HP Quality Center Dashboard

Software Version: 9.20

Administrator's Guide

Document Number: DBAG9.2/01
Document Release Date: May 2007
Software Release Date: May 2007

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Welcome to This Guide

Welcome to HP Quality Center Dashboard, the platform that enables IT managers to track application readiness in real time and manage project risk. Dashboard enables you to view the status of your projects according to key performance indicators, using graphical displays. You can access Dashboard from Quality Center, or over the Internet or a corporate intranet by using a Web browser.

This guide describes how to administer Dashboard. This includes creating and configuring the relevant components that enable the user to see the required information.

How This Guide Is Organized

This guide contains the following chapters:

Chapter 1 Introduction

Introduces Dashboard and provides the workflow for the administrator.

Chapter 2 Administration at a Glance

Explains how to start Dashboard and introduces the Dashboard window options.

Chapter 3 Mapping Dashboard Properties to Quality Center Subjects

Explains how to use the Quality Center Connector to define entity property values, create subjects based on projects, and map property values to these subjects.

Chapter 4 Creating Quality Center KPIs

Describes how to use the Quality Center Connector to create and manage Key Performance Indicator (KPI) implementations.

Chapter 5 Managing Users and Groups

Describes how to define users and user groups, and specify user privileges.

Chapter 6 Creating Portlets

Describes how to create and configure portlets.

Chapter 7 Modifying and Importing Portlet Definitions

Describes how to modify portlet definitions and import Java and WSRP type portlets.

Chapter 8 Creating, Publishing and Distributing Modules

Describes how to create modules and distribute them to users. It also describes how to export and import XML objects.

Who Should Read This Guide

This guide is for the following users of Dashboard:

- System administrators
- Database administrators

This document assumes that you are familiar with HP Quality Center software and highly skilled in enterprise system and database administration.

Dashboard Printed Documentation

Dashboard comes with the following printed documentation:

HP Quality Center Dashboard User's Guide explains how to use HP Quality Center Dashboard to view graphical displays of your projects' readiness status, in real time. It also provides a description of each portlet, and an explanation of how to personalize the portlets according to your own personal preferences.

HP Quality Center Dashboard Administrator's Guide explains how to create, change, and manage KPIs (Key Performance Indicators) using the QQC (Quality Center Connector). It also explains how to manage users and groups, and exlains how to create and manage portlets and preconfigured pages using Dashboard.

HP Quality Center Dashboard Installation Guide explains how to install Dashboard, and describes the server and client database software needed to store the Dashboard application data.

Dashboard Online Documentation

Dashboard includes the following online documentation:

Printer-Friendly Documentation. Click the **User's Guide** and **Administrator's Guide** links in the Dashboard menu bar to open the books in PDF format.

Dashboard Online Help includes descriptions of each portlet. To view help about a portlet, click the portlet's help icon.

Typographical Conventions

This guide uses the following typographical conventions:

UI Elements and **Function Names**	This style indicates the names of interface elements on which you perform actions, file names or paths, and other items that require emphasis. For example, “Click the **Save** button.” It also indicates method or function names. For example, "The **wait_window** statement has the following parameters:"
Arguments	This style indicates method, property, or function arguments and book titles. For example, “Refer to the *HP User’s Guide*.”
<**Replace Value**>	Angle brackets enclose a part of a file path or URL address that should be replaced with an actual value. For example, <**MyProduct installation folder**>**bin**.
Example	This style is used for examples and text that is to be typed literally. For example, “Type Hello in the edit box.”
CTRL+C	This style indicates keyboard keys. For example, “Press ENTER.”
[ ]	Square brackets enclose optional arguments.
{ }	Curly brackets indicate that one of the enclosed values must be assigned to the current argument.
...	In a line of syntax, an ellipsis indicates that more items of the same format may be included. In a programming example, an ellipsis is used to indicate lines of a program that were intentionally omitted.
|	A vertical bar indicates that one of the options separated by the bar should be selected.

1

Introduction

This chapter provides a brief overview of HP Quality Center Dashboard and describes the tasks that the Dashboard administrator must perform to enable Dashboard users to view project data in Dashboard.

This chapter describes:

- Overview of Dashboard Administration
- Administration Workflow

Overview of Dashboard Administration

HP Quality Center Dashboard enables users to view information contained in Quality Center projects over time. For example, while a Quality Center project can show you the number of currently open defects, Dashboard can show you how the number of open defects changed every day over the last month.

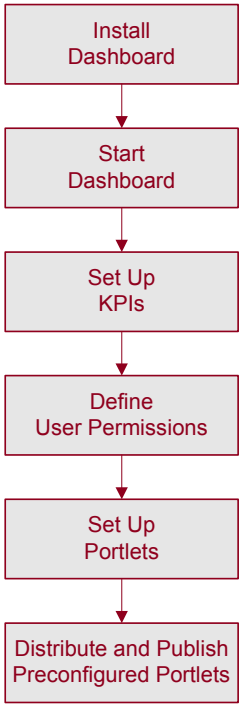
Measurements over time are known as *Key Performance Indicators*, or *KPIs*. Dashboard displays the KPI data as *portlets*, which are visual summaries of the data in the form of graphs or traffic light indicators.

As a Dashboard administrator, you are responsible for the following functions:

- Creating and modifying KPIs and portlets
- Managing users and groups
- Configuring and importing portlets
- Creating modules and distributing them to users

Administration Workflow

The following workflow shows the tasks that an administrator needs to perform in order to enable Dashboard:



The workflow tasks are described below:

1 Install Dashboard.

Install Dashboard on a server. For information on installing Dashboard, refer to the *HP Dashboard Installation Guide*.

2 Start Dashboard.

Log in to Dashboard as an administrator. Familiarize yourself with the Dashboard main window and menu options. Before you begin working, it is recommended that you import the default module provided with your installation disk. For more information on getting started, see Chapter 2, “Administration at a Glance.”

3 Set up KPIs.

Note: This task applies only if you are using Dashboard to view Quality Center data.

Use the Quality Center Connector (QCC Admin) to set up KPIs. KPIs contain queries that extract data from Quality Center projects and map the data to specified Dashboard data values. You set up KPIs in three steps, using the following three QCC Admin components:

- **Entities**: Dashboard defines a set of default *entities,* which map to Quality Center database tables. You define each entity by adding or modifying the entity's *properties,* which can be mapped to Quality Center database fields. Entity properties include a set of defined values.
- **Subjects**: A Quality Center *subject* is either a complete Quality Center project or a subset of a Quality Center project according to a filter condition that you define.

  For each subject that you create, you need to map the subject's field values to the standard Dashboard property values. For example, for one subject you may map the defect status "New" to the Dashboard property value "Unassigned", while in another you may decide that the defect status "New" should be mapped to the Dashboard property value "Open."
- **KPIs**: Dashboard provides you with a set of default KPIs that you can modify, or you can create new KPIs. A KPI has a *logical definition* that describes the KPI and defines the relevant entity and result properties. For each logical KPI, you can define one or more *implementations*. Each KPI implementation applies to specific subjects and is based on a query written in either SQL or JavaScript.

  For example, you may require one KPI implementation for a subject that contains defect status data in a standard system-defined field, and another KPI implementation for a subject that contains defect status data in a customized user-defined field.

For more information on setting up KPIs, see Chapter 3, "Mapping Dashboard Properties to Quality Center Subjects" and Chapter 4, "Creating Quality Center KPIs."

4 Define user permissions.

To control access to Dashboard functions, you define user groups, set group privileges, and specify the subjects that the groups can access. For more information on defining user permissions, see Chapter 5, "Managing Users and Groups."

5 Set up portlets.

Dashboard provides you with default portlets for displaying information extracted from your project. You can configure the default portlets and create new ones. Using the Create Portlet Definition wizard, you do the following:

- Choose a portlet type
- Specify the data source
- Set up display options, including drilldown to other portlets
- Define preferences
- Configure user access privileges
- Create online help for the portlet

Using the Import Portlet function, you can also link to portlets from other Web service tools by adding their URL links to Dashboard. These portlets can be viewed only. Dashboard supports Java and WSRP type portlets.

For more information on setting up portlets, see Chapter 6, "Creating Portlets."

6 Distribute and publish preconfigured portlets.

A *module* consists of one or more preconfigured pages that display the portlets you choose. You create a module by adding pages and selecting the portlets to display on each page. You can modify existing modules by changing pages, portlets, and user accessibility.

After you have enabled a module, you can *distribute* or *publish* it to specified users or user groups.

- When you distribute a module, the users who receive it can personalize its pages. You can distribute an entire module, specific pages from the module, or portlets from one or more of the pages.
- When you publish a module, you forward the entire module to users. The published pages can only be modified or recalled by an administrator.

At any time, you can deactivate or remove a published module from some or all of the users.

Finally, you can save Dashboard *objects* as XML files, and export them to other Dashboard instances or import them from other Dashboard instances. An object can contain one or more modules and can contain one or more specific portlet definitions.

For more information on distributing preconfigured portlets, see Chapter 8, "Creating, Publishing and Distributing Modules."

2

Administration at a Glance

This chapter explains how to start Dashboard and introduces the Dashboard window options.

To use Dashboard with Quality Center, you can access it either from your Web browser or directly from Quality Center.

This chapter describes:

- Accessing Dashboard from Quality Center
- Accessing Dashboard from a Web Browser
- The Dashboard Window
- Importing the Default Module
- Load Balancer Configuration for Deployment on a Cluster

Accessing Dashboard from Quality Center

You can access Dashboard directly from the Quality Center client.

To access Dashboard from Quality Center:

1. Log in to Quality Center as a Quality Center user that is a member of a Dashboard user group. For more information on logging in to Quality Center, refer to the *HP Quality Center User's Guide*. For more information on Dashboard user groups, see Chapter 5, "Managing Users and Groups.".
2. Click the **Tools** button on the upper-right of the Quality Center window, and select **Dashboard**. The Dashboard window opens, showing the first page of the default module.

   For more information on the Dashboard window, see "The Dashboard Window" on page 20.

Accessing Dashboard from a Web Browser

You can access Dashboard from outside Quality Center via your Web browser. To access Dashboard from outside Quality Center, you need to first log in to Dashboard. You log in using the user name and password of a Quality Center user that is a member of a Dashboard user group. For more information on Dashboard user groups, see Chapter 5, "Managing Users and Groups.".

To access Dashboard from outside Quality Center:

1. Open your Web browser and type the Dashboard URL:
   http://<Dashboard server>:<port number>/DeliveryCenter/dashboard

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Note: If Dashboard is running under a WebLogic or WebSphere application server, type the following URL:

http://<Dashboard server>:<port number>/DeliveryCenter/dashboard/app/portal/PageView.jsp

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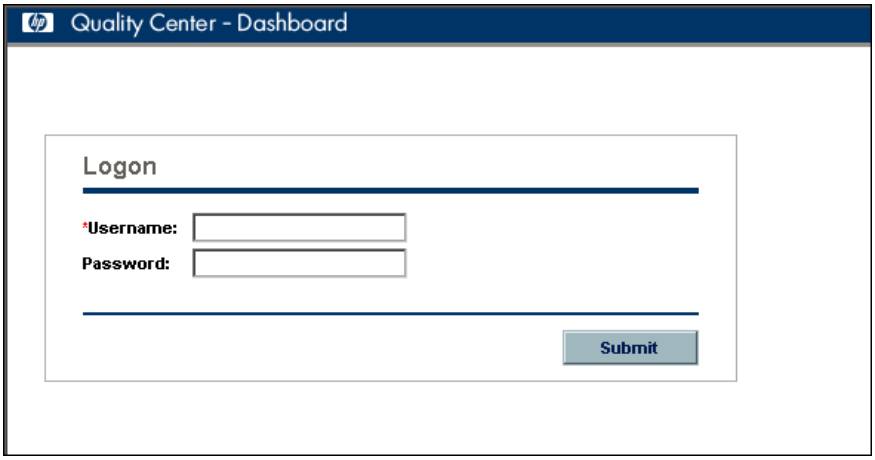
The Dashboard Logon window opens.



2 In the **Username** box, enter your Quality Center user name. When logging in for the first time as system administrator, use the user name **dd_admin**.

3 In the **Password** box, enter your Quality Center password. When logging in for the first time as system administrator, leave the password box empty.

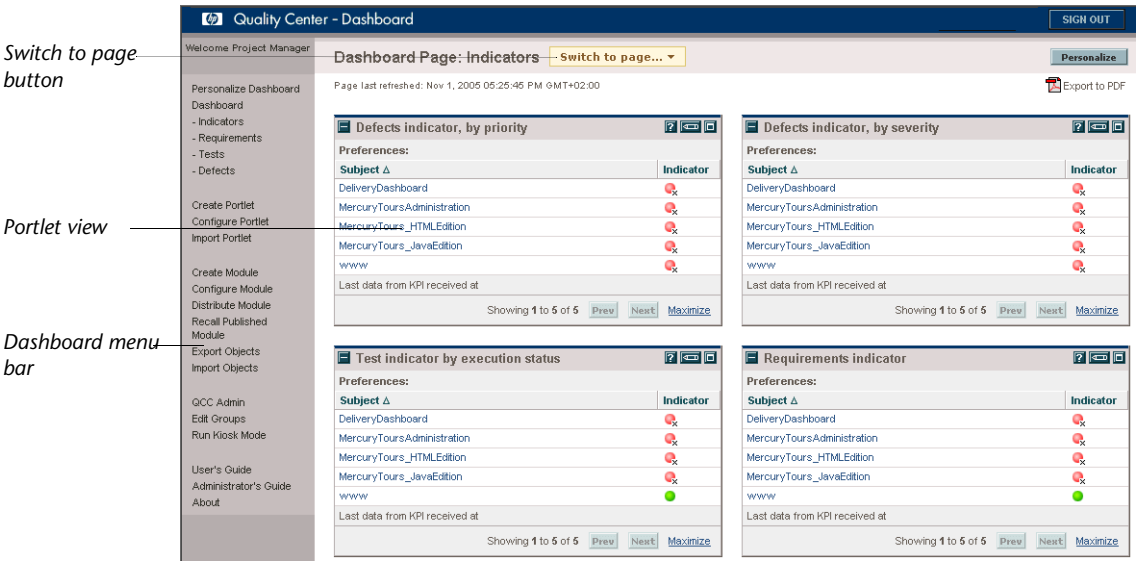
   For information on specifying or changing a password, refer to the Quality Center documentation.

4 Click the **Submit** button. The Dashboard window opens, showing the first page of the default module.

5 To exit Dashboard and return to the Dashboard Logon window, click the **Sign Out** button located on the upper right hand side of any Dashboard window.

The Dashboard Window

The first page of the Dashboard window is shown below:



The Dashboard window contains the following elements:

- **Dashboard menu bar:** Displays links for the various Dashboard options. For more information, see "Dashboard Menu Bar" on page 21.
- **Switch to page button:** Enables you to navigate between the different pages of Dashboard. The first time a user logs on, Dashboard displays the pages in the user's default module. Each page contains one or more portlets. The pages that the user sees depend on the module distributed by the administrator and the applications whose information is being viewed, and can be different for each type of user.

  For details of the pages that are available for each application, see "Dashboard Menu Bar" on page 21.
- **Portlet view:** Displays a graphical summary of the product readiness or performance data. For more information on portlets, refer to the *HP Quality Center Dashboard User's Guide*.

- **Personalize button:** Enables you to personalize the current Dashboard page. For more information, refer to the *HP Quality Center Dashboard User's Guide*.
- **Export to PDF button:** Creates a PDF file containing the current page's data.

Dashboard Menu Bar

The Dashboard menu bar can include the following options. Note that your menu bar includes only options for which you have been granted privileges.

- **Personalize Dashboard:** Enables you to personalize the Dashboard pages and portlets. For more information, refer to the *HP Quality Center Dashboard User's Guide*.
- **Dashboard:** Enables you to display the different pages of the Dashboard. Depending on the module distributed by the administrator, the following pages are displayed:
  - **Indicators:** Provides a visual indicator of the status of the critical KPIs, using predefined color-coded thresholds.
  - **Requirements:** Enables you to view the status of the requirements in the selected subject.
  - **Tests:** Enables you to view the status of the tests in the selected subject.
  - **Defects:** Enables you to view the status of the defects in the selected subject.
  - **Business Components:** Enables you to view the status of business components in the selected subject.

  For more information on Dashboard pages and portlets, refer to the *HP Quality Center Dashboard User's Guide*.
- **Create Portlet:** Clicking this link opens a wizard that guides you through the process of creating a portlet. For more information, see "The Portlet Creation Wizard" on page 94.
- **Configure Portlet:** Enables you to change the way that your portlets are configured. For more information, see "Modifying Portlet Definitions" on page 128.

- **Import Portlet:** Enables you to import portlets from other sources. You can choose to import a Java portlet or a WSRP portlet. For more information, see "Importing Java and WSRP Type Portlets" on page 130.
- **Create Module:** Enables you to create modules. For more information, see "Creating Modules" on page 134.
- **Configure Module:** Enables you to modify module pages. You can change parameters, add pages and portlets, and reassign permissions. For more information, see "Modifying Modules" on page 141.
- **Configure Default Module:** Enables specifying the module that is displayed when a user logs on to Dashboard for the first time. For more information, see "Configuring Default Modules" on page 138.
- **Distribute Module**: Enables you to distribute or publish modules to specified users or user groups. For more information, see "Distributing and Publishing Modules" on page 145.
- **Recall Published Module:** Enables you to deactivate or recall published modules. For more information, see "Recalling Published Modules" on page 148.
- **Export Objects:** Enables you to save modules and portlet definitions as XML files. For more information, see "Exporting Objects" on page 150.
- **Import Objects:** Enables you to import modules and portlet definitions saved as XML files. For more information, see "Importing Objects" on page 151.
- **QCC Admin:** Enables you to collect data from Quality Center projects for display in Dashboard portlets. For more information, see "Mapping Dashboard Properties to Quality Center Subjects" on page 25, and "Creating Quality Center KPIs" on page 49.
- **Edit Groups:** Enables you to assign Quality Center users to Dashboard user groups, and assign privileges to user groups by specifying permission settings. For more information, see "Managing Users and Groups" on page 85.

- **Run Kiosk Mode:** Enables a read-only cyclical display of the user's Dashboard pages (optional). Dashboard displays all of the user's pages, one after the other, in an endless loop.
- **User's Guide:** Opens the Dashboard User's Guide in Adobe Acrobat Reader (PDF) format.
- **Administrator's Guide:** Opens the Dashboard Administrator's Guide in Adobe Acrobat Reader (PDF) format.
- **About:** Displays information about the Dashboard version that is installed.

Importing the Default Module

Dashboard provides you with a default module that you can import. The default module is a set of pages that contain portlets.

To import the default module:

1. Click **Import Objects** on the Dashboard menu bar. The Import Dashboard Objects page opens.
2. In the Import Dashboard Objects page, navigate to the **DefaultDashboardPages** folder on your installation disk.
3. Double-click the XML file that contains default pages in your preferred language.

   For more information on importing a module, see "Exporting and Importing Objects" on page 150.

Load Balancer Configuration for Deployment on a Cluster

If multiple instances of Dashboard are deployed on a cluster and are accessed through a load balancer, you need to configure the load balancer to handle the Dashboard traffic.

For information on configuring the load balancer, refer to the TestDirector for Quality Center Knowledge Base (http://support.mercury.com) and search for Problem ID 44211.

3

Mapping Dashboard Properties to Quality Center Subjects

A Quality Center *subject* is either a Quality Center project or a subset of a project according to filter conditions that you define. KPIs collect data from subjects for display by the Dashboard. A KPI extracts data from a subject according to the standard Dashboard entity property values that you define.

This chapter describes how to create subjects based on projects, define entity property values, and map property values to subjects.

This chapter describes:

- About Mapping Properties to Subjects
- Viewing Entities
- Defining Entity Properties
- Creating Subjects
- Managing Subjects

About Mapping Properties to Subjects

A KPI extracts data from a Quality Center subject. You use Quality Center Connector Admin to create subjects and map them to Dashboard. Since different projects contain different database fields and field values, you create separate KPIs to extract data from each subject. Using the Quality Center Connector, you define a standard set of Dashboard *entities* (tables), *properties* (fields), and values that can be mapped to each Quality Center project. This enables the collection and display of meaningful multiple-project data.

For example, you may want to view a KPI that displays defect status information. In Dashboard, this property has one of the following values: **Open**, **Fixed**, **Reopen**, **Unassigned**, **Closed** or **Rejected**. By default, the Quality Center Connector maps the Quality Center field value **New** to the Dashboard property value **Unassigned**, so that whenever the value **New** appears in a Quality Center subject, it will be displayed in Dashboard as **Unassigned**. Similarly, the other Quality Center values (**Open**, **Fixed**, **Reopen**, **Closed** and **Rejected**) will be represented in Dashboard by the property values to which they are mapped.

If you have a Quality Center project with unique values, or special user-defined fields, you need to map them to the standard Dashboard property values to enable Dashboard to display the correct information.

Tip: You can define or modify the colors that Dashboard uses to display the values of an entity property. For more information, refer to the TestDirector for Quality Center Knowledge Base (http://support.mercury.com) and search for Problem ID 40390.

Viewing Entities

KPIs extract data according to the entity properties that you define. Each Dashboard entity corresponds to a Quality Center database table.

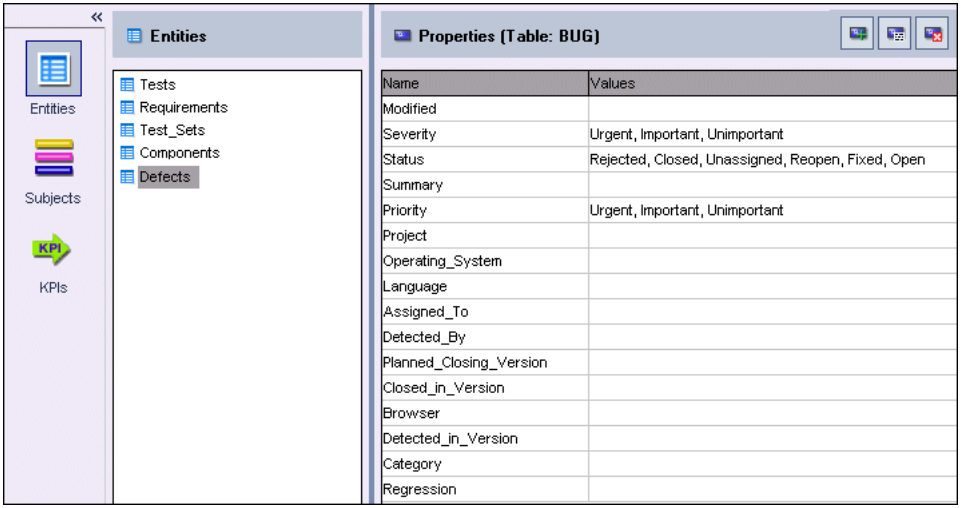
The following table lists the five fixed entities in the Quality Center Connector, and shows each entity's corresponding Quality Center database table:

Dashboard Entity	Quality Center Table	Contents
Tests	TEST	Test data from the Test Plan module
Requirements	REQ	Requirements data from the Requirements module
Test_Sets	CYCLE	Test set data from the Test Lab module
Components	COMPONENT	Business components data from the Business Components module
Defects	BUG	Defects data from the Defects module

To view entities:

1 From the main menu bar, click the **QCC Admin** link to access Quality Center Connector Admin.

2 Click the **Entities** button on the sidebar. The Entities window is displayed.



The Entities pane displays the entities that map to Quality Center database tables:

- **Tests**
- **Requirements**
- **Test_Sets**
- **Components**
- **Defects**

3 To view an entity's properties, click the entity. The entity's properties are displayed in the Properties pane. Each property is mapped to a column in the corresponding Quality Center database table.

Defining Entity Properties

Each entity in the Quality Center Connector includes default properties that are mapped to Quality Center database columns. The entity needs a property for each database column from which you want to extract data for display by Dashboard.

Mapping a Dashboard property connects it with a specific database column in a Quality Center project. In addition, each of the property's values is mapped to one of the field's valid values. For more information, see "Creating Subjects" on page 35.

You can add a new property to an entity, edit an existing property, or delete a property.

Adding a Property to an Entity

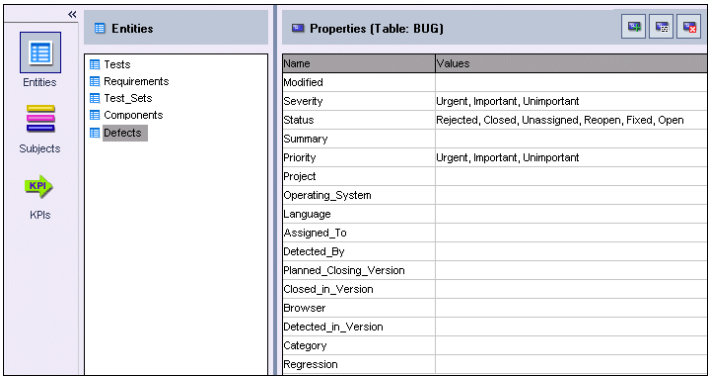
The Dashboard entity properties are by default mapped to the system fields in Quality Center projects. In many cases you do not need to add properties to Dashboard entities.

