 82)

How to Create and Activate KPIs Using Templates

This task includes the following steps

1. "Create and Activate a KPI" (on page 80)
2. "Display and modify a KPI's properties" (on page 81)
3. "Results " (on page 81)

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.

Note: You can also create a new KPI template and use it to create a new KPI. For details, see "How to Create Templates" (on page 130).

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 or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

You can also change the way the KPI performs its calculations. For details, see "Modify a KPI Formula or Filter" (on page 113)

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 126).

Results

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

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 and Metrics

A KPI is a metric, but a metric is not always a KPI. The key difference is that KPIs always reflect strategic value drivers whereas metrics may represent the measurement of any business activity.

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

Metrics always show a number that reflects performance. KPIs put that performance in context.

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 a MTTR (mean time to recover) 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’. Usually metrics are not matched against a threshold.

KPIs measure key drivers of business values using a formula. For details, see "Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116).

KPI templates (out of the box or customized) help you create new KPIs by activating the KPI templates. For details, see "How to Create and Activate KPIs Using Templates" (on page 80) or "How to Add or Configure a KPI Template" (on page 135).

Create and Manage KPIs User Interface

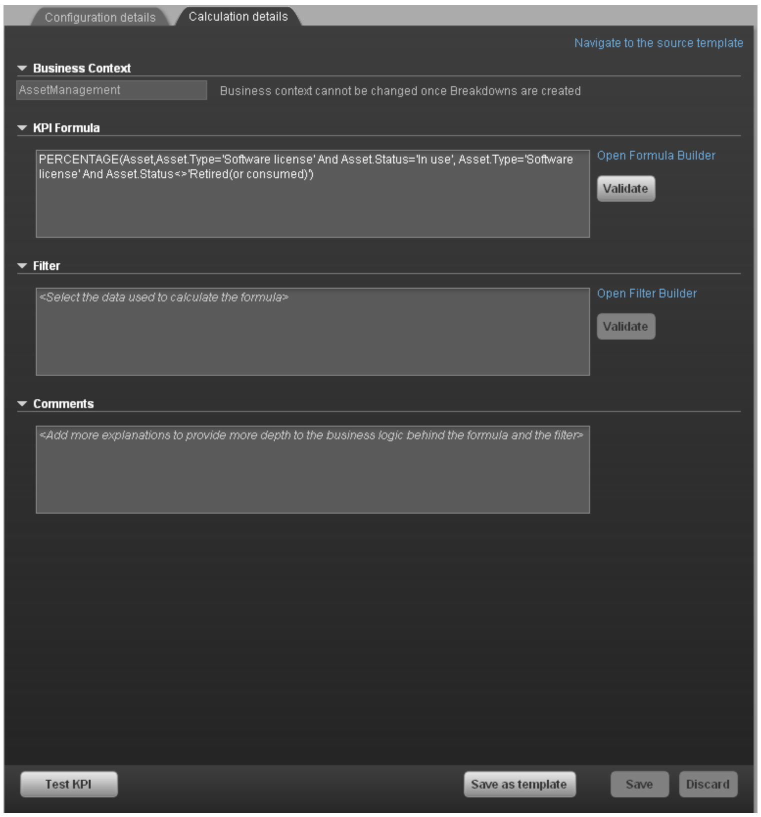
This section includes (in alphabetical order):

["Calculation Details Tab" (on page 105)](#)

[" Configuration Details Tab for a KPI or a KPI Template" (on page 109)](#)

Calculation Details Tab

This page displays the calculation details for the selected KPI.

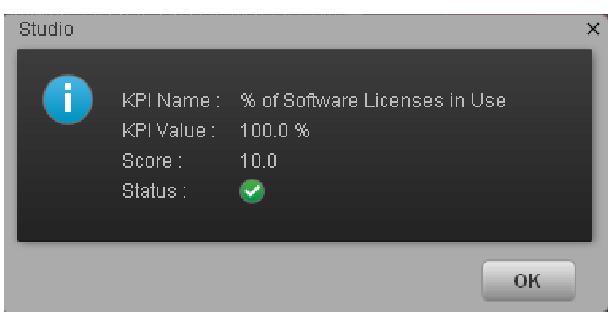


To access	Select a KPI template in the KPI Library pane or a KPI in the Active KPIs pane and click the **Calculation Details** tab.
Important information	• If you are modifying a KPI template, and the template is located in more than one Objective or Folder, when you try to save the configuration changes, you are prompted to apply the changes to all the occurrences of the template by clicking **Yes**. The other option is to cancel the configuration. • You can permanently delete a KPI template by clicking on the **Delete** button in the Active KPIs toolbar or by selecting the **Delete** right-click menu option. If the same template is located in more than one Objective or Folder, deleting it from one of the Objectives or Folders deletes it from all the locations. You are prompted to delete (click **Yes**) or to cancel the deletion. For details, see "How to Delete KPI Templates" (on page 137) • **Active KPIs pane:** After you have created, modified, or deleted an entity in the

	Active KPIs pane, the changes affect the Dashboard **only** after a 7 minutes delay. 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 80) "Create, Manage, and Remove KPIs" (on page 103) "How to Add or Configure a KPI Template" (on page 135) "How to Delete KPI Templates" (on page 137)

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. **Note**: This option is displayed only for activated KPIs.
<Areas>	"Business Context " (on page 84) "KPI Formula" (on page 84) "Filter " (on page 84) "Comments" (on page 85)
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.

UI Element	Description
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	Click to create a template using the current configuration of the KPI. For details, see "Save as Template Dialog Box" (on page 138).

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's Business Context" (on page 125). **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 117)

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):

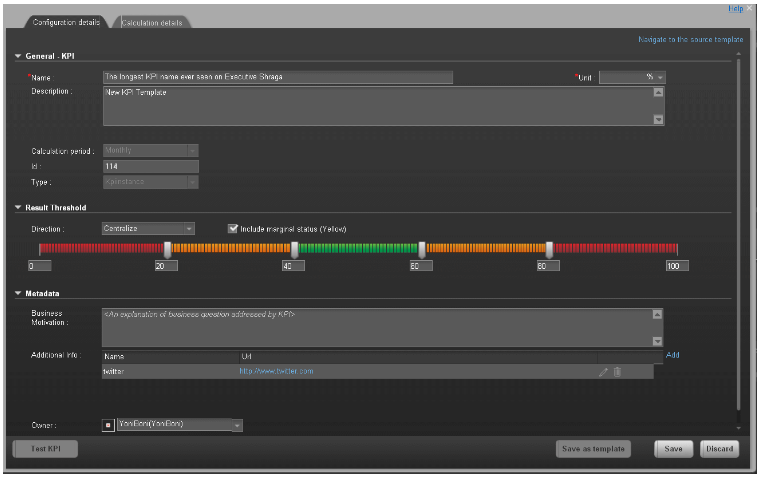
UI Element	Description
Filter	Specify the filter to limit the range of data you want the KPI to be calculated on.
Validate	Click to validate the filter.
Open Filter Builder	Click to open the **Filter Builder** dialog box where you can build the relevant filter that limits the range of the data the KPI calculation is based on. For user interface details, see "Filter Builder Dialog Box" (on page 124)

Comments

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

Configuration Details Tab for a KPI or a KPI Template

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



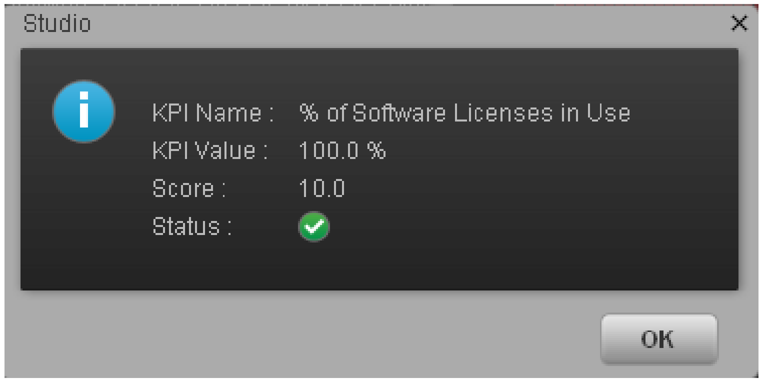
To access	Click a KPI in the KPI Library pane or in the Active KPIs pane, the **Configuration Details** tab for the selected KPI or KPI template opens automatically.
Important information	If you are modifying a KPI template, and the template is located in more than one tree or folder, when you try to save the configuration changes, you are prompted to apply the changes to all the occurrences of the template by clicking **Yes**. The other option is to cancel the configuration. You can permanently delete a KPI or a KPI template by clicking on the **Delete**  button in the toolbar or by selecting the **Delete** right-click menu option. For details, see "How to Delete KPI Templates" (on page 137) or "How to Delete KPIs" (on page 104). **Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard **only** after a 7 minutes delay.

	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 KPI Templates to/from Objective Templates" (on page 139) "How to Add or Configure a KPI Template" (on page 135) "How to Create Templates" (on page 130) "How to Create and Activate KPIs Using Templates" (on page 80) "How to Delete KPI Templates" (on page 137) "How to Populate a Folder with KPI Templates" (on page 150) "How to Assign/Unassign KPIs to/from Objectives" (on page 128) "Create, Manage, and Remove KPIs" (on page 103)

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 displayed only for activated KPIs. It is not displayed for Breakdown KPIs.
<Areas>	"General KPIs" (on page 87) "Result Threshold" (on page 88) "Metadata" (on page 89)
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 or KPI template 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.

UI Element	Description
	 **Note:** • The button is disabled for Breakdown KPIs. • The button is not displayed for KPI Templates. For details on calculations, see "Learn About KPI Formula and Filter, Threshold, Value, and Score" (on page 116).
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last **Save** operation.
Save as Template	Click to create a template using the current configuration of the KPI. For details, see "Save as Template Dialog Box" (on page 138).

General KPIs

If the template is located in more than one tree or folder, when you try to save the configuration changes, a message providing that information is issued and you are prompted to apply the changes to all the occurrences of the template. The other option is to cancel the configuration. User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

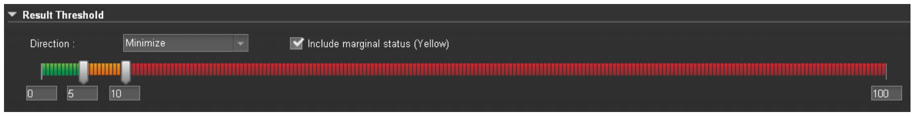
<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Name</td><td>The name of the KPI or of the KPI template.
Limitations:
• The characters: \ / : * ? " < > | are not supported.
• The maximum number of characters is 250.</td></tr>
<tr><td>Unit</td><td>The unit of the KPI's value.</td></tr>
<tr><td>Description</td><td>The description of the KPI.
Limitations: The maximum number of characters is 1000.</td></tr>
<tr><td>Calculation</td><td>The time period used to calculate the value of the KPI (using the formula specified</td></tr>
</table>

UI Element	Description
Period	in the Calculation details tab).
Id	The Id of the KPI. It is automatically assigned. **Note:** 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. **Note:** 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.
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, and Score" (on page 116). 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.

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>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.</td></tr>
<tr><td>Include marginal status (yellow)</td><td>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.</td></tr>
</table>

Metadata

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

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Business Motivation</td><td>Enter the business motivation of the KPI.</td></tr>
<tr><td>Additional Info</td><td>Note: This information is displayed only for Active KPIs.
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 172).
Click to delete the selected additional information.</td></tr>
</table>

UI Element	Description
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 How to Manage Users and Groups in the *General Admin Guide*.
Add Info	**Note**: this information is displayed only for Active KPIs. 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 172).

Create Active Scorecards, Perspectives, Objectives, and KPIs

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

You can create active Scorecard, Perspective, Objective, and KPI in the Active KPIs pane.

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

You can also create and activate nodes using templates. For details, see "How to Create and Activate a Scorecard, Perspective, or Objective Using Templates" (on page 67).

This section includes the following topics:

Create and Activate a New Node

This section includes the following topics:

How to Create and Activate a New Node

HP Executive Scorecard provides out-of-the-box Scorecard templates in the KPI Library. You can use the out-of-the-box Scorecards, you can customize them, or you can create new Scorecards. You can also remove Scorecards from the KPI Library. To understand Scorecards, see "Learn About Scorecards" (on page 93).You can create and activate a new Scorecard, Perspective, or Objective.

HP Executive Scorecard provides out-of-the-box Perspective templates in the KPI Library. You can use the out-of-the-box Perspectives, you can customize them, or you can create new Perspectives. You can also remove Perspectives. To understand Perspectives, see "Learn About Perspectives" (on page 94).

HP Executive Scorecard provides out-of-the-box Objective templates in the KPI Library. You can use the out-of-the-box Objectives, you can customize them, or you can create new Objectives. You can also remove Objectives. To understand Objectives, see "Learn About Objectives" (on page 94).

In addition, you can create and activate a KPI. For details, see "Create, Manage, and Remove KPIs" (on page 103).

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

To create a new node:

1. "Create and activate a node" (on page 91)
2. "Display and modify a node's properties" (on page 92)
3. "Populate the node" (on page 93)

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 node**  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.

Important 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 Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95).

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 or a Scorecard Template" (on page 96).

   For details, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98).

   For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

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" (on page 90).
   - Objectives. For details, see "Create and Activate a New Node" (on page 90).
   - KPIs. For details, see "Create, Manage, and Remove KPIs" (on page 103).
   - Breakdowns. For details, see "Create and Manage Breakdown KPIs" (on page 162).

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" (on page 103)).

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 entity** 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.

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	Example
Perspective\Strategy	What is the strategy trying to achieve? Example: Operational excellence.	For details about Perspectives, see "Learn About Perspectives" (on page 94). A Scorecard can include one or more Perspectives.
Objective	What is the objective trying to achieve? Example: Increase responsiveness in IT to service requests for PC orders by 20% in 2010.	For details about Objectives, see "Learn About Objectives" (on page 94). A Perspective can include one or more Objectives.
KPI	How will performance be measured? Example: Time to order, configure, and install PC.	For details about KPIs, see "Learn About KPIs and Metrics" (on page 104). An Objective can include more than one KPI.
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 55).

Out-of-the-box active Scorecards, Perspectives, Objectives, and KPIs are provided. These active nodes display real data in the Dashboard. For details, see "Learn About the Active KPIs " (on page 55).

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: project initiation time, 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.

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.

Learn About 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 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 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 Scorecard, Perspective, or Objective tree. 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).

Create and Activate a New Node User Interface

This section includes (in alphabetical order):

" Configuration Details Tab for an Objective or an Objective Template" (on page 99)

"Configuration Details Tab for a Perspective or a Perspective Template" (on page 98)

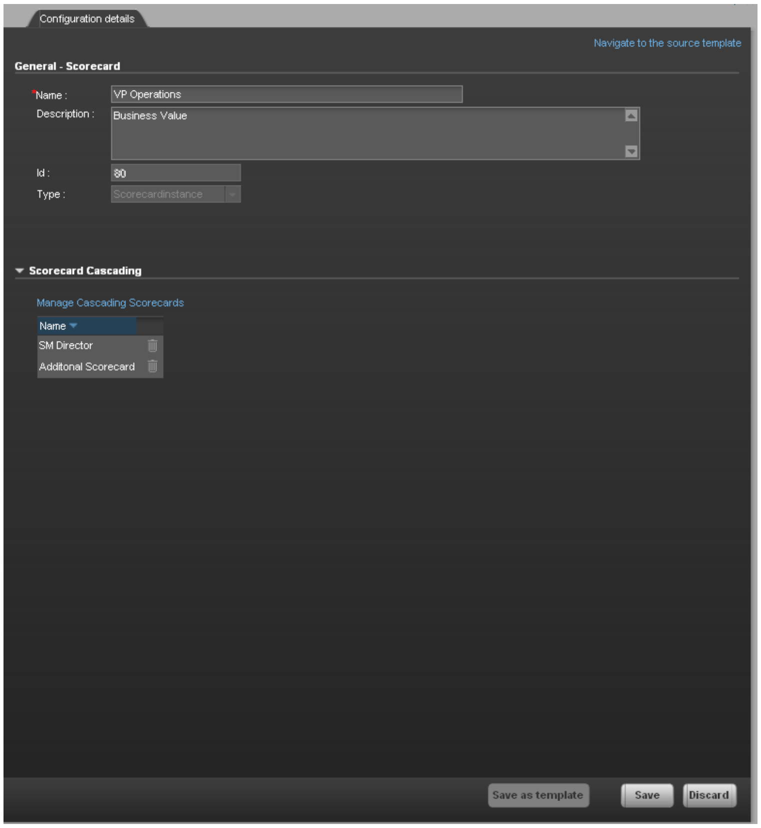
"Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96)

Configuration Details Tab for a Scorecard or a Scorecard Template

This page displays configuration information for the selected active Scorecard (in the Active KPIs pane) or Scorecard template (in the KPI Library pane).

For concept information about Scorecards, see "Learn About Scorecards" (on page 93).

An example of the Configuration Details tab for an active Scorecard is as follows:



To access	Click a Scorecard in the KPI Templates pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130) "Create Cascading Scorecards" (on page 173)

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. **Note**: This option is displayed only for activated Scorecards.
<Areas>	"General - Scorecard" (on page 97) "Cascading Scorecard" (on page 97)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Scorecards. Click to create a template using the current configuration of the active Scorecard. For details, see "Save as Template Dialog Box" (on page 138).

General - Scorecard

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

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Name</td><td>The name of the Scorecard template or the name of the active Scorecard.

Limitations:
• The characters: \ / : * ? " < > | are not supported.
• The maximum number of characters is 250.</td></tr>
<tr><td>Description</td><td>The description of the Scorecard.

Limitations: The maximum number of characters is 1000.</td></tr>
<tr><td>Id</td><td>The Id of the Scorecard. It is automatically assigned.

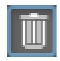
Note: This information is displayed only when in debug mode. To set the debug mode, click Admin > Scorecard Settings > XS Settings, and in Debug Mode, select the Application Debug Mode setting.</td></tr>
<tr><td>Type</td><td>The type of Scorecard. It is automatically assigned.

Note: 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.</td></tr>
</table>

Cascading Scorecard

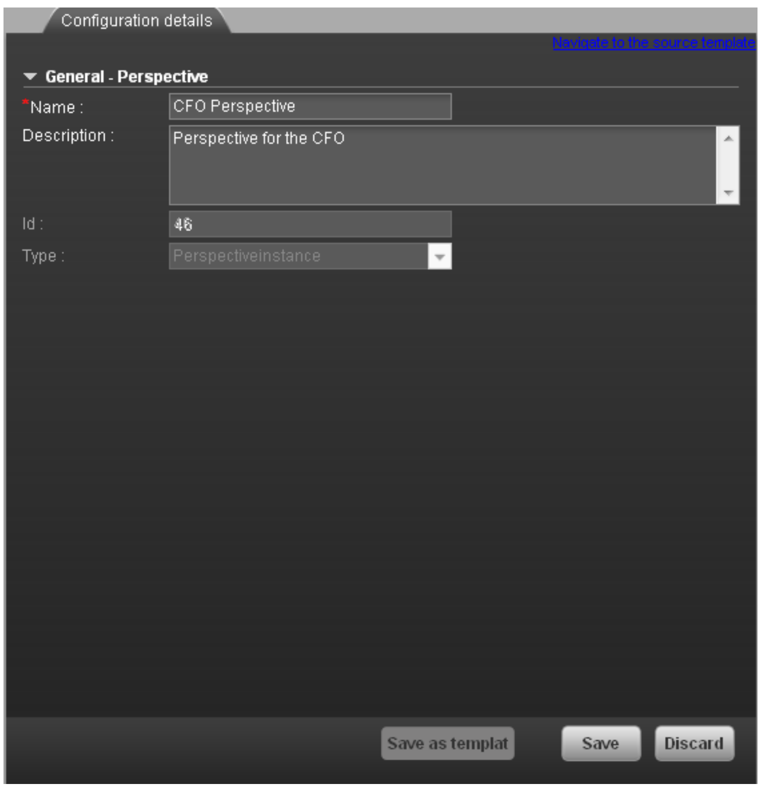
Note: This area is displayed only for active Scorecards.

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 177).
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 or a Perspective Template

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



To access	Click a Perspective in the KPI Library pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130)

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. **Note**: This option is displayed only for activated Perspectives.
<Areas>	"General - Perspective" (on page 99)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Perspectives. Click to create a template using the current configuration of the active Perspective. For details, see "Save as Template Dialog Box" (on page 138).

General - Perspective

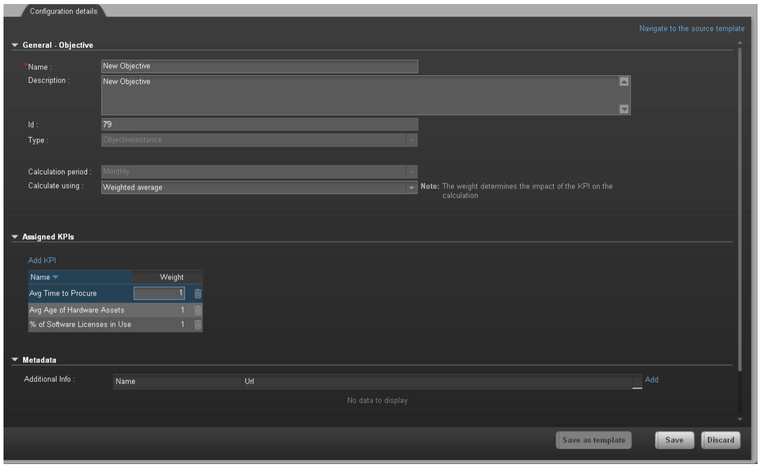
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
Name	The name of the active Perspective or of the Perspective template. **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. **Note:** 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.. **Note:** 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 or an Objective Template

This page displays configuration information for the selected active Objective or Objective template.

An example of the Configuration Details tab for an active Objective is as follows:



To access	Click an Objective in the KPI Library pane or 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 **only** after a 7 minutes delay. 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" (on page 90) "How to Create Templates" (on page 130)

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. **Note**: This option is displayed only for activated Objectives.
<Areas>	"General - Objective" (on page 100) "Assigned KPIs or Assigned KPI Templates" (on page 101) "Metadata" (on page 102)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.
Save as Template	**Note:** This link is displayed only for active Perspectives Click to create a template using the current configuration of the Objective. For details, see "Save as Template Dialog Box" (on page 138).

General - Objective

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

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Name</td><td>The name of the active Objective or of the Objective template.

Limitations: The characters: \ / : * ? " < > | are not supported. The maximum number of characters is 250.</td></tr>
<tr><td>Description</td><td>The description of the Objective.

Limitations: The maximum number of characters is 1000.</td></tr>
<tr><td>Id</td><td>The ID number of the Objective. It is automatically assigned.

Note: 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.</td></tr>
<tr><td>Type</td><td>The type of the Objective. It is automatically assigned.

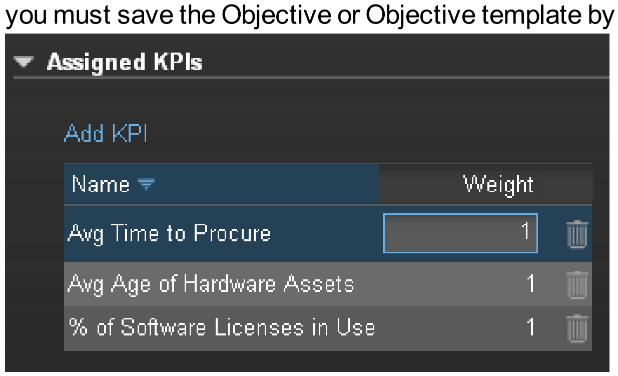
Note: This information is displayed only when in debug mode. To set the debug mode, click Admin > Scorecard Settings > XS Settings, and in Debug Mode, select the Application Debug Mode setting.</td></tr>
<tr><td>Calculation Period</td><td>The calculation period of the Objective.

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.</td></tr>
<tr><td>Calculate Using</td><td>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.</td></tr>
</table>

Assigned KPIs or Assigned KPI Templates

This section lists the KPIs assigned to the selected active Objective or 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
Add KPI	**Note:** This link is displayed only for active Objectives. 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" (on page 129).
Add KPI Templates	**Note:** This link is displayed only for Objective templates. Click to open the **Assign KPI Template to Objective Template** dialog box where you can assign the relevant KPI templates to the current Objective template. For details, see "Assign KPI Template to Objective Template Dialog Box" (on page 140). **Note:** The KPI is not immediately assigned. To do that you must click the **Save** button when returning to the Configuration details tab.
<Table>	The table lists: • **Name.** The KPIs/ KPI templates assigned to the Objective/Objective template. • **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 or Objective template by clicking **Save**.  •  Click to unassign the KPI. The list of KPIs or KPI templates in the Assign KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Objective template by clicking **Save**.

Metadata

This section is displayed only for active Objectives.
User interface elements are described below (when relevant, unlabeled elements are shown in

angle brackets):

UI Element	Description
Additional Info	**Note**: this information is displayed only for Active Objectives. 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. • 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 172). • 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 How to Manage Users and Groups in the *General Admin Guide*.
Add Info	**Note**: this information is displayed only for Active Objectives. 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 172).

Create, Manage, and Remove KPIs

Executive Scorecard provides out-of-the-box KPI templates in the KPI Library. You can use the out-of-the-box KPIs, you can customize them, or you can create new KPIs. You can also remove KPIs.

To understand KPIs, see "Learn About KPIs and Metrics" (on page 104).

This section includes the following tasks:

"How to Create and Activate a New KPI " (on page 103)

"How to Delete KPIs" (on page 104)

"Learn About KPIs and Metrics" (on page 104)

"Create and Manage KPIs User Interface" (on page 116)

How to Create and Activate a New KPI

This task includes the following steps

1. "Create and Activate KPIs" (on page 104)
2. "Display and modify a KPI's properties" (on page 104)

3. "Results " (on page 104)

1. **Create and Activate 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, click the **Create a new node** button.

   c. Select the KPI option in the menu that opens.

   d. A **New KPI** node is added at the bottom of the tree in the **Active KPIs** pane.

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 or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

   You can also change the way the KPI performs its calculations. For details, see "Modify a KPI Formula or Filter" (on page 113).

   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 126).

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**..

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 and Metrics

A KPI is a metric, but a metric is not always a KPI. The key difference is that KPIs always reflect strategic value drivers whereas metrics may represent the measurement of any business activity.

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

Metrics always show a number that reflects performance. KPIs put that performance in context.

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 a MTTR (mean time to recover) 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’. Usually metrics are not matched against a threshold.

KPIs measure key drivers of business values using a formula. For details, see "Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116).

KPI templates (out of the box or customized) help you create new KPIs by activating the KPI templates. For details, see "How to Create and Activate KPIs Using Templates" (on page 80) or "How to Add or Configure a KPI Template" (on page 135).

Create and Manage KPIs User Interface

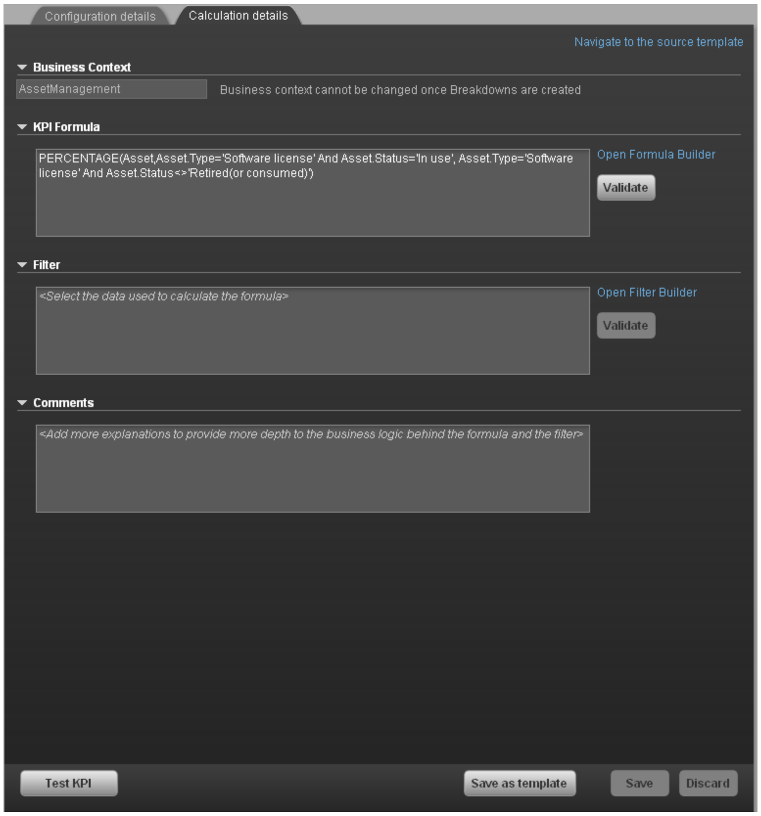
This section includes (in alphabetical order):

"Formula Builder Dialog Box" (on page 117)

"Filter Builder Dialog Box" (on page 124)

Calculation Details Tab

This page displays the calculation details for the selected KPI.

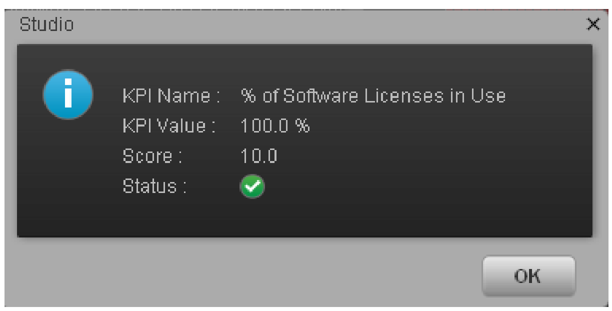


To access	Select a KPI template in the KPI Library pane or a KPI in the Active KPIs pane and click the **Calculation Details** tab.
Important information	• If you are modifying a KPI template, and the template is located in more than one Objective or Folder, when you try to save the configuration changes, you are prompted to apply the changes to all the occurrences of the template by clicking **Yes**. The other option is to cancel the configuration. • You can permanently delete a KPI template by clicking on the **Delete** button in the Active KPIs toolbar or by selecting the **Delete** right-click menu option. If the same template is located in more than one Objective or Folder, deleting it from one of the Objectives or Folders deletes it from all the locations. You are prompted to delete (click **Yes**) or to cancel the deletion. For details, see "How to Delete KPI Templates" (on page 137) • **Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard **only** after a 7 minutes delay. 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 80) "Create, Manage, and Remove KPIs" (on page 103) "How to Add or Configure a KPI Template" (on page 135)

	"How to Delete KPI Templates" (on page 137)

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. **Note**: This option is displayed only for activated KPIs.
<Areas>	"Business Context " (on page 108) "KPI Formula" (on page 108) "Filter " (on page 108) "Comments" (on page 108)
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.
Save as Template	Click to create a template using the current configuration of the KPI. For details, see "Save as Template Dialog Box" (on page 138).

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's Business Context" (on page 125). **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 117)

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 124)

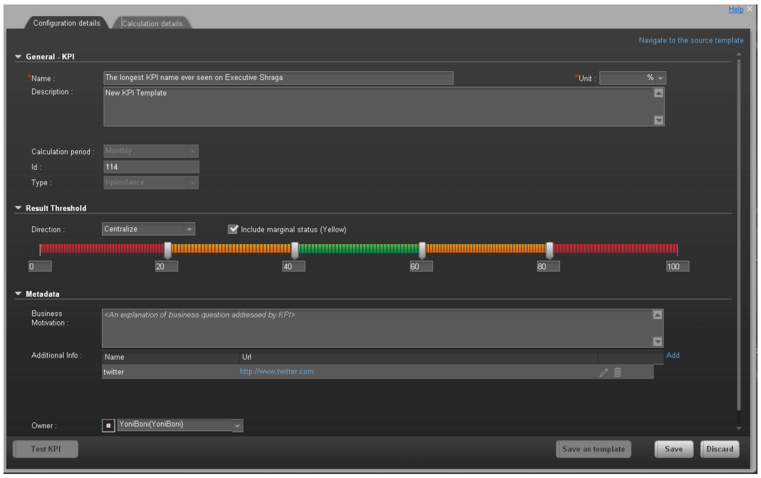
Comments

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

Only English is supported.

Configuration Details Tab for a KPI or a KPI Template

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

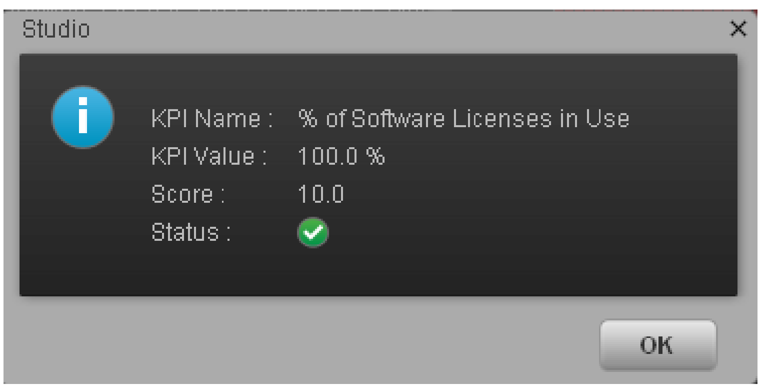


To access	Click a KPI in the KPI Library pane or in the Active KPIs pane, the **Configuration Details** tab for the selected KPI or KPI template opens automatically.
Important information	If you are modifying a KPI template, and the template is located in more than one tree or folder, when you try to save the configuration changes, you are prompted to apply the changes to all the occurrences of the template by clicking **Yes**. The other option is to cancel the configuration. You can permanently delete a KPI or a KPI template by clicking on the **Delete**  button in the toolbar or by selecting the **Delete** right-click menu option. For details, see "How to Delete KPI Templates" (on page 137) or "How to Delete KPIs" (on page 104). **Active KPIs pane:** After you have created, modified, or deleted an entity in the Active KPIs pane, the changes affect the Dashboard **only** after a 7 minutes delay. 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 KPI Templates to/from Objective Templates" (on page 139) "How to Add or Configure a KPI Template" (on page 135) "How to Create Templates" (on page 130) "How to Create and Activate KPIs Using Templates" (on page 80) "How to Delete KPI Templates" (on page 137) "How to Populate a Folder with KPI Templates" (on page 150)

	"How to Assign/Unassign KPIs to/from Objectives" (on page 128) "Create, Manage, and Remove KPIs" (on page 103)

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 displayed only for activated KPIs. It is not displayed for Breakdown KPIs.
<Areas>	"General KPIs" (on page 111) "Result Threshold" (on page 111) "Metadata" (on page 113)
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 or KPI template 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. • The button is not displayed for KPI Templates. For details on calculations, see "Learn About KPI Formula and Filter, Threshold, Value, and Score" (on page 116).
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last **Save** operation.

UI Element	Description
Save as Template	Click to create a template using the current configuration of the KPI. For details, see "Save as Template Dialog Box" (on page 138).

General KPIs

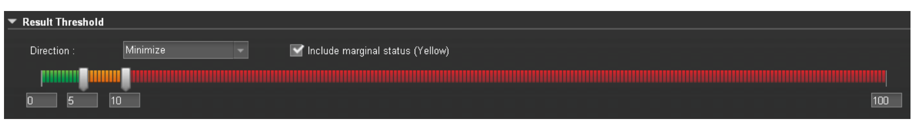
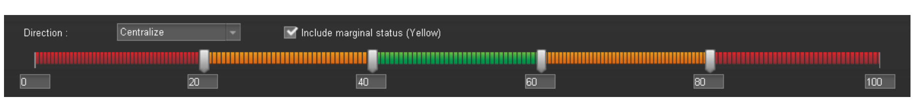
If the template is located in more than one tree or folder, when you try to save the configuration changes, a message providing that information is issued and you are prompted to apply the changes to all the occurrences of the template. The other option is to cancel the configuration. User interface 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. **Note:** 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. **Note:** 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.

