

# Project and Portfolio Management Center

Software Version: 9.40

# **Creating Portlets and Modules**

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# Chapter 1: Getting Acquainted with the Standard Interface

### Introduction to the Standard Interface

Most Project and Portfolio Management Center (PPM Center) users work solely in the standard interface, although some may use the PPM Workbench as well. The standard interface opens in your Web browser, and from it, you can run reports, create requests, and search for packages, among other things.

A key feature of PPM Center is the PPM Dashboard, which provides you with a real-time view into your PPM Center–based activities.

Using the PPM Dashboard's portlets, you can view almost anything, from the status of requests assigned to you, to comparisons between current projects and staffing profiles. "Figure 1-1.

Personalized PPM Dashboard page" on the next page shows a PPM Dashboard page that relies on two HPE-supplied portlets: Request List and Analyze Current Portfolio.

**Key Status Information** ? 0 2 Request List Req# Request Type Description Request Type
(Demand Demo)
Application
Enhancement
CMMCC - QC
Instance
Registration
CMMCC - QC
Instance
Registration
(Demand Demo)
Application
Enhancement
(Demand Demo)
Application
Application Unreleased QC on ALM 2.0 VM Suspended QC on localhost Suspended pruebaaaa In Prioritization Q Application Enhancement pruebaaaa In Prioritization Q K Showing 1 to 5 > Export to Excel Analyze Current Portfolio Preferences: Include selected active projects - A/R Billing Upgrade. ACME Intranet. APO - Pilot. Abby Test 1... Size of bubble indicates: Projected Cost Color of bubble indicates: Business Objective Risk 0  $\bigcirc$ 15 (No Business Objective) Ocst Containment Regulatory Compliance

Figure 1-1. Personalized PPM Dashboard page

When you first log on to PPM Center, you are presented with a PPM Dashboard page. The PPM Dashboard page displayed is determined by the system administrator (if your system administrator has configured a default landing page) or how you personalized your pages. HPE provides a PPM Dashboard page named Front Page (Standard PPM Dashboard).

For more information about logging on to PPM Center, see the Getting Started guide.

# Overview of Creating Portlets and Modules

Managers (or other lead personnel) can create, maintain, and share *configured* Dashboard pages and portlets to facilitate communication and coordination for their own projects. For example, your recruiting organization might share the list of current job openings.

Configuring the standard interface in this manner provides a mechanism for managers to share real-time information up and/or down the chain of command.

**Note:** The individuals who plan, set up, and maintain HPE-based applications are generally called application administrators (or configurators) and their responsibilities may also include configuring PPM Dashboard pages.

"Figure 1-2. Various types of PPM Dashboard pages" on the next page provides a visual overview of the different types of Dashboard pages. Personalizing the pre-installed Dashboard page or creating new (user-specific) Dashboard pages are detailed in the *Getting Started* document. Part I of this document focuses on the application administrator—configured Dashboard pages; however, "Creating and Maintaining PPM Dashboard Pages and Modules" on page 119 briefly describes how users can add preconfigured Dashboard pages.

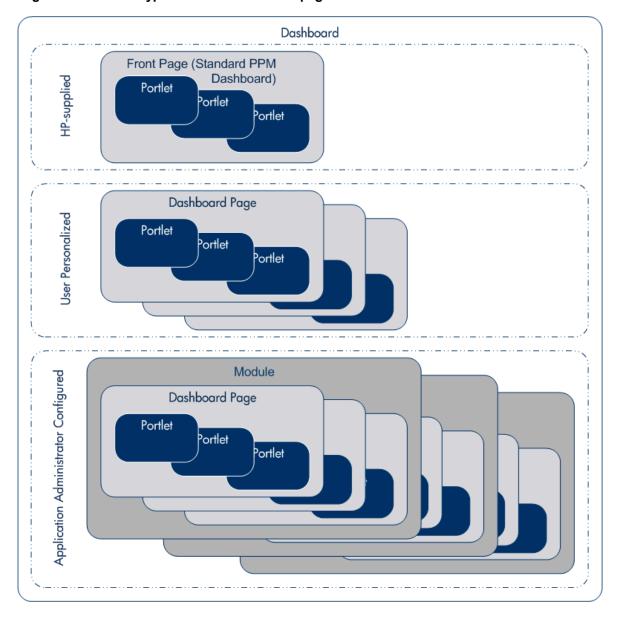
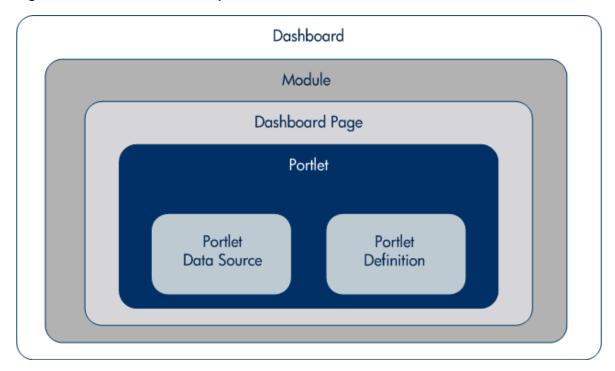


Figure 1-2. Various types of PPM Dashboard pages

"Figure 1-3. PPM Dashboard components" on the next page details the major components that make up configured Dashboard pages and depicts their relationships.

Figure 1-3. PPM Dashboard components



- Dashboard. The PPM Dashboard is one of the key applications provided with PPM Center.
  - In addition to the pre-installed Front Page and optional user-personalized Dashboard pages, the PPM Dashboard can include one or more modules.
- Module. A module is the container for one or more Dashboard pages.
  - Modules are created much like a Dashboard page which is personalized by an individual user. Modules are created by application administrators.
- Dashboard page. A Dashboard page is the container for one or more portlets.
  - Dashboard pages within a module can be added, modified, and deleted. Similarly, on each Dashboard page, portlets can be added, modified, or deleted.
- **Portlet.** Portlets are the key visualization component of the PPM Dashboard and display information relevant to your PPM Center data. HPE provides numerous portlets and additional (personalized or configured) portlets can be created.
  - In general, portlets rely on the following:
  - Portlet data sources. For some portlets, these are typically the SQL queries used to gather the
    information from the PPM Center database. Other data sources include Web pages and RSS
    feeds.
  - Portlet definitions. These define the look and feel of a portlet and can be customized. Portlet

definitions can include such information as the type of portlet, data source, display options such as labels and columns to display, layout, user and group access to the portlet, and filter field definitions.

# Standards-Based Portlet Support

PPM Center is a Java™-compliant portal, and provides support for Java-compliant portlets that are not included with PPM Center. Java portlets can be developed using the Java API, purchased from vendors (such as Sun Microsystems), or obtained with products (such as WebLogic Portal).

WSRP-compliant portlets are also supported by PPM Center. Web Services for Remote Portlets (WSRP) allows portals to publish portlets so that other portals can "consume" them. Use of WSRP portlets simplifies integration between systems and can reduce programming overhead as well as provide continuity for users of multiple systems.

**Note:** PPM Center provides support for JSR 168 and WSRP standards-compliant portlets. This support is based on the Apache Reference implementations of two specifications: Pluto and WSRP4J. However, the specifications may not be complete in all areas or may be open to interpretation. HPE has made design decisions to cover these areas.

HPE is committed to provide support for customers implementing these types of portlets, including debugging and diagnosing problems related to the PPM Dashboard. HPE does not extend that support to cover the debugging of custom portlet code or configuration files.

To facilitate diagnosis, customers reporting problems to the HPE Software Support Web site (hp.com/go/hpsoftwaresupport) are required to provide a simple, reproducible case that demonstrates the error in the PPM Dashboard.

## The Configuration Process

Configuring the standard interface requires steps relating to both creating portlets and making them available. In general, the process is as follows:

#### Step 1: Create a portlet.

 Create a portlet data source. See "Creating and Maintaining Portlet Data Sources" on page 13 for specifics. 2. Create a portlet definition. See "Creating and Maintaining Portlet Definitions" on page 32 for more information.

#### Step 2: Create and share a module and its Dashboard page(s).

See "Creating and Maintaining PPM Dashboard Pages and Modules" on page 119 to learn more about these topics.

## **Related Information**

The following documents also include information related to creating and sharing portlets and modules:

- Commands, Tokens, and Validations Guide and Reference
- Reports Guide and Reference
- Security Model Guide and Reference

The following documents also provide insights into the user experience with PPM Dashboard pages:

- Customizing the Standard Interface
- · Getting Started

# Chapter 2: Creating and Maintaining Portlet Data Sources

### Overview of Portlet Data Sources

Portlet data sources contain the following components:

- The filter fields found on the edit page for the portlet.
- The permissions allowing editing of the portlet data source.
- The SQL query used by the portlet definition to retrieve data from the PPM Center database.

A portlet data source SQL query consists of the following:

• **SELECT/FROM.** This statement is used to select columns from the designated database table.

These columns are used by the portlet definition, such as a column in a list portlet or the x-axis in a bubble chart portlet.

#### For example:

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V
```

• WHERE. This clause is used to specify selection criterion.

#### For example:

```
WHERE LOCKED FLAG="Y"
```

• **GROUP BY or ORDER BY.** These keywords are used to aggregate or sort the result.

#### For example:

```
ORDER BY OBJECT_TYPE
```

The following is a complete SQL query for a portlet data source:

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V WHERE LOCKED_FLAG="Y" ORDER BY OBJECT TYPE
```

Portlet definitions and portlet data sources have the following relationships:

- A portlet definition can be linked to only one portlet data source.
- A portlet data source can be linked to multiple portlet definitions.

Portlet data sources are constructed using the Data Source Workbench (sometimes called the Data Source Builder).

From the Data Source Workbench you can:

- Search for and view portlet data sources; see "Searching For and Viewing Existing Portlet Data Sources" below.
- Create new portlet data sources or modify existing ones; see "Creating or Modifying Portlet Data Sources" on the next page.
- Use existing portlet data sources as the basis for new portlet data sources; see "Copying Portlet Data Sources" on page 25.
- Delete existing portlet data sources; see "Deleting Portlet Data Sources" on page 26.
- View portlet definition usage; see "Viewing Portlet Definition Usage" on page 26.

Note: HPE-supplied portlet data sources can be copied but cannot be modified or deleted.

# Searching For and Viewing Existing Portlet Data Sources

To search for a portlet data source:

- 1. Log on to PPM Center.
- 2. From the menu bar, select **Open > Administration > Open Workbench.**

The PPM Workbench opens.

3. From the shortcut bar, select **Dashboard > Data Sources**.

The Data Source Workbench opens.

4. On the **Query** tab, provide the search criteria.

**Tip:** To display all portlet data sources, click **List** without providing any search criteria.

5. Click List.

The **Results** tab appears, displaying the results of the search.

- 6. (Optional) To view a portlet data source, either:
  - Double-click a portlet data source.
  - Select a portlet data source and click Open.

Tip: Use the Shift or Ctrl keys to select multiple portlet data sources.

The Data Source : < Data Source Name > window opens.

# Creating or Modifying Portlet Data Sources

To update an existing portlet data source, or to create an entirely new portlet data source:

- Log on to PPM Center.
- 2. From the menu bar, select **Open > Administration > Open Workbench**.

The PPM Workbench opens.

3. From the shortcut bar, select **Dashboard > Data Sources**.

The Data Source Workbench opens.

- 4. Do one of the following:
  - Create an entirely new portlet data source:
    - On the Query tab, click New Data Source.
    - · On the Results tab, click New.
  - Modify an existing portlet data source:
    - View the portlet data source (as described in " Searching For and Viewing Existing Portlet Data Sources" on the previous page).

Note: HPE-supplied portlet data sources cannot be modified.

The Data Source : < Data Source Name > window opens.

- 5. Provide information for each of the following areas before proceeding to the next step.
  - General information. Use these fields to set general information regarding the portlet data source, such as the name of the portlet data source, reference code, and its description. See

"Completing the General Information Section" on the next page for details.

- Data Source. Use this tab to define the columns of the portlet data source and create the SQL query. See "Completing the Data Source Tab" on page 18 for details.
- Filter Fields. Use this tab to create the filter fields found on a portlet's edit page. See
   "Completing the Filter Fields Tab" on page 23 for details.
- Ownership. Use this tab to set who can edit the portlet data source. See "Completing the Ownership Tab" on page 24 for details.

**Note:** The **Portlet Definitions** tab is used to identify which portlet definitions rely on this portlet data source. A new portlet data source will not have any portlet definitions associated with it.

This tab is detailed in "Viewing Portlet Definition Usage" on page 26.

(Optional) At any time, you can click Save to commit your changes. See the tip following "Table 2 Portlet data source general information field descriptions" on the next page for additional considerations and suggestions.

You can also click **Cancel** to discard any changes. However, if you have provided a unique **Data Source Name** and clicked **Save** (at least once), the portlet data source has been created with the information provided as of the last **Save**.

(Optional, although highly recommended) On the Data Source: < Data Source Name > window, click Verify to validate the SQL statement.

Make any necessary corrections to the SQL by clicking Edit Query on the Data Source tab.

8. Click **OK** to save your changes and close the window.

The Data Source : < Data Source Name > window closes and the Data Source Workbench is updated.

**Tip:** On the **Results** tab, click **Data Source Name** to have the portlet data sources appear in alphabetical sequence. Clicking **Data Source Name** a second time reverses the sort order.

**Note:** If your PPM Center instance supports multiple languages, any data source you create is defined in the language you selected at logon (your session language). After the data source is created, it can be modified only in its definition language. For more information, see *Multilingual User Interface Guide*.

## Completing the General Information Section

To complete (or update) the general information area of the Data Source : < Data Source Name> window:

1. Provide the settings using the information from the following table.

Table 2-1. Portlet data source general information field descriptions

Field Name (*Required)	Description
*Data Source	Specify a unique name for the portlet data source.
Name	Type any alphanumeric string.
	1-3 < <reviewer: is="" length?="" maximum="" string="" the="" what="">&gt;</reviewer:>
*Reference Code	A default value is provided, but you may specify a unique name for the data source reference code. PPM Center uses this code to identify specific entity types. This code does not change, regardless of whether its name is changed or translated.
Time-out	Select the timeout to use.
	Choices include:
	∘ Use Default
	Data Source Specific
Seconds	The number of seconds to wait before the portlet data source's query times out.
	If the <b>Time-out</b> field has a value of <b>Use Default</b> , this field displays the default time-out value used.
	If the <b>Time-out</b> field has a value of <b>Data Source Specific</b> , specify the time-out value. Type any integer greater than zero.
Description	Specify a description for the portlet data source.
	Type any alphanumeric string.
Enabled	Indicate whether or not this portlet data source is available for use.

**Tip:** To allow incremental saving of your settings without impacting any users, set the **Enabled** field to **No** when initially defining the portlet data source. Once the portlet data

source definition is complete, reset this field to Yes.

2. (Optional) Click Save to commit these changes.

## Completing the Data Source Tab

To complete (or update) the **Data Source** tab of the Data Source : < Data Source Name > window:

1. Set Use Bind Variables.

The **Use Bind Variables** option should be set to **Yes**, except when:

- Any of the filter fields are multi-select-enabled.
- The portlet query statement includes tokens.
- 2. Click **Edit Query**.

The Query Definition window opens.

- 3. Provide the following information before proceeding to the next step.
  - Select/From. Use this tab to create the columns and add the SELECT and FROM clauses for the SQL query. See "Completing the Select/From Tab" below for details.
  - Where/Filter. (Optional) Use this tab to add WHERE clauses to the SQL query. See
     "Completing the Where/Filter Tab" on page 20 for details.
  - Group By/Order By. (Optional) Use this tab to add GROUP BY or ORDER BY clauses. See
     "Completing the Group By/Order By Tab" on page 21 for details.
- 4. (Optional) Click **View Full Query** to see the entire SQL query—the composite of the information from each of the tabs.
- 5. Click **Apply** to commit any interim changes. Click **OK** to save your changes and close the window.

### Completing the Select/From Tab

The **Select/From** tab allows you to construct the SQL query the portlet data source executes.

• Select. This statement identifies one or more columns to be included in the query.

For example, the following shows a complete SQL query for a portlet data source (the SELECT statement portion of the SQL query is shown in italics):

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V WHERE LOCKED_FLAG="Y" ORDER BY OBJECT TYPE
```

From. This clause selects the table from which the columns are selected.

For example, the following shows a complete SQL query for a portlet data source (the FROM clause portion of the SQL query is shown in italics):

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V WHERE LOCKED_FLAG="Y" ORDER BY OBJECT TYPE
```

To complete (or update) the **Select** section on the **Select/From** tab in the Query Definition window:

- 1. (Optional) To change the settings for any existing column:
  - a. Select a column.
  - b. Click Edit in the Select section.

The Data Source Column. < Column Name > windows opens.

- c. The information that should be provided depends on the Column Type. See "Supplemental Details for the Data Source Column Window" on page 27 for the details associated with each column type.
- d. Click **Save** to commit any interim changes. Click **OK** to save your changes and close the window.
- 2. (Optional) To include a new column.
  - a. Click Add in the Select section.

The Data Source Column: New window opens.

- b. The information that should be provided depends on the Column Type. See "Supplemental
  Details for the Data Source Column Window" on page 27 for the details associated with each
  column type.
- c. Click **Save** to commit any interim changes. Click **OK** to save your changes and close the window.

- 3. Repeat Step 1 and Step 2 until all the desired columns are included.
- 4. In the **From Clause** section of the **Select/From** tab of the Query Definition window, complete the associated clause.

This is a free-form SQL entry area.

Tip: Click Enlarge to create a larger text entry field.

5. Click **Apply** to commit your changes. Click **OK** to save your changes and close the window.

### Completing the Where/Filter Tab

The Where/Filter tab allows you to construct the SQL query the portlet data source executes.

• Where. This clause is used to specify the selection criteria.