You need to add a new property to an entity in the following cases:

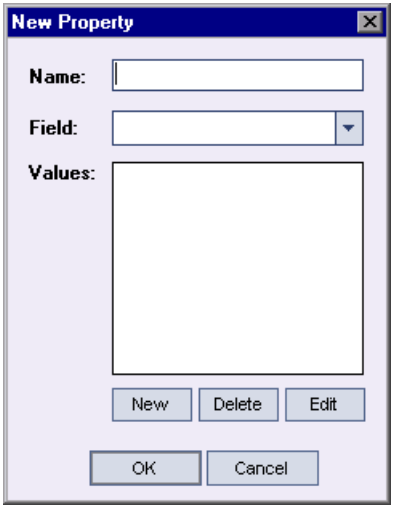
- If you want to create a KPI that collects data from a **user-defined** field in a Quality Center project. After you create the property, you map it to the column representing the user-defined field in the Quality Center database.
- If you want to create a property that is not related to a column in a Quality Center database table. For example, when the KPI needs to do something other than just extract data from a Quality Center database table—like adding the results of two other KPIs.

To add a property to an entity:

1 In **QCC Admin**, click the **Entities** button on the sidebar. The Entities window is displayed.



2 In the Entities pane, select the entity to which you want to add a property, and click the **New Property** button. The New Property dialog box opens.



3 In the **Name** box, enter a unique name for the new Dashboard property. Note that property names cannot contain spaces.

4 The **Field** box contains a drop-down list of the available system-defined Quality Center fields, according to field label. If this box is left empty, the property will not be mapped to a Quality Center field.

- ➤ If the property needs to be mapped to a Quality Center field, select the relevant field from the drop-down list. If the field to which you want to map the property does not appear in the list (for example, in the case of a user-defined field), type the field label—not the field database name—directly in the **Field** box. For example, use "Status", and not "BG_STATUS".
- ➤ If you are creating a property that is not related to a column in a Quality Center database table, leave the **Field** box blank.

5 In the **Values** box, you can add, rename and delete property values. If the property is a Lookup List type field, specify the possible values that you want to include in the KPI data. For example, the values for the Defect Status property in Dashboard are: **Rejected**, **Closed**, **Unassigned**, **Reopen**, **Fixed** and **Open**.

- ➤ To add a new value, click the **New** button to open the New Value dialog box. Enter the new value and click **OK**. Note that value names cannot contain spaces.
- ➤ To rename a value, select the value and click the **Edit** button to open the Edit Value dialog box. Enter the new value and click **OK**.
- ➤ To delete a value, select the value and click the **Delete** button.

6 Click **OK** to close the New Property dialog box. The new property is added to the end of the list of properties in the Properties pane.

Editing a Property

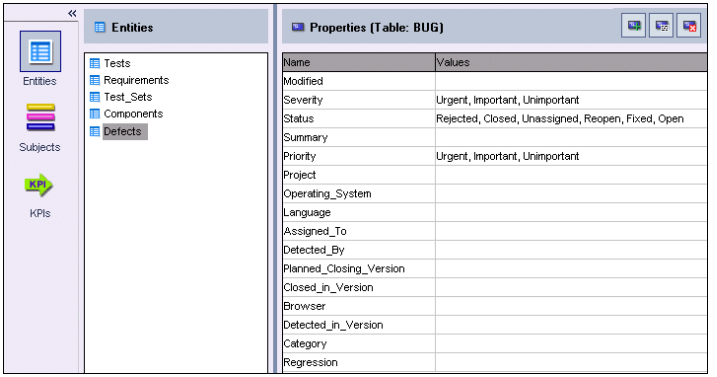
When editing an existing property, you can do the following:

- Rename the property
- Change the Quality Center field to which the property is mapped
- Change the property's values

Note: Any modifications that you make may affect your existing property mappings and KPI implementations. In addition, aggregated history data is changed to reflect these modifications.

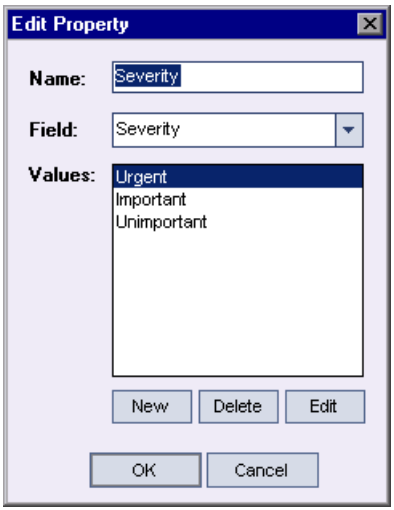
To edit a property:

1 In **QCC Admin**, click the **Entities** button on the sidebar. The Entities window opens.



2 In the **Entities** pane, select the entity that contains the property that you want to edit. The entity's properties are displayed in the Properties pane.

3 Double-click the property that you want to edit. Alternatively, select the property and click the **Edit Property** button. The Edit Property dialog box opens.



4 To change the property's name, enter a new name in the **Name** box.

5 To change the Quality Center field to which the property is mapped, select a different field in the **Field** box.

6 To update the property values that will be used by Dashboard:

- Click **New** to add a new value.
- Click **Delete** to delete a value.
- Click **Edit** to edit an existing value.

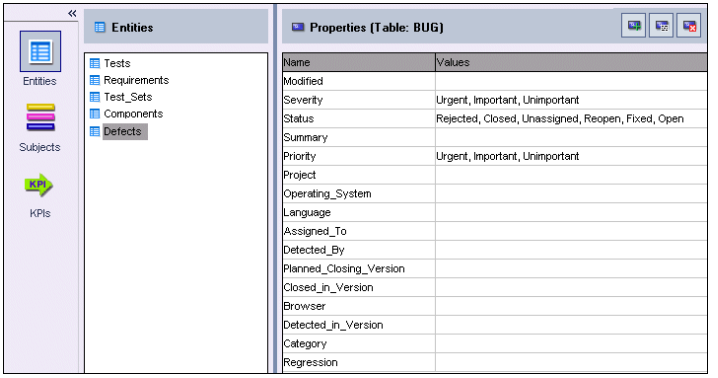
7 Click **OK**. The Edit Property dialog box closes. The updated property is displayed in the Properties pane.

Deleting a Property

You can delete properties from an entity. If you delete a property, any KPIs that use the deleted property will subsequently not return a value to Dashboard.

To delete a property:

1 In **QCC Admin**, click the **Entities** button on the sidebar. The Entities window opens.



2 In the Properties pane, select the property that you want to delete and click the **Delete Property** button. A confirmation message is displayed.

3 Click **OK**. The property is deleted from the entity and no longer appears in the Properties pane.

Creating Subjects

KPIs collect data from your Quality Center projects, according to the subjects that you create. A subject is either a complete Quality Center project, or a filtered subset of a project. For example, if a project includes multiple versions of a product, you might want to apply filters to create a subject that only relates to a specific version.

For each Dashboard subject that you create, you need to map the Dashboard property values to the corresponding Quality Center field values. This ensures that the Dashboard has a standard set of data across all subjects from which to create KPIs.

To create a subject:

1 Specify the source Quality Center project.

Select the Quality Center project from which this subject collects data. For more information, see "Specifying the Quality Center Project" on page 36.

2 Filter the project.

This is an optional step that enables you to define a filter that specifies a subset of the project. This limits the amount of data extracted from the project. For more information, see "Filtering a Subject" on page 37.

3 Map Dashboard properties to Quality Center fields.

For each subject, locate the fields in the Quality Center project from which you want to extract data. Then map each Quality Center field value to a Dashboard property value. For more information, see "Mapping Properties" on page 42.

4 Map KPIs to the subject.

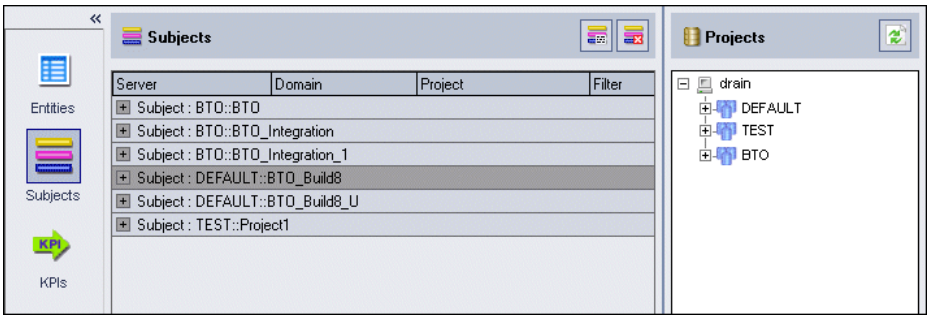
Use the Implementation Manager to map any required KPIs to the Quality Center subject. For more information, see Chapter 4, "Creating Quality Center KPIs."

Specifying the Quality Center Project

To create a subject, you first specify the Quality Center project from which the KPI needs to collect data.

To specify a project:

1 In **QCC Admin**, click the **Subjects** button on the sidebar. The Subjects window opens.



The Subjects window includes two panes: **Subjects** and **Projects**.

- The Subjects pane displays the Dashboard subjects that you create.
- The Projects pane displays your active Quality Center projects, hierarchically grouped by server and then domain.

2 In the Subjects pane, expand a subject to view the following:

- The subject's server, domain and project names
- Filter icon
- Mapping link

Note: Before logging on to a subject, use your browser to connect to the Quality Center server where the subject is located. This ensures that the machine from which you are accessing the QCC Admin has the correct Quality Center client.

---

3 To filter the subject, click the Filter icon. For more information on filtering, see "Filtering a Subject" on page 37.

4 To map the subject, click the **Mapping** link. For more information, see "Mapping Properties" on page 42.

5 To ensure that the **Projects** pane is up-to-date, click the **Refresh Projects Tree** button.

6 In the **Projects** pane, navigate to the server, domain or project that you want to add, and drag it to the **Subjects** pane. The new subject appears in the list in the **Subjects** pane.

When a new subject is created, a popup window appears and allows you to map all the available KPIs to the subject.

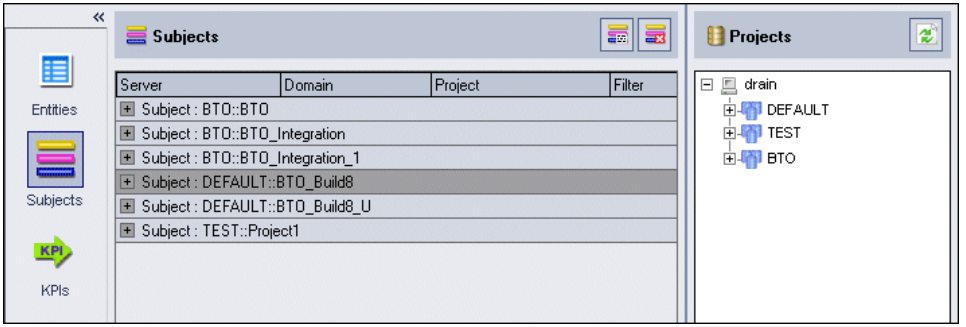
If you add a server or domain, all of its child projects are also added to the subject. For each project that you add, Quality Center Connector creates a separate subject.

Filtering a Subject

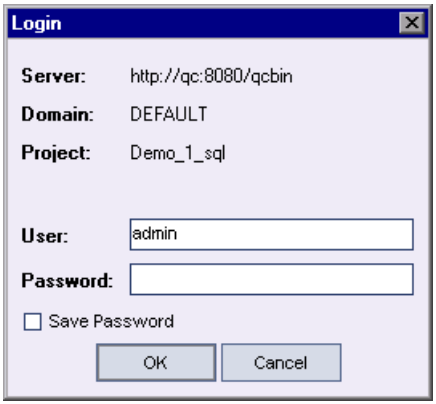
You can apply a filter to a subject, enabling you to limit the volume of data that the subject contains. This allows you to logically divide a large subject to suit your organization's needs. For example, you might filter a subject so that Dashboard shows only the data relevant to a specific version.

To filter a subject:

1 In **QCC Admin**, click the **Subjects** button on the sidebar. The Subjects window opens.

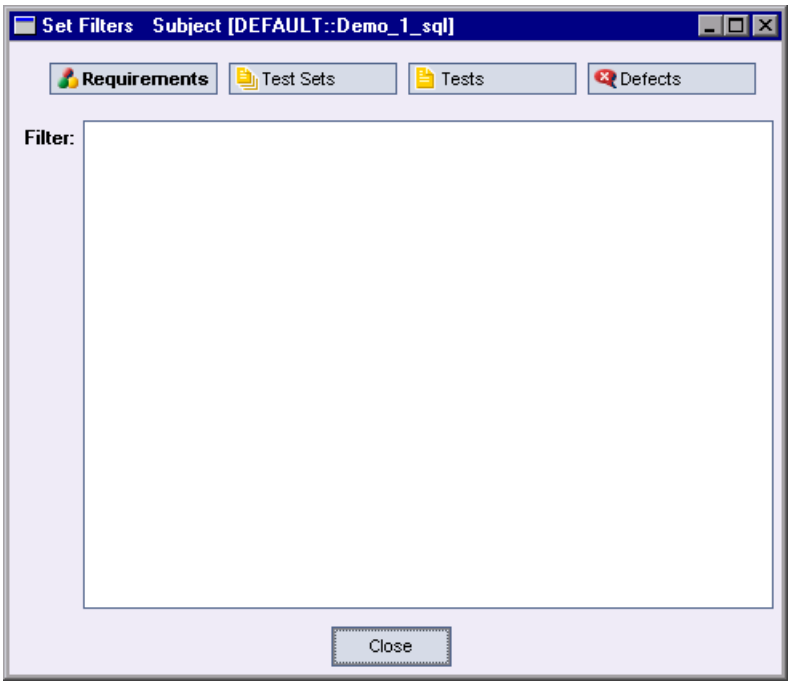


2 Expand the subject that you want to filter and click the corresponding **Filter** icon. The Quality Center Login dialog box opens.

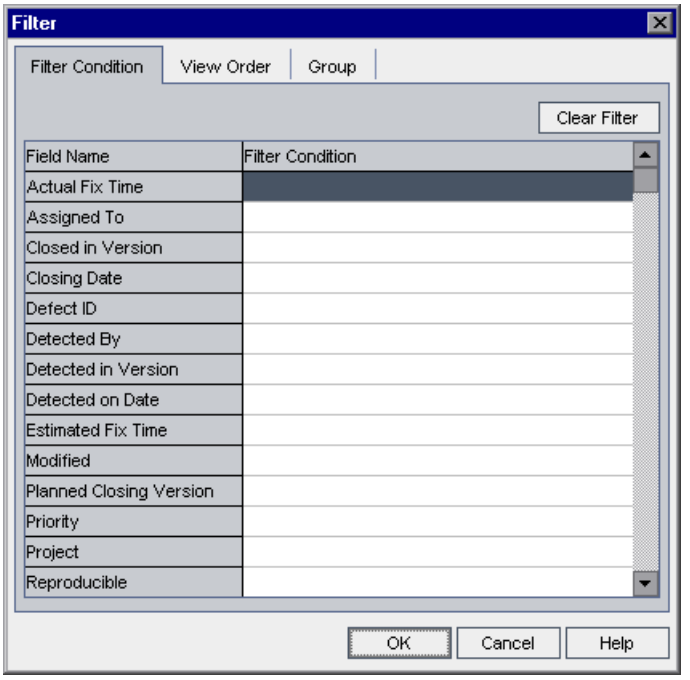


3 In the **User** box, enter the user name of any user of this Quality Center project, and enter the user's password in the Password field. Click **OK**.

The Set Filters window opens, with buttons for the Quality Center tables.



4 Select the Quality Center table for which you want to define filters. The Filter dialog box opens.

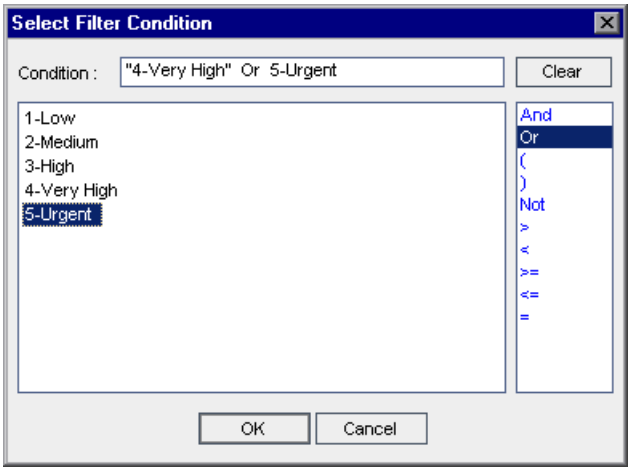


5 Set filters to define the subject data you require.

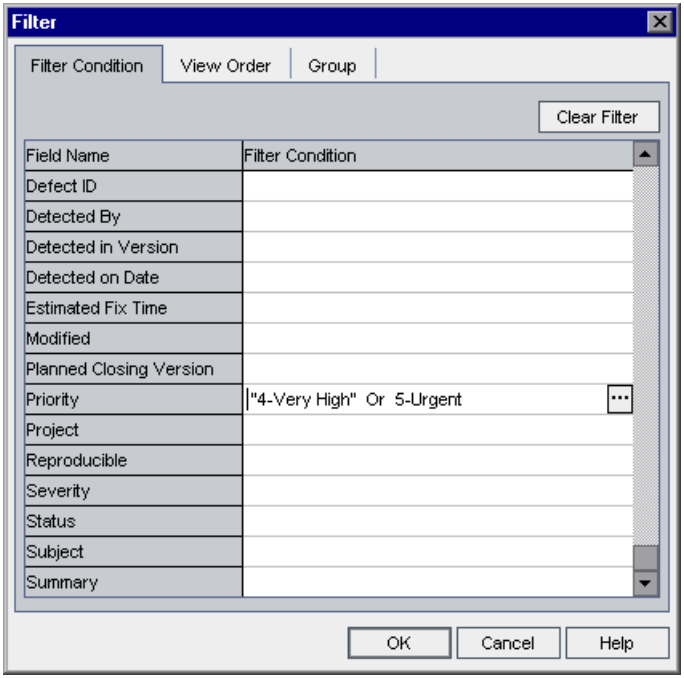
Note: For help on setting filters in Quality Center, click the **Help** button in the Filter dialog box or refer to the *HP Quality Center User's Guide*.

For example, if you want your subject to include only data from defects with specific versions, click the **Priority** field and click the **Browse** button. The Select Filter Condition dialog box opens.

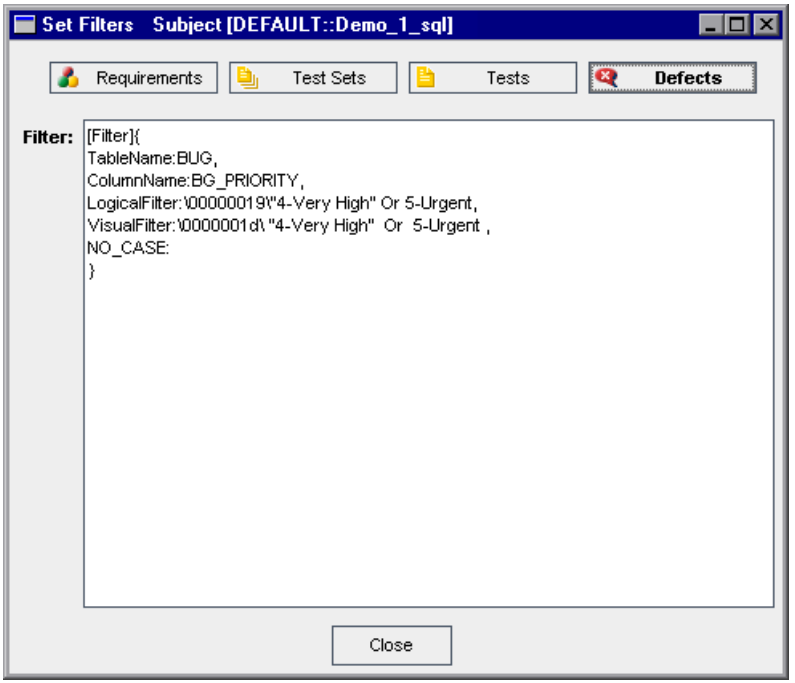
6 Choose the relevant conditions and click **OK** to close the Set Filter Condition dialog box.



The selected filter conditions are displayed in the Filter dialog box.



7 Click **OK**. The Filter dialog box closes. The Set Filters dialog box displays a script that indicates that a filter has been defined.



8 To set filters for additional Quality Center tables, repeat steps 4 through 7.

9 Click **Close** to close the Set Filters dialog box.

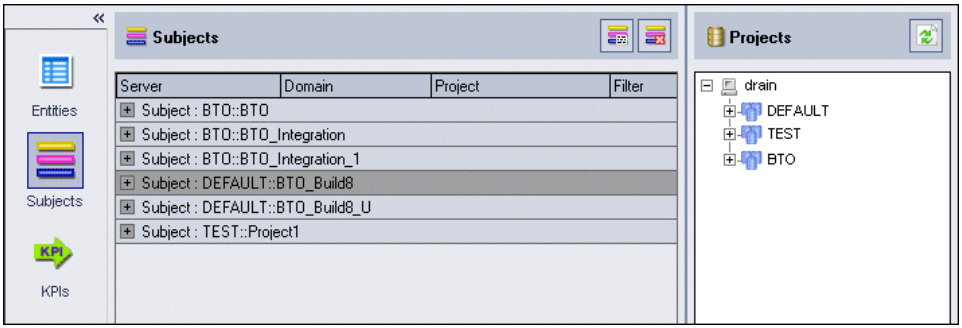
Mapping Properties

After you have selected a project and defined filters, you can now perform the last step of the subject creation process: mapping properties. Using the Property Mapping window, you map the Quality Center subject's field values to the standard Dashboard property values.

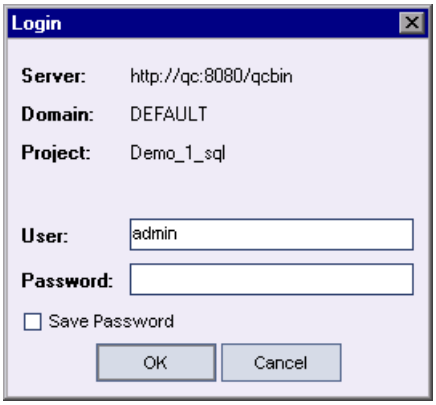
For example, for one subject you might decide to map the Quality Center defect status "New" to the Dashboard property value "Unassigned", while in another subject you might need to map the same Quality Center defect status ("New") to the Dashboard property value "Open".

To map Dashboard properties to Quality Center values:

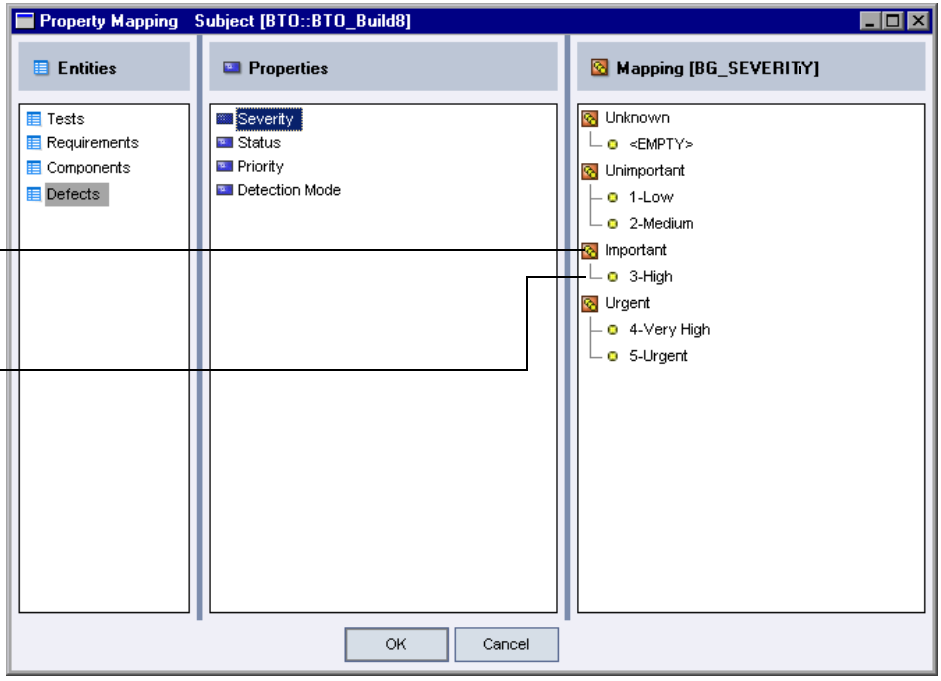
1 In **QCC Admin**, click the **Subjects** button on the sidebar. The Subjects window opens.



2 Expand the subject that you want to map and click its **Mapping** link. The Quality Center Login dialog box opens.



3 In the **User** box, enter the user name of any user of this Quality Center project, and enter the user's password in the Password field. Click **OK**. The Property Mapping window opens.



Parent level: Dashboard property value

Child level: Quality Center database field value

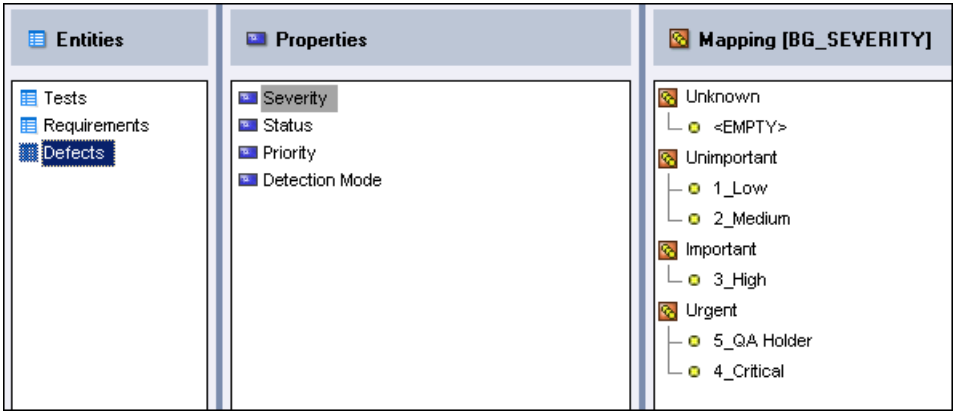
The Property Mapping window includes three panes:

- **Entities:** Displays the Dashboard entities that have defined property values. Only properties with predefined values are displayed. Each entity connects to a Quality Center database table.
- **Properties:** When you select an entity in the Entities pane, the Properties pane displays the properties for the selected entity. Only properties with predefined values are displayed. Each property is mapped to a Quality Center database column.
- **Mapping:** When you select a property in the Properties pane, the Mapping pane displays property's mappings. The pane title displays the Quality Center database field name to which the property is mapped.