UI Element	Description
	• **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.
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, and Score" (on page 116). 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	**Note**: This information is displayed only for Active KPIs. 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 172). • 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 How to Manage Users and Groups in the *General Admin Guide*.
Add Info	**Note**: this information is displayed only for Active KPIs. 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 172).

Customize KPIs

You can customize a KPI by changing its formula and filter. For details, see "Modify a KPI Formula or Filter" (on page 113).

You can also change its business context. For details, see "Modify a KPI's Business Context" (on page 125).

This section includes the following topics:

"Modify a KPI Formula or Filter" (on page 113)

"Modify a KPI's Business Context" (on page 125)

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:

"How to Modify a KPI's Formula or Filter" (on page 115)

"How to Test Changes Made to a KPI Configuration" (on page 126)

"Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116)

"Create and Manage KPIs User Interface" (on page 116)

How to Modify a KPI's Formula or Filter

You can modify a KPI's formula or filter.

To modify the KPI formula:

1. In the KPI Library or in the Active KPIs pane, select the relevant KPI template or KPI. The Configuration Details and Calculation Details tabs are displayed.
2. Click the **Calculations details** tab. For details, see "Calculation Details Tab" (on page 105).
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 117).

   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 KPI Library or in the Active KPIs pane, select the relevant KPI template or KPI. The Configuration Details and Calculation Details tabs are displayed.
2. Click the **Calculations details** tab. For details, see "Calculation Details Tab" (on page 105).
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 124).

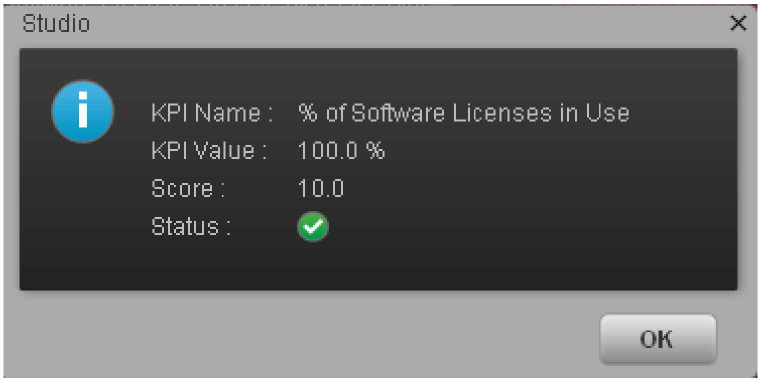
   b. Enter the new filter or modify the existing filter directly in the Filter area.
4. Click the **Validate** button to validate the filter.
5. Click **Save** to save the change.

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 105)) or in the Configuration details tab (for details, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109), 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.

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

This section describes the information related to a KPI:

- **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.

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

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

- **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 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**:
  - 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 94).
    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.

For task details, see "Modify a KPI Formula or Filter" (on page 113).

For user interface details, see "Formula Builder Dialog Box" (on page 117) or "Filter Builder Dialog Box" (on page 124).

Create and Manage KPIs User Interface

This section includes (in alphabetical order):

"Formula Builder Dialog Box" (on page 117)

"Filter Builder Dialog Box" (on page 124)

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 case-insensitive. • 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 113)

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 118). • **Mathematical**. The list of mathematical functions you can use in the KPI formula. For details, see "Mathematical Functions" (on page 119). • **Date Constants.** The list of date constants you can use in the KPI formula. For details, see "Date constant" (on page 120).

UI Element	Description
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”)
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 <>

UI Element	Description
	'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. **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'))

UI Element	Description
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)
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.

UI Element	Description
	Example: COUNT(Incident, Incident.openDate IN_PERIOD) The incidents that are counted are those that opened during the current time period. If the KPI's 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 KPI time period. **Example:** COUNT(Incident, Incident.openDate <= END_PERIOD) The incidents that are counted are those that opened until the date the KPI's time period ends.
PERIOD_ ENTITY	**Formula:** PERIOD_ENTITY=Period 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's 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. 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 or KPI template.
<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.

<Formula>

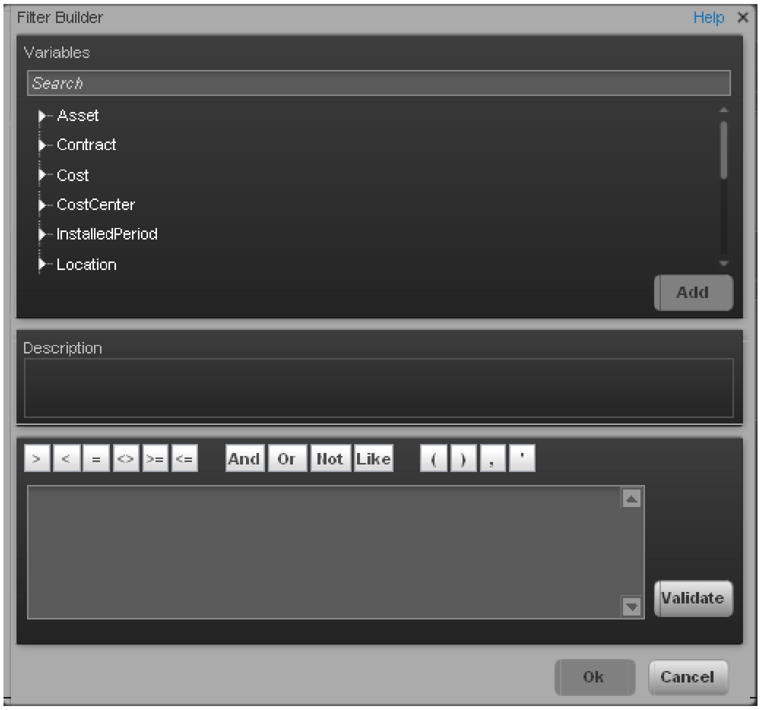
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<buttons>	Use the buttons above the box, the functions from the Functions box and the variables from the Variables box to build your formula: • + - * / The buttons represent the regular operations. • > < = <> >= <= The buttons represent the following conditional operators: ▪ = (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

UI Element	Description
	•  The buttons represent the following logical operators: ▪ **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. •  The buttons represent other elements needed to create formulas.
<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 becomes 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 case-insensitive 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 113)

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 or KPI template.
<Search>	Enter a string to filter for the entities and fields whose name includes the string.

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Description</td><td>A description of the variable you have selected in the Variables area.</td></tr>
<tr><td><buttons></td><td>Use the buttons above the box and the variables from the Variables box to build the filter:

> < = <> >= <= The buttons represent the following conditional operators:

= (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 The buttons represent the following logical operators:

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.

( ) , ' The buttons represent other elements needed to create filters.
</td></tr>
<tr><td><Filter box></td><td>The filter appears as you are building it using the variables, functions and buttons.</td></tr>
<tr><td>Validate</td><td>Click to validate the filter.</td></tr>
<tr><td>OK/Cancel</td><td>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 becomes enabled and you can click Save to save the changes.
Cancel to cancel the changes.
</td></tr>
</table>

Modify a KPI's Business Context

A KPI's 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 "How to Add a Business Context to the Studio" (on page 178)

This section includes the following topics:

"How to Modify a KPI's Business Context" (on page 126)

"How to Test Changes Made to a KPI Configuration" (on page 126)

"Learn About Business Contexts" (on page 178)

"Select Business Context Dialog Box" (on page 127)

How to Modify a KPI's Business Context

You can modify a KPI's business context.

To change the business context of a KPI:

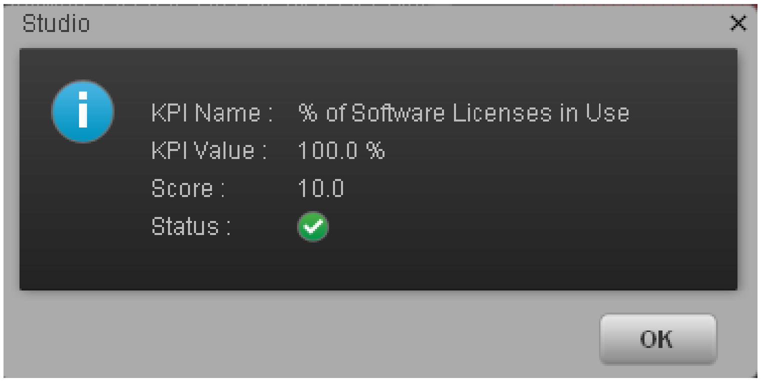
1. Select the relevant KPI in the Active KPIs pane.
2. Optionally, clone the KPI by clicking the **Create a copy of the current entity** button. A KPI with the same name followed by an index number between parenthesis is created in the same Objective.
3. In the Calculation details tab for the KPI, click **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 113).

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 105)) or in the Configuration details tab (for details, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109), 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.

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.

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 Executive Scorecard.

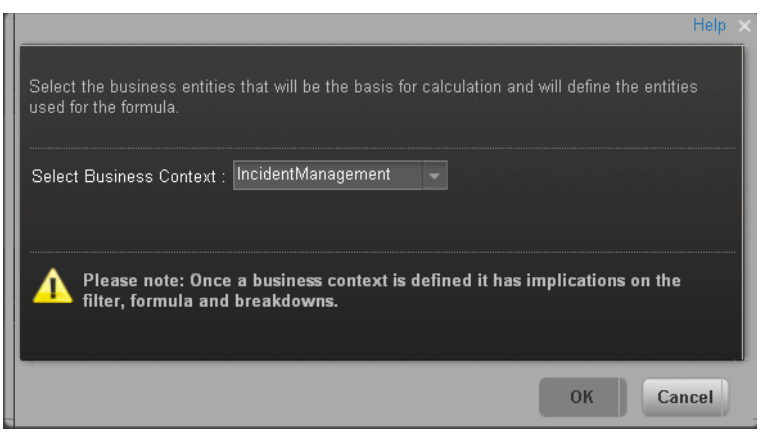
Each universe includes classes (entities), objects with a dimension attribute, and relationships between the entities. The entity's values are used in the calculation of values and statuses of the Key Performance Indicators (KPIs) that represent them. The KPIs are the building blocks used by the HP Executive 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 "Reference: Universes (Contexts)" (on page 16) and "Reference: KPIs" (on page 24).

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.

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" (on page 24).



To access	Click **Select business context** in the Calculation details tab for a selected active KPI or for a KPI template.
Relevant tasks	"How to Create Templates" (on page 130)

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" (on page 128)

"Assign KPIs to Objective" (on page 129)

How to Assign/Unassign KPIs to/from Objectives

This task includes the following steps:

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

Assign a KPI to an Objective

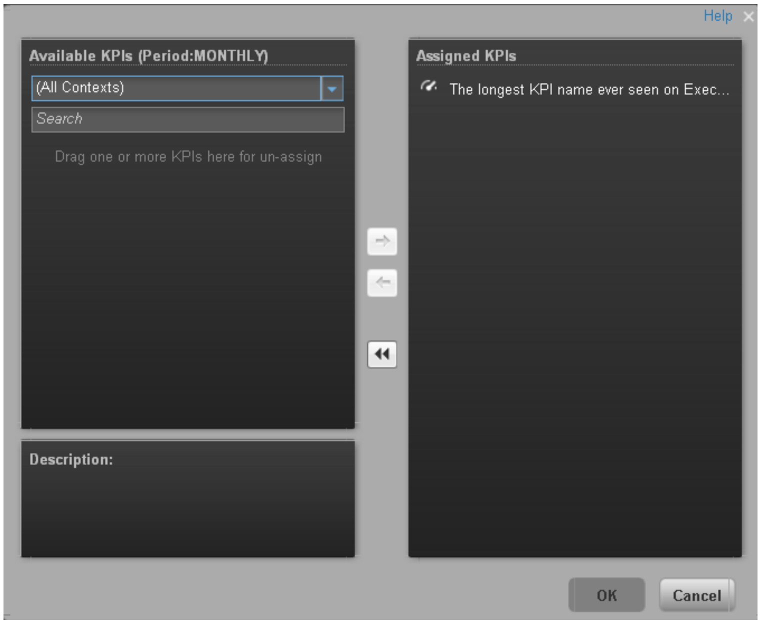
1. In the Active KPIs pane, select an Objective.
2. In the Configuration Details tab, click the **Add KPI** link.
3. In the **Assign KPI to Objective** dialog box, move the relevant KPI from the **Available KPIs** area to the **Assigned KPIs** area.
4. Click **OK**. The **Assign KPI to Objective** dialog 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

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 128)

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.

UI Element	Description
OK	Click to assign the selected KPIs. The list of KPIs in the Assigned KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Folder by clicking **Save**.

Manage Templates

You can create, edit, and delete templates. You can also create templates using active Scorecards, Perspectives, Objectives, or KPIs.

This section includes the following topics:

"Create Templates" (on page 130)

"Create a KPI Template" (on page 135)

"Assign/Unassign KPI Templates to/from Objective Templates" (on page 139)

Create Templates

This section includes the following topics:

"How to Create Templates" (on page 130)

"How to Create Templates from Active Nodes" (on page 132)

"How to Delete a Node Template" (on page 133)

"Learn About Templates" (on page 137)

"Save as Template Dialog Box" (on page 138)

How to Create Templates

This task describes how to create and manageHow to Create Templates Scorecard, Perspective, and Objective templates.

To create KPI templates, see "How to Add or Configure a KPI Template" (on page 135).

To remove KPI templates, see "How to Add or Configure a KPI Template" (on page 135)

To understand templates, see "Learn About Templates" (on page 137)

This section includes the following tasks:

- "How to Create Templates" (on page 130)
- "Enter the template node's properties" (on page 131)
- "Populate the template node" (on page 132)

1. **Create a template node**

   To create a new template node, proceed as follows:

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

   b. If needed, in the **Active KPIs** pane, click the **Toggle side-by-side view** button  to display the **KPI Library** pane.

   c. Select the relevant Scorecard tree in the **Show** box.

   d. Select the node to which you want to add a node.

   e. Click the **Create a new entity** button  in the pane toolbar.

   f. Depending on the node selected in the tree, select the relevant **Scorecard template**, **Perspective template**, or **Objective template** option in the menu that opens. Depending on your selection, the following happens in the **KPI Library** pane:

      - A **New Scorecard** template node is added at the bottom of the tree. The new Scorecard has an automatically generated unique name. The Scorecard is automatically selected in the tree. The Configuration Details tab opens for the new Scorecard template.

      - A **New Perspective** template node is added at the bottom of the Scorecard tree you selected before adding the Perspective template (the option to create a new Perspective is only available if you have already selected a Scorecard). The new Perspective template has an automatically generated unique name. The Perspective is automatically selected in the tree. "Learn About Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95)

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

      For details on the unique name, see "Learn About Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95)

      Note that the template is not yet created. To do that go to the next step: "Enter the template node's properties" (on page 131)

2. **Enter the template node's properties**

   Enter the template node's details in the Configuration Details pane, and click **Create** to create the template 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.

   If you are creating a Scorecard template, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96).

   If you are creating a Perspective template, see "Configuration Details Tab for a Perspective or a Perspective Template" (on page 98).

If you are creating an Objective template, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

3. **Populate the template node**

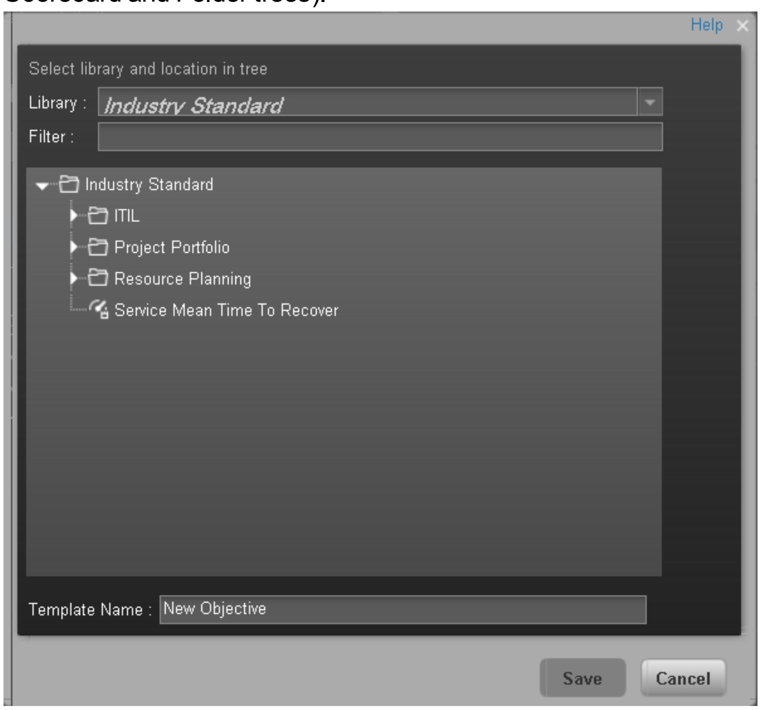
   Depending on the template node type, you can populate the new node template with Perspectives, Objectives, and KPIs template nodes. To do that, reuse this task as many times as needed.

How to Create Templates from Active Nodes

You can create Scorecard, Perspective, Objective, and KPI templates from Active Scorecards, Perspectives, Objectives, and KPIs. You cannot save a Breakdown KPI as a template.

You have configured an active node (Scorecard, Perspective, Objective, or KPI) that you want to save as a template for future use.

1. In the Active KPIs pane, select the relevant node.
2. In the **Configuration details** tab, click the **Save as Template** button. The Save as Template dialog box opens. The dialog box displays the contents of the KPI Library pane (tree and list of Scorecard and Folder trees).



3. In the **Library** list, select the tree where you want to create the new template, or enter the relevant string in the **Filter** box to find the nodes whose names include the string.
4. Select the location, in the tree, where you want to save the new node as a template.
5. Enter the name of the new node template in the **Template Name** field.
6. Click **Save**.
   The new node template and all its child nodes appears in the KPI Library pane, in the appropriate location.

How to Delete a Node Template

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

For details, see "How to Delete KPI Templates" (on page 137).

To permanently delete a node template:

1. In the KPI Library 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 KPI templates in the subtree. If the KPI templates in the subtree of the node template you want to delete also belong to another subtree, the KPI templates are not deleted from the other subtree. For example, if Objective templates A and B both include KPI template C, when you delete Objective template A, KPI template C remains in Objective template B's subtree.
   - **Delete all elements except for the KPIs.** Deleting the node also deletes its subtree but does not delete the KPI templates in its subtree. These KPI templates remain in the other subtree structures, or become Orphan KPI templates, if they do not exist in any other subtrees.

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

Learn About Templates

Out-of-the-box templates of Scorecards, Perspectives, Objectives, and KPIs, are available in the KPI Library pane. The pane also includes out-of-the-box Folders.

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

You can create new templates or modify existing ones.

Each template has a unique name.

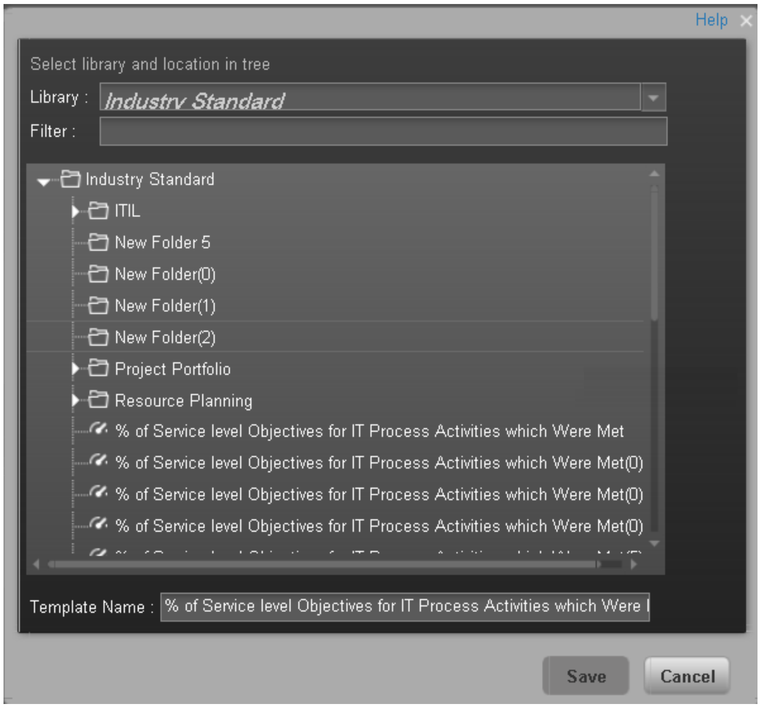
If the template is located in more than one tree or folder, when you change the template's configuration, you can select to make a global change (all templates in different locations are modified in the same way) or you can select to make the change only to the current template.

For task details, see "How to Create Templates" (on page 130).

You can also create folders and move them. For details, see "Use Folders and KPIs to Create the Dashboard Contents" (on page 148).

Save as Template Dialog Box

This dialog box enables you to save the selected active node (Scorecard, Perspective, Objective, or KPI) and their child nodes as new templates.



To access	Click **Save as template** in the Configuration details tab or in the Calculation tab for a selected active node. A node can be a Scorecard, Perspective, Objective, or KPI.
Important information	• Cascading Scorecards and Breakdown KPIs cannot be saved as templates. • When you save a Scorecard, Perspective, or Objective as a template, its child elements are also saved as a template. • If you save as a template, a node (Scorecard, Perspective, Objective, or KPI) that already exists in the selected location in the KPI Library tree, then the KPI engine generates a unique name for the new node template (it adds an index number between parenthesis at the end of the node name). • When you save an Objective as a template, the additional info and the owner information of the Objective are not saved in the template.
Relevant tasks	"How to Create Templates" (on page 130)

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

UI Element	Description
Library	Select the tree (Scorecards or Folders) where you want to save the template.
Filter	Enter the relevant string to display all the template nodes whose name includes the string.
<tree>	Select the location in the relevant tree where you want to save the template. The **Save** button is enabled when the location is allowed.
Template name	Enter the name of the new template.
Save	Click to save the new template. It is immediately added to the relevant location in the KPI Library.

Create a KPI Template

This section includes the following topics:

"How to Add or Configure a KPI Template" (on page 135)

"How to Delete KPI Templates" (on page 137)

"Learn About Templates" (on page 137)

"Save as Template Dialog Box" (on page 138)

How to Add or Configure a KPI Template

This section describes how to create a new KPI template under a specific node in the tree in the KPI Library or how to configure a KPI template.

Each KPI template must have a unique name in the KPI Library.

This task includes the following steps

- "Create a new KPI template" (on page 135)
- "Configure a KPI template" (on page 136)

Create a new KPI template

You can create a new KPI template under an Objective or in a Folder. Each KPI template has a unique name.

To create a new KPI template:

1. Click the **Studio** button (top right corner) to open the Studio.
2. If necessary, click the **Toggle side-by-side view** button  or click the **KPI Library** button to display the **KPIs Library** pane.

3. In the KPI Library tree, do one of the following:

   - Select the relevant Objective or Folder, and click the **Create a new node** button in the KPI Library pane toolbar, and select **KPI template** in the menu that opens.

   - Right-click the Objective or Folder, and select the **Create new** option and then the **KPI template** option in the menu that opens.

   The new KPI becomes a child of the selected Objective or Folder.

4. Enter the relevant information in the Configuration Details tab and in the Calculation Details tab

   For user interface details, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109) and "Calculation Details Tab" (on page 105).

5. Click the **Create** button in the Properties pane, to save the changes.

Configure a KPI template

The same KPI template can be located in more than one Folder and/or Objective in the KPI Library tree. If the KPI template is located in only one Folder and/or Objective the changes you make to the configuration are applied to the KPI template.

If the KPI template has multiple occurrences (in other Folders and/or Objectives) and you change the configuration of the KPI template in one of the Folders and/or Objectives, you get a warning dialog and if you press OK, the change is propagated to the other occurrences of the KPI template as well.

To configure a KPI template, proceed as follows:

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

2. If necessary, click the **Toggle side-by-side view** button or click the **KPI Library** button to display the **KPIs Library** pane.

3. In the KPI Library tree, select the relevant KPI template.

   The properties of the KPI template are displayed in the **Configuration details** tab and in the **Calculation details tab** in the Properties pane.

4. Modify the relevant information in the Configuration Details tab. Click the **Save** button to save the changes. If the KPI template you modified belongs to additional Folders and/or Objectives, you are prompted to apply the changes to all the occurrences of the KPI template (click **Yes**) or to cancel the changes (click **No** and then click **Cancel**). For user interface details, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109) .

5. Modify the relevant information in the Calculation Details tab.Click the **Save** button, to save the changes. If the KPI template you modified belongs to additional Folders and/or Objectives, you are prompted to apply the changes to all the occurrences of the KPI template (click **Yes**) or to cancel the changes (click **No** and then click **Cancel**). For user interface details, see "Calculation Details Tab" (on page 105).

How to Delete KPI Templates

To permanently delete an existing KPI template in a tree:

1. Click the **Studio** button (top right corner) to open the Studio.
2. In the **KPI Library** pane, you can do one of the following:
   - Select the relevant KPI template, and click the **Delete the currently selected node** button  in the KPI Library toolbar.
   - Right-click the relevant KPI template, and select the **Delete** option in the menu that opens.
3. If the selected KPI template is:
   - The child of an Objective template or of a Folder. When you are prompted to accept the deletion, you can select to:
     - Un-assign this specific KPI template from the Objective template or from the Folder when you click **Yes**.
     - Delete this KPI template from the system. If you select this option, all the listed KPI template instances are removed when you click **Yes**.
   - An Orphan KPI. When you are prompted to accept the deletion, you might get a list of locations that would be affected by the deletion (without the option to unassign) as the KPI template might also be assigned to a Folder or Objective template in another tree.

Learn About Templates

Out-of-the-box templates of Scorecards, Perspectives, Objectives, and KPIs, are available in the KPI Library pane. The pane also includes out-of-the-box Folders.

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

You can create new templates or modify existing ones.

Each template has a unique name.

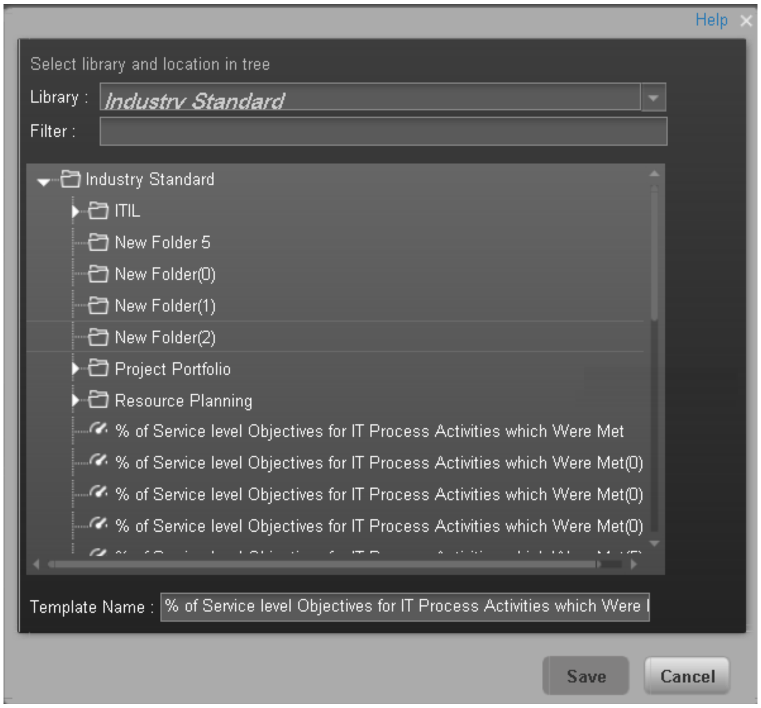
If the template is located in more than one tree or folder, when you change the template's configuration, you can select to make a global change (all templates in different locations are modified in the same way) or you can select to make the change only to the current template.

For task details, see "How to Create Templates" (on page 130).

You can also create folders and move them. For details, see "Use Folders and KPIs to Create the Dashboard Contents" (on page 148).

Save as Template Dialog Box

This dialog box enables you to save the selected active node (Scorecard, Perspective, Objective, or KPI) and their child nodes as new templates.



To access	Click **Save as template** in the Configuration details tab or in the Calculation tab for a selected active node. A node can be a Scorecard, Perspective, Objective, or KPI.
Important information	• Cascading Scorecards and Breakdown KPIs cannot be saved as templates. • When you save a Scorecard, Perspective, or Objective as a template, its child elements are also saved as a template. • If you save as a template, a node (Scorecard, Perspective, Objective, or KPI) that already exists in the selected location in the KPI Library tree, then the KPI engine generates a unique name for the new node template (it adds an index number between parenthesis at the end of the node name). • When you save an Objective as a template, the additional info and the owner information of the Objective are not saved in the template.
Relevant tasks	"How to Create Templates" (on page 130)

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

UI Element	Description
Library	Select the tree (Scorecards or Folders) where you want to save the template.
Filter	Enter the relevant string to display all the template nodes whose name includes the string.
<tree>	Select the location in the relevant tree where you want to save the template. The **Save** button is enabled when the location is allowed.
Template name	Enter the name of the new template.
Save	Click to save the new template. It is immediately added to the relevant location in the KPI Library.

Assign/Unassign KPI Templates to/from Objective Templates

This section includes the following topics:

"How to Assign/Unassign KPI Templates to/from Objective Templates" (on page 139)

"Assign KPI Template to Objective Template Dialog Box" (on page 140)

How to Assign/Unassign KPI Templates to/from Objective Templates

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

This task includes the following steps:

- "Assign a KPI Template to an Objective Template" (on page 139)
- "Unassign a KPI Template from an Objective Template" (on page 139)

Assign a KPI Template to an Objective Template

1. In the KPI Library pane, select an Objective template.
2. In the Configuration Details tab, click the **Manage KPI Templates Assignment** link.
3. In the **Assign KPI Template to Objective Template** dialog box, move the relevant KPI template from the **Available KPI Templates** area to the **Assigned KPIs** area.
4. Click **OK**. The **Assign KPI Template to Objective Template** dialog box closes.
5. Only the list of KPI templates in the Configuration Details tab is updated but the change is not saved. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**.
6. The tree in the KPI Library pane is refreshed and the changes are displayed.

Unassign a KPI Template from an Objective Template

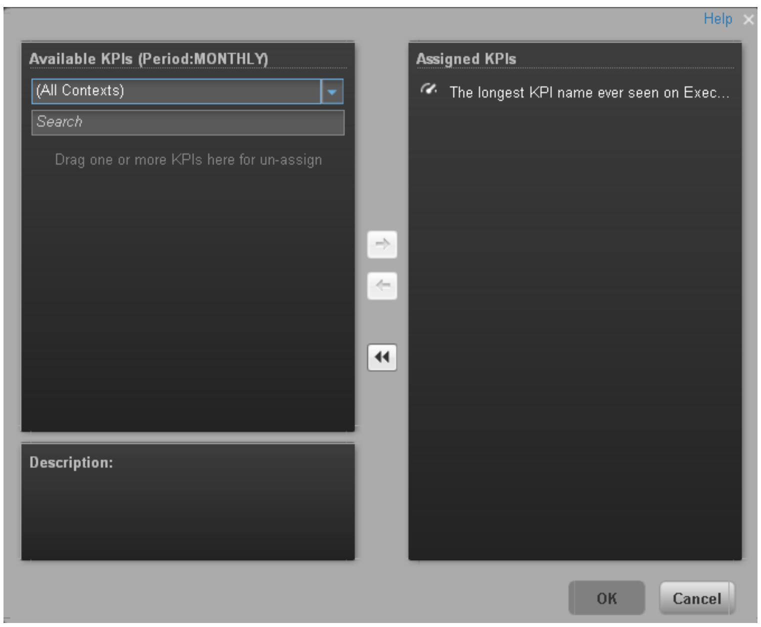
1. In the KPI Library pane, select an Objective template.
2. In the Configuration Details tab, click the **Manage KPI Templates Assignment** link.

3. In the **Assign KPI Template to Objective Template** dialog box, move the relevant KPI template from the **Assigned KPIs** area to the **Available KPI Templates** area.
4. Click **OK**. The **Assign KPI Template to Objective Template** dialog box closes.
5. Only the list of KPI templates in the Configuration Details tab is updated but the change is not saved. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**.
6. The tree in the KPI Library pane is refreshed and the changes are displayed.

Note: You can also unassign a KPI as follows: move the cursor above the relevant row in the Assigned KPIs area. The **Unassign** text changes into the **Unassign** button. Click the **Unassign** button to unassign the KPI. To save the changes you must save the Objective by clicking **Save**

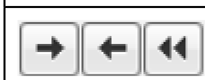
Assign KPI Template to Objective Template Dialog Box

This dialog box enables you to assign KPI templates to the selected Objective template.



To access	In the Configuration details tab for an Objective template, click the **Add** link.
Relevant tasks	"How to Assign/Unassign KPI Templates to/from Objective Templates" (on page 139)

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

UI Element	Description
Available KPIs	Lists the KPI templates available to be assigned to the Objective template.
Assigned KPIs	Lists the KPI templates that you want to assign to the Objective template.
	Select the relevant KPI template and move it to the relevant field using the

UI Element	Description
	buttons.
OK	Click to assign the selected KPI templates. The list of KPI templates in the Assigned KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Objective by clicking **Save**.

Manage Trees of Templates

You can create new trees of templates, rename existing trees, and delete them.

This section includes the following topics:

How to Create a Tree of Templates

1. Click the **Studio** button (top right corner) to open the Studio.
2. If needed, click the **Show trees side-by-side** button in the **Active KPIs** pane to open the **KPI Library** pane.
3. In the **KPI Library** pane, select any node in the current tree and click the **Manage Library Tree** button.
4. In the menu that opens, select the **Create tree** option.
5. In the **Create Library Tree** dialog box that opens, enter the name of the tree you want to create and click **OK**.

The new tree replaces the tree that was displayed in the KPI Library pane and the name of the new tree appears in the list of trees in the **Show** field. All the KPI templates are automatically added to the new tree as Orphan KPIs.

You can then populate the tree with Scorecard, Perspective, Objective, and KPI Templates or with Folders and KPI templates. For details, see "How to Populate a Tree with Templates" (on page 142).

How to Populate a Tree with Templates

You can add Scorecard, Perspective, Objective, and KPI templates to a tree.

This task includes the following topics:

1. "Add a Scorecard template to a tree of templates" (on page 142)
2. "Add a Perspective template to the Scorecard template" (on page 143)
3. "Add an Objective to the Perspective" (on page 143)
4. "Add an Objective to the Objective" (on page 143)
5. "Add Existing KPIs" (on page 144)
6. "Add New KPIs" (on page 144)

1. **Add a Scorecard template to a tree of templates**

   To add a Scorecard template to a tree of templates:

   a. If needed, click the **Show trees side-by-side**  button in the **Active KPIs** pane to open the **KPI Library** pane.

   b. In the **KPI Library** pane, select a Scorecard tree or an empty tree in the **Show** field.

   c. Do one of the following:

      - Click the root of the tree and select the **Create a new entity**  button in the toolbar and then the **Scorecard Template** menu option that opens.
      - Right-click the root of the tree and select **Create New > Scorecard Template** in the menu that opens.

   d. Configure the Scorecard template in the Configuration details tab opens. For details, see "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96).

   Note:

   - If you add a Scorecard to the tree, the tree becomes a tree of Scorecards, and you can only add Scorecards, Perspectives, Objectives, or KPIs to that tree.
   - You can also add a Scorecard template to the tree by saving an active Scorecard as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

2. **Add a Perspective template to the Scorecard template**

   To add a Perspective template to a Scorecard template:

   a. In the KPI Library pane, select the relevant Scorecard tree, and do one of the following:

      - Click the relevant Scorecard and select the **Create a new entity** button in the toolbar and then the **Perspective Template** menu option that opens.