For example, the following shows a complete SQL query for a portlet data source (the WHERE clause portion of the SQL query is shown in italics):

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V WHERE LOCKED_FLAG="Y" ORDER BY OBJECT_TYPE
```

• Filter. This clause is used to specify the filter fields that appear on the portlet's edit page.

**Note:** Each filter field is appended to the WHERE clause of the portlet query, but only when the filter field is being used by a PPM Dashboard user.

Filter field values can be used in the SQL by using the token name P.TOKEN\_NAME or VP.TOKEN\_NAME.

To complete (or update) the **Where Clause** section on the **Where/Filter** tab in the Query Definition window:

1. Complete the associated clause.

The Where Clause section defines the WHERE clause of the portlet query.

This is a free-form SQL entry area.

Tip: Click Enlarge to create a larger text entry field.

2. (Optional) Change the settings for an existing filter field:

- a. Select a filter field.
- b. Click **Edit** in the **Filter Fields** section.

The Filter: < Filter Field> window opens.

- c. Provide the data as detailed in "Completing the Filter Fields Tab" on page 23.
- d. Click **Apply** to commit any interim changes. Click **OK** to save your changes and close the window.
- 3. Include a new filter field:
  - a. Click New in the Filter Fields section.

The Filter: New window opens.

**Note:** Adding filter fields here has the same results as adding filter fields using the **Filter Fields** tab as the Data Source : <*Data Source Name*> window.

The difference in the two areas is how the information is visually displayed.

- In the Filter Fields section of the Query Definition window, the SQL clauses are displayed.
- On the Filter Fields tab of the Data Source : < Data Source Name > window, the PPM
  Center entities are displayed.
- b. Provide the data as detailed in "Completing the Filter Fields Tab" on page 23.
- c. Click **Add** to commit any interim changes. Click **OK** to save your changes and close the window.
- 4. Repeat Step 2 and Step 3 until all the desired filter fields are included.
- 5. Click **Apply** to commit your changes. Click **OK** to save your changes and close the window.

## Completing the Group By/Order By Tab

The Group By/Order By tab allows you to refine the SQL query the portlet data source executes.

- **GROUP BY.** Adds a keyword to aggregate the result.
- ORDER BY. Adds a keyword to sort the result.

For example, the following shows a complete SQL query for a portlet data source (the ORDER BY portion of the SQL query is shown in italics):

```
SELECT OBJECT_TYPE, OBJECT_NAME, REVISION_NUMBER FROM KACC_PSFT_VC_V WHERE LOCKED_FLAG="Y" ORDER BY OBJECT_TYPE
```

To complete (or update) the **Group By/Order By** tab in the Query Definition window:

1. In the **Group By Clause** section, provide the GROUP BY or ORDER BY terms.

This is a free-form SQL entry area.

2. In the **Having Clause** section, provide the HAVING terms.

This is a free-form SQL entry area.

3. In the **Default Order By Clause** section, provide the default ORDER BY terms.

This is a free-form SQL entry area.

4. Click **Apply** to commit your changes. Click **OK** to save your changes and close the window.

#### Limitation

If the data source SQL is in the following format:

```
SELECT A, B
FROM Table_C
WHERE X=Y
ORDER BY D
```

and if E is nullable or has non-unique values, custom porlters return unpredictable results when sorted by columns containing duplicated values.

This issue is caused by a known limitation of Oracle row\_number() function.

To work around this issue, you should add additional columns with unique values or rowid of the tables in the "from" clause to the "order by" clause. For example:

```
SELECT A, B
FROM Table_C
WHERE X=Y
ORDER BY D, E
```

and E should be rowid or a column in Table\_C with unique value.

**Note:** You can add more than one column to the "order by" clause when no column with unique value or rowid is applicable. For performance sake, it is recommended that you add columns with index.

## Completing the Filter Fields Tab

To complete (or update) the Filter Fields tab in the Data Source : < Data Source Name > window:

- 1. (Optional) To change the settings for an existing filter field:
  - a. Select a filter field.
  - b. Click Edit.

The Filter: < Filter Field> window opens.

c. Provide the filter criteria using the information from the following table.

**Note:** Each filter field is appended to the WHERE clause of the portlet query, but only when the filter field is being used by a PPM Dashboard user.

Filter field values can be used in the SQL by using the token name  $P.TOKEN_NAME$  or  $VP.TOKEN_NAME$ .

Field Name (*Required)	Description
*Field Name	Specify a name for the filter field that should be shown in the portlet's edit page.
	Type any alphanumeric string.
*Token	Specify the token for the filter field.
Description	Specify a description for the filter field.
	Type any alphanumeric string.
*Validation	Select the validation for the filter field.
	Choices are limited to those validations available on your PPM Center instance.
Multiselect	Indicate whether or not the filter field is enabled for multi-select.
Required	Indicate whether or not the filter field is required on the portlet's edit page.
Enabled	Indicates whether or not the filter field is enabled.
*When this filter has	Single quotation marks (`), including those that may be embedded in

Field Name (*Required)	Description
a value, append to Where Clause	a variable, cannot be used in the When this filter has a value, append to Where Clause filter field.

- d. Click **Apply** to commit any interim changes. Click **OK** to save your changes and close the window.
- 2. (Optional) To include a new filter field:
  - a. Click New.

The Filter: New window opens.

- b. Provide the filter criteria using the information from the previous table.
- c. Click **Add** to commit any interim changes. Click **OK** to save your changes and close the window.
- 3. Repeat Step 1 and Step 2 until all the desired filter fields are included.
- 4. Click **Save** to commit your changes. Click **OK** to save your changes and close the window.

## Completing the Ownership Tab

Only members of the security groups specified in the Ownership window can edit, copy, or disable a specific portlet. If a security group is disabled or the System: Edit Portlet Definition access grant is removed, that group no longer has access to the portlet.

If no ownership groups are associated with the entity, the entity is considered global and any user with the proper edit access grant for the entity can edit, copy, or disable it. Users with the System:

Ownership Override access grant can access configuration entities even if the user is not a member of one of the ownership groups and does not have the specific edit access grant.

**Note:** For more information concerning access grants, refer to the *Security Model Guide and Reference*.

To complete (or update) the **Ownership** tab in the Data Source : < Data Source Name > window:

- 1. Indicate whether to allow changes to the portlet data source to be made by:
  - All users with the System: Edit Portlet Definition access grant
  - Only groups listed below that have the System: Edit Portlet Definition access grant
     Use the Add and Remove buttons to refine the list of allowed users.
- 2. Click Save to commit your changes. Click OK to save your changes and close the window.

## Copying Portlet Data Sources

To create a new portlet data source using an existing portlet data source as the basis:

- 1. Log on to PPM Center.
- 2. From the menu bar, select **Open > Administration > Open Workbench**.
  - The PPM Workbench opens.
- 3. From the shortcut bar, select **Dashboard > Data Sources**.
  - The Data Source Workbench opens.
- 4. Search for and select a portlet data source (see " Searching For and Viewing Existing Portlet Data Sources" on page 14).
- 5. Click Copy. The Copy Data Source window opens.
- In the Data Source Name field, specify a unique name for the portlet data source.

In the Reference Code field, specify a unique reference code for the portlet data source.

**Note:** If your PPM Center instance supports multiple languages and the data source is defined in a language other than your session language, the **Copy existing translations** checkbox is enabled. To copy all of the content that is translated for the data source, select this checkbox. To copy only the content that has been translated to your session language, do not select the checkbox. For more information, see *Multilingual User Interface Guide*.

- 7. Click Copy. The Question window opens.
- 8. Click **Yes** if you would like to edit the portlet data source. Otherwise, click **No.**
- (Optional) If you clicked Yes in the previous step, modify the portlet data source using the information described in "Creating or Modifying Portlet Data Sources" on page 15.

## **Deleting Portlet Data Sources**

Note: HPE-supplied portlet data sources cannot be deleted.

To delete an existing portlet data source:

- Log on to PPM Center.
- 2. From the menu bar, select **Open > Administration > Open Workbench**.

The PPM Workbench opens.

3. From the shortcut bar, select **Dashboard > Data Sources**.

The Data Source Workbench opens.

- 4. Search for and select one or more portlet data sources (see " Searching For and Viewing Existing Portlet Data Sources" on page 14).
- 5. Click Delete.

The Question window opens.

6. Click Yes to remove the portlet data source(s). Otherwise, click No.

If you clicked **Yes**, the Data Source Workbench is updated (and the deleted portlet data source no longer appears in the list).

# Viewing Portlet Definition Usage

The **Portlet Definitions** tab allows you to view all of the portlet definitions currently linked to the portlet data source.

From the Portlet Data Source window, on the **Portlet Definitions** tab, you can:

View all of the portlet definitions linked to the portlet data source.

Remember that portlet definitions and portlet data sources have the following relationships:

- o A portlet definition can be linked to only one portlet data source.
- A portlet data source can be linked to multiple portlet definitions.
- Open the portlet definition by clicking on the portlet definition name. This opens the Portlet

Definition wizard. The Portlet Definition wizard is populated with the information for the selected portlet definition.

Create a new portlet definition by clicking New Portlet Definition. This opens the Portlet Definition wizard.

# Supplemental Details for the Data Source Column Window

Adding columns to the Query Definition window relies on the Data Source Column window. The fields of the Data Source Column window vary, depending on the column type selected.

See the associated details for the following column types:

- Text, Date, Number, or Summary Condition/Exception, see "Text–Based Column Types Details" below
- Hyperlink, see "Hyperlink Column Type Details" on page 29.
- Currency, see "Currency Column Type Details" on page 30.

## Text-Based Column Types Details

Figure 2-7. Text-based column types in Data Source Column window

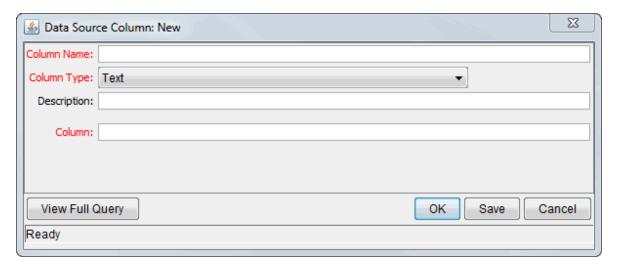


Table 2-2. Text-based column types field descriptions

Field Name (*Required)	Description
*Column Name	Specify the name of the column.
	Type any alphanumeric string.
*Column Type	Select one of the following:
	• Text
	• Date
	Number
	Summary Condition/Exception
Description	Specify a brief description of the column.
	Type any alphanumeric string.
*Column	Specify the database column name used for the column.
	Choices are limited to the column names available on your PPM Center instance.
	<b>Note:</b> The type of the database column specified should match the Column Type selected. If the types do not match, sorting of this column in the portlet may not behave as expected (sorting is based on the type of the database column). For example, if you select a Column Type of Number, but the type of the database column is text, sorting of this column in the portlet is based on text rather than numbers.
	Use a function, such as to_number, to change the database column type to match the selected Column Type.

# Hyperlink Column Type Details

Figure 2-8. Hyperlink column type in the Data Source Column window

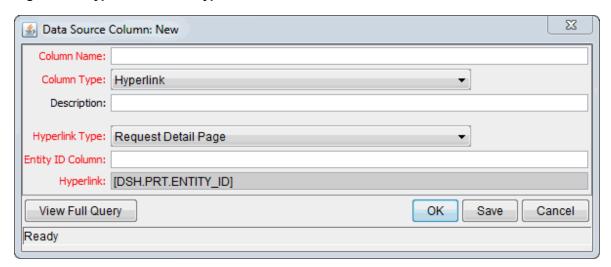


Table 2-3. Hyperlink column type field description

Field Name (*Required)	Description
*Column Name	Specify the name of the column.
	Type any alphanumeric string.
*Column Type	Select Hyperlink.
Description	Specify a brief description of the column.
	Type any alphanumeric string.
*Hyperlink Type	Select the type of hyperlink to create from this column.
	Choices include:
	Request Detail Page
	Package Detail Page
	Task Detail Page
	Project Detail Page
	Project Overview Page
	Custom Hyperlink
	When <b>Custom Hyperlink</b> is selected, the <b>Hyperlink</b> field becomes editable and required.

Table 2-3. Hyperlink column type field description, continued

Field Name (*Required)	Description
	Otherwise, the <b>Hyperlink</b> field is read-only and displays a preview of the link that is created (for example, /itg/crt/RequestDetail.jsp?REQUEST_ID= [PRT.ENTITY_ID]).
*Entity ID Column	Specify the SQL expression used to make a column in the final query.
	This column should contain values which are Request IDs (such as, Request Detail Page type Hyperlinks).
	In the case of the <b>Custom Hyperlink</b> , the values from this column are used to resolve the token PRT.ENTITY_ID, which can be used in the text of the hyperlink.
*Hyperlink	Specify the actual hyperlink text, which should be of one of the following forms:
	• <ppm_home>/some/page</ppm_home>
	• http://machine.server.com/page.html
	The valid tokens are DSH.PRT.ENTITY_ID, DSH.PRT.ENTITY_ID.TO_URL, and SYS.USERNAME.

# **Currency Column Type Details**

Figure 2-9. Currency column type in the Data Source Column window

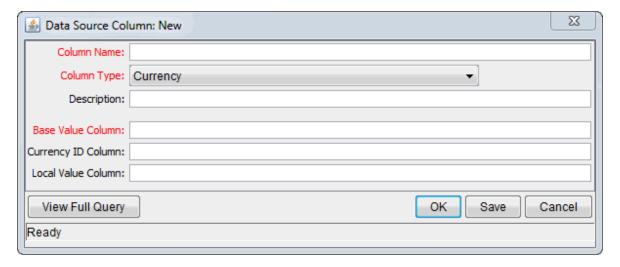


Table 2-4. Currency column type field descriptions

Field Name (*Required)	Description
*Column Name	Specify the name of the column.
	Type any alphanumeric string.
*Column Type	Select Currency.
Description	Specify a brief description of the column.
	Type any alphanumeric string.
*Base Value Column	Specify the column (that displays in the currency column) whose values are costs in the base currency.
	These values are displayed if the user has configured their PPM Dashboard to show costs in the system's base currency.
	For this column to sort correctly, it must be a number. If necessary, use the function to_number to change the value to a number.
Currency ID Column	Specify the column whose values are the ID of the local currency.
	This value is never displayed; however, it is used to determine how the local currency value (see "Local Value Column" below)is formatted.
Local Value Column	Specify the column (that displays in the currency column) whose values are costs in the local currency.
	These values are displayed (and formatted appropriately for the specified currency) if the user has configured their PPM Dashboard to show costs in the local currency. That is, the user must select <b>Local Currency</b> from the Dashboard Cost Display section from the Edit My Profile page ( <b>Open &gt; Administration &gt; Edit My Profile</b> ).
	For this column to sort correctly, it must be a number. If necessary, use the function to_number to change the value to a number.

# Chapter 3: Creating and Maintaining Portlet Definitions

### Overview of Portlet Definitions

#### PPM Center portlets include:

- Builder Portlets. These are portlets created with the Portlet Definition wizard and Data Source Workbench. Builder portlets consist of a standard portlet definition (XML file) and a portlet data source (SQL query).
  - HPE supplies several builder portlets as part of PPM Center. You can create your own custom builder portlets using the Portlet Definition wizard and Data Source Workbench.
- **Java Portlets.** These portlets are written in Java and imported into PPM Center using the Portlet Definition wizard. Java portlets consist of a Java portlet definition (XML file) and the Java code.
- WSRP Portlets. These portlets are defined by a producer Web service and imported into PPM
   Center using the Portlet Definition wizard. WSRP portlets have a WSRP portlet definition (XML file)
   that references the URL of the WSRP portlet. That is, WSRP portlet definitions are a proxy to a
   remote portlet definition maintained by the producer and accessible through a Web service.

These PPM Center portlets rely on the following types of portlet definitions:

- HPE-supplied portlet definitions. These portlet definitions are provided by HPE as part of a PPM Center application.
- HPE-imported portlet definitions. These portlet definitions are imported by HPE as part of a PPM Center application.
- Standard portlet definitions. These portlet definitions are created using the Portlet Definition wizard (see "Creating New Portlet Definitions" on page 36).
- Java portlet definitions. These portlet definitions are imported using the Import Portlet Definition
  wizard (see "Importing Java Portlet Definitions" on page 50), maintained using the Portlet Definition
  wizard (see "Creating New Portlet Definitions" on page 36), and include portlet definitions such as
  RSS Reader and URL.
- WSRP portlet definitions. These portlet definitions are imported using the Import Portlet

Definition wizard (see "Importing WSRP Portlet Definitions" on page 52) and maintained using the Portlet Definition wizard (see "Creating New Portlet Definitions" on page 36).

## **HPE-Supplied Portlet Definitions**

PPM Center applications, such as Portfolio Management and Demand Management, may include their own portlet definitions.

These HPE-supplied portlet definitions:

- · Cannot be deleted
- Cannot have their displays or preferences changed in any way
- Can be modified by:
  - Copying portlet definitions
  - Changing user and administrator access
  - Changing user help (for builder portlets only)

## **HPE-Imported Portlet Definitions**

PPM Center applications may include their own imported Java or WSRP portlet definitions.

These HPE-imported portlet definitions:

- · Cannot be deleted
- Can be modified by:
  - Changing user and administrator access
  - Changing general information

## Imported Java and WSRP Portlet Definitions

Any Java portlet definitions or WSRP portlet definitions that you have imported using the Import Portlet Definition wizard:

- · Can be deleted
- Can be modified by:
  - Configuring user and administrator access
  - Changing general information

### Standard Portlet Definitions

Any standard portlet definitions that you have created using the Create Portlet Definition wizard:

- Can be deleted
- Can have any of their settings changed

**Note:** These portlet definitions are sometimes termed "builder portlet definitions" since they are *built* using the Create Portlet Definition wizard.

# Searching for Existing Portlet Definitions

To search for an existing portlet definition.

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet Definitions.