  The Mapping pane displays the mappings for all of a property's values in the following way:

  - Each parent element shows one value of the Dashboard property.
  - The child elements show all the Quality Center database field values that you want to map to the property value. Any Quality Center values that have not been mapped are included in the **Unknown** category.

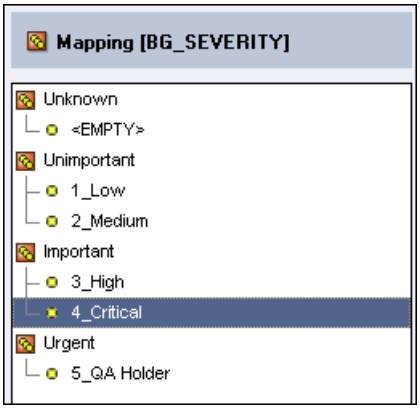
  For example, the following window shows how the Severity property's values (in Dashboard) are mapped to Quality Center values.



The following table explains the mapping of the property's values in the example:

These Quality Center database field values...	Map to this Dashboard property value...
1-Low 2-Medium	Unimportant
3-High	Important
5_QA Holder 4_Critical	Urgent

4 To map a property or change an existing mapping, select a Quality Center database field value and drag it to the appropriate Dashboard property value. For example, if you want to map the Quality Center value **4-Critical** to the Dashboard value **Important**, drag the value **4-Critical** and drop it onto the value **Important**. The new mapping is displayed as follows:



5 If there are Quality Center database field values that you do not want to be mapped to property values, drag them to the **Unknown** property value.

6 Repeat steps 4 through 5 until the mappings of all the property's values have been defined.

7 Click **OK** to close the Properties Mapping dialog box.

Managing Subjects

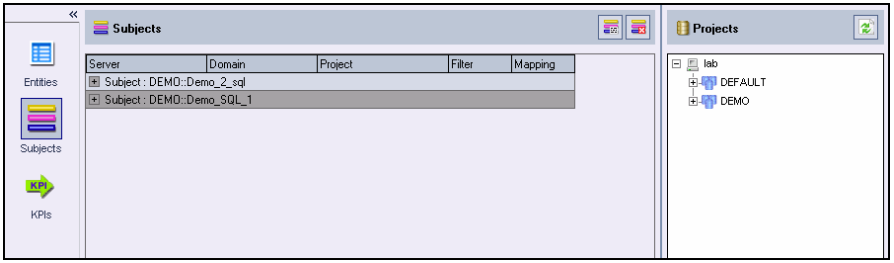
You can rename or delete a Dashboard subject.

Renaming a Subject

By default, when you create a subject, Dashboard assigns it a name based on the Quality Center domain and project. If you create more than one subject using the same project, the subjects will be assigned similar names. Therefore it is suggested that you rename the subject so that its name reflects the filter it uses.

To rename a subject:

1 In **QCC Admin**, click the **Subjects** button on the sidebar. The Subjects window opens.



2 Select the subject that you want to rename and click the **Rename Subject** button. The Rename Subject dialog box opens.

3 In the **Subject Name** box, edit the subject name.

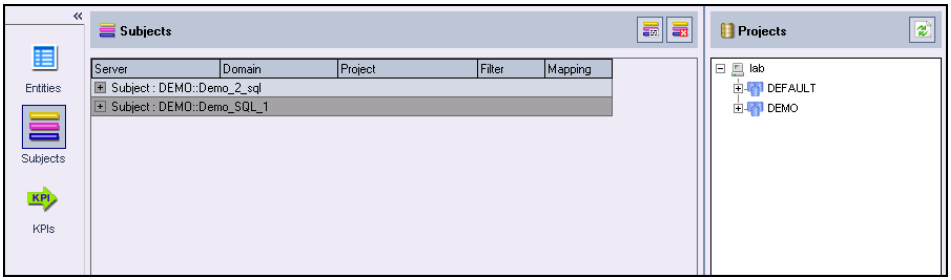
4 Click **OK**. Quality Center Connector displays the renamed subject in the **Subjects** pane.

Deleting a Subject

You can delete a subject from the **Subjects** pane.

To delete a subject:

1 In **QCC Admin**, click the **Subjects** button on the sidebar. The Subjects window opens.



2 Select the subject that you want to delete and click the **Delete Subject** button.

3 Click **Yes** to confirm.

4

Creating Quality Center KPIs

Key Performance Indicators (KPIs) are quantifiable measurements that are designed to track critical performance variables over time. Dashboard uses KPIs to extract data from Quality Center subjects and display them to the user in portlets.

You use the QCC Admin tool to create and implement Quality Center KPIs.

This chapter describes:

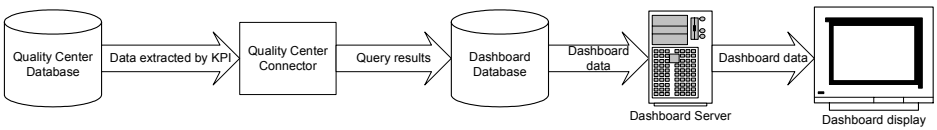
- About KPIs
- KPI Structure
- Understanding the KPIs Window
- Default Quality Center KPIs
- Creating KPIs
- Creating KPI Implementations
- Creating KPI Queries
- Managing KPIs
- Configuring KPI Data Collection

About KPIs

KPIs contain queries that extract data from specific Quality Center subjects (projects or subsets of projects), or calculate values from data extracted by other KPIs. KPI queries are written in SQL or JavaScript.

You use Quality Center Connector Admin to create and implement KPIs. Quality Center Connector Admin acts as an interface between the data extracted by the KPIs and the Dashboard. After a KPI has extracted data from a Quality Center subject, the Dashboard displays the information in portlets.

The following diagram describes the flow of data from the Quality Center database to the Dashboard display:



The data flows in the following way:

1. The KPI query periodically runs on the subject's Quality Center database to extract the required data. You can configure when this query runs. For more information, see "Configuring KPI Data Collection" on page 80.
2. Quality Center Connector Admin stores the query results in the Dashboard database.
3. The Dashboard server retrieves the KPI data from the Dashboard database and displays it on the Dashboard display.

Dashboard is supplied with default KPIs. You can use these KPIs or create new ones.

KPI Structure

A KPI contains the following:

- **Logical definition:** Describes the KPI and defines the relevant entity and result properties.
- **Implementations:** Queries written in SQL or JavaScript. A KPI contains one or more implementations.

  A KPI may need multiple implementations for extracting data from different subjects. For example, if one subject contains defect status data in a combination of two user-defined fields and another subject contains defect status data in the default system field, you need separate implementations for extracting data from each subject. Using a single KPI implementation for both subjects will cause you to extract data from the wrong field in one of the subjects.

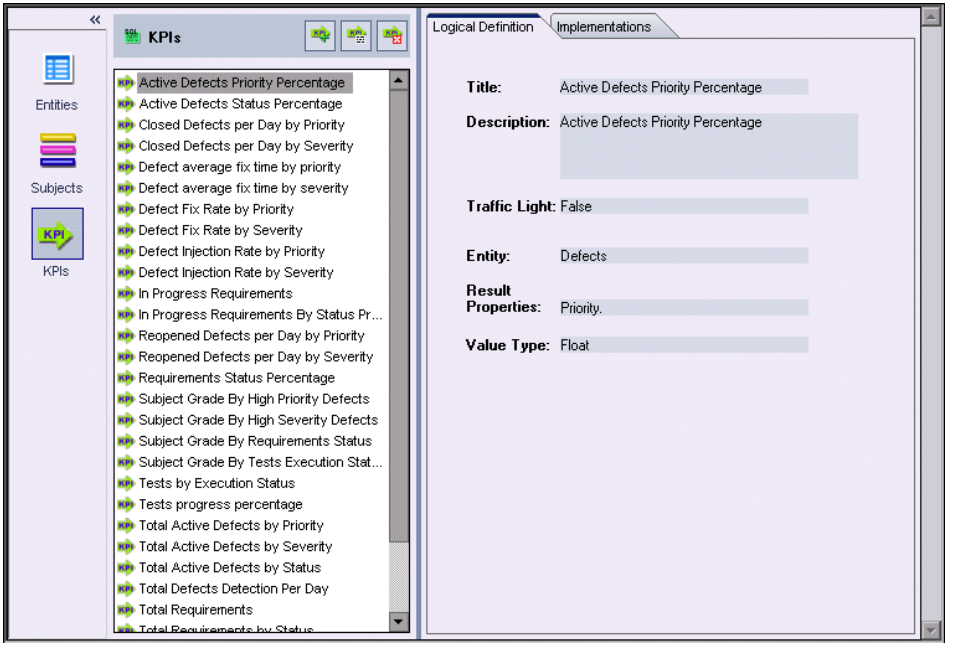
  You can change the frequency and times at which the KPIs collect data from your subjects. This helps you to balance the load on your Quality Center databases. For more information, see "Configuring KPI Data Collection" on page 80.

Understanding the KPIs Window

You use the KPIs window to create and manage KPIs and their implementations.

To display the KPIs window:

In **QCC Admin**, click the **KPIs** button on the sidebar. The KPIs window opens.



The KPIs window contains the following sections:

- **KPIs pane:** Displays a list of all the available KPIs. These include the default Quality Center KPIs provided with Dashboard and any user-defined KPIs. You can add, edit and delete KPIs. For information on the default Quality Center KPIs, see “Default Quality Center KPIs” on page 53.
- **Logical Definition tab:** Used for describing the KPI and defining the relevant entity and result properties. See “Creating KPIs” on page 57.
- **Implementations tab:** Used for adding implementations and creating queries for the KPIs. See “Creating KPI Implementations” on page 60.

Default Quality Center KPIs

The following default Quality Center KPIs are provided with Dashboard:

KPI Name	Description
Active Defects by Priority Percentage	Calculates the distribution of active defects according to their priority. Does not calculate defects with a status of 'closed' or '<unknown>'.
Active Defects Status Percentage	Calculates the distribution of active defects according to their status. Does not calculate defects with a status of 'closed' or '<unknown>'.
BP Component by User	Calculates the number of components grouped by the users who created them.
BP Components by Status	Calculates the number of components grouped by component status.
BP Components by Type	Calculates the number of components grouped by component type.
BP Requested Components	Calculates the number of components that have "Not Implemented" status.
BP Reused Components	Calculates the number of components used in more than one test.
Closed Defects per Day by Priority	Calculates the number of defects that were closed during the current day, grouped by priority.
Closed Defects per Day by Severity	Calculates the number of defects that were closed during the current day, grouped by severity.
Defect Average Fix Time by Priority	Calculates the average fix time for defects grouped by priority. The result is displayed by days.
Defect Average Fix Time by Severity	Calculates the average fix time for defects grouped by severity. The result is displayed by days.
Defect Fix Rate by Priority	Calculates the average number of defects that were fixed during the current day, grouped by priority. The data does not include any defect that was created in Quality Center that was immediately set to 'fixed'.

KPI Name	Description
Defect Fix Rate by Severity	Calculates the average number of defects that were fixed during the current day, grouped by severity. The data does not include any defect that was created in Quality Center that was immediately set to 'fixed'.
Defect Injection Rate by Priority	Calculates the number of defects added in the current day, grouped by priority.
Defect Injection Rate by Severity	Calculates the number of defects added in the current day, grouped by severity.
In Progress Requirements	Calculates the total number of requirements that are currently in progress. Does not calculate requirements with a status of 'not covered', 'no run' or '<unknown>'.
In Progress Requirements by Status Percentage	Calculates the distribution of requirements that are currently in progress, grouped by status. Does not calculate requirements with a status of 'not covered', 'no run' or '<unknown>'.
Reopened Defects per Day by Priority	Calculates the number of defects that were reopened during the current day, grouped by priority.
Reopened Defects per Day by Severity	Calculates the number of defects that were reopened during the current day, grouped by severity.
Requirements Status Percentage	Calculates the distribution of requirements by their status.

KPI Name	Description
Subject Grade by High Priority Defects	Calculates the subject grade according to the number of high priority ('Urgent') defects. The calculation thresholds are: ➤ **Grade 1: Low** - Greater than 25% high priority defects. ➤ **Grade 2: Medium** - Between 10% and 25% high priority defects. ➤ **Grade 3: High** - Fewer than 10% high priority defects. Calculations are not performed on defects with a status of 'closed' or '<unknown>'.
Subject Grade by High Severity Defects	Calculates the subject grade according to the number of high severity ('Urgent') defects. The calculation thresholds are: ➤ **Grade 1: Low** - Greater than 25% high severity defects. ➤ **Grade 2: Medium** - Between 10% and 25% high severity defects. ➤ **Grade 3: High** - Fewer than 10% high severity defects. Calculations are not performed on defects with a status of 'closed' or '<unknown>'.
Subject Grade by Requirements Status	Calculates the subject grade according to the rate at which covered requirements passed their related testing. The calculation thresholds are: ➤ **Grade 1: Low** - Greater than 30% of failed requirements. ➤ **Grade 2: Medium** - Between 75% and 90% of passed requirements. ➤ **Grade 3: High** - Greater than 90% of passed requirements.

KPI Name	Description
Subject Grade by Tests Execution Status	Calculates the subject grade according to the number of passed tests. The calculation thresholds are: ➤ **Grade 1: Low** - Greater than 30% of failed tests. ➤ **Grade 2: Medium** - Between 75% and 90% of passed tests. ➤ **Grade 3: High** - Greater than 90% of passed tests.
Tests by Execution Status	Calculates the distribution of tests, grouped by execution status.
Tests Progress Percentage	Calculates the progress of tests.
Total Active Defects by Priority	Calculates the total number of active defects, grouped by priority. Calculations are not performed on defects with a status of 'closed' or '<unknown>'.
Total Active Defects by Severity	Calculates the total number of active defects, grouped by severity. Calculations are not performed on defects with a status of 'closed' or '<unknown>'.
Total Active Defects by Status	Calculates the total number of active defects, grouped by status. Calculations are not performed on defects with a status of 'closed' or '<unknown>'.
Total Defects Detection per Day	Calculates the total number of defects detected during the current day.
Total Requirements	Calculates the total number of requirements.
Total Requirements by Status	Calculates the total number of requirements, grouped by requirement coverage status.
Total Runs per Day	Calculates the total number of test runs that occurred during the current day.
Total Tests	Calculates the total number of tests.
Total Tests per Day	Calculates the total number of tests that were created during the current day.

Creating KPIs

Creating a KPI involves the following steps:

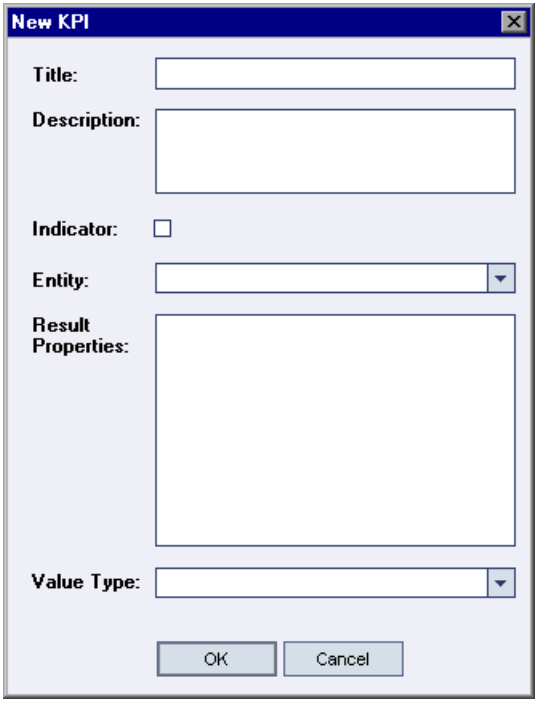
1 Creating the logical definition.

2 Creating the implementations.

3 Writing the queries.

To create a KPI's logical definition:

1 In the KPIs window, click **New KPI**. The New KPI dialog box opens.

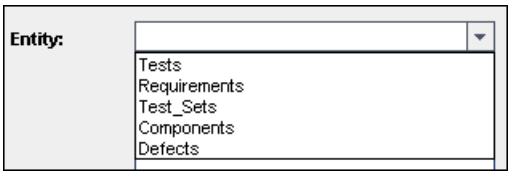


2 In the **Title** field, enter a name for the KPI.

3 In the **Description** field, enter a description for the KPI.

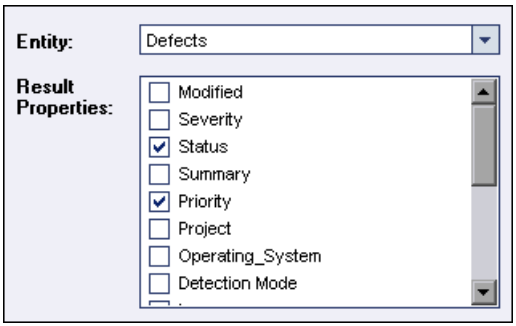
4 If the KPI's data is to be displayed in Dashboard as an indicator portlet (a traffic light), check the **Indicator** box. An indicator portlet provides a visual display of the status of critical KPIs, using predefined color-coded thresholds. For more information on portlets, refer to the *HP Quality Center Dashboard User's Guide*.

5 In the **Entity** list, select the entity from which the KPI will extract data.



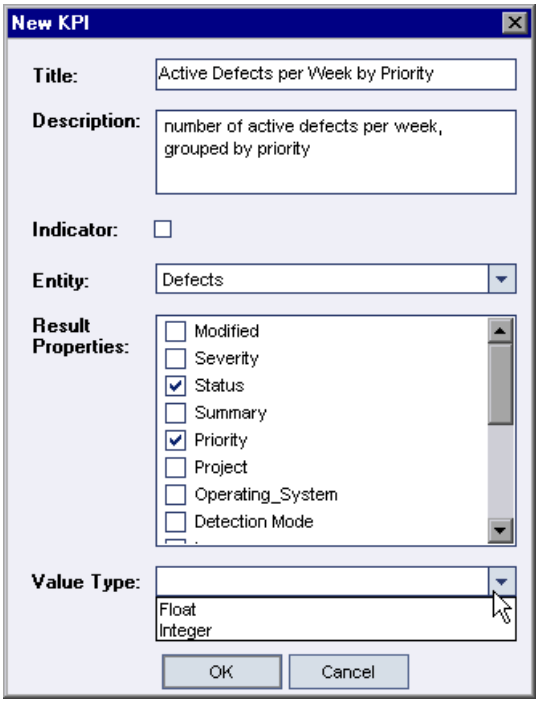
For more information on entities, see Chapter 3, "Mapping Dashboard Properties to Quality Center Subjects."

6 When you select an entity (see step 5), the **Result Properties** box displays a list of the entity's properties. These define the format of the data that the KPI should return.

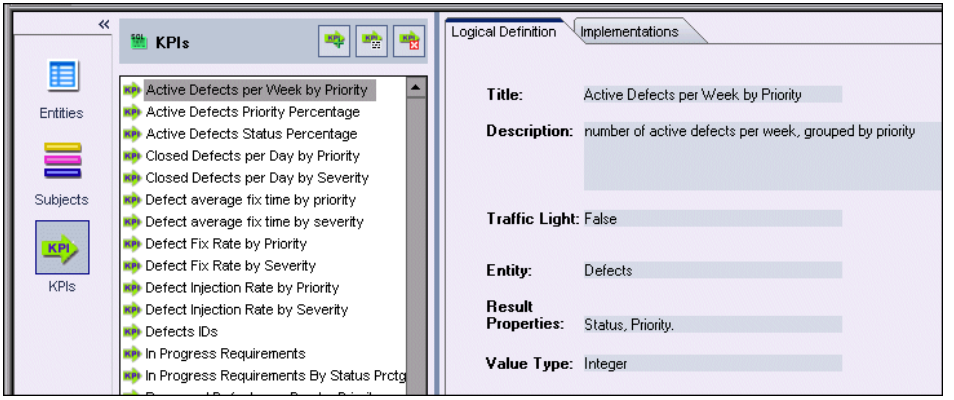


Select the required properties. For more information on properties, see Chapter 3, "Mapping Dashboard Properties to Quality Center Subjects."

7 In the **Value Type** list, select the type of value that you want the KPI to return.



8 Click **OK** to close the New KPI dialog box. The new KPI is added to the list of KPIs, and its logical definition is displayed in the Logical Definition tab.



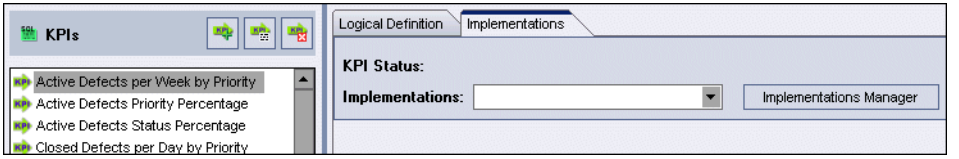
Creating KPI Implementations

After you create the KPI's logical definition, you need to create an implementation and create a query in SQL or JavaScript.

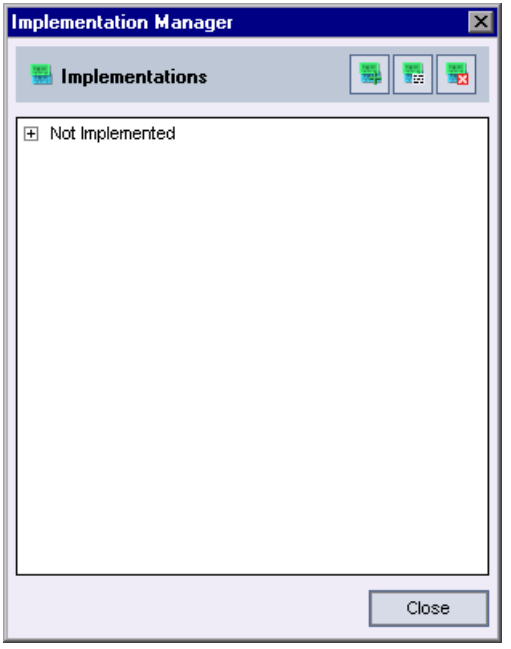
To create an implementation:

1 In the KPIs window, under the **KPIs** list, select the KPI that you want to implement.

2 Click the **Implementations** tab.

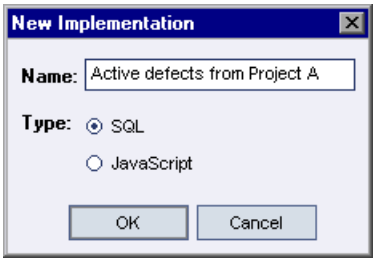


3 Click the **Implementations Manager** button. The Implementation Manager dialog box opens.



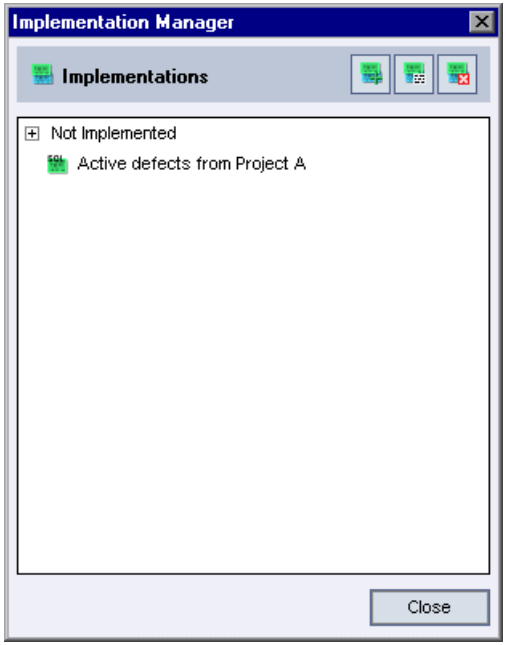
4 Click the **Add New Implementation** button. The New implementation dialog box opens.

5 Enter a name for the implementation.

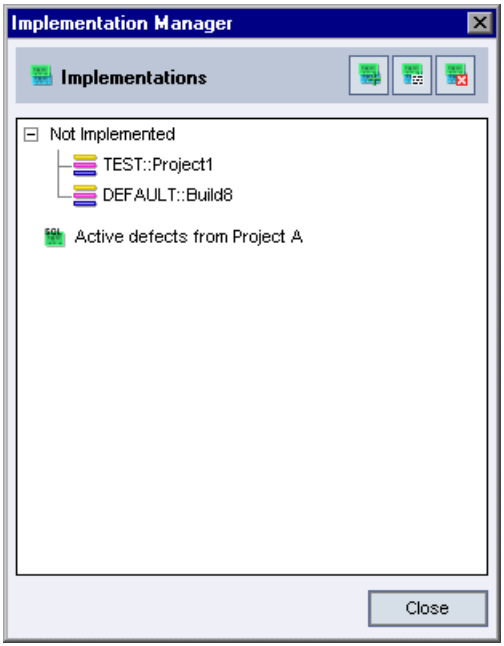


6 Select **SQL** or **JavaScript**, depending on whether you want to write your query in SQL or JavaScript, and click **OK** to close the New Implementation dialog box.