      - Right-click the relevant Scorecard and select **Create New > Perspective Template** in the menu that opens.

   b. Configure the Perspective template in the Configuration details tab that opens. For details, see"Configuration Details Tab for a Perspective or a Perspective Template" (on page 98)
   Note: You can also add a Perspective template to the Scorecard by saving an active Perspective as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

3. **Add an Objective to the Perspective**

   To add an Objective template to the new Perspective template:

   a. In the KPI Library pane, select the relevant Scorecard tree, and do one of the following:

      - Click the relevant Perspective and select the **Create a new entity** button in the toolbar and then the **Objective Template** menu option that opens.

      - Right-click the relevant Perspective, and select **Create New > Objective Template** in the menu that opens.

   b. In the Configuration details tab that opens, configure the Objective template. For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

   c. You can now add an Objective template to the Objective template. For details, see "Add an Objective to the Objective" (on page 143).

   d. You can add KPIs to the Objective template. For details, see "Add Existing KPIs" (on page 144) or "Add New KPIs" (on page 144).

   Note: You can also add an Objective template to the Perspective by saving an active Objective as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

4. **Add an Objective to the Objective**

   To add an Objective template to the new Objective template, do one of the following:

   a. Click the relevant Objective and select the **Create a new entity** button in the toolbar and then the **Objective Template** menu option that opens.
      - Right-click the relevant Perspective, and select **Create New > Objective Template** in the menu that opens.

- In the Configuration details tab that opens, configure the Objective template. For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

b. You can now either add Objective templates or add KPIs to the Objective template.

Note:

- If you add an Objective template to an Objective template, you can assign KPI templates only to the child Objective template.
- You can also add an Objective template to the Perspective by saving an active Objective as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

5. **Add Existing KPIs**

To assign KPI templates to the new Objective template:

a. Select the Objective template in the tree.

b. In the Configuration details tab of the Objective, click the **Add KPI Templates** link in the Assigned KPI Templates area.

c. In the Assign KPI Templates to Objective Template dialog box that opens, select the relevant KPI templates. For details, see " Configuration Details Tab for an Objective or an Objective Template" (on page 99).

Note: If you add an Objective template to an Objective template, you can assign KPI templates only to the child Objective template.

6. **Add New KPIs**

To create a new KPI template assigned to the relevant Objective.

a. Select the Objective template in the tree.

b. Select the **Create a new entity**  button in the toolbar, and then the **KPI Template** menu option that opens, or right-click the selected Objective template and select **Create New > KPI Template** in the menu that opens.

c. Configure the KPI template in the Configuration details tab and Calculation details tab open. For details, see" Configuration Details Tab for a KPI or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

Note: You can also add an KPI template to the Objective by saving an active KPI as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

How to Populate a Folder Tree with KPI Templates and Folders

You can populate a Folder tree with KPI templates and Folders.

This task includes the following topics:

- "Add Folders to a tree" (on page 145)
- "Add Folders to a Folder" (on page 145)

- "Assign KPI templates to a Folder" (on page 145)
- "How to Populate a Folder Tree with KPI Templates and Folders" (on page 144)

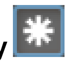
1. **Add Folders to a tree**

   To add Folders to a tree:

   a. If needed, click the **Show trees side-by-side**  button in the **Active KPIs** pane to open the **KPI Library** pane.

   b. In the KPI Library, select an empty tree or a tree of Folders in the **Show** field.

   c. Do one of the following:

      - Click the root of the tree and select the **Create a new entity**  button in the toolbar and then the **Folder** menu option that opens.
      - Right-click the root of the tree and select **Create New > Folder** in the menu that opens.

   d. Configure the Folder in the Configuration details tab that opens. For details, see "Configuration Details Tab for a Folder" (on page 153).

   Note: If you add a Folder to the tree, the tree becomes a tree of Folders and you cannot add Scorecard templates, Perspective templates, or Objective templates to that tree; you can only add Folders and KPI templates to a tree of Folders.

2. **Add Folders to a Folder**

   To add Folders to a Folder:

   a. Right-click the relevant Folder in the tree, and select **Create New > Folder** in the menu that opens or select the relevant Folder and then select the **Create a new entity** button in the toolbar and then the **Folder** menu option that opens.

   b. Configure the new folder in the Configuration details tab that opens. For details, see "Configuration Details Tab for a Folder" (on page 153).

   Note: If you add a Folder to a Folder, you can assign KPI templates only to the child Folder.

3. **Assign KPI templates to a Folder**

   To assign KPI templates to a Folder.

   a. Select the relevant Folder in the tree, and in the **Configuration details** tab of the Folder, click the **Add KPI Templates** link in the Assigned KPI Templates area.

   b. In the Assign KPI Templates to Folder dialog box that opens, select the relevant KPI templates.

   For details, see "Configuration Details Tab for a Folder" (on page 153).

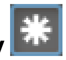
   Note:

   - You can assign a KPI template to more than one Folder.
   - You can also add a KPI template to the Folder by saving an active KPI as a template. For details, see "How to Create Templates from Active Nodes" (on page 132).

4. **Create a new KPI template assigned to a Folder**

   You can also create a new KPI template assigned to the relevant Folder.

   a. Select the relevant Folder.

   b. Select the **Create a new entity**  button in the toolbar, and then select the **KPI Template** menu option that opens, or right-click the relevant Folder and select **Create New > KPI Template** in the menu that opens.

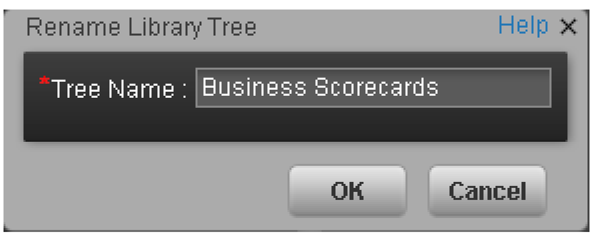
   c. Configure the KPI template in the Configuration details tab and Calculation details tab that open.

   For details, see" Configuration Details Tab for a KPI or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

How to Rename a Tree of Templates

To rename an existing tree of templates:

1. Click the **Studio** button (top right corner) to open the Studio.
2. In the **KPI Library** pane, select the relevant tree and click the **Manage Library Tree**  button.
3. In the menu that opens, select the **Rename tree** option.
4. In the **Rename Library Tree** dialog box that opens, enter the new name of the tree, and click **OK**.

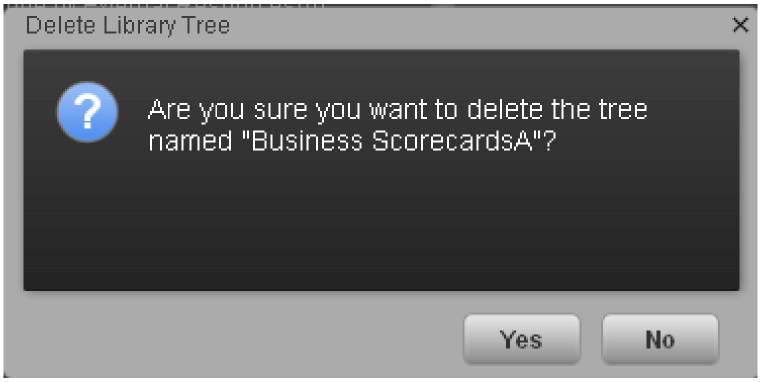
   

   The new name of the tree replaces the old name and the old name of the tree is replaced with the new name in the list of trees in the **Show** field.

How to Delete a Tree of Templates

To delete an existing tree of templates:

1. Click the **Studio** button (top right corner) to open the Studio.
2. In the **KPI Library** pane, select the relevant tree of templates and click the **Manage Library Tree**  button.
3. In the menu that opens, select the **Delete tree** option.
4. In the **Delete Library Tree** dialog box that opens, confirm that you want to delete the tree by clicking **Yes**.



The deleted tree is replaced by another tree in the **KPI Library** pane, and the name of the deleted tree is removed from the list of trees in the **Show** field.

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.

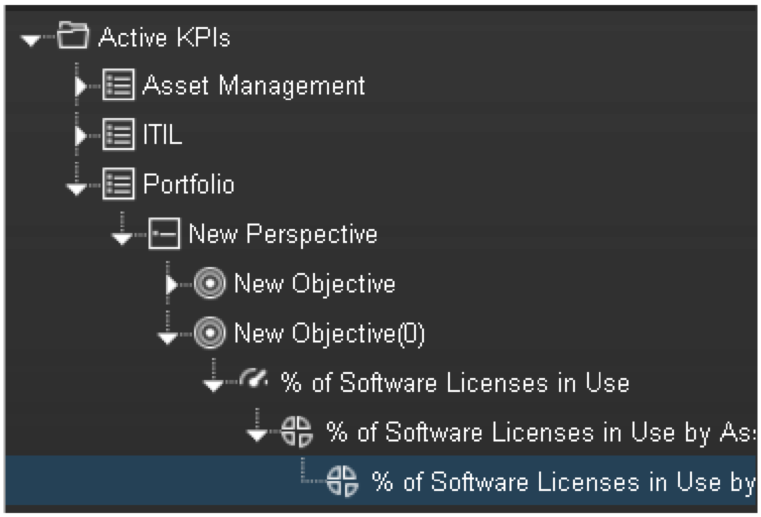
The Active KPIs pane includes one tree that can include one or more Scorecard trees as well as Orphan KPIs.

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 Scorecard, Perspective, Objective, and KPI Unique Names" (on page 95).

Each KPI can include KPI Breakdowns (indicated by). KPI Breakdowns can also include KPI Breakdowns.

Note: Breakdown KPIs can only be configured for active KPIs and not for KPI templates. They are displayed only in the Active KPIs pane. For details, see "Learn About Breakdown KPIs" (on page 164).



In the KPI Library, you can add KPI, Objective, and Perspective templates to existing Scorecard templates. 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 52).

Use Folders and KPIs to Create the Dashboard Contents

Folders are used as containers (organizers) for the KPI templates. You usually use Folders when you do not work with Scorecards.

You can create Folders and also create Folders inside Folders. You can populate Folders with either KPI templates or with other Folders (not with both). The same KPI template can belong to more than one Folder.

This section includes the following topics:

"How to Create Folders " (on page 148)

"How to Display and Modify a Folder Properties" (on page 150)

"How to Populate a Folder with KPI Templates" (on page 150)

"Learn About Folders" (on page 151)

"Create and Manage Folder User Interface" (on page 151)

How to Create Folders

You can create Folder trees, Folders, and Folders inside Folders.

This section includes the following tasks:

- "Create a Folder Tree" (on page 149)
- "Create a Folder" (on page 149)
- "Create a Folder Inside a Folder " (on page 149)

Create a Folder Tree

You can create a Folder tree in the KPI Library pane.

To create a Folder tree, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.
2. You must work with the KPI Library pane, so if necessary, click the **Toggle side-by-side view** button to display the **KPI Library** pane.
3. Click the **Manage Library tree** button in the KPI Library toolbar and select the **Create tree** option in the menu that opens.
4. The **Create Library Tree** dialog box open. Enter the name of the tree you want to create and click **OK**. The new tree is displayed in the KPI library.

   Note: The new tree it empty until you add to it a Folder. The tree then becomes a Folder tree and you cannot add Scorecards to the tree. If you add a Scorecard to the empty tree, it becomes a Scorecard tree and you cannot add Folders to the tree.

Create a Folder

You can create a Folder in a Folder tree in the KPI Library pane.

To create a Folder, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.
2. You must work with the KPI Library pane, so if necessary, click the **Toggle side-by-side view** button to display the **KPI Library** pane.
3. Select the relevant Folder tree in the **Show:** list.
4. To create the Folder, do one of the following:
   - Select the tree root, and click the **Create a new node** button in the KPI Library toolbar, and select the **Folder** option.
   - Right-click the tree root, and select the **Create new > Folder** menu option.

   The new folder is added to the relevant location and its properties are displayed in the Configuration details tab.
5. Enter the Folder properties in the Configuration details tab and click **Create**. For details, see "Configuration Details Tab for a Folder" (on page 153).

Create a Folder Inside a Folder

You can create a Folder inside a Folder, if the parent Folder does not already include KPI templates.

To create a Folder inside a Folder, proceed as follows:

1. Click the **Studio** button (top right corner) to open the Studio.
2. You must work with the KPI Library pane, so if necessary, click the **Toggle side-by-side view** button to display the **KPI Library** pane.
3. Select the relevant tree in the **Show:** list.
4. Do one of the following:
   - Select the parent Folder, and click the **Create a new node** button in the KPI Library toolbar, and select the **Folder** option.
   - Right-click the parent Folder, and select the **Create new > Folder** menu option.

   The new folder is added under the parent Folder and its properties are displayed in the Configuration details tab.
5. Enter the Folder properties in the Configuration details tab and click **Create**. For details, see "Configuration Details Tab for a Folder" (on page 153).

How to Display and Modify a Folder Properties

With the cursor on the Folder in the KPI Library pane, you can enter the new Folder's properties, or edit the properties of an existing Folder, in the Configuration Details tab.

1. Select the Folder in the KPI Library pane. The Configuration details page is displayed.
2. Enter the relevant details about the Folder and click the **Save** button to save the changes. For details, see "Configuration Details Tab for a Folder" (on page 153).

   You can then populate the Folder with KPI templates. For details, see "How to Populate a Folder with KPI Templates" (on page 150)

How to Populate a Folder with KPI Templates

You can assign a KPI template to a Folder. You can also unassign a KPI template from a Folder.

This section includes the following tasks:

- "Assign a KPI template to a Folder " (on page 150)
- "Unassign a KPI template from a Folder" (on page 151)

Assign a KPI template to a Folder

1. In the KPI Library pane, select the relevant Folder.
2. In the Configuration Details tab, click the **Add KPI Template** link.
3. In the **Assign KPI Templates to Folder** dialog box, move the relevant KPI template from the **Available KPI templates** area to the **Assigned KPI templates** area.
4. Click **OK**. The **Assign KPI Templates to Folder** dialog box closes.
5. The KPI template 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 KPI LIbrary pane is refreshed and the changes are displayed.

Unassign a KPI template from a Folder

1. In the KPI Library pane, select the relevant Folder.
2. In the Configuration Details tab, click the **Manage KPI Assignments** link.
3. In the **Assign KPI template to Folder** dialog box, move the relevant KPI from the **Assigned KPI templates** area to the **Available KPI templates** area.
4. Click **OK**. The **Assign KPI Template to Folder** dialog box closes.
5. The KPI immediately disappears from the KPIs table. The **Save** and **Discard** buttons are enabled. To save the changes click **Save**
6. The tree in the KPI Library pane is refreshed and the changes are displayed.

Note: You can also unassign a KPI template, by moving the cursor above the relevant row in the Assigned KPIs area. The **Unassign** text changes into the **Unassign** button. Click the **Unassign** button to unassign the KPI. To save the changes you must save the Folder by clicking **Save**

Learn About Folders

Folders are used as containers (organizers) for the KPI templates. You usually use Folders when you do not work with Scorecards.

You can create Folders inside Folders. You populate Folders with either KPI templates or with Folders (not both). The same KPI template can belong to more than one Folder.

You can create new Folders, edit their properties, add KPI templates to the Folders or add Folders to Folders, and you can remove Folders.

For task details, see "Use Folders and KPIs to Create the Dashboard Contents" (on page 148).

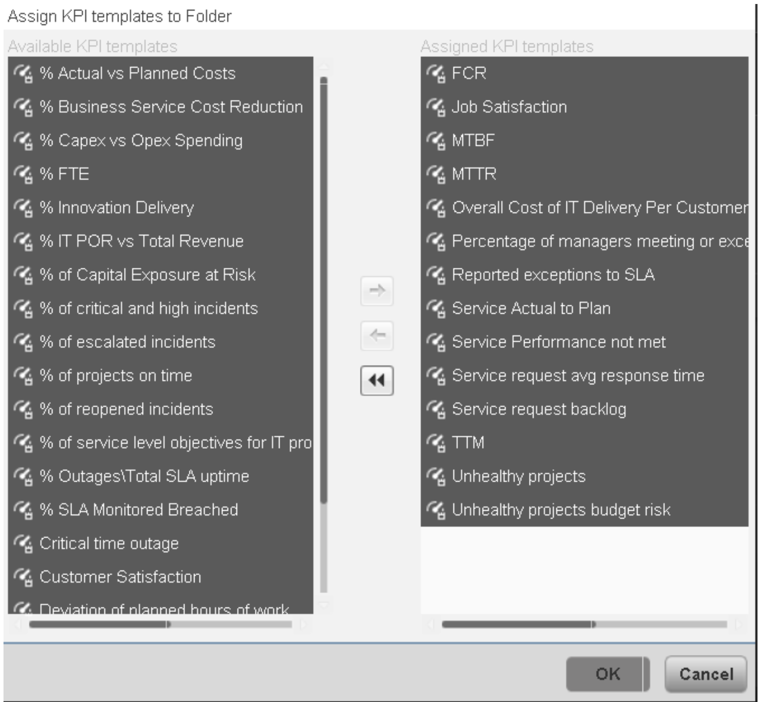
For user interface details, see "Configuration Details Tab for a Folder" (on page 153) or "Assign KPI template to Folder Dialog Box" (on page 151).

Create and Manage Folder User Interface

This section includes (in alphabetical order):

Assign KPI template to Folder Dialog Box

This dialog box enables you to assign KPI templates to the selected folder.



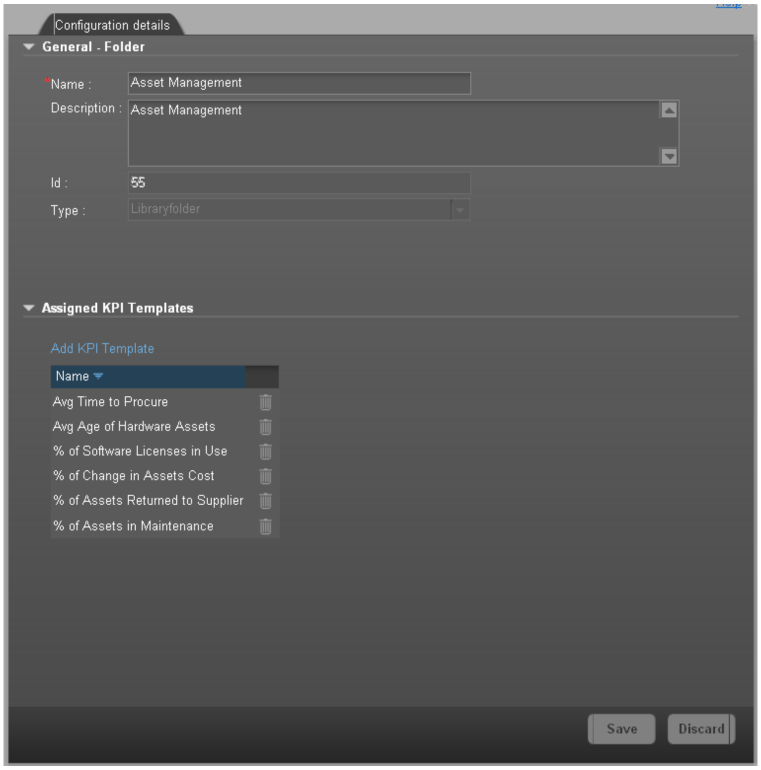
To access	In the Configuration details tab for a Folder, click the **Add KPI template** link.
Relevant tasks	"How to Populate a Folder with KPI Templates" (on page 150)

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

UI Element	Description
Available KPI templates	Lists the KPI templates available to be assigned to the Folder.
Assigned KPI templates	Lists the KPI templates that you want to assign to the Folder.
	Select the relevant KPI template and move it to the relevant field using the buttons.
OK	Click to assign the selected KPI templates. The list of templates in the Assigned KPI Templates area is immediately updated. The **Save** and **Discard** buttons become enabled. To save the changes you must save the Folder by clicking **Save**

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 KPIs to Create the Dashboard Contents" (on page 148)

General Information

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

UI Element	Description
<Areas>	"General - Folder" (on page 153) "Assigned KPIs" (on page 154)
Save	Click to save the changes.
Discard	Click to discard the changes you have made since the last Save operation.

General - Folder

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

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Name</td><td>The name of the Folder.
Limitations: The characters: \ / : * ? " < > | are not supported. The maximum number of characters is 250.</td></tr>
<tr><td>Description</td><td>The description of the Folder.
Limitations: The maximum number of characters is 1000.</td></tr>
<tr><td>Id</td><td>The ID number of the Folder. It is automatically assigned.
Note: 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.</td></tr>
<tr><td>Type</td><td>The type of the Folder. It is automatically assigned.
Note: 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.</td></tr>
</table>

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
Manage KPI Template Assignments	Click to open the **Assign KPI template to Folder** dialog box where you can assign the relevant KPIs to the current Folder. For details, see "Assign KPI template to Folder Dialog Box" (on page 151).
Name	The table lists the KPIs templates assigned to the Folder.
Unassign	Unassign is disabled. When you move the mouse over the row, the text changes into a button. Click the button to unassign the KPI. The list of templates in the Assign KPIs area is immediately updated. The **Save** and **Discard** buttons becomes enabled. To save the changes you must save the Folder by clicking **Save**.

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 157).

This section includes the following topics:

"How to Perform a Calculation After Configuration Change" (on page 155)

"How to Perform a Recalculation" (on page 156)

"Learn About Calculation and Recalculation" (on page 157)

"Recalculate Displayed Values User Interface" (on page 157)

How to Perform a Calculation After Configuration Change

This task includes the following steps:

- "Prerequisite" (on page 155)
- "Calculate for the current period" (on page 155)
- "Results" (on page 156)

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 or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

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 157).

   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 156)
- "Recalculate historical information" (on page 156)
- "Results" (on page 157)

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 or a KPI Template" (on page 109) or "Calculation Details Tab" (on page 105).

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 158).

   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.

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 160).

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 155).
- **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 155).

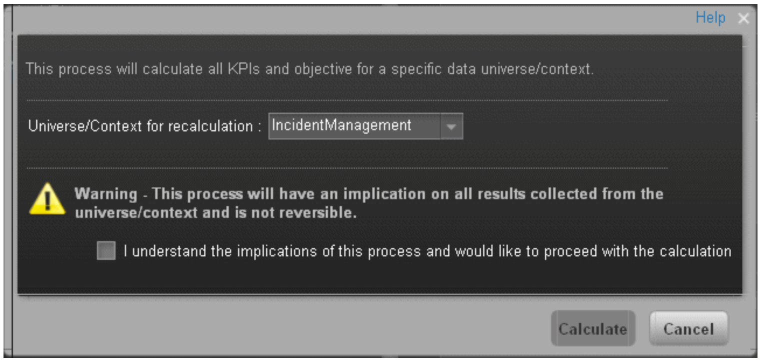
Note: When you change a KPI's formula, filter, or thresholds, you can test that the changes are valid. For details, see "How to Test Changes Made to a KPI Configuration" (on page 126).

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.



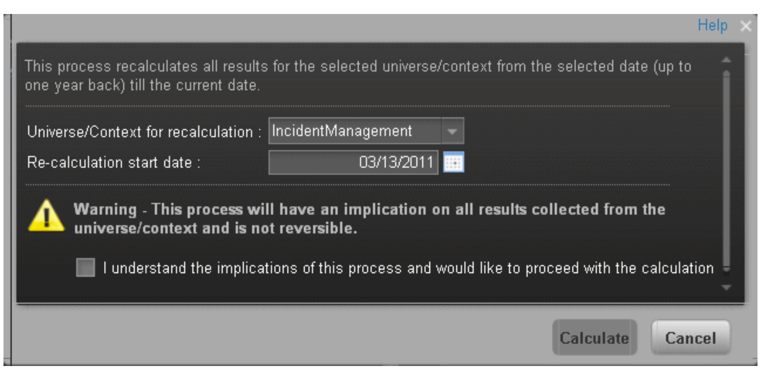
To access	Select the relevant KPI, click the **Calculation options** button, and select the **Calculate now** option, in the Active KPIs pane.
Relevant tasks	"Recalculate Displayed Values after Configuration Change" (on page 155)

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 155).

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 155)

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 155).

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" (on page 160)

"Business Context Calculation Scheduling Dialog Box" (on page 160)

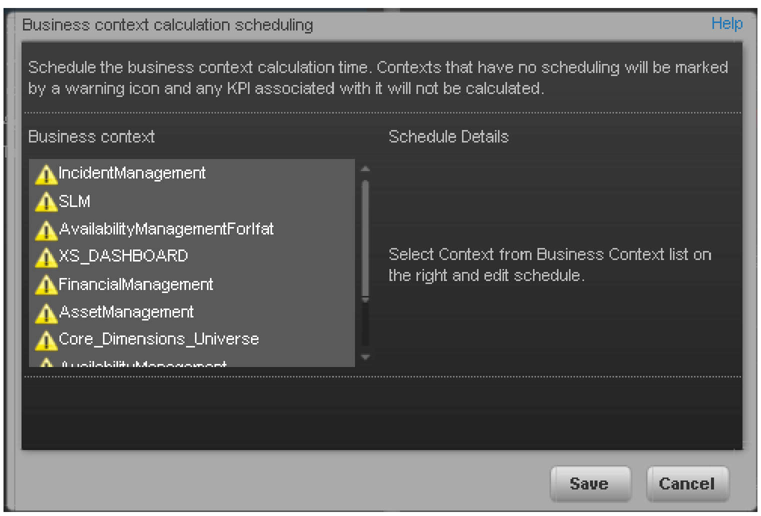
How to Schedule Calculations

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 160).
   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

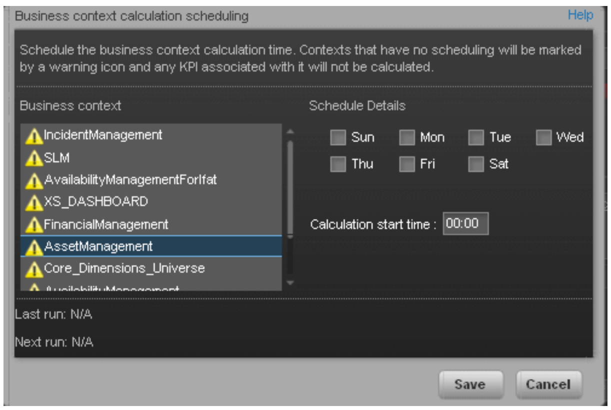
This dialog box enables you to specify how to recalculate all results for the selected universe/context from the selected date (up to one year back) till the current date.



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 160)

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

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" (on page 173).
- 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 163) or "How to Create a Breakdown KPI of a Breakdown KPI" (on page 163)
- 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 "How to Manage Overrides" (on page 168) or "Learn about Overrides" (on page 168).
- 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" (on page 171).

Create and Manage Breakdown KPIs

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

For concept details about Breakdowns, see "Learn About Breakdown KPIs" (on page 164).

This section includes the following topics:

How to Create a Breakdown KPI

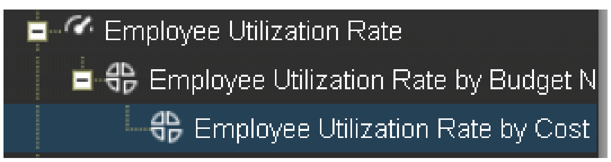
You can create and manage Breakdowns for a KPI.

For concept details about Breakdowns, see "Learn About Breakdown KPIs" (on page 164).

To create a KPI 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 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.

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 163).



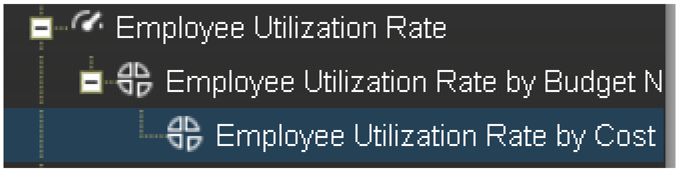
How to Create a Breakdown KPI of a Breakdown KPI

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

For concept details about Breakdowns, see "Learn About Breakdown KPIs" (on page 164).

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.



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 KPI that has child Breakdown KPIs, these Breakdown KPIs are also deleted after you confirm the action.
3. Confirm the deletion when you are prompted to do so.

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 KPI Breakdowns depending on the definition of the KPI and on the KPI's 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 of KPIs 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).

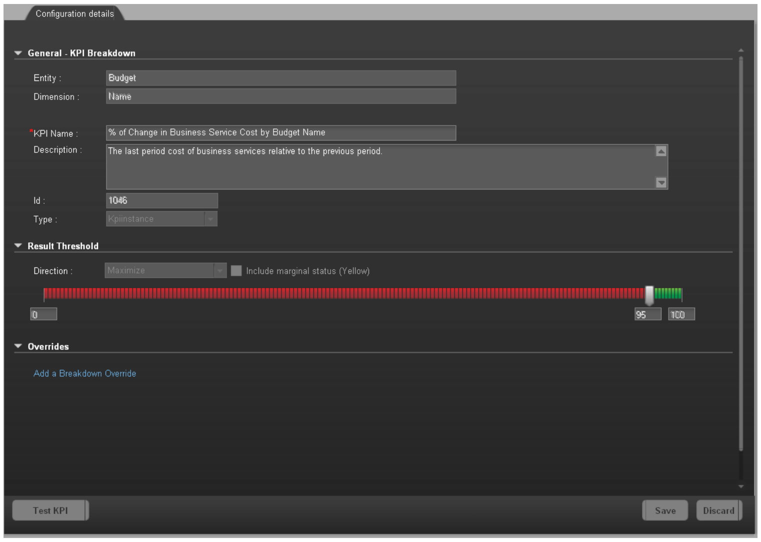
Note: When you configure the breakdown you are locking the context of the KPI for which you are creating the Breakdown because the Breakdown inherits the definitions of the KPIs (for example, the Period definition). You cannot specify a different definition for the Breakdown, and you cannot change the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

For task details, see "Create and Manage Breakdown KPIs" (on page 162).

For user interface details, see "Configuration Details Tab for a Breakdown KPI" (on page 165).

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 164).



To access	Select a Breakdown KPI in the Active KPIs pane.
Important information	"Learn About Breakdown KPIs" (on page 164)
Relevant tasks	"Create and Manage Breakdown KPIs" (on page 162)

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 166) "Result Threshold" (on page 166)"Configuration Details Tab for a Breakdown KPI" (on page 165) "Overrides" (on page 167)"Configuration Details Tab for a Breakdown KPI" (on page 165)
Test KPI	**Note:** The button is disabled for Breakdown KPIs.
Save	Click to save the changes.

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

General - KPI Breakdown

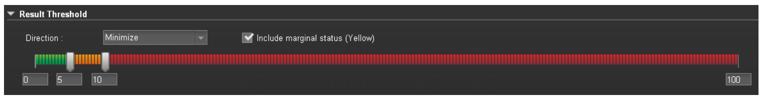
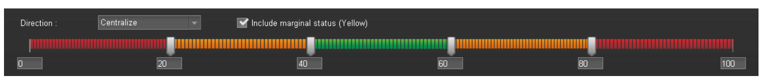
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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 type of the parent KPI. It is automatically assigned. **Note:** 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. **Note:** 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 or a KPI Template" (on page 109). **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.
Threshold	Displays the threshold values selected for the parent KPI. For details, see " Configuration Details Tab for a KPI or a KPI Template" (on page 109).

UI Element	Description
	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, and Score" (on page 116). **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 or a KPI Template" (on page 109). 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 169).
Name	The name of the override you just created. Its format is: <KPI_name>: <result_kpi_to_override>

UI Element	Description
	
	**Edit.** Click to edit the selected override. For details, see "Add or Edit a Breakdown Override Dialog Box" (on page 169).
	**Remove.** Click to delete the selected override.

Manage Overrides

This section includes the following topics:

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 can also have 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 "Learn about Overrides" (on page 168).

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 169)
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.

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 164).

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.

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:

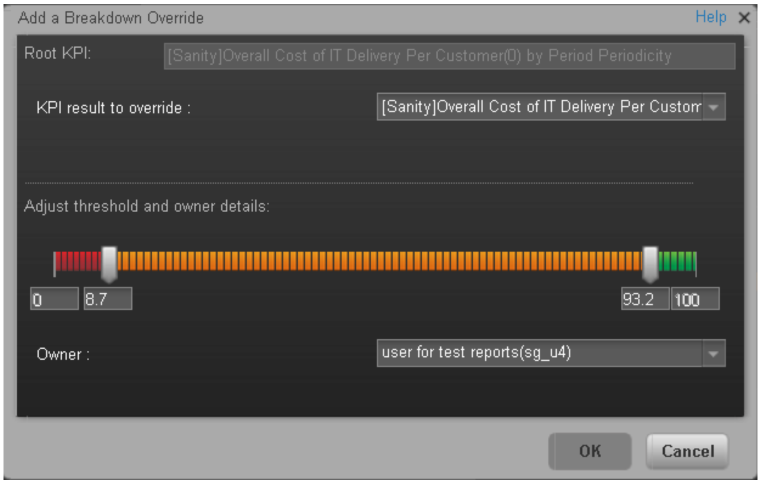
- MTTR
- MTTR New
  - MTTR New High
  - MTTR New Medium
  - MTTR New Low
- MTTR Open
  - MTTR Open High
  - MTTR Open Medium
  - MTTR Open Low
- MTTR Fixed
  - MTTR Fixed High
  - MTTR Fixed Medium
  - MTTR Fixed Low
- MTTR Closed
  - MTTR Closed High
  - MTTR Closed Medium
  - MTTR Closed Low

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

As you can specify a different threshold or owner to Breakdown KPIs, 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.

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 168).



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 **Result KPI 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 168)

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 and owner details	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 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.

UI Element	Description
	For details on statuses, see "Learn About KPI Formula and Filter,Threshold, Value, and Score" (on page 116).
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:

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 172).
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 284).

Learn About a KPI or Objective Additional Information

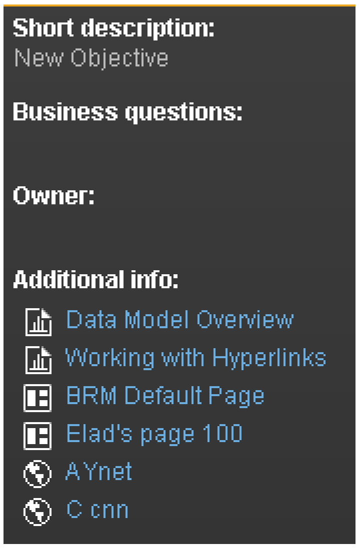
You can add information to a KPI or to an Objective configuration. That information can be a link to:

- 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 171).

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 260) or "Objective Tooltip" (on page 263)

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 171)

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. 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:

"How to Create Cascading Scorecards" (on page 173)

"Learn About Cascading Scorecards" (on page 174)

"Manage Cascading Scorecards Dialog Box" (on page 177)

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 174).