The Configure Portlet Definitions page appears.

3. Provide the search criteria using the information from the following table.

Field Name (*Required)	Description
Name starts with	Specify a string. The search results display all portlets whose name starts with the specified string.
	Type any alphanumeric string (up to 255 characters in length).
Туре	Select the type of portlet definition:  • List

Field Name (*Required)	Description
	Pivot Table
	。 Bar Chart
	Clustered Bar Chart
	Stacked Bar Chart
	。 Pie Chart
	Line Chart
	XY Chart
	Radar Chart
	Bubble Chart
	∘ Java
	• WSRP
Category	Select one or more categories.
	Choices are limited to the categories available on your PPM Center instance.
Enabled	Indicated whether or not the portlet definition is enabled.
Created By	Select the user who created the module.
Sort By	Select the sort criteria.
	Choices include:
	。 Name
	。 Туре
	· Category
	。 Enabled
Ascending/Descending	Indicate the sorting sequence.
*Results Displayed Per	Specify the maximum number of search results to display on a page.
Page	Type any positive integer.

**Tip:** Click **Reset Form** if you would like to clear your current search criteria.

#### 4. Click Search.

The Configure Portlet Definitions page is updated to include the search results which are displayed in the **Configure Portlet Definitions** section.

From the Configure Portlet Definitions page you can:

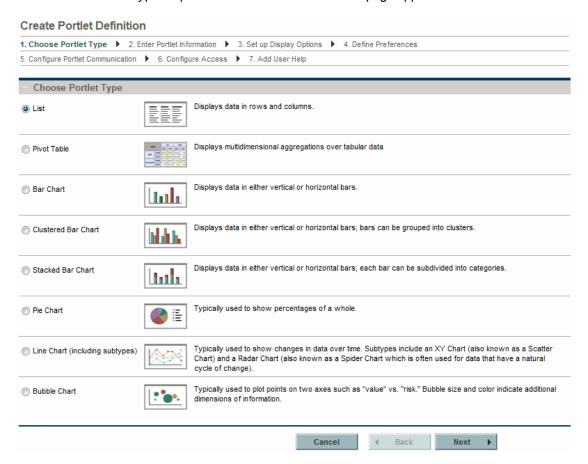
- Select a portlet definition by clicking the link associated with the desired portlet definition (in the Configure Portlet Definitions section).
- Refine your search by providing additional search criteria as detailed in Step 3.

# Creating New Portlet Definitions

To create an entirely new standard portlet definition, use the Create Portlet Definition wizard.

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Portlet Definitions > Create Portlet Definition.

#### The Choose Portlet Type step of the Create Portlet Definition page appears.



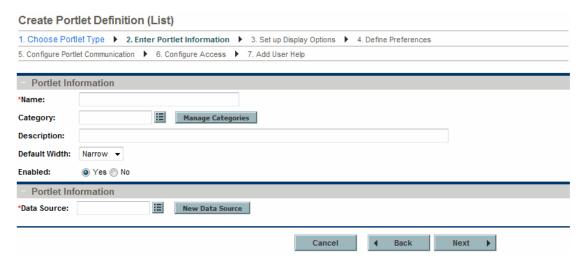
#### 3. Select the type of portlet to create.

Portlet Type	Description
List	Data is presented in tabular form using rows and columns.
Pivot Table	Data is aggregated in a table. Rows, columns, tables, and measurements can be grouped into categories.
Bar Chart	Data is displayed as vertical or horizontal bars. Each bar represents a single item.
Clustered Bar Chart	Data is displayed as vertical or horizontal bars. Bars can be grouped into categories.
Stacked Bar Chart	Data is displayed as vertical or horizontal bars. Each bar can be subdivided into categories.
Pie Chart	Data is displayed as a percentage of a whole.

Portlet Type	Description
Line Chart	Data is displayed to show changes over time.
Bubble Chart	Four dimensions of data are displayed on an x-y axis. The x-y axis location pinpoints a spot while the size and color of the bubble indicates additional dimensions of the information.

#### 4. Click Next.

The Enter Portlet Information step of the Create Portlet Definition (<*Portlet Type*>) page appears.

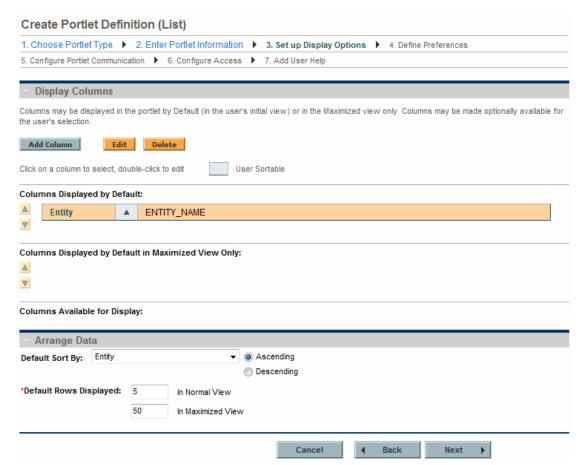


5. Provide the portlet details using the information from the following table.

Field Name (*Required)	Description	
Portlet Information section		
*Name	Specify a unique name for the portlet.  Type any alphanumeric string (up to 80 characters in length).	
Category	Select one or more categories.  Choices are limited to those categories available on your PPM Center instance.	
Manage Categories	Click to add or delete portlet categories.  See "Managing Portlet Categories" on page 81 for details.	
Description	Specify the portlet definition.  Type any alphanumeric string (up to 1,800 characters in length).	

Field Name (*Required)	Description
	It's helpful to describe the main function of the portlet, such as "Shows projects for a desired program." This description is available when you add a portlet to your Dashboard page.
Default Width	Select the default width of the portlet.
	Choices include:
	Narrow
	。 Wide
	Note that the default width can be changed when the portlet is personalized.
Enabled	Indicate whether or not the portlet can be added to the Dashboard page.
	If a portlet is added to a PPM Dashboard, then disabled, the portlet remains on the Dashboard page.
Data Source section	
*Data Source	Select the data source for the current portlet.
	The portlet data source defines the columns or chart entity, and preferences fields for a portlet definition.
New Data Source	Click to open the PPM Workbench and create a new portlet data source.

### 6. Click Next.



The Set up Display Options step of the Create Portlet Definition (< Portlet Type>) page appears.

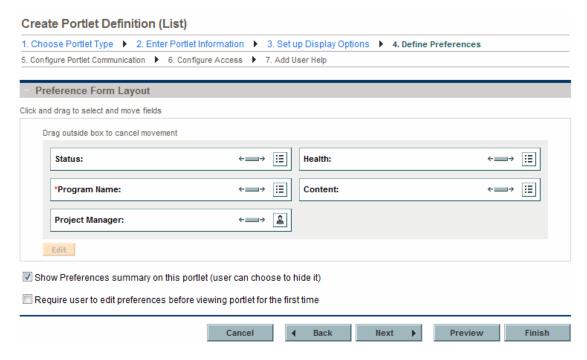
7. Provide the appropriate information on the Create Portlet Definition (< Portlet Type>) page.

The information needed to create the different portlet types vary significantly. Field descriptions are provided in the "Supplemental Details for the Set Up Display Option Step" on page 82 section.

- For list portlets, see "List Portlet" on page 83.
- For pivot table portlets, see "Pivot Table Portlet" on page 90.
- For bar charts, see "Bar Chart Portlet" on page 97.
- For clustered bar charts, see "Clustered Bar Chart Portlet" on page 99.
- For stacked bar charts, see "Stacked Bar Chart Portlet" on page 101.
- For pie charts, see "Pie Chart Portlet" on page 103.
- For line charts, see "Line Chart Portlet" on page 105.
- For bubble charts, see "Bubble Chart Portlet" on page 111.

#### 8. Click Next.

The Define Preferences step of the Create Portlet Definition (< Portlet Type>) page appears.



Initially, all preference fields are mapped from the portlet data source, which indicates the name of the field, type of the field (such as auto-complete or text field), and any default value. Note that preferences requiring default values are shown with a red asterisk.

- a. (Optional) To change the width of preferences, click the **Sizing** icon ( ).
- b. (Optional) To rearrange preferences:
  - i. Select a preference.
  - ii. Drag and drop the preference into the desired location.
- c. (Optional) To edit preferences:
  - i. Select a preference.
  - ii. Click Edit.

The Edit Portlet Preference: < Preference > dialog box opens.



iii. Provide the preference details using the information from the following table.

Field Name (*Required)	Description
*Field Prompt	Specify the prompt that will appear on the Portlet Preference page.
	Type any alphanumeric string (up to 200 characters in length).
Display	Select the manner in which this preference is displayed.
	Choices could include one or more of the following (depending on the component type):
	Editable. Allows the user to edit the field.
	Required and Editable. Requires the user to provide a value.
	Non-Editable. Allows user to view, but not edit the field.
	Hidden. The information is not viewable (or editable) by the user.
	This field is required if a default value is required by the portlet data source.
Default Value	Specify the default value that is shown when editing the portlet.
	This field is required if a default value is required by the portlet data source.

#### iv. Click Done.

The changes to preference are saved and the Edit Portlet Preference: <*Preference*> dialog box closes.

d. (Optional) Select Show Preferences summary on this portlet (user can choose to hide

- it) if you want the user to have this capability.
- e. (Optional) Select **Require user to edit preferences before viewing portlet for the first time** if you want to force the user to edit their preferences.
- 9. If you do not want to change any of the remaining default values, click **Finish.** Otherwise, click **Next.**

The Configure Portlet Communication step of the Create Portlet Definition (<*Portlet Type*>) page appears.



- a. (Optional) Select **Enable portlet communication (user can choose to disable it)** if you want the user to have this capability.
- b. If portlet communication is enabled, you must provide an event topic. Use the auto-complete button to provide an existing event topic or click **Manage event topics** to add a new topic or delete an existing topic.
- If you do not want to change any of the remaining default values, click Finish. Otherwise, click Next.

### Create Portlet Definition (List) 1. Choose Portlet Type ▶ 2. Enter Portlet Information ▶ 3. Set up Display Options ▶ 4. Define Preferences 5. Configure Portlet Communication ▶ 6. Configure Access ▶ 7. Add User Help Configure Access User Access Users specified below will have access to add this Portlet to their dashboards. Require users to have one of these privileges: Allow access to only the following users and groups: Security Type Name All Users Give Access to: User ▼ Administrator Access Users specified below will have access to modify this Portlet Definition Security Type Name All Portlet Definition Administrators 요 Give Access to: User ▼ **WSRP Access** Make Portlet available to WSRP Consumers **Drilldown Access** This portlet supports drilling into

#### The Configure Access step of the Create Portlet Definition (< Portlet Type>) page appears.

#### a. (Optional) In the User Access section:

 Select one or more access grants (privileges) a user must have in order to add the portlet to a Dashboard page.

◀ Back

Next

Preview

Finish

ii. Select one or more users or security groups allowed to add the portlet to a Dashboard page.

Cancel

By default, access is given to all users belonging to the PPM User security group.

**Tip:** Whenever there is no specific (individual or group) user access, this setting reverts to its default.

#### b. (Optional) In the **Administrator Access** section:

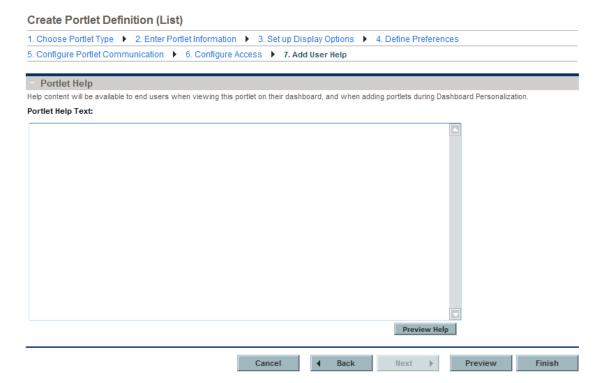
Select one or more users or security groups allowed to modify the portlet.
 By default, access is given to all users belonging to the PPM User Admin security group.

**Tip:** Whenever there is no specific (individual or group) administrator access, this setting reverts to its default.

- c. (Optional) In the WSRP Access section:
  - Select if you want to make the portlet available to WSRP consumers.
  - Click Preview to review the layout and make sure that you have presented the information as desired.
- d. (Optional) In the **Drilldown Access** section:
  - Select if you want the portlet to support drill-down access.

#### 11. Click Next.

The changes are added to the new portlet definition and the Add User Help step of the Create Portlet Definition (<*Portlet Type*>) page appears.



#### 12. In the **Portlet Help Text** field, type the help text.

This field supports HTML. Use valid HTML tagging when typing the information that defines the functionality of the portlet and lists and describes all of the portlet fields.

Tip: Click Preview Help to review the help content make sure that you have presented the

information as desired.

Click **Preview** to review the layout and make sure that you have presented the information as desired.

13. Click Finish.

The help data is saved, the portlet definition is created, and a status message displayed.

Create Portlet Definition

Sample has been successfully created.

Configure Sample
Create another Portlet Definition
Search for other Portlet Definitions to configure

14. Review the information to make determine if your portlet definition was successfully created.

**Note:** If your PPM Center instance supports multiple languages, any portlet definition you create is defined in the language you selected at logon (your session language). After the portlet definition is created, it can be modified only in its definition language. For more information, see *Multilingual User Interface Guide*.

## Copying Portlet Definitions

You can copy a portlet definition to use as the basis for another portlet definition.

Note: Java portlet definitions and WSRP portlet definitions cannot be copied.

To copy a portlet definition:

- Log on to PPM Center.
- From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet
   Definitions.

The Configure Portlet Definitions page appears, as shown in Step 2 ("From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet Definitions." on page 34.

Search for and select a portlet definition.

For detailed instructions on how to search for and select portlet definitions, see "Searching for Existing Portlet Definitions" on page 34.

The Configure Portlet Definition: < Portlet Definition> page appears.

**Note:** If your PPM Center instance supports multiple languages and the portlet definition is defined in a language other than your session language, you cannot edit the portlet definition. For more information, click **here** in the header or see *Multilingual User Interface Guide*.

Click Copy.

The Configure Portlet Definition: < Portlet Definition> page is updated with the copied information.

5. Provide the portlet information using the information available from the following steps: Enter Portlet Information (Step 4: "Click Next." on page 38), Set up Display Options (Step 6: "Click Next." on page 39), Define Preferences (Step 8: "Click Next." on page 41), Configure Portlet Communication (Step 9: "If you do not want to change any of the remaining default values, click Finish. Otherwise, click Next." on page 43), Configure Access (Step 10: "If you do not want to change any of the remaining default values, click Finish. Otherwise, click Next." on page 43), and Add User Help (Step 11: "Click Next." on page 45).

**Tip:** Click **Preview** to review the layout and make sure that you have presented the information as desired.

- 6. Click Create.
- 7. (Optional) Make any additional modifications and click **Save**.
- 8. Click **Done** to return to the Configure Portlets Definitions window.

## **Modifying Portlet Definitions**

To change an existing portlet definition:

- 1. Log on to PPM Center.
- From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet
   Definitions.

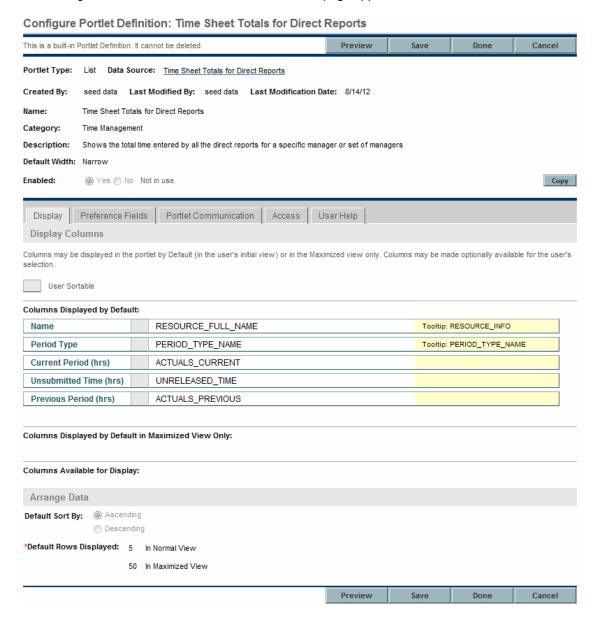
The Configure Portlet Definitions page appears, as shown in Step 2 ("From the menu bar, select Open > Administration > Portlet Definitions > Create Portlet Definition." on page 36).

3. Search for and select a portlet definition.

For detailed instructions on how to search for and select portlet definitions, see "Searching for Existing Portlet Definitions" on page 34.

**Note:** If your PPM Center instance supports multiple languages and the portlet definition is defined in a language other than your session language, you cannot edit the portlet definition. For more information, click **here** in the header or see *Multilingual User Interface Guide*.

The Configure Portlet Definition: < Portlet Definition> page appears.



#### 4. For non-Java portlets:

- a. (Optional) At any time, you can click **Save** to commit your changes.
- b. (Optional) Provide the general information using the details from the Portlet Information

- section of the table included in "Creating New Portlet Definitions" on page 36.
- c. (Optional) Click the link associated with **Data Source** to view the details of the data source in the PPM Workbench.
- d. (Optional) Click the appropriate tab to make changes to the other settings. The content of the tabs varies based on the portlet type. Field descriptions are provided in "Creating New Portlet Definitions" on page 36.

For Display tab content, refer to the following sections based on the portlet type:

- For list portlets, see "List Portlet" on page 83.