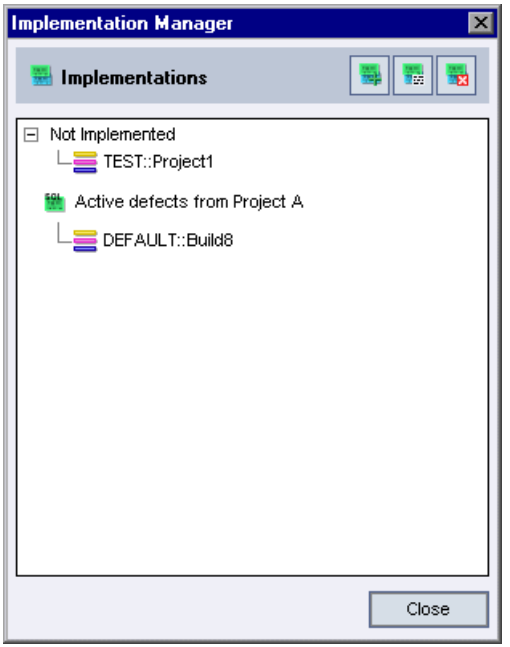
The new implementation's name is displayed in the Implementation Manager dialog box. An icon next to the implementation name indicates the query's type (SQL or JavaScript).



7 Expand the **Not Implemented** element to view the list of subjects from which the KPI can extract data.



8 Select the subject from which you want the KPI to extract data, and drag it from the **Not Implemented** element to the implementation's element. (In the example below, this means dragging subjects from the **Not Implemented** element to the **Active Defects from Project A** element.) Repeat this action to select multiple subjects. Note that a subject cannot belong to more than one implementation.



9 Click **Close** to close the Implementation Manager dialog box.

10 In the Implementations tab, create a query in SQL or JavaScript for the KPI implementation. For information on creating queries, see "Creating KPI Queries" on page 64.

Creating KPI Queries

After you add an implementation to a KPI, you need to create a query in SQL or JavaScript:

- If the KPI only needs to extract data from a Quality Center subject, write the query in SQL. For more information on writing queries in SQL, see "Creating SQL Queries" on page 65.
- If you need to create a composite KPI that calculates a value from the results of other KPIs for the same Quality Center subject, write a query in JavaScript.

  For example, suppose you have a KPI that displays the number of open defects in a project, and another KPI that displays the number of developers assigned to a project. You could write a JavaScript query, based on these KPIs, that divides the number of open defects by the number of developers to calculate the average number of defects per developer.

  For more information on writing queries in JavaScript, see "Creating JavaScript Queries" on page 68.

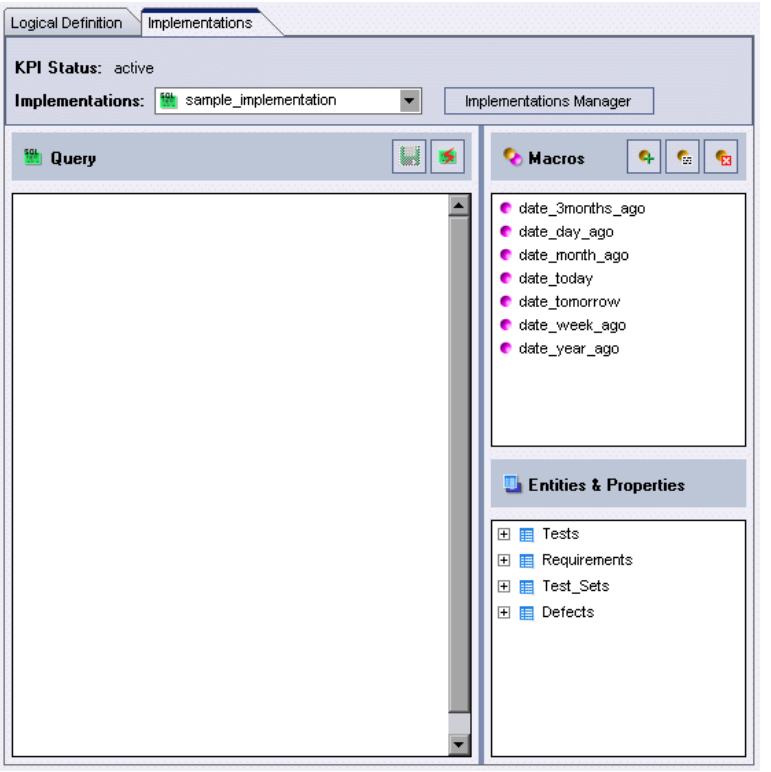
Note: All default KPIs include queries that can be used with both Oracle and SQL data sources. You can copy an existing implementation and use it as a basis for your new implementation. For a list of default KPIs, see "Default Quality Center KPIs" on page 53.

Creating SQL Queries

This section explains how to create an SQL query that extracts data from a Quality Center subject. You can write the query from scratch or copy a query from another implementation and make the necessary changes. You can add time-related macros to the query. A macro can be a string, a date, or a date expression. You can use the default macros provided with Dashboard or create your own macros.

To create an SQL query:

1 In the Implementations tab, select an implementation from the **Implementations** list. For information on creating implementations, see "Creating KPI Implementations" on page 60.

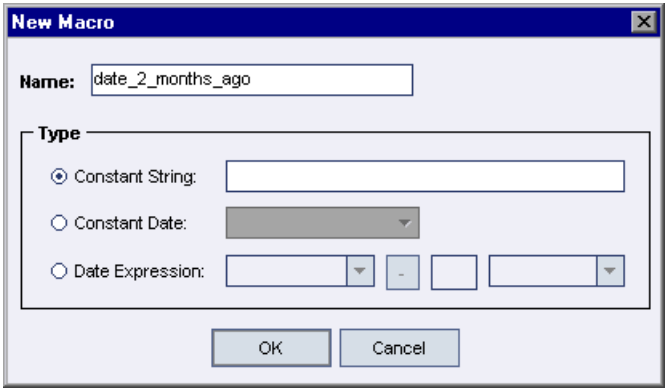


2 Enter the text of the query in the Query pane.

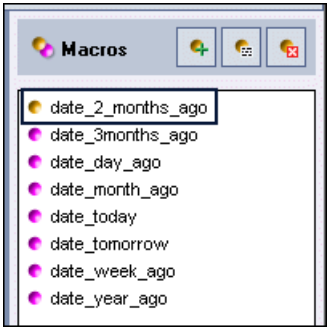
3 To add entities and properties to the query, drag them from the **Entities & Properties** pane into the Query pane. You add entities to the query's SELECT clause, and add properties to the query's WHERE or GROUP BY clauses.

4 To add a macro to the query, drag it from the list in the Macros pane to the Query pane.

5 To create a macro, click **New Macro**. The New Macro dialog box opens.



Enter a name for your macro, specify the type of macro that you are creating, and click **OK**. The new macro is added to the Macros list and can be added to queries. Note that user-created macros are indicated by gold-colored icons.



6 To edit a user-created macro, select the macro and click **Edit Macro**. The Edit Macro dialog box opens. Make your changes and click **OK**.

7 To delete a user-defined macro, select the macro and click **Delete Macro**. Click **Yes** to confirm.

Tip: To undo changes in your query, press CTRL + Z.

8 To test the query and verify its results, click **Test Query**.

9 To save your query, click **Save Changes**.

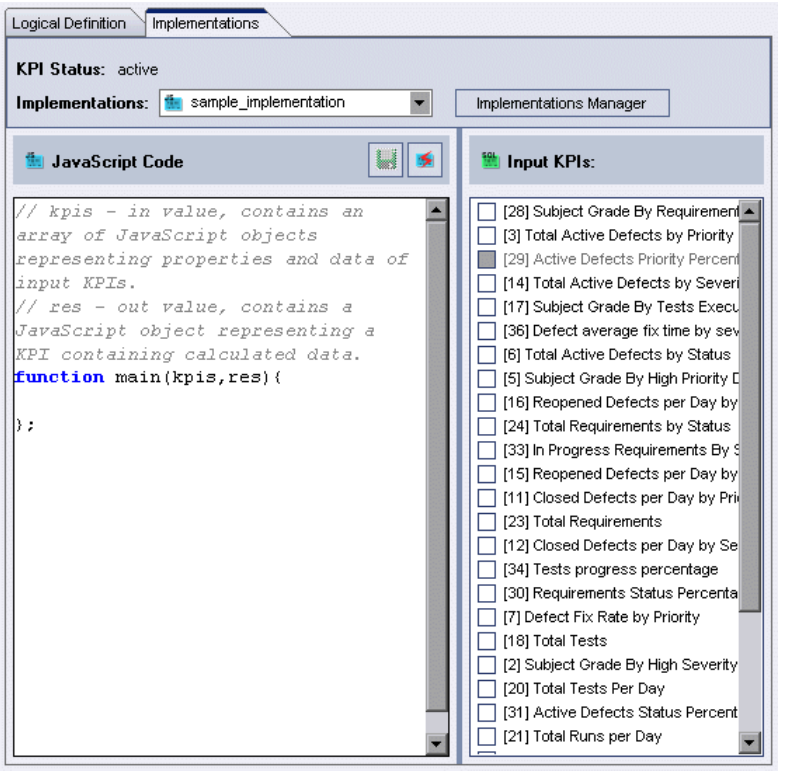
Creating JavaScript Queries

This section explains how to create JavaScript implementations that create composite KPIs based on the results of other KPIs' data.

The JavaScript KPI function receives an array of JavaScript objects that represent the properties and data of the source KPIs. The function then processes each element in the array, creates a result based on this data, and returns a JavaScript object that represents the output KPI.

To create a JavaScript query:

1 In the Implementations tab, select an implementation from the **Implementations** list. For information on creating an implementation, see "Creating KPI Implementations" on page 60.



2 Implement the JavaScript function **main**(*kpis*,*res*) where *kpis* is the input array and *res* is the output KPI. To define *kpis*, under the **Input KPIs** pane, select the KPIs to be used as your input.

The structure of the KPI object declares properties that contain logical KPI definition elements to provide run-time information about the KPIs structure.

In addition, the structure provides a *data* property that contains the KPI's data for a specific subject. Unlike other properties, which contain metadata for the KPI, the *data* property contains actual KPI data. For *data* property examples, see "Data Property Examples" on page 70.

The following table describes the logical KPI description properties for the JavaScript object:

Property Name	Description
title	The name of the KPI
entity	The logical entity name on which the KPI is built
entityProperties	An array of alphabetically-sorted logical entity properties. The KPI values are grouped according to these properties.

The following table describes the subject-specific data for the JavaScript object:

Property Name	Description
subject	The name of the subject from which the KPI's object data is retrieved.
data	A value, or a single-dimensional or multi-dimensional array that contains the KPI's data for a specific subject. The structure of the *data* property depends on the number of entity properties on which the KPI is built.

3 To test the query and verify the results, click **Test Query**.

4 To save your query, click **Save Changes**.

Data Property Examples

The following examples describe how the *data* property is used when creating different KPIs.

Note: The logical KPI id property has been deprecated. If the JavaScript KPI was created for a version of Dashboard prior to version 9.0, you may need to edit each of the implementations as follows: If the script references the deprecated kpis[i].id property, replace each occurrence with the kpis[i].title property.

Example 1:

This example describes what happens when the output KPI does not have any entity properties. The function's purpose is to calculate the average number of open defects per developer. The function assumes the existence of two KPIs: one that retrieves the number of open defects (**Number of Open Defects**) and another that retrieves the number of developers working on the project (**Number of Developers**).

Note that the data property in this example is a single value. The value is retrieved from two source KPIs. The requested average is calculated and assigned to the *data* property of the output KPI.

```
function main(kpis,res){
    for (i = 0; i < kpis.length; i++ ) {
        if(kpis[i].title == ”Number of Open Defects”){
            kpiOpenDefects=kpis[i];
        }
        if(kpis[i].title==“Number of Developers”){
            kpiDevelopersNumber=kpis[i];
        }
    }
    res.data =
parseInt(kpiOpenDefects.data)/parseInt(kpiDevelopersNumber.data);
};
```

Example 2:

This example describes what happens when the output KPI has a single entity property. The purpose of the KPI is to calculate the accumulated **In_Progress** defect status. The statuses **Open**, **Fixed** and **Reopen** are merged into a single status called **In_Progress**. All other statuses remain unchanged.

This example assumes that an output KPI has been defined with a new entity property called **AccumulatedStatus**. The values that have been defined for the AccumulatedStatus property are **In_Progress**, **Closed**, **Rejected** and **Unassigned**.

In this example, data is a single dimensional array in which the array's indexes are drawn from the appropriate entity property value list. In the source KPIs, the indexes are **Open**, **Reopen**, **Fixed**, **Closed**, **Rejected**, and **Unassigned**. In the output KPI, the indexes are **In_Progress**, **Closed**, **Rejected**, and **Unassigned**.

```
function main(kpis,res){
    for (i = 0; i < kpis.length; i++) {
        java.lang.System.out.println("kpi "+kpi[i].title);
        if(kpis[i].title=="Total Defects by Status"){
            totalDefectsByStatus=kpis[i];
        }
    }

    if(totalDefectsByStatus.data==null){
        return;
    }

    var openDefects = parseInt(totalDefectsByStatus.data["Open"],10);
    var fixedDefects = parseInt(totalDefectsByStatus.data["Fixed"],10);
    var reopenDefects = parseInt(totalDefectsByStatus.data["Reopen"],10);
    res.data["In_Progress"] = openDefects+fixedDefects+reopenDefects;

    res.data["Closed"] = totalDefectsByStatus.data["Closed"];
    res.data["Rejected"] = totalDefectsByStatus.data["Rejected"];
    res.data["Unassigned"] = totalDefectsByStatus.data["Unassigned"];
};
```

Example 3:

This example describes what happens when the source KPI has two entity properties. In this example, the Defects By Severity Status KPI is used as the basis for calculating the Total Number of Defects.

Note that you need to refer to kpiDefectsBySeverityStatus[“Important”][“Open”] so that you can retrieve all the open defects with a severity status of **Important**.

When there are two or more entity properties, they are sorted alphabetically. This means that in this example, the KPI’s **Severity** entity property precedes the **Status** entity property.

```
function main(kpis,res){
    for (i = 0; i < kpis.length; i++) {
        java.lang.System.out.println(“kpi “+kpis[i].title);

        if(kpis[i].title ==”Defects By Severity Status”){
            kpiDefectsBySeverityStatus=kpis[i];
        }
    }

    res.data=0;
    for (severity in kpiDefectsBySeverityStatus.data){
      for (status in kpiDefectsBySeverityStatus.data[severity]){
        res.data=parseInt(kpiDefectsBySeverityStatus.data[severity][status],10);
        }
    }
};
```

Example 4:

This example describes how to use the output KPI's *debug* property to debug JavaScript. The *debug* property enables the user to display data in the JavaScript Error Description pane. When the user assigns a value to the *debug* property, the value is displayed in the JavaScript Error Description pane of the JavaScript Results window, instead of the KPI's result.

```
function main(kpis,res){
    for (i = 0; i < kpis.length; i++ ) {
        java.lang.System.out.println("kpi " +kpis[i].title);

        if(kpis[i].title=="Defects By Severity Status"){
            kpiDefectsBySeverityStatus=kpis[i];
        }
    }

    res.data=0
    res.debug="";
    for (severity in kpiDefectsBySeverityStatus.data){
        for (status in kpiDefectsBySeverityStatus.data[severity]){
          res.debug = res.debug+" status="+status+" severity="+severity+"
           value="
          +kpiDefectsBySeverityStatus.data[severity][status]+"\n";
          }
        }
};
```

The Error Description panel displays debug information:

```
status=Closed severity=<Unknown> value=0
status=<Unknown> severity=<Unknown> value=0
status=Rejected severity=<Unknown> value=0
status=Reopen severity=<Unknown> value=0
status=Unassigned severity=<Unknown> value=0
status=Fixed severity=<Unknown> value=0
status=Open severity=<Unknown> value=0
status=Closed severity=<Unknown> value=0
status=<Unknown> severity=Delete me value=0
status=Rejected severity=Delete me value=0
status=Reopened severity=Delete me value=0
```

```
status=Unassigned severity=Delete me value=0
status=Fixed severity=Delete me value=0
status=Open severity=Delete me value=0
status=Closed severity=Important value=2
status=<Unknown> severity=Important value=0
status=Rejected severity=Important value=0
status=Reopen severity=Important value=1
status=Unassigned severity=Important value=0
status=Fixed severity=Important value=0
status=Open severity=Important value=15
status=Closed severity=Unimportant value=0
status=<Unknown> severity=Unimportant value=0
status=Rejected severity=Unimportant value=0
status=Reopen severity=Unimportant value=1
status=Unassigned severity=Unimportant value=0
status=Fixed severity=Unimportant value=0
status=Open severity=Unimportant value=3
status=<Unknown> severity=Urgent value=0
status=Rejected severity=Urgent value=1
status=Reopen severity=Urgent value=1
status=Unassigned severity=Urgent value=2
status=Fixed severity=Urgent value=0
status=Open severity=Urgent value=10
```

Managing KPIs

Managing KPIs includes the following functions:

- Editing and deleting logical definitions.
- Editing, deleting and renaming KPI implementations. You can edit an implementation to change the subjects for which a KPI is implemented. This causes the query to extract data from a different subject.

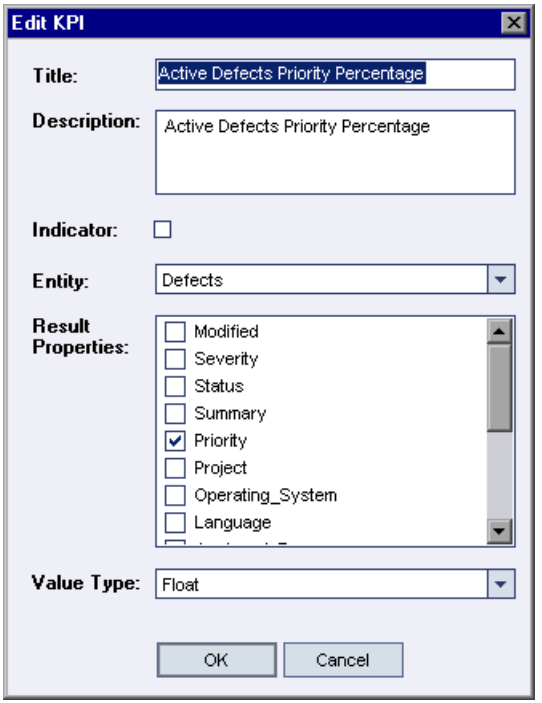
Editing a KPI's Logical Definition

You can edit the fields in a KPI's logical definition.

To edit a KPI's logical definition:

1 In the KPIs window, under the **KPIs** list, select the KPI.

2 Click **Edit KPI**. The Edit KPI dialog box opens and displays the logical definition of the selected KPI.



3 Make your changes to the relevant fields. For more information, see "Creating KPIs" on page 57.

4 Click **OK** to save your changes and close the Edit KPI dialog box.

Deleting a KPI

You can delete a KPI from the KPIs list.

To delete a KPI from the KPIs list:

1 In the KPIs window, under the **KPIs** list, select a KPI.

2 Click **Delete KPI**.

3 Click **Yes** to confirm.

Editing a KPI Implementation

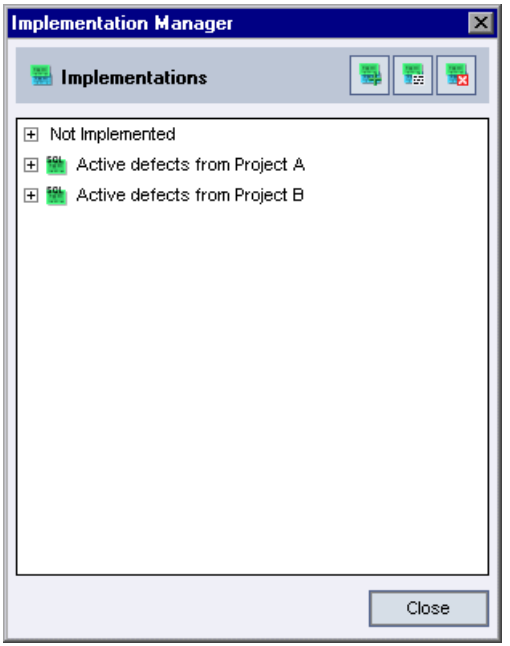
You can add a subject to a KPI's implementation, or remove a subject from the implementation's list of subjects.

To edit a KPI implementation:

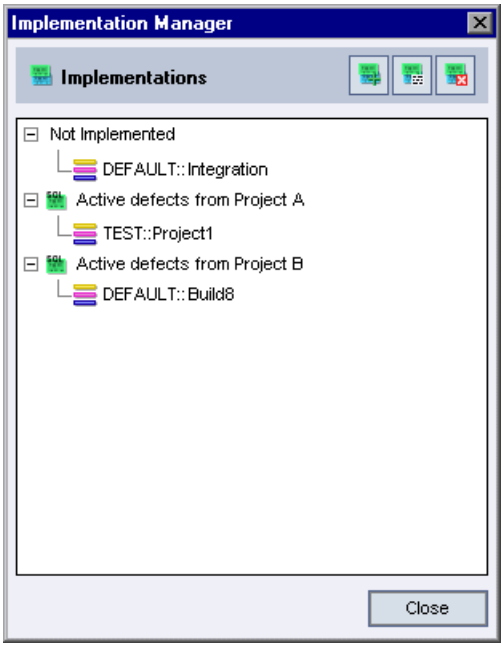
1 In the KPIs window, under the **KPIs** list, select a KPI.

2 Click the **Implementations** tab.

3 Click **Implementations Manager**. The Implementation Manager window opens, displaying the KPI's implementations.



4 Expand the tree elements to show the subjects in each implementation and the subjects that have not been implemented.



5 To add a subject to an implementation, drag it from another implementation's list of subjects or from the **Not Implemented** list to the implementation to which you want to add it.

6 To remove a subject from an implementation, drag it from the implementation's list of subjects to the **Not Implemented** list.

7 Click **Close** to close the Implementation Manager dialog box.

Renaming an Implementation

You can rename a KPI's implementation.

To rename a KPI implementation:

1 In the KPIs window, under the **KPIs** list, select a KPI.

2 Click the **Implementations** tab.

3 Click **Implementations Manager**. The Implementation Manager dialog box opens.

4 Select an implementation and click the **Edit Implementation** button. The Edit Implementation dialog box opens.

5 Enter a new name and click **OK** to close the Edit Implementation dialog box.

6 Click **Close** to close the Implementation Manager dialog box.

Deleting an Implementation

You can delete an implementation from a KPI.

To delete a KPI implementation:

1 In the KPIs window, under the **KPIs** list, select the KPI.

2 Click the **Implementations** tab.

3 Click **Implementations Manager**. The Implementation Manager dialog box opens.

4 Select an implementation and click the **Delete Implementation** button.

5 Click **Yes** to confirm.

6 Click **Close** to close the Implementation Manager dialog box.

Configuring KPI Data Collection

You can set when and how often Quality Center Connector collects data from your Quality Center projects. You can also choose to collect KPI data immediately.

Configuring The Data Collection Scheduling Settings

You can configure the scheduling settings for KPI data collection by editing the connector properties, which defines these settings.

Important: KPI data collection can cause a considerable load on your Quality Center server. Therefore, it is recommended not to increase the frequency settings except when absolutely necessary.

Note: When you are modifying this file, consider the following:

- Only users with administration permissions can modify this file.
- You must define either the **frequency** or the **runAt** element. The **frequency** element instructs the connector to collect data regularly at a specified time interval, such as every four hours. The **runAt** element instructs the connector to collect data at the same time every day, week, or month. If you define both elements, the attributes that you have specify for the **runAt** element takes precedence.
- When an attribute defines a time value, the time should be expressed in the format **hh:mm:ss**. For example, noon is expressed 12:00:00.
- Modifications to this file are implemented only after you restart Quality Center Dashboard.

To configure the data collection scheduling settings:

1 Open your Web browser and type the Dashboard configuration page URL: http://<Dashboard server>:<port number>/DeliveryCenter/connector.html. The Dashboard configuration menu page opens.

2 Click the **Configure connectors** link. The Dashboard Login page opens.

3 Type the user name and password for a Dashboard administrator and click **Submit**. The configuration page opens displaying the current KPI data collection scheduling settings.

Edit the configuration page to modify the scheduling settings. The configuration page consists of the **connectorProperties** element which contains the **connector** element representing the Quality Center Connector. The **connector** element can contain the following child elements:

Element	Description
name	A name used to identify the connector. Do not change the value of this element.
URL	The URL of the Web service exposed by the connector. Do not change the value of this element.
frequency	Instructs the connector to collect KPI data regularly at a specified time interval, such as every four hours. This element has the following attributes: ➤ **time.** Defines the time interval between the scheduled cycles. This attribute is mandatory if you specify this element. ➤ **startAt.** Defines the time at which the data collection starts. If you do not define this attribute, data collection starts when you start the Dashboard server.
retry	Defines how to respond if the attempt to collect the KPI data does not succeed. This element has the following attributes: ➤ **after.** Defines the time interval before which the connector attempts to collect the data again. This attribute is mandatory. ➤ **repeatCount**. Specifies the maximum number of times to attempt to collect the data. If you do not define this attribute, Dashboard attempts to collect the data indefinitely.

