HP Project and Portfolio Management Center

Software Version: 9.30

HP Resource Management User's Guide

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Chapter 1: Getting Started with Resource Management

Introduction to Resource Management

Resource Management, which is part of Project and Portfolio Management Center (PPM Center), provides an array of tools for managing personnel related to IT initiatives.

- Role and skill modeling capabilities unlock the potential of resources, while regional calendars make it easier to accurately determine available working hours as well as holidays and vacations. See "Setting Up Resource Management" on page 12 for more information on the setup work that should be completed before using Resource Management.

- Organizational modeling capabilities keep track of where resources are located and who they report to. See "Modeling Your Organization" on page 36 for more information on modeling your organization at the individual and group level using Resource Management.

- As resources are assigned to tasks and requests, executives and managers have full visibility into the capacity of their teams and the load placed on them, in terms of both current execution and capacity planning for the future.

  - To support future demand and project planning, resource forecasting capability is achieved with staffing profiles and resource pools. High-level visualizations help program and resource managers with assessing project feasibility and timing, and with making advance staffing decisions and allocations. See "Using Resource Management for Capacity Planning" on page 54 for more information on using resource pools and staffing profiles to model and plan for resource allocations.

  - To support current demand and project planning, Resource Management delivers a set of visualizations and related tools that managers and individual resources can use to communicate each others' needs and capabilities. These include work calendars, standard planning fields on tasks and requests, and resource load and capacity histograms. See "Using HP Resource Management for Work Plan and Request Execution" on page 177 for more detailed information on using Resource Management visualizations to assess current resource usage and optimize operational capacity.

Related Documents

Related documents for this book are:

- *Getting Started*

- *Demand Management User's Guide*

- *Deployment Management User's Guide*

- *Project Management User's Guide*

- *Program Management User's Guide*

- *Portfolio Management User's Guide*

- *Time Management User's Guide*

- *Security Model Guide and Reference*

- *Creating Portlets and Modules*

- *Time Management Configuration Guide*

- *Operational Reporting User's Guide*

Chapter 2: Setting Up Resource Management

Overview of Setting Up Resource Management

This chapter discusses a number of settings and entities that should be configured prior to using Resource Management. This setup work includes:

- Setting values for Resource Management-specific fields by altering the fields' validations

- Setting default time period views for staffing profiles and resource pools

- Creating and modifying roles that will be assigned to resources

- Creating and modifying skills that will be assigned to resources

- Setting up regional calendars that will determine holidays

- Determining request types that will count as workload, if any

- Creating resource pools

- Setting default notifications for staffing profiles and resource pools

Setting Up Resource Management Validations

Resource Management employs several fields whose values should be configured prior to using it, described in "Table 2-1. HP Resource Management validations" below. These field values can be altered by making changes to their validations.

Table 2-1. HP Resource Management validations

Validation	Description
PPM – Department – Enabled	All resources have an optional **Department** field that can be used to assist resource searches. HP-supplied values are provided for this validation, but may not match your company's terminology.
RSC – Resource Category	All resources have an optional **Category** field that can be used to assist resource searches. HP-supplied values are provided for this validation, but may not match your company's terminology.
RSC – Location	All resources have an optional **Location** field that can be used to assist resource searches. HP-supplied values are not provided for this validation.
RSC – Org Unit Type	All organization units have an optional **Type** field that can be used to assist organization unit searches. HP-supplied values are provided for this validation.
RSC – Skill Category	All skills have an optional **Category** field that can be used to assist skill searches. HP-supplied values are not provided for this validation.
RSC – Skill Proficiency	All skills can be assigned to a resource with a certain skill proficiency level. HP-supplied values are provided for this validation.
RSC – Workload Category	All work items have an optional **Workload Category** field that can be used to divide work items into major reporting categories for analysis purposes. HP-supplied values are provided for this validation, but may not match your company's terminology.
RSC – Resource Title	All resources have an optional Resource Title field that can be used to assist resource searches. HP-supplied values are provided for this validation, but may not match your company's terminology.

To modify the values for these field validations:

> **Note:** If the validation's definition language differs from your session language, you cannot modify the validation. You can only modify a validation in its definition language. Select **File > Language Options** and see the *Multilingual User Interface Guide* for more information.

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 **Configuration > Validations.**

   The Validation Workbench window opens.
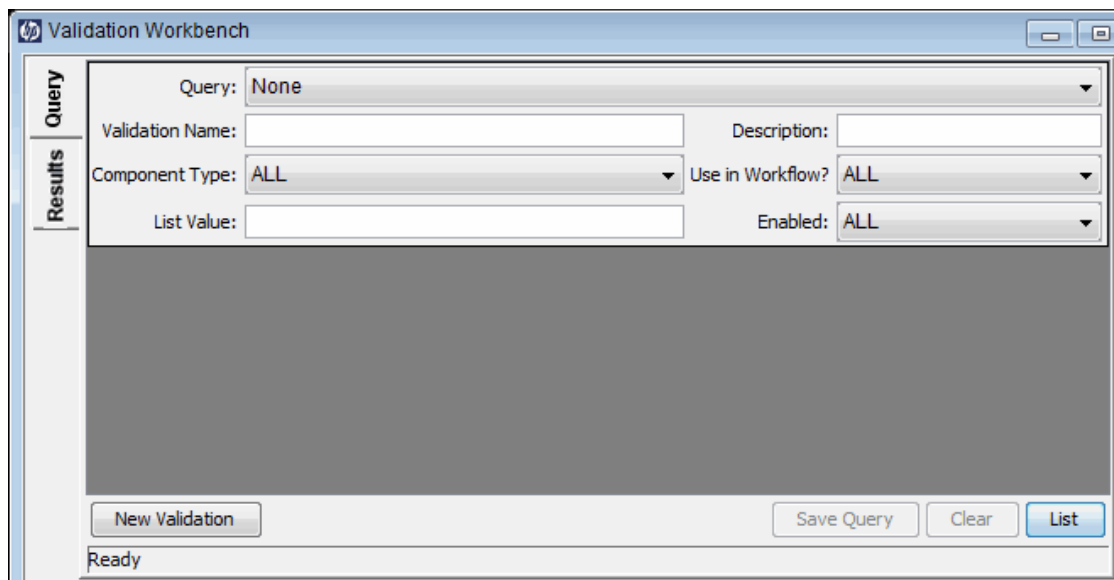
4. Type `rsc` into the **Validation Name** field and click **List.**

   The **Results** tab opens with all of the system Resource Management validations listed.
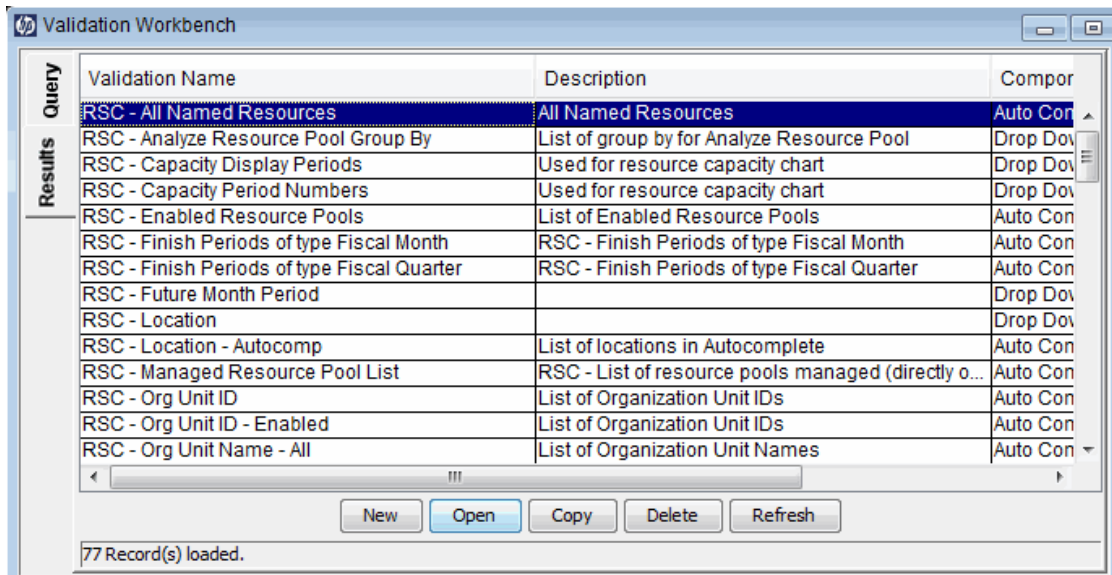
5. Modify the validations listed in "Table 2-1. HP Resource Management validations" on page 13 to conform to your business model.

6. Add, modify, or delete values for these validations as you see fit.

    See the *Commands, Tokens, and Validations Guide and Reference* for more details on modifying values for list validations.

Hierarchical Selection for the Auto Complete List Validation

Hierarchical selection is the ability to list selectable field values in the form of a hierarchy or tree. If the field values can be defined hierarchically, the selectable field values can be presented to the user in a hierarchical list. For example, when a resource pool (ResourcePool_1a) is created, a parent resource pool can be set. If a parent resource pool (ResourcePool_1) is configured to ResoucePool_1a, in the hierarchical selection, Resource_Pool_1a appears as a child to ResourcePool_1.

Figure 2-1. Hierarchical selection example
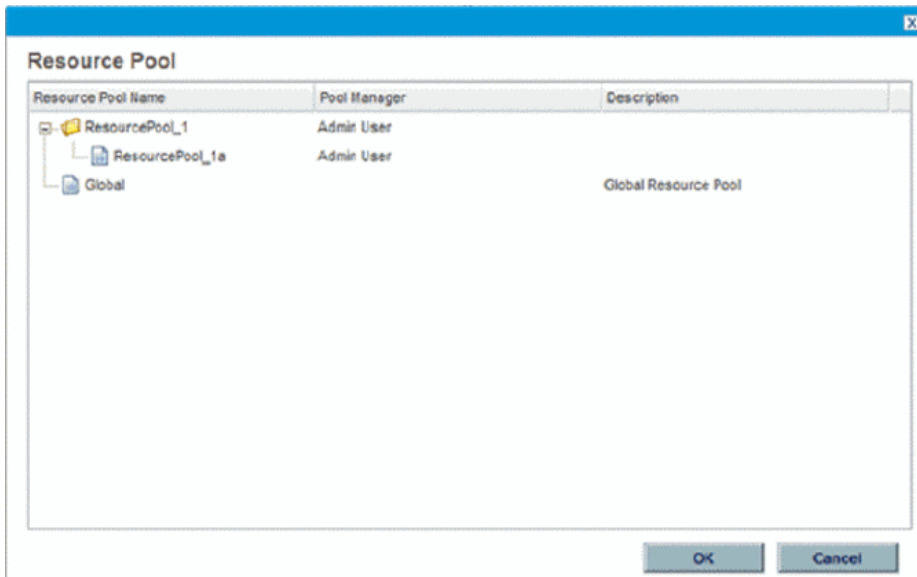
Hierarchical selection must be enabled by the system administrator and is only available for the Auto Complete List validation.

Upgrade Considerations

Hierarchical selection can be enabled on upgraded Auto Complete List validations. By default, hierarchical selection is disabled.

Enabling Hierarchical Selection

Hierarchical selection can be enabled for Auto Complete List validations only.

To enable hierarchical selection:

1. Log on to PPM Center.

2. From the menu bar, select **Open > Administration > Open Workbench.**

   The PPM Workbench opens.

3. On the shortcut bar, click **Configuration > Validations.**

4. From the Validations Workbench,

If you are creating a new validation, click **New Validation.** Enter the required fields (Name and Reference Code). For Component Type, select **Auto Complete List.** For Validation By, select **SQL – Custom.**

If you are updating a validation, click **List,** and then find and double-click on the validation.

5. Select the **Enable Hierarchical Selection?** checkbox. The Hierarchical Display tab is enabled.

   Note: If you cannot select the **Enable Hierarchical Selection?** checkbox, hierarchical selection cannot be enabled for the validation.

6. From the Hierarchical Display tab, set the following fields:

Field	Description
Is folder selectable?	In a hierarchical selection, a parent node may be a container for selectable values or the parent node may be a selectable value. Enable this checkbox if the parent node is a selectable value. Selecting this checkbox allows the parent node value to be selected as the field value. Disable this checkbox if the parent node is only a container or folder. Disabling this checkbox does not allow the parent node value to be selected as a field value.
SQL	Provide the Select statement that queries the database information. An ending semicolon is not necessary. See "Hierarchical Display Tab Query Example" below for more information.

7. Enter any other information for the validation.

8. Select **OK.**

If a field uses this validation, the hierarchical selection icon ( ) appears next to the field.

Hierarchical Display Tab Query Example

A basic SQL query used in the Hierarchical Display tab consists of the following:

```
Select <PrimaryIDColumn> id,
<ParentIDColumn> parentId,
<FolderDefinition> isFolder,
<BusinessKeyColumn> name,
<DisplayInfo_1>, <DisplayInfo_2>, ... , <DisplayInfo_n>
```

```
from <Table_1>, <Table_2>, ... , <Table_n>
where <Condition_1> and <Condition_2> and ... and <Condition_n> and NVL
(<ParentIDColumn>,0) = :parentId
```

where

<PrimaryIDColumn>	Required. Column name whose data type is numeric. Identifies the object that is displayed in the hierarchical selection list, such as a resource pool (`rpl.resource_pool_id`) or skill (`sk.skill_id`).
<ParentIDColumn>	Required. Column name whose data type is numeric and is a parent. Identifies the parent of the selected object such as a parent resource pool (`rpl.parent_resource_pool_id`) or parent skill (`sk.parent_skill_id`). For detailed steps on how to create skills with hierarchical selection, see "Hierarchical Display Tab Query Example" on the previous page.
<FolderDefinition>	Required. A column name (such as a flag) or sub-query that determines if the object is a folder. The value or result must be either `Y' or `N.' An example of a column name is: `sk.is_skill_folder_flag` An example of a sub-query is: `decode(sign((select count (rpl2.resource_pool_id) from RSC_RESOURCE_POOLS rpl2 where rpl2.enabled_flag='Y' and rpl2.parent_resource_pool_id= rpl.resource_pool_id)),1,'Y','N')`
<BusinessKeyColumn>	Required. The user-defined name of the object that is displayed in the hierarchical selection list.
<DisplayInfo_1>, ... , <DisplayInfo_n>	Optional. Additional information about the object to be displayed in the hierarchical selection list.
<Table_1>, ... , <Table_n>	Required. The name of the table from which to query. For example, RSC_ RESOURCE_POOLS or RSC_SKILLS.
<Condition_1> and ... and *<Condition_n>*	Conditions to be met in order for the object to be selected to display in the hierarchical selection list. At a minimum, you must include the following condition: **NVL (***<ParentIDColumn>***,**0) = :parentId

The following is an example of a hierarchical display query that could be used for a resource pool validation:

```
select rpl.resource_pool_id id,

rpl.parent_resource_pool_id parentId,
```

```
decode(sign((select count(rpl2.resource_pool_id) from
RSC_RESOURCE_POOLS rpl2 where rpl2.enabled_flag='Y' and rpl2.parent_resource_pool_
id=rpl.resource_pool_id)),1,'Y','N') isFolder,

rpl.resource_pool_name name,

krsc_utils.get_pool_managers_list(rpl.resource_pool_id), rpl.description

from RSC_RESOURCE_POOLS rpl

where rpl.enabled_flag='Y' and
NVL(rpl.parent_resource_pool_id, 0) = :parentId
```

Create Skills with Hierarchical Selection

To create skills with hierarchical selection:

1. Open createSkills Web service to create a parent skill and set **folder** to true.

2. Create some sub-skills and set **parent name** to the name of the parent skill you created.

> **Note:** When a skill is created by the createSkills web service, whatever it is defined a folder or not, you cannot change it by the upddateSkills web service.

Currently, creating skills with hierarchical selection from the standard interface is not supported. To create those skills, you must use the Web service. For more information about Web Services, see *Web Services Programmer's Guide*.

Using Hierarchical Selection

Hierarchical selection is enabled for a field when the hierarchical selection icon ( ) appears next to the field. Clicking the hierarchical selection icon opens a list of selectable field values in the form of a hierarchy or tree.

If the field allows only one value to be entered, you can choose only one value from the hierarchical selection. If a value exists in the field, the selected value replaces the existing value.

If the field allows more than one value to be entered, you can choose one or more values from the hierarchical selection. If a value exists in the field, the selected values are appended to the existing value.

Setting Default Time Period Views

Staffing profiles and resource pools allow you to choose how you view the following information:

- Time periods

  - Years

  - Quarters

  - Months

  - Weeks

- Totals per resource

  - Hours

  - Full time equivalents (FTEs)

  - Person days

You can configure system-wide default settings for these options by altering the appropriate parameters in the `server.conf` file on the PPM Server. "Table 2-2. server.conf parameters for default time period views" below lists the parameters in the `server.conf` file that determine these default values.

Table 2-2. server.conf parameters for default time period views

Parameter	Description	Default Value
RM_DEFAULT_ PERIOD_TYPE	Determines the default period type displayed in staffing profiles and resource pools. Possible values: **quarter, month, week, year**	month
RM_DEFAULT_ EFFORT_TYPE	Determines the default effort type displayed in staffing profiles and resource pools. Possible values: **fte, hours, person_days**	fte
RM_ALLOWED_ EFFORT_TYPES	Lists the possible effort types displayed in staffing profiles and resource pools. Possible values: **fte, hours, person_days**	fte, person_ days

For more detailed information on configuring the `server.conf` file, see the *Installation and Administration Guide.*

Setting Up Roles

Resource Management allows you to define roles and associate them with resources. Roles are associated with staffing profile positions as well as tasks on work plans, and help to clearly describe resource requirements. These roles can drive cost rates used when computing labor costs for tasks or staffing profile positions. (For information about staffing profile positions, see "Tracking Demand with Staffing Profiles" on page 70.)