This section includes the following topics:

- "Configure the Cascading Scorecards for a Scorecard" (on page 174)
- "Remove a Cascading Scorecard" (on page 174)

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:

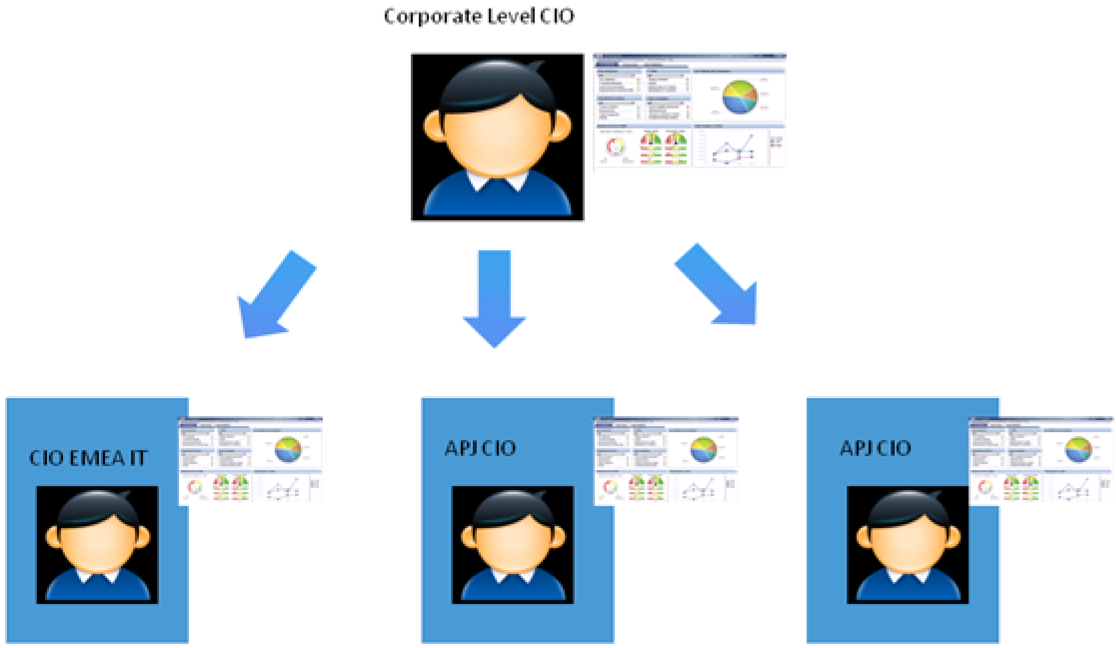
1. In the Active KPIs pane, select the parent Scorecard.
2. In the corresponding **Configuration Details** pane, in the **Manage Cascading Scorecards** area, click the **Remove**  button of the relevant Cascading Scorecard.
   The Cascading Scorecard is immediately removed from the list in the **Manage 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**.

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.

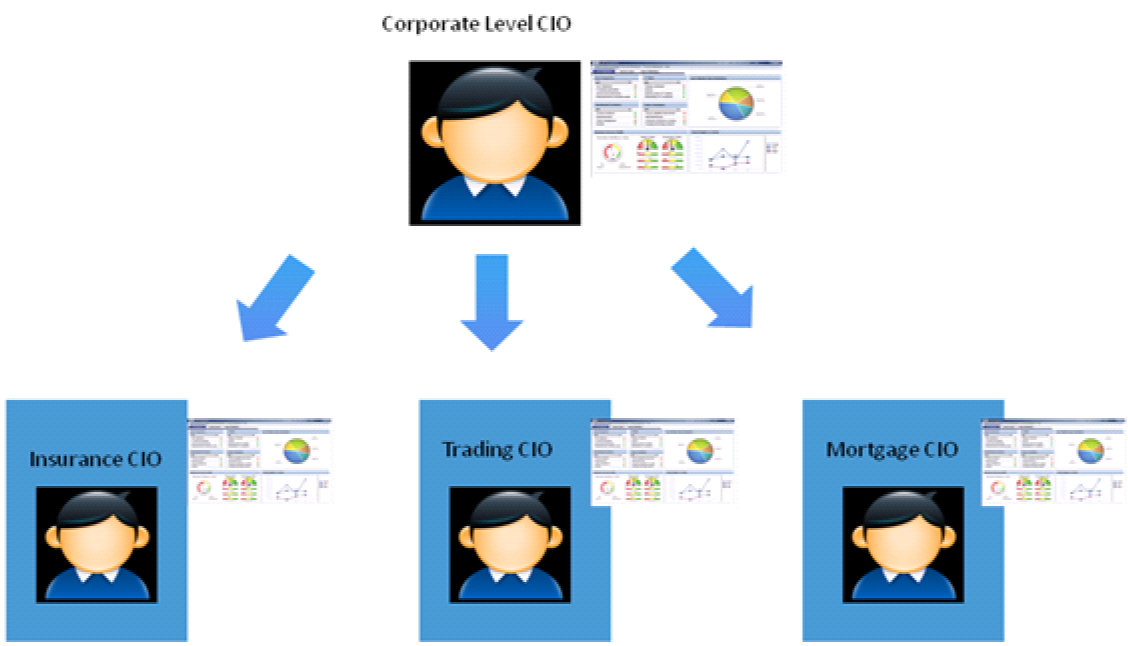
Geographical Distribution.

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.



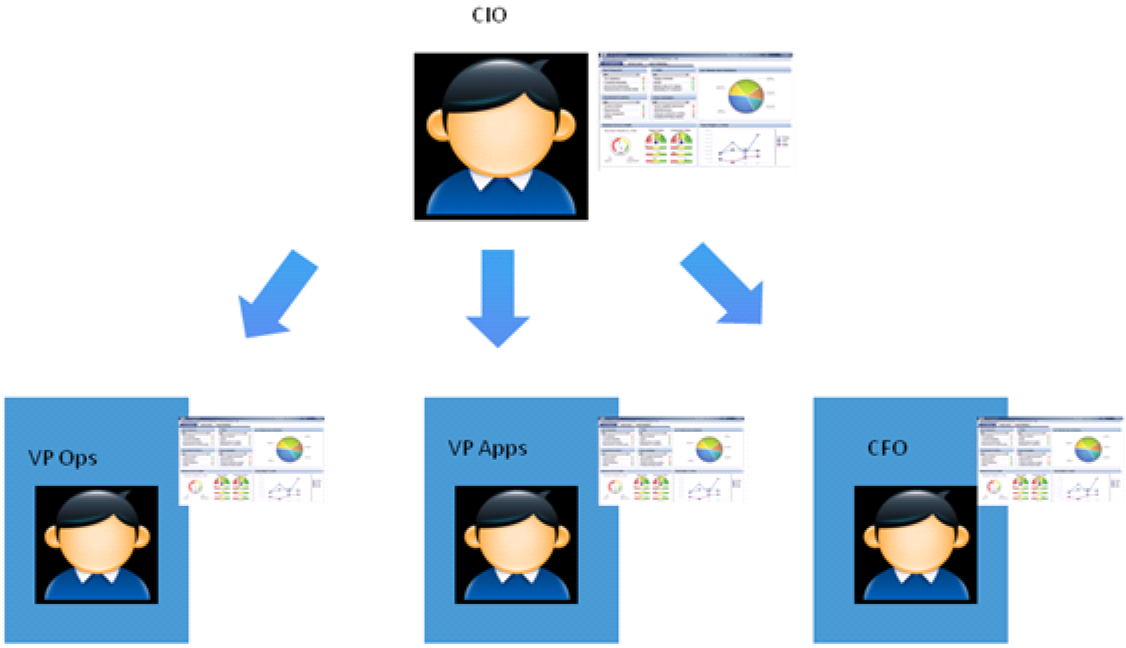
Functional Distribution of IT.

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.



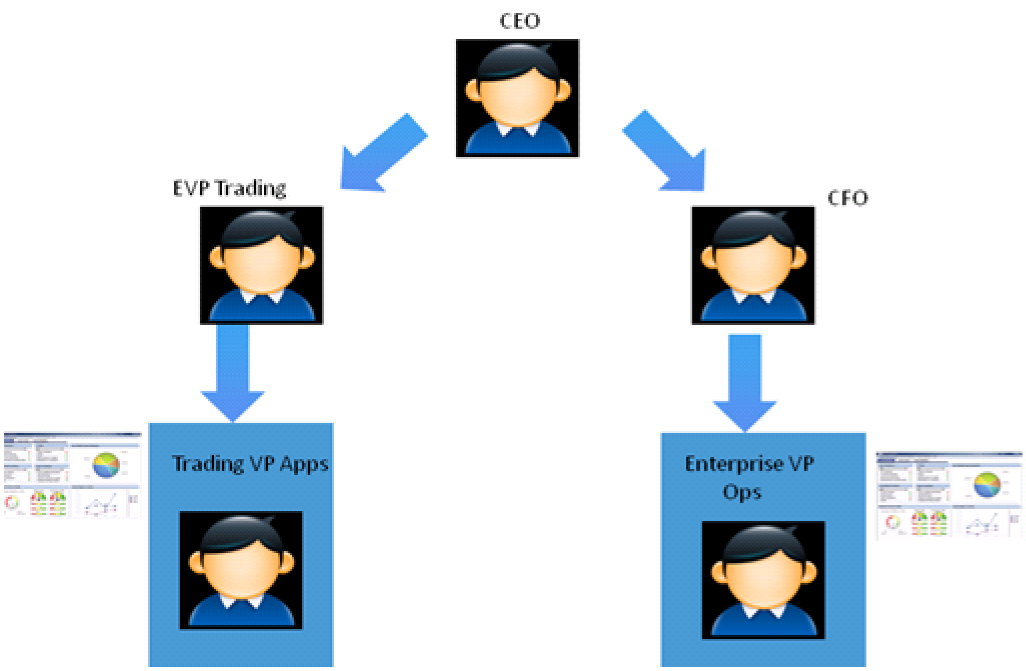
Organizational Distribution of IT.

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.

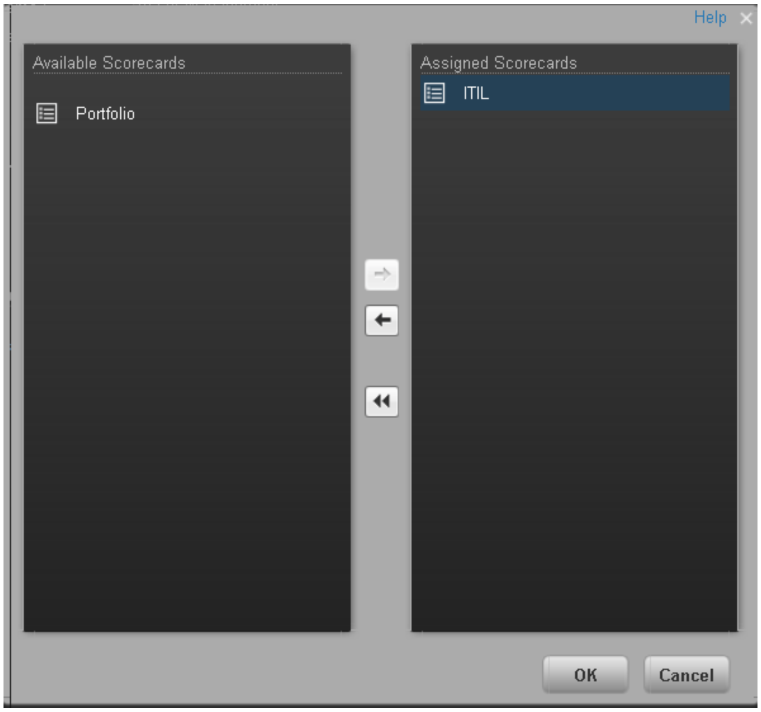


For task details, see "How to Create Cascading Scorecards" (on page 173).

For user interface details, see "Manage Cascading Scorecards Dialog Box" (on page 177) or "Configuration Details Tab for a Scorecard or a Scorecard Template" (on page 96).

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 173)

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:

How to Add a Business Context to the Studio

A KPI's 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

1. Make sure you have modeled the data structure in your database.
2. Add the universe using the BO Designer.
3. Publish the universe to the Studio library according to the Universe Creation Guidelines. For details, see "Reference: Universe Creation Guidelines" (on page 179).
4. To load the universe to the Studio library you can do one of the following:
   - Run the JMX reload metadata.
      i. Make sure you have JDK installed.
      ii. Run **jconsole** in the **Start** menu.
      iii. In the window that opens, select the **Remote Process** option, enter **<host_name>:<port_number>** and click **Connect**.
      iv. After the application completes its loading, click the **MBeans** tab.
      v. Click **com.hp.btoe.studio.jmx**.
      vi. Click **reload**.
   - Restart the server on which the Studio is loaded.
   - Wait 24 hours for an automatic update..
5. You can now design active or template entities, create the formulas and filters for the KPIs, and more.

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.

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 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 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 "Reference: Universes (Contexts)" (on page 16) and "Reference: KPIs" (on page 24).

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.

Reference: Universe Creation Guidelines

This section explains how you can create Universes that can be used by the HP 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.

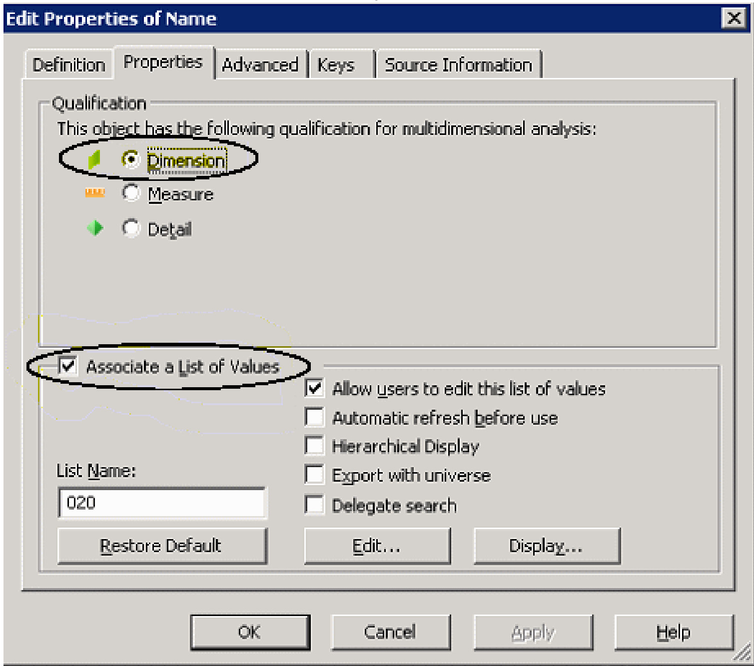
Limitations

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.

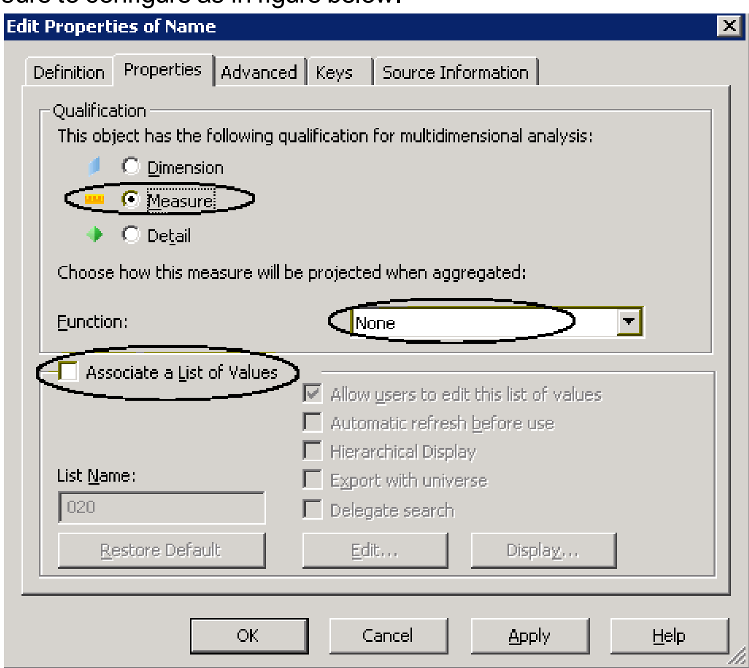
Field Types

- **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:

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 260).
- Adding pages. For details, see "How to Add a Page to the Dashboard" (on page 186).
- Customizing pages by adding or removing out-of-the-box components. For details, see "Add Components to a Page User Interface" (on page 202).
- Creating components and adding them to pages. For details, see "How to Add Components to a Dashboard Page" (on page 201).
- Setting up wiring between components. For details, see "How to Set Up Wiring Between Components" (on page 247).
- Create new components. For details, see "How to Create an External Component" (on page 240).

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.

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 260).

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 186).

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 295).

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 189) or "How to Configure Page Layout – Use-Case Scenario" (on page 189).

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 202). 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 240).

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 247).

Personalization

You can personalize a page by adding a picture of the page owner. For details, see "How to Personalize the Dashboard" (on page 251).

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 Modify Page Categories" (on page 183)

"Page Gallery Dialog Box" (on page 185)

How to Open a Page

Dashboard is provided with default pages. For details, see "View and Analyze Results User Interface" (on page 260). 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 in the Dashboard toolbar, and in the Page Gallery that opens, right-click the page and select **Open page** option. You can also double-click the relevant page or click the page thumbnail and then the **Open page** button in the Page Gallery toolbar.
  For details on how to use the Page Gallery, see "Page Gallery Dialog Box" (on page 185).

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** button, select the page, and delete it.

For user interface details, see "Page Gallery Dialog Box" (on page 185).

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 185).

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:

"Create a New Category" (on page 184)

"How to Rename a User-Defined Category" (on page 198)

"How to Delete a User-Defined Category" (on page 198)

"How to Assign a Page to a Category" (on page 184)

"How to Modify the Category Assignments of a Page" (on page 184)

"Page Gallery Dialog Box" (on page 185)

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 Category

To rename a user-defined 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 Category

To delete a user-defined 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

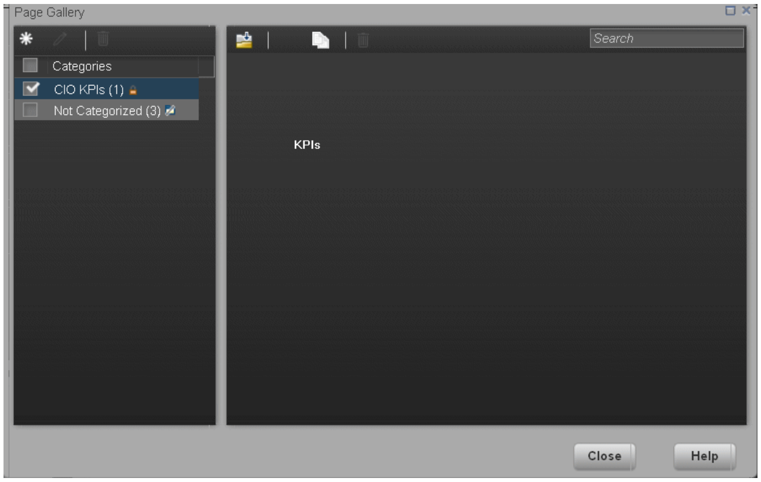
To assign a page to a category, right-click the page and select the **Categorize** (page or component) option. In the Categorize Page dialog box that opens, select one or more categories to which you want to assign the page or component, and click **OK**.

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

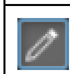
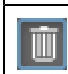
This dialog box enables you to select a page and open it in the Dashboard workspace, and to manage the Page Gallery. Within the Page Gallery, pages are assigned to categories. You can add, edit, or delete page categories; assign pages to categories; and open, edit, or delete pages.



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 181)

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 184).
	**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. • A lock icon following the category name shows that the category is a default category, and cannot be renamed or deleted.

	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	Type 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" (on page 186)

"Save to Page Gallery Dialog Box" (on page 187)

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 260). 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.

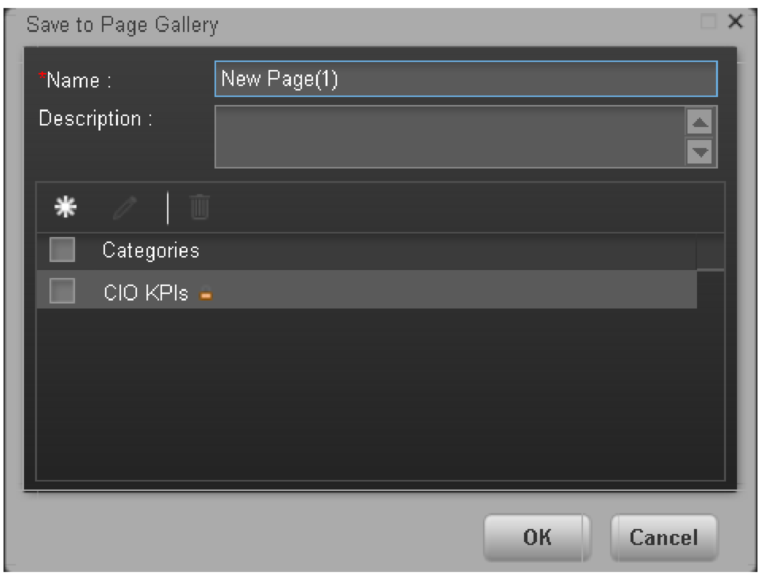
To add a page, you can:

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 189).
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 187).
   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 185).

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 181)

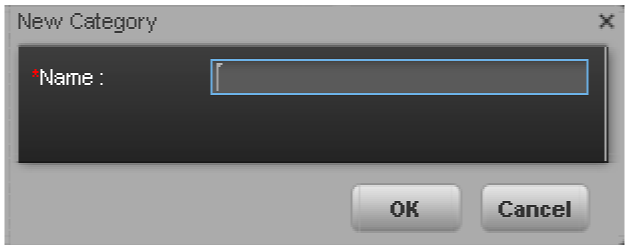
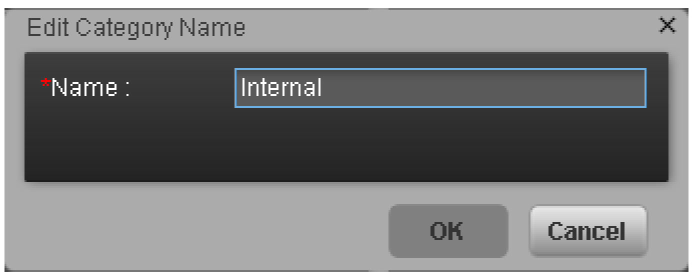
User interface elements are described below:

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):

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>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.

</td></tr>
<tr><td></td><td>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.

</td></tr>
<tr><td></td><td>Delete Category. Select the relevant category, and click the button to delete it.</td></tr>
<tr><td><List of categories></td><td>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.</td></tr>
</table>

Configure a Page Layout

This section includes the following topics:

"How to Configure a Page Layout" (on page 189)

"How to Configure Page Layout – Use-Case Scenario" (on page 189)

"Dashboard Workspace" (on page 193)

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 193)..

For an example of defining layout, see "How to Configure Page Layout – Use-Case Scenario" (on page 189).

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.

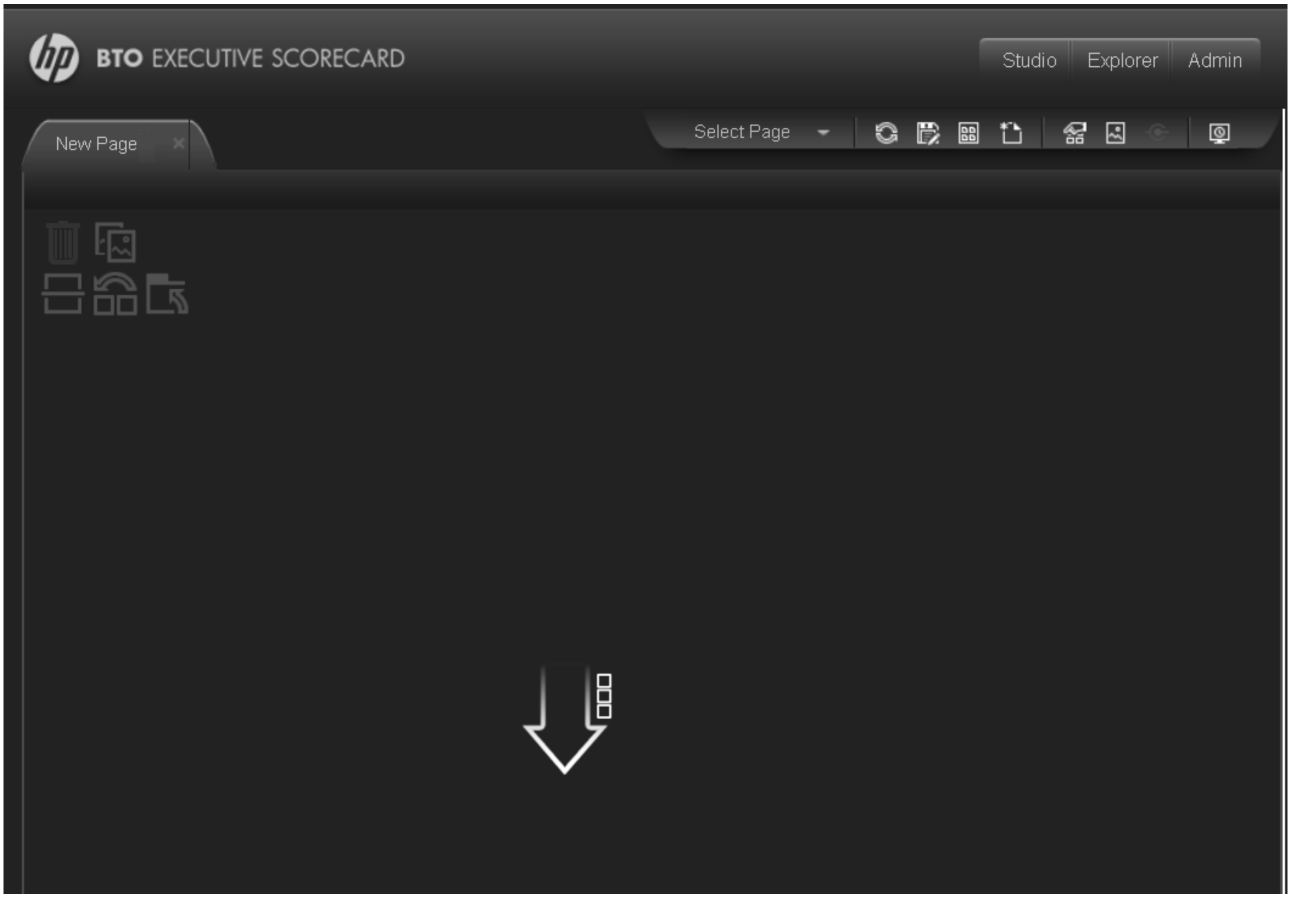
It is recommended that you plan in advance which components you want to place on your page and how they should be arranged, and then configure your page layout accordingly.

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.

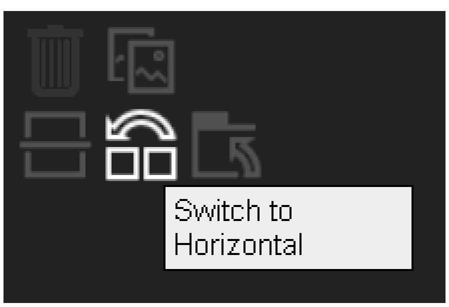
Open a page

Adam opens a new page, which has a single vertical layout by default:

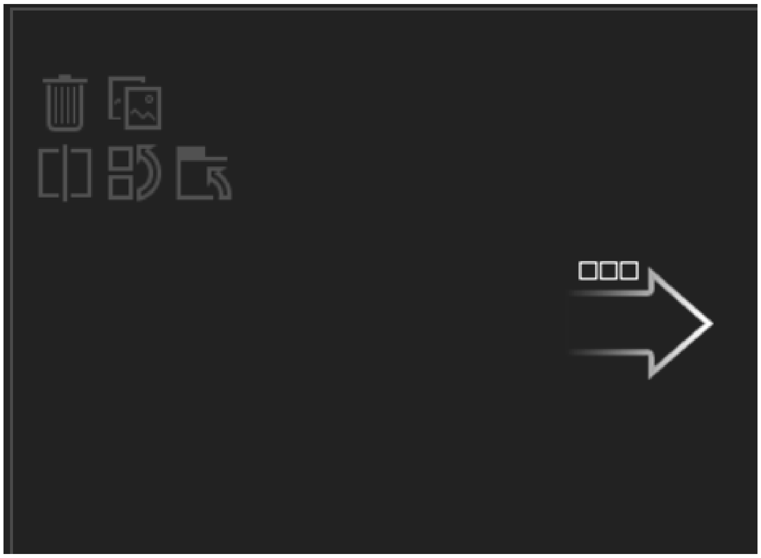


Switch the page layout to horizontal

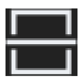
From the layout tools in the upper left area, he clicks **Switch to Horizontal**.



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

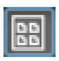
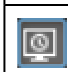
The Dashboard workspace enables you to view default pages, and to create new pages containing components. Each page is displayed as a tab within the workspace.

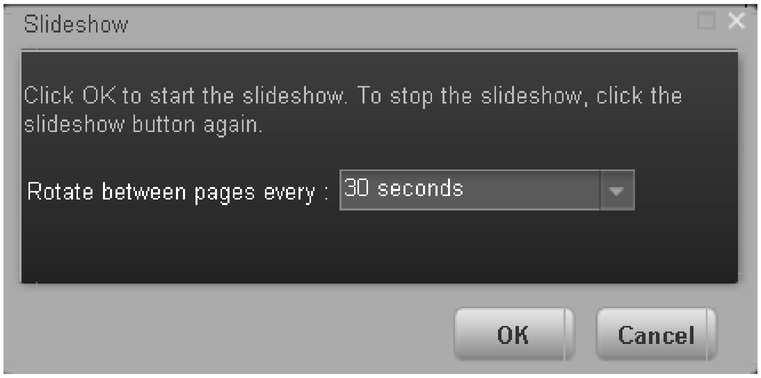
To access	Dashboard is displayed when you log in HP Executive Scorecard. You can also access the display by closing the other tabs.
Important information	For a list of default pages, see "View and Analyze Results User Interface" (on page 260). For a list of default components, see "Add Components to a Page User Interface" (on page 202).
Relevant tasks	"How to Configure a Page Layout" (on page 189)

Page Management Toolbar

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.

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

UI Element	Description
<Page Selector>	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 185).
	**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 186).
	**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 195). **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 199).
	**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 249).
	**Start/Stop Slideshow**. Click to start a slideshow of open pages. A dialog box enables you to define how often the pages are rotated.

<table>
<tr>
<td></td>
<td>


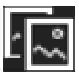
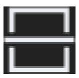
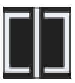
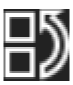
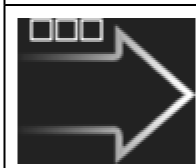
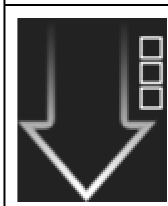
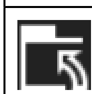
If Dashboard includes multiple pages, up to 5 of the most popular pages are immediately available for display when you switch to them. The other pages are least viewed pages, meaning that are silently deactivated in the background. When you select them, it might take a few seconds until they load and display their content.

If a slideshow is running, click this button to stop the slideshow.
</td>
</tr>
</table>

Layout Tools

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.

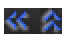
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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 199).
	**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

The component toolbar on the upper right of each component enables you to administer the component.

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 249). • **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" (on page 197)

"How to Add Components to a Dashboard Page" (on page 201)

"Add Components to a Page User Interface" (on page 202)

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 199).

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" (on page 198)

"How to Rename a User-Defined Category" (on page 198)

"How to Delete a User-Defined Category" (on page 198)

"How to Assign a Component to a Category" (on page 199)

"How to Modify Category Assignments of a Component" (on page 199)

"Component Gallery Dialog Box" (on page 199)

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** 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** 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 Category

To delete a user-defined 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 Component to a Category

To assign a component to a category, select it and select the **Categorize** 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** 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

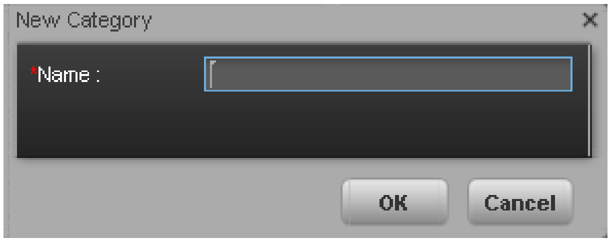
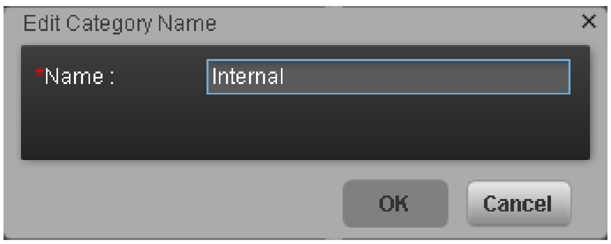
Use the dialog box to add components to a page in the Dashboard.

To access	In the Executive Dashboard, click the **Components** button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

Left Pane

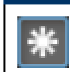
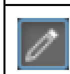
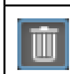
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

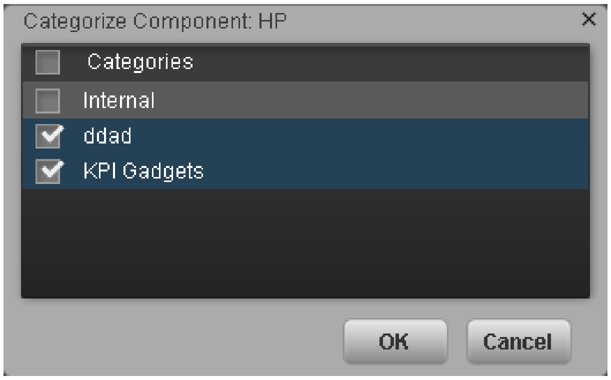
UI Element	Description
	New category. Click to create a new category. The New Category dialog box opens where you can enter the name of a new category and click **OK** to save it.

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 pane lists the categories. **Note:** • When you select/clear **Categories** all categories are selected/unselected. •  indicates that you cannot edit the corresponding category.