- For bar charts, see "Bar Chart Portlet" on page 97.
- For clustered bar charts, see "Clustered Bar Chart Portlet" on page 99.
- For stacked bar charts, see "Stacked Bar Chart Portlet" on page 101.
- For pie charts, see "Pie Chart Portlet" on page 103.
- For line charts, see "Line Chart Portlet" on page 105.
- For bubble charts, see "Bubble Chart Portlet" on page 111.

#### 5. For Java portlets:

- a. (Optional) Provide the general information using the details from the **Portlet Information** section of the table included in Step 5 ("Provide the portlet details using the information from the following table." on page 38).
- b. (Optional) Configure portlet communication subscribers using the details provided in Step 9
   ("If you do not want to change any of the remaining default values, click Finish. Otherwise,
   click Next." on page 43).
- c. (Optional) Configure the user and administrator access using the details provided in Step 10
  ("If you do not want to change any of the remaining default values, click Finish. Otherwise,
  click Next." on page 43).
- Click Done.

**Tip:** Click **Preview** to review the layout and make sure that you have presented the information as desired.

### **Deleting Portlet Definitions**

To delete a portlet definition:

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet Definitions.

The Configure Portlet Definitions page appears, as shown in Step 2 ("From the menu bar, select Open > Administration > Portlet Definitions > Configure Portlet Definitions." on page 34.

3. Search for and select a portlet definition.

For detailed instructions on how to search for and select portlet definitions, see "Searching for Existing Portlet Definitions" on page 34.

The Configure Portlet Definition: < Portlet Definition> page appears.

4. Click the delete icon next to the name of the portlet definition to delete.

A confirmation dialog box opens.

5. Click **Delete**.

The confirmation dialog box closes and the Configure Portlet Definitions page is updated.

## Importing Java Portlet Definitions

The WAR files used for Java portlet definitions must be placed on the server file system in the *PPM\_Home*>/server/*PPM\_Server\_Name*>/deploy directory.

To import a Java portlet definition using the Import Portlet Definition wizard:

- 1. Log on to PPM Center.
- From the menu bar, select Open > Administration > Portlet Definitions > Import Portlet
   Definition.

The Choose Portlet Type step of the Import Portlet Definition page appears.

- 3. Select Java Portlet Created according to the Java Portlet specification.
- 4. Click Next.

The Select from Available Portlets step of the Import Portlet Definition page appears.

Select a portlet.

Note that only one portlet can be selected at a time.

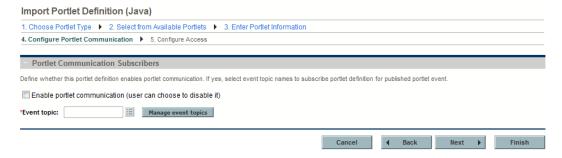
If no portlet definitions are available (that is, all of the portlet definitions are selected):

- Click **Back** to return to the previous page.
- Click Cancel to stop.
- 6. Click Next.

The Enter Portlet Information step of the Import Portlet Definition page appears.

- (Optional) Provide the general information using the details from the **Portlet Information** section of the table included in "Creating New Portlet Definitions" on page 36.
- 8. Click Next.

The Configure Portlet Communication step of the Import Portlet Definition page appears.



If portlet communication is enabled, you must provide an event topic.

Use the auto-complete button to provide an existing event topic or click **Manage event topics** to add a new topic or delete an existing topic.

9. Click Next.

### Import Portlet Definition (Java) 1. Choose Portlet Type 🕨 2. Select from Available Portlets 🕨 3. Enter Portlet Information 4. Configure Portlet Communication > 5. Configure Access Configure Access Users specified below will have access to add this Portlet to their dashboards. Require users to have one of these privileges: Allow access to only the following users and groups: Security Type Name All Users Give Access to: User ▼ Administrator Access Users specified below will have access to modify this Portlet Definition. Security Type All Portlet Definition Administrators Give Access to: User ▼ WSRP Access Make Portlet available to WSRP Consumers

The Configure Access step of the Import Portlet Definition page appears.

(Optional) Configure the user and administrator access using the details provided in Step 10 ("If you do not want to change any of the remaining default values, click Finish. Otherwise, click Next." on page 43).

10. Click Finish.

The confirmation page appears.

- 11. Review the Import Portlet Definition page and verify that the import was successful.
- 12. (Optional) Select the link of your choice.

## Importing WSRP Portlet Definitions

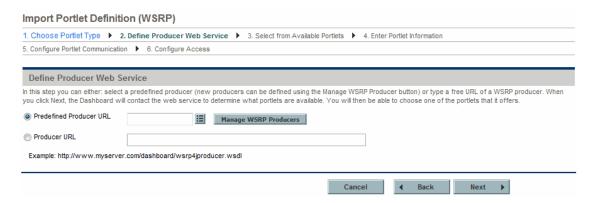
To import a WSRP portlet definition using the Import Portlet Definition wizard:

- 1. Make sure that the producer Web URL is available.
- 2. Log on to PPM Center.
- From the menu bar, select Open > Administration > Portlet Definitions > Import a Portlet
   Definition.

The Choose Portlet Type step of the Import Portlet Definition page appears.

- 4. Select WSRP Portlet Created according to WSRP specifications.
- 5. Click Next.

The Define Producer Web Service step of the Import Portlet definition page appears.



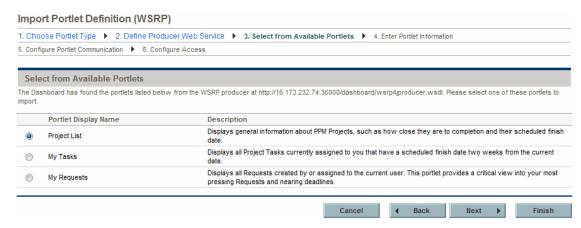
 Select either a Predefined Producer URL (define new producers by clicking the Manage WSRP Producers button) or Producer URL (provide the URL for the Web service providing portlet definitions using WSRP).

**Note:** If you are importing a portlet from another PPM Center instance, use the following URL: http://<*Host*>:<*Port*>/dashboard/wsrp4jproducer.wsd1.

7. Click Next.

The Web service is contacted to determine what portlet definitions are available.

The Select from Available Portlets page appears.



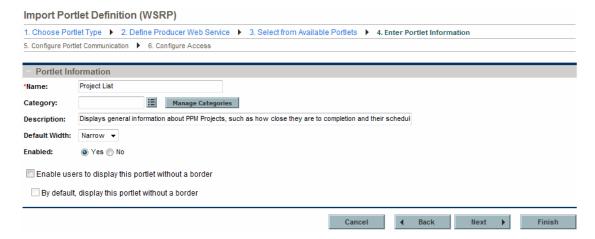
8. Select a portlet.

Note that only one portlet can be selected at a time.

If no portlet definitions are available (that is, all of the portlet definition are selected):

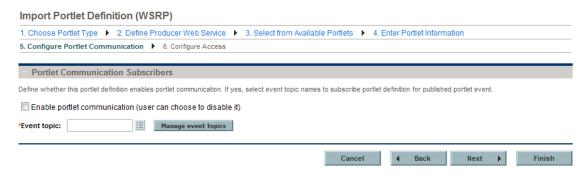
- Click Back to return to the previous page.
- Click Cancel to stop.
- 9. Click Next.

The Enter Portlet Information step of the Import Portlet Definition page appears.



- Provide the general information using the details from the **Portlet Information** section of the table included in Step 5 ("Provide the portlet details using the information from the following table." on page 38).
- 11. Click Next.

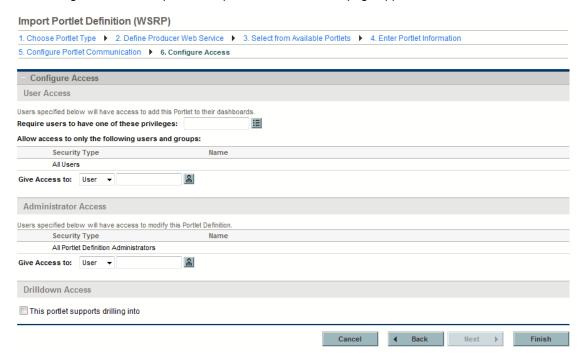
The Configure Portlet Communication step of the Import Portlet Definition page appears.



If portlet communication is enabled, you must provide an event topic.

Use the auto-complete button to provide an existing event topic or click **Manage event topics** to add a new topic or delete an existing topic.

12. Click Next.



#### The Configure Access step of the Import Portlet Definition page appears.

- (Optional) Configure the user and administrator access using the details provided in Step 10 ("If
  you do not want to change any of the remaining default values, click Finish. Otherwise, click
  Next." on page 43).
- 14. Click Finish.

The confirmation page appears.

- 15. Review the Import Portlet Definition page and verify that the import was successful.
- 16. (Optional) Select the link of your choice.

### Migrating Portlet Definitions

Use the PPM Portlet Definition Migrator object type to migrate portlet definitions. The following are things to consider when migrating portlet definitions:

- When migrating an HPE-supplied portlet definition, the portlet's data source file is automatically migrated at the same time as the portlet definition.
- When migrating a standard portlet definition, the portlet's data source file is automatically migrated at the same time as the portlet definition.

- When migrating a Java portlet definition, you must configure the source and destination servers with the same set of Web applications (such as WARs) before migrating the Java portlet definition.
- When migrating a WSRP portlet definition, the migration of the portlet definition is sufficient for the WSRP portlet to work. Migrating a WSRP portlet definition might fail under the following conditions:
  - If the URL uses a port number. If you move that portlet to a different machine whose WSRP provider runs on a different port number, the portlet stops working.
  - If a WSRP portlet definition shares a firewall or a private network with a WSRP producer. You cannot migrate the portlet definition outside of that private network or firewall protected area (because the machine is not accessible).

## Defining a Drill-down Page

Portlet drill-down is a powerful feature that allows you to access and view the details of the information displayed in a portlet.

When you create a portlet, you can specify one or more drill-to portlets (these are sometimes called drill-down pages). Clicking a portlet that contains a drill-to portlet results in the display of the corresponding portlet. A drill-to portlet typically offers a view of the data with more details or the information is filtered differently.

- Prior to being added to a portlet, these drill-to portlets must already exist on your PPM Center instance.
- Drill-to portlets must be builder portlets (created using the Portlet Definition wizard).
- Only selected HPE-supplied portlets can be used as drill-to portlets. These include: Issue List,
   Program Risk List, Program Scope Change List, and Program Contents List.

## Usage Example

In some cases you may want to view the data in more than one way. Whenever you want to do this, specify one or more drill-to portlets.

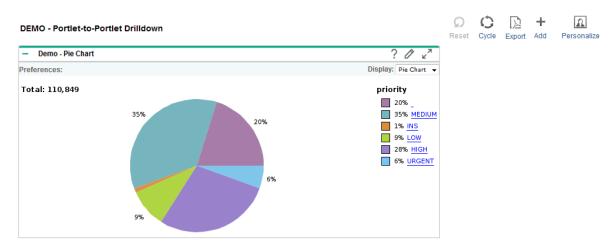
For example, suppose you have a portlet that shows a collection of requests. However, you would like to be able to view the breakdown of requests sorted by priority and have insight into some of the requests' details. To provide this information, you would create two drill-to portlets, one showing the

requests sorted by priority and the other showing the selected details of the requests. Then you would configure your portlet such that it is linked to these drilldown pages (drill-to portlets).

When you click key areas within the portlet having the drilldown pages, the appropriate data from the drill-to portlets is displayed.

The following figure shows an example of this kind of scenario.

Figure 3-1. Portlet having drilldown pages



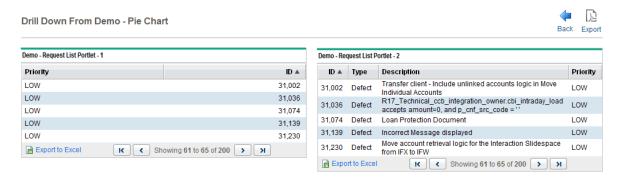
If you click either the skyblue (6%) wedge or the **Urgent** link, the drill-to pages having requests with urgent priorities are shown (see "Figure 3-2. Drill-to portlets showing urgent priority requests" below). Note that the drill-to page on the left shows the list of requests having the selected priority, whereas the drill-to page on the right shows the selected details of the request.

Figure 3-2. Drill-to portlets showing urgent priority requests



Alternatively, if you click either the yellowgreen (9%) wedge or the **Low** link, the drill-to pages having requests with low priorities appear (see "Figure 3-3. Drill-to portlets showing low priority requests" on the next page).

Figure 3-3. Drill-to portlets showing low priority requests



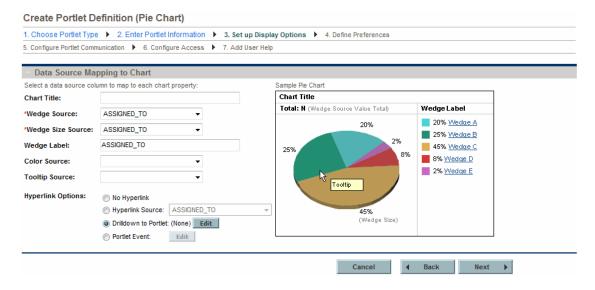
### Defining a Drill-down Page

The following procedure describes how to define a drilldown page. These instructions are applicable to the third step of the Portlet Definition wizard.

**Tip:** The page from which the drill-to portlets are accessed is sometimes referred to as the drill-from page.

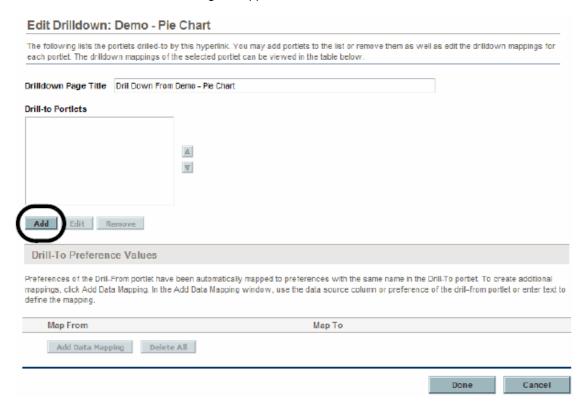
To define a drill-down page for a column:

On the Set up Display Options step of the Create Portlet Definition (< Portlet Type>) page, select
 Drilldown to Portlet.



2. Click Edit.

### The Edit Drilldown: < Name > dialog box appears.

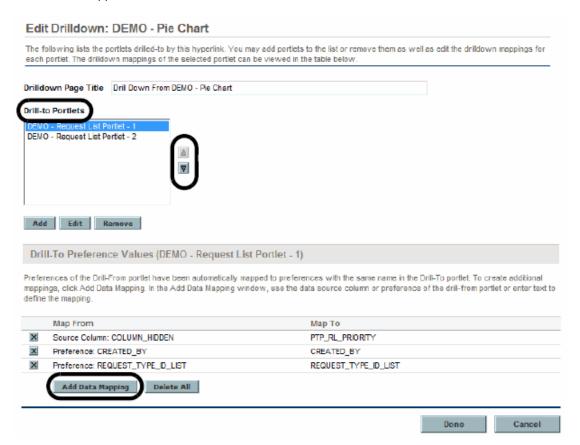


#### 3. Click Add.

The list of available portlet definitions appears.

- 4. Select one or more portlet definitions from the list presented.
- 5. Click OK.

The portlet definition are added to the **Drill-to Portlets** list and the list of available portlet definitions disappears.



Use the up- and down-pointers to rearrange the order of the drill-to portlets.

When displayed, the drill-to portlets appear in the order your selected, in a top to bottom fashion. Narrow portlets will not be displayed side by side.in pairs with the portlet at the top of the list appearing on the left side of the first row, the next portlet appearing on the right side of that row, the third appearing on the left side of the second row, and so on. If there is only one drill-to portlet or an odd number of drill-to portlets, the single drill-to portlet spans both columns.

- 6. (Optional) To change the default mapping between the current portlet definition and the drill-to portlet definition:
  - a. Select a portlet definition from the **Drill-to Portlets** list.
  - b. Click Add Data Mapping.

The Add Data Mapping dialog box appears.

c. Provide the mapping details using the information from the following table.

**Tip:** The examples shown in "Usage Samples" on the next page include annotations that identify the data mappings used in the example.

Field Name (*Required)	Description
*Map Value From	Indicate the data to use.
	Choices include:
	Data Source Column. Select a column. Choices are limited to the columns available in your data source.
	Preference of Drill-From Portlet. Select the desired preference for the portlet.
	Text. Provide an alphanumeric string up to 200 characters in length.
*Map Value To	Select the desired preference from the drill-to portlet.
	Choices are limited to the preference fields in the drill-to portlet.

#### d. Click Add.

The information is added to the Edit Drilldown: <*Name*> dialog box and the Add Data Mapping dialog box disappears.

- 7. (Optional) To delete a mapping between the current portlet definition and the drill-to portlet definition:
  - a. Select a portlet definition from the **Drill-to Portlets** list.
  - b. In the **Drill-To Preference Values (<Drill-to Portlet>)** section, select from the following techniques:
    - Click the **Delete** icon next to the unwanted mapping
    - Click **Delete All** to remove all the mappings at one time

**Note:** Occasionally it is easier to delete the existing mappings, then remap the current portlet and drill-to portlet definitions.

8. Once the drilldown is correctly defined, click **Done.** 

The Edit Drilldown: < Name > dialog box disappears.

Continue with the configuration (and sharing) of your portlet as you normally would.

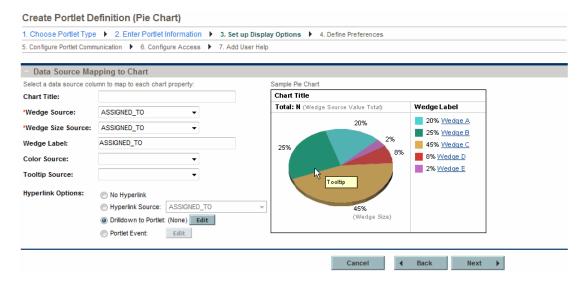
# **Usage Samples**

The following images provide details about the data source and portlet configuration used to create the portlets used in the examples shown in this document.

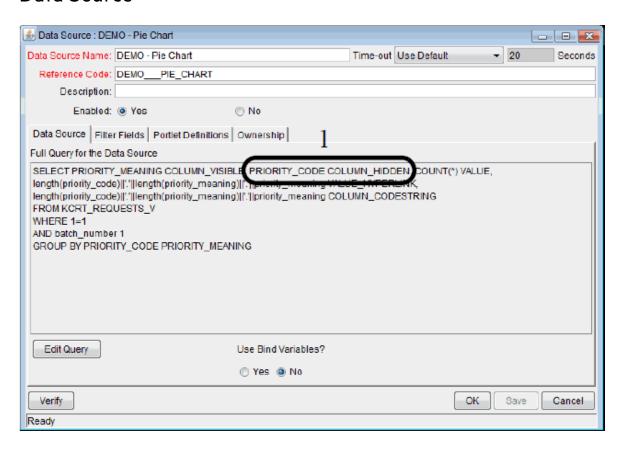
**Tip:** The annotations identify each of the three data mappings.

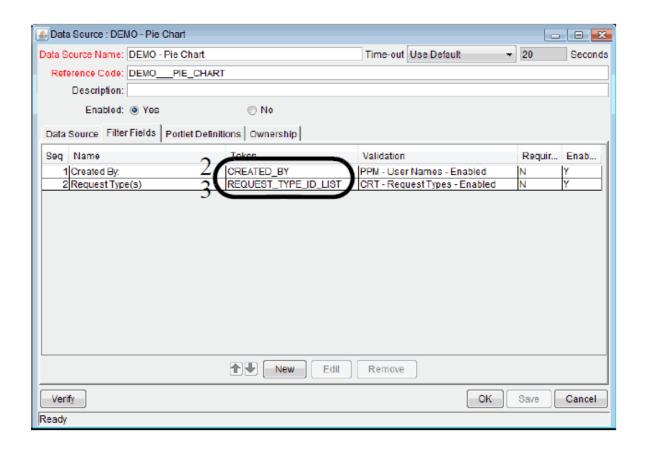
## **DEMO - Pie Chart Portlet**

#### This is the drill-from portlet and its various components.



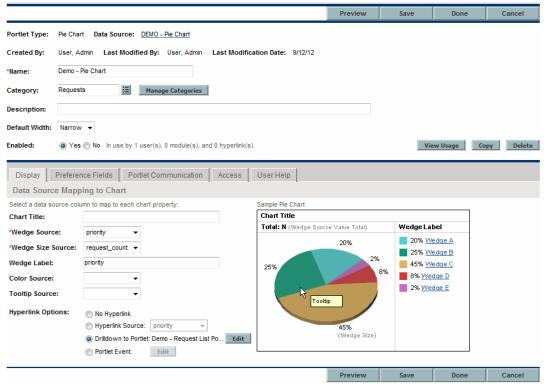
### **Data Source**

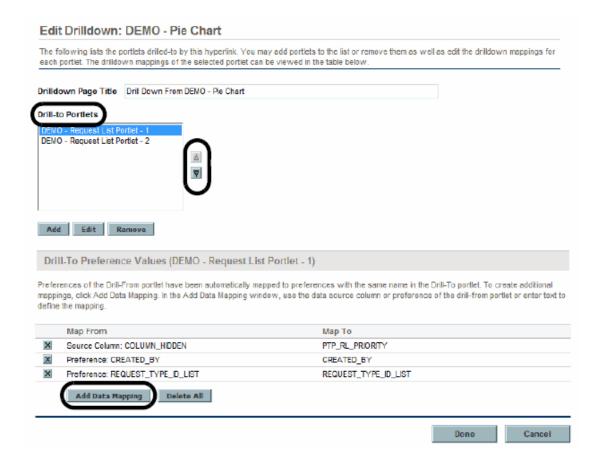


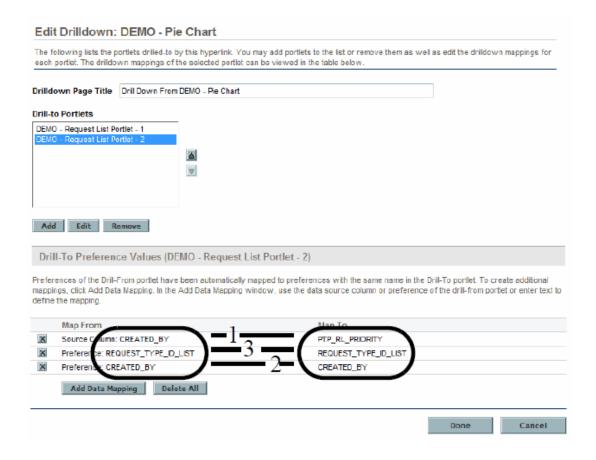


#### **Portlet Definition**

Configure Portlet Definition: Demo - Pie Chart





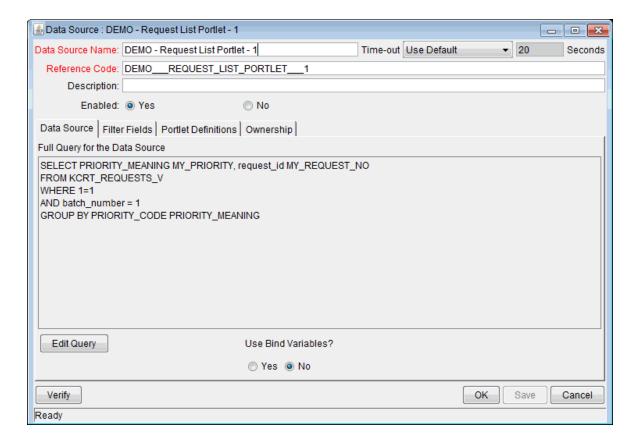


### DEMO - Request List Portlet - 1

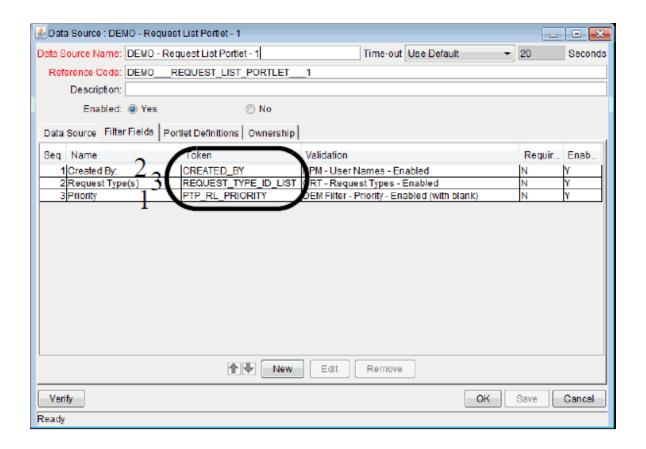