> **Note:** Only users with the Resource Mgmt: Edit All Roles access grant can add or modify roles.

Creating a New Role

To add a new role:

1. Log on to PPM Center.

2. Select **Create > Administrative > Role** from the menu bar.

   The Create a New Role page opens.

3. Type a **Role Name** and complete any optional fields you want.

4. Click **Create.**

   The role is created and the Browse Roles page opens.

   Browse Roles

   📄 Export to Excel

Select a Role		Showing 1 to 11 of 11
Name	**Description**	**Enabled**
pm		Yes
test33	test role	Yes
Application Designer	Application Designer	Yes
Application Developer	Application Develope...	Yes
Trainer	Trainer	Yes
Manager	Manager	Yes
QA	QA	Yes
Support Engineer	Support Engineer	Yes
Database Admin	Admin	Yes
Developer - Database	Dev	Yes
System Admin	Admin	Yes
		Showing 1 to 11 of 11

   You can now add this role to any resource.

> **Note:** The definition language of the role is set to your session language. The role can only be modified in its definition language. See the *Multilingual User Interface Guide* for more information.

Modifying Existing Roles

> **Note:** If the role's definition language differs from your session language, you cannot modify the role. Click **Why?** in the header and see the *Multilingual User Interface Guide* for more information.

To modify an existing role:

1. Log on to PPM Center.

2. Select **Search > Administrative > Roles** from the menu bar.

3. From the Browse Roles page, click on a role **Name** to open its Modify Role page.

4. Make any necessary changes and click **Save.**

Deleting Roles

To delete a role:

1. Log on to PPM Center.

2. Select **Search > Administrative > Roles** from the menu bar.

3. From the Browse Roles page, click on a role **Name** to open its Modify Role page.

4. Click **Delete.**

   The role is deleted. Roles possessed by resources or used in historical work items cannot be deleted. These roles can be disabled.

Setting Up Skills

Resource Management allows you to define skills and associate them with resources. To better describe resource requirements, skills are associated with staffing profile positions as well as work plan tasks. (For information about staffing profile positions, see "Tracking Demand with Staffing Profiles" on page 70.)

> **Note:** Only users with the Resource Mgmt: Edit All Skills access grant can add or modify skills. Therefore, a user cannot add to or modify his or her own skills unless that user has the Edit All Skills access grant.

Creating a New Skill

To add a new skill:

1. Log on to PPM Center.

2. Select **Create > Administrative > Skill** from the menu bar.

   The Create a New Skill page opens.

   Create a New Skill

*Name:	
Category:	▼
Description:	
Enabled:	● Yes ○ No

   Create   Cancel

3. Type a **Skill Name** and complete any optional fields you want.

4. Click **Create.** The skill is created and The Browse Skills page opens.

   You can now add this skill to any resource.

   > **Note:** The definition language of the skill is set to your session language. The skill can only be modified in its definition language. See the *Multilingual User Interface Guide* for more information.

Modifying Existing Skills

To modify an existing skill:

1. Log on to PPM Center.

2. Select **Search > Administrative > Skills** from the menu bar. The Browse Skills page opens.

3. Click on a skill **Name** to open its Modify Skill page.

   > **Note:** If the skill's definition language differs from your session language, you cannot modify the skill. Click **Why?** in the header and see the *Multilingual User Interface Guide* for more information.

4. Make any necessary changes and click **Save.**

Deleting Skills

To delete a skill:

1. Log on to PPM Center.

2. Select **Search > Administrative > Skills** from the menu bar.

3. From the Browse Skills page, click on a skill **Name** to open its Modify Skill page.

4. Click **Delete Skill.**

   The skill is deleted. Skills possessed by resources or used in historical work items cannot be deleted. These skills can be disabled.

Setting Up a Regional Calendar

A regional calendar sets the default working and nonworking days for an organization unit, resource, or project. Individual resources' work schedules can be set using individual resource calendars.

To set up a regional calendar:

1. Log on to PPM Center.

2. Select **Search > Administrative > Regional Calendars** from the menu bar.

   The Manage Regional Calendars page opens.

You can expand or narrow down the list of regional calendars by providing search criteria into the filter fields and clicking **Search.**

3. Click the name of the regional calendar you wish to modify.

   The Modify Regional Calendar *<Name>* page opens.

4. Select a day or range of days by using `Shift + click` or `Ctrl + click`.

5. Click the **Non-Working day** option to mark those days as non-working.

   Optionally, select a **Reason** and type a **Description.**

6. Click **Save.**

   The regional calendar is set. Non-working days will appear as non-working days for resources and organization units using the regional calendar.

Specifying System Default Regional Calendar

The System Default Regional Calendar is used for the scheduling of request work items. All other entities must select a region or inherit one, and thus use the regional calendar set for that region.

There can be only one System Default Regional Calendar, which is set during installation or upgrade of the PPM Center. This setting can be changed if needed.

To set the System Default Regional Calendar:

1. Log on to PPM Center.

2. Select **Open > Administration > Regions > Set System Default Regional Calendar** from the menu bar.

   The Set System Default Regional Calendar page opens, displaying all enabled regional calendars. The current System Default Regional Calendar is selected.

3. Select the desired regional calendar and click **Done.**

Setting Up Regions

Besides setting regional calendars for resources, regions also govern currency display settings. For details on creating and modifying regions, see the *Financial Management User's Guide.*

Setting Up Request Work Item Fields

If you have licenses for Demand Management, and you wish to include requests as work items to be tracked using Resource Management, associate work item fields with your request types. Work item fields include the following (for a list of all request work item fields, see "Table 5-1. Request work item fields" on page 178):

- Scheduled Start Date

- Scheduled Finish Date

- Scheduled Duration

- Scheduled Effort

To insert work item fields into a request type, you must associate the work item field group with the request header type being used by the request type. "Figure 2-2. Work item field group in a request

illustrates the relationship between the work item field group, a request header type, and a request type.

Figure 2-2. Work item field group in a request type
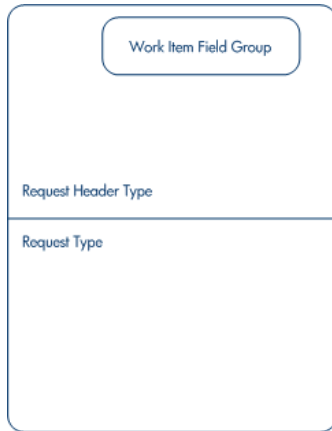
> **Note:** To avoid associating work item fields with a request you don't want to track, use a one-to-one mapping between the request header type and the request type.
>
> When Field Groups are associated with existing request types (through the request header type definition), tables in the PPM Center database are updated to handle this new configuration. Because of the scope of database changes, you should re-run the Database Statistics on your database. Instructions for this are included in the *Installation and Administration Guide.* Contact your system administrator for help with this procedure.

To associate work item fields with a request type:

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 **Demand Mgmt > Request Header Types.**

   The Request Header Type Workbench opens.
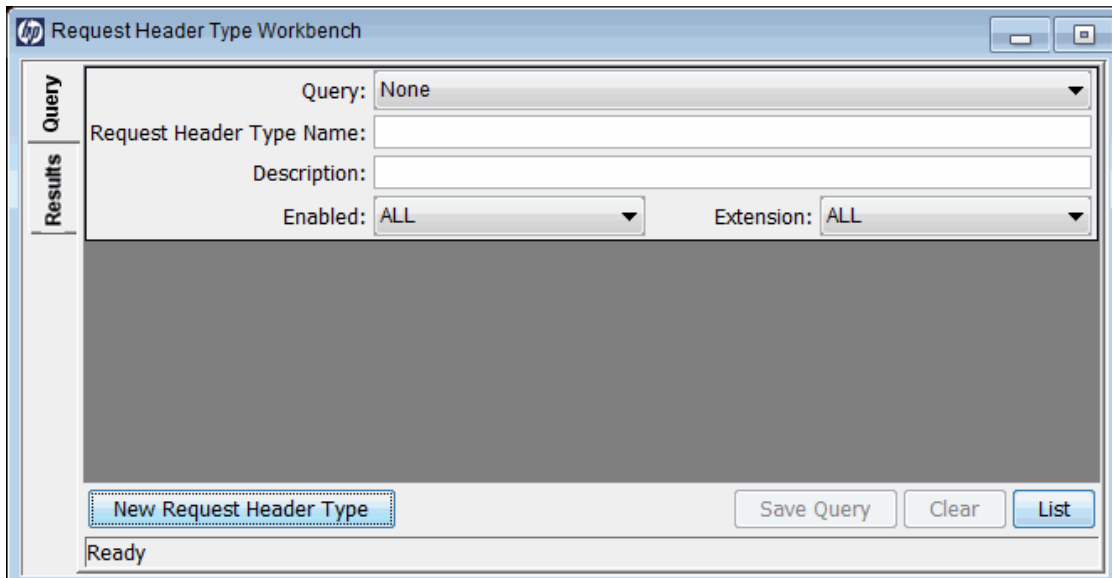
4. Click **New Request Header Type.**

   The Request Header Type window opens to the **Fields** tab.
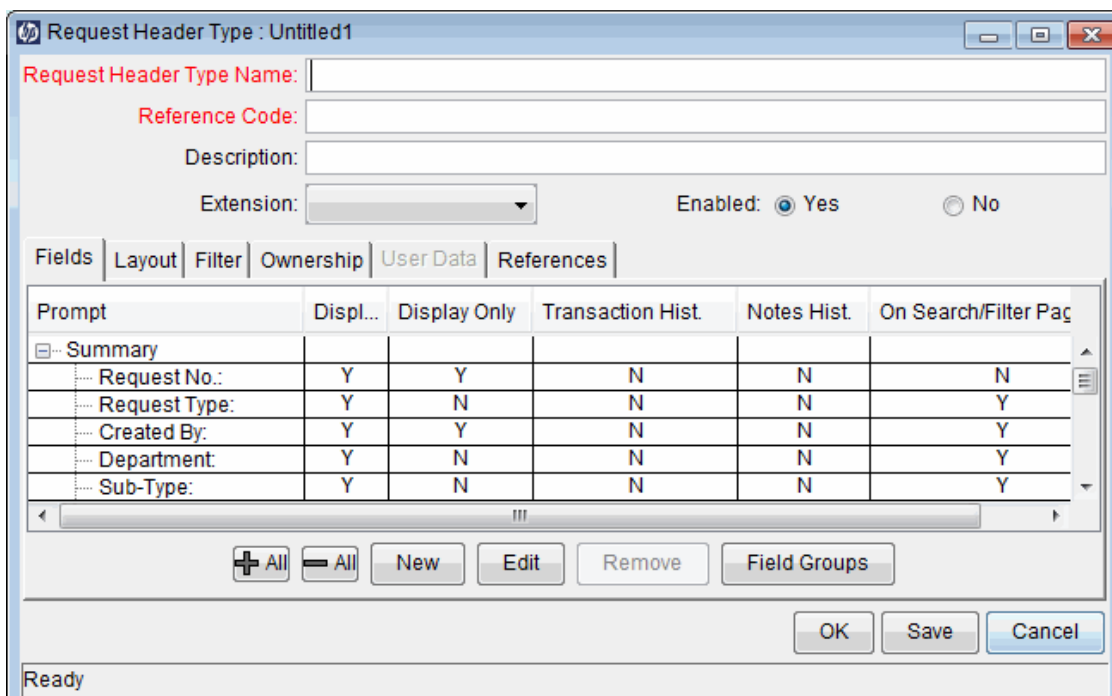
5. Click **Field Groups.**

   The Field Groups window opens.
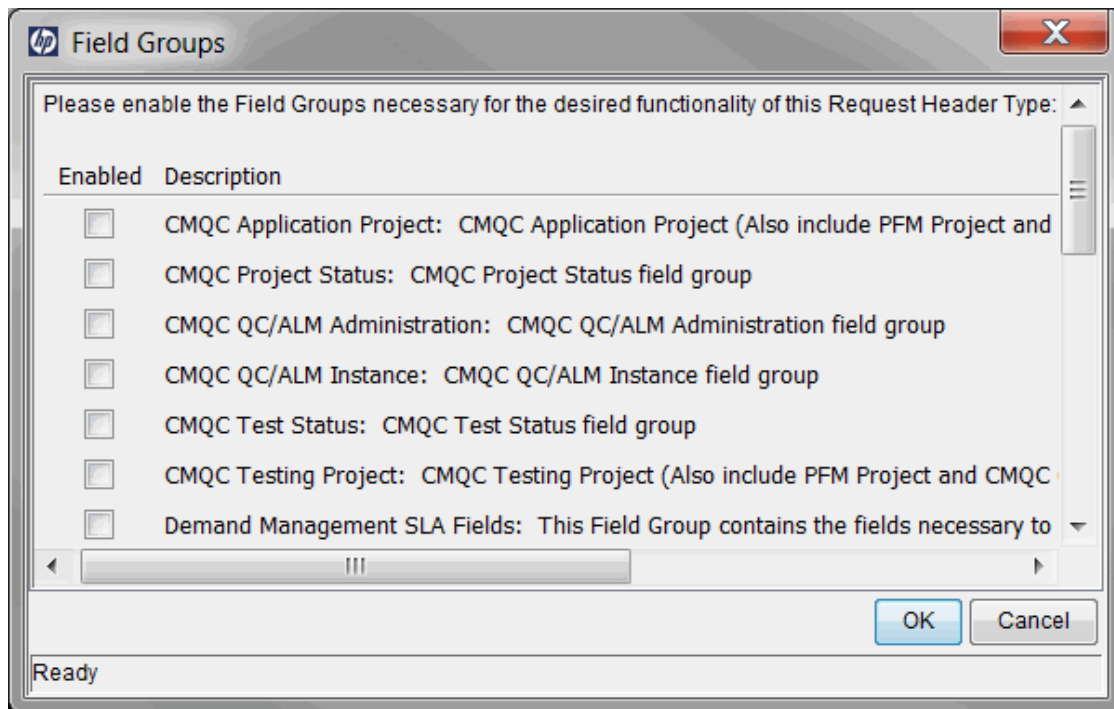
Note: Depending on the PPM Center products your site has licensed, the Field Groups window may display a different set of options.

6. Select the **Enabled** checkbox for the **Work Item Fields** option and click **OK.**

    The work item fields are now associated with the request header type.

7. Provide any other required or optional information.

8. (Optional) Modify other existing request header type fields or create new ones as you see fit. See the *Demand Management Configuration Guide* for more detailed information on modifying request header type fields.

9. Save the request header type.

10. Click the Request Types screen and open the request type in which you wish to include work item fields.

11. In the Request Header Type field, specify the request header type containing the work item fields.

12. (Optional) Modify the request type as you see fit, including setting field logic and security. See the *Demand Management Configuration Guide* for more detailed information on modifying request type fields.

13. Save the request type.

The request type now has work item fields associated with it and can be tracked using Resource Management.

> **Note:** Certain request work item fields are interdependent, meaning one field might be updated when another field's value is changed. Demand Management field-level security allows you to make request fields invisible to certain users or sets of users.
>
> Resource Management for requests may not work correctly if you make an interdependent request work item field invisible to a user. Any user who will be making use of request work item fields must have at least View access to all of them. Edit access to all work item fields is not necessary unless the user will be changing work item field values.

Setting Up Resource Pools

Resource pools enable resource planners to designate future resource capacity, arranged by role or organization unit. For a more detailed discussion of resource pools and their role in Resource Management, see "Using Resource Management for Capacity Planning" on page 54.

HP recommends that you set up resource pools before creating any staffing profiles. For detailed instructions on setting up resource pools, see "Planning Capacity with Resource Pools" on page 55.

Setting Up Default Notifications for Staffing Profiles and Resource Pools

Notifications allow resource pool managers, staffing profile managers, and resources to be notified (by email) when certain events occur, such as when resource requests are sent, forwarded, or rejected, and

resources are allocated. Default notifications are the notifications that are automatically set up when a staffing profile or resource pool is created.

You must set parameters in `server.conf` and set up the notification service to successfully send email notifications. See "Setting Notification Parameters" on page 34 and "Setting Up Notification Service" on page 34 for more details.

> **Note:** If the resource pool manager and the staffing profile manager are the same person, notifications are not sent. If a resource pool manager is one of a group of staffing profile managers, only the other staffing profile managers receive notifications.

Default Staffing Profile Notifications

Default staffing profile notifications are set to notify a staffing profile manager when a resource request is rejected, a resource is committed, a committed resource changes to soft-booked or is removed, and when the start date, end date or FTEs of a committed resource is adjusted. Optionally, you can also set the default staffing profile notifications to notify a staffing profile manager when a resource request message is forwarded, or when soft-booked resource allocations are affected.

You can modify the default notifications or you can modify the notifications of a specific staffing profile (see "Modifying Staffing Profile Notifications" on page 105 for more information). Modifying default notifications does not affect the notifications of existing staffing profiles.

Default Resource Pool Notifications

Default resource pool notifications are set to notify the resource pool manager when resource requests are sent or forwarded to this resource pool. Optionally, you can also set default resource pool notifications to notify the resources when the forecast demand is changed, or when their committed or soft-booked allocations are affected, or to notify resource manager when a resource's committed allocation is changed.

You can modify the default notifications or you can modify the notifications of a specific resource pool (see "Modifying Resource Pool Notifications" on page 62 for more information). Modifying default notifications does not affect the notifications of existing resource pools.

You can temporarily disable notification to a resource when you make an assignment. See "Disabling Notification to a Resource" on page 63 for more information.

Modifying Default Notifications

You must have Edit All Staffing Profiles or Edit All Resource Pools access grants in order to modify default notifications.

To modify default notifications for staffing profiles and resource pools:

1. Log on to PPM Center.

2. From the menu bar, select **Open > Administration > Resource Management > Configure Notification Defaults.**

3. Select or unselect the checkbox for the level of notification you desire.

4. Click **Save.**

Grouping Notifications

Notifications can be sent out immediately or, if they are to be sent to the same recipient, notifications can be grouped in a single email. You can configure this delivery option by setting the RM_ NOTIFICATION_INTERVAL_MINUTES parameter in the server.conf file (for more information on configuring the server.conf file, see the *Installation and Administration Guide*). The RM_ NOTIFICATION_INTERVAL_MINUTES parameter defines how often, in minutes, notification emails are sent.