Right Pane

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

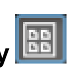
UI Element	Description
	**Add External Component.** Click to add an external component to the gallery of components. The New Component dialog box opens. For details, see "New/Edit Component Dialog Box" (on page 242).
	**Edit Component Properties.** Select the relevant component, and click the button 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 242).
	**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

UI Element	Description
	where you can select one or more categories. 
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 202). 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 199).
   - 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 220).
   - Historical View component. For details, see "Historical View Component" (on page 206).
   - KPI Rolodex component. For details, see "KPI Rolodex Component " (on page 226).
   - KPI View component. For details, see "KPI View Component" (on page 215).
   - Scorecard component. For details, see "Scorecard Component" (on page 230).
   - Web Intelligence Full Report Viewer component. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).
   - Xcelsius Report component. For details, see "Xcelsius Report Viewer Component" (on page 236).
   - Web Intelligence Static Report Viewer component. For details, see "Web Intelligence Static Report Viewer (Display)" (on page 239).
5. In the component, click the **Filter** button:
   - KPI List component filter. For details, see "KPI List - Configure Component Dialog Box" (on page 218).
   - Historical View component filter. For details, see "Historical View Component Filter Dialog Box" (on page 203).
   - KPI Rolodex component. For details, see "KPI Rolodex - Configure Component Dialog Box" (on page 223).
   - KPI View component. For details, see "KPI View - Configure Component Dialog Box" (on page 210).
   - Scorecard component. For details, see "Scorecard - Configure Component Dialog Box" (on page 228)"Scorecard Component" (on page 230).
   - Web Intelligence Full Report Viewer component. For details, see "Web Intelligence Full Report Viewer - Configure Component Dialog Box" (on page 233)"Web Intelligence Full Report Viewer Component" (on page 234)
   - Xcelsius Report component. For details, see "Xcelsius Report Viewer - Configure Component Dialog Box" (on page 235).
   - Web Intelligence Static Reports Viewer component. For details, see "Web Intelligence Static Report Viewer - Configure Component Dialog Box" (on page 238).
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):

"KPI List - Configure Component Dialog Box" (on page 218)

"KPI List Component" (on page 220)

"KPI Rolodex - Configure Component Dialog Box" (on page 223)

"KPI Rolodex Component " (on page 226)

"Scorecard - Configure Component Dialog Box" (on page 228)

"Scorecard Component" (on page 230)

"Web Intelligence Full Report Viewer - Configure Component Dialog Box" (on page 233)

"Web Intelligence Full Report Viewer Component" (on page 234)

"Xcelsius Report Viewer - Configure Component Dialog Box" (on page 235)

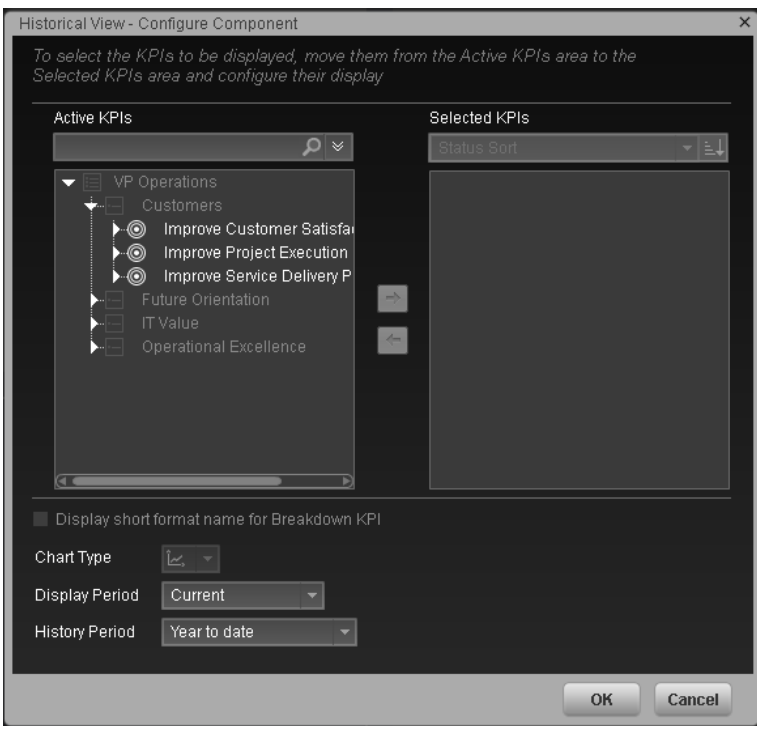
"Xcelsius Report Viewer Component" (on page 236)

"Web Intelligence Static Report Viewer - Configure Component Dialog Box" (on page 238)

"Web Intelligence Static Report Viewer (Display)" (on page 239)

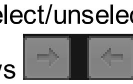
Historical View Component Filter Dialog Box

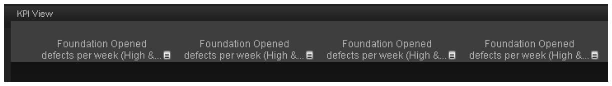
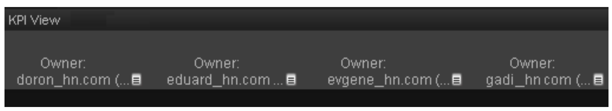
Use the dialog box to configure the Historical View Component component displayed in the Dashboard.



To access	In the Historical View component in the Dashboard, click the **Filter** button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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

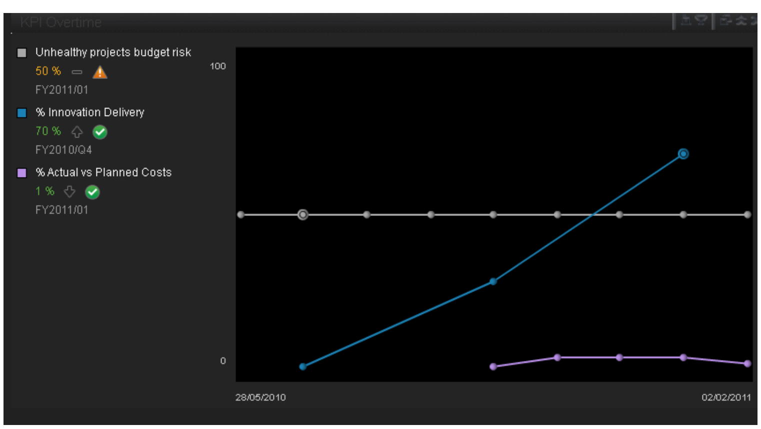
UI Element	Description
<Search>	Enter the relevant string to display, in the tree, only the KPIs whose name includes the string. In addition, the child KPIs of the filtered KPIs are also listed even when the child KPIs names do not include the string.
	**Expand the query.** Opens additional fields to 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 KPIs you want to display in the report, use the right and left arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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 KPIs you want to display in the report, use the right and left arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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.

UI Element	Description
	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 "Learn About Breakdown KPIs" (on page 164).
Chart Type	The **line chart** option is the only available option.
Display Period	Select to display, in the component, for the KPIs selected to be displayed in the report, one of the following options: • **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:

UI Element	Description
	• **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. • **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
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

Component Toolbar

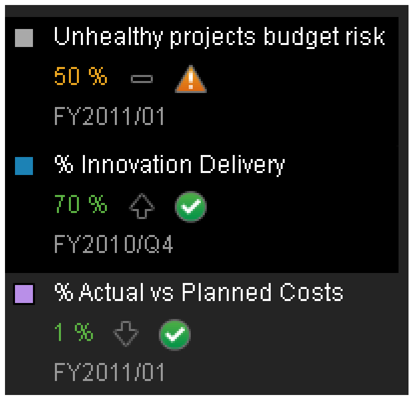
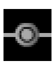
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

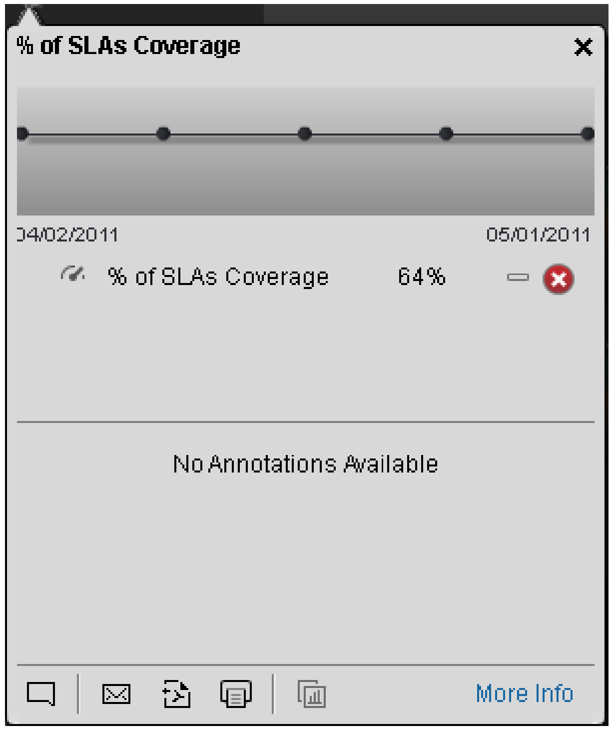
UI Element	Description
	Component Menu. Opens a menu where you can select: **Preferences.** Depending on the component you are current configuring, opens the **<component_name> Preferences** dialog box where you can change the name of the component in the page by changing the name in the **Name** field 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 249). **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.
	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

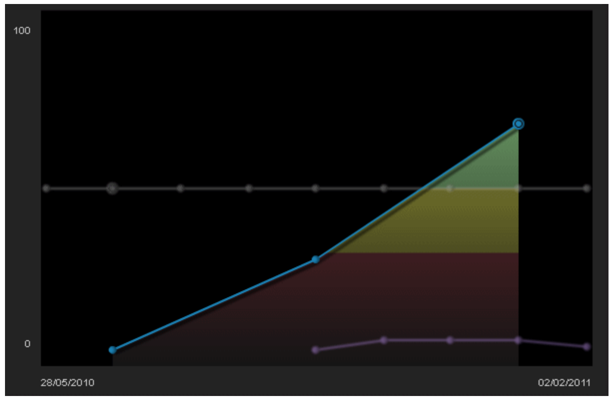
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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.

UI Element	Description
	• 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 annotation information related to the point. For details, see "KPI Tooltip" (on page 260).

UI Element	Description
	 The tooltip displays a maximum of three annotations. If there are more than 3 annotations, the first 2 are displayed followed by **More...**. Click**More...** open the Explorer tab in context, to view the whole list of annotations. For details, see "Explorer Tab" (on page 284).
	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 284).
	(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

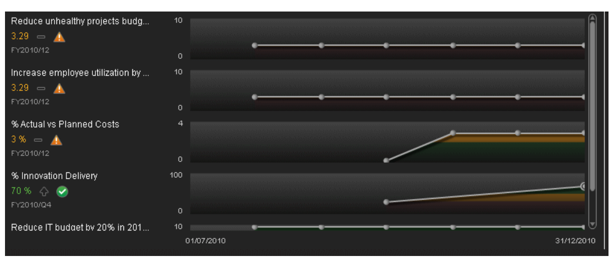
<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>chart into focus and to display the thresholds of the KPI.



</td></tr>
<tr><td><Y-axis></td><td>The Y-axis displays the values of the KPI in the relevant unit.

If the report includes more than one KPI and:

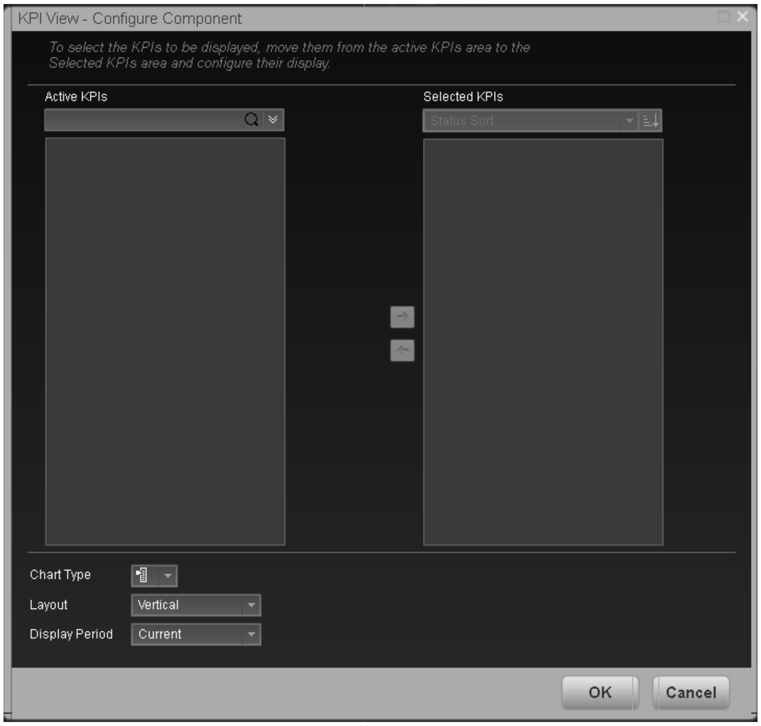
The KPIs all have the same unit, the graph has one Y-axis.
The KPIs have two different units, the graph shows one Y-axis showing one unit on the left, and one Y-axis showing the values in the other unit on the right.
The KPIs have more than three units, the report displays one graph per KPI.



</td></tr>
<tr><td><X-axis></td><td>The X-axis displays the time frame selected for the report, split into equal segments, depending on the For details, see "Historical View Component Filter Dialog Box" (on page 203).</td></tr>
</table>

KPI View - Configure Component Dialog Box

Use the dialog box to configure the KPI View component displayed in the Dashboard.



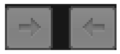
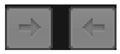
To access	In the KPI View component in the Dashboard, click the **Filter** button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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.

	**Expand the query.** 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 KPIs you want to display in the report, use the right and left

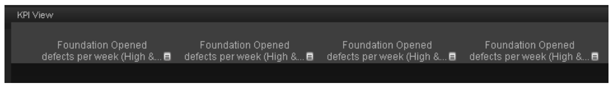
UI Element	Description
	arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI to move it from one box to the other.
Selected KPIs	The right-side box lists all the selected KPIs that you want to display in the KPI Overtime report. To select/unselect the KPIs you want to display in the report, use the right and left arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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.

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Display short format name for Breakdown KPI</td><td>

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.

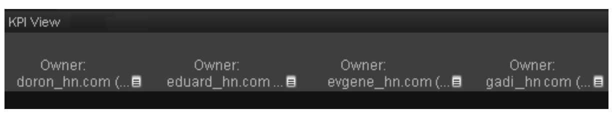
In the Dashboard components, this can cause problems because the complete name of the Breakdown KPI is not displayed.



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.



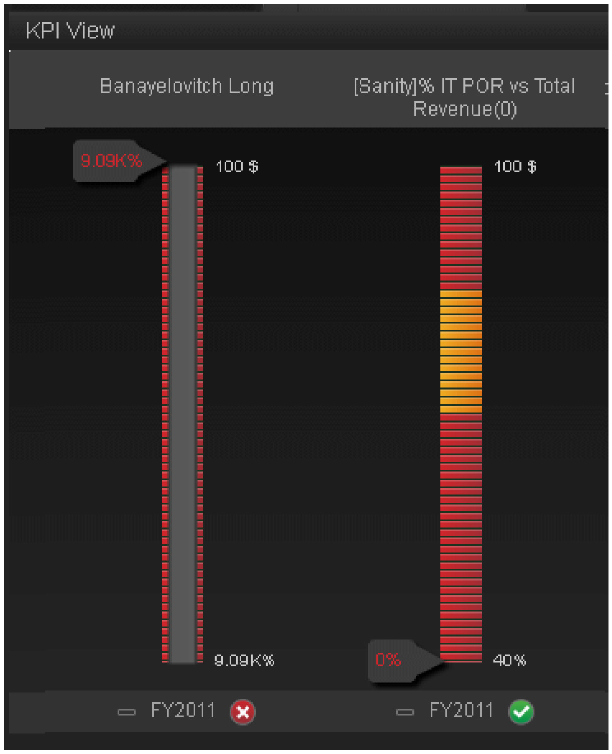
For details on Breakdown KPIs, see "Learn About Breakdown KPIs" (on page 164).

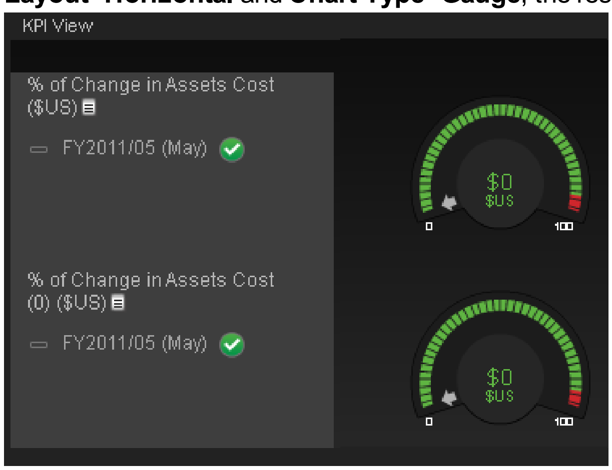
</td></tr>
<tr><td>Chart Type</td><td>

Select one of the following options:

-  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:

</td></tr>
</table>

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>


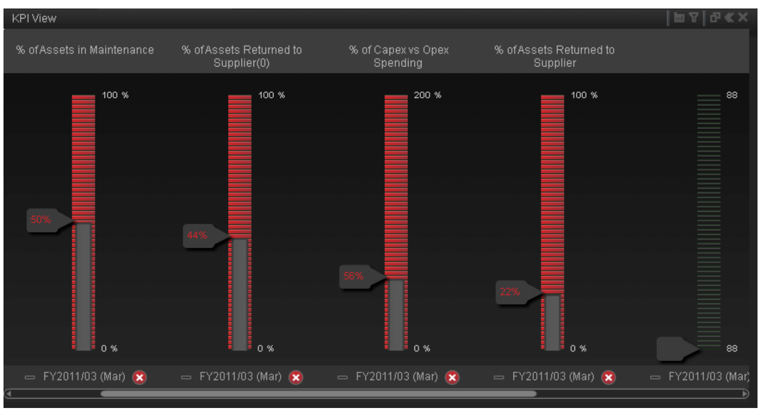
Gauge. The display is a set of gauges, layed out horizontally, or vertically, depending on your selection in the Layout field. For example, when you select Layout=Horizontal and Chart Type=Gauge, the result is as follows:


</td></tr>
<tr><td>Layout</td><td>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.</td></tr>
<tr><td>Display Period</td><td>Select to display, in the component, for the KPIs selected to be displayed in the report, one of the following options:</td></tr>
</table>

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 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.

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"KPI View - Configure Component Dialog Box" (on page 210).
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 249).  **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.
	**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

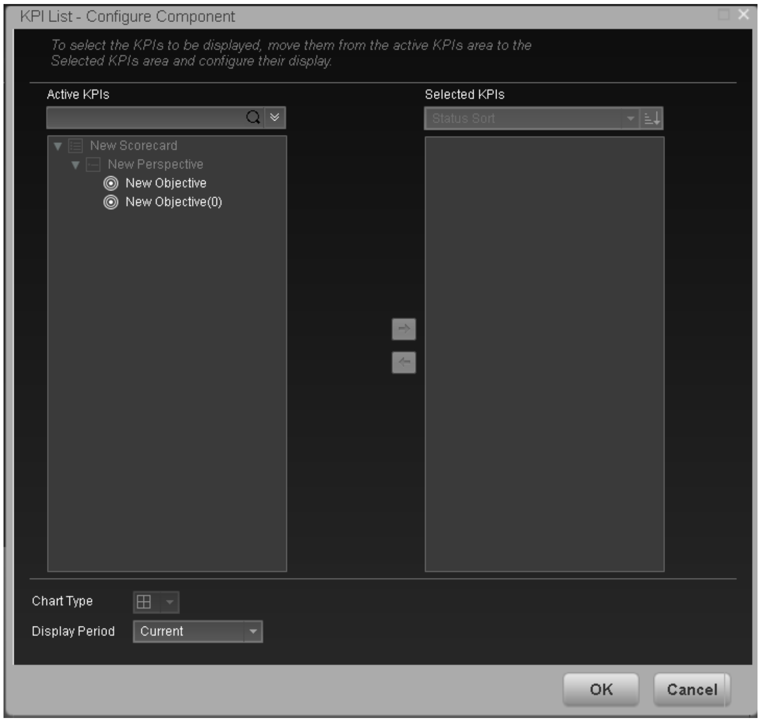
Depending on the configuration you selected in the KPI View - Configure Component dialog box, the KPI View displays a bar or a gauge for each selected KPI.
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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 260).
	• 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.@@@replace picture with one with the icon@@@

KPI List - Configure Component Dialog Box

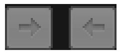
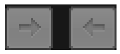
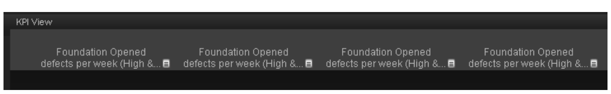
Use the dialog box to configure the KPI List component displayed in the Dashboard.

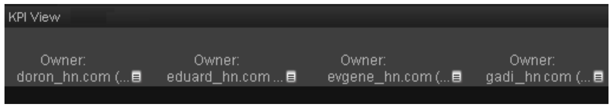


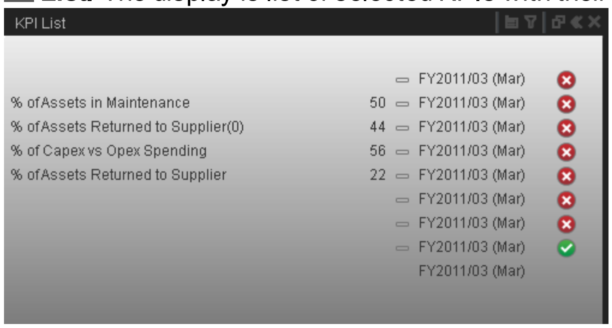
To access	In the KPI List component in the Dashboard, click the **Filter** button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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.
	**Expand the query.** 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.

UI Element	Description
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 KPIs you want to display in the report, use the right and left arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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 KPIs you want to display in the report, use the right and left arrows  to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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.  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.

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>

For details on Breakdown KPIs, see "Learn About Breakdown KPIs" (on page 164). </td></tr>
<tr><td>Chart Type</td><td> One option is available
List. The display is list of selected KPIs with their data, as follows:

</td></tr>
<tr><td>Display Period</td><td> Select to display, in the component, for the KPIs selected to be displayed in the report, one of the following options:

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.
</td></tr>
</table>

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.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 249). **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.
	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>

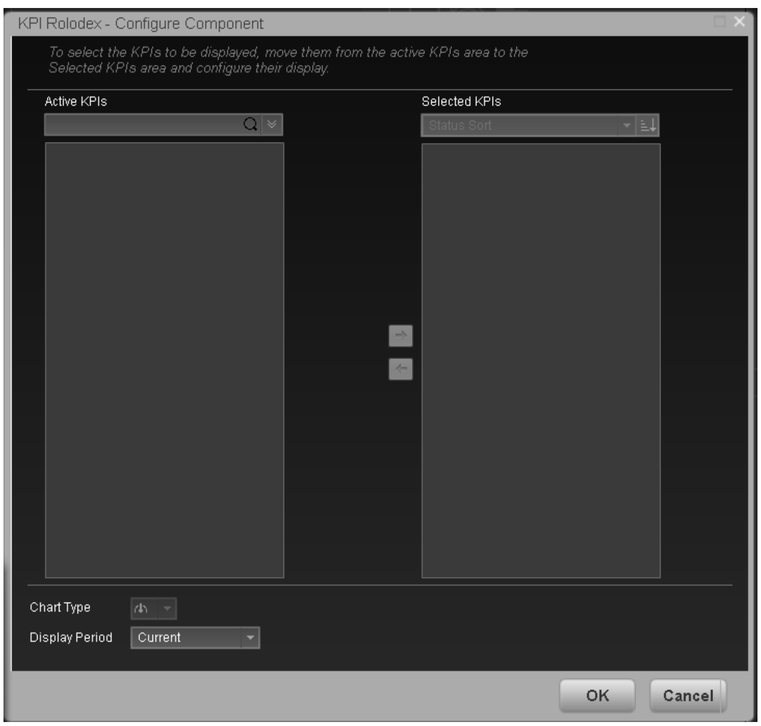
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Component contents>	The following information is displayed for each KPI, from left to right:  • 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 260). • The value of the KPI.

UI Element	Description
	• 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 218). • 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 260).

KPI Rolodex - Configure Component Dialog Box

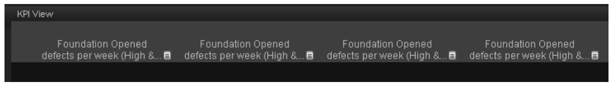
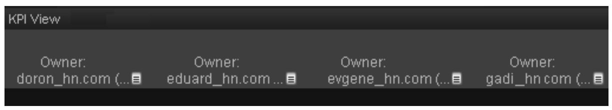
Use the dialog box to configure the KPI Rolodex component displayed in the Dashboard.



To access	In the KPI Rolodex component in the Dashboard, click the **Filter** button.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

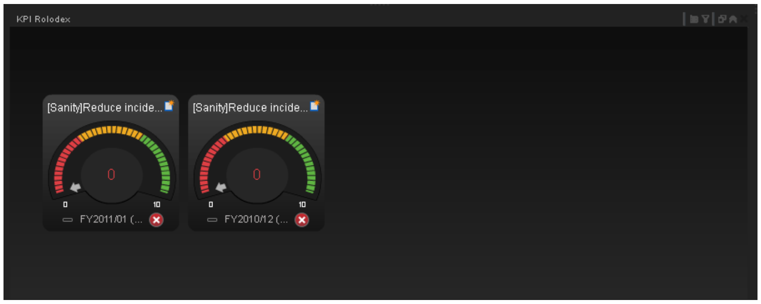
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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.
	Expand the query. 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 KPIs you want to display in the report, use the right and left arrows to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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 KPIs you want to display in the report, use the right and left arrows to move the KPIs from the Available KPIs to the Selected KPIs and back. You can also double-click the KPI 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.

UI Element	Description
	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 "Learn About Breakdown KPIs" (on page 164).
Chart Type	 **Gauge.** The display is a set of gauges, layed out horizontally.
Display Period	Select to display, in the component, for the KPIs selected to be displayed in the report, one of the following options: • **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.

KPI Rolodex Component

The KPI Rolodex component displays the selected 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.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 249). **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 223).
	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>

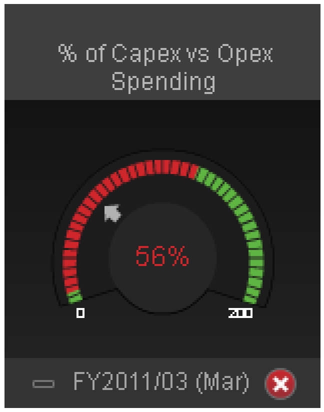
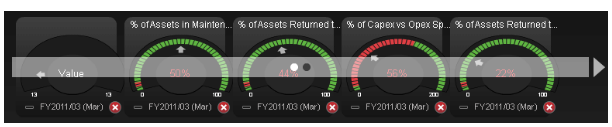
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td><Component contents></td><td>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 223).

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 260).
(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 260).
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.
The icon to the left of the display period indicates the status of the KPI during the display period:

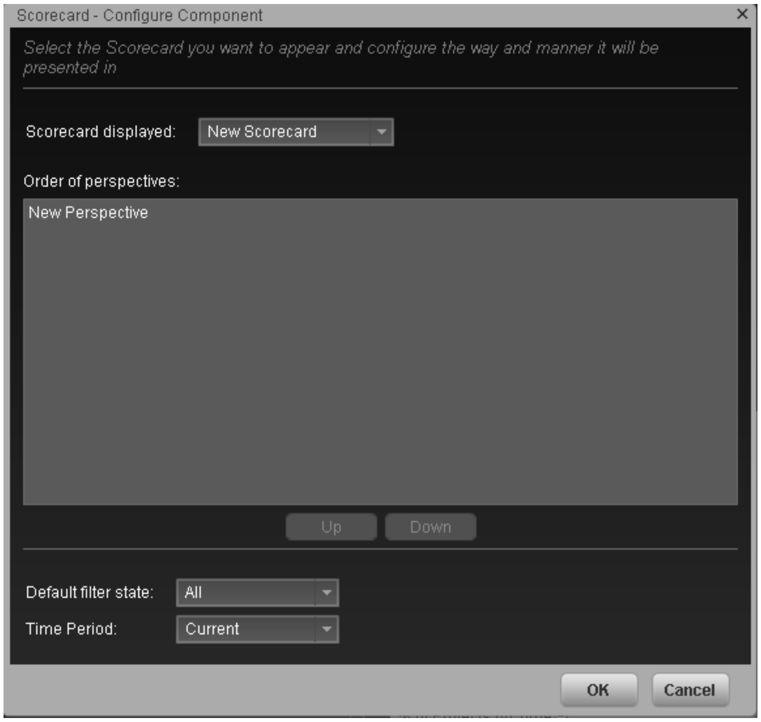
indicates that the status is Good.
indicates that the status is Warning.
indicates that the status is Error.
indicates that status was not calculated or that there was en error in the calculation.

</td></tr>
</table>

UI Element	Description
	
<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 260).
	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 indicate 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.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

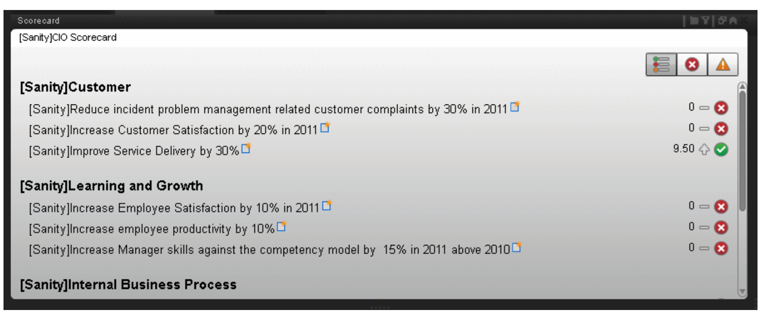
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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: • **All** • **Warning** • **Exception**
Display Period	Select to display, in the component, for the KPIs selected to be displayed in the report, one of the following options: • **Current**. The values of the KPIs whose calculation period has completed as well as, for KPIs whose calculations are still

UI Element	Description
	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.

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.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

Component Toolbar

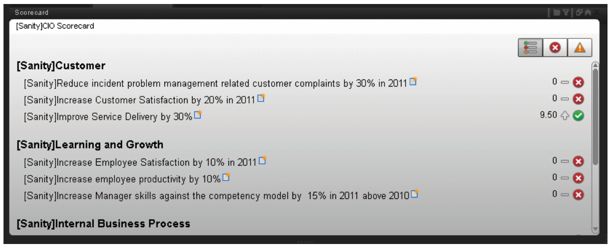
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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 249).  **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 228).
	**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
<Component contents>	The following information is displayed, from left to right:

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>


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 228).
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 263)"KPI Tooltip" (on page 260).
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 en error in the calculation.

</td></tr>
<tr><td></td><td>
Click the left button to display all Objective's statuses (Good, Warning, or Error).

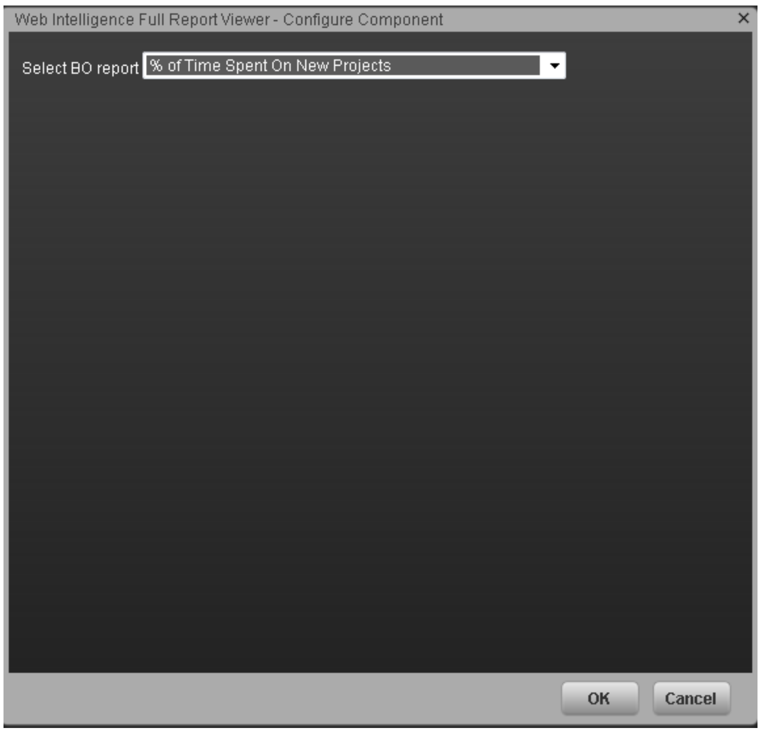
Click the middle button to display only the Objectives with an Error Status.

Click the right button to display only the Objectives with a Warning status.
</td></tr>
</table>

UI Element	Description
	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 228).
<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 263).

Web Intelligence Full Report Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Web Intelligence Full Report Viewer component.



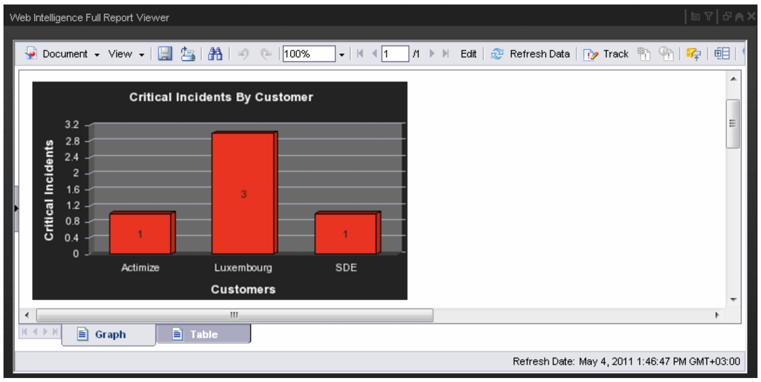
To access	In the Dashboard, in the Web Intelligence Full Report Viewer component click the **Configure Component** button.
Important Information	A Web Intelligence Full Report Viewer component displays only one BO report.If you want to display more than one BO Report in the Dashboard, you can create multiple Web Intelligence Full Report Viewer components and rename each component.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 Full Report Viewer component. For details about the reports, see the *Data Warehouse Admin Guide*.

Web Intelligence Full Report Viewer Component

This component enables the user to view the selected BO report.



To access	In the Dashboard, access the relevant Web Intelligence Full Report Viewer component or a page where the component is located.
Important Information	A Web Intelligence Full Report Viewer component displays only one BO report.If you want to display more than one Web Intelligence Full Report Viewer in the Dashboard, you can create multiple Web Intelligence Full Report Viewer components and rename each component.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

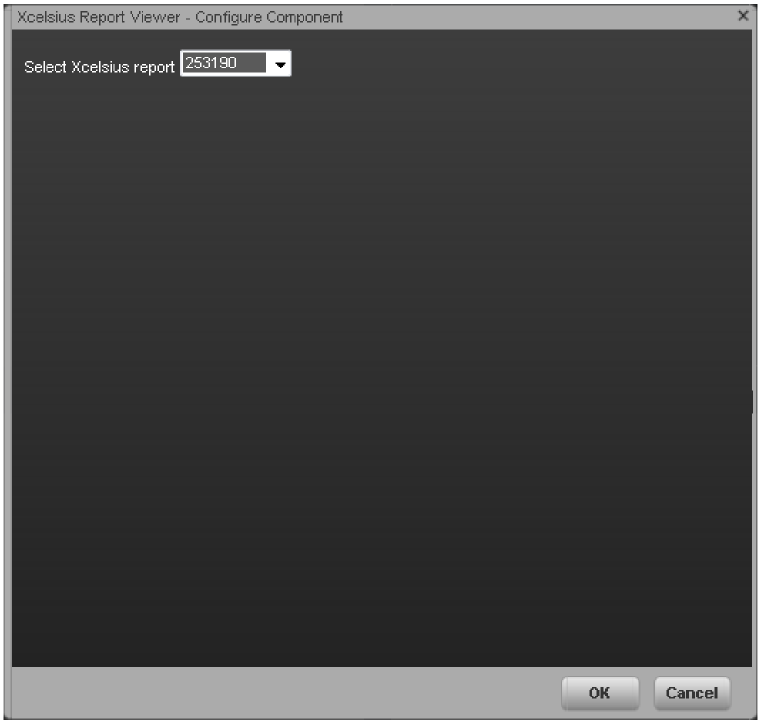
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

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

UI Element	Description
	page 249). **Help**. Opens the online documentation page relevant to the component you are currently configuring.
	Configure Component. Opens the BO Report Viewer - Configure Component dialog box for the relevant component. For details, see "Web Intelligence Full 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 about the reports, see the *Data Warehouse Admin Guide* .

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 **.sxf** suffix. **Note:** To view a list of the available Xcelsius reports, you must copy the reports **.sxf** files to the following location: **<HPXS_home_directory>\agora\Xcelsius** folder.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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.