Element	Description
runAt	Instructs the connector to collect KPI data at the same time every day, week, or month. This element takes precedence over the **frequency** element if both are defined. You must define exactly one of the attributes **weekDay** or **monthDay**. This element has the following attributes: ➤ **weekDay.** Defines the specific day of the week on which the data collection begins. The values **1** through **7** represent the days of the week, with **1** representing Sunday. The value **0** indicates that the connector collects KPI data every day. ➤ **timeDay.** Defines the specific time of the day when the the data collection begins. This attribute is mandatory. ➤ **monthDay.** Defines the specific day of the month on which the data collection begins. The values **1** through **31** represent the days of the month.
type	Specifies the connector type and version. This element has the following attributes: ➤ **name.** The connector type. ➤ **version.** The connector version. Do not change the value of these attributes.
subjectDelay	This element has the following attribute: **delay.** Defines the delay that occurs between the start of data collection for each subject.
ConnectTimeout	This element has the following attribute: **timeout.** Defines the time that the connector waits for a response from the Quality Center server.
disabled	If this element is defined, the connection is disabled and the connector will not collect KPI data automatically. This element is an empty element: **<disabled/>**.

4 Click **Submit**. The settings for scheduling KPI data collection are updated and a new page opens displaying a confirmation message.

Collecting KPI Data Immediately

You can collect KPI data immediately, without waiting for the next scheduled KPI data collection.

Important: KPI data collection can cause a considerable load on your Quality Center server. Therefore, it is recommended not to collect KPI data immediately except when absolutely necessary.

To collect KPI data immediately:

1 Open your Web browser and type the Dashboard configuration page URL: http://<Dashboard server>:<port number>/DeliveryCenter/connector.html. The Dashboard configuration menu page opens.

2 Click the **Run connectors now** link. The Dashboard Login page opens.

3 Type the user name and password for a Dashboard administrator and click **Submit**. Dashboard runs the Quality Center connectors to collect KPI data from your Quality Center project and a new page opens displaying a confirmation message.

5

Managing Users and Groups

You control access to Dashboard by managing users and groups.

This chapter describes:

- About Managing Users and Groups
- Adding Users to Dashboard
- Adding Groups
- Preventing Unlimited Access to Subjects
- Modifying Groups
- Deleting Groups

About Managing Users and Groups

As a Dashboard administrator, you can control unauthorized access to Dashboard options by defining groups. When you define a group, you must set the group privileges, assign users to the group, and specify the subjects that the group can access.

To define groups, you must first define your Dashboard users. Dashboard users must already be defined as users in Quality Center.

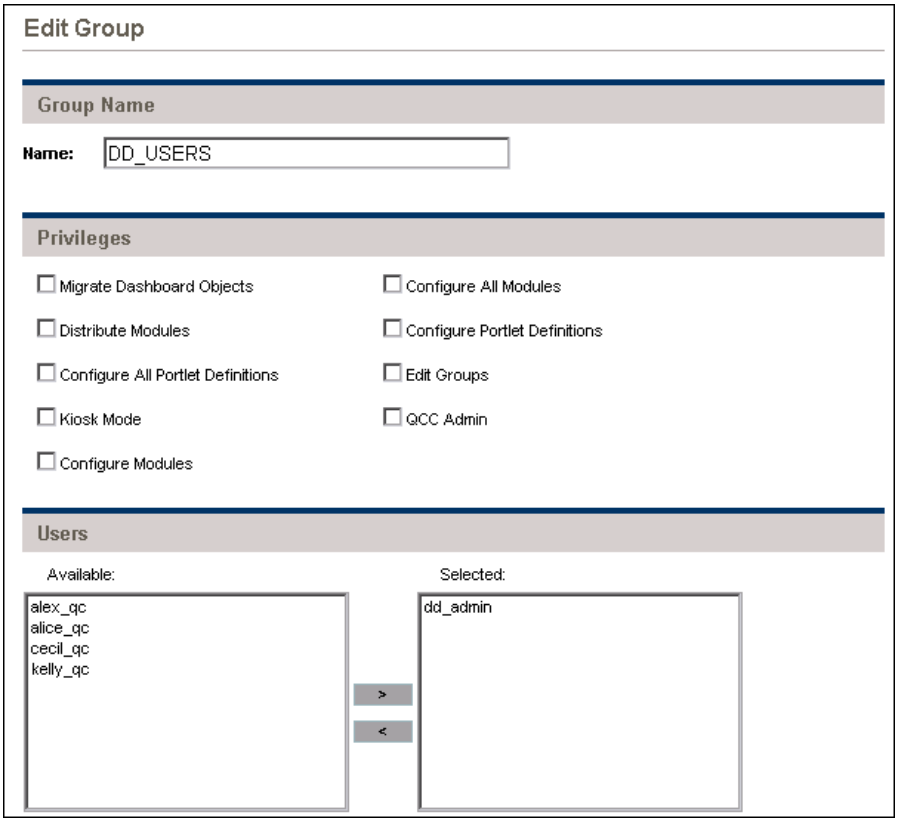
Adding Users to Dashboard

Before you can define groups, you need to create a list of Dashboard users. Dashboard users must already be defined as users in Quality Center.

To add a user to Dashboard:

1 On the Dashboard menu bar, click **Edit Groups**. The Edit Groups window opens.

2 Under **Group List**, select **DD_USERS** and click **Edit**. The Edit Group window opens.



Under **Users**, the Available pane displays all the users who are currently defined in Quality Center, depending on whether you logged on to Dashboard using a Quality Center or user name. The Selected pane displays the users who are currently defined as Dashboard users.

3 Choose one or more user names and click the arrows to move users from one list to the other. Note that you cannot add Guest or Admin users to the **DD_USERS** group.

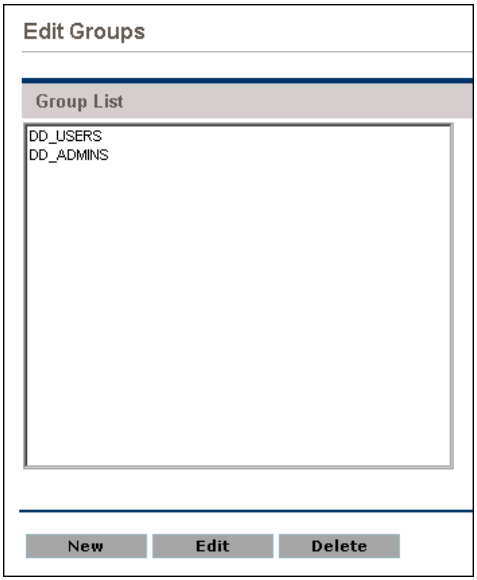
4 Click **OK** to close the Edit Group window.

Adding Groups

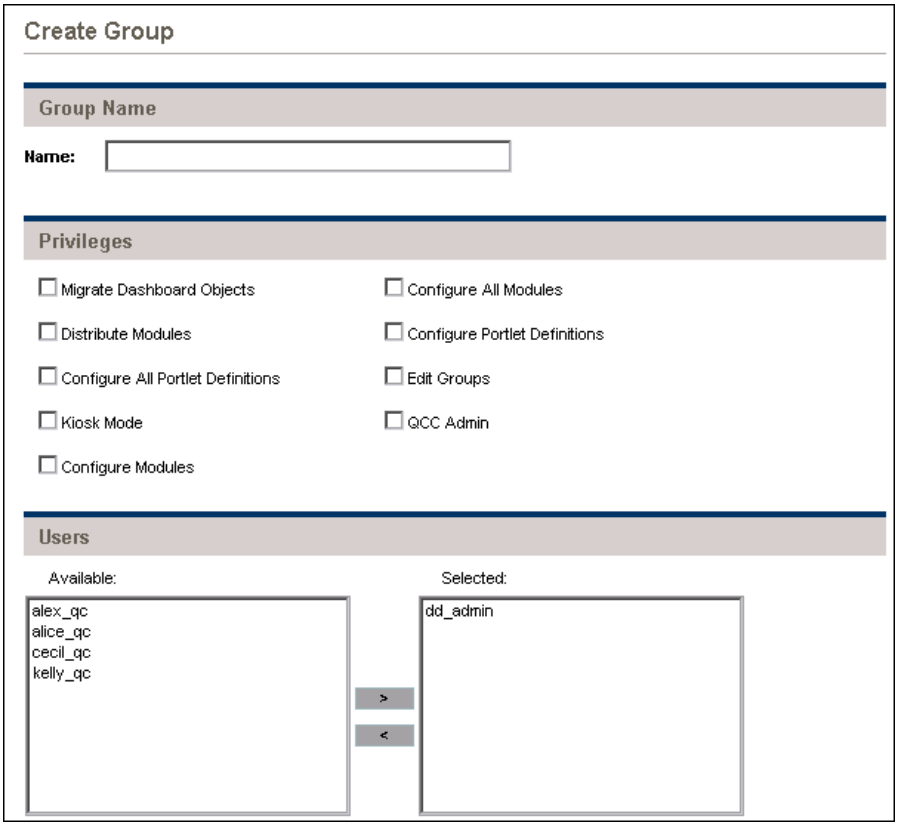
When you define a new group, you need to set the group privileges, assign users to the group, and specify the subjects that the group can access.

To add a group:

1 On the Dashboard menu bar, click **Edit Groups**. The Edit Groups window opens.



2 Click **New**. The Create Group window opens.



3 Under **Group Name**, in the **Name** field, type a group name.

4 Under **Privileges**, select the privileges that you want to grant the group. The following privileges are available:

Privilege	Description
Migrate Dashboard Objects	Enables importing and exporting of Dashboard objects.
Configure All Modules	Enables modifying the configuration of any module.
Distribute Modules	Enables distributing modules to other users.
Configure Portlet Definitions	Enables modifying the configuration of portlets for which the group's users have administrator access. For information about granting administrator access to portlets, see "Step 5: Configure Access" in "Modifying Portlet Definitions" on page 124 and the **Configure All Portlet Definitions** privilege below.
Configure All Portlet Definitions	Grants administrator access to all portlets. This is equivalent to granting the group's users administrator access to each portlet separately in the Configure Access step of creating a portlet. For more information about granting administrator access to portlets, see "Step 5: Configure Access" in "Modifying Portlet Definitions" on page 124.
Edit Groups	Enables adding and editing groups.
Kiosk Mode	Enables using the Kiosk Mode option. A user can view Dashboard in a full screen mode that automatically cycles through the user's Dashboard pages.
QCC Admin	Enables accessing the Quality Center Connector Admin.
Configure Modules	Enables modifying the configuration of modules for which the group's users have administrator access.

Note that your Dashboard menu bar displays only the options for which you have been granted privileges.

5 Under **Users**, choose the users that you want to add to your group from the list of users in the **Available** pane. (This pane displays the users defined in the **DD_USERS** group. For more information, see "Adding Users to Dashboard" on page 86.)

Choose one or more user names and click the arrow to move the users to the **Selected** pane.

6 Under **Subjects**, select one of the following options:

- **All Subjects**: Provides group access to all subjects defined in Dashboard.
- **Specified Subjects**: Enables you to specify the subjects to which the group will have access.

7 If you chose **Specified Subjects**, select a subject from the list of subjects in the **Available** pane. To select multiple subjects, hold down the CTRL key while selecting the subjects.

Choose one or more subjects and click the arrow to move the subjects to the **Selected** pane.

8 Click **OK** to close the Create Group window. The new group is displayed in the Group List of the Edit Groups window.

Preventing Unlimited Access to Subjects

Users that are members of a user-defined group must also be members of the **DD_USERS** group. By default, members of the **DD_USERS** group have access to all subjects. Therefore, by default, all users have access to all subjects.

To limit the subjects to which a user has access, you must change the permissions of the **DD_USERS** group so that members of the group have no access to any subjects. You then create a new group with the required permissions and assign the user to that group.

To change the permissions of the DD_USERS group:

1 In the Dashboard menu bar, click **Edit Groups** to display the group list.

2 Select the **DD_USERS** group and click **Edit** to display the Edit Group window.

3 In the Subjects section, select **Specified Subjects** and make sure that the Selected pane is empty.

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

Modifying Groups

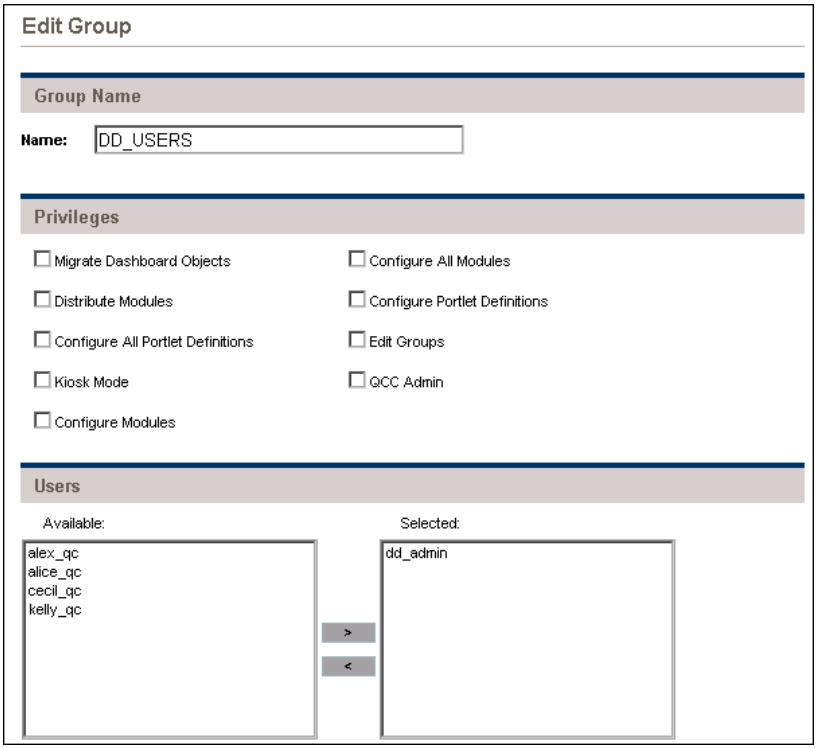
You can modify the privileges, users, and subjects for a group.

To modify a group:

1 On the Dashboard menu bar, click **Edit Groups**. The Edit Groups window opens.

2 Under **Group List**, select a group name.

3 Click **Edit**. The Edit Group window opens. The selected group name is displayed in the Name field.



4 To modify privileges, select or clear the appropriate check boxes in the **Privileges** section. For more information on the available group privileges, see "Adding Groups" on page 87.

5 To modify the users, choose one or more user names and click the arrows to move the users from one list to the other in the **Users** section.

6 To modify the subjects, under **Subjects**, select **Specified subjects,** choose one or more subjects, and click the arrows to move the subjects from one list to the other.

7 Click **OK** to close the Edit Group window.

Deleting Groups

You can delete user groups from Dashboard. Note that you cannot delete the **DD_USERS** or **DD_Admins** groups.

To delete a group:

1 On the Dashboard menu bar, click **Edit Groups**. The Edit Groups window opens.

2 Under **Group List**, select a group name.

3 Click **Delete**.

4 Click **OK** to confirm.

6

Creating Portlets

Dashboard displays KPI data in portlets as graphs or indicators. Portlets enable you to view the deployment readiness status of your Quality Center projects in a graphical display.

This chapter describes:

- About Portlets
- Portlet Drilldown
- The Portlet Creation Wizard
- Creating a Portlet

About Portlets

Portlets use data that is retrieved by KPIs from your Quality Center. When you create a portlet, you choose the KPI or KPIs whose data the portlet will display. Each portlet presents the data as a graphical display that makes it easy for you to monitor your processes. Dashboard enables you to use default portlets, create your own portlets, or import portlets.

Dashboard provides you with a wizard to guide you through the process of creating your own portlets.

You can use the set of default portlets supplied with Dashboard, and can adapt them for your specific needs. For a description of the default portlets, refer to the *HP Quality Center Dashboard User's Guide*.

Portlets can be imported from other instances of Dashboard. For more information, see "Importing Java and WSRP Type Portlets" on page 130, and "Importing Objects" on page 151.

Portlet Drilldown

Portlet drilldown is a powerful tool used for zooming in on information displayed in a portlet.

When you create a portlet, you can specify one or more drill-to portlets. Clicking the "original" portlet causes the drill-to portlets to be displayed. A drill-to portlet usually offers a filtered view of the data in the original portlet, with higher resolution.

In some cases you may want to zoom in on the data in more than one way. To do this, you specify more than one drill–to portlet. For example, you may have a portlet that shows the number of defects in each of several projects. You may want to show the breakdown of defects of one of the projects from the original portlet by priority, severity or date of creation. To provide this information, you create a separate drill-to portlet for each type of information: defects by priority, defects by severity, and defects by date of creation. When you click the original portlet, the three drill-to portlets are displayed.

For details on specifying drill-to portlets, see "Editing Drilldown Preferences" on page 115.

The Portlet Creation Wizard

The portlet creation wizard guides you through the process of creating a portlet. The process includes the following steps:

- **Step 1: Choose Portlet Type:** Dashboard provides you with a comprehensive set of chart types that you can use for your portlets. In this step, you choose the chart type that is most suitable for the data that you want to display. For more information, see "Step 1: Choose Portlet Type" on page 96.
- **Step 2: Enter Portlet Information:** You specify the portlet's unique name, provide a description of its purpose, and choose the KPI data source or sources from which data should be extracted. If you choose more than one data source, you need to specify whether to perform a join or union between the data sources. For more information, see "Step 2: Enter Portlet Information" on page 98.

- **Step 3: Set Up Display Options:** You map data source parameters to your portlet. This can include specifying hyperlinks to drilldown portlets. For more information, see "Step 3: Set Up Display Options" on page 104.
- **Step 4: Define Preferences:** You set filters that define the ranges of data that are queried to populate the portlet. You can arrange the order of the preferences, specify whether they should be visible to the user, and specify whether the user will be able to edit them. For more information, see "Step 4: Define Preferences" on page 119.
- **Step 5: Configure Access:** You set privileges that control the level of access that users will have to the portlet. For more information, see "Step 5: Configure Access" on page 124.
- **Step 6: Add User Help:** You add information that will be displayed to the user when the portlet's Help button is clicked. This information can assist the user in understanding the portlet's data. For more information, see "Step 6: Add User Help" on page 126.

Creating a Portlet

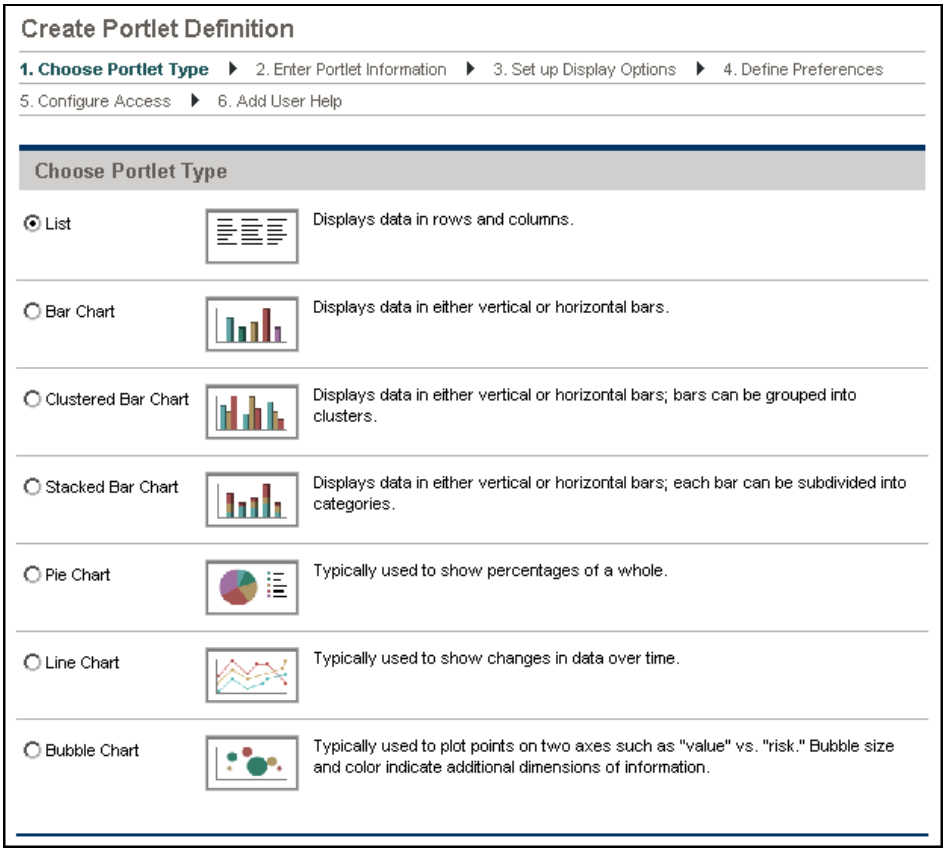
To create a portlet, follow these steps:

Step 1: Choose Portlet Type

In the Choose Portlet Type step, you choose one of several portlet display types.

To choose a portlet display type:

1 On the Dashboard menu bar, click **Create Portlet**. The Create Portlet Definition wizard opens.



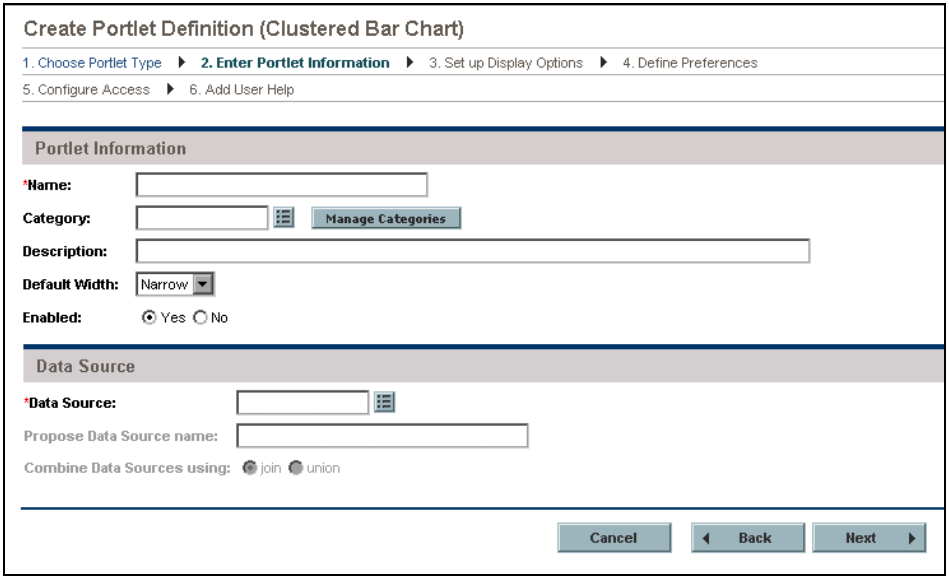
2 Choose the portlet type that you want to use for displaying the KPI data. The following portlet chart types are available:

Chart Type	Description
List	Displays data in rows and columns. A list portlet may combine data from other portlets.
Bar	Displays data in either vertical or horizontal bars.
Clustered Bar	Displays data in either vertical or horizontal bars that can be grouped into clusters.
Stacked Bar	Displays data in either vertical or horizontal bars. Each bar can be subdivided into categories.
Pie	Displays percentages as a pie chart.
Line	Displays changes in data over time.
Bubble	Displays points that are plotted on two axes. The bubble size and color indicate additional dimensions of information.

3 Click **Next**. The Create Portlet Definition page for entering portlet information opens.

Step 2: Enter Portlet Information

The Enter Portlet Information step enables you to specify basic information about your portlet. In this step, you give your portlet a unique name, provide a description of its purpose, and specify the KPI data source or sources from which data is extracted.



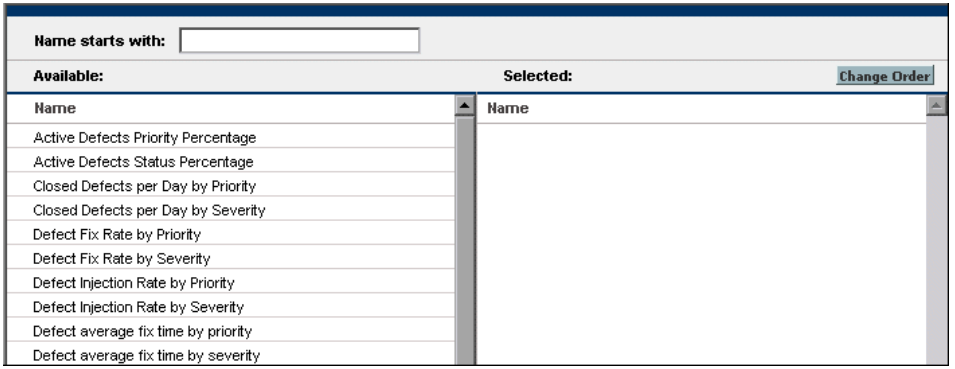
To enter portlet information:

1 In the Portlet Information section, enter the following information:

Field	Description
Name	The name of the portlet.
Category	The name of the category to which the portlet belongs. Use the **Lookup List** button to choose from the existing categories. Select a category from the **Available** list to move it to the **Selected** list. A portlet can belong to more than one category. You can modify categories using the **Manage Categories** button. ➤ To add a category, in the Manage Categories dialog box enter a name for a new category in the **New Category** field. ➤ To delete a category, click the **Delete** button beside the name of the category that you want to delete.
Description	A description of the portlet.
Default Width	The width at which the portlet will initially be displayed in a page. ➤ Select **Narrow** if you want the portlet to be displayed at half the window size. ➤ Select **Wide** if you want the portlet to be displayed at full window size.
Enabled	Whether the portlet is active or inactive. An inactive portlet is not available to users. ➤ Select **Yes** if you want the portlet to be active. ➤ Select **No** if you want the portlet to be inactive.