To send out notifications immediately, set the RM_NOTIFICATION_INTERVAL_MINUTES parameter to 1.

To group notifications for a single recipient in one email, set the RM_NOTIFICATION_INTERVAL_ MINUTES parameter to greater than 1. During the defined time interval, notifications to a single recipient are grouped. When the time interval ends, one email with the grouped notifications is sent to the recipient.

Setting Notification Parameters

The following parameters in the `server.conf` file must be configured in order to send notifications:

Table 2-3. server.conf parameters for notifications

Parameter	Description	Default and Valid Values
EMAIL_ NOTIFICATION_ SENDER	Email address of the default sender of email notifications.	Example `mgr@ppm.com`
SMTP_SERVER	Host name of the SMTP-compliant mail server that acts as the gateway for email notifications.	Example `mailserver.mydomain.com`

For more detailed information on configuring the `server.conf file`, see the *Installation and Administration Guide*.

Setting Up Notification Service

The notification service for resource pools and staffing profiles is governed by the RM Notification Service on the PPM Server. "Table 2-4. Notification service for resource pools and staffing profiles" below describes this service.

Table 2-4. Notification service for resource pools and staffing profiles

Service	Description	Default Values
RM Notification Service	Determines if notifications are sent and how often they are sent. If **Schedule** is set to 1 minute, notifications are sent immediately. If **Schedule** is set to an interval greater than 1 minute, notifications sent to the same recipient during that interval are grouped into a single email.	Status: Disabled Schedule Type: Simple Schedule: 1 hour

To modify the service, do the following:

1. From the menu bar in the standard interface, select **Open > Administration > Schedule Services.**

2. Click on the **RM Notification Service.**

3. Edit the Status, Schedule Type, and Schedule. See the online help for more information about the

Schedule Type.

4. Click **Save.**

Chapter 3: Modeling Your Organization

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Overview of Modeling Your Organization

This chapter discusses the various attributes of resources and organization units, and discusses how to set them up, among them:

- Configuring information for individual resources

  - Resource attributes like name, phone number, email address

  - Calendar information for each resource, including planned vacation days

  - Resource security settings that determine what the resource can view and edit

- Setting up organization units

  - Placing resources inside organization units

  - Setting organization units' relationships to each other

  - Determining whether an organization unit's membership is linked to a particular security group

  - Determining whether an organization unit is primary or matrixed

Setting Up a Resource

In order to use Resource Management, you must first define your resources. Resources can have many attributes, including:

- First and last name

- Phone number

- Email address

- Direct manager

- Department

- Role

- Skills

- Region

- Time sheet approver

"Table 3-1. Key resource attributes" below describes resource attributes that are especially useful. To take full advantage of Resource Management functionality, these attributes should be defined for every resource.

Table 3-1. Key resource attributes

Attribute	Utilization
Role	Used in resource booking and to build staffing profiles and resource pools (see "Using Resource Management for Capacity Planning" on page 54). Roles can be user responsibilities that help to describe resource requirements. See "Setting Up Roles" on page 21 for more detailed information.
Skills	Used to further describe resource requirements for tasks and staffing profile positions beyond the role description such as an ability or area of knowledge. See "Setting Up Skills" on page 23 for more detailed information.
Region	Used to determine the resource's regional calendar and currency settings. A resource can inherit their region setting from their primary organization unit, or a region can be specified directly. For more information on regions and regional calendars, see "Setting Up a Regional Calendar" on page 24. For more information on currency settings, see the *Financial Management User's Guide.*

Resources map to PPM Center users on a one-to-one basis.

> **Note:** A new resource cannot be created from scratch. A new user must be defined, and then his or her resource attributes subsequently configured.
>
> The system takes into account users' start and end dates in resource capacity calculations and visualizations. For example, a user who is set to leave the company at a certain date cannot be assigned to a task or staffing profile afterward. Likewise, users starting work in the future can be selected for relevant entities scheduled to be active in the future.
>
> The system also takes into account a resource's participation in a resource pool for resource capacity calculations and visualizations. If the resource belongs to one or more resource pools, the capacity is non-zero.
>
> While users are created and maintained from the PPM Workbench, resource information is set in the standard interface.

Setting Resource Attributes

General resource attributes are set in the standard interface.

> **Note:** Resource cost rates are set using cost rate rules. See the *Financial Management User's Guide* for more detailed information on cost rate rules and their configuration.

To configure attributes for a resource:

1. Log on to PPM Center.

2. Select **Search > Administrative > Resources** from the menu bar.

   The Search Resources page opens.

3. Specify any search criteria in the Search for Resources section and click **Search.**

   The Search Resources page displays the results of your search.

Note: Click **Export to Excel** if you want to export resources on this page to a Microsoft Excel spreadsheet. You can configure the parameter EXCEL_EXPORT_RESOURCES_LIMIT in the Administration Console to specify the maximum number of resources that can be exported. By default, the value is 3000. Consider the performance objectives when you configure the parameter.

4. Click on a resource's **Username** to open their Modify Resource page.

   The Modify Resource page opens to the **General** tab.

5. Provide data for any desired resource attributes.

    When the financial summary settings are set to calculate forecasted labor costs from the staffing profile, the cost category is used to categorize costs of work allocations.

    The primary organization unit the resource belongs to appears in the **Organization Information** section.

    To add a role and skills, click the **Role/Skill** tab.

    > **Note:** If a resource is assigned to a position and you change the resurce's full name, the change is reflected in the Staffing Profile page, but *not* reflected in the Resource Forecast Cost chart of the **Cost** tab on the Project Overview page.

6. Click **Save** to save all changes to the resource.

7. (Optional) If you would like to take a look at the history of changes made to the resource, you can click the **View Audit Trail** button in the upper-right corner of the page.

    The Resource Audit Trail tracks changes to the following cost-related attributes of a resource:

    - Resource category

    - Org unit

- ○ Department

- ○ Region

- ○ Role

> **Note:** The resource will use the regional calendar and currency configured for its selected region.

Setting Up the Resource Calendar

A resource's calendar, which specifies working and non-working days for that particular resource, is configured in the standard interface. Resources that are part of a security group with the **Edit My Calendar** access grant can edit their own calendars.

To set a resource's calendar:

1. Open the resource's Modify Resource page as described in "Setting Resource Attributes" on page 38.

2. Open the resource's calendar by clicking the **Calendar** tab of the Modify Resource page.

3. Select a day or range of days by using `Shift + click` or `Ctrl+ click.`

4. Choose the **Non-Working day** option to mark those days as non-working.

   Optionally, select a **Reason** and type a **Description.**

5. Click **Save.**

   The resource's calendar is set and will be used to calculate that resource's capacity in Resource Management visualizations.

> **Note:** By default, the resource calendar will inherit all the non-working days set in the regional calendar the resource uses.

Modifying Multiple Resources

You can modify attributes for multiple resources simultaneously. For example, you may want to associate a particular role or region with multiple resources without having to update each resource

individually.

To modify attributes for multiple resources simultaneously:

1. Log on to PPM Center.

2. Select **Search > Administrative > Resources** from the menu bar.

   The Search Resources page opens.

3. Specify any search criteria in the Search for Resources section and click **Search.**

   The Search Resources page changes to display the results of your search.

4. Select the checkboxes next to the **Username** of each resource you want to modify and click **Modify Checked Resources.**

   The Resource Mass Update page opens.

5. Provide data for any desired resource attributes.

6. Click **Save** to save all changes to the resources.

Resource Security

Resource information can have various layers of security applied to it. Depending on the access grants a user has, that user can view his own resource information, view information on other resources, edit information for resources he manages, or edit all resources in the system. These access grants are also needed to use the Analyze Assignment Load visualizations. "Table 3-2. Resource information access grants" on the next page describes these access grants in more detail.

Table 3-2. Resource information access grants

Access Grant	Description
View my own personal resource info only	The user can only view his own resource information.
View all resources	The user can only view information for all resources in the system.
Edit only resources that I manage	The user can view and edit information for resources that list them as **Direct Manager.**
Edit all resources	The user can view and edit information for all resources in the system.
Edit My Calendar	The user can edit his own resource calendar.
Promise Unspecified Resources	The user can add, assign, modify and remove promised allocations. The ENABLE_PROMISE_ RESOURCE_ALLOCATION parameter must be enabled to view promised allocations.
View Only Resources That I Manage in My Resource Pool[a]	The user can view the resource profiles for resources in the resource pools (including child pools) that he or she manages. When the user opens the View Resource page, all information is read-only.
View Only Resources That I Manage as a Direct Manager[a]	The user can view the resource profiles for resources that he or she directly manages.When the user opens the View Resource page, all information is read-only.
a. Provides only the view access to resource profiles. Designed for a scenario where the resource information is imported from an external system. By creating users (resource pool mangers and direct managers) with these access grants, you can maintain the data integrity between PPM Center the source of the resource information.	

Access grants are linked to a user through their security group membership. For more information on user security, see the *Security Model Guide and Reference.*

Modeling Organization Units

Resources can be members of organization units, which can stand on their own or be arranged in relation to one another to form an organization model. "Figure 3-1. Sample organization model" on the next page illustrates a sample organization model.

The organization model is visible at all times from the View Organization Model page. To open this page, select **Open > Resource Management > Organization Model > Browse the Org Model** from the menu bar.

Figure 3-1. Sample organization model
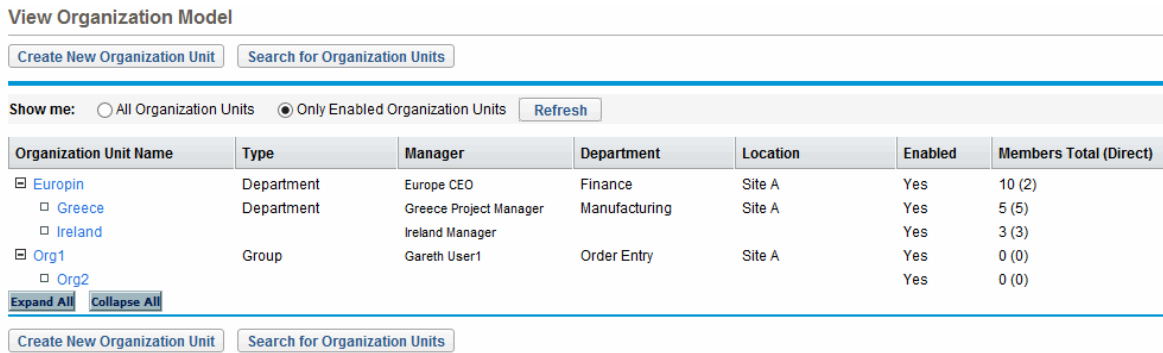
The **Expand All** and **Collapse All** buttons, used to expand and collapse all organization units on this page, are available. If your organization is large, selecting these buttons causes slow performance. If you want to hide these buttons, set the RM_ENABLE_ORG_VIEW_EXPAND_ALL `server.conf` parameter to `false`. For more information, see *Installation and Administration Guide*.

There are two kinds of organization units:

- **Primary.** Resources can only belong to one primary organization unit. If set to inherit their region setting from their parent organization unit, a resource will inherit their primary organization unit's region. Only primary organization units can be linked to resource pools (see "Planning Capacity with Resource Pools" on page 55 for more information).

- **Matrix.** Made up of members from primary organization units, matrix organization units do not determine region settings for their resources.

An organization unit of one type can be converted into the other. See "Converting Organization Unit Type" on page 51 for more information.

> **Note:** Every resource needs to be a member of one and only one primary organization unit. Resources that are not assigned to a primary organization unit become part of a default "Unspecified" organization unit and inherit the region assigned to it.

You can show the assignment load for all resources in an organization unit with the Analyze Assignment Load portlet. "Figure 3-2. Analyze Assignment Load portlet" on the next page shows the Analyze Assignment Load portlet for an organization unit whose members are currently underutilized. The total capacity for the organization unit is calculated from each resource's calendar and workload capacity.

Figure 3-2. Analyze Assignment Load portlet
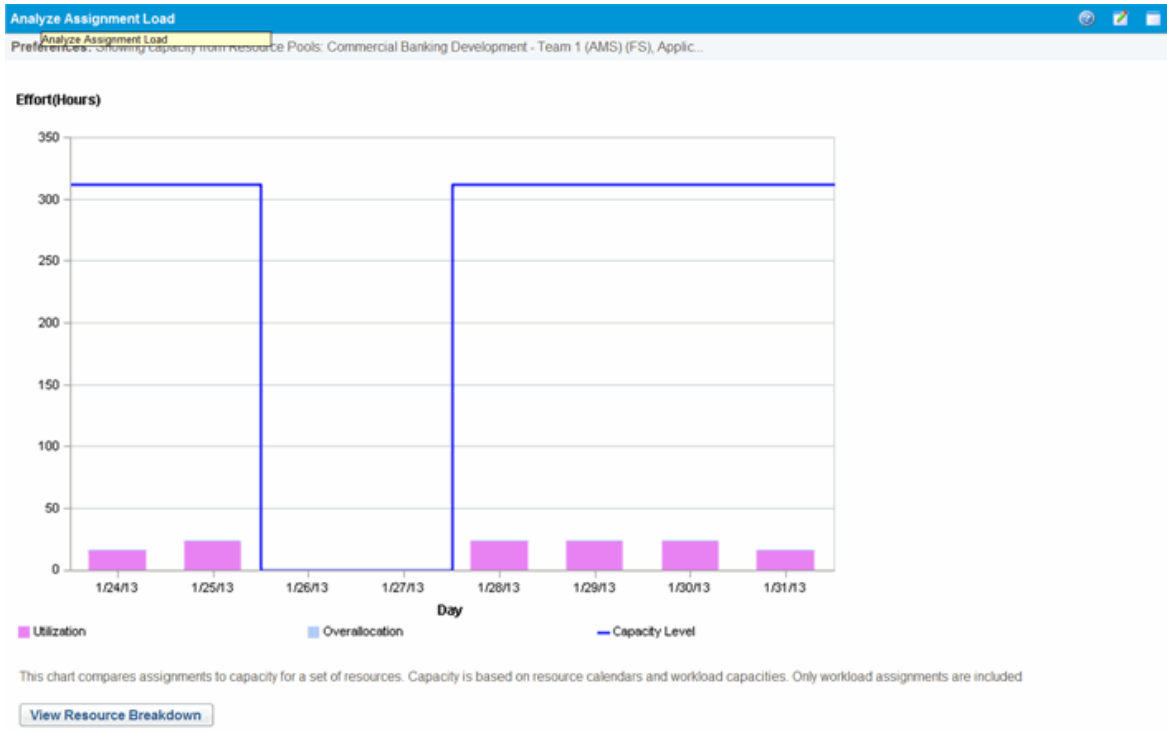
Creating an Organization Unit

To create an organization unit:

1. Log on to PPM Center.

2. Select **Create > Administrative > Org Unit** from the menu bar.

   The Create a New Organization Unit page opens.

3. Provide the organization unit **Name** and any other desired information.

   a. If necessary, select a **Parent Org Unit.**

   b. Determine whether to **Inherit Region from Parent** or select from the **Use this Region** field for the organization unit.

   c. From the **This Organization Unit is a** field, select **Primary** or **Matrix.**

4. Add users to the organization unit by selecting a user from the **Resource** field and clicking **Add.**

   The Create a New Organization Unit page reloads with the selected users displayed in the **Direct Members** list.

5. Click **Create** to create the organization unit.

   The View Organization Unit page opens, displaying the newly created organization unit.
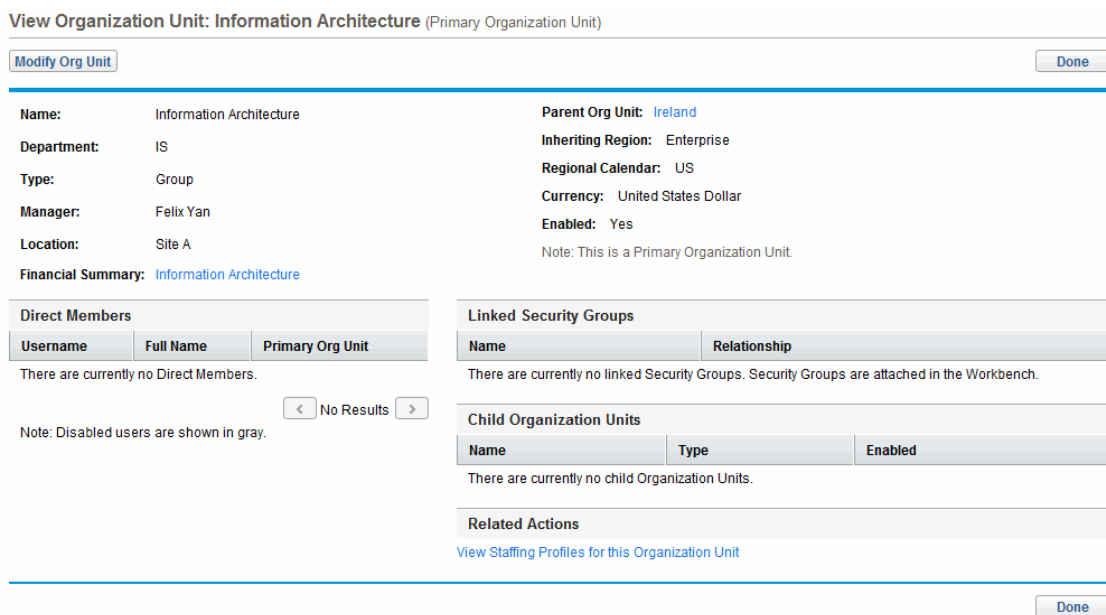
Building the Organization Model

The organization model is a hierarchy of organization units. "Figure 3-3. Parent organization unit with two child units" below illustrates the terms used by Resource Management when defining the organization model.