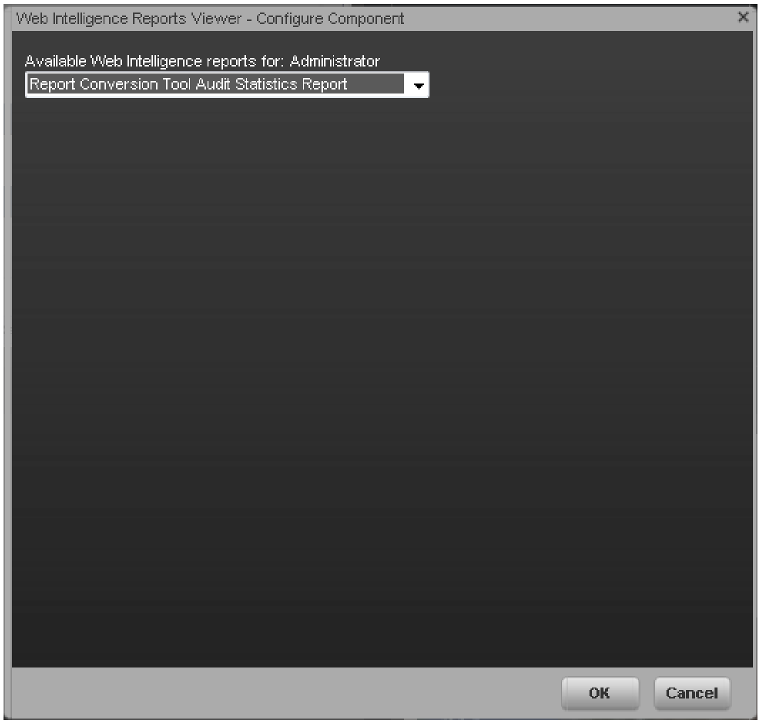
Important Information	An Xcelsius Report component displays only one Xcelsius report.If you want to display more than one Xcelsius Report in the Dashboard, you can create multiple Xcelsius Report components and rename each component. **Note:** To view a list of the available Xcelsius reports, you must copy the reports **.sxf** files to the following location: **<HPXS_home_directory>\agora\Xcelsius** folder.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 249).  **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 235).
	**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*.

Web Intelligence Static Report Viewer - Configure Component Dialog Box

This dialog box enables you to select the relevant report to be displayed in the Web Intelligence Static Report Viewer component.



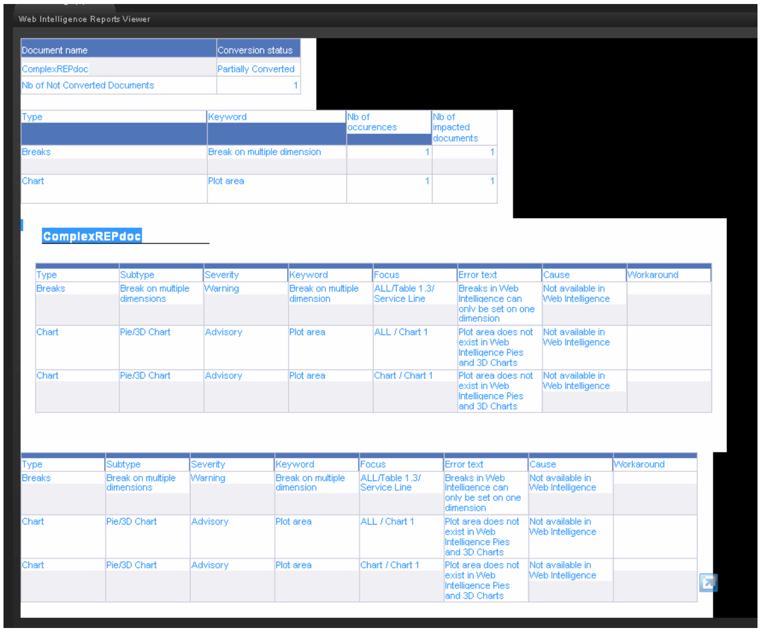
To access	In the Dashboard, in the Web Intelligence Static Reports Viewer component click the **Configure Component** button.
Important Information	A Web Intelligence Static Report Viewer component displays only one BO report.If you want to display more than one BO report in the Dashboard, you can create multiple Web Intelligence Static Report 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 **.sxf** files to the following location: **<HPXS_home_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 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 Viewer component display and graphs are moved to the end of the component display.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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 Viewer component. For details, see the *Data Warehouse Admin Guide*.

Web Intelligence Static Report 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 Viewer component.



To access	In the Dashboard, access the Web Intelligence Static Report Viewer component or a page where the component is located.
Important Information	A Web Intelligence Static 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 Static Report Viewer components and rename each component. You can create your own BO reports using BO and display them in the Web Intelligence Static Report Viewer component. For details, see BO documentation.
Relevant tasks	"How to Add Components to a Dashboard Page" (on page 201)

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:

UI Element	Description
	 **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 249).  **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 235).
	**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 the *Data Warehouse Admin Guide*.

Create an External Component

This section includes the following topics:

"How to Create an External Component" (on page 240)

"New/Edit Component Dialog Box" (on page 242)

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.

For a scenario which shows how to create a component based on a dynamic URL, see "Create a Component Using a Dynamic URL – Use-Case Scenario".

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" (on page 241)
- "Create a dynamic URL" (on page 241)

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 "New/Edit Component Dialog Box" (on page 242).
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.

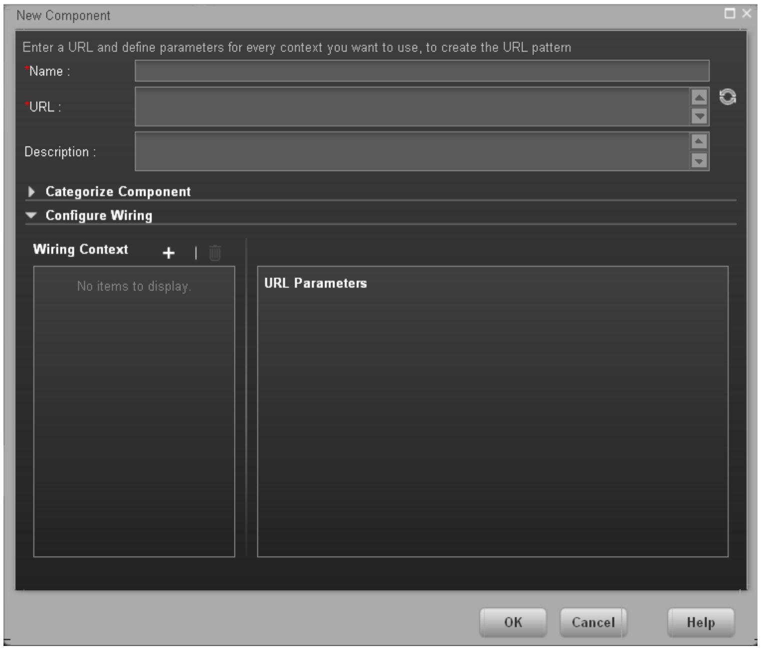
Create a dynamic URL

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 "New/Edit Component Dialog Box" (on page 242).
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

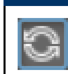
Use the dialog box to create a new Dashboard component or to edit an existing Dashboard component.



To access	In the Component Gallery, click the **Add External Component**  button or select a component and click the **Edit Component Properties**  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 201)

<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.

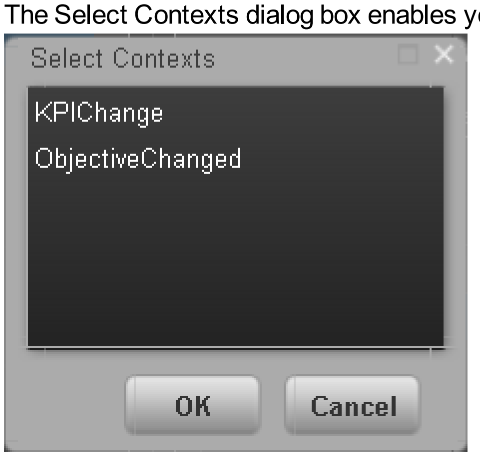
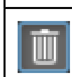
Categorize Component Area

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 "Component Gallery Dialog Box" (on page 199).

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 KPIChange or ObjectiveChanged

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:

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td></td><td>

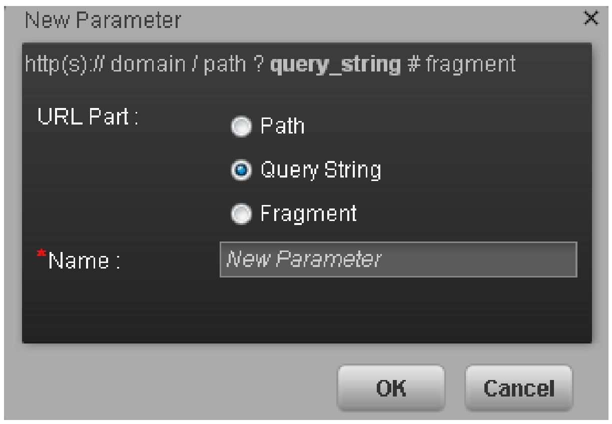
New Parameters. Click to add a URL parameter. Select the area of the URL where you want to add the parameter in the **URL Part**:

Path. The parameter is used in the path part of the URL.

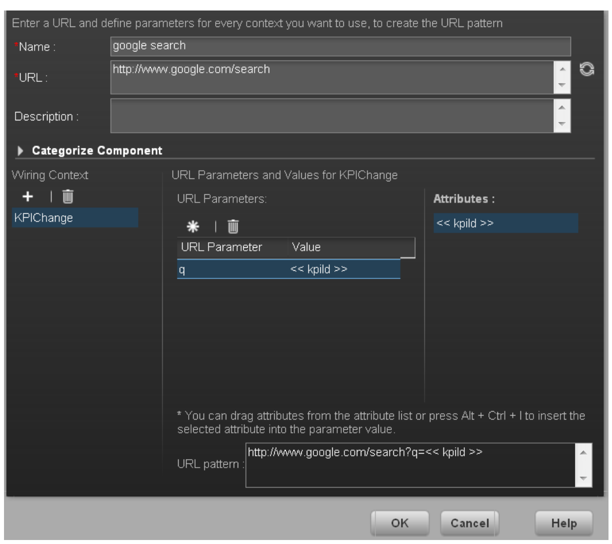
Query String. The parameter is used in the query string of the URL.

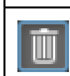
Fragment. The parameter is used in the rest of the URL.

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.

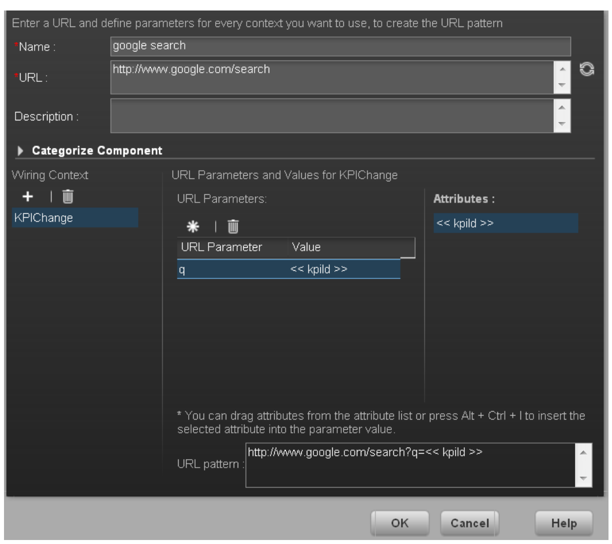


</td></tr>
<tr><td></td><td>

Remove. Select a URL parameter and click this button to remove it from the list.

</td></tr>
</table>

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. **Example:** The result of the creation of a dynamic URL based on http://www.google.com/search?q=.



Set Up Wiring Between Components

This section includes the following topics:

"How to Set Up Wiring Between Components" (on page 247)

"Wiring Dialog Box" (on page 249)

How to Set Up Wiring Between Components

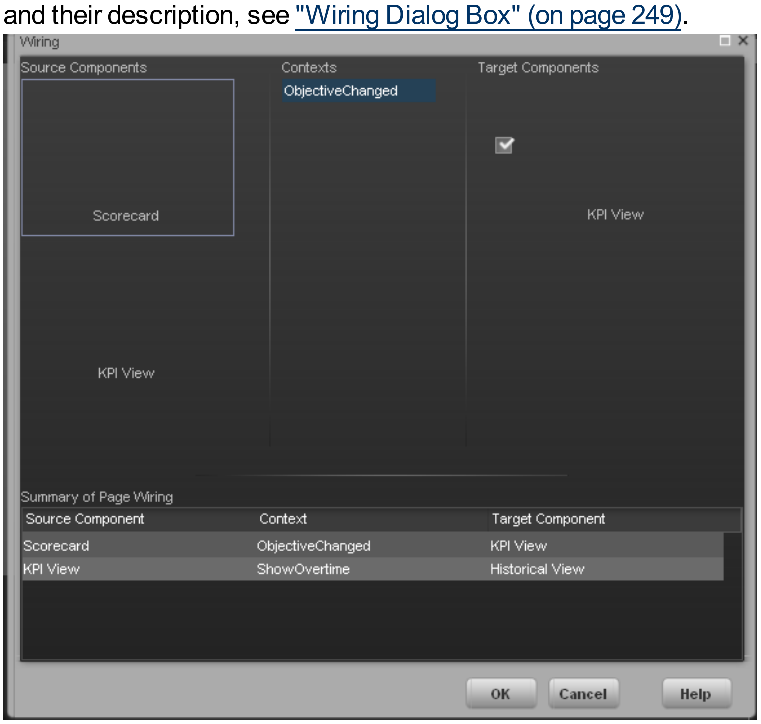
Component wiring defines how the components on the same Dashboard page can interact with each other. When two components are wired and the first component sends a wiring context indicating what has changed in the first component, then the second component responds to this change. For example, the selection 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:

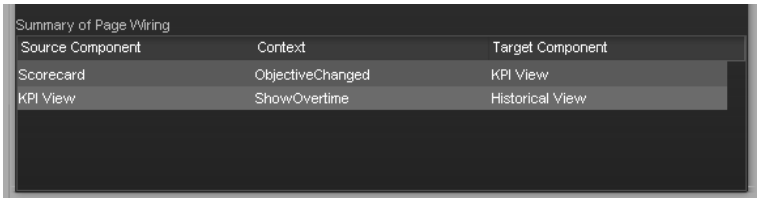
1. In Dashboard, open the relevant page, and click the **Wiring**  button in the Dashboard toolbar. The Wiring dialog box appears. For user interface details, see "Wiring Dialog Box" (on page 249). The Wiring button is usually disabled for out-of-the-box pages that are read-only.
2. The **Source Components** 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 249).



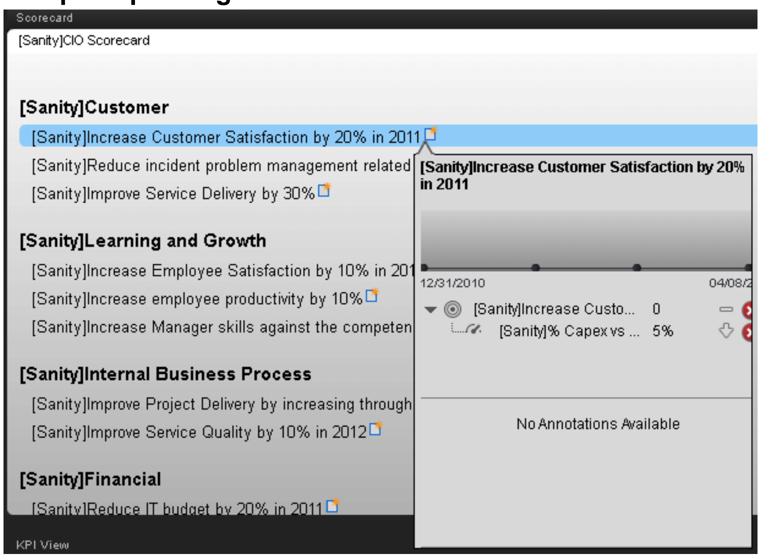
4. In the list of Target Components on the right side of the Wiring dialog box, select one or more component that will receive contexts from the source component. For example, select KPI View.

5. Click **OK**.

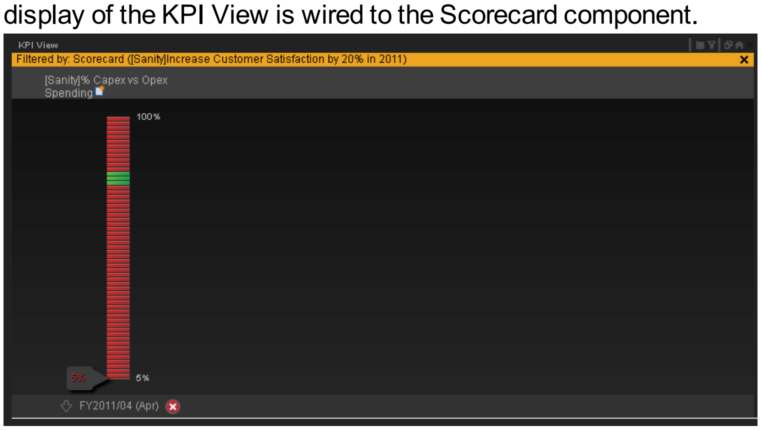
   The **Summary of Page Wiring** area displays all of the wiring defined for the page.



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**.



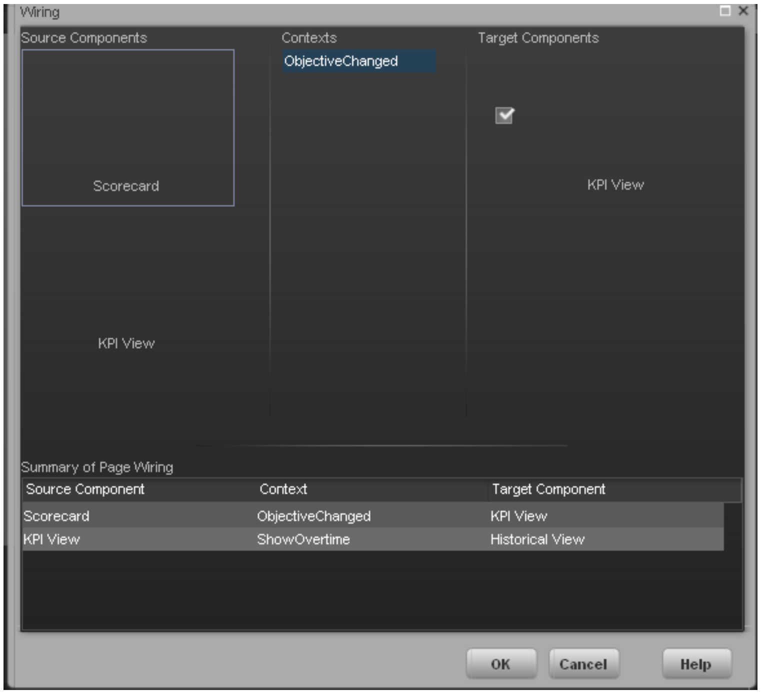
7. In the Scorecard component, click the relevant Objective. The KPI View component that is wired to the Scorecard component immediately refreshes to display the KPI View for the Objective's KPIs, for example: **% Capex vs Opex Spending**. In addition, the time period of the KPI View component is reset 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 247)

User interface elements are described below:

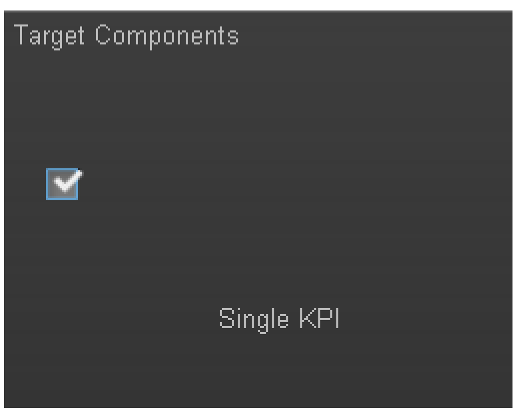
<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td>Source components</td><td>This column displays all of the page components that have the ability to send contexts to other components. Select a source component, then select the context and the target components.</td></tr>
<tr><td>Contexts</td><td>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.

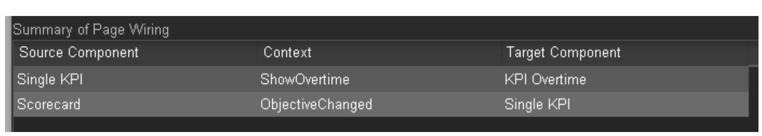
Select the context you want to send to one or more targets, and then select the target component.

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).</td></tr>
<tr><td>Target components</td><td>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.


</td></tr>
<tr><td>Summary of page wiring</td><td>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.


Summary of Page Wiring
<table><tr><th>Source Component</th><th>Context</th><th>Target Component</th></tr><tr><td>Single KPI</td><td>ShowOvertime</td><td>KPI Overtime</td></tr><tr><td>Scorecard</td><td>ObjectiveChanged</td><td>Single KPI</td></tr></table></td></tr>
</table>

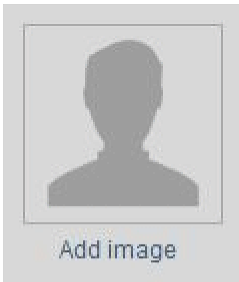
How to Personalize the Dashboard

You can add the user's picture to the Dashboard frame.

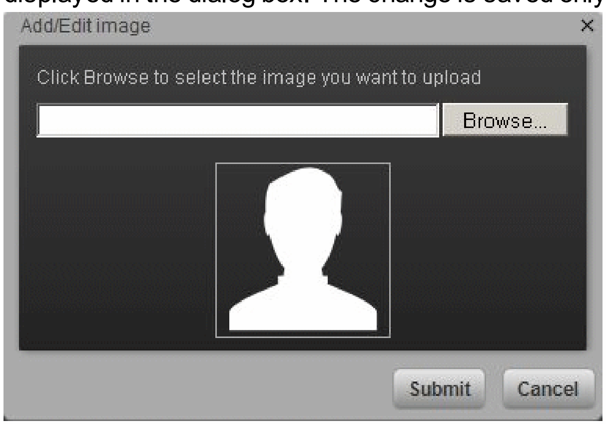
To add a picture to the Dashboard frame:

1. Move the cursor above the graphic next to **User**:

2. Click the **Add Image** button that is displayed.

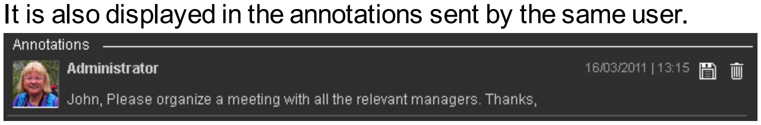


3. In the **Add/Edit image** dialog box that opens, locate the relevant picture. The image is displayed in the dialog box. The change is saved only when you click **Submit**.



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:

How to View the Resulting Displays

In the relevant pages in Dashboard, you can view and analyze the business objectives you set for yourself and your department or 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

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 230).

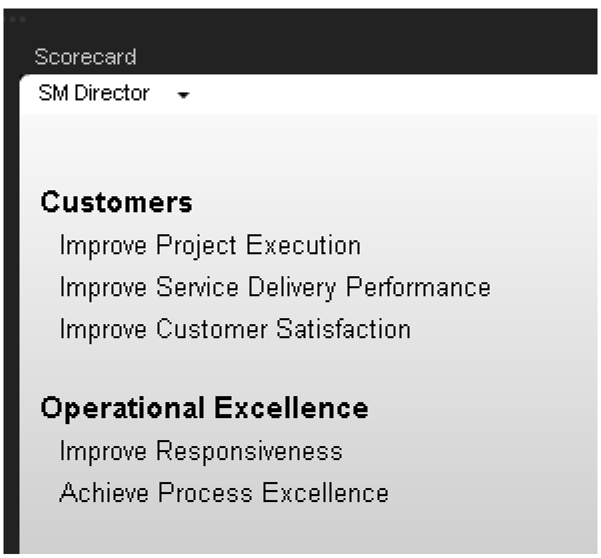
In addition, the pages may include other components that provide additional information:

- KPI List component. For details, see "KPI List Component" (on page 220).
- Historical View component. For details, see "Historical View Component" (on page 206).
- KPI Rolodex component. For details, see "KPI Rolodex Component " (on page 226).
- KPI View component. For details, see "KPI View Component" (on page 215).
- Scorecard component. For details, see "Scorecard Component" (on page 230).
- Web Intelligence Full Report Viewer component. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).
- Xcelsius Report component. For details, see "Xcelsius Report Viewer Component" (on page 236).
- Web Intelligence Reports Viewer component. For details, see "Web Intelligence Static Report Viewer (Display)" (on page 239).

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.

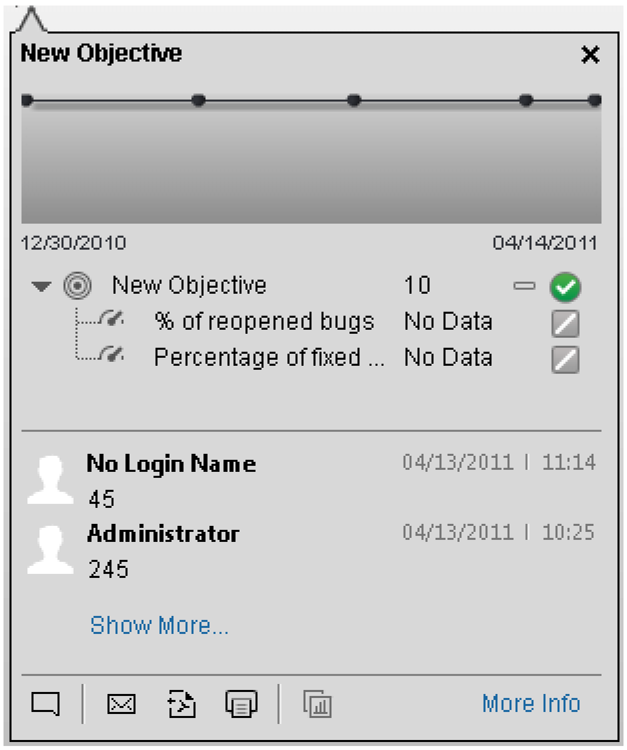
To return to the parent Scorecard, click the X to close the subordinate Scorecard display. Note that you can only access one level down (meaning that if the subordinate Scorecard has subordinates, to access their information, you must create a Scorecard component for the first level of subordinate Scorecard).

For details, see "Learn About Scorecards" (on page 93).

Display more information about a specific Objective or KPI

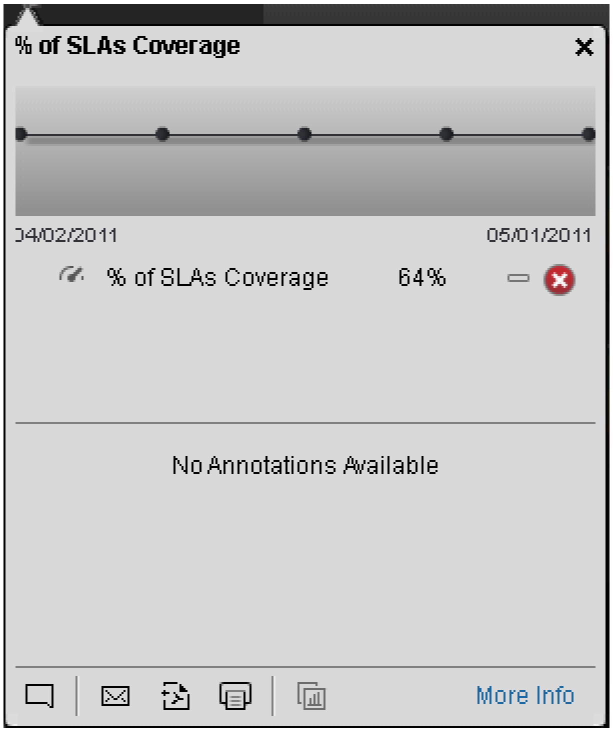
From a Scorecard component, move the cursor above the icon at the end of the Objective's name to view over time information about the Objective, details about the Objective's KPIs and the annotations added to the Scorecard by users.

You can also add annotations, send the tooltip by email, PDF it, or print it. For details, see "Objective Tooltip" (on page 263).



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 260).



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 247)

Drill down to more details about the Objectives or KPIs in the Explorer tab

From an Objective or KPI tooltip, click **More Info** to open the Explorer tab filtered for the Objective or 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.

You can also click the Explorer tab to display the same kind of information for all the active Scorecards and KPIs in the HP Executive Scorecard. For details, see "Explorer Tab" (on page 284).

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 94).

The Objectives include groups of KPIs of different types that can represent different aspects of the goal. For details, see "Learn About KPIs and Metrics" (on page 104).

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 164).

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.

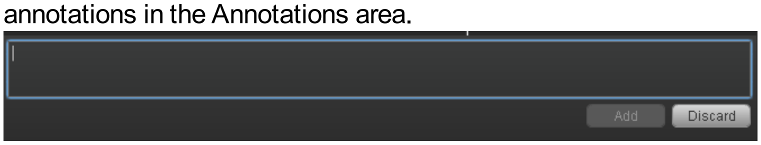
You can also click the **Explorer** tab to display the Active KPIs tree, and by clicking the Objectives and KPIs in the tree, display detailed information about the selected item in the Explorer tab.

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.

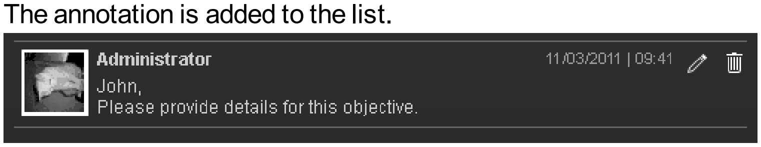
For additional details, see "Explorer Tab" (on page 284).

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 284).

Print, email, or PDF the relevant annotation

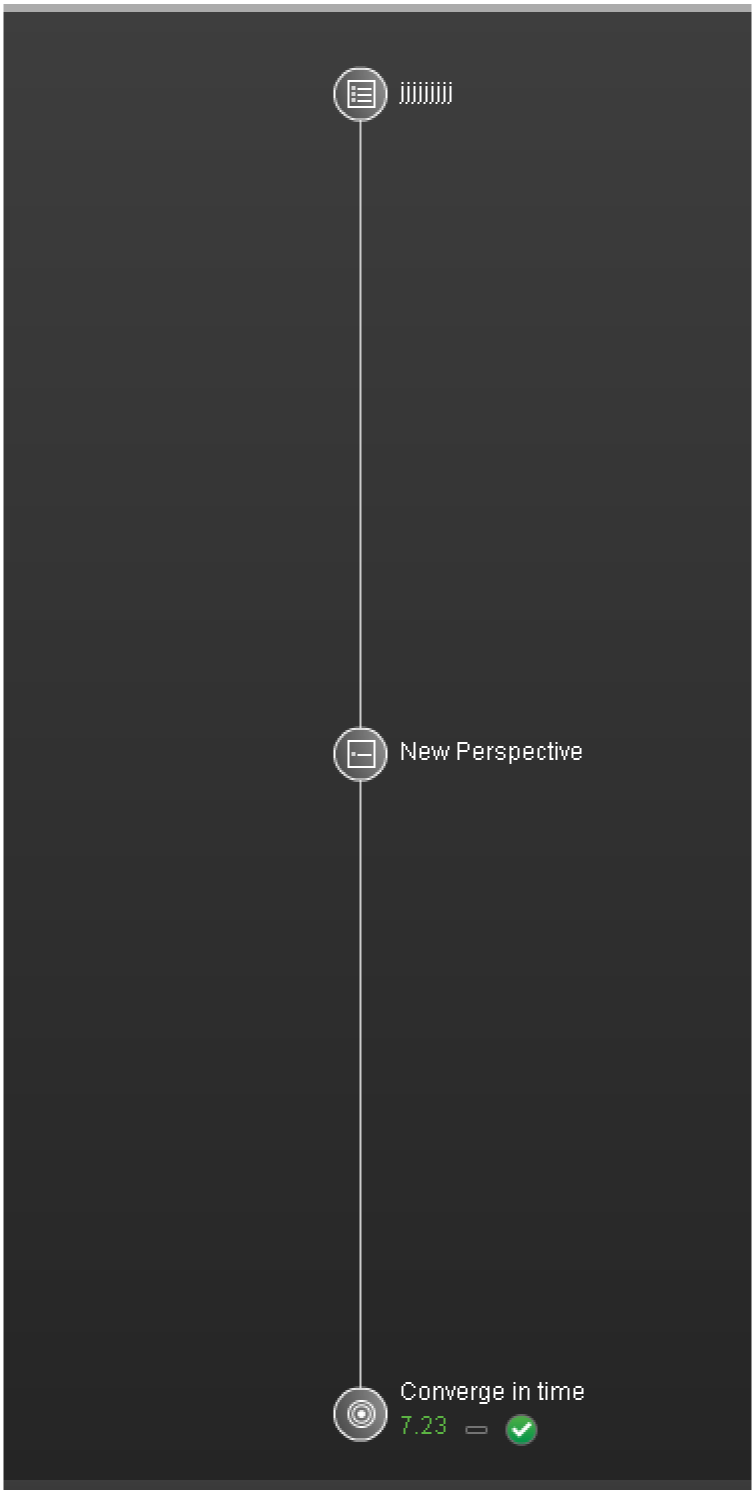
You can email the owner of the Objective or KPI you are analyzing.

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 284)

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 284).



Learn about the Explorer Page

You use the Explorer page to view detailed KPI and Objective information. You can access the page by clicking the **Explorer** tab in HP Executive Scorecard.

You can also access the Explorer page from the Objective or KPI tooltip in the Dashboard. For details, see "Objective Tooltip" (on page 263) or "KPI Tooltip" (on page 260).

The Explorer page includes the following features:

- The **Active KPIs** pane lists all the Scorecards, Perspectives, Objectives, and their KPIs, Breakdown KPIs, and Orphan KPIs, active in the HP Executive Scorecard. You click one of the Objectives or KPIs to display their detailed information in the other panes. The pane also displays information about the status, trend, and score of the nodes.
- The **Explorer** tab displays KPI and Objective over time information for the current period as defined in the Objective or KPI configuration. You can also display past information by selecting a past period of time.
- The **Calculation Details** tab displays the information from the KPI Calculation tab in the Studio such as 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 on the relevant Objectives, Perspectives, and Scorecards, or of the selected Objective on the relevant Perspectives, and Scorecards.
- The **Annotations** area enables you to view the annotations attached to the selected Objective or KPI and to add annotations if needed.
- The **Additional Information** areadisplays the additional information for the KPI and Objective as configured in the Studio.

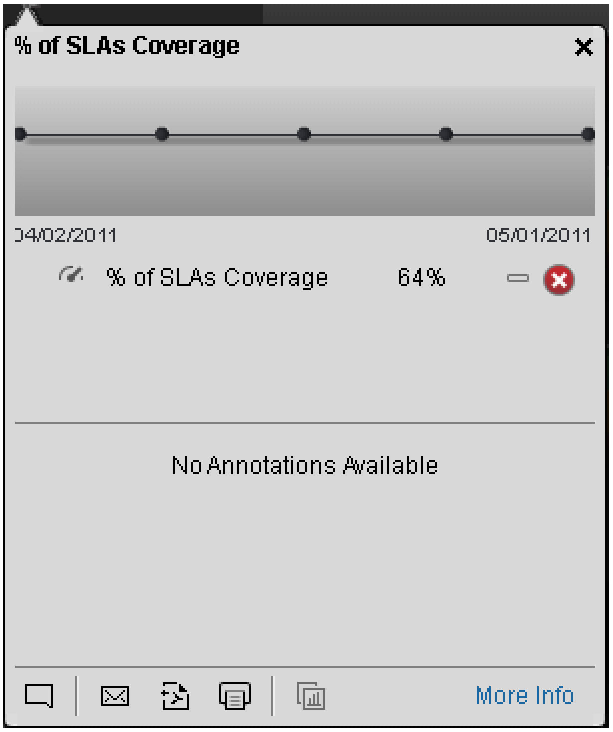
For details, see "Explorer Tab" (on page 284).

View and Analyze Results User Interface

This section includes the following topics:

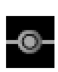
KPI Tooltip

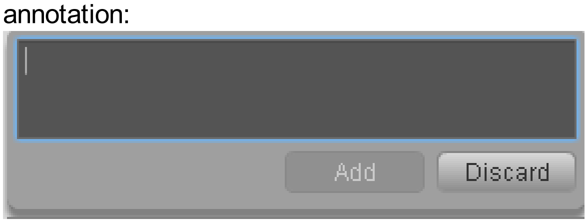
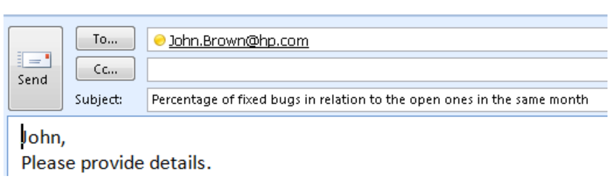
The KPI Tooltip displays detailed information about the KPI.