2 In the Data Source section, click the **List Lookup** button.

The Choose Data Sources window is displayed.



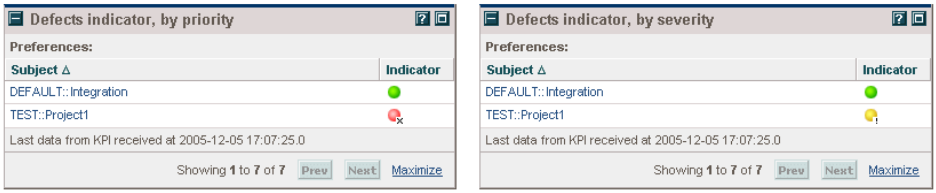
3 In the Available pane, click the data sources from which the portlet data will be extracted. The selected data sources appear in the Selected pane.

If you chose more than one data source, the **Propose Data Source name** field and **join** and **union** buttons will be enabled in the Data Source section after you close the Choose Data Sources window.

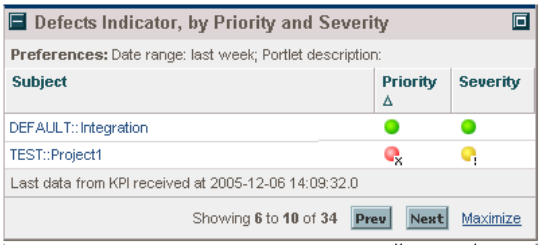
Join and Union create new data sources from existing KPIs. (A KPI returns a single result value.)

In general, you should choose **join** for portlets of type List, and **union** for other types of portlets. For portlets of type Bubble, you can choose either option.

Choosing **join** enables the portlet to display the results of more than one KPI by adding additional columns to the portlet. For example, without combining data sources, the following two portlets display different information about the same subjects:

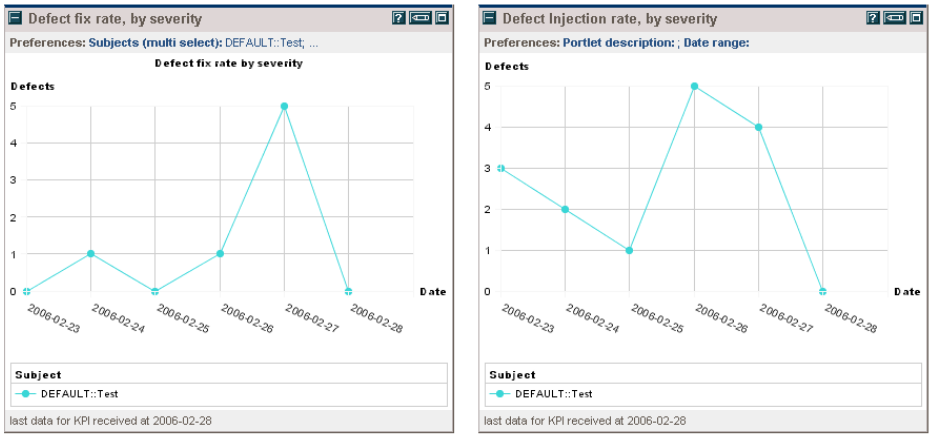


If you create a combined data source using **join**, the same data can be displayed in one portlet, with a separate column for each data source as follows:



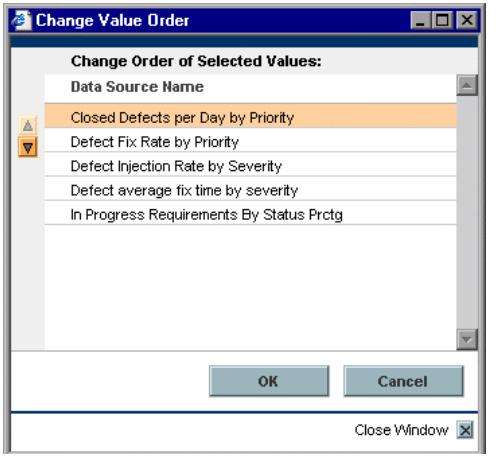
Choosing **union** (usually for a portlet type other than List) also allows you to display charts from more than one KPI in the same portlet, by adding rows to the graph. This is especially useful in cases where the chart needs to show several dimensions. For example, if you want to display both fixed defects and entered defects over time in a chart, you cannot display this data for more than one subject—one graph displays the subject's fixed defects, and the other displays the same subject's entered defects.

Another example: Without a union, the following two portlets display the fix rate and the injection rate of the highest severity defects, respectively.



If you create a combined data source using **union**, the resulting portlet can display the fix rate versus the injection rate of the highest severity defects.

4 If you are creating a union of data sources, the order of the data source list determines the order in which the data is added to the result data source. To change the order of the selected data sources, click **Change Order**. The Change Value Order window opens.



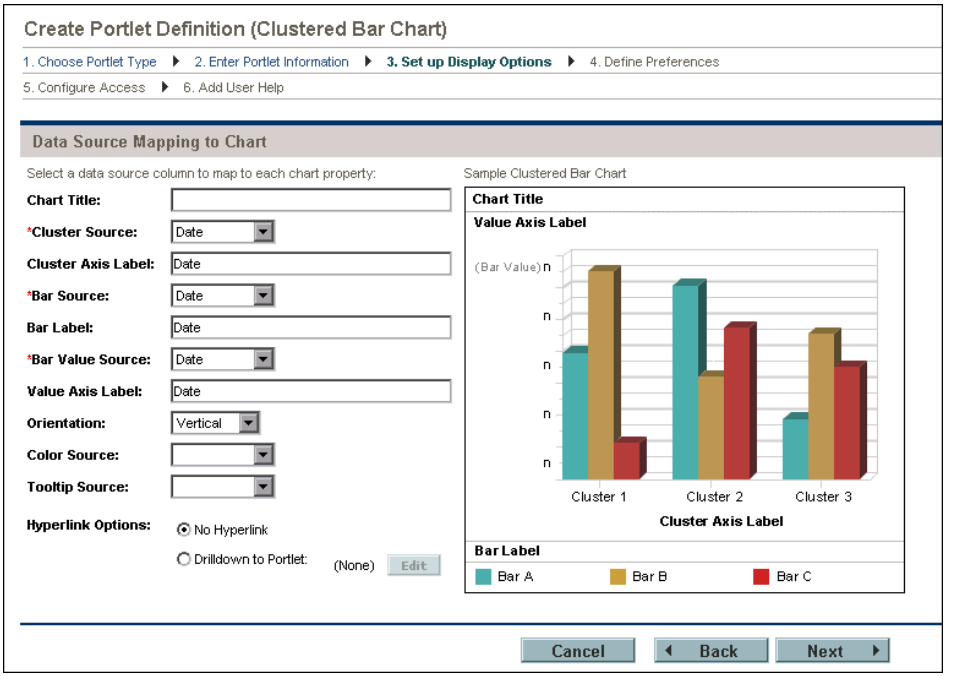
Use the arrows to change the positions of the data sources in the list, and click **OK** to close the window. The data sources in the Selected pane now appear in their new order.

5. Click **OK** to close the Choose Data Sources window. The data source or sources that you chose are listed in the **Data Source** box.
6. If the **Propose Data Source name** box is enabled, enter a name for the data source or leave the field blank to use the system's default name.
7. If the **join** and **union** buttons are enabled, click one of them to specify how you want the data sources to be combined.
8. Click **Next**. The Set up Display Options page opens. The actual page that is displayed depends on the portlet type that you selected.

Note: If you create a new data source from two or more data sources and click **Back** in the next page (the Set up Display Options page), the **Data Source** box will contain the name of the newly-created data source (and not the names of the data sources that were used to create it). In addition, you cannot change the selection of data sources in the **Data Source** box and cannot change the name in the **Propose Data Source name** field.

Step 3: Set Up Display Options

In the **Set Up Display Options** step you map data source parameters to your portlet. You can also specify hyperlinks where required. The fields that appear in the window depend on the type of portlet that you selected. (See "Step 1: Choose Portlet Type" on page 96).



To set display options for portlets:

1 Enter the appropriate information.

The following tables describe the display option fields that are displayed for each portlet chart type.

Note: The information in the following tables does not apply to List type portlets. To set display options for a List type portlet, proceed to "Setting Display Options for List Type Portlets" on page 111.

➤ **Bar Type Chart fields** (Used in Bar charts, Clustered Bar charts and Stacked Bar charts)

Field Name	Description
Chart Title	A descriptive name for your chart.
Cluster Source	The KPI data source column from which data for the clusters is extracted. (Available only for Clustered Bar charts)
Cluster Axis Label	The label that is applied to the cluster axis. (Available only for Clustered Bar charts)
Bar Source	The KPI data source column from which data for the bars is extracted.
Bar Axis Label	The label that is applied to the bar axis. (Available only for Bar charts and Stacked Bar charts)
Bar Label	The label that is applied to the bar. (Available only for Clustered Bar charts)
Bar Division Source	The KPI data source column from which data for the bar divisions is extracted. (Available only for Stacked Bar charts)
Bar Division Label	The label that is applied to the bar division. (Available only for Stacked Bar charts)
Bar Value Source	The KPI data source column from which data for the bar values is extracted. (Available only for Bar charts and Clustered Bar charts)
Bar Division Value Source	The KPI data source column from which data for the bar division values is extracted. (Available only for Stacked Bar charts)
Value Axis Label	The label that is applied to the value axis.
Orientation	Specifies whether the bars in the chart are horizontal or vertical.
Color Source	Enables you to select a color set for your chart.

Field Name	Description
Tooltip Source	The list of available columns in the data source. When you hold your cursor over a data result in your chart, the tooltip displays specific information relating to the column name that you selected. For example, suppose you select **Subject** as your preference. When you hold your cursor over a bar in a bar chart, the tooltip displays the name of the subject to which the data in the bar relates.
Hyperlink Options	Defines whether the chart has a related hyperlink. **No Hyperlink:** Indicates that this chart does not have a hyperlink. **Drilldown to Portlet:** Click the **Edit** button to map preferences between the portlet that you are creating and the portlet or portlets to which you are drilling down. The name of the portlet to which you drill down is displayed beside the **Edit** button. If you do not map preferences, **none** is displayed beside the **Edit** button. For details of specifying drilldown portlets and mapping preferences, see "Editing Drilldown Preferences" on page 115.

➤ **Bubble Chart fields**

Field Name	Description
Chart Title	A descriptive name for your chart.
X-Axis Source	The KPI data source column from which data for the X-axis is extracted.
X-Axis Label	The label that is applied to the X-axis.
Y-Axis Source	The KPI data source column from which data for the Y-axis is extracted.

Field Name	Description
Y-Axis Label	The label that is applied to the Y-axis.
Bubble Size Source	The KPI data source column from which data for the bubble size is extracted.
Bubble Size Label	The label that is applied to the bubble size.
Color Source	Enables you to select a color set for your chart.
Tooltip Source	The list of available columns in the data source. When you hold your cursor over a data result in your chart, the tooltip displays specific information relating to the column name that you selected. For example, suppose you select **Subject** as your preference. When you hold your cursor over a bar in a bar chart, the tooltip displays the name of the subject to which the data in the bar relates.
Hyperlink Options	Defines whether the chart has a related hyperlink. **No Hyperlink:** Indicates that this chart does not have a hyperlink. **Drilldown to Portlet:** Click the **Edit** button to map preferences between the portlet that you are creating and the portlet or portlets to which you are drilling down. The name of the portlet to which you drill down is displayed beside the **Edit** button. If you do not map preferences, **none** is displayed beside the **Edit** button. For details of specifying drilldown portlets and mapping preferences, see “Editing Drilldown Preferences” on page 115.

➤ **Line Chart fields**

Field Name	Description
Chart Title	A descriptive name for your chart.
X-Axis Source	The KPI data source column from which data for the X-axis is extracted.
X-Axis Label	The label that is applied to the X-axis.
Y-Axis Source	The KPI data source column from which data for the Y-axis is extracted.
Y-Axis Label	The label that is applied to the Y-axis.
Line Source	The KPI data source column from which data for the lines is extracted.
Line Label	The label that is applied to the line.
Color Source	Enables you to select a color set for your chart.

Field Name	Description
Tooltip Source	The list of available columns in the data source. When you hold your cursor over a data result in your chart, the tooltip displays specific information relating to the column name that you selected. For example, suppose you select **Subject** as your preference. When you hold your cursor over a bar in a bar chart, the tooltip displays the name of the subject to which the data in the bar relates.
Hyperlink Options	Defines whether the chart has a related hyperlink. **No Hyperlink:** Indicates that this chart does not have a hyperlink. **Drilldown to Portlet:** Click the **Edit** button to map preferences between the portlet that you are creating and the portlet or portlets to which you are drilling down. The name of the portlet to which you drill down is displayed beside the **Edit** button. If you do not map preferences, **none** is displayed beside the **Edit** button. For details of specifying drilldown portlets and mapping preferences, see "Editing Drilldown Preferences" on page 115.

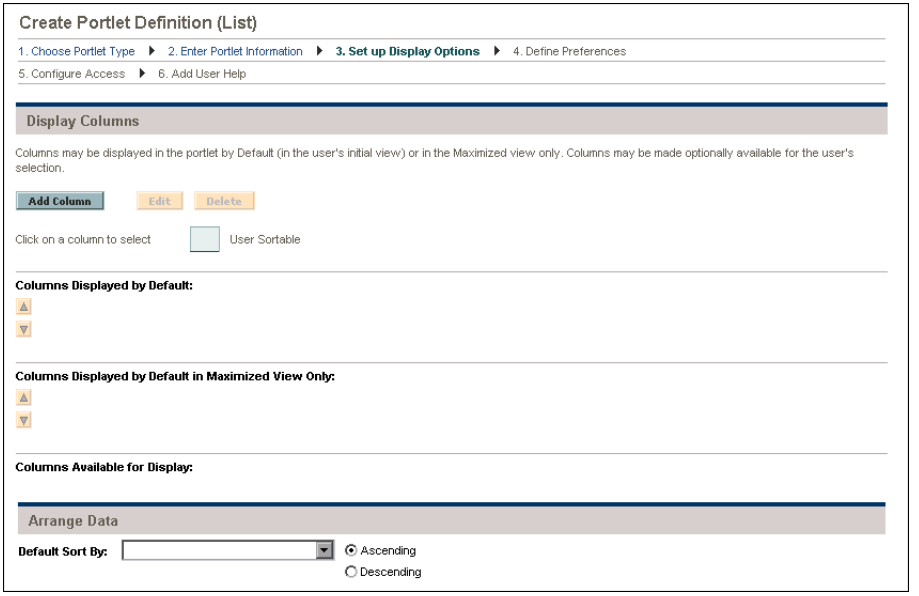
➤ **Pie Chart fields**

Field Name	Description
Chart Title	A descriptive name for your chart.
Wedge Source	The KPI data source column from which data for the wedges is extracted.
Wedge Source Size	The KPI data source column from which data for the wedge size is extracted.
Wedge Label	The label that is applied to the wedge.
Color Source	Enables you to select a color set for your chart.
Tooltip Source	The list of available columns in the data source. When you hold your cursor over a data result in your chart, the tooltip displays specific information relating to the column name that you selected. For example, suppose you select **Subject** as your preference. When you hold your cursor over a bar in a bar chart, the tooltip displays the name of the subject to which the data in the bar relates.
Hyperlink Options	Defines whether the chart has a related hyperlink. **No Hyperlink:** Indicates that this chart does not have a hyperlink. **Drilldown to Portlet:** Click the **Edit** button to map preferences between the portlet that you are creating and the portlet or portlets to which you are drilling down. The name of the portlet to which you drill down is displayed beside the **Edit** button. If you do not map preferences, **none** is displayed beside the **Edit** button. For details of specifying drilldown portlets and mapping preferences, see "Editing Drilldown Preferences" on page 115.

2 Click **Next**. The Define Preferences page opens. Proceed to "Step 4: Define Preferences" on page 119.

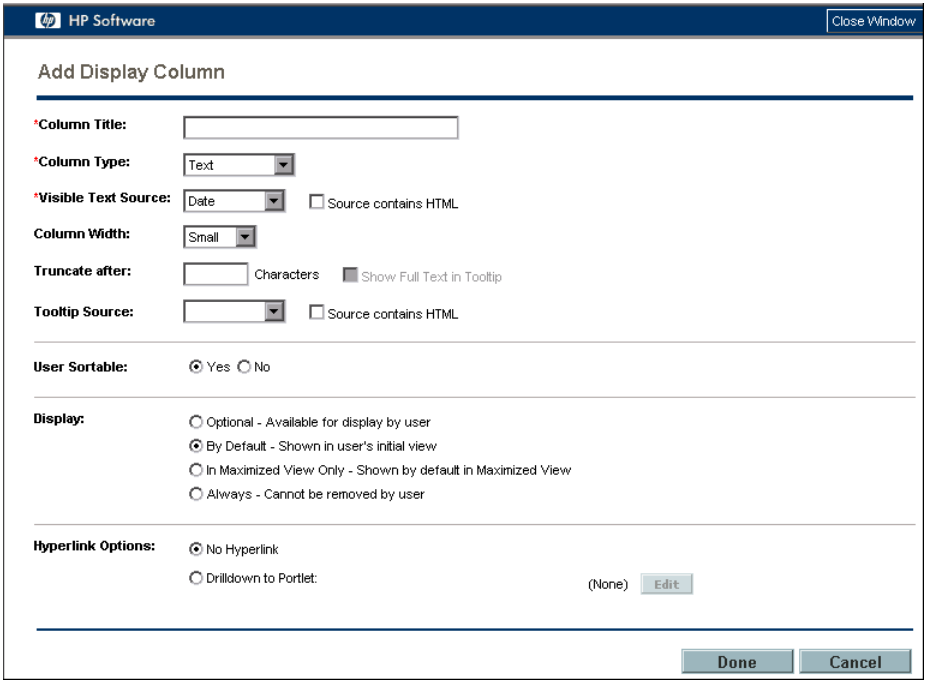
Setting Display Options for List Type Portlets

This section describes the procedure for setting display options for List type portlets via the Set Display Options (List) page.



To set display options for a List type portlet:

1 Click **Add Column**. The Add Display Column window opens.



2 Enter the following information:

Field Name	Description
Column Title	A descriptive name for the column.
Column Type	The type of column. The column type may be based on text, icons, a text and icon combination, or a progress bar.
Visible Text Source	The KPI data source column from which data for the visible text is extracted.
Column Width	The width of the displayed column.
Truncate after...Characters	The number of characters after which the text is truncated in the column.

Field Name	Description
Show Full Text in Tooltip	Indicates whether you want the entire text displayed in the tooltip. The option is only available when you specify a value in the **Truncate after...Characters** field.
Tooltip Source	The list of available columns in the data source. When you hold your cursor over a data result in your chart, the tooltip displays specific information relating to the column name that you selected. For example, suppose you select **Subject** as your preference. When you hold your cursor over a bar in a bar chart, the tooltip displays the name of the subject to which the data in the bar relates.
Source contains HTML	Indicates that the data source contains HTML.
User Sortable	Defines whether the user is able to sort the order of the column's contents. **Yes:** Indicates that the list can be sorted by the user. **No:** Indicates that the list cannot be sorted by the user.

Field Name	Description
Display	Defines when the column is displayed. **Optional - Available for display by user:** The user can choose whether to display the column. **By Default - Shown in user's initial view:** The user will see the column when the portlet is first opened. **In Maximized View Only - Shown by default in Maximized View**: The user will only see the column when the portlet is displayed in maximized view. As a default, whenever the portlet view is maximized, the column is visible to the user. **Always - Cannot be removed by user:** The column will always be visible to the user when this portlet is displayed. The user cannot delete or hide the column.
Hyperlink Options:	Defines whether the chart has a related hyperlink. **No Hyperlink:** Indicates that this chart does not have a hyperlink. **Drilldown to Portlet:** Click the **Edit** button to map preferences between the portlet that you are creating and the portlet or portlets to which you are drilling down. The name of the portlet to which you drill down is displayed beside the **Edit** button. If you do not map preferences, **none** is displayed beside the **Edit** button. For details of specifying drilldown portlets and mapping preferences, see "Editing Drilldown Preferences" on page 115.

3 Click **Done** to save your changes and return to the Set Display Options page.

4 To add an additional column, repeat steps 1 through 3.

Depending on whether you chose to display a column by default or only in maximized view, the names of the columns are displayed in the **Columns Displayed by Default** or **Columns Displayed by Default in Maximized View Only** fields. You can select a column name in one of these fields and use the up and down arrows to alter the position in which it is displayed in your list portlet.

If you chose to make a column available for a user to select, it is displayed in the **Columns Available for Display** field.

5 Under **Arrange Data**, in the **Default Sort By** field, select the data by which you want a default sort to be made. Select either **Ascending** or **Descending** to indicate how you want the data sorted.

6 In the **Default Rows Displayed** field:

- For **in Normal View**: Specify the number of default rows you want to be displayed when the list portlet is in normal view.
- For **in Maximized View**: Specify the number of default rows you want to be displayed when the list portlet is in maximized view.

7 Click **Next** at the bottom of the page. The Create Portlet Definition page for defining preferences opens. Proceed to "Step 4: Define Preferences" on page 119.

Editing Drilldown Preferences

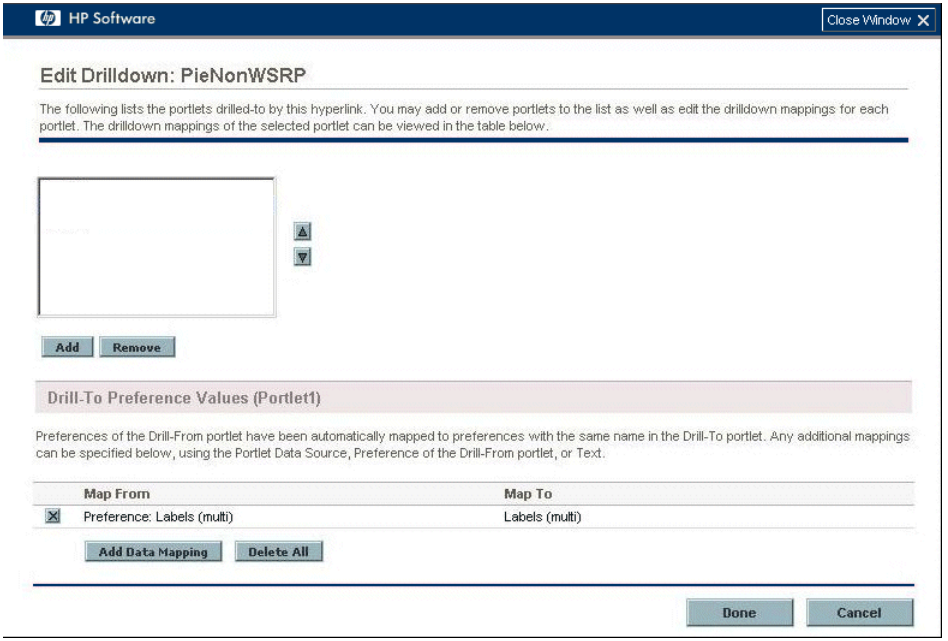
When you set display options, you can specify that clicking a portlet drills down (causes one or more other portlets to be displayed) to show you additional information. For information on portlet drilldown, see "Portlet Drilldown" on page 94.

This is where you do the following:

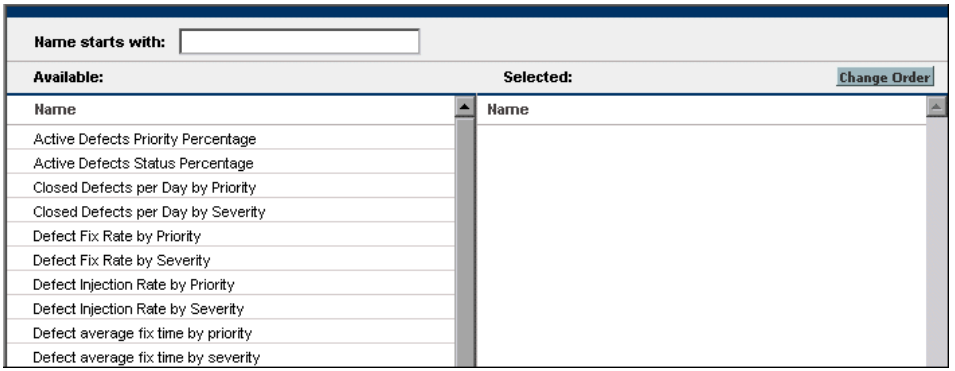
- Specify the portlet or portlets to which you drill down from the portlet that you are creating.
- Specify the position of each drill-to portlet.
- Map the preferences between the portlet that you are creating and the portlets to which you are drilling down.