Figure 3-3. Parent organization unit with two child units

An organization unit's parent is defined in its Modify or Create a New Organization Unit page. Use the **Parent Org Unit** field to set the organization unit's parent.

Figure 3-4. Top of Modify Organization Unit page
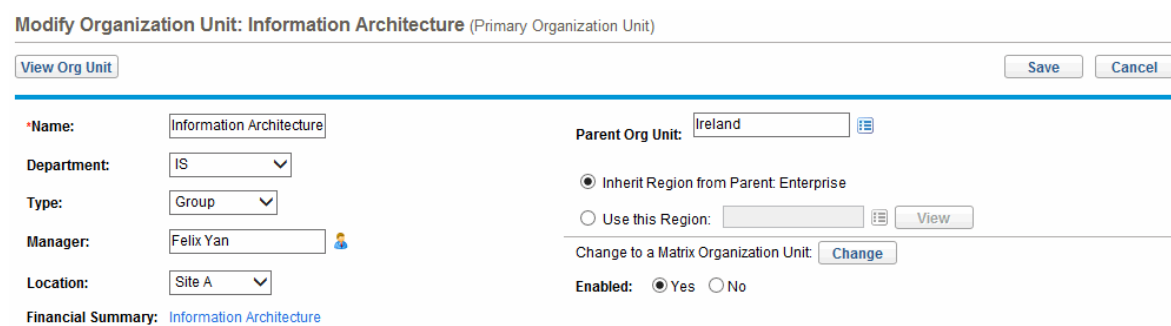
The Modify Organization Unit page also allows you to create a new child organization unit. Click **Create a New Child Org Unit** to create a new child organization unit in a new window.

Figure 3-5. Create a New Child Org Unit button
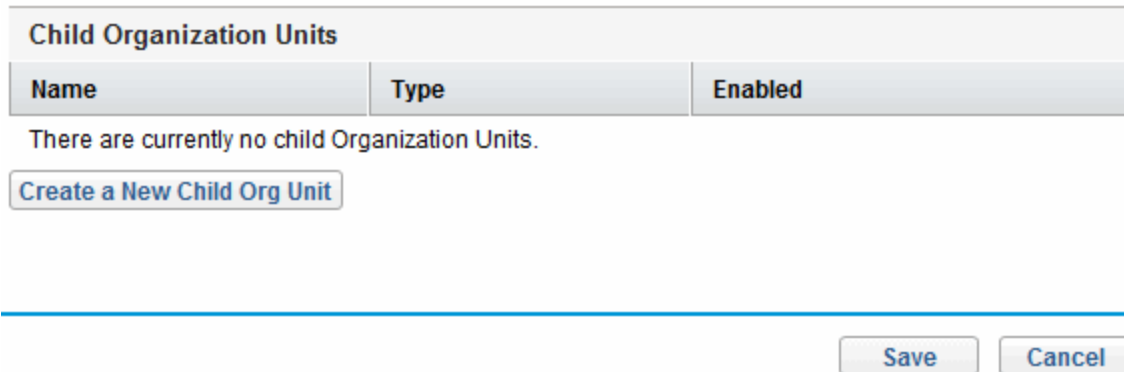
To reach an organization unit's Modify Organization Unit page:

1. Log on to PPM Center.

2. Selecting **Search > Administrative > Org Units** from the menu bar.

   The Modify Organization Units page opens.

3. Provide search criteria and click **Search.**

   The Modify Organization Units page changes to display the results of your search.

4. Click the name of the organization unit you wish to modify. The View Organization Unit page opens.

5. Click **Modify Org Unit.** The Modify Organization Unit page opens.

Linking Organization Units to Security Groups

Security groups can be linked to organization units. This can allow your security configuration to more accurately reflect your business needs, as well as supply a more convenient and intuitive way of adding or removing security from users by associating or dissociating them from organization units. Doing so also distributes the maintenance of security groups from PPM Center administrators to business users who actually manage organization units.

Figure 3-6. Security group membership determined by organization unit
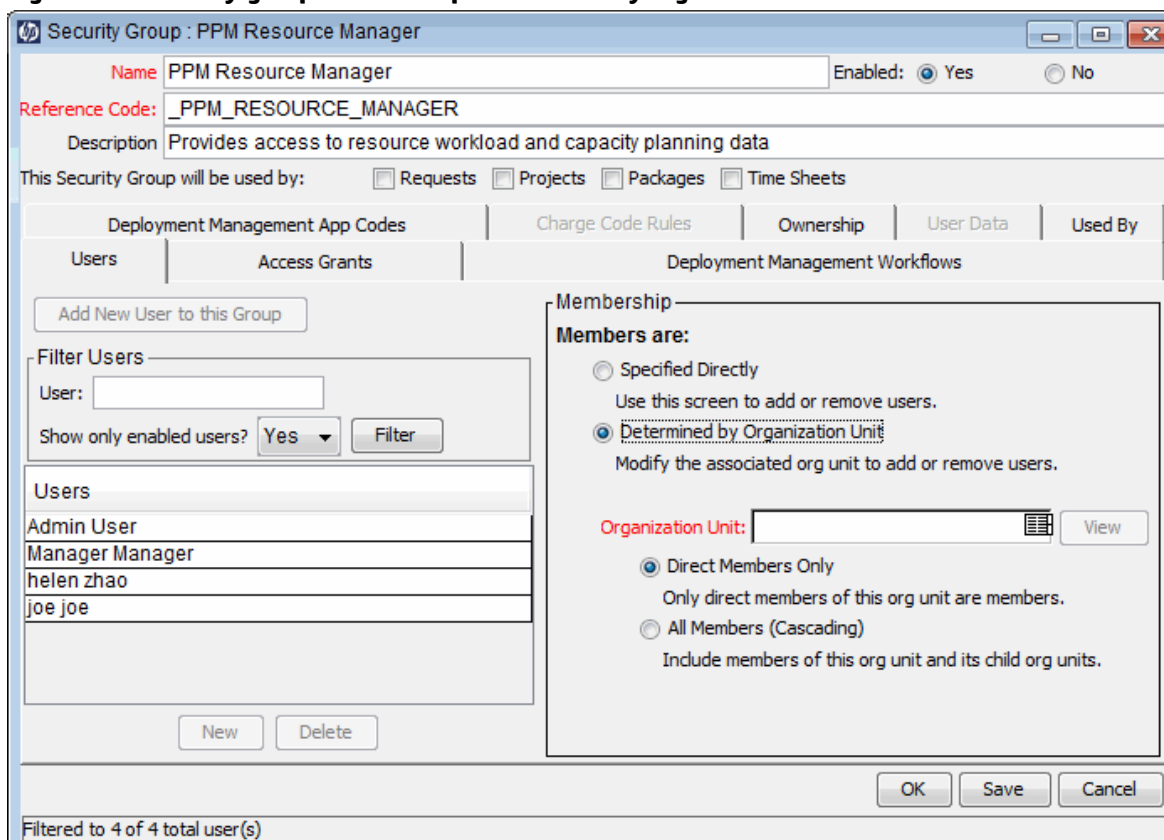
With Resource Management, security group membership can be determined in the following ways:

- **Specified Directly.** Security group members are specified in the **Users** tab of the Security Group window in the PPM Workbench. This method does not take the organization model into account.

- **Determined by Organization Unit.** The security group's member list is determined by the organization unit to which it is linked. An organization unit must be specified for this method to be used.

> **Note:** When a security group's members are determined by an organization unit, the organization unit's member list and the manager of the organization unit overwrites that of the security group.

If a security group's members are determined by its organization unit, an additional level of control is added:

- **Direct Members Only.** Only the direct members of the organization unit are part of the security group.

- **All Members (Cascading).** The direct members of the organization unit and all the members of all its child organization units are part of the security group.

To link a security group to an organization unit:

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 **Sys Admin > Security Groups.**

   The Security Group Workbench opens.
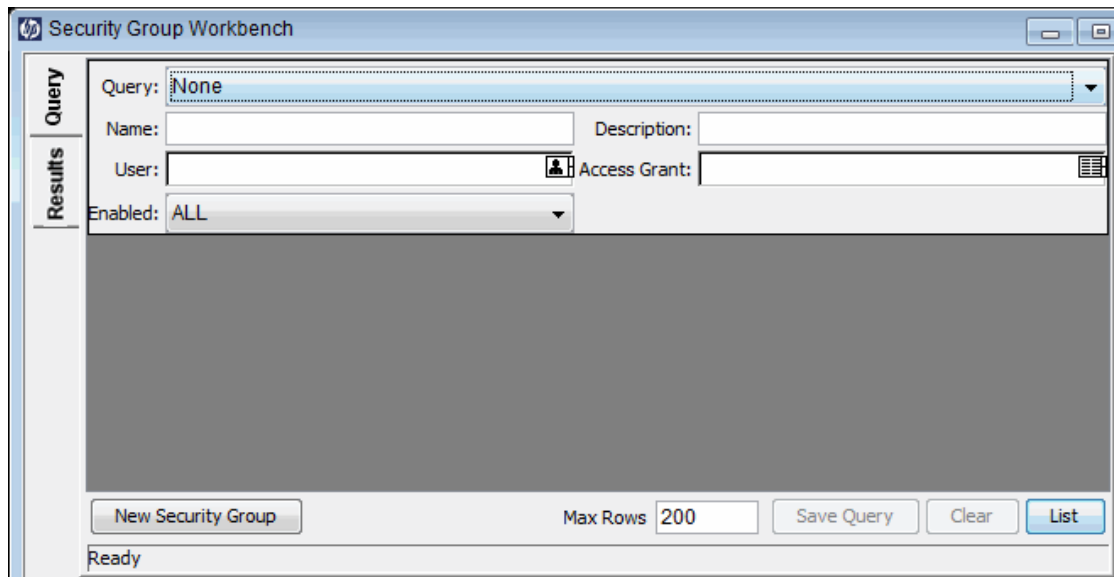
4. Create a new security group or search for and open an existing one.

   The Security Group window opens.

5. In the **Users** tab, select the **Determined by Organization Unit** option.

   A question dialog box opens, warning you that the security group's present member list will be overridden by the current members of the organization unit.

6. Click **Yes** to continue.
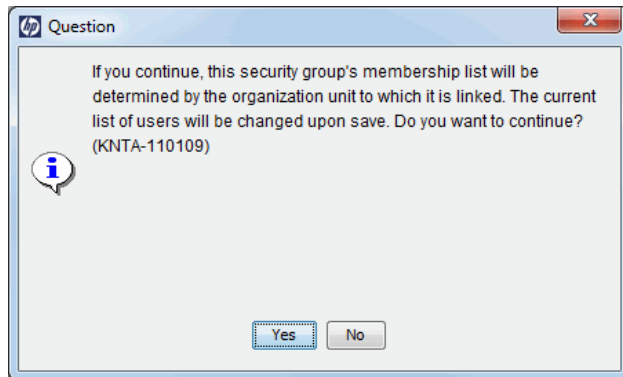
The **Organization Unit** auto-complete field becomes enabled and required.

7. Select an organization unit to be linked to the security group.

8. Specify either **Direct Members Only** or **All Members (Cascading)** for the security group's member list.

9. Click **Save.**

You will see the new list of members for the security group.

Converting Organization Unit Type

Primary organization units can be converted into matrix organization units and vice versa. The following changes apply when the conversions are made:

- **Primary to Matrix.** All of the Resources in the organization unit belong to the "Unspecified" organization unit.

    ○ If they were set to inherit their region from their organization unit, they inherit the region belonging to the "Unspecified" organization unit.

    ○ If there was a resource pool associated with the organization unit, it is no longer linked.

- **Matrix to Primary.** All of the resources in the organization unit are pulled out of their existing primary organization units and placed in the current one. If they were set to inherit their region from their former primary organization unit, they instead inherit their region from the current organization unit.

When you attempt to make this conversion, Resource Management presents you with a window detailing the impact of the change. You can then confirm the conversion or cancel the attempt.

To convert an organization unit from Primary to Matrix or vice versa:

1. Log on to PPM Center.

2. Search for the organization unit by selecting **Search > Administrative > Org Units** from the menu bar.

3. Click the name of the organization unit you wish to convert.

    The View Organization Unit page opens.

4. Click **Modify Org Unit.**

    The Modify Organization Unit page opens.

5. Next to **Change to a Matrix/Primary Organization Unit,** click **Change.**

    A window opens, displaying a list of the users whose organization unit or region settings will be altered.

Changing Information Architecture to a Matrix Org Unit

⚠ Changing Information Architecture to a Matrix Organization Unit will give all of the direct members the System Resource Settings.

System Resource Settings

Region for these resources will change to: Enterprise
Calendar: US
Currency: United States Dollar

[Change]   [Cancel]
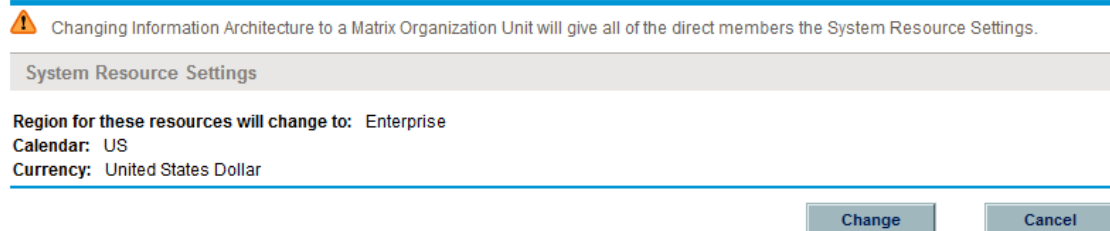
6. Click **Change.**

Deleting an Organization Unit

Deleting an organization does not remove resources, security groups, child organization units, or other entities associated with it. You must have either the Resource Mgmt: Edit Entire Organization or Resource Mgmt: Edit Only Organization Units that I Manage access grant to delete an organization unit.

To remove an organization unit:

1. Log on to PPM Center.

2. Selecting **Search > Administrative > Org Units** from the menu bar.

The Modify Organization Units page opens.

3. Select the checkbox next to the organization unit to delete.

4. Click **Delete.**

Chapter 4: Using Resource Management for Capacity Planning

Overview of Using Resource Management for Capacity Planning

Resource capacity planning consists of the following activities:

- Gauging present resource capacity and workload

- Predicting future resource capacity in terms of needed roles or resources

- Forecasting future resource demand in terms of needed roles or resources

- Viewing historical trends in resource allocation

- Comparing present resource usage to previous forecasts

Resource Management includes two basic tools to help in resource capacity planning:

- **Staffing profiles.** Staffing profiles allow a manager to plan the future allocation of resources, broken down by role. This lets the business see what kinds of resources and roles they will need for future work.

- **Resource pools.** Resource pools provide a way to track future resource capacity, broken down by role. This lets the resource manager see what resources and roles will be available to apply to future work.

Staffing profiles and resource pools integrate to form an end-to-end resource management process:

1. Resource managers create resource pools that define resource capacity. See "Planning Capacity with Resource Pools" below for details on creating resource pools.

2. Project managers create staffing profiles that forecast resource demand. See "Tracking Demand with Staffing Profiles" on page 70 for details on staffing profile usage and creation.

3. These staffing profiles spawn resource requests meant for various resource pools. See "Sending Resource Requests from a Staffing Profile" on page 106 for details on resource requests.

   Staffing Profile managers can manage positions and assignments for the projects he owns using the Forecast Planning page. See "Forecast Planning" on page 116 for details on the Forecast Planning page.

4. Resource managers fill resource requests by drawing from the specified resource pools to make the actual resource allocations to the originating staffing profiles. See "Assigning Resource Pool Resources" on page 126, "Adjusting Resource Participation Within Resource Pools" on page 64, and "Assigning a Resource to a Resource Request from Resource Allocation Management Page" on page 161 for details on making assignments to staffing profiles from resource pools.

   Resource managers can also forward requests to another resource pool, or reject resource requests altogether. See "Rejecting and Forwarding Demand" on page 129, "Forwarding a Resource Request from Resource Allocation Management Page" on page 168, and "Rejecting a Resource Request from Resource Allocation Management Page" on page 170 for details on forwarding and rejecting resource requests.

   Resource managers can load balance resources from their pools across the staffing profiles requesting resources. They can also examine the utilization of resources on projects. See "Analyzing Staffing Profiles Associated with Projects" on page 137 and "Analyzing Resource Pools" on page 131 for details on this process.

Planning Capacity with Resource Pools

Resource pools enable resource planners to designate future resource capacity, arranged by role or resource, split according to any of the options described in "Table 4-1. Resource pool features" below:

Table 4-1. Resource pool features

Feature	Options
Lines on a resource pool can represent	• Resources

Table 4-1. Resource pool features, continued

Feature	Options
	• Roles • (both)
A resource pool can show capacity forecasts out to	• 3 months • 6 months • 9 months • 1 year • 2 years • 3 years
Resource capacity can be grouped by	• Week • Month • Quarter • Year
Resource capacity totals can be shown in	• Hours • Full Time Equivalents (FTE) • Person Days

Resource pools can be organized into hierarchies, mirroring or elaborating on groupings of responsibility in a business. "Table 4-2. Resource pool attributes" below describes the key attributes of a resource pool.

Table 4-2. Resource pool attributes

Field Name	Description
Resource Pool Information	
Pool Name	The name of the resource pool.
Description	A description of the resource pool.
Pool manager	The user responsible for the resource pool and allocating resources to staffing profiles.

Table 4-2. Resource pool attributes, continued

Field Name	Description
This Resource Pool is for	Defines whether the resource pool is associated with a primary organization unit or freestanding.
Region	The region associated with the resource pool; determines holiday schedule for unnamed resources.
Parent resource Pool	Allows you to specify a parent resource pool if desired, creating a hierarchy of resource pools.