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 253)

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

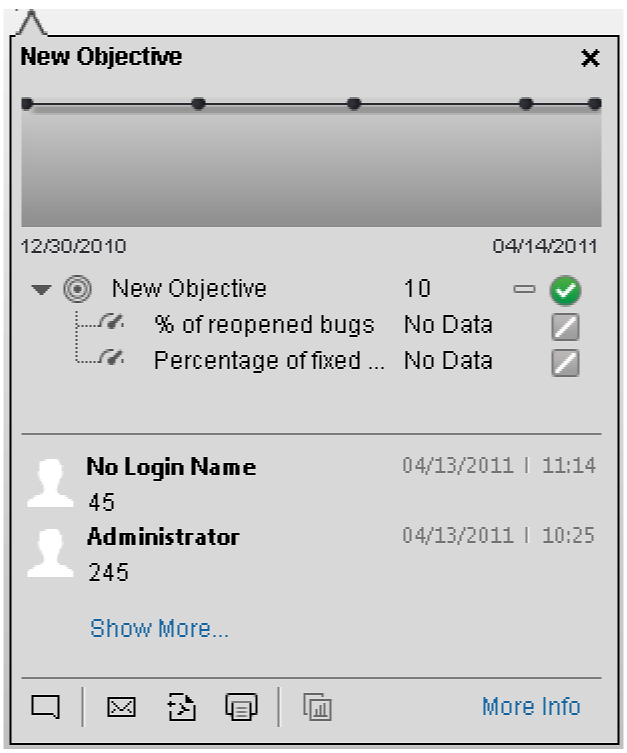
UI Element	Description
Name>	The name of the KPI.
<Over Time value>	The graph displays the over time value of the KPI for 5 periods in the past from the current period. The periods displayed are based on the period configured for the KPI. For example, if the KPI period is 1 month, the graph displays 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.

UI Element	Description
	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

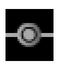
The Objective Tooltip displays detailed information about the Objective.

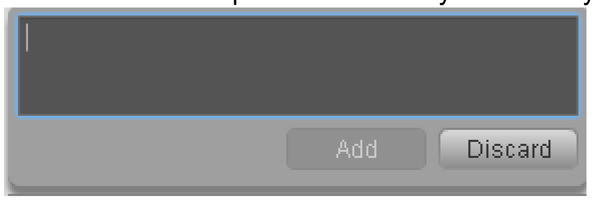
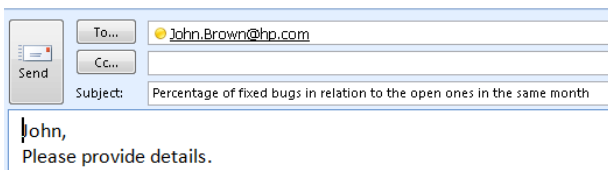


To access	Move the cursor above the name of an Objective in a Dashboard component.
Important information	When an Objective displays data but some of its KPIs do not have calculated data (for example, their formula is incorrect, or includes a division by zero), the

	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 253)

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

UI Element	Description
Name>	The name of the Objective.
<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.

UI Element	Description
	**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.** 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.

UI: PMO page

The following information describes the out-of-box PMO page available in HP Executive Scorecard Dashboard.

- "Organizational Goals and Challenges" (on page 266)
- "PMO Page Scorecard" (on page 266)
- "Analytics" (on page 267)
- "Page Layout" (on page 267)
- "PMO User story - Scenario" (on page 267)

Organizational Goals and Challenges

The PMO's organizational goals are described in "Project Manager Officer (PMO) Business Challenges" (on page 10).

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" (on page 24).

Strategy	Objective	KPI
Future Orientation	Improve Staff Effectiveness	% of Project Effort Done by External Resources
IT Value	Alignment with Business Strategy	% of Capex vs Opex Spending
IT Value	Alignment with Business Strategy	% of Projects Associated with Business Objectives
IT Value	Alignment with Business Strategy	% of Time Invested on Strategic Projects
IT Value	Alignment with Business Strategy	Innovation Delivery
IT Value	Stewardship of IT Investment	% of Actual vs Planned Projects Cost
IT Value	Stewardship of IT Investment	% of Change in Projects Cost
IT Value	Stewardship of IT Investment	% of IT POR vs Total Revenue
IT Value	Stewardship of IT Investment	% of Projects Budget in Risk
Operational Excellence	Achieve Process Excellence	% of Software Licenses in Use
Operational Excellence	Improve Project Execution	% of Healthy Projects
Operational Excellence	Improve Project Execution	% of Project Tasks on Time

Operational Excellence	Improve Project Execution	% of Projects on Time
Operational Excellence	Improve Project Execution	% of Projects with Unresolved Urgent Issues
Operational Excellence	Improve Project Execution	Avg Delivery Time of New Products or Services
Operational Excellence	Improve Project Execution	Avg Project Initiation Time
Operational Excellence	Improve Project Execution	Deviation % of Planned Work Hours

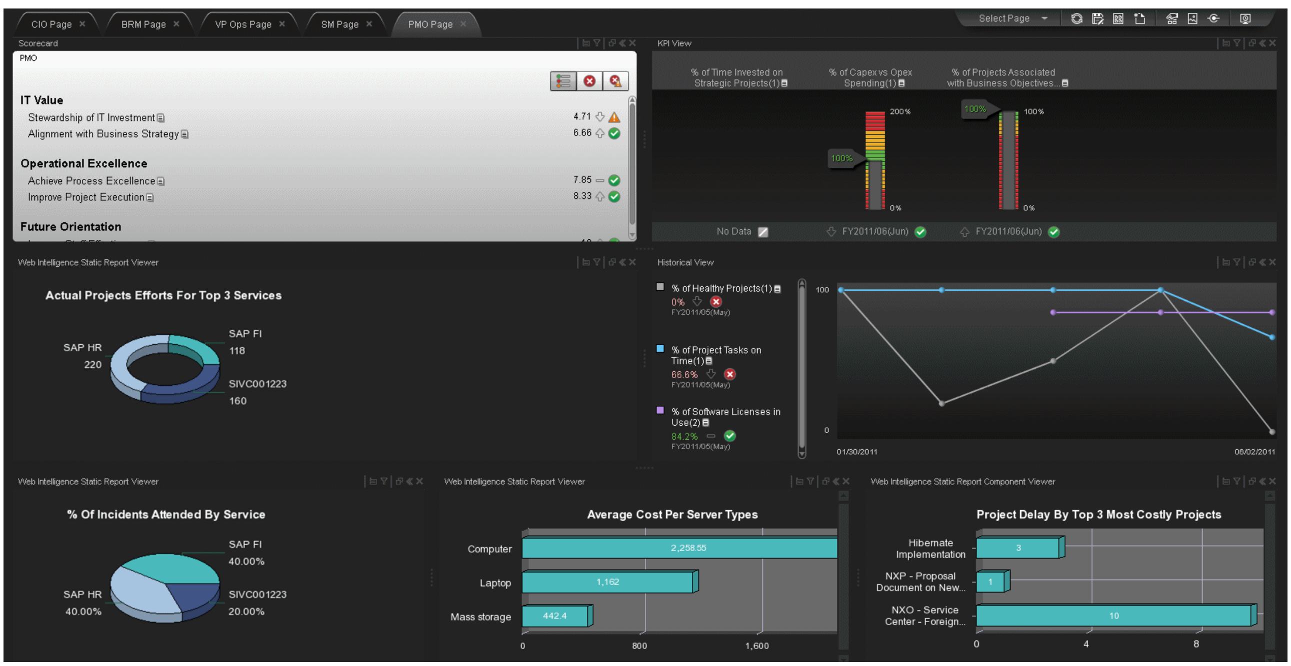
Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Full Report Viewer components. For details, see "Web Intelligence Full Report Viewer Component" (on page 234) and .

- Actual vs. Planned Cost For Top 5 Projects
- Project Health For Active Projects
- Actual Projects Efforts For Top 5 Services
- Percentage of Time Spent On New Projects

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 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, % 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 like 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 like 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 like 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 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.

Director of Service Management Page

The following information describes the out-of-box Director of Service Management page available in HP Executive Scorecard Dashboard.

This section includes the following topics:

Organizational Goals and Challenges

The Director of Service Management's organizational goals are described in "Director of Service Management Business Challenges" (on page 12).

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" (on

page 24).

Strategy	Objective	KPI
Customer	Improve Customer Satisfaction	% of SLAs Met
Customer	Improve Customer Satisfaction	% of Satisfied Customers
Customer	Improve Customer Satisfaction	% of Service level Objectives for IT Process Activities which Were Met
Customer	Improve Customer Satisfaction	Downtime % of SLAs
Customer	Improve Service Delivery Performance	% of Service Availability
Customer	Improve Service Delivery Performance	% of Service Performance Met
Customer	Improve Service Delivery Performance	Avg Outage Duration Per Incident
Customer	Improve Service Delivery Performance	Number of Close Incidents
Customer	Improve Service Delivery Performance	Number of Open Incidents
Customer	Improve Service Delivery Performance	Service Mean Time To Recover From Critical Error
Customer	Improve Service Delivery Performance	Service MTBF
IT Value	Reduce Cost	% of Change in Business Service Cost
IT Value	Stewardship of IT Investment	Avg Cost of IT Delivery Per Customer
Operational Excellence	Achieve Process Excellence	% of Escalated Incidents
Operational Excellence	Achieve Process Excellence	% of Reopened Incidents
Operational Excellence	Achieve Process Excellence	% of SLA Expirations
Operational Excellence	Achieve Process Excellence	% of SLAs Coverage
Operational	Achieve Process	Incidents Backlog Size

Excellence	Excellence	
Operational Excellence	Achieve Process Excellence	Change Success Rate
Operational Excellence	Achieve Process Excellence	% of Unauthorized Implemented Changes
Operational Excellence	Achieve Process Excellence	% of Changes Resulted in Outage
Operational Excellence	Achieve Process Excellence	% of Emergency Changes
Operational Excellence	Achieve Process Excellence	% of Unplanned Changes
Operational Excellence	Improve Project Execution	Avg Delivery Time of New Products or Services
Operational Excellence	Improve Responsiveness	% of FCR
Operational Excellence	Improve Responsiveness	% of Interactions in Backlog
Operational Excellence	Improve Responsiveness	% Incidents aging
Operational Excellence	Improve Responsiveness	Avg Interaction Closure Duration

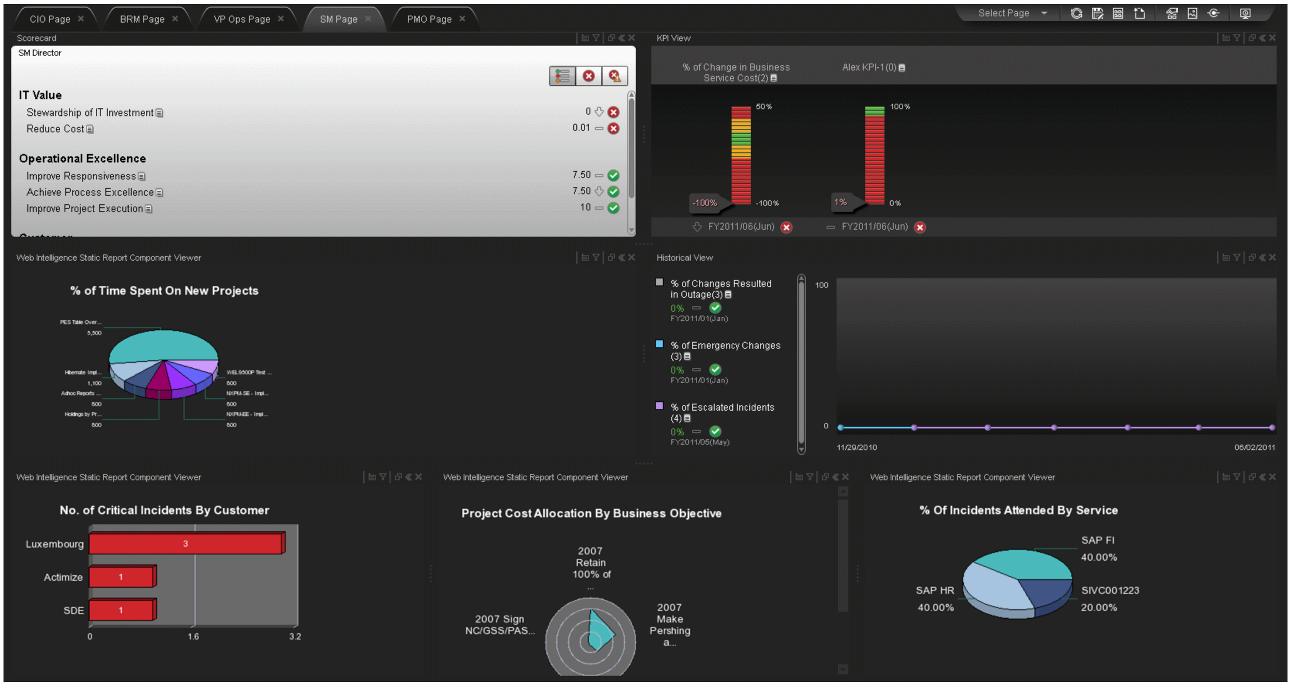
Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Full Report Viewer components. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).

- SLAs Not Met By Customers
- No. of Critical Incidents By Customer
- Top 5 Services Suppliers
- Mean Time Between Failures For Top 5 Services

Page Layout

For example, a typical out-of-the-box Director of Service Management page looks as follows:



Director of Service Management User story - Scenario

1. Debby is the VP of Operations. While preparing for a monthly review, she logs in to her HP Executive Scorecard to gain insights as to how she met her business objectives.

2. While checking the performance of her Operations Department, Debby looks at her Customer Perspective and sees that the status of the Improve Customer Satisfaction objective is red.

3. To understand why she has not met her Customer Satisfaction objective, Debby would like to view the Scorecard of her direct report, John Brown. John's Scorecard has cascaded objectives provided by Debby.

4. John is the Service Manager Director responsible for customer satisfaction with services and project delivery within IT. Debby accesses John's Scorecard to get additional insights as to possible reasons for not meeting the set objective.

5. Debby sees a negative trend in SLA performance over the past few months, and checks the annotations section to see whether a remediation plan is in place.

6. She writes up a new annotation to John requesting clarifications and a remediation plan. "John – Appears like we have poor SLA performance, please provide insight and set a remediation plan by EOW".

7. John receives an email from Debby regarding the problematic KPI. He accesses his Dashboard in context, and is directed to the problem.

8. John sees that the Improve Customer Satisfaction objective is red. He also sees that the status of achieve process of excellence objective is red.

9. To understand why he has not met his Customer Satisfaction and Process of Excellence Objectives, he would like to view the KPIs of his direct reports, Jim and James. Jim is the

Change Manager Director responsible for the change management, and James is the owner of the Service responsible for the delivery of the critical services within the IT.

10. He accesses the KPI explorer in the context of the “improve customer satisfaction” objective. He sees that the reason for not meeting the Customer Satisfaction objective is due to poor SLA performance (SLA Not Met KPI).
11. He also sees a negative trend in SLA performance over the past few months, and checks the annotations section to see whether a remediation plan is in place.
12. He sees that the reason for not meeting the Achieve Process of Excellence objective is due to poor changes performance (% of unsuccessful changes KPI).
13. He also sees a negative trend in unsuccessful changes over the past few months, and checks the annotations section to see action items from CAB members.
14. He writes up a new annotation to James requesting clarifications and a remediation plan: “James – Appears like we have poor SLA performance, please provide insight and set a remediation plan by EOW”.
15. He writes up another annotation to Jim requesting clarifications regarding the unsuccessful changes: “Jim – Appears like we have lots of unsuccessful changes, please provide insight”.
16. James receives an email from John regarding the problematic KPI. He accesses his Dashboard in context, and is directed to the KPI Explorer.
17. James expands to a breakdown by Business Service KPI view and realizes that the SLAs of the CRM service are breached.
18. Jim receives an email from John regarding the problematic KPI. He accesses his Dashboard in context, and is directed to the KPI Explorer.
19. Jim expands to a breakdown by Business Service KPI view and realizes that the changes in the CRM service are unsuccessful.
20. Jim writes up a new annotation both to James and John 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 a remediation plan with the leadership of the CRM service owner. It appears that the SLAs have breached due to unsuccessful changes”.
21. Optional, drill down to Operational Reporting:
    a. Jim the change manager scheduled a meeting with the CAB members that were responsible for the changes of the CRM service.
    b. Jim opens the HP Executive Scorecard in the context of the analytics, KPIs that indicate the bad performance, including trends, and past annotations.
    c. From this context Jim selects a link to an external SM operational report that present all past unsuccessful changes for the last month that relevant for CRM service and all infrastructure that can impact it.
    d. The team then schedules the changes again.
    e. Once the changes are successful the team adds an annotation in HP Executive Scorecard in the context of the analytic\KPI to notify the SM director that now services should be available as they performed the changes again.

CIO Out-of-the-Box Page

The following information describes the out-of-the-box CIO page available in HP Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 274)
- "CIO Page Scorecard" (on page 274)
- "Analytics" (on page 277)
- "Page Layout" (on page 278)

Organizational Goals and Challenges

The CIO's organizational goals are described in "Chief Information Officer (CIO) Business Challenges" (on page 6)"Director of Service Management Business Challenges" (on page 12).

- 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

The Scorecard component appearing on the CIO Page includes the following strategies, objectives, and KPIs:

Strategy	Objective	KPI
Customer	Improve Customer Satisfaction	% of SLAs Met
Customer	Improve Customer Satisfaction	% of Satisfied Customers
Customer	Improve Customer Satisfaction	% of Service level Objectives for IT Process Activities which Were Met
Customer	Improve Customer Satisfaction	Downtime % of SLAs
Customer	Improve Service Delivery Performance	% of Service Availability
Customer	Improve Service Delivery Performance	% of Service Performance Met
Customer	Improve Service Delivery Performance	Avg Outage Duration Per Incident

Customer	Improve Service Delivery Performance	Number of Close Incidents
Customer	Improve Service Delivery Performance	Number of Open Incidents
Customer	Improve Service Delivery Performance	Service Mean Time To Recover From Critical Error
Customer	Improve Service Delivery Performance	Service MTBF
Future Orientation	Improve Staff Effectiveness	% of Project Effort Done by External Resources
IT Value	Alignment with Business Strategy	% of Capex vs Opex Spending
IT Value	Alignment with Business Strategy	% of Projects Associated with Business Objectives
IT Value	Alignment with Business Strategy	% of Time Invested on Strategic Projects
IT Value	Alignment with Business Strategy	Innovation Delivery
IT Value	Reduce Cost	% of Change in Assets Cost
IT Value	Reduce Cost	% of Change in Business Service Cost
IT Value	Stewardship of IT Investment	% of Actual vs Planned Projects Cost
IT Value	Stewardship of IT Investment	% of Change in Projects Cost
IT Value	Stewardship of IT Investment	% of IT POR vs Total Revenue
IT Value	Stewardship of IT Investment	% of Projects Budget in Risk
IT Value	Stewardship of IT Investment	% Variance of Actual vs Planned Costs
IT Value	Stewardship of IT Investment	Avg Cost of IT Delivery Per Customer
Operational Excellence	Achieve Process Excellence	% of Assets in Maintenance

Operational Excellence	Achieve Process Excellence	% of Assets Returned to Supplier
Operational Excellence	Achieve Process Excellence	% of Changes Resulted in Outage
Operational Excellence	Achieve Process Excellence	% of Emergency Changes
Operational Excellence	Achieve Process Excellence	% of Escalated Incidents
Operational Excellence	Achieve Process Excellence	% of Reopened Incidents
Operational Excellence	Achieve Process Excellence	% of SLA Expirations
Operational Excellence	Achieve Process Excellence	% of Software Licenses in Use
Operational Excellence	Achieve Process Excellence	% of Unauthorized Implemented Changes
Operational Excellence	Achieve Process Excellence	% of Unplanned Changes
Operational Excellence	Achieve Process Excellence	Avg Age of Hardware Assets
Operational Excellence	Achieve Process Excellence	Change Success Rate
Operational Excellence	Achieve Process Excellence	Changes Backlog Size
Operational Excellence	Achieve Process Excellence	Incidents Backlog Size
Operational Excellence	Achieve Process Excellence	Incident resolution time
Operational Excellence	Achieve Process Excellence	Number of Completed Changes
Operational Excellence	Improve Project Execution	% of Healthy Projects
Operational Excellence	Improve Project Execution	% of Project Tasks on Time

Operational Excellence	Improve Project Execution	% of Projects on Time
Operational Excellence	Improve Project Execution	% of Projects with Unresolved Urgent Issues
Operational Excellence	Improve Project Execution	Avg Delivery Time of New Products or Services
Operational Excellence	Improve Project Execution	Avg Project Initiation Time
Operational Excellence	Improve Project Execution	Deviation % of Planned Work Hours
Operational Excellence	Improve Responsiveness	% of FCR
Operational Excellence	Improve Responsiveness	% of Interactions in Backlog
Operational Excellence	Improve Responsiveness	% of Older Incidents
Operational Excellence	Improve Responsiveness	Avg Interaction Closure Duration
Operational Excellence	Improve Responsiveness	Avg Time to Procure Hardware

Analytics

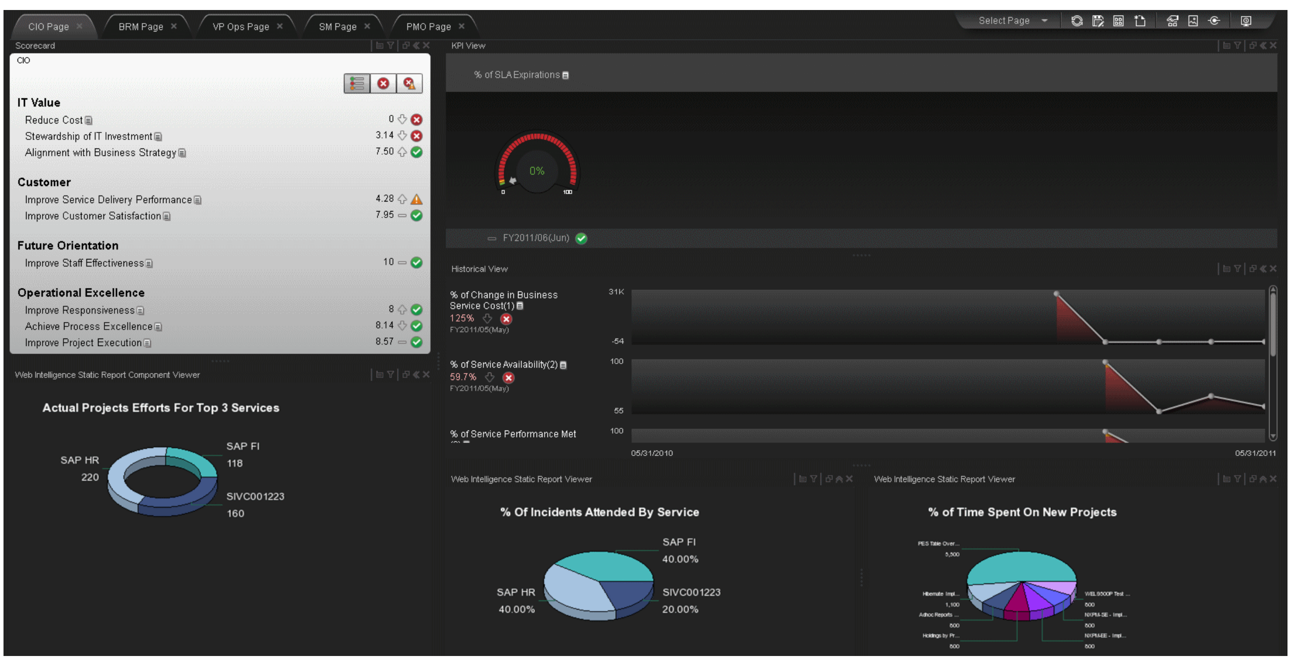
The following information is provided in the BO reports that are displayed using the Web Intelligence Full Report Viewer components. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).

- Cost per Physical Server
- Cost per Server
- Cost per Virtual Server
- P2V Ratio
- Server growth rate
- Total number of Servers
- Mean Time Between Failures For Top 5 Services
- Emergency changes by services
- Number of incidents caused by changes vs total number of incidents
- % incidents attended by Service
- % of Breached Incidents

- Critical Incidents By Customer
- Critical Incidents For Top 5 Services
- Incident Closure Time for Top 5 Services
- % of Time Spent On New Projects
- Actual Projects Efforts For Top 5 Services
- Actual vs. Planned Cost For Top 5 Projects
- Cost Allocation by Business Objective
- Project Delay by Top 5 Most Costly Projects
- Project Health For Active Projects
- % of service requests posted via web (self-help)
- High priority interactions by customers
- Number of service complaints
- SLAs Not Met By Customers
- SLAs Not Met By Services
- Top 5 Services Suppliers

Page Layout

For example, a typical out-of-the-box CIO page looks as follows:



VP of Operations Page

The following information describes the out-of-the-box VP of Operations page available in HP Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 279)
- "VP of Operations Scorecard" (on page 279)
- "Analytics" (on page 281)
- "Page Layout" (on page 281)

Organizational Goals and Challenges

The VP of Operations's organizational goals are described in "VP of Operations Business Challenges" (on page 6).

- 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" (on page 24).

Strategy	Objective	KPI
Customer	Improve Customer Satisfaction	% of SLAs Met
Customer	Improve Customer Satisfaction	% of Satisfied Customers
Customer	Improve Customer Satisfaction	% of Service level Objectives for IT Process Activities which Were Met
Customer	Improve Customer Satisfaction	Downtime % of SLAs
Customer	Improve Service Delivery Performance	% of Service Availability
Customer	Improve Service Delivery Performance	% of Service Performance Met
Customer	Improve Service Delivery Performance	Avg Outage Duration Per Incident
Customer	Improve Service Delivery Performance	Number of Close Incidents
Customer	Improve Service Delivery Performance	Number of Open Incidents
Customer	Improve Service Delivery	Service Mean Time To Recover From Critical

	Performance	Error
Customer	Improve Service Delivery Performance	Service MTBF
IT Value	Reduce Cost	% of Change in Assets Cost
IT Value	Stewardship of IT Investment	% of Actual vs Planned Projects Cost
Operational Excellence	Achieve Process Excellence	% of Assets in Maintenance
Operational Excellence	Achieve Process Excellence	% of Assets Returned to Supplier
Operational Excellence	Achieve Process Excellence	% of Changes Resulted in Outage
Operational Excellence	Achieve Process Excellence	% of Emergency Changes
Operational Excellence	Achieve Process Excellence	% of Escalated Incidents
Operational Excellence	Achieve Process Excellence	% of Reopened Incidents
Operational Excellence	Achieve Process Excellence	% of SLA Expirations
Operational Excellence	Achieve Process Excellence	% of Software Licenses in Use
Operational Excellence	Achieve Process Excellence	% of Unauthorized Implemented Changes
Operational Excellence	Achieve Process Excellence	% of Unplanned Changes
Operational Excellence	Achieve Process Excellence	Avg Age of Hardware Assets
Operational Excellence	Achieve Process Excellence	Change Success Rate
Operational Excellence	Achieve Process Excellence	Changes Backlog Size
Operational Excellence	Achieve Process Excellence	Incidents Backlog Size

Operational Excellence	Achieve Process Excellence	Incident resolution time
Operational Excellence	Achieve Process Excellence	Number of Completed Changes
Operational Excellence	Improve Responsiveness	% of FCR
Operational Excellence	Improve Responsiveness	% of Interactions in Backlog
Operational Excellence	Improve Responsiveness	% of Older Incidents
Operational Excellence	Improve Responsiveness	Avg Interaction Closure Duration
Operational Excellence	Improve Responsiveness	Avg Time to Procure Hardware

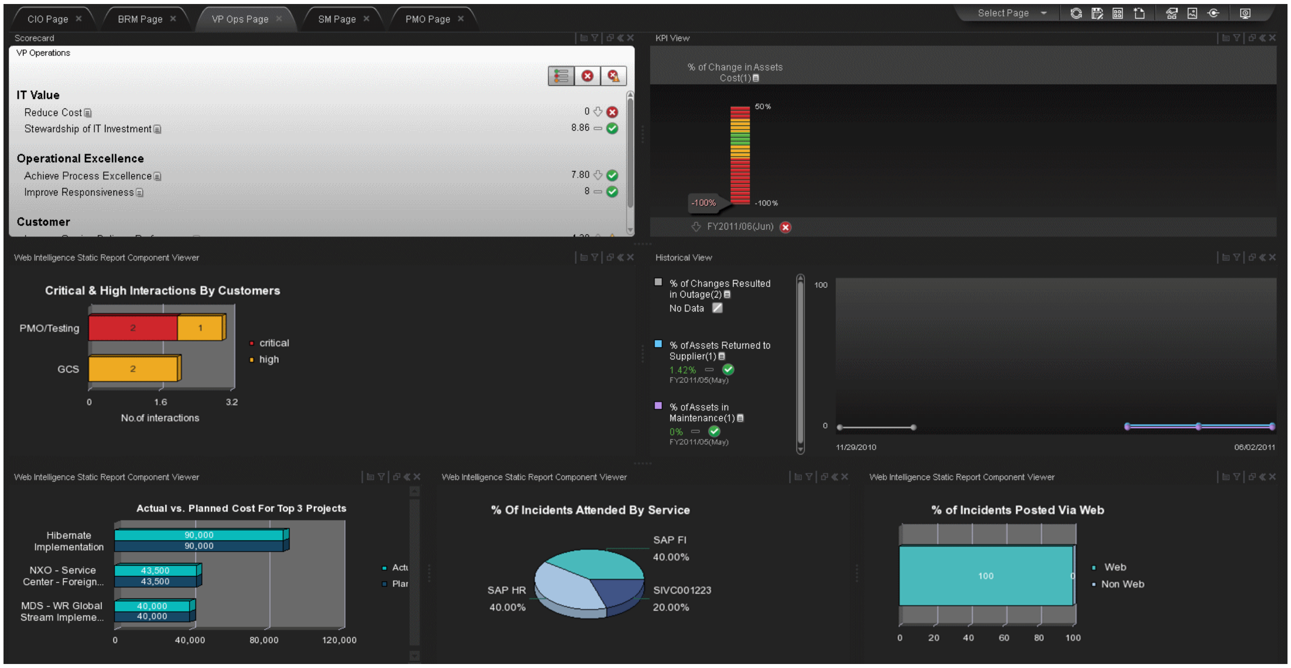
Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Full Report Viewer components. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).

- Mean Time Between Failures For Top 5 Services
- Top 5 Services Suppliers
- Critical Incidents For Top 3 Services
- Total number of Servers

Page Layout

For example, a typical out-of-the-box VP of Operations page looks as follows:



BRM Page

The following information describes the out-of-the-box Business Relationships Manager (BRM) available in HP Executive Scorecard Dashboard.

This section includes the following topics:

- "Organizational Goals and Challenges" (on page 282)
- "BRM Page Scorecard" (on page 282)
- "BRM Page" (on page 282)
- "Analytics" (on page 284)

Organizational Goals and Challenges

The BRMs's organizational goals are described in "Business Relationships Manager (BRM) Business Challenges" (on page 14).

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 SLAs Met
Customer	Improve Customer Satisfaction	% of Satisfied Customers

Customer	Improve Customer Satisfaction	% of Service level Objectives for IT Process Activities which Were Met
Customer	Improve Customer Satisfaction	Downtime % of SLAs
Customer	Improve Service Delivery Performance	% of Service Availability
Customer	Improve Service Delivery Performance	% of Service Performance Met
Customer	Improve Service Delivery Performance	Avg Outage Duration Per Incident
Customer	Improve Service Delivery Performance	Number of Close Incidents
Customer	Improve Service Delivery Performance	Number of Open Incidents
Customer	Improve Service Delivery Performance	Service Mean Time To Recover From Critical Error
Customer	Improve Service Delivery Performance	Service MTBF
Operational Excellence	Achieve Process Excellence	% of Escalated Incidents
Operational Excellence	Achieve Process Excellence	% of Reopened Incidents
Operational Excellence	Achieve Process Excellence	% of SLA Expirations
Operational Excellence	Achieve Process Excellence	Incidents Backlog Size
Operational Excellence	Achieve Process Excellence	Incident resolution time
Operational Excellence	Improve Responsiveness	% of FCR
Operational Excellence	Improve Responsiveness	% of Interactions in Backlog
Operational Excellence	Improve Responsiveness	% of Older Incidents
Operational Excellence	Improve Responsiveness	Avg Interaction Closure Duration

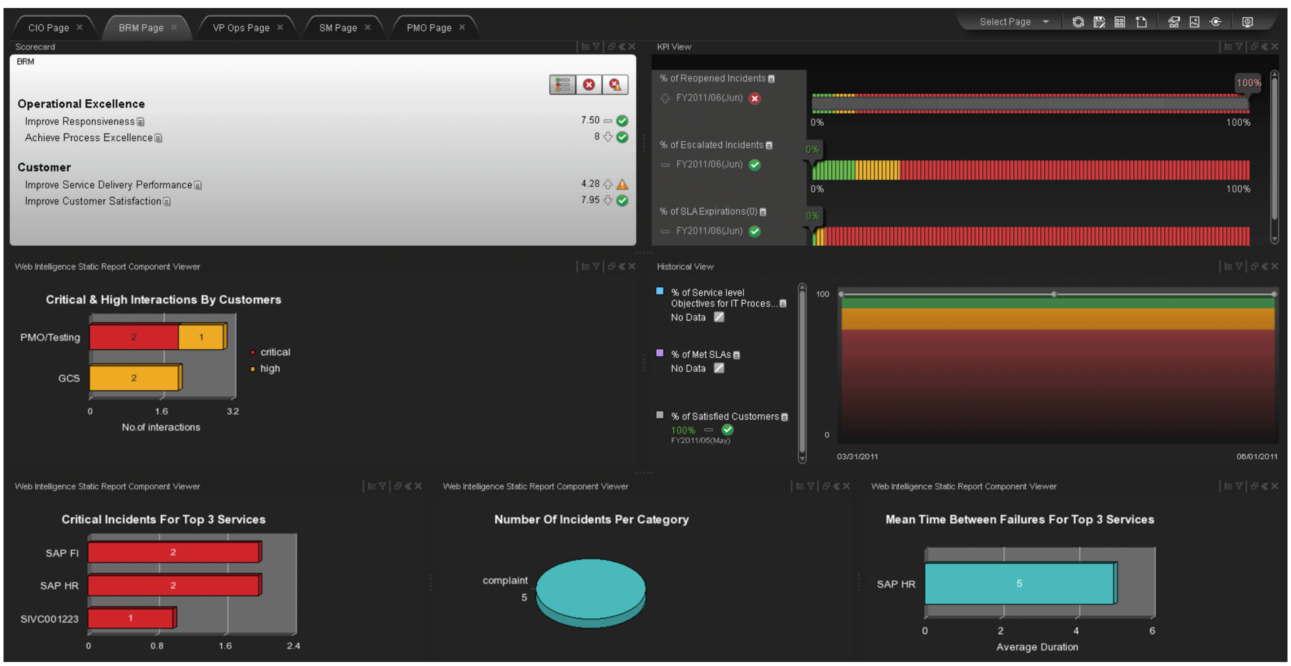
Analytics

The following information is provided in the BO reports that are displayed using the Web Intelligence Full Report Viewer components. For details, see "Web Intelligence Full Report Viewer Component" (on page 234).