To edit drilldown preferences:

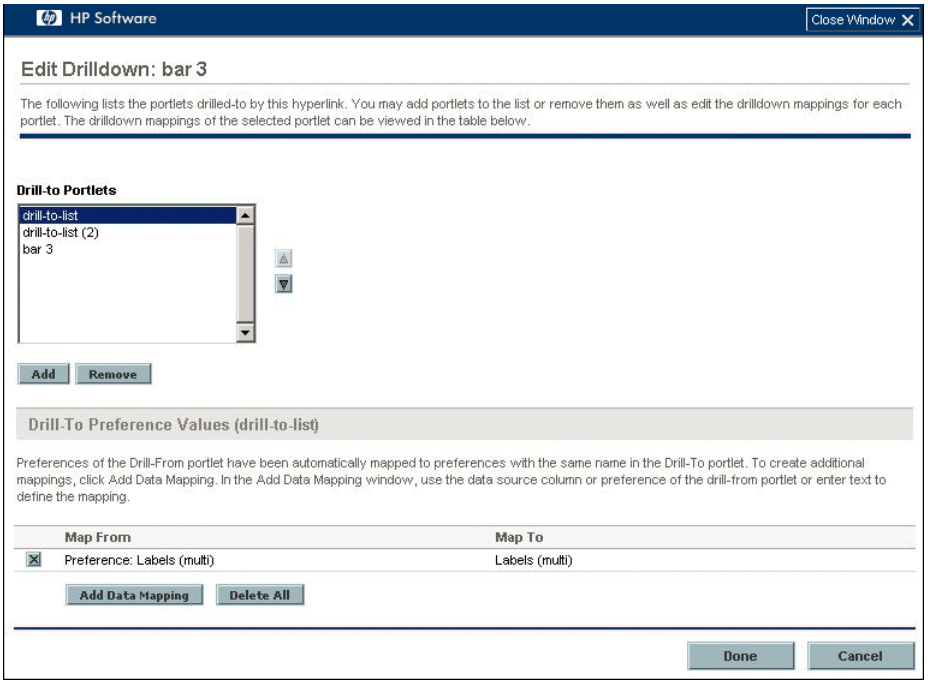
1 In the Hyperlink Options section, select **Drilldown to Portlet** and click **Edit**. The Edit Drilldown window opens.



2 To add a portlet to the list of drill-to portlets, click **Add**. The list of available portlets is displayed. In addition to local portlets, the list includes WSRP portlets as well.



3 Select the portlet or portlets to which you want to drill down. The selected portlets appear in the Edit Drilldown window.



4 To remove a portlet from the list of drill-to portlets, select the portlet and click **Remove**.

5 To change the order in which the drill-to portlets will be displayed, use the up and down arrows to change their positions in the window.

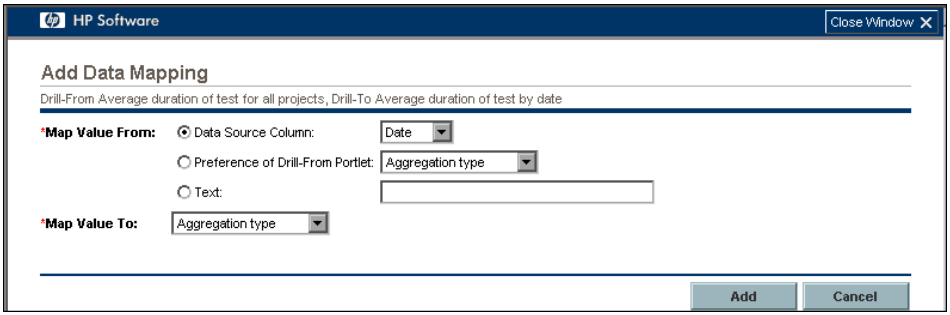
The drill-to portlets are displayed in pairs. The portlet at the top of the list is displayed on the left side of the first row, the next portlet is displayed on the right side of the first row, and so on. If there is an odd number of drill-to portlets, the last portlet spans both columns. Similarly, if there is only one drill-to portlet, it spans both columns.

6 To view a portlet's mappings, select the portlet. The mappings are displayed in the Drill-To Preference Values table. Each row in the table represents a mapping of data from the drill-from portlet to the drill-to portlet.

Mappings specify the values that are transferred from the drill-from portlet to the preferences of the drill-to portlet. Preferences of the drill-from portlet are automatically mapped to preferences with the same name in the drill-to portlet.

7 To delete the mapping of a preference (including an automatically-mapped preference), click the Delete icon next to the preference name in the Drill-To Preference Values table.

8 To map an additional value from the drill-from portlet to the drill-to portlet, select the portlet and click **Add Data Mapping** to open the Add Data Mapping window.



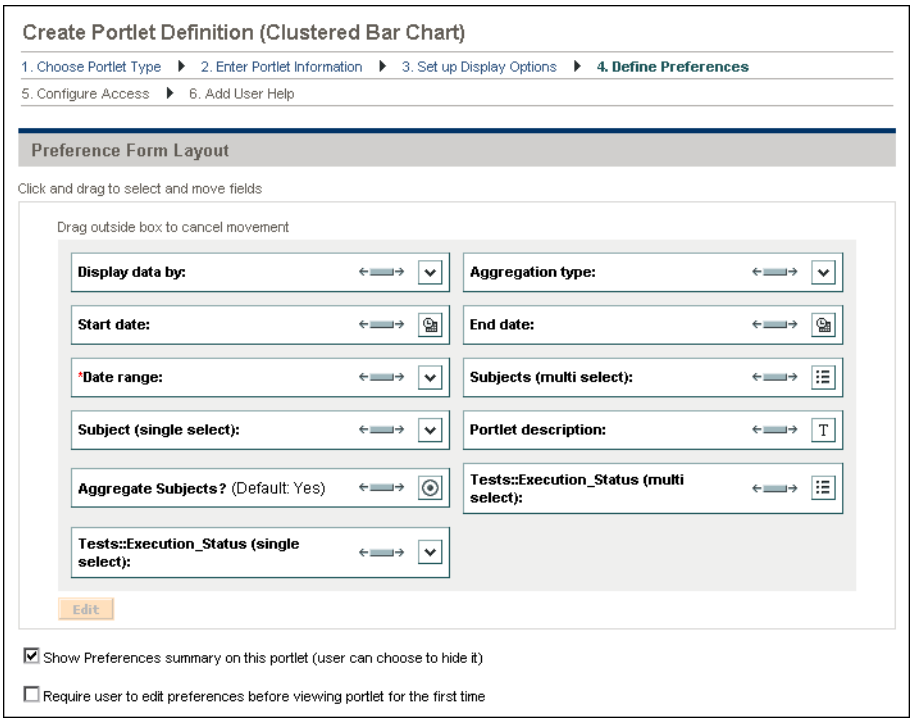
Select an option in the Map Value From section:

Option	Meaning
Data Source Column	One of the columns of the data source used by the drill-from portlet.
Preference of Drill-From Portlet	One of the preferences of the drill-from portlet.
Text	A static text string.

In the Map Value To section, choose the preference of the drill-to portlet to which you are mapping. Click **Add**. The new mapping is displayed in the Drill-To Preference Values table.

Step 4: Define Preferences

The Define Preferences step enables you to set filters that define the ranges of data that are queried to populate the portlet. You can also arrange the order of the preferences, specify whether they are visible to the user, and whether the user can edit them. You define preferences in the Define Preferences page.



The following preferences are available:

Preference Name	Description
Date range	The time period for which data is extracted. The options include a specific time period, for example a week or month. You can also specify the dates of a specific range.
Aggregate Subjects	If this preference is set to **Yes**, Dashboard aggregates the data from all the subjects for which data is extracted and displays the aggregated data with single heading **Aggregated Subjects**. If this preference is set to **No**, Dashboard displays the data for each subject separately.
Aggregation type	The aggregation method by which data is displayed. Aggregation is only relevant when you choose **week** or **month** in the **Display data by** preference. An aggregation is performed on results of the data extracted for the week or month. Each aggregation is calculated on daily results, starting with the beginning of period that you choose in the **Date range** preference.
Display data by	How the data is displayed. For example, if you choose **weekly**, the portlet will display data by the week.
Start date	The start date of the range.
End date	The end data of the range.
Subjects (multi select)	Enables the user to select multiple subjects from which data is to be extracted. If the **Subjects (multi select)** preference is hidden, the **Subject (single select)** preference should be visible.

Preference Name	Description
Subject (single select)	Enables the user to select a single subject from which data is to be extracted. If the **Subject (single select)** preference is hidden, the **Subjects (multi select)** preference should be visible.
Portlet Description	Enables the user to define a string (comment) below the portlet. If this field is left empty, a default message displays the last date the portlet data was updated.
<Entity>::<Property> (multi select)	Enables the user to select multiple property values for which data will be displayed. If the **<Entity>::<Property> (multi select)** preference is hidden, the **<Entity>::<Property> (single select)** preference should be visible.
<Entity>::<Property> (single select)	Enables the user to select a single property value for which data will be displayed. If the **<Entity>::<Property> (single select)** preference is hidden, the **<Entity>::<Property> (multi select)** preference should be visible.

To define a preference:

1 Select the preference and click **Edit**. A dialog box opens.

2 Enter relevant information for your chosen preference:

Field	Description
Field Prompt	A name for the field prompt. The name of the preference is entered by default.
Component Type	Indicates how the field will be displayed. For example, it may be displayed as a calendar, or with a List Lookup button. Component type information is automatically displayed. (Read-only)
Display	Defines whether the value can be edited by a user. **Editable - Allow user to edit:** Enables the user to change the value. **Required and Editable - Require user to enter a value:** Makes it mandatory that the user enters a value before the portlet is visible. **Note:** The following applies when you choose this option and you have specified a default value for the preference. If you do not also select the **Require user to edit preferences before viewing portlet for the first time** check box, the portlet will open automatically. **Non-Editable - Only allow user to view:** Makes the information read-only. **Hidden - Not visible to user:** Hides the information from the user.
Default Value	Enables you to specify a default value for the preference.

3 Select the **Show Preferences summary on this portlet (user may choose to hide it)** check box if you want the user to have the option of displaying or hiding the preferences summary.

4 Select the **Require user to edit preferences before viewing portlet for the first time** check box if you want to force the user to enter specific information before the portlet data is visible. For example, you may require that they specify a subject before that subject's data is visible in the portlet.

5 To view a preview of how the portlet will look, click **Preview**. The Portlet Definition Preview window opens. Note that the preview window is not a live portlet, so all its links are disabled. The preference values used to render the portlet are the default preference values configured for the portlet definition.

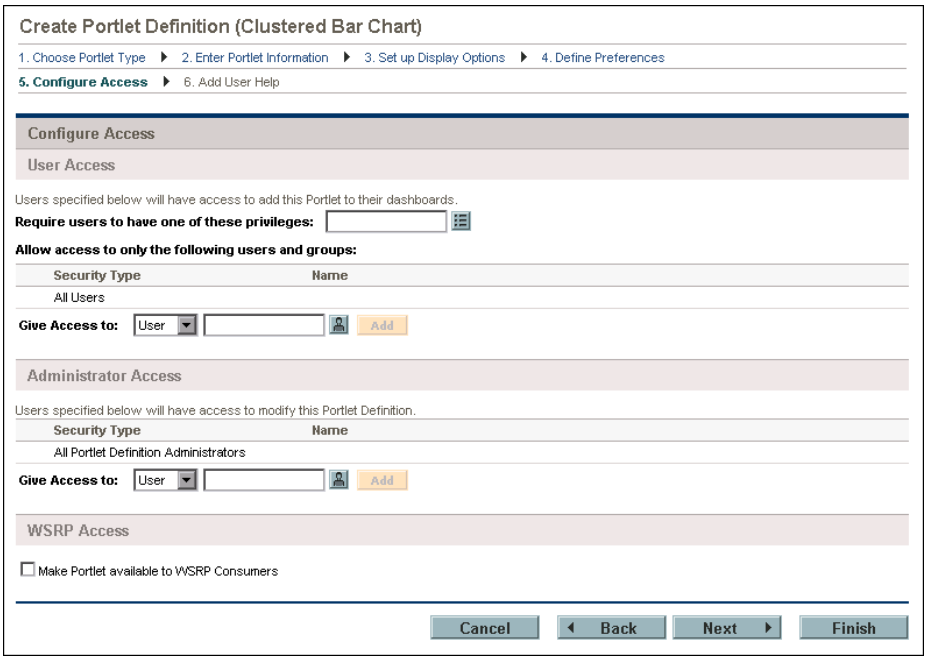
6 Select one of the following options:

- Click **Next**. The Create Portlet Definition page for configuring access opens. Proceed to "Step 5: Configure Access" on page 124.
- Click **Finish** to save your changes and close the Create Portlet Definition wizard.

Step 5: Configure Access

This step enables you to set privileges that control the level of access that users and portlet definition administrators have for the portlet.

For more information on setting privileges, see Chapter 5, "Managing Users and Groups."



To configure access:

1. Under **User Access**, select the level of privilege that users must have from the **Require users to have one of these privileges** field. The privilege level that you choose will define the privileges users must have before they can add this portlet to their personal dashboard.
2. In the **Give Access to** field, choose whether you want to provide access to a specific user or user group.
3. Select the name of a user or user group and click **Add**. The name that you selected is added to the list of users and groups with user access to the portlet.

4 Under **Administrator Access**, in the **Give Access to** field, choose whether you want to provide portlet definition access to a specific user or user group.

5 Select the name of a user or user group and click **Add**. The name that you selected is added to the list of users and groups with administrator access to the portlet.

6 Under **WSRP Access**, select **Make Portlet available to WSRP Consumers** to enable WSRP users to access the portlet.

7 To view a preview of how the portlet will look, click **Preview**. The Portlet Definition Preview window opens. Note that the preview window is not a live portlet, so all its links are disabled. The preference values used to render the portlet are the default preference values configured for the portlet definition.

8 Select one of the following options:

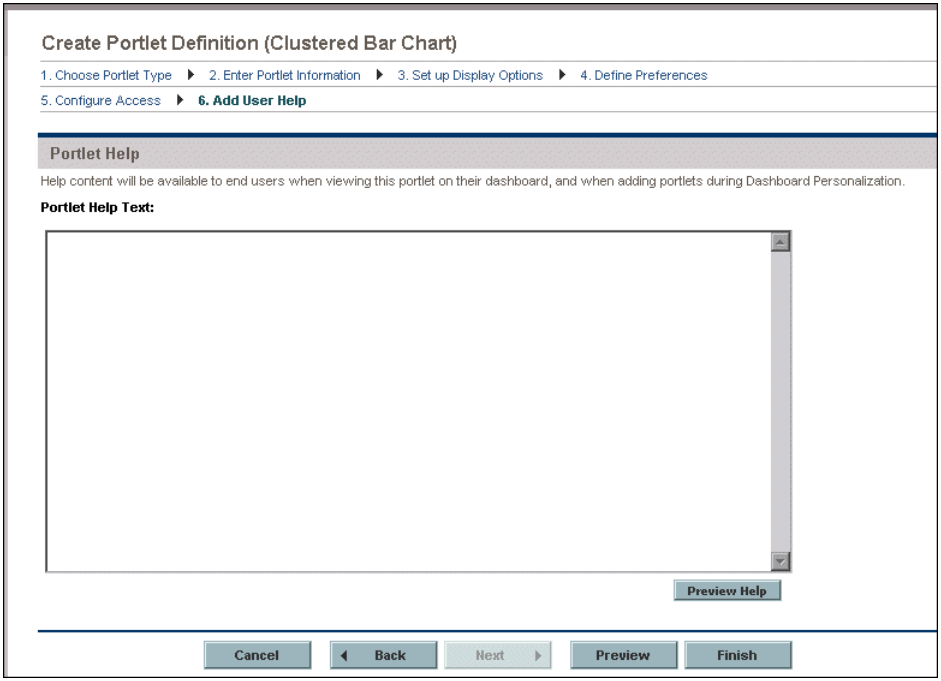
- Click **Next**. The Create Portlet Definition page for adding user help opens. Proceed to "Step 6: Add User Help" on page 126.
- Click **Finish** to save your changes and close the Create Portlet Definition wizard.

Step 6: Add User Help

You can add information that is accessible to the user from a Help button in the portlet. This information can assist the user in interpreting the data that is displayed in the portlet.

To add user help information:

1. In the Create Portlet Definition page for adding user help, write a descriptive sentence or short paragraph that will assist the user to interpret the data in the portlet. The text can include HTML tags.



2. Click **Preview Help** to view the final appearance of the help topic.
3. To view a preview of how the portlet will look, click **Preview**. The Portlet Definition Preview window opens. Note that the preview window is not a live portlet, so all its links are disabled. The preference values used to render the portlet are the default preference values configured for the portlet definition.
4. Click **Finish** to save your new portlet and close the wizard.

7

Modifying and Importing Portlet Definitions

You can modify portlet definitions. You can also import Java and WSRP type portlets to display them in Dashboard.

WSRP stands for Web Service for Remote Portlets. WSRP portlets are portlets that exist in an external portal, otherwise known as a WSRP producer. Dashboard uses the WSRP protocol to view WSRP portlets so that they can be displayed in Dashboard. To import a WSRP portlet, you need to know the URL of the WSRP producer.

This chapter describes:

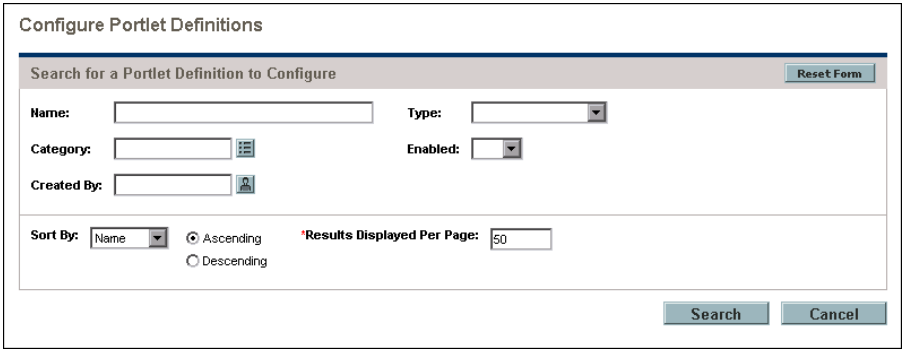
- Modifying Portlet Definitions
- Importing Java and WSRP Type Portlets

Modifying Portlet Definitions

You can modify the portlet definitions that you defined in the Create Portlet wizard.

To modify a portlet definition:

1 On the Dashboard menu bar, click **Configure Portlet**. The Configure Portlet Definitions window opens.



2 To search for a portlet, use one of the following methods:

- Click **Search** to display all portlets.
- To narrow your search, specify data for the following fields and click **Search**.

Field Name	Description
Name	The actual name of the portlet.
Type	The type of portlet.
Category	The category to which the portlet belongs. You must have already defined categories for your portlets in order for the field list to be populated.
Enabled	Whether the portlet is active or inactive.
Created By	The name of the person who created the portlet.

Field Name	Description
Sort By	Defines how you want the results of your search to be sorted.
Results Displayed Per Page	The maximum number of search results that you want to be displayed on a single page.

3 In the results page, click the name of the portlet that you want to modify. The Configure Portlet Definition page for entering portlet information opens.

4 The following table summarizes the modification options.

To modify this...	See this section
Existing portlet information	The table in "Step 2: Enter Portlet Information" on page 94.
The data source fields in the Display tab	The table in "Step 3: Set Up Display Options" on page 99.
Preferences in the Preference Fields tab	The tables in "Step 4: Define Preferences" on page 115.
Access permissions in the Access tab	"Step 5: Configure Access" on page 120.
User help in the User Help tab	"Step 6: Add User Help" on page 122.

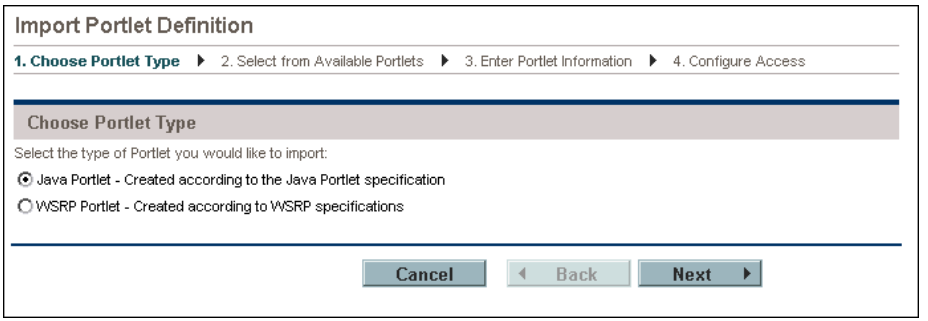
5 Click **Done** to save your changes and return to the first page of the Dashboard.

Importing Java and WSRP Type Portlets

You can import and display portlets from other Web service tools by adding their URL links to Dashboard. These portlets can only be viewed and cannot be modified. Dashboard supports importing Java and WSRP type portlets.

To link to Java and WSRP type portlets:

1 On the Dashboard menu bar, click **Import Portlet**. The Import Portlet Definition window opens.



2 Choose one of the following options:

- Select **Java Portlet** to link to a portlet that is created according to Java portlet specifications.
- Select **WSRP Portlet** to link to a portlet that is created according to WSRP portlet specifications.

3 Click **Next**.

For a Java portlet: You need to perform additional steps before the linking process can be completed. For more information, refer to the TestDirector for Quality Center Knowledge Base (http://support.mercury.com) and search for Problem ID 40426.

For a WSRP portlet: The page for defining the portlet producer's Web service is displayed. Proceed to the next step.

4 In the **WSRP Producer URL** box, enter the URL of the Web service from which you want to link to the portlet.

If the portlet is available on another Dashboard, enter the following URL: http://<server name>:<App server port>/dashboard/wsrp4jproducer.wsdl

5 Click **Next**. Dashboard contacts the Web service to determine what portlets are available.

6 In the Select from Available Portlets page, choose the portlet.

7 Click **Next**. The portlet information is displayed on the page. Modify the portlet information if necessary.

8 To view a preview of how the portlet will look, click **Preview**. The Portlet Definition Preview window opens. Note that the preview window is not a live portlet, so all its links are disabled. The preference values used to render the portlet are the default preference values configured for the portlet definition.

9 Choose one of the following options:

- Click **Next** to proceed to the page for configuring access permissions. For more information on the displayed options, see "Step 5: Configure Access" on page 124.
- Click **Finish** to save the portlet and close the wizard.

8

Creating, Publishing and Distributing Modules

You can create modules for Dashboard and make them available to users. You can also export and import modules and portlet definitions.

This chapter describes:

- About Creating, Publishing and Distributing Modules
- Creating Modules
- Modifying Modules
- Specifying the Fallback Module and Default Module Order
- Distributing and Publishing Modules
- Recalling Published Modules
- Exporting and Importing Objects

About Creating, Publishing and Distributing Modules

Dashboard enables you to create *modules*. A module consists of one or more preconfigured pages that display the portlets that you choose. You create a module by adding pages and selecting the portlets to display on each page. You can modify existing modules, including changing the pages, portlets, and user accessibility.

After you have enabled a module, you can publish or distribute it to specified users or user groups. If you publish a module, the user will not be able to change its pages. If you distribute a module, the user will be able to change the content. You can deactivate or remove a published module from all users or selected users.

You can specify the *default module*—the one that is displayed the first time that a user logs in to Dashboard. You can specify different default modules for different types of users, depending on the type of information that interests each of them. You can also specify a *fallback module*. This is the module that will be displayed for any user for whom no default module has been specified.

You can save Dashboard objects as XML files and export them to other Dashboard instances, or import them from other Dashboard instances.

Creating Modules

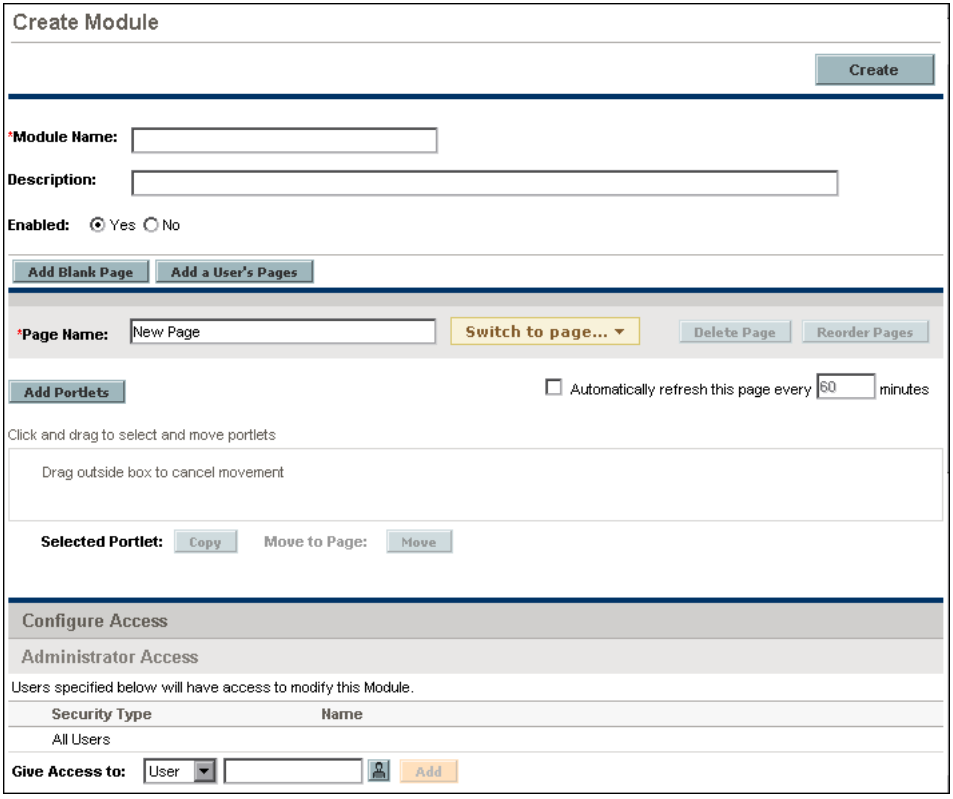
This section describes how to create modules. After creating a module, you add pages to it. These can be pages that you create or pages that have already been created by a user. After you create a page, you add the portlets that will be displayed on it.