Using Resource Pools: General Walkthrough

The resource pool is a tool for the resource manager. Resource managers can use resource pools and their visualizations to assess whether proposed projects or programs are within capacity bounds.

Aside from making assignments within staffing profiles from resource pools, a resource manager can examine resource pools themselves to determine overallocations. The resource manager can then perform load balancing by doing any of the following:

- Reassigning staffing assignments to other resources

- Adding resources to the resource pool

- Transferring resources to another resource pool

- Modifying a resource's level of participation across multiple resource pools

A resource manager can also assess and manage resources and resource requests for a resource pool from the Resource Allocation Management page. See "Managing Resource Allocation" on page 143 for more information.

Creating a Resource Pool

To create a resource pool:

1. Log on to PPM Center.

2. Select **Create > Administrative > Resource Pool** from the menu bar.

The Create a New Resource Pool page opens.

3. Complete the required fields and any optional fields.

    At this point, you should decide the following:

    ○   Whether the resource pool is freestanding or associated with a primary organization unit, and if so, which one

    ○   Whether the resource pool has a parent resource pool

4. Click **Create.**

    The Resource Pool page opens.

5. Add lines to the resource pool.

    a. Click **Manage Pool Capacity.**

        The Manage Pool Capacity page opens.

b. Click the links below the resource pool name.

- **Show Pool for the Past/Next** specifies the amount of time the resource pool will cover.

- **Show Resource Capacity In** determines the time period breakdown.

- **Show Totals In** sets the units in which to count allocations.

c. Add a resource or role.

- To add a resource, click **Add New Resource** to specify a resource and the resource's start date for the resource pool.

- To add a role, click **Add Unnamed Headcount** to specify a role and the required hours for the role.

The Manage Pool Capacity page reloads with the resource pool line added, specifying a resource or role.

> **Note:** To maintain PPM Center performance, when the number of resources assigned to a resource pool exceeds RM_MAX_IN_POOL, certain functionality is disabled. However, you can remove the excess resources to re-enable this functionality.

d. Manage participation. See "Adjusting Resource Participation Within Resource Pools" on page 64 for more information.

e. Repeat as necessary.

f. Click **Done.**

The Resource Pool page opens.

Viewing Resource Pools

Resource pools are accessed most easily from the Resource Pool List portlet.

Figure 4-1. Resource Pool List portlet

Users with View or Edit All Resource Pools access grants can add the Resource Pool List portlet to their PPM Dashboard. See the "Adding Portlets to PPM Dashboard Pages" section in the *Getting Started* guide for more information.

You can also view resource pools by using the Search Resource Pools page:

1. From the menu bar, select **Search > Administrative > Resource Pools.** The Search Resource Pools page opens.

Figure 4-2. Search Resource Pools page

2. Provide search criteria in the appropriate fields.

3. Click **Search.**

   The Search Resource Pools page reloads, displaying the results of your search.

4. Click the name of a resource pool to open its resource pool page.

Disabling and Enabling Resource Pools

A resource pool can be disabled, preventing it from being used. If a resource pool is not being used or is not actively managed, disabling it prevents it from being mistakenly assigned to or from a staffing profile.

When a resource pool is disabled, you may forward or reject any outstanding resource requests. If the selected resource pool is a default resource pool, you may replace or remove it. Existing capacity and current allocations remain active (they must be manually managed) and continue to be part of resource load and capacity calculations.

To disable a resource pool:

1. Open a resource pool.

2. Click **Additional Actions > Disable Resource Pool**.

3. Select to forward or reject all outstanding resource requests. If you forward all outstanding resource requests, select the resource pool to which to forward the requests.

4. If the resource pool is configured as a default resource pool for a staffing profile, project, or project type, additional fields display. You can select to replace the default resource pool with a new default resource pool or you can remove it from being the default resource pool (the staffing profile, project, or project type no longer has a default resource pool).

5. Click **Disable.** The Status field of the resource pool changes to **Disabled**.

To enable a resource pool:

1. Open a resource pool.

2. Click **Additional Actions** > **Enable Resource Pool**. The Status field of the resource pool changes to **Enabled**.

Modifying Resource Pool Notifications

Notifications allow resource pool managers and resources to be notified (by email) when resource requests are sent or forwarded and resources are allocated. By default, resource pool notifications are set to notify the resource pool manager when resource requests are sent or forwarded to this resource pool.

To modify resource pool notifications:

1. Open a resource pool.

2. In the Resource Pool page, click **More**> **Configure Notifications.**

3. Select or unselect the checkbox for the level of notification you desire.

> **Note:** If you select the two checkboxes in the **Forecast Demand Adjustment** section, for the positions that have not been sent resource request, no email notification is sent even when they are deleted or their forecast demands are adjusted.

4. Click **Save**.

Disabling Notification to a Resource

If a resource pool is configured to send notifications to a resource, you can temporarily disable notification to the resource when you make an assignment:

1. Open a resource pool.

2. In the Resource Requests section of the Resource Pool page, click on the name of a staffing profile.

   The Staffing Profile page opens.

   > **Note:** You can only disable notification to a resource from the **Table** view of the Staffing Profile page. If the Staffing Profile page opens in the **Gantt** view, switch to the **Table** view.

3. Click the desired resource.

   The Resource Capacity with Assignments dialog opens.

4. To temporarily disable notification to the resource, select the **Do not send this resource an email notification** checkbox.

5. Click **Save**.

   Notification to this resource is disabled for this assignment only.

Exporting Resource Pool Data to Excel

To export the resource pool capacity, resource load, or forecasted demand data tables:

1. Open a resource pool.

2. Click **Manage Pool Capacity**, **View Forecasted Demand**, or **View Resource Load**.

3. Click the **Microsoft® Excel** icon.

   A new window opens, refreshing at a set interval until the system completes the export.

> **Note:** If your PPM Center instance supports multiple languages, the session language (selected at login) determines the language used in the Microsoft Excel file. Regional settings in your user profile determine the date, time, number, and currency format. See the *Multilingual User Interface Guide* for more information.

4. Save the exported Excel file.

> **Note:** If you are having problems with the data in Excel, you may need to configure the Internet options of your Web browser. See the *Project Management User's Guide* for more information.

Adjusting Resource Participation Within Resource Pools

A resource may participate in more than one resource pool at a time. You can adjust the distribution of a resource's time across resource pools, which has the effect of altering the resource's capacity in each pool.

To redistribute a resource's participation across multiple resource pools:

1. Open a resource pool.

2. In the Resource Pool page, click **Manage Pool Capacity**.

   The Manage Pool Capacity page for the resource pool opens.

3. Select the radio button next to a resource and click **Manage Participation.**

   The Manage Resource Pool Participation page for that user opens, displaying the user's current distribution of participation across resource pools.

   Manage Resource Pool Participation: Agnes Ren

Resource Pool	Effective Date 1-gen-2014
Draco Team	100
Non-Workload	0
Total (Must be 100%)	**100%**
	Edit

   Add Participation   Done

4. Click **Add Participation.**

   The Add Resource Participation across Resource Pools dialog box opens.

   Add Resource Participation across Resource Pools

   *Effective Date:

Resource Pool	% of Time
✖ Draco Team	
Non-Workload	
Total (Must be 100%)	**100**

   Add Resource Pool   Add   Cancel

5. Type a new distribution of percentages for each resource pool and an **Effective Date** for the redistribution to take effect.

6. Click **Add**. The Manage Resource Pool Participation page opens.

7. Click **Done**. The Manage Pool Capacity page opens.

8. Click **Done**. The Resource Pool page opens.

Viewing Forecasted Demand

To get a breakdown of total resource capacity viewed against load by staffing profile:

1. Open a resource pool.

2. In the Resource Pool page, click **View Forecasted Demand.** The Resource Supply Demand for dialog (or Analyze Resource Pool Breakdown table) opens.

   See "Analyze Resource Pools Breakdown Table" on page 134 for more information.

Managing Allocation

To assess and manage resources and resource requests for a single resource pool:

1. Open a resource pool.

2. In the Resource Pool page, click **Manage Allocation.** The Resource Allocation Management page opens.

   Note: You must be the manager of at least one resource pool in order to access the Resource Allocation Management page.

   See "Managing Resource Allocation" on page 143 for more information.

Viewing Resource Load

To get a detailed breakdown of total resource capacity and workload:

1. Open a resource pool.

2. In the Resource Pool page, click **View Resource Load.** The Resource Load Breakdown dialog (or Resource Breakdown table) opens.

   See "Resource Load Breakdown Table" on page 215 for more information.

Resource Pool Security

Access to a resource pool is controlled primarily through access grants set in the security group definitions. Additionally, the user who creates a resource pool can specify a list of users who can view it, edit its basic information, edit its lines, or edit its security.

Resource Pool Access Grants

Users are linked to access grants through the security groups to which they belong. The access grants related to resource pools are discussed in more detail in "Table 4-3. Resource pool access grants" below. Without these access grants, a user cannot view or edit a resource pool regardless of whether or not they are specified in the list on the resource pool's Configure Access page. For more information on access grants and security groups, see the *Security Model Guide and Reference.*

Table 4-3. Resource pool access grants

Access Grant	Description
View Resource Pools	The user can view any resource pool for which they are on the Configure Access page list.
View All Resource Pools	The user can view any resource pool in the system, even if they are not listed in the View or Edit list.
Edit Resource Pools	The user can edit any resource pool for which they are on the specified Edit list.
Create Resource Pools	The user can create new resource pools. Supplemental to the Edit Resource Pools or Edit All Resource Pools access grant.
Edit All Resource Pools	The user can edit any resource pool in the system.
Edit All resources	The user can edit any resource in the system. This access grant is needed to modify resource participation across resource pools.
Edit only resources that I manage	The user can edit any resource they manage. This access grant is needed to modify resource participation across resource pools.

Resource Pool Configure Access Page

The Configure Access page for a resource pool is used to grant additional editing access to the resource pool to each user on the list individually. All users listed on the Configure Access page minimally have viewing access.

> **Note:** Without the proper access grants, a user cannot view or edit a resource pool regardless of whether they are specified in the list on the resource pool's Configure Access page. See "Resource Pool Access Grants" on the previous page for more detailed information.

The Configure Access page options are discussed in more detail in "Table 4-4. Security Options for Resource Pool Configure Access page" below.

Table 4-4. Security Options for Resource Pool Configure Access page

Option	Description
View Access	The user can view the resource pool but not edit its information. Any user listed has View access.
Edit Header	The user can edit the resource pool's header information, but nothing else.
Edit Unnamed Headcount	The user can edit the lines in the resource pool that specify roles, but nothing else.
Edit Security	The user can use the Configure Access page to edit viewing or editing security for the resource pool.

Using Configure Access Page

To set up a list of users with View or Edit access to a resource pool:

1. Open the Resource Pool page.

   If you have permission to modify the resource pool, the **Configure Access** selection is enabled.

2. Click **More > Configure Access.**

   The Configure Access for Resource Pool page opens.

3. Add a user to the list by click **Add User** and making a selection from the list.

4. Configure each user's access individually by selecting the checkboxes under each category.

   Granting Edit access automatically grants the user View access. See "Table 4-4. Security Options for Resource Pool Configure Access page" on the previous page for more detailed information on each option.

5. Click **Done**.

If you have Edit Security access grant for the Configure Access for Resource Pool page, you can add a security group to or remove a security group from the resource pool.

To add a security group to a resource pool:

1. Open the Configure Access for Resource Pool page.

2. Click **Add Security Group**.

3. Select the desired security group.

4. Configure the security group's access by selecting the checkboxes under each category.

   The View access is automatically granted to the security group.

5. Click **Done**.

Rolling Up Resource Pool Information

Resource pools can be linked to other resource pools in parent/child relationships, establishing a hierarchy of resource pools that can be useful for organization and visualization purposes.

Display of roll-up information is handled in the following ways:

- The View Resource Pool page displays related resource pools, as shown in "Figure 4-3. View Resource Pool page - Related Resource Pools section" below.

Figure 4-3. View Resource Pool page - Related Resource Pools section

Related Resource Pools		
Resource Pool	Relationship	Primary Organization Unit
UI and Web Development - Team 1 (AMS) (FS)	Child	UI and Web Development - Team 1 (AMS) (FS)
Non-Developers (WW) (FS)	Child	
On-line Banking Development - Team 1 (AMS) (FS)	Child	On-line Banking Development - Team 1 (AMS) (FS)
Commercial Banking Development - Team 1 (AMS) (FS)	Child	Commercial Banking Development - Team 1 (AMS) (FS)

- The Manage Pool Capacity page displays rolled-up lines from child resource pools.

> **Note:** When a primary organization unit is changed to matrixed, its linked resource pool will be unlinked.

Tracking Demand with Staffing Profiles

Staffing profiles enable a project manager to track the forecast demand of resources, arranged by role. Each line in a staffing profile tracks the FTE, hours, or person days forecast for a role, and, optionally, a resource who possesses that role who is assigned to the position. Staffing profiles also allow user to choose the time period breakdown such as Weeks, Months, Quarters, and Years when entering or viewing the allocations.

If project managers finishes making the resource usage forecasts, they send the forecasts to resource managers as resource requests. Resource managers receive these resource requests and proceed with the relevant staffing profile to begin making assignments. Positions with open resource assignment requests display an Unmet Demand message in orange.

Resource pool managers can assign one or more resources to these positions to fulfill the unmet demands by using "Assign" or "Resource Finder" function. The Staffing Profile page reloads with user's changes made. If unmet demand remains, resource pool managers can repeat the assignment process as needed.

Project managers can track the forecast demand from two levels.

From a high-level planning for the long cycle, it is recommended to use staffing profile which represents the workload imposed by the project. At this phase, a FTEs level rough estimation is sufficient for both project managers and resource pool managers to have an overall understanding of resource demand.

When the project turns to the execution phase, project managers then use project work plan to breakdown the work to pieces of tasks and assign the resource at an accurate (hours) level.

In addition, staffing profile also supports tracking demands using hours view. When switch to this view, managers can see more detailed and accurate data. For example, for an allocated position which requires 40 hours in a week, project managers may have concerns such as whether the assigned engineer is available during this period. Will the assigned engineer take a vacation during this period? If so, project managers need to request other resources to fulfill the unmet gap.

For large projects, it is recommended that project managers and resource pool managers use staffing profile in the FTEs view. This view enables the project managers to have a big picture when plan and schedule the project, without concerning small deviations such as holidays and personal leaves.

For small projects whose work plan is fully defined and scheduled, it is recommended to use the hours view which provides more accurate data.

Typically, HP recommends that you plan resources and make assignments in the same view (FTEs or hours). For examples about FTEs view and hours view, see "Unmet Demand Calculation Sample Scenarios" on page 220.

The display settings of the period type and effort type are available in the `server.conf` file. Relevant parameters are:

```
com.kintana.core.server.RM_DEFAULT_EFFORT_TYPE=fte
```

```
com.kintana.core.server.RM_DEFAULT_PERIOD_TYPE=month
```

```
com.kintana.core.server.RM_ALLOWED_EFFORT_TYPES=fte,person_days,hours
```

Staffing profiles include some features that make them simpler to use:

- Staffing profiles can be linked to organization units, projects, proposals, or assets, to tie them to business functions and facilitate meaningful comparison visualizations.

- If the staffing profile is meant to represent workload, the **Workload Category** field allows you to categorize it as such.

- These staffing profile positions are then treated as assignments when visualizing operational capacity. For more details, see "Visualizing Assignments" on page 212.

- New lines in the staffing profile can be set to automatically provide the Resource Pool value using the **Default Resource Pool** field.

- Staffing profile lines can also track actual values.

- Staffing profile effort allocations can be counted in FTEs, hours, or person days.

Using Staffing Profiles: General Walkthrough

When putting together a project, the project manager should create a staffing profile, which allows her to plan resource usage for that project. Each line in the staffing profile represents a position for a resource with a specific role that needs to be filled. When the project manager is finished making her resource usage forecasts, she sends them to the resource manager as resource requests from her staffing profile. Each resource request is submitted against a specific resource pool. See "Sending Resource Requests from a Staffing Profile" on page 106 for more details on this process.

The resource manager receives these resource requests as alerts on the Resource Pool Overview page for a resource pool he manages, and proceeds to the relevant staffing profile or Resource Allocation Management page to begin making assignments. The Resource Request portlet can also be configured to display resource requests across resource pools. See "Assigning Resource Pool Resources" on page 126 for more details on this process.

> **Note:** A resource must be in a resource pool in order to be assigned to a staffing profile. By default, only the resource pool manager (or a manager of a parent resource pool) is permitted to make that assignment. To allow a project manager to assign any resource (from any resource pool) to a work plan, staffing profile, or both, set the `RM_OVERRIDE_ASSIGNMENT_CONTROLS` parameter in the `server.conf` file on the PPM Server to `TRUE`.

Once assignments have been made and the project has been started, the project manager can begin providing actual effort amounts into staffing profile positions. The project can also be configured to roll up actual effort amounts from the work plan into the staffing profile as work is completed. See the *Project Management User's Guide* for more detailed information on configuring project settings.

Staffing Profile Views

PPM Center version 9.30 introduces a new view, the **Gantt** view, for the Staffing Profile, and in the meanwhile still supports the old view of this page. The old view is named **Table** view in this version. These two views provide you with different ways of looking at staffing profiles.

In general, Resource Management keeps track of the staffing profile view in each staffing profile for you. If you open a staffing profile for the first time, it is opened in the **Gantt** View. If you log out and return to the staffing profile later, it is opened in the view as when you left it. The view selected for a staffing profile is effective for that particular staffing profile only, not for all staffing profiles.

> **Note:** If you open a staffing profile from the **Staffing** tab of the Project Overview page, the staffing

profile is always displayed in the **Gantt** view.