This is one of the drill-to portlets and its various components.



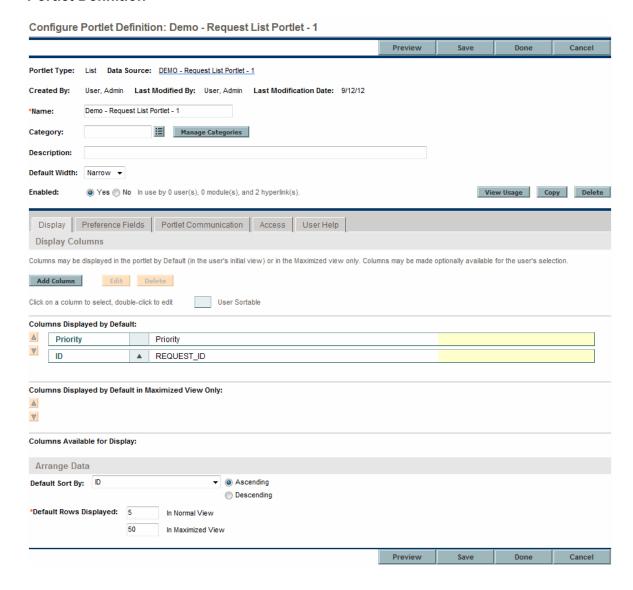
### **Data Source**





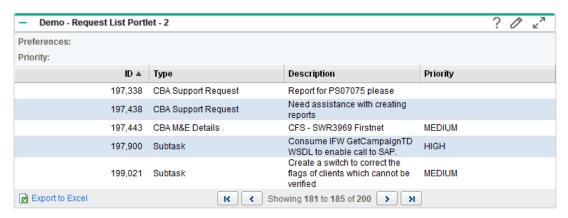


#### **Portlet Definition**

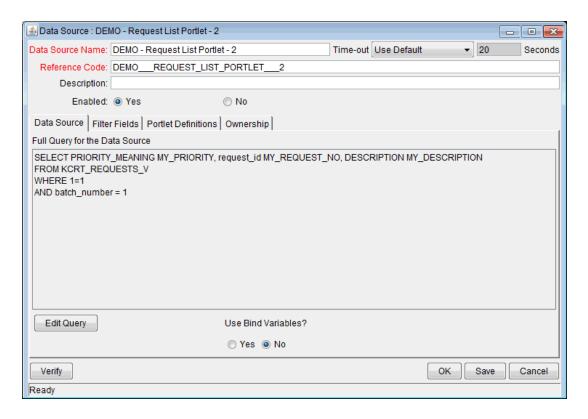


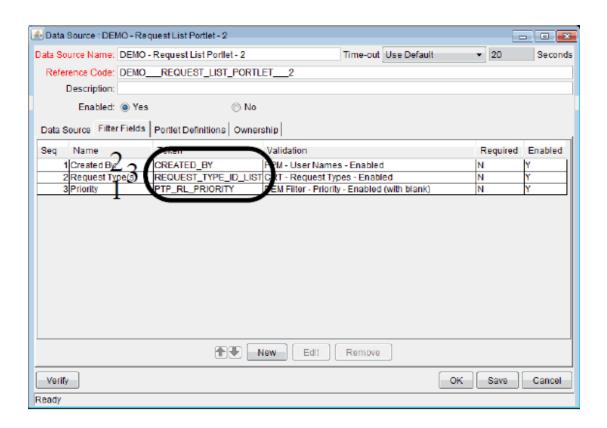
### DEMO - Request List Portlet - 2

This is the other drill-to portlet and its various components.

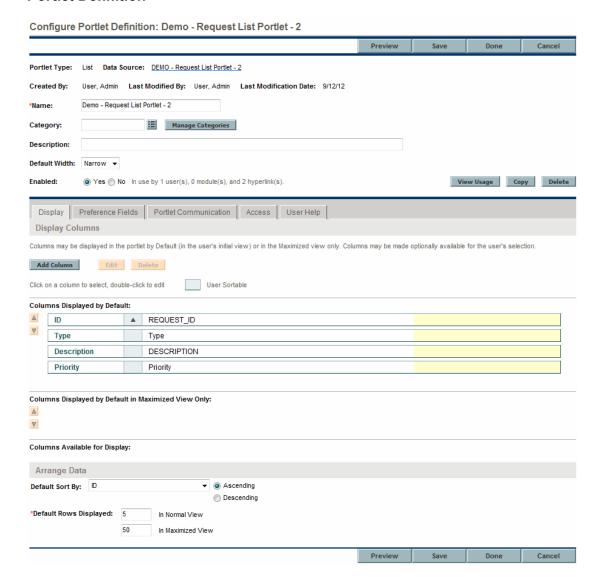


### **Data Source**





#### **Portlet Definition**



# Defining a Portlet Event

The following procedure describes how to define a portlet event. These instructions are applicable to the third step (Set up Display Options) of the Portlet Definition wizard.

Portlet events are used to build communication between two portlets, which is a way to implement the portlet drill-down feature. A portlet event should be defined in the drill-from portlet.

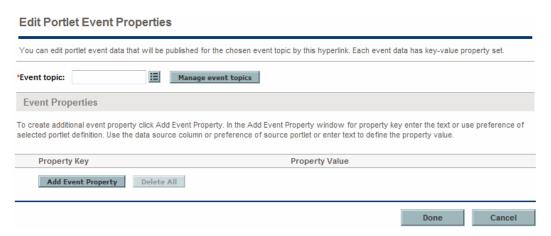
To define a portlet event in the drill-from portlet:

1. On the Set up Display Options step of the Create Portlet Definition (<*Portlet Type*>) page, from the Hyperlink Options section, select **Portlet Event.** 

**Note:** For list portlets, click **Add Column** to open the Add Display Column dialog box, and then click **Portlet Event**.

#### 2. Click Edit.

The Edit Portlet Event Properties dialog box appears.



- 3. Provide an event topic in either of the following two ways:
  - Use the auto-complete button to provide an existing event topic
  - Add a new topic.

To add a new topic:

i. Click Manage event topics.

The Manage portlet event topics dialog box opens.

- ii. In the **New Topic** field, enter the event topic name.
- iii. Click Add.

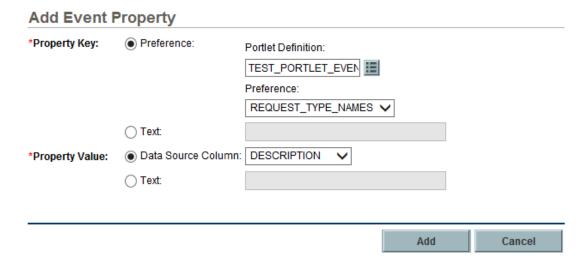
The event topic you added is listed under the Portlet Event Topics.

iv. Click Done.

You are back to the Edit Portlet Event Properties dialog box.

- v. Use the auto-complete buttom to select the event topic you added.
- 4. Click Add Event Property.

#### The Add Event Property dialog box appears.



5. Provide the event property details using the information from the following table.

Field Name (*Required)	Description
*Property	o Preference
Key	<ul> <li>Portlet Definition: Select the drill-to portlet you want to build communication with the drill-from portlet. Choices are limited to the portlets that have preference fields in their portlet definitions.</li> </ul>
	<ul> <li>Preference: Select the desired preference of the portlet definition you decided in the Portlet Definition field.</li> </ul>
	Text: Provide an alphanumeric string up to 200 characters in length.
*Property	Indicate the data to use.
Value	Choices include:
	<ul> <li>Data Source Column. Select a column. Choices are limited to the columns available in the data source of the drill-from portlet.</li> </ul>
	Text. Provide an alphanumeric string up to 200 characters in length.

#### 6. Click Add.

The information is added to the Edit Portlet Event Properties dialog box and the Add Event Property dialog box disappears.

7. (Optional) To delete an event property:

- Click the **Delete** icon next to the unwanted event property.
- Click **Delete All** to remove all the event properties at one time.
- 8. Once the event properties are correctly defined, click **Done.**

The Edit Portlet Event Properties dialog box disappears.

After defining a portlet event in the drill-from portlet, you should enable portlet communication in the dill-to portlet before the portlet communication is built. To do so:

- 1. From the menu, select **Search > Administrative > Portlet Definitions**.
- 2. Click Search.
- 3. Select the drill-to portlet.

The Configure Portlet Definition page opens.

- 4. In the Portlet Communication tab, click the **Enable portlet communication (user can choose to disable it)** option.
- 5. In the **Event topic** field, use the auto-complete button to select the event topic you added in the drill-from portlet.
- 6. Click Done.
- 7. Go to the Edit Preferences page of the drill-to portlet.

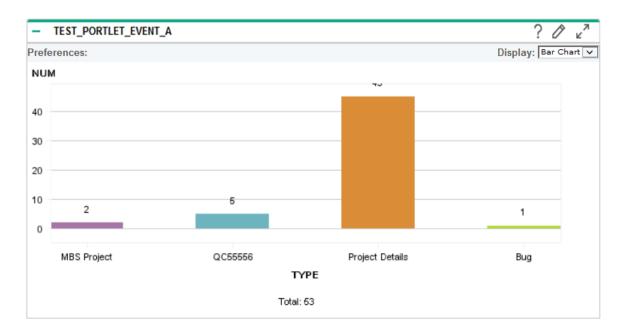
For instructions about how to go to the Edit Preferences page, see the Getting Started guide.

- 8. Click Enable portlet communication.
- 9. Click Done.

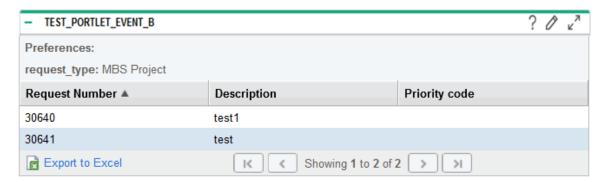
## **Usage Sample**

The following images provide details about the data source and portlet configuration used to build portlet communication beteen two portlets using portlet events.

The following image shows an example of a drill-from portlet.

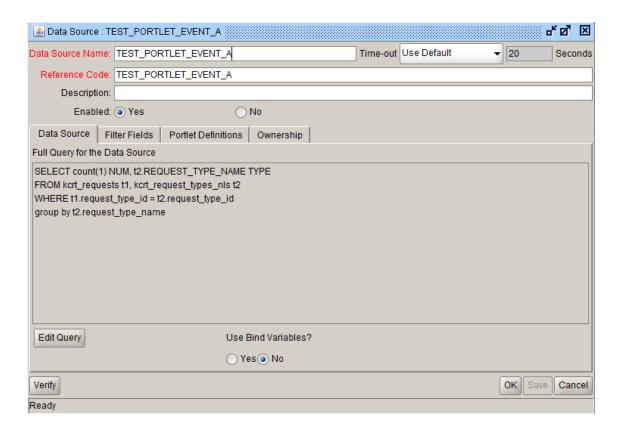


If you click any of the four request types, the drill-to porlet display requests of that request type. For example, if you click MBS Project, the drill-to portlet displays requests of the request type MBS Peoject.

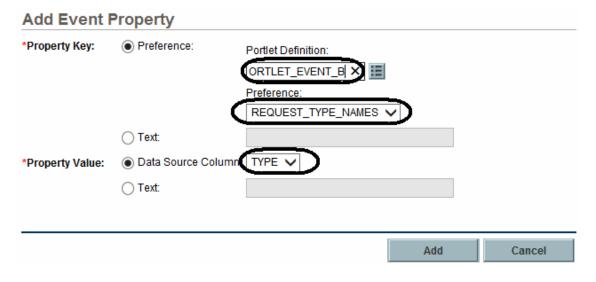


### TEST\_PORTLET\_EVENT\_A

This is the data source of the drill-from portlet TEST\_PORTLET\_EVENT\_A.



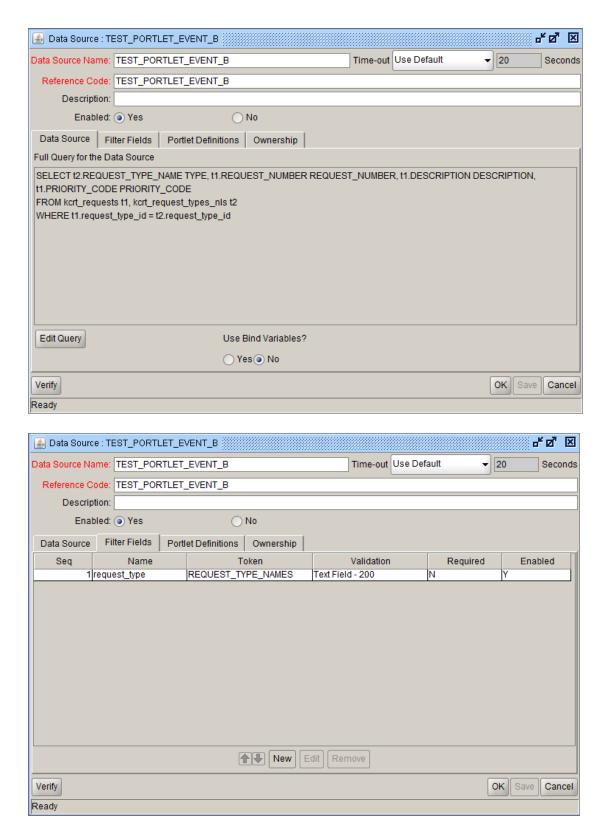
This is event property details of the event topic defined in the portlet TEST\_PORTLET\_EVENT\_A.



#### TEST\_PORTLET\_EVENT\_B

This is the data source of the drill-to portlet TEST\_PORTLET\_EVENT\_B.





## Managing Portlet Categories

Managing categories is an optional step when creating or maintaining portlet definitions.

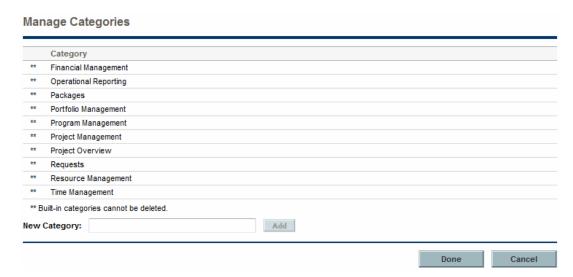
Portlet categories define an entity, such as a request or a task. Portlet categories can also define functional groups, such as Development or Test. Adding one or more categories to a portlet can make a portlet easier to find.

## **Adding Portlet Categories**

To add a portlet category:

- 1. Click Manage Categories, on either of the following pages:
  - Enter Portlet Information step of the Create Portlet Definition (< Portlet Type>) page
  - Configure Portlet Definition: < Portlet Definition> page

The Manage Categories dialog box appears.



- 2. Type a new category name in the **New Category** field.
- 3. Click Add.

The new category is added to the list.

#### 4. Click Done.

The Manage Categories dialog box is closed.

## **Deleting Portlet Categories**

To delete a portlet category:

**Note:** HPE-supplied portlet categories cannot be deleted. Also, you cannot delete a portlet category containing one or more portlet definition, and any such categories do not include a **Delete** icon.

- 1. Click Manage Categories, on either the:
  - Enter Portlet Information step of the Create Portlet Definition (< Portlet Type>) page
  - Configure Portlet Definition: < Portlet Definition> page
     The Manage Categories dialog box appears.
- 2. Click the **Delete** icon next to the portlet category.

The portlet category is deleted.

3. Click Done.

The Manage Categories dialog box is closed.

# Supplemental Details for the Set Up Display Option Step

This section provides relevant details for the Set up Display options for the various portlet types. This information is used in Step 7 ("Provide the appropriate information on the Create Portlet Definition (<Portlet Type>) page." on page 40).

## List Portlet

Figure 3-4. Set up Display Options for list portlets

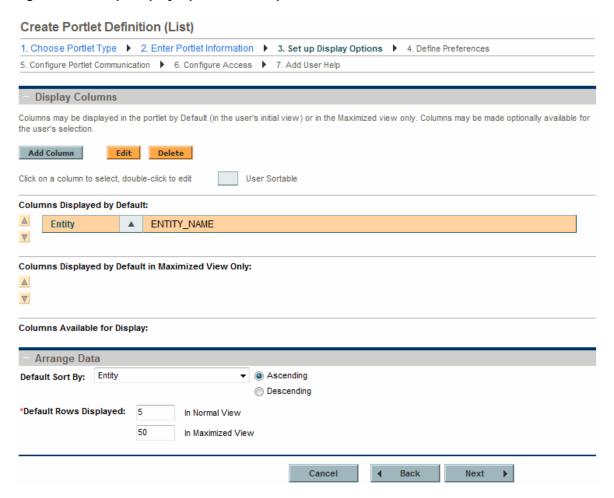


Table 3-1. Set up Display Options field descriptions for list portlets

Field Name (*Required)	Description	
Display Columns section		
Add Column	Click to add a new column. See "Adding Columns" on the next page for details.	
Edit	Select a column, then click to make changes to that column. See "Editing Columns" on page 89 for details.	
Delete	Select a column, then click to remove that column. See "Deleting Columns" on page 89 for details.	

Table 3-1. Set up Display Options field descriptions for list portlets, continued

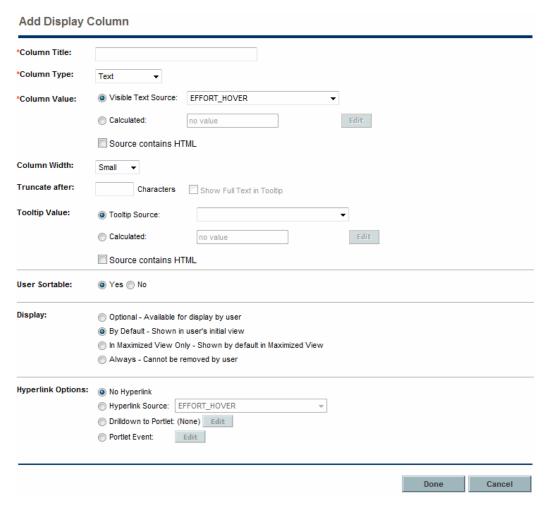
Field Name (*Required)	Description
Columns Displayed by Default	Use the up- and down-pointers to rearrange the order of the columns.  Double-click on a column to edit it.
	Choices include the columns whose <b>Display</b> value is set to either <b>By Default - Shown in user's initial view</b> or <b>Always - Cannot be removed by user.</b>
Columns Displayed by Default in Maximized	Use the up- and down-pointers to rearrange the order of the columns.  Double-click on a column to edit it.
View Only	Choices include the columns whose <b>Display</b> value is set to <b>In Maximized View Only</b> - <b>Shown by default in Maximized View</b> .
Columns Available for Display	Use the up- and down-pointers to rearrange the order of the columns.  Double-click on a column to edit it.
	Choices include the columns whose <b>Display</b> value is set to <b>Optional</b> - <b>Available for display by user</b> .
Arrange Data section	
Default Sort By	Select the default column used to sort the data.
	Choices include the columns whose <b>User Sortable</b> value is set to <b>Yes</b> .
Ascending/Descending	Indicate whether to sort the data in <b>Ascending</b> and <b>Descending</b> order.
*Default Rows Displayed	Specify the default number of records displayed in a normal view portlet.
in Normal View	Type any integer greater than zero.
*Default Rows Displayed	Specify the default number of records displayed in a maximized portlet.
in Maximized View	Type any integer greater than zero.

# **Adding Columns**

To add a new column to a list portlet:

#### 1. Click Add Column.

The Add Display Column dialog box opens.



2. Provide the column details using the information from the following table.

**Note:** Many fields are dependent on the value for **Column Type** and the applicable fields may be described in multiple sections of the following table.

Field Name (*Required)	Description
All Column Types	
*Column Title	Specify the column title to be displayed in the portlet.
	Type any alphanumeric string (up to 200 characters in length).

Field Name (*Required)	Description
	<b>Note:</b> While the column title may be up to 200 characters in length, the PPM Dashboard, by default, displays only the first 20 characters. To increase (or decrease) the number of characters displayed by the PPM Dashboard, set the dashboard.List-Column-Header-Size parameter in the server.conf file. See the <i>Installation and Administration Guide</i> for more information about setting server.conf parameters.
*Column Type	Select the column type.
	Choices include:
	∘ Text
	Text with Icon
	· Icon
	Progress Bar
Tooltip Value	Specify the content that appears when a user's cursor hovers over an item. If the content contains HTML, select the <b>Source contains HTML</b> checkbox.
	<ul> <li>Tooltip Source. Select the data column that contains the information to display in the tooltip. Choices are limited to those columns in the data source that are configured for this portlet definition on your PPM Center instance.</li> </ul>
	<ul> <li>Calculated. Specify the content to display using Javascript to calculate the desired value (if a data column does not return the desired value or the desired value cannot be calculated using SQL).</li> </ul>
	<ul> <li>Source contains HTML. Select to enable HTML support for Tooltip Value.</li> </ul>
User Sortable	Indicate whether or not the current column can be used for sorting purposes.
Display	Select how the column should be displayed.
	Choices include:
	<ul> <li>Optional. Make the column available to the user in the portlet's edit page (Available Column).</li> </ul>
	<ul> <li>By Default. Make the column visible in the portlet (Displayed Column).</li> </ul>
	<ul> <li>In Maximized View Only. Make the column visible in the portlet's Maximized View only (Additional Columns Displayed in Maximized</li> </ul>

Field Name (*Required)	Description
	View).
	<ul> <li>Always. Make the column visible in the portlet (Displayed Column with asterisk).</li> </ul>
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	<ul> <li>Drilldown to Portlet. Drill down to the selected portlet. See</li> <li>"Defining a Drill-down Page" on page 56 for details.</li> </ul>
	<ul> <li>Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.</li> </ul>
Column Type: Text a	nd Text with Icon
*Column Value	Specify the content to display in the portlet. If the content contains HTML, select the <b>Source contains HTML</b> checkbox.
	<ul> <li>Visible Text Source. The content displayed is the value from the data column. Select from those columns in the data source that are configured for this portlet definition on your PPM Center instance.</li> </ul>
	<ul> <li>Calculated. Specify the content to display using Javascript to calculate the desired value (if a data column does not return the desired value or the desired value cannot be calculated using SQL).</li> </ul>
	<ul> <li>Source contains HTML. Select to enable HTML support for Column Value.</li> </ul>
Column Width	Select the width of the column relative to the other columns.
	Choices include:
	。 Small
	Medium
	• Large
Truncate after < X> Characters	When the <b>Source contains HTML</b> checkbox for <b>Column Value</b> is selected, specify the number of characters to show in the column.
	Type any integer greater than zero.
Show Full Text in	When a value is supplied for Truncate after <x> Characters, select to</x>

Field Name (*Required)	Description
Tooltip	show the full text in the tooltip.
Column Type: Icon o	r Text with Icon
*Column Value	Select the icon to display in the portlet.
	<ul> <li>Icon Source. The icon displayed is the value from the data column.</li> <li>Select from those columns in the data source that are configured for this portlet definition on your PPM Center instance or a column predefined with icon URLs.</li> </ul>
	<ul> <li>Calculated. Specify the content to display using Javascript to calculate the desired value (if a data column does not return the desired value or the desired value cannot be calculated using SQL).</li> </ul>
Column Type: Progre	ess Bar
*Column Value	Select the percentage data to display in the portlet.
	<ul> <li>Percentage Source. The percentage displayed is the value from the data column. Select from those columns in the data source that are configured for this portlet definition on your PPM Center instance or a column predefined with percentage information.</li> </ul>
	<ul> <li>Calculated. Specify the content to display using Javascript to calculate the desired value (if a data column does not return the desired value or the desired value cannot be calculated using SQL).</li> </ul>
Color Value	Select a color map to use.
	<ul> <li>Color Source. Select the color map's data column. Select from those columns in the data source that are configured for this portlet definition on your PPM Center instance.</li> </ul>
	<ul> <li>Calculated. Specify the content to display using Javascript to calculate the desired value (if a data column does not return the desired value or the desired value cannot be calculated using SQL).</li> </ul>
	See "Selecting Portlet Colors" on page 113 for details.

The following are examples of **Calculated** values.

If you want the content to display a percentage as a whole number but the data column returns a decimal number, specify the following in the dialog to calculate the percentage:

var return\_value=<DATA\_COLUMN>\*100;

To calculate a project's status based on the number of unassigned tasks, specify the following in the dialog to calculate status values. This example is for Column Type **Icon** or **Text with Icon** and

sets the icon status to green if there are no unassigned tasks, yellow if there are less than five unassigned tasks, and red if there are five or more unassigned tasks.