- Mean Time Between Failures For Top 3 Services
- Number of incidents caused by changes vs total number of incidents
- Critical Incidents By Customer
- % of Breached Incidents
- Incident Closure Time for Top 3 Services
- % incidents attended by Service
- Critical Incidents For Top 3 Services
- Number of Interactions by category in last quarter
- % of service requests posted via web (self-help)
- High priority interactions by customers
- SLAs Not Met By Customers
- SLAs Not Met By Services

Page Layout

For example, a typical out-of-the-box BRM page looks as follows:



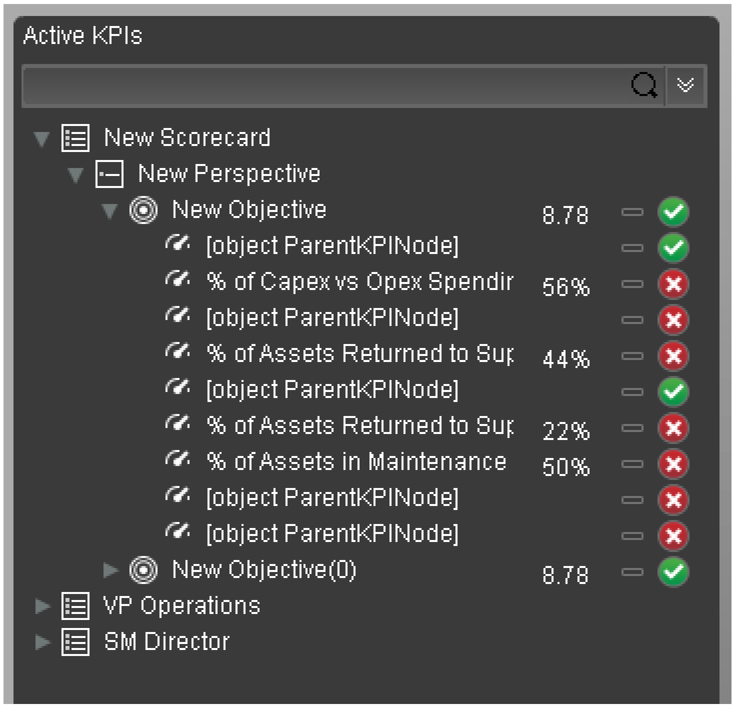
Explorer Tab

Use the tab to display detailed KPI and Objective information.

To access	• Click the **Explorer** tab to access detailed information about all the Objectives

	and KPIs that are active in Executive Studio. • Click **More info** in the Scorecard 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 206). • Double-click a KPI name in any of the components. For details, see "Add Components to a Page User Interface" (on page 202). • Double-click a KPI name in the Scorecard component. For details, see "Scorecard Component" (on page 230).
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, then 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 the X in the top right corner of the Explorer tab to display the complete Dashboard. The page includes the following areas: "Active KPIs" (on page 285) "Explorer Details Tab" (on page 287) "Calculation Details Tab" (on page 289) "Annotations Area" (on page 291) "<Additional Information> Area" (on page 292) "Goal Map Tab" (on page 289)
Relevant tasks	"How to View the Resulting Displays" (on page 253)

Active KPIs

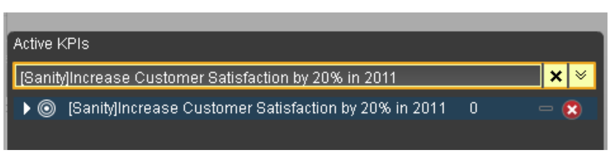
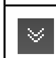


User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

<table>
<tr><th>UI Element</th><th>Description</th></tr>
<tr><td><Search></td><td>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:

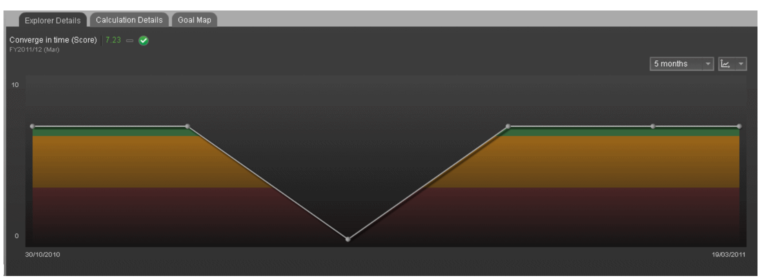

</td></tr>
<tr><td></td><td>Expand the query. Opens additional fields to help you refine the component's filter:
Status: Select one of the All, Good, Warning, or Error values to display only the KPIs with the selected status, in the Active KPIs area.
Type: Select:
KPIs. To display only the KPIs with the selected status.
Objectives.To display only the Objectives and those of their KPIs that have the selected status.</td></tr>
</table>

UI Element	Description

Active KPIs	The pane lists all the Scorecards, Perspectives, Objectives, and their KPIs, Breakdown KPIs, and Orphan KPIs, active in the HP Executive Scorecard.
	
	You click one of the Objectives or KPIs to display their detailed information in the other panes.
	
	The area also displays on the right of the pane, for each Objective, KPI, or Breakdown KPI:
	• The name of the Objective, KPI, or Breakdown KPI.
	• The value of the Objective, KPI, or Breakdown KPI.
	• The trend icon indicates the trend of the value calculated over the current period.
	• The status of the Objective, KPI, or Breakdown 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**.

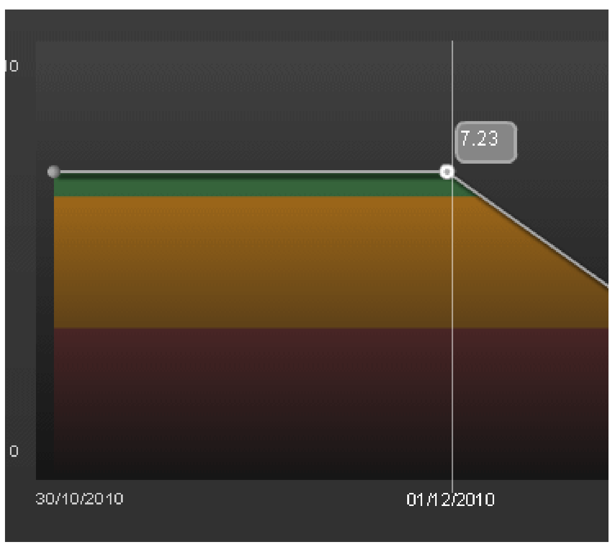
Explorer Details Tab

The tab displays KPI and Objective over time information for the current period as defined in the Objective or KPI configuration. You can also display past information by selecting a past period of time. The figure below shows an example of Explorer details for an Objective.



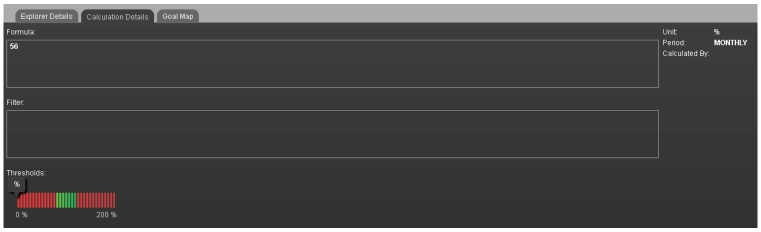
User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Objective or KPI details>	The title on the top left corner lists: • The name of the Objective or KPI. • The value of the Objective or KPI. • The trend icon indicates the trend of the value calculated over the current period configured for the selected Objective and KPI.

UI Element	Description
	• The status of the Objective or 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 specified for the Objective or KPI.
	To display historical information, select the relevant past periods of time corresponding to the period configured for the Objective or KPI.
	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. 
	(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 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 for the selected Objective.

UI Element	Description
<Y-axis>	The Y-axis displays the values of the Objective or KPI in the relevant unit.
<X-axis>	The X-axis displays the time frame of the Objective or KPI, split into equal segments"Historical View Component Filter Dialog Box" (on page 203).

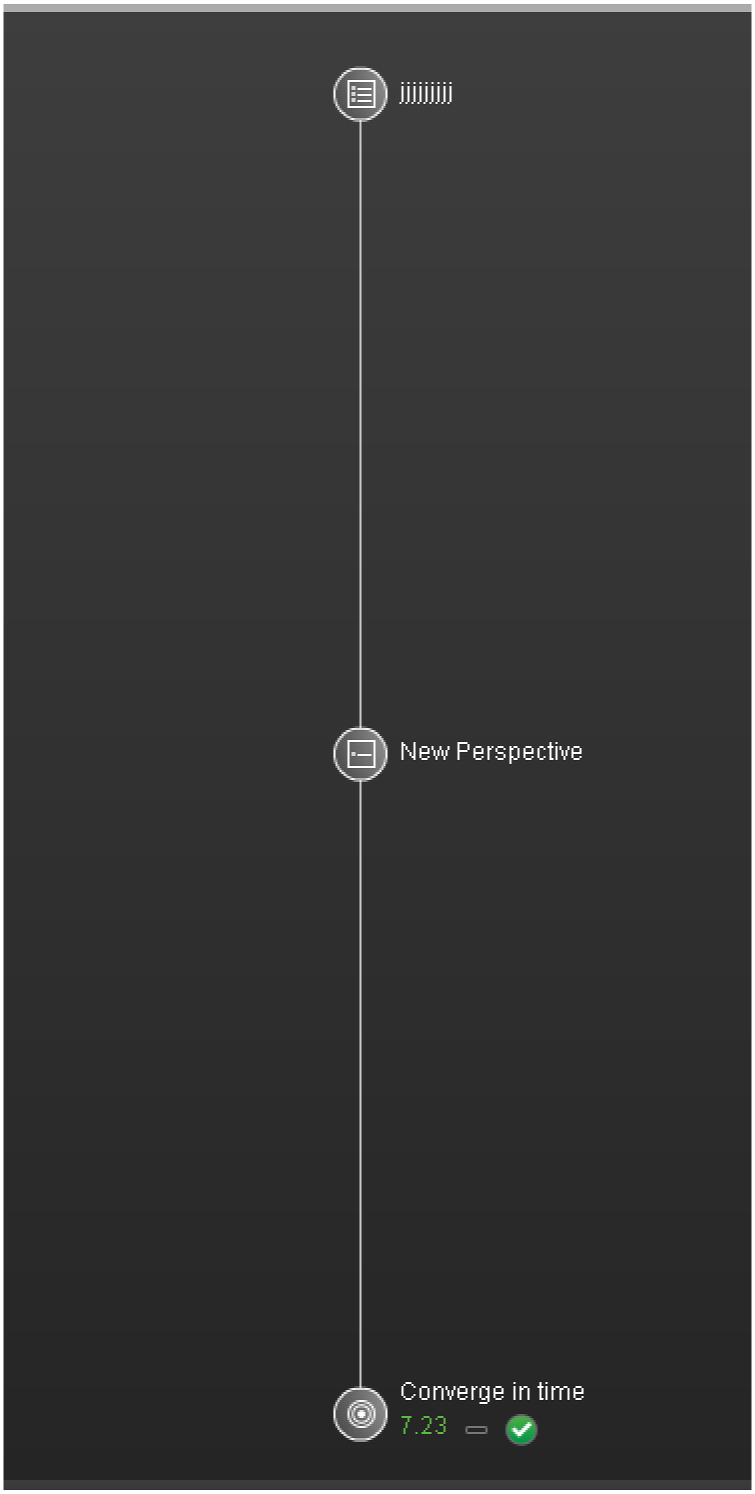
Calculation Details Tab



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 Objective, KPI or Breakdown KPI.
Thresholds	The threshold definition of the Objective, KPI or Breakdown KPI.
Unit	The unit of the Objective, KPI or Breakdown KPI.
Period	The period of the Objective, KPI or Breakdown KPI.
Calculated by	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 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 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.

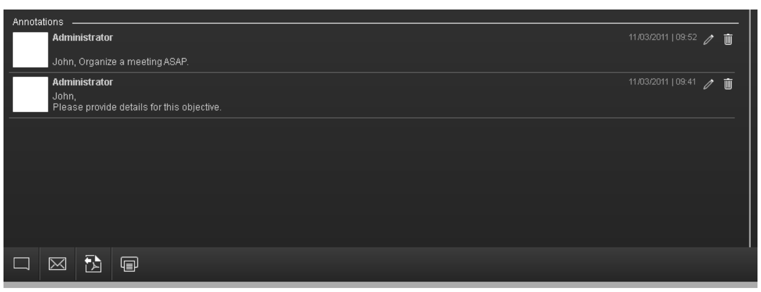
In addition, the display of the Goal Map depends on the user permission.

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.

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

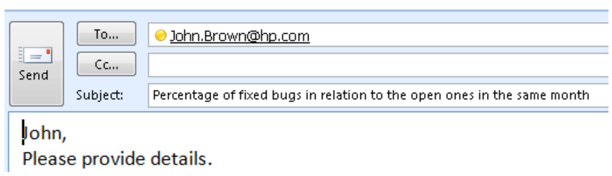
UI Element	Description
	Represents the parent Scorecard of the selected KPI or Objective. The name of the Scorecard is displayed near the icon.
	Represents the parent Perspective of the selected KPI or Objective. The name of the Perspective is displayed near the icon.
	Represents one of the following: • The selected Objective. The name, score, trend, and status of the Objective is displayed near the icon. • The parent Objective of the selected KPI.
	Represents the selected KPI. The name, value, trend, and status of the KPI is displayed near the icon.
<Toolbar>	For details, see "Annotations Area" (on page 291).

Annotations Area

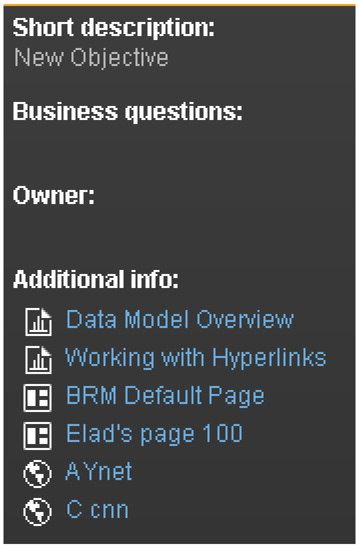


User interface elements are described below (when relevant, unlabeled elements are shown in angle brackets):

UI Element	Description
<Annotation>	Lists the annotations sent for the selected Objective or 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 sender can edit  or discard  the annotation.

UI Element	Description
	 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).
	**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, or Breakdown KPI selected in the Active KPIs pane.
Business motivation	The business motivation of the Objective, KPI, or Breakdown KPI selected in the Active KPIs pane.
Owner	The owner of the Objective, KPI, or Breakdown KPI selected in the Active KPIs pane.
Additional info	Links to external pages, Dashboard pages, BO or Xcelsius reports as configured in the Objective or KPI's configuration.

Perform the Maintenance of HP 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 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 How to 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 294) 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 294) in *General Admin*.

How to Configure User Permissions in Dashboard

The maintenance of HP 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 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 **Applications > Admin > Foundation Settings > Pages**.
2. Modify the **Maximum number of open pages** entry as needed.

For details, see 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 **Applications > Admin > Foundation Settings > Pages**.
2. Modify the **Maximum number of loaded pages** entry as needed.

For details, see Foundation Settings in *General Admin*

How to Show or Hide Debug Properties

The maintenance of HP 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 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 296).

Score Thresholds Page

Enables you to set the score thresholds for the KPIs in the HP Executive Scorecard. For details, see "Score Thresholds Page" (on page 298).

XS Settings Page

Enables you to set various scorecard settings.The HP 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 299).

Engine Settings Page

Enables you to configure settings for the HP Executive Scorecard KPI engine, which performs discovery on data coming from contexts (data sources). For details, see "Engine Settings Page" (on page 301).

This section includes the following topics:

How to Configure Dashboard Settings

This page enables you to configure Dashboard settings according to the following task:

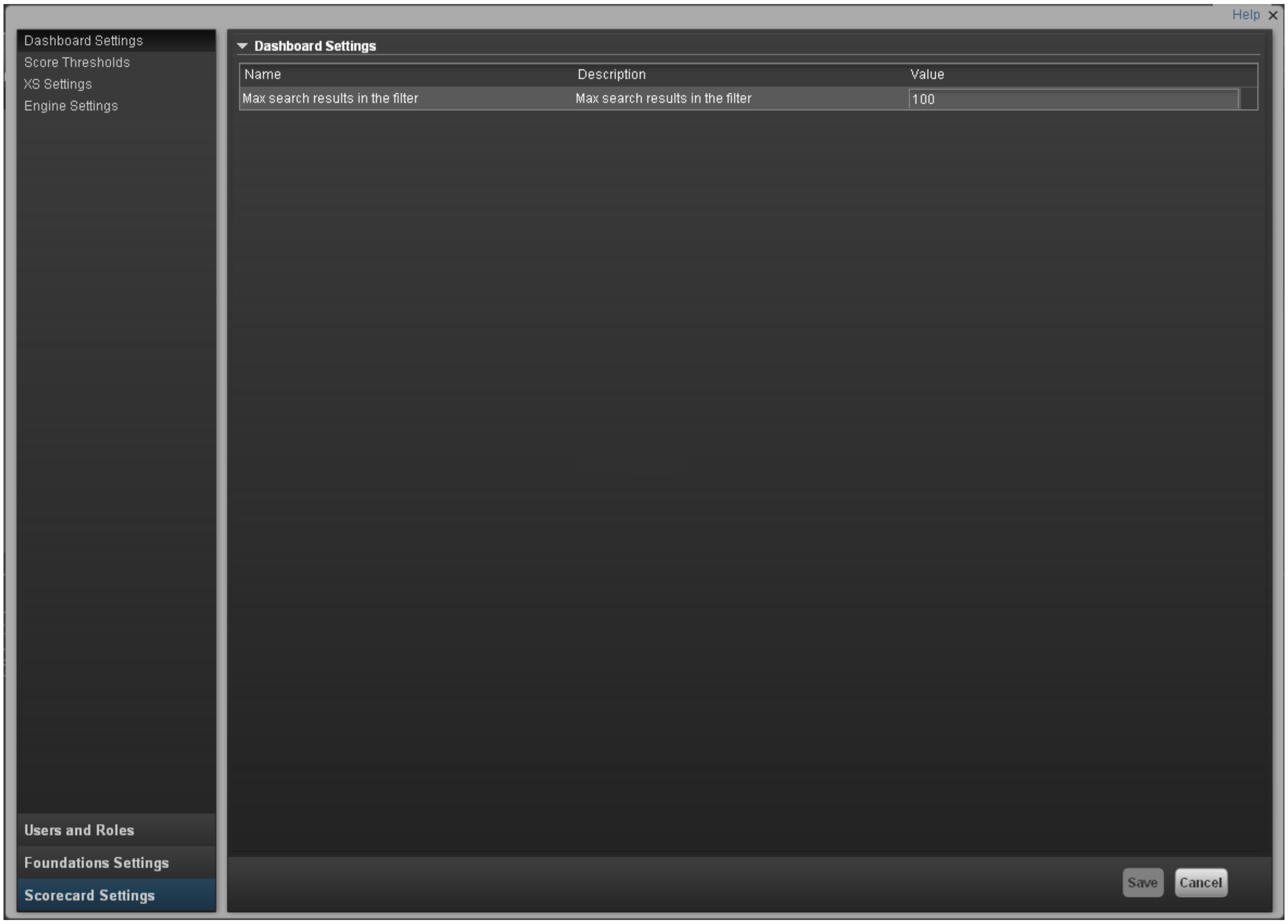
Set Dashboard Settings

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.

For details see "Dashboard Settings Page" (on page 296).

Dashboard Settings Page

This page enables you to configure specific dashboard settings .



To access	Select **Admin > Scorecard Settings > Dashboard Settings**
Relevant Tasks	"How to Configure Dashboard Settings" (on page 296)

Dashboard Settings Table

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

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:

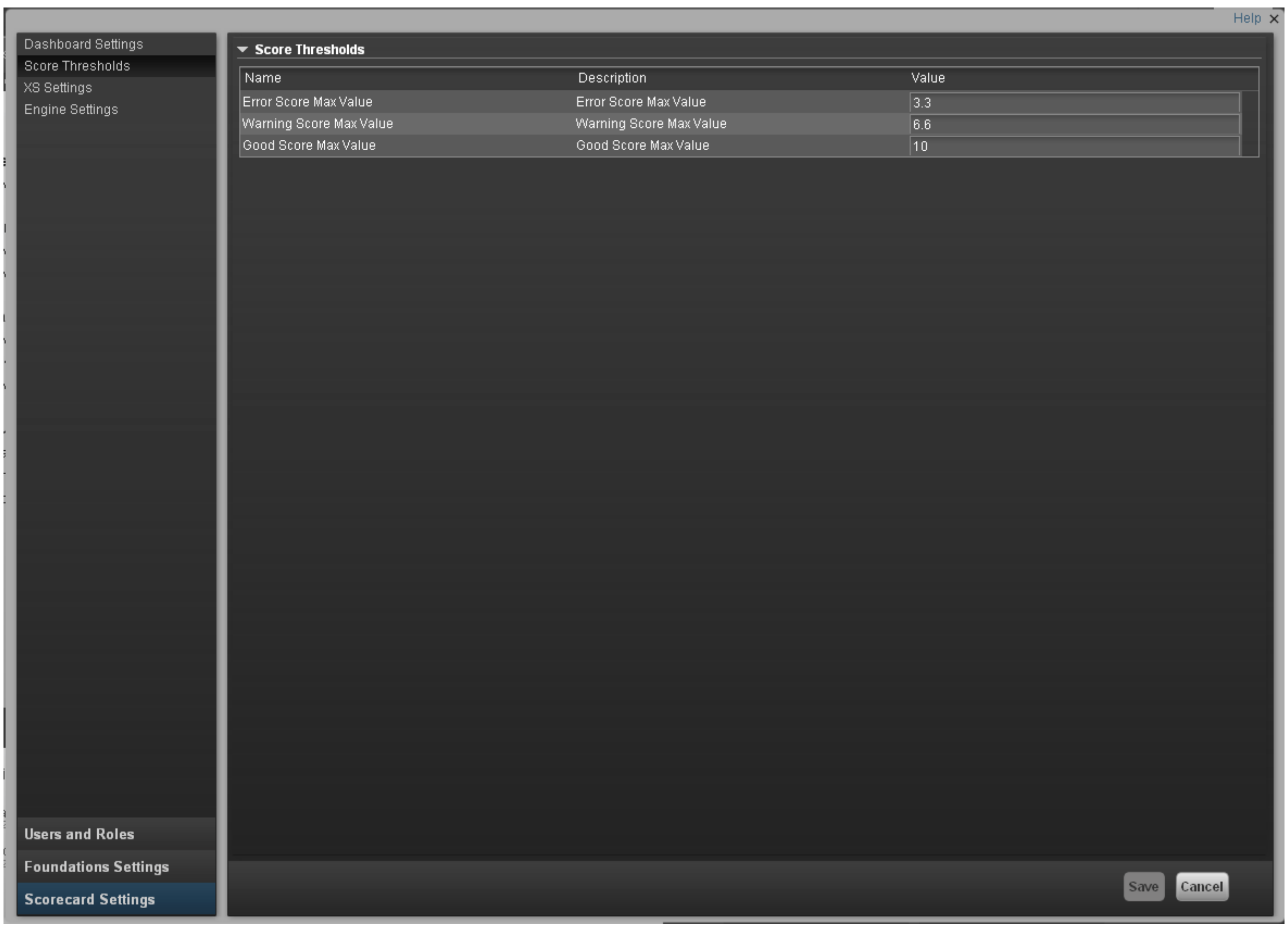
Set Score Thresholds

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.

For details see "Score Thresholds Page" (on page 298)

Score Thresholds Page

This page enables you to configure the score threshold settings for the KPIs in HP Executive Scorecard.



To access	Select **Admin** > **Scorecard Settings** > **Score Thresholds**
Relevant Tasks	"How to Configure Score Thresholds" (on page 298)

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. For 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. For 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. For 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 Executive Scorecard settings according to the following task:

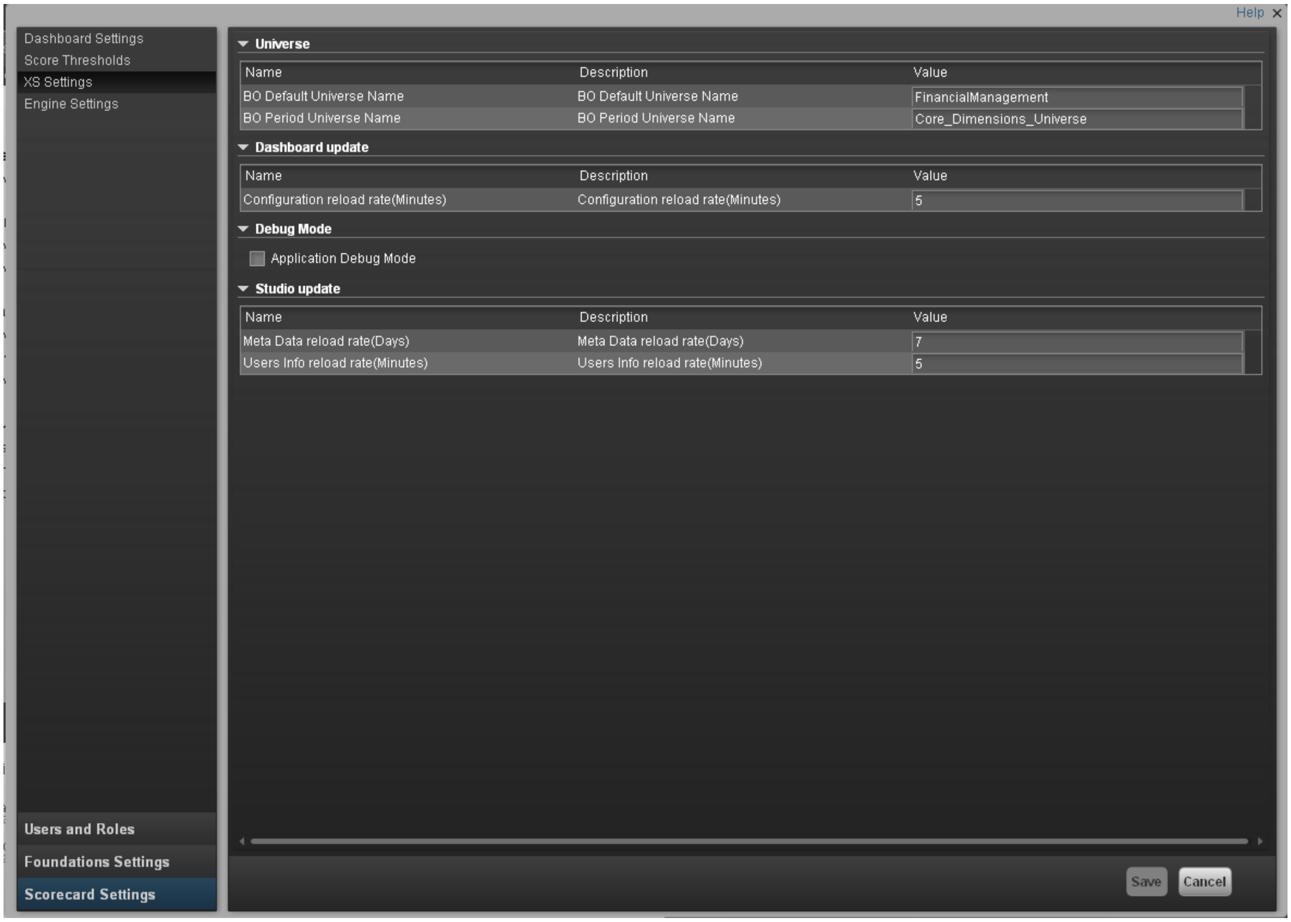
To configure XS settings:

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.

For details see "XS Settings Page" (on page 299)

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 299)

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:

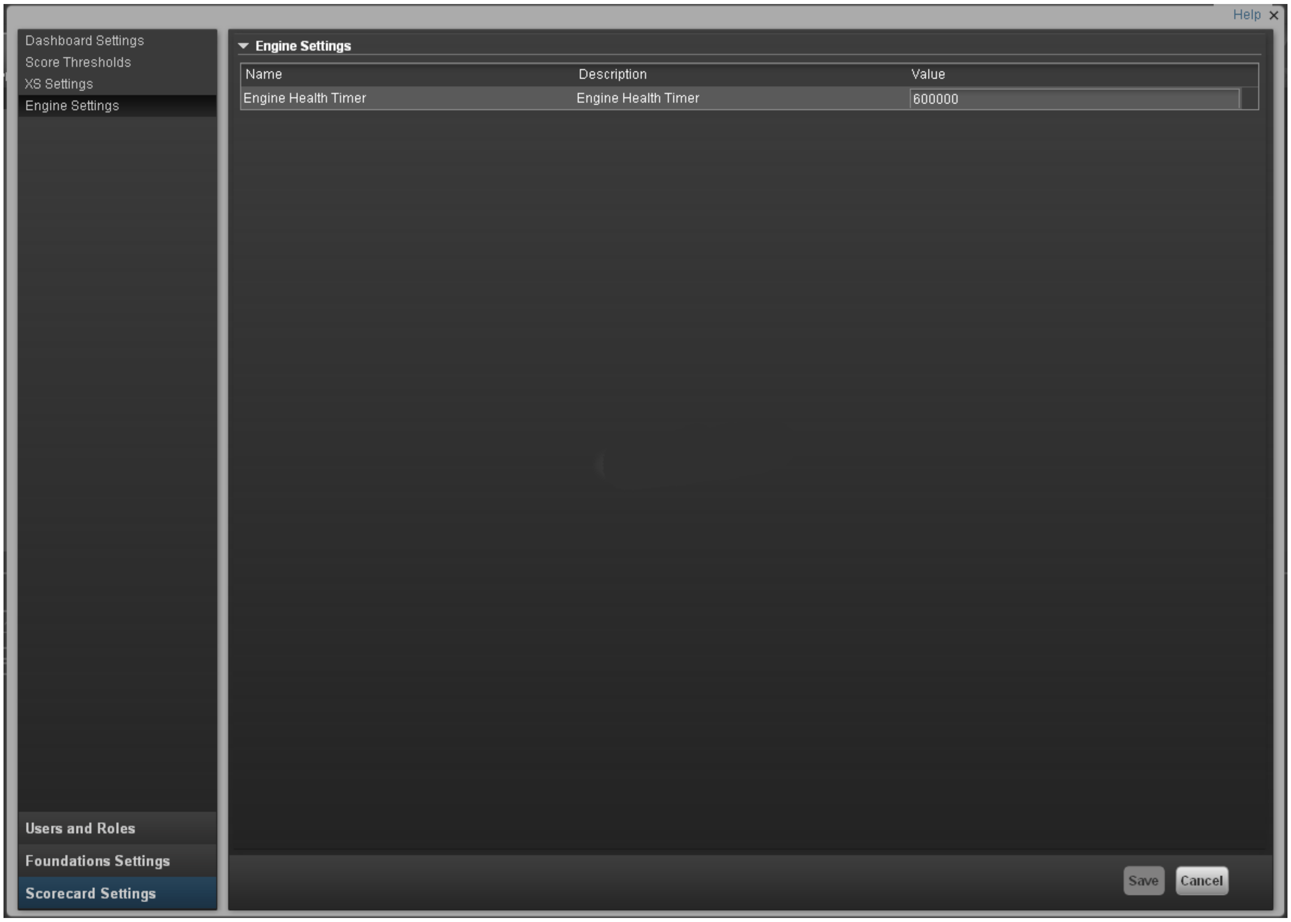
Set Engine Values:

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.

For details see "Engine Settings Page" (on page 301).

Engine Settings Page

This page enables you to configure the engine settings for HP Executive Scorecard.



To access	Select **Admin** > **Scorecard Settings** > **Engine Settings**
Relevant Tasks	"How to Configure Engine Settings" (on page 301)

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.

Import or Export Trees

This section includes the following topics:

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.

Note: 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.

To learn about importing and exporting nodes, see "Learn About Importing or Exporting Trees" (on page 305).

To export a node:

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 **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 **<your_instance>\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 **<your_instance>\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 307).

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 305).
2. Save the XML file to:
   - **<your_instance>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\load** folder for importing to the KPI Library pane.
   - **<your_instance>\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 **Start** menu.
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 **<your_instance>\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 **<your_instance>\agora\glassfish\glassfish\domains\BTOA\config\kpitemplates\import\error** 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 305).
   - **Import KPIs from an Excel file.** Expand **KPILoader** 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 **<your_instance>\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 **<your_instance>\agora\glassfish\glassfish\domains\BTOA\ config\kpitemplates\import\error** 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 305).

- **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. For example:

- If one or more of the KPI XML files are missing from the **<your_ instance>\agora\glassfish\glassfish\domains\Config\KPI Template\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, and the relevant error files are entered in the **<your_instance>\agora\glassfish\glassfish\domains\Config\KPI Template\ Import \Error** directory. For additional details about the directories, see "Learn About Importing or Exporting Trees" (on page 305).
- If one or more of the mandatory properties of a KPI (for example, the formula) are missing from the **<your_instance>\agora\glassfish\glassfish\domains\Config\KPI Template\ Import \Load**directory, the KPI is not imported, and the relevant error files are entered in the **<your_instance>\agora\glassfish\glassfish\domains\Config\KPI Template\ Import \Error** directory. For additional details about the directories, see "Learn About Importing or Exporting Trees" (on page 305).

For details about the structure of the XML files, see "Reference - XML Files Used in Import and Export Operations" (on page 307).

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 306)

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 307)) 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 306).

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 307).

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 306)

Note: When the server on which the Executive Studio is located starts, if the system detects files in the **<your_instance>\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:

- **<your_instance>\agora\glassfish\glassfish\domains\Config\KPIConfiguration\Export** or **Import** for files corresponding to nodes in the Active KPI pane.
- **glassfish\glassfish\domains\Config\KPITemplate\ Export** <your_instance>\agora\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.

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 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** • **MONTHLY** • **QUARTERLY** • **YEARLY** **Note:** The entry	<period>MONTHLY</period>

	must be in uppercase. For details, see "Configuration Details Tab for a KPI or a KPI Template" (on page 109).	
<**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 or a KPI Template" (on page 109). **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 105).	<comments>My comments</comments>
<**formula**>	The formula used to calculate the value of the KPI.	<formula>PERCENTAGE_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**	<thresholdType type="MAXIMIZE"> % and 10% (yellow), and a bad rate is between 10% and 100% (red).

	• **CENTRALIZE** • **MINIMIZE** **Note:** The entry must be in uppercase. For details, see "Configuration Details Tab for a KPI or a KPI Template" (on page 109).	
<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	<dataSource>FinancialManagement</dataSource>

	of the calculation and provide the entities used in the formula.	
<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 reopened 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 IT
process activities which were not met"/>
                <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 hours of work"/>
                <template name="TTM"/>
            </objective>
            <objective name="Improve Service Quality by 10% in 2012"
rule="BEST_CHILD" period="MONTHLY">
                <template name="Service Performance not met"/>
                <template name="MTBF"/>
                <template name="MTTR"/>
                <template name="% SLA Monitored Breached"/>
            </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 or a KPI Template" (on page 109) and "Calculation Details Tab" (on page 105).

Glossary

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 model

Data models describe the source, extraction, consolidation, and target components for a single entity.

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.

Dimension

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.

F

FPA

Financial Planning and Analysis

H

Historical data

Historical data is data from previous time periods. It is used for trend analysis and for comparisons to other time periods.

M

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).

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.

O

Organization

Organizations are parts of your business that provide a product or service to an internal or external customer. It can be an entire business unit, a cost or profit center, or a functional department. It is an entity that adds value directly or indirectly to your customer community.

R

Report

Reports are pre-defined documents that target a specific audience or user.

U

Universe

The universe is the result of a semantic layer of metadata that creates a business oriented view of the data. 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.