Gantt View

Figure: Gantt View of Staffing Profile Page
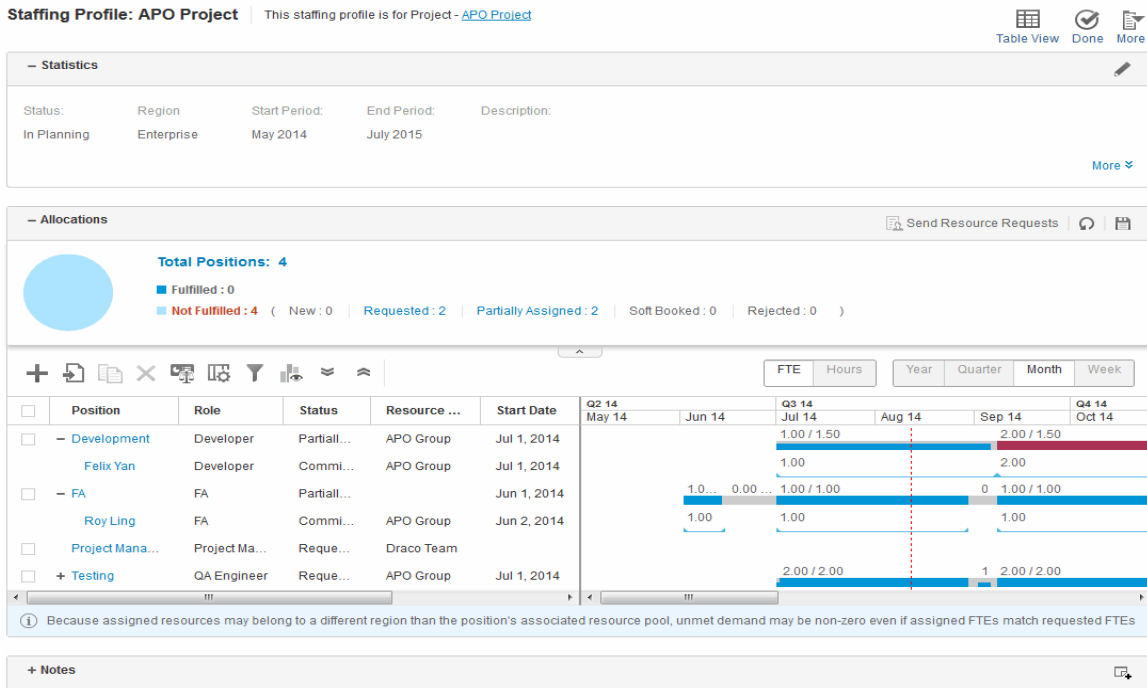
The **Gantt** view lists all the positions and resources of the staffing profile in one single page (without pagination). The data load simultaneously as you scroll down the page. If you have a large number of positions and resources in a staffing profile page, HP recommends that you switch to the **Gantt** view to avoid OutOfMemory error and for better performance.

The following table describes the configuration options and components of the **Gantt** view of a staffing profile:

Table 4-5. Staffing profile configuration options and components

Item Name	Description
Staffing Profile Header Information	
Name	The name of the staffing profile.
Table View	Switches to the **Table** view of the Staffing Profile page.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
Done	Returns to the page from which you come to the Staffing Profile page.
More > Change Header	Changes the information displayed in the header of the staffing profile. See step 3 in "Creating a Staffing Profile" on page 86 for the descriptions of the fields.
More > Configure Access	Allows you to configure access to the staffing profile. See "Using Configure Access Page" on page 110.
More > Configure Notifications	Selects the type of notification a staffing profile manager receives. See "Modifying Staffing Profile Notifications" on page 105.
More > Delete Staffing Profile	Removes this staffing profile. You must have the Delete Staffing Profile access grant to delete a staffing profile. You must have the Delete Staffing Profile with Actuals access grant to delete a staffing profile that contains actuals. See "Staffing Profile Security" on page 108 for more information about staffing profile access grants.
More > Staffing Profile Audit Trail	Views the audit trail of the staffing profile. Staffing Profile Audit Trail tracks the changes when you: • Create the staffing profile. • Change the status of the staffing profile. • Edit forecast demand in the position dialog of the Staffing Profile page, or on the Forecast Planning page. • Delete positions in the position dialog of the Staffing Profile page, or on the Forecast Planning page. • Add positions on the Staffing Profile or Forecast Planning page. • Import positions on the Staffing Profile page.
More > Export Staffing Profile	Export the staffing profile page data (including data attributes) to a Microsoft Excel file. **Tip:** Exporting data to a Microsoft Excel file (not an HTML page) enables you to process your data by using more Excel

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
	functions, such as format and calculation.
Statistics	
Status	The status of the staffing profile.
Description	The description of the staffing profile.
Created On	The date the staffing profile was created.
Created By	The user who created the staffing profile.
Work Load Category	The category of work being tracked by the staffing profile.
Region	The geographic region in which the staffing profile is used; determines holiday schedule.
Profile Start	The starting date for the staffing profile.
Profile Finish	The ending date for the staffing profile.
Default Resource Pool	When adding a line to the staffing profile, the **Resource Pool** field will be automatically defaulted with this value.
This staffing profile is for __	Displays what the staffing profile is associated with **(Asset, Org Unit, Proposal,Freestanding,** or **Project)** and its name.
✏️	Allows you to edit the fields in the Statistics section on the Staffing Profile page. You can also edit these fields on the Change Header page by clicking **More** > **Change Header**.
↩	Discards the changes you made to the Statistics section.
💾	Saves the changes you made to the Statistics section.
More	Displays all the staffing profile information in the Statistics section.
Less	Hides some staffing profile information in the Statistics section.
Allocations	
Position Pie Chart	Displays the number of positions categorized by position status. Clicking a specific status filters the positions in that status.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
Year/Quarter/Month/Week	Allows you to choose the time period breakdown for the staffing profile. Possible values: **Week, Month, Quarter, Year** **Note:** If you view the data on the right side of the table without dragging the scroll bar, the first column displays data of three periods (week, month, quarter, year) earlier than current period. For example, if the current date is March 13, 2014, and you select **Week** in this field, the first column displays data of the week starting with February 23. To view more data, drag the horizontal scroll bar at the bottom of the table, and the data in other weeks are loaded and displayed.
FTE/Person Days/Hours	Allows you to choose between specifying allocations in Full Time Equivalents (FTE), hours, or person days.
+	Adds a position entry into the position list. See "Adding Positions in the Gantt View" on page 93.
(import icon)	Copies the positions from the staffing profile selected using the auto-complete. See "Importing Positions into a Staffing Profile" on page 97
(clone icon)	Clones the positions from the current staffing profile. See Cloning Positions.
(trash icon)	Deletes the positions you selected.
(compare icon)	Opens the Compare to Work Plan for Project page, which compares staffing profile allocations to work plan assignments. This is only available for staffing profiles that are attached to projects. See "Comparing a Project's Assignments to its Staffing Profile" on page 141.
(columns icon)	Selects the columns to be displayed. For details, see "Adding/Removing Columns on Staffing Profile Page" on page 103.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
▼	Filters positions in the staffing profile by some basic attributes of the positions. For details, see "Filtering Positions on Staffing Profile page" on page 100.
▮▮▻	Opens the Gantt Legend dialog box, illustrating the meanings of the indicators in the Gantt Chart.
⩔	Expands detailed assignments of all the positions on the Staffing Profile page.
⩓	Collapses detailed assignments of all the positions on the Staffing Profile page.
Position [1]	The position defines the needed role, skills, and additional resource attributes, along with the forecasted resource FTEs and any named assignments made.
Role [1]	The role of the position.
Status [1]	The status of the position's assignment.
Resource Pool [1]	The resource pool the position draws from. This is determined by the last action taken on the position.
Start Date [1]	The starting date of the position.
Finish Date [1]	The ending date of the position.
[period totals] [1]	The total hours for each position being projected in the staffing profile. If FTE unit is used, the field appears as Average FTE. If Person Days unit is used, the field appears as Person Days. If Hours unit is used, the field appears as Total Hours.
Gantt Chart	Displays position's forecast demands and resource's assignments. For details, see "Viewing and Configuring Gantt Chart on Staffing Profile Page" on page 90.
🖼️Send Resource Requests	Requests for resources appear in the resource request queue of the resource pool. Resource managers can then make assignments to the staffing profile. See "Sending Resource Requests from a Staffing Profile" on page 106.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
↺	Discards the changes you made to the allocation table.
💾	Saves the changes you made to the allocation table.
Notes	
🗒➕	Allows you to add any notes on the staffing profile itself.
1. These columns can be resized by dragging the two-headed arrow between the columns.	

Note: You cannot make assignment or forward/reject unmet resource demand from the **Gantt** view of the Staffing Profile page. To perform these actions, you should either switch to the **Table** view of the Staffing Profile page or go to the Resource Allocation Management page.

Table View

Figure 4-4. Table View of Staffing Profile page

The following table describes the configuration options and components of the **Table** view of a staffing profile:

Table 4-5. Staffing profile configuration options and components

Item Name	Description
Staffing Profile Header Information	
Name	The name of the staffing profile.
Done	Returns to the page from which you come to the Staffing Profile page.
Change Header	Change the information displayed in the header of the staffing profile. See step 3 in "Creating a Staffing Profile" on page 86 for the descriptions of the fields.
Gantt View	Switch to the Gantt View.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
More > Configure Access	Allows you to configure access to the staffing profile. See "Using Configure Access Page" on page 110.
More > Configure Notifications	Select the type of notification a staffing profile manager receives. See "Modifying Staffing Profile Notifications" on page 105.
More > Delete Staffing Profile	Remove this staffing profile. You must have the Delete Staffing Profile access grant to delete a staffing profile. You must have the Delete Staffing Profile with Actuals access grant to delete a staffing profile that contains actuals. See "Staffing Profile Security" on page 108 for more information about staffing profile access grants.
More > Staffing Profile Audit Trail	View the audit trail of the staffing profile. Staffing Profile Audit Trail tracks the changes when you: • Create the staffing profile. • Change the status of the staffing profile. • Edit forecast demand in the position dialog of the Staffing Profile page, or on the Forecast Planning page. • Delete positions in the position dialog of the Staffing Profile page, or on the Forecast Planning page. • Add positions on the Staffing Profile or Forecast Planning page. • Import positions on the Staffing Profile page.
More > Export Staffing Profile	Export the staffing profile page data (including data attributes) to a Microsoft Excel file.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
	Tip: Exporting data to a Microsoft Excel file (not an HTML page) enables you to process your data by using more Excel functions, such as format and calculation.
This staffing profile is for __	Displays what the staffing profile is associated with **(Asset, Org Unit, Proposal,Freestanding,** or **Project)** and its name.
Status	The status of the staffing profile.
Description	A description of the staffing profile.
Created On	The date the staffing profile was created.
Created By	The user who created the staffing profile.
Work Load Category	The category of work being tracked by the staffing profile.
Region	The geographic region in which the staffing profile is used; determines holiday schedule.
Profile Start	The starting date for the staffing profile.
Profile Finish	The ending date for the staffing profile.
Default Resource Pool	When adding a line to the staffing profile, the **Resource Pool** field will be automatically defaulted with this value.
Allocation Detail	
Enter Allocation In	Allows you to choose the time period breakdown for the staffing profile. Possible values: **Weeks, Months, Quarters, Years** **Note:** If you view the data on the right side of the table without dragging the scroll bar, the first column displays data of three periods (weeks, months,

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
	quarters, years) earlier than current period. For example, if the current date is March 13, 2014, and you select **Weeks** in this field, the first column displays data of the week starting with February 23. To view more data, drag the horizontal scroll bar at the bottom of the table, and the data in other weeks are loaded and displayed.
FTE/Hours/Person Days	Allows you to choose between specifying allocations in Full Time Equivalents (FTE), hours, or person days.
25 Per Page ⌄	Allows you to choose to display 5, 10, 25, 50, or 100 positions per page, or to display all positions on the current page.
⏮	Allows you to go to the first page.
◂	Allows you to go to the previous page.
Page *<Number 1>* of *<Number 2>*	*<Number 1>* represents the current page number. *<Number 2>* represents the total page number. Allows you to provide a valid page number in *<Number 1>* to go to that specific page.
▸	Allows you to go to the next page.
⏭	Allows you to go to the last page.
Add a Position	Opens a window allowing you to add a line to the staffing profile. See "Adding Positions in the Table view" on page 95.
Send Resource Requests	Requests for resources appear in the resource request queue of the resource pool. Resource

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
	managers can then make assignments to the staffing profile. See "Sending Resource Requests from a Staffing Profile" on page 106.
Import Positions	Copies the positions from the staffing profile selected using the auto-complete. See the **Position** field below for a description of positions. See "Importing Positions into a Staffing Profile" on page 97.
Compare to Work Plan	Opens the Compare to Work Plan for Project page, which compares staffing profile allocations to work plan assignments. This is only available for staffing profiles that are attached to projects. See "Comparing a Project's Assignments to its Staffing Profile" on page 141.
Expand All	Expands detailed assignments of all the positions on the current page.
Collapse All	Collapses detailed assignments of all the positions on the current page.
Position [1]	The position defines the needed role, skills, and additional resource attributes, along with the forecasted resource FTEs and any named assignments made.
	You can filter positions by position filters (position/resource, status, and resource pool). For detailed information, see "Filtering Positions on Staffing Profile page" on page 100.
Status [1]	The status of the position's assignment.
Resource Pool [1]	The resource pool the position draws from. This is determined by the last action taken on the position.
Start Date [1]	The starting date of the position.
Finish Date [1]	The ending date of the position.

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
[period totals]	The total hours for each position being projected in the staffing profile. If FTE unit is used, the field appears as Average FTE. If Person Days unit is used, the field appears as Total Days. If Hours unit is used, the field appears as Total Hours.
Forecast Total (*number_of_positions*)[2]	The total value of the forecast for all the positions in the staffing profile. Clicking this displays Assignments Total and Unmet Demand Total. Forecast Total is the sum of Assignments Total and Unmet Demand Total.
Assignments Total [2]	The total value of the assignments for all the positions in the staffing profile.
Unmet Demand Total [2]	The total value of the unmet demands (or over-allocations) for all the positions in the staffing profile.
Check all	Select this checkbox to select all unmet demand. Unselect this checkbox to unselect all unmet demand.
Assign	Assign one or more resources to the selected unmet demand. See "Making Assignments" on page 127 for more information.
Resource Finder	Use the Resource Finder to search for a resource. See "Making Assignments" on page 127 for more information.
Reject	Reject a request for the selected unmet demand. See "Rejecting and Forwarding Demand" on page 129 for more information.
Forward	Forward a request to another resource pool. See "Rejecting and Forwarding Demand" on page 129 for more information.
Promise	Allocate a promised resource. See "Assigning

Table 4-5. Staffing profile configuration options and components, continued

Item Name	Description
	Promised Allocations" on page 130 and "Promised Allocations" on page 116 for more information.
Refresh[3]	Clicking **Refresh** at the bottom of the Staffing Profile page updates the data in the staffing profile table. The data in the header section remain unchanged.
Notes	
Add Notes	Allows you to add any notes on the staffing profile itself.

1. These columns can be resized by dragging the two-headed arrow between the columns.

2. The total values are calculated based on the following criteria:

   ○ They are totals for all the positions in the staffing profile, instead of totals for positions just on the current page.

   ○ The values are recalculated when you filter the positions by other criteria.

   ○ Forecast Total is recalculated when there is any forecast change to positions.

3. The refresh feature also works when you:

   ○ Add a new position or edit an existing position.

     In this case, only the position you added or edited is updated.

   ○ Assign resources to a position.

     In this case, only the relevant attributes of the position are updated.

Creating a Staffing Profile

To create a staffing profile:

1. Log on to PPM Center.

2. Select **Create > Staffing Profile** from the menu bar. The Create a Blank Staffing Profile page opens.

3. Provide data for all required fields **(Name, Start Period, End Period, Region,** and **This is a __ Staffing Profile)** and any optional fields.

Field Name	Description
Name	The name of the staffing profile.
Description	A description of the staffing profile.
Manager	The user responsible for the staffing profile
Start Period	The starting period (a fiscal month) for the staffing profile.
End Period	The ending period (a fiscal month) for the staffing profile.
Status	The status of the staffing profile. ○ **In Planning.** The staffing profile is being developed.

Field Name	Description
	○ **Active.** The staffing profile is available to run. ○ **Complete.** The staffing profile has completed execution. ○ **Cancelled.** The staffing profile has been cancelled. ○ **Lock Down.** The staffing profile has been locked and is read-only (cannot be updated).
Region	The geographic region in which the staffing profile is used; determines holiday schedule.
Work Load Category	The category of work being tracked by the staffing profile.
This staffing profile should show as work load	If selected, the Full Time Equivalents set in the staffing profile will be counted as actual work assignments in the Resource Management Analyze Assignment Load capacity visualization.
Copy positions from existing staffing profile	Copies the positions from the staffing profile selected using the auto-complete.
This is a ___ Staffing Profile	Defines whether the staffing profile is freestanding, or is associated with an asset, org unit, or proposal. To create a staffing profile for a project, you should go to the Project Overview page. For detail, see "Creating a Staffing Profile for a Project" on the next page.
Default Resource Pool	When adding a line to the staffing profile, the **Resource Pool** field will be automatically defaulted with this value.

At this point, you should decide the following:

○ Whether lines in the staffing profile count as workload

○ Whether to copy positions from an existing staffing profile, and if so, which one

○ Whether the staffing profile is linked to an organization unit, asset, project, or proposal

○ Whether the staffing profile will request resources from a particular resource pool by default, and if so, which one

4. Click **Create.**

The Staffing Profile page (the **Gantt** View) opens.

Note: Clicking **Table View**, you can switch to the **Table** view of the Staffing Profile page.

5. Do one of the following in the Allocations section:

○ Clicking **Start** in the Create a Blank Position List option, you create a staffing profile with no positions.

○ Clicking **Select the Staffing Profile** in the Copy Positions from an Existing Staffing Profile option, you open the Import Positions dialog box. Using this dialog box, you can create a staffing profile with positions imported from other staffing profiles. For details of importing positions, see "Importing Positions into a Staffing Profile" on page 97.