After you have created the pages for the modules, you can publish or distribute them to selected users or user groups. For more information, see “Distributing and Publishing Modules” on page 145. Alternatively, you can store the pages for users to access individually so that they can personalize their own Dashboards.

You can also specify the module as the default module for specified users and groups.

To create a module:

1 On the Dashboard menu bar, click **Create Module**. The Create Module window opens.



2 In the **Module Name** box, enter a name for the module.

3 In the **Description** box, enter a description of the module.

4 In **Enabled**, specify whether the module is active or inactive. Inactive modules cannot be published to users or downloaded by users to personalize their own Dashboards.

5 To create a page and add it to the module:

- In the **Page Name** box, type a name for the page.
- If you want the data in the page to be automatically updated at regular intervals, select **Automatically refresh this page every...minutes** and enter a value for the number of minutes.
- Click **Add Portlets** to add portlets to the page. For more information, see "Adding Portlets" on page 140.
- To add an additional empty page to the module, click **Add Blank Page**. A new blank page is added.
- To add an existing page to the module, click **Add a User's Pages**. For more information, see "Adding a User's Pages" on page 137.

6 To change the order in which the pages are displayed, click **Reorder Pages.** In the window that opens, use the arrows to rearrange the page order.

7 To delete a page, click **Delete Page**.

8 For information on configuring this module as a default module that particular users or groups will see when they log in for the first time, see "Configuring Default Modules" on page 138.

9 Under **Administrator Access**, in the **Give Access to** field, choose whether you want to provide module definition access to a specific user or user group.

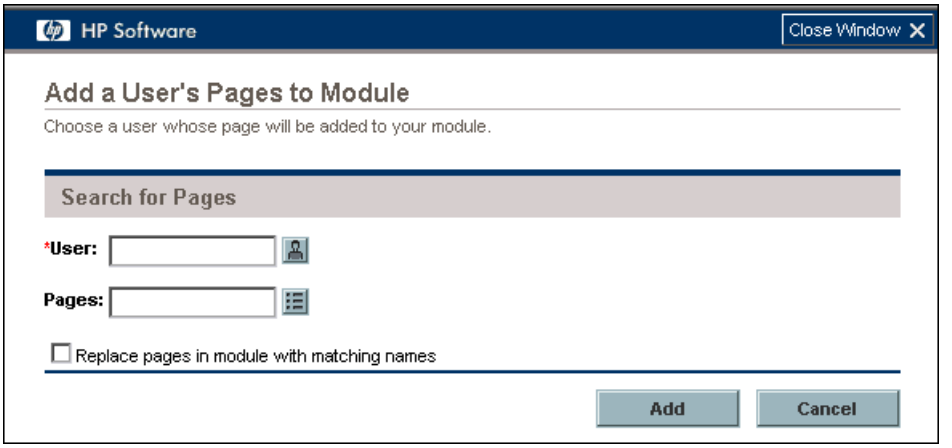
10 To specify user access permissions:

- In the **Self-Service Access** section, check the **Allow Users to add this module to their own Dashboards as Preconfigured Pages** box to enable users to add the module to their Dashboards as preconfigured pages.
- In the **Give Access to** list, specify whether access is to be given to a user or a group.
- Select the names of the users or groups and click **Add**. The names are added to the list of users with access permissions.

11 Click **Create** to create the module.

Adding a User's Pages

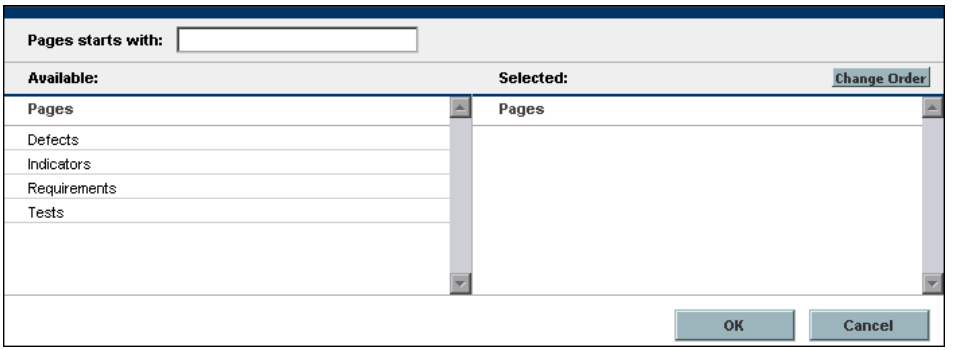
When you click Add a User's Pages in the Create Module window, the Add a User's Pages to Module window opens.



To add a user's pages:

1 Click the **Lookup User** button to choose the user whose pages you want to add to the module.

2 Click the **Lookup List** button to display the user's pages.



3 In the Available pane, select the pages that you want to add to the module. The selected pages are moved to the Selected pane. To change the order in which the pages will be displayed, click **Change Order**. In the window that opens, use the arrows to change the page order.

4 If the module already contains a page with the same name as the one you are adding, checking the **Replace pages...** box causes the old page to be replaced with the user's page. If you do not check the box, the module will contain two pages with the same name.

Configuring Default Modules

A default module is one that is displayed the first time that a user logs in to Dashboard. You can specify a different default module for different types of users, depending on the type of information that interests each of them. For example, you could specify one default module for a finance officer, and another for an administrator, providing each user with the portlets that interest them. You can specify whether the default module should be published or distributed.

You can specify the default module either when you create the module or at a later stage (for example, when deciding to change the default module).

Note: To specify the default module at a later stage, click **Configure Default Module** on the Dashboard menu bar to display the Configure Default Modules window, and choose the default module.

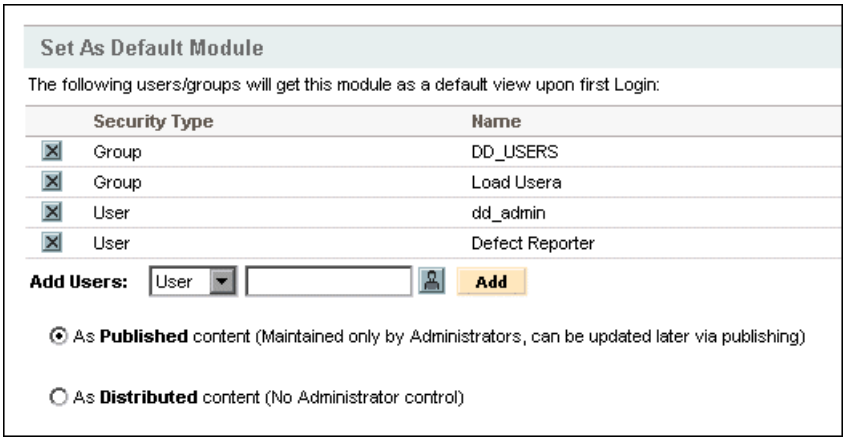
To specify this module as a default module:

1 In the **Set As Default Module** section, use the drop-down list to specify whether you want to assign this default module to a specific user or to an entire group.

2 If you are specifying a default module for a user or users, click the **Lookup User** button and choose the user or users.

If you are specifying a default module for a group or groups, click the **Lookup List** button and choose the group or groups.

3 Click **Add**. The users and groups you chose are displayed in a table.



4 Use the radio buttons to specify whether the module should be published or distributed. If the module is published, the user will not be able to change the module's pages. If the module is distributed, the user will be able to change the content.

Adding Portlets

This section describes how to locate existing portlets and add them to the pages in the new module.

To add portlets:

1. In the Create Module window, click **Add Portlets** (see "Creating Modules" on page 134). The Add Portlets to Dashboard Page window opens.
2. To search for portlets, do one of the following:
   - ➤ Enter the name of the portlet that you want to add in the **Portlet Name** box, or select the category to which the portlet belongs.
   - ➤ Alternatively, to display all the available portlets, leave the fields empty.

   Click **Find Portlets**.
3. Select the check boxes of all the portlets that you want to be displayed on your page, and click **Add**. The Add Portlets to Dashboard Page dialog box closes and the portlets that you chose are added to the page.
4. To change a portlet's position on the page, select the portlet and drag it to its new position.
5. To change a portlet's parameters, click the Edit button in the portlet box. For more information, see "Modifying Portlet Definitions" on page 128.
6. To copy a portlet to another page, select the portlet and click **Copy**. A copy of the portlet is added to the page with the "Copy of" prefix.
7. To move a portlet to another page, select the portlet. In the **Move to Page** box, select the page to which you want the portlet to be moved. Click **Move**.

Modifying Modules

You can modify the pages in a module. This includes changing parameters, adding pages and portlets, and reassigning permissions.

To modify a module:

1 On the Dashboard menu bar, click **Configure Module**. The Configure Module window opens.

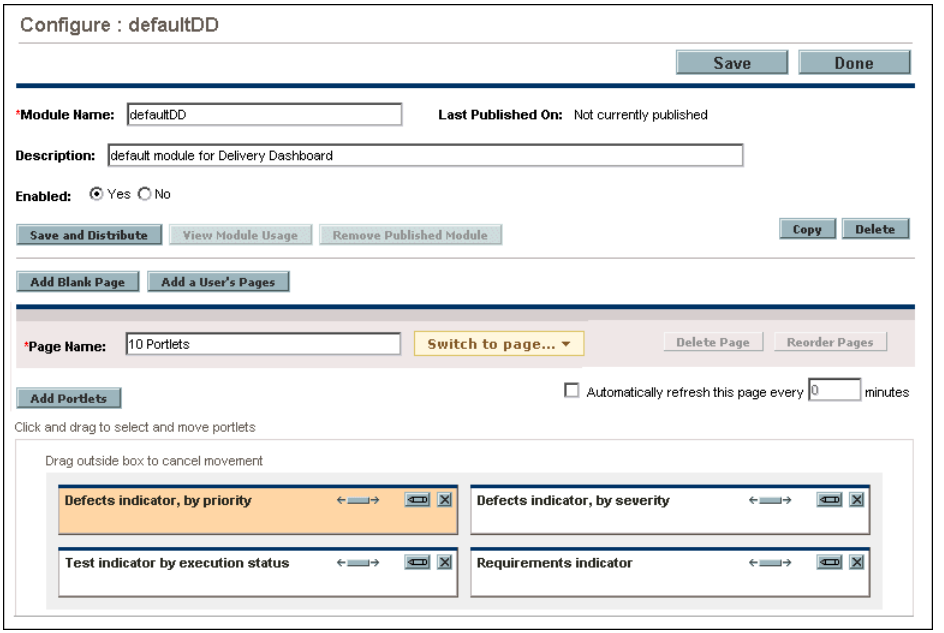
2 To search for a module, you can use the following options:

- Leave all fields empty. The search will display all the modules.
- To narrow your search, complete the following fields:

Field	Description
Name	Module name.
Created By	Name of the user who created the module.
Last Updated From...To	Select the dates that specify the period when the module was created.
Last Published From...To	Select the dates that specify the period when the module was last published.
Published to Users	Select the users to whom the module was published.
Sort By	Select the value by which you want the results of your search sorted. Click **Ascending** or **Descending** to define the order in which you want the results to be displayed.
Results Displayed Per Page	Maximum number of search results to display on a single page.

Click **Search**.

3 In the **Select a Module to Configure** section, click the module that you want to modify. The Configure window opens for the selected module.



4 Modify the module. For information on the displayed fields, see "Creating Modules" on page 134.

5 Click **Save**. If your module is enabled, you can do one of the following:

- Click the **Save and Distribute** button to save the modified module and distribute it to users or user groups. The Distribute a Module wizard opens. For more information, see "Distributing and Publishing Modules" on page 145.
- Click the **View Module** button to view usage statistics for the module.
- Click the **Remove Published Module** button to remove a previously distributed module. For more information, see "Recalling Published Modules" on page 148.

Specifying the Fallback Module and Default Module Order

A default module is the module that is displayed to a user who views the Dashboard for the first time. When you create or configure a module, you specify the users or groups for whom the module will be the default. For details, see “Configuring Default Modules” on page 138.

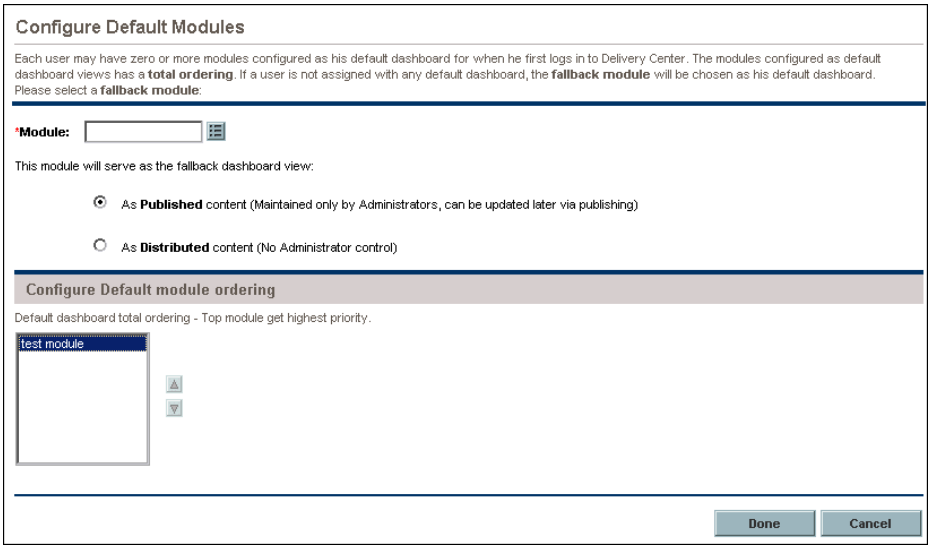
A user can have more than one default module. For example, the same user may belong to both a developer group and an administrator group. When you specify a different default module for each group, such a user receives two different default modules. Since the user can only view one default module, you need to specify which module will be used as the default when more than one has been defined. You do this by setting the priorities of the default modules.

You also specify the fallback module. This is the module that will be displayed for any user for whom no default module has been specified.

If no fallback module has been specified and no default module has been specified for the user, a message will be displayed when the user attempts to view the Dashboard.

To specify the fallback module and default module order:

1 On the Dashboard menu bar, click **Configure Default Modules**. The Configure Default Modules window is displayed.



2 Click the **Lookup List** button to display the list of modules, and choose the fallback module from the list.

3 Use the radio buttons to specify whether you want the fallback module to be published or distributed to users.

4 In the **Configure Default module ordering** section, the window displays all of the default modules. The module at the top of the list has the highest priority. If multiple modules are specified as the user's defaults, the module highest up in the list will be used.

Use the arrows to change the modules' positions so that the ones with the higher priorities are higher up in the window.

5 Click **Done** to close the window.

Distributing and Publishing Modules

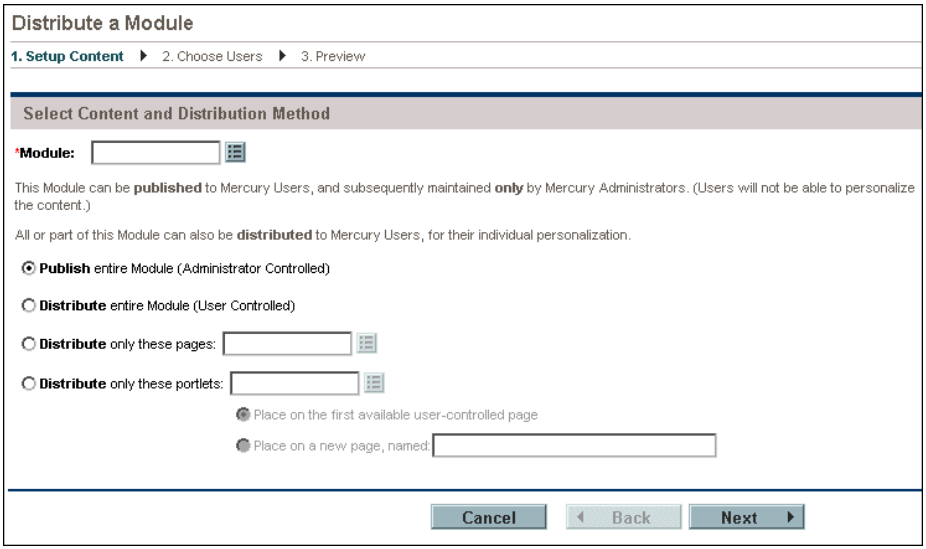
After you have created a module, you can *distribute* or *publish* it to specified users or user groups.

When you distribute a module, you forward a package of pages to selected users who can then personalize the pages. You can distribute an entire module, specific pages from the module, or portlets from one or more of the pages.

When you publish a module, you forward the entire module to users. Only an administrator can modify or recall pages that have been published.

To distribute or publish a module:

1 On the Dashboard menu bar, click **Distribute Module**. The Distribute a Module wizard opens.



2 In the **Module** box, enter the name of the module. Alternatively, you can click the **Lookup List** button and choose the module from the displayed list.

3 Choose a method:

Option	Description
Publish entire module (Administrator controlled)	Send an entire read-only module to specific users or user groups. Administrator modifications can be sent to update published pages. These pages cannot be deleted or modified by the user.
Distribute entire module (user controlled)	Send an entire module to specific users or user groups. Administrator modifications can be sent to update distributed pages. These pages can also be deleted or modified by the user.
Distribute only these pages	Send selected pages from a module to specific users or user groups. Administrator modifications can be sent to update distributed pages. These pages can also be deleted or modified by the user.
Distribute only these portlets	Send selected portlets from a module to specific users or user groups. Administrator modifications can be sent to update distributed portlets. These portlets can also be deleted or modified by the user. ➤ Select **Place on the first available user-controlled page** to place the portlet on the first page on which the user is allowed to make modifications. ➤ Select **Place on a new page, named** to create a new page on the user's Dashboard on which to place the portlet. Add a name for the new page.

4 Click **Next**. The Choose Users page opens. The fields that are displayed depend on whether you chose to publish or distribute the pages or portlets.

5 In the **Select Recipients of Publication** or **Select Recipients of Distribution** section, complete the following options:

- In **Users**, use the **Lookup User** button to select the names of users to whom you want the module or portlets to be published or distributed.
- In **Groups**, use the **Lookup List** button to select the user groups to whom you want the module or portlets to be published or distributed.
- In **Users with the following published modules**, use the **Lookup List** button to select the names of users, who have already received published modules, to whom you want the current modules to be published.

6 In the **Notify Users of Publication** or **Notify Users of Distribution** section, complete the following options:

- Select **Send the following email at the time of publication** or **Send the following email at the time of distribution** to send an e-mail notification at the time that you publish or distribute the module or portlets to the recipients.
- Complete the distribution list. Use the **Lookup User** button to select additional names of users to notify about the removal.
- In the **Subject** box, enter a subject line for the e-mail message.
- In the **Message Format** box, choose whether you want to send your e-mail message as plain text or HTML.
- In the **Message Body** box, type the message text.

7 Click **Next**. The Preview page opens.

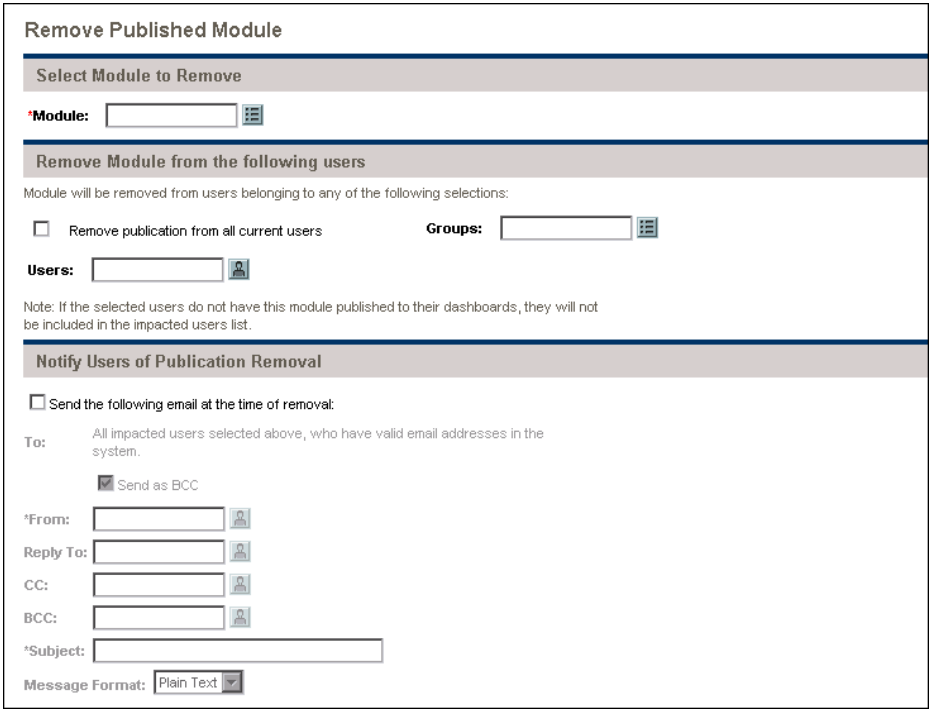
8 Review the data in the Preview page. If you are satisfied that it is correct and complete, click **Finish**. If you want to make changes, click **Back** to return to the appropriate pages in the wizard.

Recalling Published Modules

Modules that have been published can be deactivated or recalled from users' Dashboards. You can choose to recall a module from all users or from selected users.

To recall a module:

1 On the Dashboard menu bar, click **Recall Published Module**. The Remove Published Module window opens.



2 In the **Module** box, use the **List Lookup** button to choose the name of the module that you want to recall.

3. In the **Remove Module from the following users** section, select one of the following options:
   - Select **Remove publication from all current users** to delete the published module from all users.
   - In **Groups**, use the **Lookup List** button to select the user groups from whom you want the modules to be removed.
   - In **Users**, use the **Lookup User** button to select the names of users from whom you want the modules removed.
4. In the **Notify Users of Publication Removal** section, select **Send the following email at the time of removal** to send an e-mail notification at the time that you recall the module. The e-mail will be sent to all users who are impacted by the removal.
5. Complete the distribution list. Use the **Lookup User** button to select additional users to notify about the removal.
6. In the **Subject** box, type a subject line for your e-mail.
7. In the **Message Format** box, choose whether you want to send your email as plain text or HTML.
8. In the **Message Body** box, type the message text.
9. Click **Continue** to view a summary of the module that you are removing and a list of all the individual pages and portlets that will be impacted by the removal.
10. Click **Remove** to remove the module.

Exporting and Importing Objects

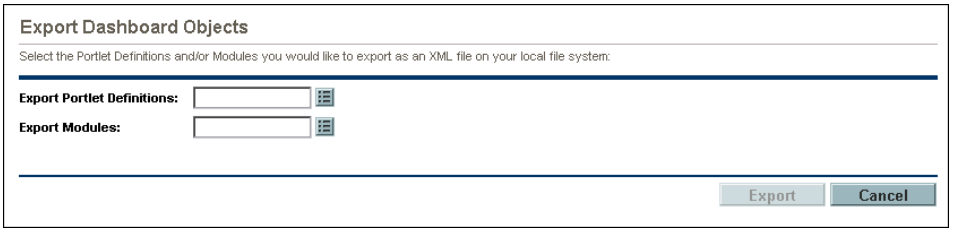
You can save Dashboard *objects* as XML files and export or import them to or from other Dashboard instances. An object can contain one or more modules and/or one or more specific portlet definitions.

Exporting Objects

You can save modules and portlet definitions as XML files. They can then be exported to another Dashboard.

To export objects:

1 On the Dashboard menu bar, click **Export Objects**. The Export Dashboard Objects page opens.



2 In **Export Portlet Definitions**, click the **Lookup List** button to display the list of portlet definitions for your Dashboard. Select the portlet definitions that you want to export and click **OK**.

3 In **Export Modules**, click the **Lookup List** button to display the list of modules for your Dashboard. Select the modules that you want to export and click **OK**.

4 Click **Export**. The File Download window opens.

5 Click **Save** to save your export objects. The Save As dialog box opens.

6 Specify a file name and directory for your file.

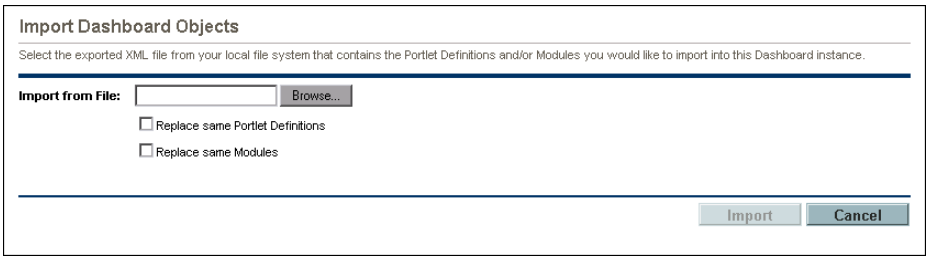
7 Click **Save**. The objects are saved to the specified directory.

Importing Objects

You can import modules and portlet definitions that have been saved as XML files into your Dashboard.

To import objects:

1 On the Dashboard menu bar, click **Import Objects**. The Import Dashboard Objects page opens.



2 Click **Browse** to navigate to the location in which your file is stored.

Note: To import the Dashboard default module, navigate to the **DefaultDashboardPages** folder on your installation disk.

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3 Select **Replace Same Portlet Definitions** if you want the imported portlet definitions to replace any existing portlet definitions with the same names in your current Dashboard.

4 Select **Replace Same Modules** if you want the imported modules to replace any existing modules with the same names in your current Dashboard.

5 Click **Import** to import the object into your current Dashboard.

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