```
var numTasks = "<DATA_COLUMN_UnassignedTasks>";
var image;
if (numTasks == 0)
   image = "images/green.gif";
else if (numTasks < 5)
   image = "images/yellow.gif";
else
   image = "images/red.gif";
return_value=image;</pre>
```

3. Click Done.

The Add Display Column dialog box closes and the new column is added to the Create Portlet Definition (List) page.

## **Editing Columns**

To modify an existing column in a list portlet:

1. Select the column to be modified and click Edit (or double-click the column).

The Edit Display Column: < Column Title> dialog box opens.

2. Make the desired changes using the information from the table in "Provide the column details using the information from the following table." on page 85 as a guideline.

**Note:** Many fields are dependent on the value for **Column Type** and the applicable fields may be described in multiple sections of that table.

3. Click Done.

The Edit Display Column: < Column Title > dialog box closes and any applicable changes are noted on the Create Portlet Definition (List) page.

## **Deleting Columns**

To delete an existing column from a list portlet:

- 1. Select the column to be removed.
- 2. Click Delete.

The column is deleted from the Create Portlet Definition (List) page.

## Pivot Table Portlet

Figure 3-5. Set up Display Options for pivot table portlets

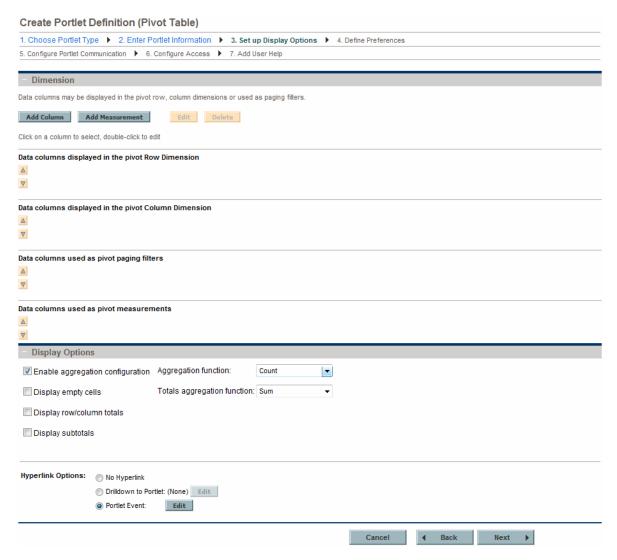


Table 3-2. Set up Display Options field descriptions for pivot table portlets

Field Name (*Required)	Description
Dimension section	
Add Column	Click to add a new data column. See "Adding a Pivot Table Row, Column, or Paging Filter Data Column" on the next page for details.
Add Measurement	Click to add a new measurement data column. See "Adding a Pivot Table Measurement Data Column" on page 93 for details.
Edit	Select a data column, then click to make changes to that data column. You can also double-click on a specific data column to edit that data column.
Delete	Select a data column, then click to remove that column.
Data columns displayed in the pivot row dimension	Use the up- and down-pointers to rearrange the order of the data columns. Double-click on a data column to edit it.
	This data is displayed one row per category.
Data columns displayed in the pivot column	Use the up- and down-pointers to rearrange the order of the data columns. Double-click on a data column to edit it.
dimension	This data is displayed one column per category.
Data columns used as pivot paging filters	Use the up- and down-pointers to rearrange the order of the data columns. Double-click on a data column to edit it.
	This data is displayed one table per category.
Data columns used as pivot measurements	Use the up- and down-pointers to rearrange the order of the data columns. Double-click on a data column to edit it.
	This is the data that is summarized in the table.
Display Options section	
Enable aggregation	By default, aggregation is enabled.
configuration	Aggregation configuration is the calculation of values based on the selected <b>Totals aggregation function</b> .
	Disable aggregation if the data source aggregates the data.
Aggregation function	Select a function to determine how to calculate a value if the data source contains more than one value for a distinct data column.
Display empty cells	If the data source does not contain any data, the row or column is not displayed. Select this checkbox to display empty cells.
Totals aggregation function	Select a function to determine how to calculate the totals for the displayed values.

Table 3-2. Set up Display Options field descriptions for pivot table portlets, continued

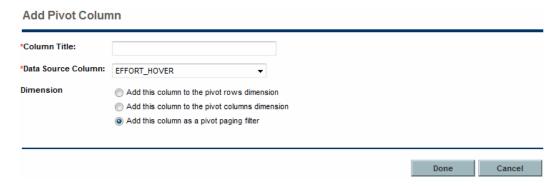
Field Name (*Required)	Description
Display row/column totals	Select to display totals for all rows and columns. The value is calculated using the selected <b>Totals aggregation function</b> .
Display subtotals	Select to display subtotals for each row or column. The value is calculated using the selected <b>Totals aggregation function</b> .
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

# Adding a Pivot Table Row, Column, or Paging Filter Data Column

To add a new data column (row, column, or paging filter) to a pivot table portlet:

1. Click Add Column.

The Add Pivot Column dialog box opens.



2. Provide the column details using the information from the following table.

Field Name (*Required)	Description
*Column Title	Specify the column title to display in the portlet. Type any alphanumeric string (up to 200 characters in length).
*Data Source Column	Select a source column for the information to display in the pivot table column.
Dimension	Select the dimension of the data. Choices include:  • Add this column to the pivot rows dimension. Data is displayed one row per category. Categories are determined by the values from the data source.
	<ul> <li>Add this column to the pivot columns dimension. Data is displayed one column per category. Categories are determined by the values from the data source.</li> </ul>
	<ul> <li>Add this column as a pivot paging filter. Data is displayed one table per category. Categories are determined by the values from the data source.</li> </ul>

#### 3. Click Done.

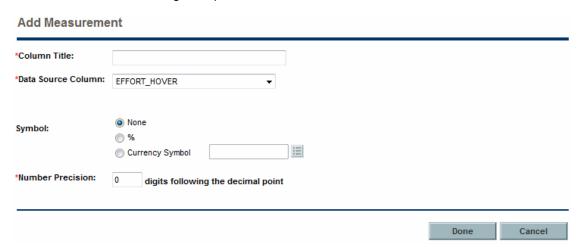
The Add Pivot Column dialog box closes and a new data column is added to the Create Portlet Definition (Pivot Table) page.

# Adding a Pivot Table Measurement Data Column

To add a new measurement data column to a pivot table portlet:

#### 1. Click Add Measurement.

The Add Measurement dialog box opens.



2. Provide the column details using the information from the following table.

Field Name (*Required)	Description
*Column Title	Specify the column title to display in the portlet. Type any alphanumeric string (up to 200 characters in length).
*Data Source Column	Select a source column for the information to display in the pivot table.
Symbol	Select the symbol to display for the measurement. Choices include:  None. Do not display a symbol.  Display the percentage symbol.  Currency Symbol. Select the currency symbol to display.
*Number Precision	Specify the number of decimal places to display.

#### 3. Click Done.

The Add Measurement dialog box closes and a new measurement data column is added to the Create Portlet Definition (Pivot Table) page.

# Controlling the Size and Number of Unique Values in Pivot Tables

You can use the parameters listed in "Table 3-3. Server configuration parameters for controlling pivot tables" below to control the size and number of unique values in a pivot table effectively.

Table 3-3. Server configuration parameters for controlling pivot tables

Parameter	Description	Default Value
dashboard.Pivotdataset- Max-Rows	Determines the maximum number of rows in the List display mode of a pivot table portlet. See "Figure 3-6. List display mode of a pivot table portlet" on the next page for more details.	25,000
dashboard.Pivotdataset- Max-Cells	Determines the maximum number of cells (number of rows * number columns) in the List display mode of a pivot table portlet. See " Figure 3-6. List display mode of a pivot table portlet" on the next page for more details.	120,000
dashboard.Pivotdataset- Max-Distinct-In-Column	Determines the maximum number of unique values in any column of a pivot table. See "Figure 3-7. Pivot table display mode of a pivot table portlet" on the next page for more details.	50
dashboard.Pivotdataset- Max-Distinct-Cells	Determines the maximum number of unique aggregations (product of numbers of unique values in each column) in a pivot table. See "Figure 3-7. Pivot table display mode of a pivot table portlet" on the next page for more details.	10,000

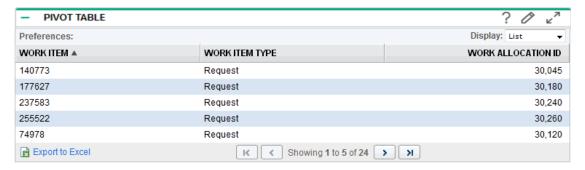
**Note:** The maximum number of rows in a pivot table is also affected by the PORTLET\_MAX\_ROWS\_ RETURNED parameter, which determines the maximum number of rows to display in a portlet. The default value for this parameter is 200, meaning that if you have more than 200 rows to display in a pivot table portlet, you must increase the value of the PORTLET\_MAX\_ROWS\_RETURNED parameter accordingly.

#### Caution:

- Performance issues may occur if the value you set for any parameter exceeds the corresponding default value.
- Performance varies with hardware, software, and system configurations in your environment. If performance degrades when system load reaches the default values, HPE recommends that you lower the values of the parameters.

• If a pivot table has a very large volume of data, HPE recommends that you NOT switch between columns and rows in the table.

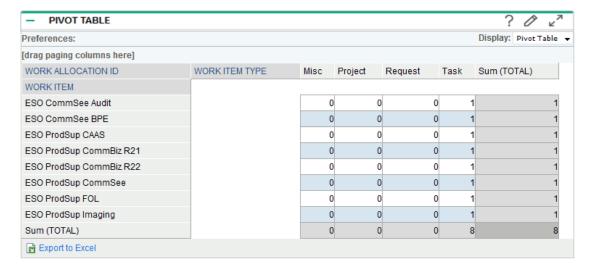
Figure 3-6. List display mode of a pivot table portlet



In "Figure 3-6. List display mode of a pivot table portlet" above, the number of rows in the List display mode of the pivot table portlet is five. If the value of Pivotdataset-Max-Rows is lower than five, you receive an error message, advising you to limit the number of rows.

In "Figure 3-6. List display mode of a pivot table portlet" above, the number of cells in the List display mode of a pivot table portlet is 15 (5 \* 3). If the value of Pivotdataset-Max-Cells is lower than 15, you receive an error message advising you to limit the number of cells.

Figure 3-7. Pivot table display mode of a pivot table portlet



In this pivot table, column **WORK ITEM** has eight unique values, which is the largest number of unique values among all columns. If the value of

Pivotdataset-Max-Distinct-In-Column is lower than eight, you receive an error message, advising you to limit the number of unique values in this column.

In this pivot table, column **WORK ITEM** has eight unique values, and column **WORK ITEM TYPE** has four unique values. Therefore, the number of unique aggregations is 32 (8 \* 4). If the value of Pivotdataset-Max-Distinct-Cells is lower than 32, you receive an error message, advising you to limit the number of aggregations in this table.

Note that if a pivot table is larger than 2 MB, the table cannot be exported to Excel. This is caused by a default setting in Apache Tomcat. In Apache Tomcat, the maxPostSize attribute determines the maximum size in bytes of the POST, which is to be handled by the container FORM URL parameter parsing. If not specified, this attribute is set to 2097152 (2 MB), which limits the size of the pivot table.

To work around this limitation, edit the Tomcat's server.xml file to add the maxPostSize attribute to the Connector element, and then set the attribute to a larger value in bytes. Alternatively, set the attribute to 0, which disables the size check.

## **Bar Chart Portlet**

Figure 3-8. Set up Display Options for bar chart portlets

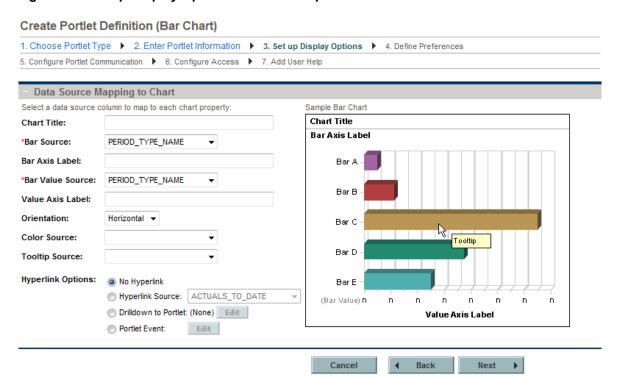


Table 3-4. Set up Display Options field descriptions for bar chart portlets

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.
	Type any alphanumeric string (up to 200 characters in length).
*Bar Source	Select a source column for the information to be displayed on the bar axis.
	Choices are limited to those columns available in your portlet data source.
Bar Axis Label	Specify the label for the bar axis.
	Type any alphanumeric string (up to 200 characters in length.)
*Bar Value Source	Select a <i>numeric</i> source column for the information to be displayed on the value axis (the length of each bar).
	Choices are limited to those columns available in your portlet data source.
Value Axis Label	Specify the label for the value axis.
	Type any alphanumeric string (up to 200 characters in length.)
Orientation	Indicate the orientation of the bars.
	Choices include:
	Horizontal
	Vertical
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

## Clustered Bar Chart Portlet

Figure 3-9. Set up Display Options for clustered bar chart portlets

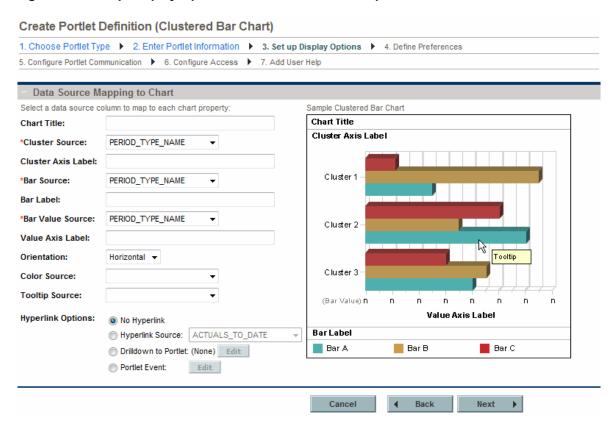


Table 3-5. Set up Display Options field descriptions for clustered bar chart

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.  Type any alphanumeric string (up to 200 characters in length).
*Cluster Source	Select a source column for the information to be displayed in the cluster.  Choices are limited to those columns available in your portlet data source.
Cluster Axis Label	Specify the label for the cluster axis.  Type any alphanumeric string (up to 200 characters in length.)
*Bar Source	Select a source column for the information to be displayed for the bars.  Choices are limited to those columns available in your portlet data source.

Table 3-5. Set up Display Options field descriptions for clustered bar chart, continued

Field Name (*Required)	Description
Bar Label	Specify the label for the legend.
	Type any alphanumeric string (up to 200 characters in length.)
*Bar Value Source	Select a <i>numeric</i> source column for the information to be displayed on the value axis (the length of each bar).
	Choices are limited to those columns available in your portlet data source.
Value Axis Label	Specify the label for the value axis.
	Type any alphanumeric string (up to 200 characters in length.)
Orientation	Indicate the orientation of the bars.
	Choices include:
	Horizontal
	Vertical
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

## Stacked Bar Chart Portlet

Figure 3-10. Set up Display Options for stacked bar chart portlets



Table 3-6. Set up Display Options field descriptions for stacked bar chart

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.  Type any alphanumeric string (up to 200 characters in length).
*Bar Source	Select a source column for the information to be displayed on the bar axis.  Choices are limited to those columns available in your portlet data source.
Bar Axis Label	Specify the label for the bar axis.  Type any alphanumeric string (up to 200 characters in length).
*Bar Division Source	Select the source column for the bar divisions.  Choices are limited to those columns available in your portlet data source.

Table 3-6. Set up Display Options field descriptions for stacked bar chart, continued

Field Name (*Required)	Description
Bar Division Label	Specify the label for the bar divisions.
*Bar Division Value Source	Select a <i>numeric</i> source column for the information to be displayed on the value axis (the length of each bar).  Choices are limited to those columns available in your portlet data source.
Value Axis Label	Specify the label for the value axis.  Type any alphanumeric string (up to 200 characters in length.)
Orientation	Indicate the orientation of the bars.  Choices include:  Horizontal  Vertical
Color Source	Select the source for the color.  See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.  Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.  Choices include:  No Hyperlink. Links to other pages are not allowed.  Hyperlink Source. Link to the selected column.  Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.  Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

## Pie Chart Portlet

Figure 3-11. Set up Display Options for pie chart portlets

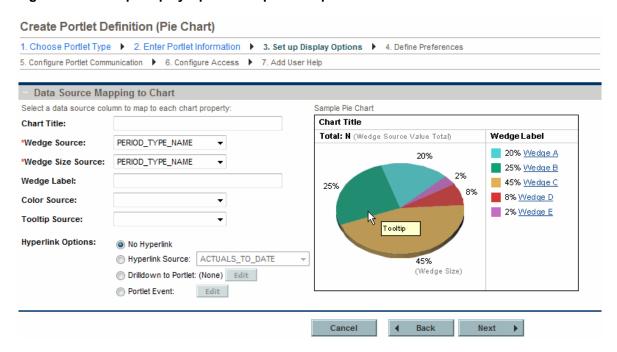


Table 3-7. Set up Display Options field descriptions for pie chart portlets

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.
	Type any alphanumeric string (up to 200 characters in length).
*Wedge Source	Select the source column for the wedge (pie slice).
	Choices are limited to those columns available in your portlet data source.
*Wedge Size Source	Select the <i>numeric</i> source column which determines the size of each wedge.
	Choices are limited to those columns available in your portlet data source.
Wedge Label	Specify a label for the wedges.
	Type any alphanumeric string (up to 200 characters in length).
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers

Table 3-7. Set up Display Options field descriptions for pie chart portlets, continued

Field Name (*Required)	Description
	over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

## Line Chart Portlet

Figure 3-12. Set up Display Options for line chart portlets

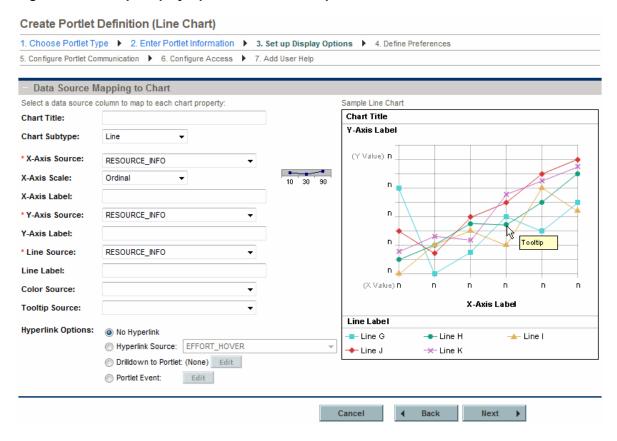


Table 3-8. Set up Display Options field descriptions for line chart portlets

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.
	Type any alphanumeric string (up to 200 characters in length).
Chart Subtype	Select <b>Line</b> to set up display options for this portlet.
*X-Axis Source	Select the source column for the x-axis.
	Choices are limited to those columns available in your portlet data source.
X-Axis Scale	Select a scale for the x-axis.
	Choices include <b>ordinal</b> (an ordered sequence or ranking) and <b>numeric</b> .

Table 3-8. Set up Display Options field descriptions for line chart portlets, continued

Field Name (*Required)	Description
X-Axis Label	Specify a label for the x-axis.
	Type any alphanumeric string (up to 200 characters in length).
*Y-Axis Source	Select the <i>numeric</i> source column for the y-axis.
	Choices are limited to those columns available in your portlet data source.
Y-Axis Label	Specify a label for the y-axis.
	Type any alphanumeric string (up to 200 characters in length).
*Line Source	Select the source column for each line.
	Choices are limited to those columns available in your portlet data source.
Line Label	Specify a label for the legend.
	Type any alphanumeric string (up to 200 characters in length).
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	<ul> <li>Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.</li> </ul>

# XY (Scatter) Line Chart Portlet

Select an XY line chart to display data points without connecting lines.

Figure 3-13. Set up Display Options for XY (scatter) line chart portlets



Table 3-9. Set up Display Options field descriptions for XY (scatter) line chart

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.
	Type any alphanumeric string (up to 200 characters in length).
Chart Subtype	Select XY (Scatter) to set up display options for this portlet.
*X-Axis Source	Select the source column for the x-axis.
	Choices are limited to those columns available in your portlet data source.
X-Axis Scale	Select a scale for the x-axis.
	Choices include <b>ordinal</b> (an ordered sequence or ranking) and <b>numeric</b> .
X-Axis Label	Specify a label for the x-axis.
	Type any alphanumeric string (up to 200 characters in length).
*Y-Axis Source	Select the <i>numeric</i> source column for the y-axis.
	Choices are limited to those columns available in your portlet data source.

Table 3-9. Set up Display Options field descriptions for XY (scatter) line chart, continued

Field Name (*Required)	Description
Y-Axis Label	Specify a label for the y-axis.
	Type any alphanumeric string (up to 200 characters in length).
*Series Source	Select the source column for each series.
	Choices are limited to those columns available in your portlet data source.
Series Label	Specify a label for the legend.
	Type any alphanumeric string (up to 200 characters in length).
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

# Radar (Spider) Line Chart Portlet

Select a radar line chart to display cyclic data or data that has no natural order. This chart uses the polar coordinate system.

Figure 3-14. Set up Display Options for radar (spider) line chart portlets

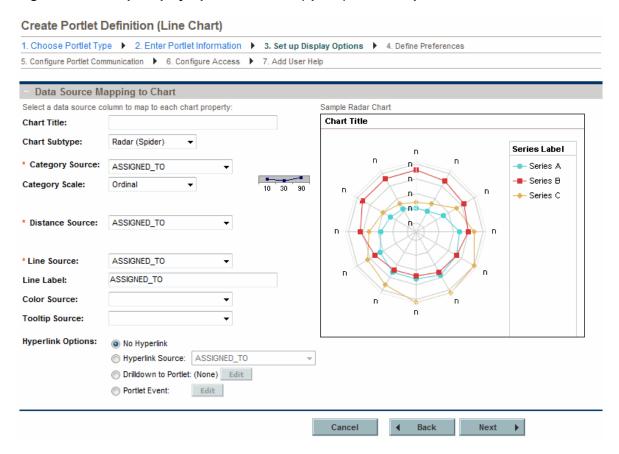


Table 3-10. Set up Display Options field descriptions for radar (spider) line

Field Name (*Required)	Description
Chart Title	Specify a name for the chart.
	Type any alphanumeric string (up to 200 characters in length).
Chart Subtype	Select Radar (Spider) to set up display options for this portlet.
*Line Source	Select the source column for each line.
	Choices are limited to those columns available in your portlet data source.
Line Label	Specify a label for the legend.
	Type any alphanumeric string (up to 200 characters in length).
*Category	Select the source column for each category on the angular coordinate.
Source	Choices are limited to those columns available in your portlet data source.
Category Scale	Select a scale for the category.
	Choices include <b>ordinal</b> (an ordered sequence or ranking) and <b>numeric</b> .

Table 3-10. Set up Display Options field descriptions for radar (spider) line, continued

Field Name (*Required)	Description
*Distance Source	Select the source column for each radial coordinate (distance from the center pole).
	Choices are limited to those columns available in your portlet data source.
Color Source	Select the source for the color.
	See "Selecting Portlet Colors" on page 113 for details.
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.
	Choices are limited to those columns available in your portlet data source.
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.
	Choices include:
	No Hyperlink. Links to other pages are not allowed.
	Hyperlink Source. Link to the selected column.
	Drilldown to Portlet. Drill down to the selected portlet. See "Defining a Drill-down Page" on page 56 for details.
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.

### **Bubble Chart Portlet**

Figure 3-15. Set up Display Options for bubble chart portlets



Table 3-11. Set up Display Options field descriptions for bubble chart portlets

Field Name (*Required)	Description	
Chart Title	Specify a name for the chart.	
	Type any alphanumeric string (up to 200 characters in length).	
*X-Axis Source	Select the source column for the x-axis.	
	Choices are limited to those columns available in your portlet data source.	
X-Axis Label	Specify a label for the x-axis.	
	Type any alphanumeric string (up to 200 characters in length).	
*Y-Axis Source	Select the <i>numeric</i> source column for the y-axis.	

Table 3-11. Set up Display Options field descriptions for bubble chart portlets, continued

Field Name (*Required)	Description	
	Choices are limited to those columns available in your portlet data source.	
Y-Axis Label	Specify a label for the y-axis.	
	Type any alphanumeric string (up to 200 characters in length).	
*Bubble Size	Select the source column for the size of the bubble.	
Source	Choices are limited to those columns available in your portlet data source.	
Bubble Size Label	Specify the label for the bubble size.	
	Type any alphanumeric string (up to 200 characters in length).	
Color Source	Select the source for the color.	
	See "Selecting Portlet Colors" on the next page for details.	
Color Label Source	Select the source for the labels associated with the colors.	
Color Label	Specify the label for the legend.	
	Type any alphanumeric string (up to 200 characters in length).	
Tooltip Source	Select the source column for the tooltip to be displayed when the cursor hovers over an item.	
	Choices are limited to those columns available in your portlet data source.	
Hyperlink Options	Specify whether the column can be linked to another page or portlet, or updates the other portlets on this page.	
	Choices include:	
	No Hyperlink. Links to other pages are not allowed.	
	Hyperlink Source. Link to the selected column.	
	Drilldown to Portlet. Drill down to the selected portlet.	
	Portlet Event. Update the portlets on this page. See "Defining a Portlet Event" on page 74 for details.	

**Note:** You can limit the number of bubbles displayed in the bubble chart by setting the MAX\_BUBBLE\_CHART\_RESULT parameter. By default, up to 500 bubbles are displayed. See the *Installation and Administration Guide* for more information about setting this parameter.

# Setting the Displayed Color Label Length for a Bubble Chart

If the legend of a bubble chart contains many color labels, the labels may be truncated. You can extend the displayed color label length by doing the following:

- Edit the <PPM\_Home>/server/<PPM\_Server\_</li>
   Name>/deploy/dashboard.war/static/app/portlet/css/BubbleChart.css file:
  - a. Find the maxLegendItemLength key and increase its value. The value is in pixels. About 1,000 pixels is equal to the 200 character color label length limit.
  - b. Save the file.
- 2. Repeat Step 1 for all nodes in a cluster.
- 3. Restart the PPM Server.

# Selecting Portlet Colors

Most of the portlet types include the option to specify particular colors for a portlet. Unlike the default color map that selects and changes the colors seemingly at random, the colors you specify will always be used when the portlet is displayed.

To specify color mappings for a portlet requires configuration of the:

- · Portlet data source
- Portlet definition

# Defining Color Maps in the Portlet Data Source

To specify a color map for a portlet, refer to "Creating and Maintaining Portlet Data Sources" on page 13. In the section "Completing the Data Source Tab" on page 18, you will need to add (or modify) columns to specify the color map.

In general, color mappings:

- Should correspond to the column used in the Order By clause
- · Can be indicated for one or more of the Order By values