Creating a Staffing Profile for a Project

To create a staffing profile for a project:

1. Log on to PPM Center.

2. From the menu bar, select **Search** > **Projects**.

3. Click **Search** after providing the search criteria, and open the project you want.

4. In the **Staffing** portlet of the Project Overview page, click **Create a Blank Staffing Profile**.

   The Create a Blank Staffing Profile page opens.

5. Provide or edit the values in the required or optional fields.

6. (Optionally)From the **Copy positions from existing staffing profile** auto-complete list, select an existing staffing profile, if you want to create a staffing profile with positions copied from another staffing profile.

7. Click **Create**.

   The newly create staffing profile is displayed under **Staffing** tab of the Project Overview page.

> **Note:** Clicking **Table View**, you leave the Project Overview page, and go to the **Table** view of the Staffing Profile page.

8. If you skip step 6, do one of the following in the Allocations section:

○ Clicking **Start** in the Create a Blank Position List option, you create a staffing profile with no position.

○ Clicking **Select the Staffing Profile** in the Copy Positions from an Existing Staffing Profile option, you open the Import Positions dialog box. Using this dialog box, you can create a staffing profile with positions imported from other staffing profiles. For details of importing positions, see "Importing Positions into a Staffing Profile" on page 97.

> **Note:** You can view and edit the staffing profile information in the **Staffing** tab as you do in the Staffing Profile page. The actions listed in the **More** menus of the Staffing Profile page are not supported in the **Staffing** tab of the Project Overview page.

Viewing and Configuring Gantt Chart on Staffing Profile Page

You can view and configure Gantt chart in the **Gantt** view of the Staffing Profile page. The Gantt chart is displayed in the right pane of the table in the Allocations section.
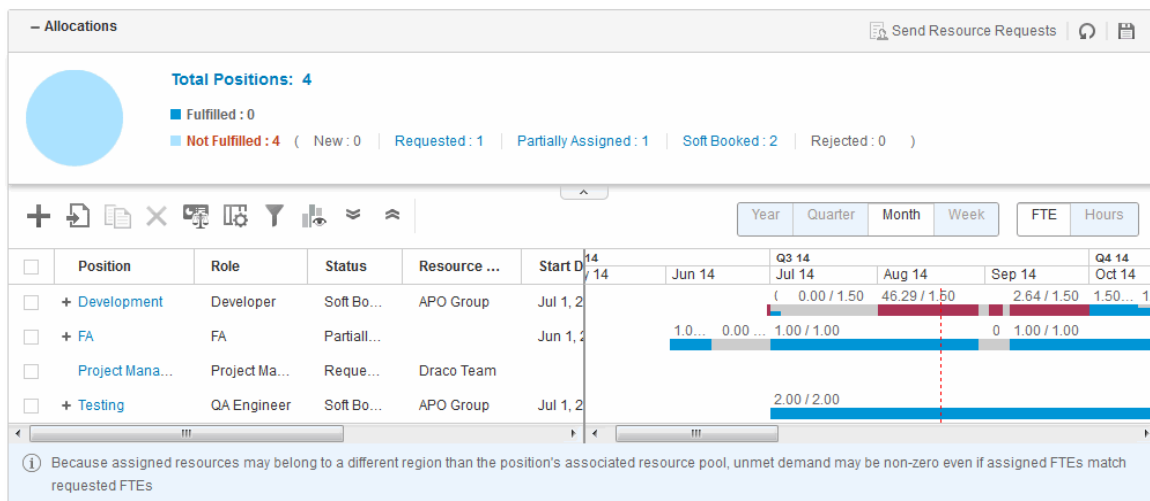
The Gantt chart displays the following information for the staffing profile:

- Status of the every position

- Period and demanded effort of every position

- Period and allocated effort of every resource

Clicking the Gantt legend icon, , opens the Gantt legend of the staffing profile.
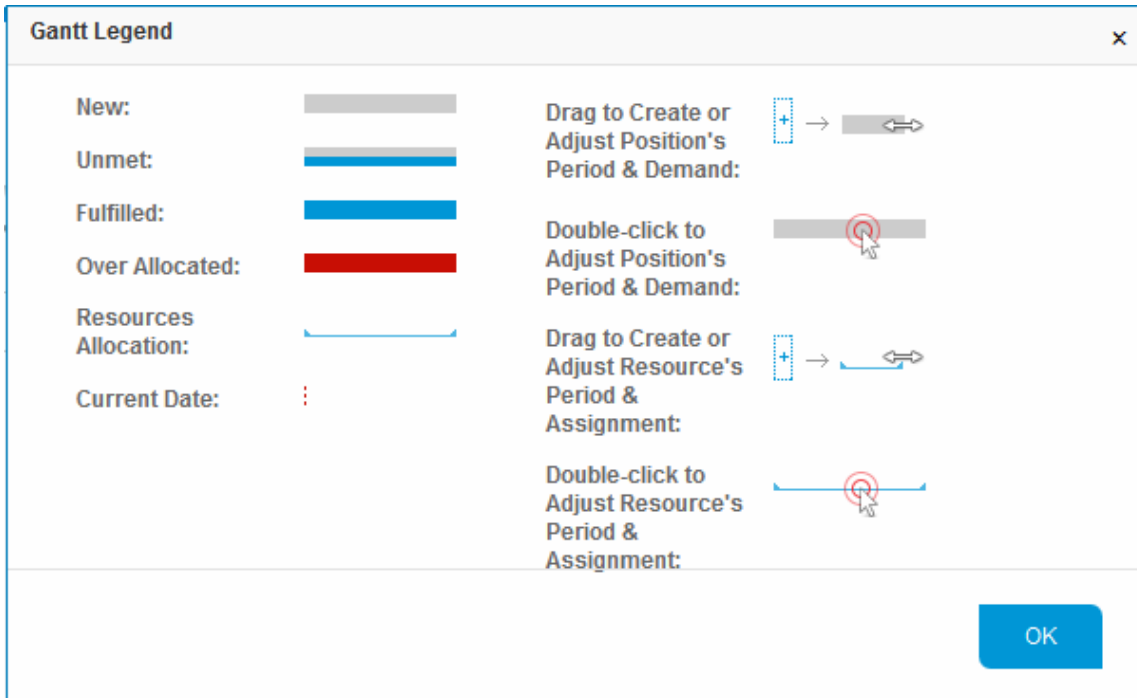
Configuring Gantt Chart on Staffing Profile Page

You can use the Gantt chart of the Staffing Profile page to create or adjust position's forecast demand, and create or adjust resource's assignment.

- "Creating Position's Forecast Demand" below

- "Adjusting Position's Forecast Demand" on the next page

Creating Position's Forecast Demand
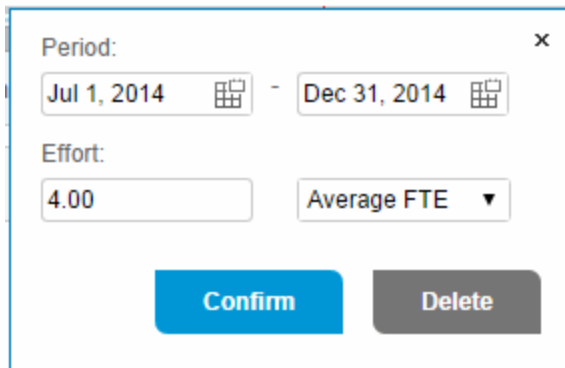
To create a position's period and demand in the **Gantt** view of the Staffing Profile page:

1. In the Gantt chart, click the line of the position you want to create forecast demand.

   The icon appears.

2. Locate the icon to the period when the position's forecast demand begins.

3. Click and hold the icon, and drag it to the period when the position's forecast demand ends.

4. Release the mouse button. A dialog box as follows opens:

> **Note:** Clicking **Delete**, you cancel the creation of the forecast demand.
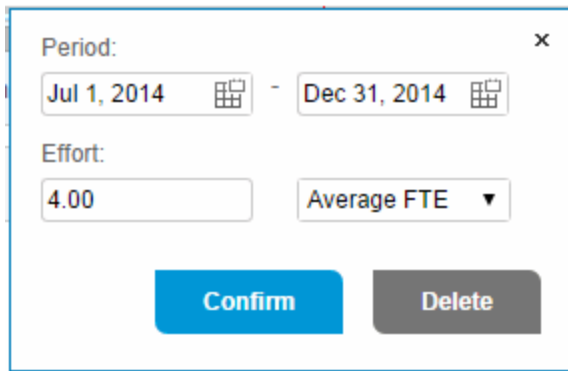
5. Modify the period of the position's demand.

6. Specify the effort of the position's demand.

7. Click **Confirm**.

8. Click 💾 to save the changes.

Following the above steps, you can create a resource's assignment. The only difference is that you start the action by clicking the line of the resource you want to create assignment in the Gantt chart.

Adjusting Position's Forecast Demand

To adjust a position's period and demand in the **Gantt** view of the Staffing Profile page:

1. In the Gantt chart, click on the position's demand you want to adjust.

2. Place the cursor in the left end of the demand bar if you want to adjust the start date of the position's demand, or place the cursor in the right end of the demand bar if you want to adjust the finish date of the position's demand, until the two-headed arrow appears.

3. Click and hold the cursor, and drag it leftwards or rightwards to your desired date.

4. Release the mouse button, and the dialog box opens.

> **Note:** Clicking **Delete**, you delete the forecast demand.

5. Modify the period and effort of the position's demand.

6. Click **Confirm**.

7. Click ⊟ to save the changes.

Also, you can adjust position's forecast demand by double-clicking the demand bar to open the dialog box, and then modify the period and effort.

Following the above steps, you can adjust a resource's assignment. The only difference is that you start the action by clicking on the resource's assignment you want to adjust.

Adding Positions

- "Adding Positions in the Gantt View" below

- "Adding Positions in the Table view" on page 95

Adding Positions in the Gantt View

To add a position in the **Gantt** view of staffing profile page, you can:

- Add a new position, or

- Add a position by copying an existing position from the current staffing profile

To add a new position,

1. Click a time period and unit in the upper-right corner of the allocations table to set the time periods and units in which you want to provide allocations.

2. Click the **Add Position** icon ✚ .

   A table entry is added on the top of the table.

3. Specify the fields described as follows:

Field (* Required)	Description
Position	The name of the position.
Role *	The role needed to fill the position. Click the Role icon to specify a role.
Resource Pool	The resource pool from which to assign the role. Click the auto-complete list to specify a resource pool.

4. Create the forecast demand of the position.

   For details of creating position's forecast demand, see "Creating Position's Forecast Demand" on page 91.

5. In the right-corner of the position list, click 💾 and the position is added.

6. (Optionally) To add other information of the position, you need to open the position dialog box by clicking the position name. See step c and step d for the detailed instructions.

To add a position by cloning an existing position from the current staffing profile,

1. Select the checkbox before the position you want to copy.

2. Above the allocation table, click 📋 .

   The cloned position is added to the top of the allocation table.

3. Select the cloned position to edit its Position, Role, and Resource Pool fields or its planned assignments.

   To adjust the position's forecast demand, see "Adjusting Position's Forecast Demand" on page 92.

4. Click 💾 to save all the changes.

Adding Positions in the Table view

To add a position in the **Table** view of staffing profile page,

1. In the Allocation Detail section, click on a time period next to **Enter Allocation in:** to set the time periods and units in which you want to provide allocations.

2. Add positions (lines) to the staffing profile.

    a. Click **Add A Position.** The Add Position dialog box opens.

    b. Specify a **Role Required** and **Position Label** for the staffing profile line (required). Provide data for any optional fields such as the assignments needed for each time period.

Field	Description
Role Required	The role needed to fill the position.
Position Label	The name of the position.

Field	Description
Resource Type	The kind of resource needed.
Resource Poeol	The resource pool from which to assign the role. Click **Search** to find a resource pool. **Note:** When you click **Search** on the right of the Resource Pool field in the Add Position dialog box to search resource pools, the search result will list all the resource pools that fit the search criteria, regardless of whether you have the view access grant to all of them.
Specific Resources Requested	The name of a specific resource to fill the position. The resource request will include the name of the specified resource. However, the resource pool manager may choose to allocate other resources.
Response Needed By	The date when the position should be filled.
Assignments Needed	The amount of FTEs or hours needed to fill the position. To save time, you can highlight a cell by clicking it and then using **Shift + click** to fill a range of other cells in the same row with the value it contains.
Comments	Any notes you want to include about the position.

c. Optionally, you can assign skills to the position. To assign skills to a position, follow these steps:

   i. Click the **Skill** tab, and then click **Add a Skill**.

   A skill line pops up for you to select the **Skill** field, and specify the **Aptitude** field.

   The **Aptitude** field specifies the minimum skill proficiency that the resource must meet. For more information about skill proficiency, see "Skill Proficiency" on page 199.

   ii. Select the skill in the auto-complete list, and then specify the aptitude in the drop-down list.

   After you select the skill, the category of the skill will be displayed in the **Category** field if it is specified.

You can click the ✖ icon to remove a previously-added skill.

Figure 4-5. Skills tab of a position profile
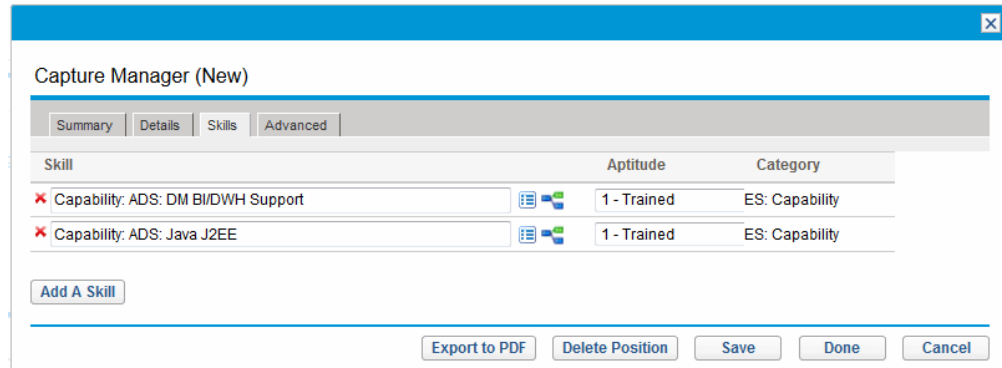
d. Optionally, under the Advanced tab, set the cost category and expense type for the position.

The cost category is used to categorize costs of unmet demand. When the project associated with the staffing profile is set to calculate the forecasted labor costs from the staffing profile, the Cost Category field is required.

The expense type is used to categorize capital and operating expenses. Only when SOP 98-1 tracking is enabled on the parent entity of the staffing profile, you can set the expense type.

For information about financial summary settings and SOP 98-1 tracking, see *Financial Management User's Guide*.

e. Click **Add.**

The Staffing Profile page reloads with the staffing profile line added.

f. Repeat as necessary.

You can add more than one line to the staffing profile at a time without returning to the Staffing Profile page by clicking **Add Another** once you have filled in the values for one line.

3. Click **Done.**

Importing Positions into a Staffing Profile

If you have created positions in a staffing profile that you want to use in a new or existing staffing profile, you can import some or all of these positions.

1. Open the staffing profile in which you want to add positions.

2. Click ⬇ in the **Gantt** view or **Import Positions** in the **Table** view.

   The Import Positions dialog box opens.
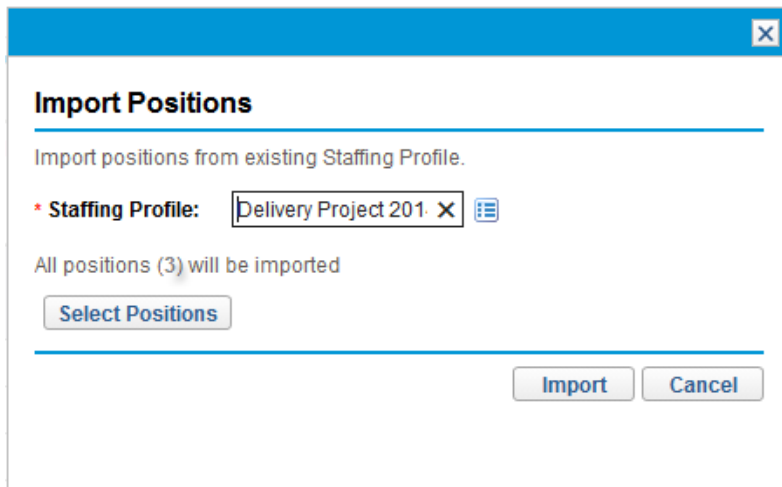
3. Click the **Staffing Profile** auto-complete list to select the source staffing profile where you want to import positions.

   > **Note:** If you click **Import** after selecting the source staffing profile, all the positions of the source staffing profile are imported to the current staffing profile.

4. Click **Select Positions**.

   The Select Positions dialog box opens.
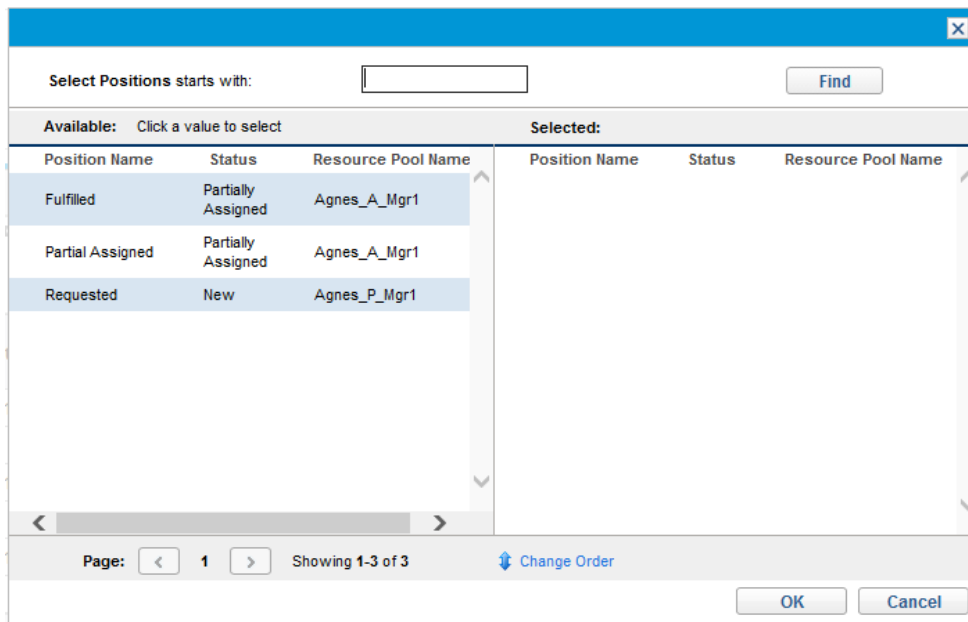
5. Select the positions you want to import to the current staffing profile.