- · Color can be specified by:
  - Name (such as LemonChiffon)
  - Hexadecimal code (for example, #FFFACD)

Names or codes are case-insensitive.

"Color Names" on page 134 provides a comprehensive list of color names and some recommendations about their use.

**Tip:** Specific colors can also be specified based on portlet field labels; however, these settings are instance-wide. This can be especially helpful for making colors consistent for field labels such as High, Medium, or Low. See the *Customizing the Standard Interface* guide for details.

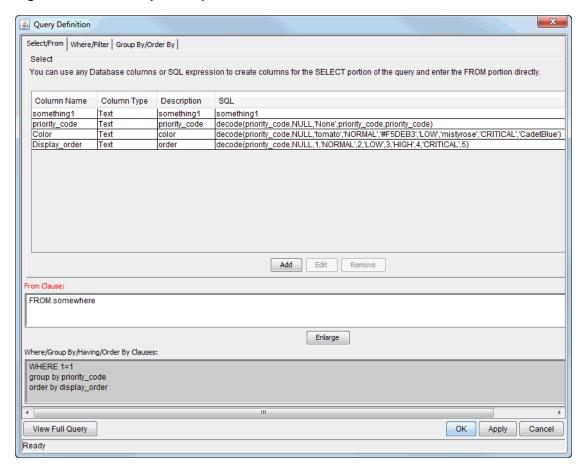
"Figure 3-16. Color map in the portlet data source" on the next page shows examples of these settings in the **Select** section of the Select/From tab of the Query Definition window (see "Creating and Maintaining Portlet Data Sources" on page 13 for details about this window).

- The values for priority\_code column include the priorities associated with a request (of the type being displayed in this portlet):
  - Normal
  - Low
  - High
  - Critical
  - None
- The Display order column ranks the values of the priority codes
- The Order By clause specifies the use of the Display\_order column
- The Color column specifies the relationship of the colors to the display order as follows:
  - Wheat (by hexadecimal code) for Normal
  - MistyRose for Low
  - The default color for High (which means the color is subject to change)

- CadetBlue for Critical
- Tomato for None

**Tip:** The colors shown in this example, as well as the choice of portlet are probably unrealistic. You probably want to select colors that are meaningful to your organization and more practical than those selected for this example.

Figure 3-16. Color map in the portlet data source



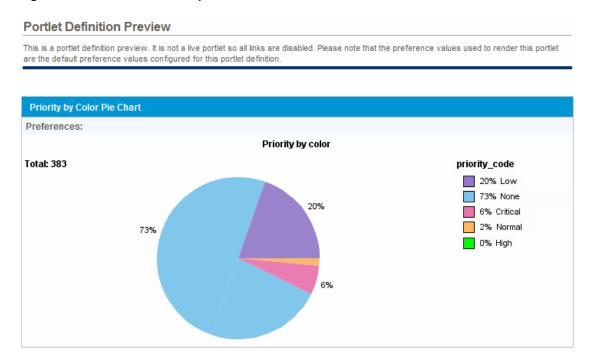
# Specifying the Color Map in the Portlet Definition

Once a portlet data source includes a color map, you can specify its use in a color specification—enabled portlet.

"Figure 3-17. Default color map" on the next page shows a preview of a pie chart that uses the default color map.

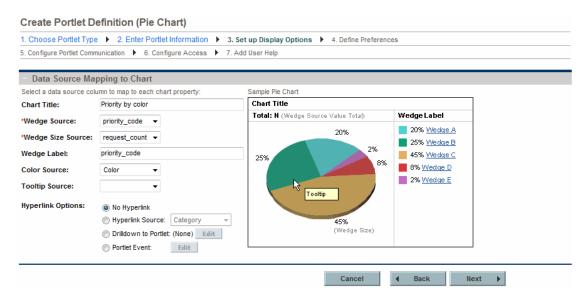
As shown in "Figure 3-19. Selected color mappings" on the next page, specifying a color map can help establish consistency of the portlet coloration and, potentially, its interpretation.

Figure 3-17. Default color map



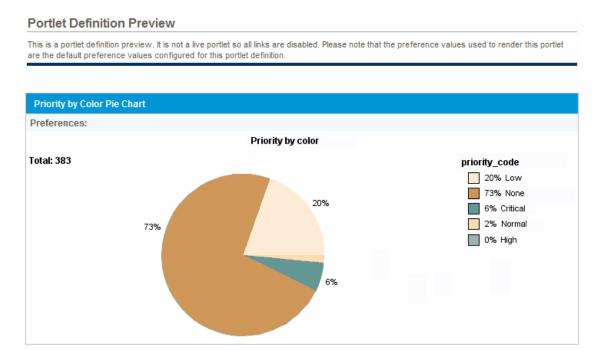
To specify use of a color map available in a portlet's data source, select the color map's column for the **Color Source** as shown in "Figure 3-18. Set up Display Options with color specification" below.

Figure 3-18. Set up Display Options with color specification



The resulting preview is shown in "Figure 3-19. Selected color mappings" on the next page.

Figure 3-19. Selected color mappings

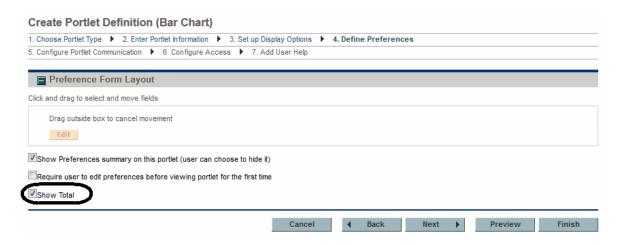


# Show Total Checkbox for the Define Preferences Step

If you are creating a portelt that belongs to one of the following four portlet types:

- Bar Chart
- · Stacked Bar Chart
- · Clustered Bar Chart
- · Pie Chart

You may notice that a new checkbox **Show Total** is available on the Define Preferences Step of the Create Portlet Definition page. This checkbox allows you to control whether or not to display the Total data.



By default, this check box is selected. If you keep this checkbox selected when creating portlet definition, the Total data will be displayed in the customized portlets. If you deselect this check box, the Total data will not be displayed.

# Chapter 4: Creating and Maintaining PPM Dashboard Pages and Modules

## About PPM Dashboard Pages and Modules

Modules are either provided by HPE or application administrators and can be supplied to users as either Private Dashboard pages or Shared Dashboard pages. Modules must have a unique name and can contain one or more Dashboard pages, each with one or more portlets.

### Private Dashboard Pages

Private Dashboard pages are modules that users add from preconfigured pages. And users find them in the Private pages folder of the Personalize Dashboard page. These private Dashboard pages can be edited and personalized by users to increase their usefulness. Preconfigured pages available to be added into Private Dashboard pages are provided by either HPE or application administrators.

#### **HPE-Provided Preconfigured Pages**

HPE-Provided preconfigured pages are listed after you click the **Add preconfigured pages** drop-down menu item located on the Personalize Dashboard page (see "Figure 4-1. Personalize Dashboard page" on the next page and "Figure 4-2. Add Preconfigured Pages to Dashboard dialog box" on the next page).

#### **Application Administrator-Provided Preconfigured Pages**

Modules created by application administrators appear in the Shared pages folder on the Personalize Dashboard page (such as Sample, shown in "Figure 4-1. Personalize Dashboard page" on the next page). Administrator-provided preconfigured pages are modules that administrators have configured so that end users can add them to the Private pages folder by the copy and paste functionality or by using the **Add preconfigured pages**. Once moved to the Private pages folder, administrator-provided preconfigured pages can be personalized by the user; modules appearing in the Shared pages folder cannot be edited.

For information about configuring modules, see "Modifying Modules" on page 124.

Figure 4-1. Personalize Dashboard page

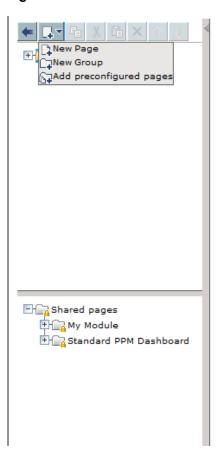
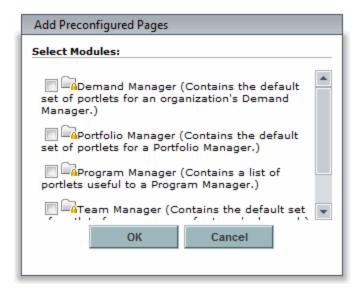


Figure 4-2. Add Preconfigured Pages to Dashboard dialog box



### **Shared Dashboard Pages**

Shared Dashboard pages are modules that are created by application administrators and users find these in their Shared pages folder. Shared modules can be configured such that users can add them to the Private pages folder and edit them, or shared modules can be made uneditable—these type of modules are especially useful when application administrators want to share specific details and status with their stakeholders.

### Landing Page (Default PPM Dashboard Page)

The landing page is the default PPM Dashboard page that displays when a user logs on to PPM Center. This page can be configured by the application administrator.

If the user does not have access to the module that contains the landing page, the user's first private page is used as the default PPM Dashboard page. If the user also does not have any private pages configured, the first shared page is used as the default PPM Dashboard page.

For information on how to configure this page, see "Configuring the Landing Page (Default PPM Dashboard Page)" on page 131.

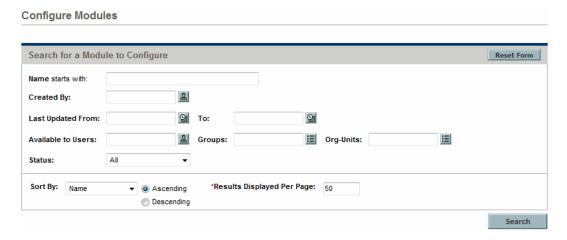
The module's name appears in the **Preconfigured Pages** column and the module's description is listed in the **Description** column.

# Searching for Modules

To search for an existing module:

- Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Modules > Configure Modules.

### The Configure Modules page appears.



3. Provide the search criteria using the information from the following table.

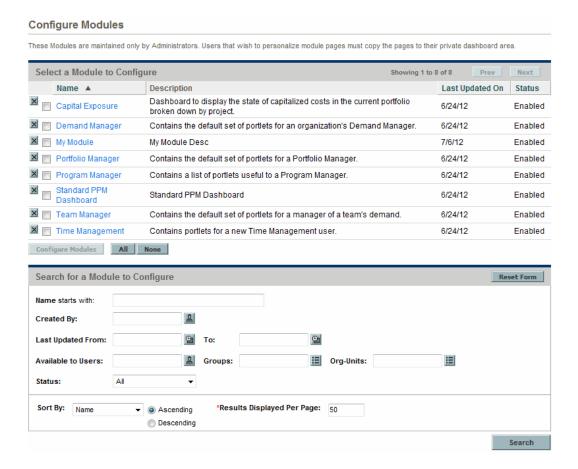
Field Name (*Required)	Description
Name starts with	Specify a string. The search results display all modules whose name starts with the specified string.
	Type any alphanumeric string (up to 255 characters in length).
Show only modules that have changed since last publication	Indicate whether to show only modules that have been modified since they were last published.
Created By	Select the user who created the module.
Last Updated From < Date > To < Date >	Select the date range when the module was last updated.
Last Published From < Date > To < Date >	Select the date range when the module was last published.
Available to Users	Select one or more users who have access to the module.
Groups	Select one or more groups who have access to the module.
Org-Units	Select one or more groups who have access to the module.
Status	Select the status criteria:
	Choices include:
	· All

Field Name (*Required)	Description
	。 Enabled
	Disabled
Sort By	Select the sort criteria.
	Choices include:
	• Name
	Last Updated On
	。 Status
Ascending/Descending	Indicate the sorting sequence.
*Results Displayed Per Page	Specify the maximum number of search results to display on a page.
	Type any integer, including zero.

Tip: Click Reset Form if you would like to clear your current search criteria.

#### 4. Click Search.

The Configure Modules page is updated to include the search results which are displayed in the **Select a Module to Configure** section. If the list of results is long, click **Prev** and **Next** to navigate the list.



From the Configure Modules page you can:

- Select a module. In the Select a Module to Configure section, either select the checkbox associated with the desired module or click the link for the module.
- Delete a module. In the Select a Module to Configure section, click the delete icon next to the module you want to delete.
- Sort the modules. In the Select a Module to Configure section, click on a column header to change the sort criteria or sequence.
- Refine your search. In the Search for a Module to Configure section, provide the search criteria detailed in Step 3.

# **Modifying Modules**

To change an existing module:

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Modules > Configure Modules.

The Configure Modules page appears, as shown in Step 2 ("From the menu bar, select Open > Administration > Modules > Configure Modules." on page 121).

3. Search for and select a module.

For detailed instructions on how to search for and select modules, see "Searching for Modules" on page 121.

The Personalize Dashboard page appears, as shown in Step 6 ("Click Create." on the next page).

- 4. From this page, you can do the following:
  - Change the contents or accessibility of a module, see "Creating Modules" below.
  - Copy the module, see "Copying Modules" on page 129.
  - Remove the module, see "Deleting Modules" on page 130.

**Note:** If your PPM Center instance supports multiple languages and the module is defined in a language other than your session language, you cannot modify the module. For more information click **here** in the header or see *Multilingual User Interface Guide*.

# Creating Modules

To create a module:

- 1. Log on to PPM Center.
- 2. From the menu bar, select **Open > Administration > Modules > Create Module.**

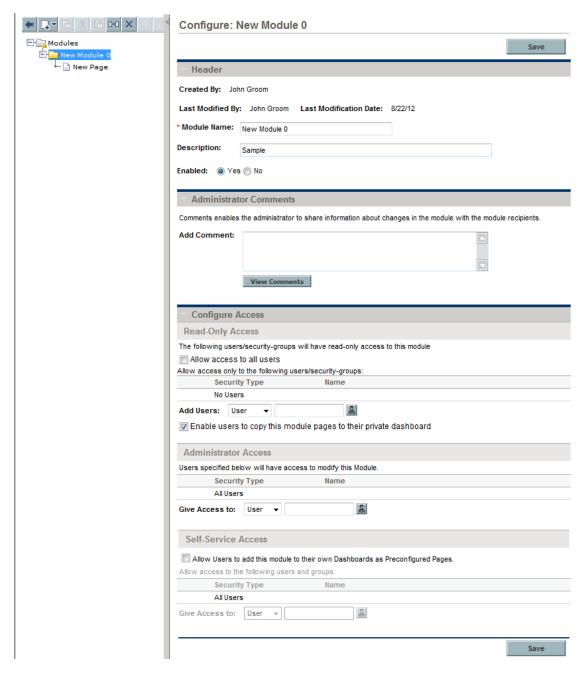
The Create Module page appears.

**Tip:** If you are already in the Personalize Dashboard page, you can highlight **Modules** and select **New Module** from the drop-down menu to create a new module.

- 3. In the **Module Name** field, type the name of the module.
- (Optional, although highly recommended) In the **Description** field, type a brief description of the module.
- 5. (Optional) Select the desired **Enabled** option.

#### 6. Click Create.

The Personalize Dashboard page appears and includes the Configure: < Module\_Name > display.



**Note:** The contents of the page may differ depending on the module chosen.

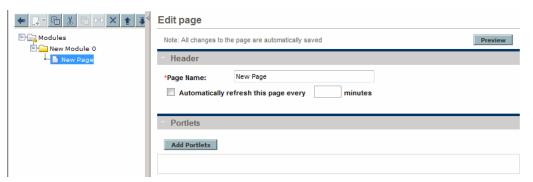
- 7. (Optional) In the **Header** section, update the data in the appropriate fields.
- 8. (Optional, although highly recommended) In the Administrator Comments section, add

comments as desired.

Tip: Click Save before clicking View Comments to view the comments you just added.

- 9. In the **Configure Access** section, specify to whom, and the type of, access of the module should be granted.
- 10. Add Dashboard pages and portlets as desired.
  - a. To add a page, either:
    - Select the **New Page** file from the folder containing the new module
    - Select the module from the Modules folder and select either Add > Add New Page or Add > Add user pages (following a right-click).

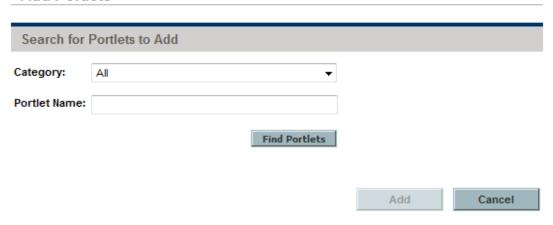
The Personalize Dashboard page appears and includes the Edit page display.



- b. (Optional) Rename the page.
- c. (Optional) Set the page refresh rate.
- d. Click Add Portlets.

#### The Add Portlets dialog box appears.

### **Add Portlets**



#### Note:

- When the length of a word in a portlet name exceeds 30 characters (without a space), after you click Find Portlets in the Add Portlets window, the Portlet Name column in the resulting list is resized automatically, other columns are pushed to the right side, and no horizontal scrollbar is available. If the word is really long (say, 100 characters), the buttons in the right side of the window may disappear. In this case, maximize the Add Portlets window.
- Make sure not to include any HTML related characters in the description of a request.
   When a request contains HTML related characters in its request description, the request is not displayed in the My Requests portlet.
- f. Search for portlets to add.
  - To list all the portlets, click Find Portlets. The Select Portlets to Add section is added
    to the Add Portlets dialog. The Select Portlets to Add section lists all the portlets.
  - To list specific portlets:
    - A. In Category, select the portlet's category from the drop-down list.
    - B. In **Portlet Name**, provide all or part of the portlet's name.
    - C. Click Find Portlets.

The **Select Portlets to Add** section is added to the Add Portlets dialog. The **Select Portlets to Add** section lists all of the portlets matching the search criteria.

g. In the Select Portlets to Add section, select one or more portlets and click Add.

- h. (Optional) Click **Preview** to review the results.
- 11. Repeat Step 10 until the module is configured as desired.

**Note:** If your PPM Center instance supports multiple languages, any module you create is defined in the language you selected at logon (your session language). After the module is created, it can be modified only in its definition language. For more information, see *Multilingual User Interface Guide*.

# **Sharing Modules**

To share a module:

- 1. Select the module name from the Modules folder.
- 2. In the Header section, select the **Yes** option for **Enabled**.
- 3. In the Configure Access section, select the Allow access to all users and Enable users to copy this module pages to their private dashboard checkboxes.
- 4. Click Save.

# **Copying Modules**

To copy an existing module and use it as the basis for a new module:

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Modules > Configure Modules.

The Configure Modules page appears.

3. Search for and select a module.

For complete information on how to search for and select modules, see "Searching for Modules" on page 121.

The Personalize Dashboard page appears.

- 4. Select the name of the module from the Modules folder.
- 5. Click the Clone icon (or right-click the module name and select Clone).

An advisory dialog box appears.

6. Click OK.

A copy of the module will appear in the Modules folder.

- 7. Select the name of the copied module.
- 8. Change the settings of the copied module using the steps detailed in "Creating Modules" on page 125.

**Tip:** Remember to enable the module once the settings are updated.

9. Click Save.

# **Deleting Modules**

To delete an existing module:

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Modules > Configure Modules.

The Configure Modules page appears.

3. Search for and select a module.

For complete information on how to search for and select modules, see "Searching for Modules" on page 121.

The Personalize Dashboard page appears.

- 4. Select the name of the module from the Modules folder.
- 5. Click the **Delete** icon (or right-click the module name and select **Delete**).

A confirmation dialog box opens.

6. Click OK.

# Configuring the Landing Page (Default PPM Dashboard Page)

The landing page is the default PPM Dashboard page that is configured to display when a user logs on to PPM Center. This page is configured by the application administrator to meet the business requirements of users or security groups.

**Note:** If a default PPM Dashboard page is not configured, the first private page listed in the Private pages folder becomes the default page. If no private pages have been configured, the first shared page listed in the Shared pages folder becomes the default page.

To configure the default PPM Dashboard page you must set the landing page and configure the module's access:

- 1. Log on to PPM Center.
- From the menu bar, select Open > Administration > Modules > Configure Default
   Dashboard Page.

The Set Landing page appears.

- 3. Select the **Enable default Landing page** checkbox.
- 4. Select the name of the module that contains the default landing page.
- 5. Select the name of the page.
- 6. Click Save.

The message The Landing page has been successfully configured. In order to set the Landing Page users' access, configure the parent module's access appears above the Configure Landing Page section.

7. Click configure the parent module's access.

The Configure: <module\_name> page appears.

- 8. Expand the Configure Access section and add read-only access for all users or selected users.
- 9. Click Save.

# Changing the Landing Page

Changing the landing page is changing the default PPM Dashboard page that displays when a user logs on to PPM Center. For information on how to modify or edit the contents of the landing page, see the *Getting Started* Guide.

- 1. Log on to PPM Center.
- From the menu bar, select Open > Administration > Modules > Configure Default
   Dashboard Page.

The Set Landing page appears.

- 3. Select the name of the module that contains the default landing page.
- 4. Select the name of the page.
- 5. Click Save.

The message The Landing page has been successfully configured. In order to set the Landing Page users' access, configure the parent module's access appears above the Configure Landing Page section.

6. Click configure the parent module's access.

The Configure: <module\_name> page appears.

- 7. Expand the Configure Access section and add read-only access for all users or selected users.
- 8. Click Save.

## Disabling the Landing Page

You can disable the landing page by either disabling the feature or by disabling the module's access. When the landing page is disabled, the first page listed in the Private pages folder becomes the default PPM Dashboard page. If no private pages are configured, the first page listed in the Shared pages folder becomes the default PPM Dashboard page.

To disable the landing page without changing the module's access:

- 1. Log on to PPM Center.
- 2. From the menu bar, select Open > Administration > Modules > Configure Default

**Dashboard Page.** The Set Landing page appears.

- 3. Unselect the **Enable default Landing page** checkbox.
- 4. Click Save.

To disable the landing page by disabling the module's access:

- 1. Log on to PPM Center.
- From the menu bar, select Open > Administration > Modules > Configure Default
   Dashboard Page. The Set Landing page appears.
- 3. Click Save.

The message The Landing page has been successfully configured. In order to set the Landing Page users' access, configure the parent module's access appears above the Configure Landing Page section.

4. Click configure the parent module's access.

The Configure: <module\_name> page appears.

- 5. Expand the Configure Access section and remove read-only access for all users or selected users.
- 6. Click Save.

# Appendix A: Color Names

This appendix provides the table of color names that are supported by most browsers. These are the color names referenced in "Selecting Portlet Colors" on page 113.

It is important to note that only 16 color names are supported in the W3C HTML 4.0 standard (aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow). If you have concerns about browser compatibility, or are planning to export the portlet, you should use the hexadecimal values rather than the color names.

To view the colors themselves, go to www.w3.org/TR/css3-color/#html4 and locate the section documenting SVG color keywords.

Table A-1. Color names

Color Name	Hex Value
AliceBlue	#F0F8FF
AntiqueWhite	#FAEBD7
Aqua	#00FFFF
Aquamarine	#7FFFD4
Azure	#F0FFFF
Beige	#F5F5DC
Bisque	#FFE4C4
Black	#000000
BlanchedAlmond	#FFEBCD
Blue	#0000FF
BlueViolet	#8A2BE2
Brown	#A52A2A
BurlyWood	#DEB887
CadetBlue	#5F9EA0
Chartreuse	#7FFF00
Chocolate	#D2691E

Table A-1. Color names, continued

Color Name	Hex Value
Coral	#FF7F50
ComflowerBlue	#6495ED
Cornsilk	#FFF8DC
Crimson	#DC143C
Cyan	#00FFFF
DarkBlue	#00008B
DarkCyan	#008B8B
DarkGoldenrod	#B8860B
DarkGray	#A9A9A9
DarkGreen	#006400
DarkKhaki	#BDB76B
DarkMagenta	#8B008B
DarkOliveGreen	#556B2F
DarkOrange	#FF8C00
DarkOrchid	#9932CC
DarkRed	#8B0000
DarkSalmon	#E9967A
DarkSeaGreen	#8FBC8F
DarkSlateBlue	#483D8B
DarkSlateGray	#2F4F4F
DarkTurquoise	#00CED1
DarkViolet	#9400D3
DeepPink	#FF1493
DeepSkyBlue	#00BFFF
DimGray	#696969
DodgerBlue	#1E90FF
Feldspar	#D19275

Table A-1. Color names, continued

Color Name	Hex Value
FireBrick	#B22222
FloralWhite	#FFFAF0
ForestGreen	#228B22
Fuchsia	#FF00FF
Gainsboro	#DCDCDC
GhostWhite	#F8F8FF
Gold	#FFD700
GoldenRod	#DAA520
Gray	#808080
Green	#008000
GreenYellow	#ADFF2F
HoneyDew	#F0FFF0
HotPink	#FF69B4
IndianRed	#CD5C5C
Indigo	#4B0082
lvory	#FFFFF0
Khaki	#F0E68C
Lavender	#E6E6FA
LavenderBlush	#FFF0F5
LawnGreen	#7CFC00
LemonChiffon	#FFFACD
LightBlue	#ADD8E6
LightCoral	#F08080
LightCyan	#E0FFFF
LightGoldenrodYellow	#FAFAD2
LightGrey	#D3D3D3
LightGreen	#90EE90

Table A-1. Color names, continued

Color Name	Hex Value
LightPink	#FFB6C1
LightSalmon	#FFA07A
LightSeaGreen	#20B2AA
LightSkyBlue	#87CEFA
LightSlateBlue	#8470FF
LightSlateGray	#778899
LightSteelBlue	#B0C4DE
LightYellow	#FFFFE0
Lime	#00FF00
LimeGreen	#32CD32
Linen	#FAF0E6
Magenta	#FF00FF
Maroon	#800000
MediumAquamarine	#66CDAA
MediumBlue	#0000CD
MediumOrchid	#BA55D3
MediumPurple	#9370D8
MediumSeaGreen	#3CB371
MediumSlateBlue	#7B68EE
MediumSpringGreen	#00FA9A
MediumTurquoise	#48D1CC
MediumVioletRed	#C71585
MidnightBlue	#191970
MintCream	#F5FFFA
MistyRose	#FFE4E1
Moccasin	#FFE4B5
NavajoWhite	#FFDEAD

Table A-1. Color names, continued

Color Name	Hex Value
Navy	#000080
OldLace	#FDF5E6
Olive	#808000
OliveDrab	#6B8E23
Orange	#FFA500
OrangeRed	#FF4500
Orchid	#DA70D6
PaleGoldenrod	#EEE8AA
PaleGreen	#98FB98
PaleTurquoise	#AFEEEE
PaleVioletRed	#D87093
PapayaWhip	#FFEFD5
PeachPuff	#FFDAB9
Peru	#CD853F
Pink	#FFC0CB
Plum	#DDA0DD
PowderBlue	#B0E0E6
Purple	#800080
Red	#FF0000
RosyBrown	#BC8F8F
RoyalBlue	#4169E1
SaddleBrown	#8B4513
Salmon	#FA8072
SandyBrown	#F4A460
SeaGreen	#2E8B57
SeaShell	#FFF5EE
Sienna	#A0522D

Table A-1. Color names, continued

Color Name	Hex Value
Silver	#C0C0C0
SkyBlue	#87CEEB
SlateBlue	#6A5ACD
SlateGray	#708090
Snow	#FFFAFA
SpringGreen	#00FF7F
SteelBlue	#4682B4
Tan	#D2B48C
Teal	#008080
Thistle	#D8BFD8
Tomato	#FF6347
Turquoise	#40E0D0
Violet	#EE82EE
VioletRed	#D02090
Wheat	#F5DEB3
White	#FFFFF
WhiteSmoke	#F5F5F5
Yellow	#FFFF00
YellowGreen	#9ACD32

# Appendix B: Exporting Portlets to Excel

Starting from PPM Center 9.30, clicking **Export to Excel** on a portlet exports the portlet data to an x1sx file (Microsoft Excel file) instead of HTML file. This enhancement enables you to process data by using more Microsoft Excel features.

Note that if you use this enhanced Export to Excel functionality, the format of the data which is maintained in the HTML files may be lost in the Excel files.

For example, if you export a portlet with colors to Excel, the colors are not displayed in the Excel file. To fix this issue, you should add a new column as the image field when defining the portlet data source. The value of the image field should be in the following format:

<img src="http://<ppm\_base\_url>/itg/web/knta/drv/images/<corlor>.gif"/>

Then when you export the portlet to Excel, the image field will be filled with the color specified by the field value in the Excel file.

Starting from PPM Center 9.31.0001, the option **Export to HTML Excel** is added in the Edit Preference page. With this option available, you can decide the portlet is exported to an  $\times 1$ sx file (Microsoft Excel file) or an  $\times 1$ s file (HTML file). If you select this option, the portlet is exported to an  $\times 1$ s file. PPM behaves the same as it does in versions earlier than 9.30 when exporting portlets to Excel. If you do not select this option, the portlet is exported to an  $\times 1$ sx file.

**Note:** The **Export to HTML Excel** option is only available in the Edit Preference page of builder portlets.

## Send documentation feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Creating Portlets and Modules (Project and Portfolio Management Center 9.40)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to your\_IE\_team\_PDL@hpe.com.

We appreciate your feedback!