6. Click **OK**.

   You are back to the Import Positions dialog box indicating how many positions will be imported.
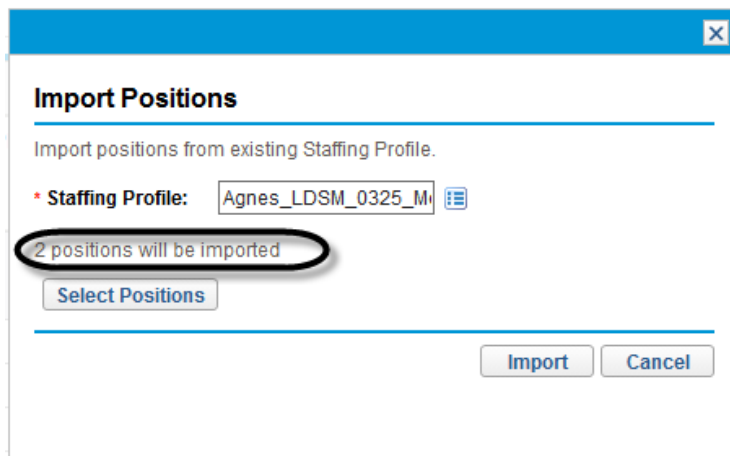
7. Click **Import.**

Filtering Positions on Staffing Profile page

Filtering Positions in the Gantt View

You can quickly filter positions by position status. Clicking a specific status filters the positions in that status. Clicking **Total Positions** lists all the positions in the staffing profile.
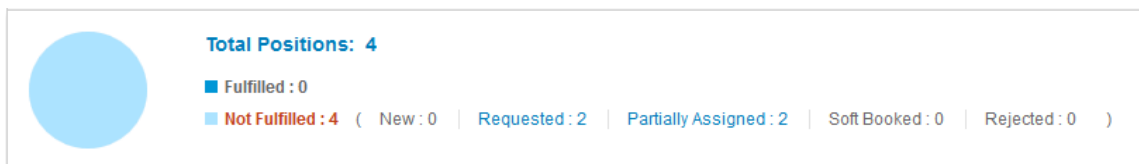
You can also filter positions in the **Gantt** view of the Staffing Profile page by advanced filters:

1. Click ▼ to open the dialog box as follows:

2. Provide the filter criteria as described in the following table.

Filter Name	Description
Position Name	Filters the positions that contain the name you specify.
Role	Filters the positions whose roles are as specify.
Resource Pool	Filters the positions that draw resources from the resource pool or resource pools you specify.
Include Blank Resource Pool	If you select this checkbox, the positions that have no resource pool specified are filtered.
Resources	Filters the positions that contain the resource or resources you specify.
Resource Type	Filters the positions that contain the resource or resources pf the type

	you specify.
Promise	If you select this checkbox, the positions that have promise assigned are filtered.

3. Click 🔍 .

The positions that meet the filter requirements are listed. The specified filters are displayed in the pie chart section.

Note: You cannot filter positions that have unmet demands or over allocations in the **Gantt** view. Switch to the **Table** view if you want to do so.

Filtering Positions in the Table View

In the **Table** view of the staffing profile page, positions can be filtered by one or more of the following entities:

- Position/Resource

- Status

- Resource pool

Filter Positions by Position/Resource

You can filter positions in the staffing profile by some basic attributes of the positions. To do so,

1. Move the mouse over the Position column.

2. Click the ▼ icon.

A dialog box opens.

The following table describes the fields in this dialog box

Field Name	Description
Position (Position)	
Filter by Position Label	Filters the positions that contain the text you specify.
Unmet Demand no less than _ FTE	Filters the positions whose unmet demands are equal to or greater than the number of FTE you specify.
Over Allocation no less than _ FTE	Filters the positions whose over allocations are equal to or greater than the number of FTE you specify.
From _ To _	The time range when unmet demand or overallocation occurs. These two filters are enabled only when you select the **Unmet Demand no less than** or **Over Allocation no less than** checkbox. By default, the time range is the same with that of the staffing profile.
Position (Resource)	
Resource Name	Filters the positions that contain the resource or resources you specify.
Promise	Filters positions that contain the promised resources or allocations you specify. This filter is available only when the ENABLE_PROMISE_

	RESOURCE_ALLOCATION parameter in the server.conf file is set to true. For more information about editing the server.conf file, see the *Installation and Administration Guide*.

3. Click the **Position** or the **Resource** tab and provide information for your desired filters.

4. Click **Apply**.

Filter Positions by Status or Resource Pool

Similarly, if you want to filter positions by status or resource pool, click the ▼ icon in the Status or Resource Pool column.

If you want to filter positions that are in specific statuses, select the corresponding checkboxes.

If you want to filter positions that belong to specific resource pools, select the corresponding checkboxes. Selecting the **(Blank)** checkbox filters the positions that do not belong to any resource pools.

Adding/Removing Columns on Staffing Profile Page

You can add or remove columns in the **Gantt** view of the Staffing Profile page:

1. Open the Staffing Profile in the **Gantt** view.

2. Click ⬚ to open a multi-select dialog box.

3. Select the columns you want to add and deselect the columns you want to remove. The Position and Role columns are selected by default and cannot be deselected.
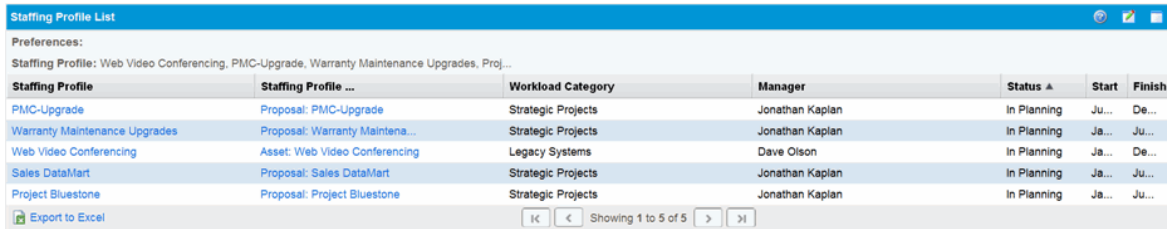
   Clicking the up or down arrow to see more columns. Selecting **Check All** displays all the columns on the Staffing Profile page.

4. Click outside the dialog box to close it.

Viewing Staffing Profiles

Staffing profiles can be reached most easily from the Staffing Profile List portlet.

Figure 4-6. Staffing Profile List portlet

Users with the View or Edit access to staffing profiles can add the Staffing Profile List portlet to their PPM Dashboard.

You can also reach staffing profiles by using the search box or Search Staffing Profiles page.

Using Search Box

The search box is used to locate and open staffing profiles based on staffing profile names that contain the specified text. Use the search box if you know the name of the staffing profile or want to search for one or more staffing profiles that use a particular phrase or fragment of text in its name. The search box is located in the upper-right corner.

To locate and open a staffing profile using the search box:

1. Log on to PPM Center.

2. In the search box, located on the right side of the menu bar, type **@** followed by the text to search for in the staffing profile name. When you start typing the text, a submenu appears (the search is not case-sensitive).

3. Once you have finished typing your search text, select **Search for staffing profiles: <search_ text>.**

   If the search text matches only one staffing profile name, the Staffing Profile page for that staffing profile opens.

   If the search text matches more than one staffing profile name, the Search Staffing Profiles page opens, displaying a list of staffing profiles with matching names. Click the name of a staffing profile to open its Staffing Profile page.

Using Search Staffing Profiles Page

Use the Search Staffing Profiles page if you want to search for a staffing profile based on criteria such as staffing profile type or staffing profile status.

To locate and open a staffing profile using the Search Staffing Profiles page:

1. Log on to PPM Center.

2. From the menu bar, select **Search > Staffing Profiles.**

   The Search Staffing Profiles page opens.

3. Provide search criteria in the appropriate fields.

4. Click **Search.**

   The Search Staffing Profiles page reloads, displaying the results of your search.

5. Click the name of a staffing profile to open its Staffing Profile page.

Modifying Staffing Profile Notifications

Notifications allow staffing profile managers to be notified (by email) when resource requests are forwarded or rejected, and resources are allocated. By default, staffing profile notifications are set to notify a staffing profile manager when a resource request message is rejected, a resource is committed, a committed resource changes to soft-booked or is removed, and when the start date, end date or FTEs of a committed resource is adjusted.

To modify staffing profile notifications:

1. Open a staffing profile.

2. In the Staffing Profile page, click **More** > **Configure Notifications.**

3. Select or unselect the checkbox for the level of notification you desire.

By default, the **Prevent any email notifications regarding this staffing profile** option is unchecked. Checking this option disables all the other options on this page.

The **Prevent any email notifications regarding this staffing profile** option is intended for staffing profiles linked to confidential projects. This option enables you to prevent any email notifications about the staffing profile from being sent out. Therefore, checking the option protects the confidential information about the staffing profile and the corresponding project.

For example, by checking this option, you disable the email notifications that the system generates when resource requests are sent to resource pools.

> **Note:** The automatically-generated email notifications cannot be disabled by any original options on the Configuration Notifications page. With this option checked, only users having the appropriate permissions, such as the staffing profile manager, the resource pool manager, and the project manager can view the resource requests after they log on to the system.

4. Click **Save.**

Sending Resource Requests from a Staffing Profile

When you are creating a staffing profile, its lines represent forecasts for roles that lack a specific resource. Once you have finished creating the staffing profile, you can send assignment requests to the

resource pools specified in each staffing profile line. Assignment requests will appear for each resource pool, for the resource manager to fill.

Figure 4-7. Resource pool with unfilled resource requests

To send resource requests for your staffing profile in the **Gantt** view:

1. Open the staffing profile in the **Gantt** view.

2. Select the position for which you want to send resource request.

3. Click ⬛**Send Resource Requests.**

   The Send Resource Requests dialog box opens.

4. Specify or edit the resource pool to draw resources in the **Resource Pool** field.

5. Specify the date by which a response should be made in the **Response Needed** date field.

6. Click **Send**.

   The assignment requests are sent to the appropriate resource pools. See "Assigning Resource Pool Resources" on page 126 for details on what happens once assignment requests have been made.

To send resource requests for your staffing profile in the **Table** view:

1. Open the staffing profile in the **Table** view.

2. Click **Send Resource Requests**.

   The Send Resource Requests dialog box opens.

3. Select the checkbox next to each position for which you want to send an assignment request.

   > **Note:**
   >
   > ○ For positions that have resource pools specified, you cannot change their resource pools in the **Table** view.
   >
   > ○ Positions that do not have resource pool specified are not included in the list

4. Specify a date by which a response should be made in the **Response Needed** date field.

5. Click **Send.**

   > **Note:** If comments for staffing profile positions exceed field limitations, the comments are automatically truncated (a warning message is not displayed). Field limitations include comments larger than 2,000 characters and comments larger than 255 characters that are sent in notifications (the comment in the notification is truncated).

Staffing Profile Security

Access to a staffing profile is controlled primarily through access grants set in the security group definitions. For further granularity, the user who creates a staffing profile can specify a list of users who can view it, edit its basic information, edit its lines, or edit its security.

A staffing profile attached to a project can be viewed by everyone participating in that project who has the proper access grants (see "Staffing Profile Access Grants" on the next page), without necessarily appearing on the list specified for the staffing profile using the Configure Access page (see "Staffing

). This includes project process participants and project participants (users who are assigned to tasks in the work plan, or who are specified on the staffing profile itself). In addition, project managers can edit staffing profiles attached to their projects. The same type of access applies to staffing profiles attached to proposals and assets, for users of Portfolio Management.

Staffing Profile Access Grants

Users are linked to access grants through the security group they are a part of. The access grants related to staffing profiles are discussed in more detail in "Table 4-6. Staffing profile access grants" below. Without these access grants, a user cannot view or edit a staffing profile regardless of whether they are specified in the list on the staffing profile's Configure Access page, or are a participant in the project the staffing profile is attached to (if any).

- For more information on access grants and security groups, see the *Security Model Guide and Reference.*

- For more information on project and project process participants, see the *Project Management User's Guide.*

Table 4-6. Staffing profile access grants

Access Grant	Description
View Staffing Profiles	The user can view any staffing profile for which they are on the specified View or Edit list.
View All Staffing Profiles	The user can view any staffing profile in the system.
Edit Staffing Profiles	The user can edit any staffing profile for which they are on the specified Edit list.
Create Staffing Profiles	The user can create new staffing profiles. Supplemental to the Edit Staffing Profiles or Edit All Staffing Profiles access grant.
Edit All Staffing Profiles	The user can edit any staffing profile in the system.
Update Staffing Profiles Status	The user can update the **Profile Status,** but nothing else. Supplemental to the Edit Staffing Profiles or Edit All Staffing Profiles access grant.
Delete Staffing Profiles	The user can delete a staffing profile as long as no actuals are specified.
Delete Staffing Profiles with Actuals	The user can delete any staffing profile in the system.

Table 4-6. Staffing profile access grants, continued

Access Grant	Description
Promise Unspecified Resource	The user can allocate a promised resource.

Staffing Profile Configure Access Page

The Configure Access page for a staffing profile is used to grant additional editing access to the staffing profile to each user on the list individually. All users listed on the Configure Access page minimally have viewing access.

> **Note:** Without the proper access grants, a user cannot view or edit a staffing profile regardless of whether they are specified in the list on the staffing profile's Configure Access page. See "Staffing Profile Access Grants" on the previous page for more detailed information.

The Configure Access page options are discussed in more detail in "Table 4-7. Security options for Staffing Profile Configure Access page" below.

Table 4-7. Security options for Staffing Profile Configure Access page

Option	Description
View Access	The user can view the staffing profile but not edit its information. Any user listed has View access.
Edit Header	The user can edit the fields in the staffing profile header section, but not the staffing profile lines, nor change periods.
Edit Positions	The user can edit the staffing profile lines, but nothing else.
Edit Assignment Actuals	The user can edit actuals on staffing profile lines, but nothing else.
Edit Security	The user can use the Configure Access page to edit viewing or editing security for the staffing profile.

Using Configure Access Page

To set up a list of users with View or Edit access to a staffing profile:

1. Open the staffing profile.

   If you have permission to modify the staffing profile, the **Configure Access** button will be enabled.

2. Click **More** > **Configure Access.**

   The Configure Access for Staffing Profile page opens.

3. Add a user to the list by click **Add User** and making a selection from the list.

4. Configure each user's access individually by selecting the checkboxes under each category.

   Granting Edit access automatically grants the user View access. See "Table 4-7. Security options for Staffing Profile Configure Access page" on the previous page for more detailed information on each option.

5. Click **Save.**

If you have Edit Security access grant for the Staffing Profile Configure Access page, you can add security groups to a staffing profile.

To add a security group to a staffing profile:

1. Open the staffing profile.

   If you have permission to modify the staffing profile, the **Configure Access** button will be enabled.

2. Click **More > Configure Access**.

   The Configure Access for Staffing Profile page opens.

3. Add a security group to the list by clicking **Add Security Group** and selecting the desired security group from the list.

   Note: You cannot add a duplicate security group.

4. Configure the security group's access by selecting the checkboxes under each category.

   The View access is automatically granted to the security group.

5. Click **Done**.

Clearing Future Forecast and Assignments

When a staffing profile is completed, you have an option to clear future forecast and assignments (forecast and assignments that go beyond the finish date) from the staffing profile. If the future forecast and assignments are cleared, they are no longer reflected in areas such as the Analyze Assignment Load and Analyze Resource Pool portlets, a resource's workload capacity, the Resource Finder, forecasted demand, the staffing profile, and the Resource Allocation Management page.

To clear future forecast and assignments (you must have the Edit Positions access grant):

1. Open the staffing profile.

   If the staffing profile status is Completed, the **Clear Future Forecast and Assignment** button is enabled.

2. Click **More** > **Clear Future Forecast and Assignment.**

   The Clear Future Forecast and Assignment dialog opens.

3. Specify a date from which to clear all forecast and assignment information. The date must be after the Profile Start date.

   > **Note:** Verify the **Clear From** date. Once you click **OK,** the forecast and assignments cannot be restored.

4. Click **OK.**

   Forecast and assignments starting from the specified date to the future are cleared from the staffing profile.

Deleting Staffing Profiles

If you have created a staffing profile that you no longer need, you can delete it.

1. Open the staffing profile.

   If you have permission to delete the staffing profile, the **Delete Staffing Profile** button is enabled.

2. Click **More** > **Delete Staffing Profile.**

3. Confirm that you want to delete the staffing profile by clicking **Delete.**

   The staffing profile is deleted.

Using Other Staffing Profile Features

Staffing profiles have other features that are useful for resource managers.

Staffing Profiles and Portfolio Management

Portfolio Management allows you to create proposals, projects, and assets to build and monitor your portfolio. If a staffing profile is associated with one of these Portfolio Management entities (proposal, project, or asset), then the dates on that staffing profile are determined by the entity to which it has been linked. If the dates for that entity change, the staffing profile's start and finish dates are also altered.

Default Resource Pools for Staffing Profiles

The **Default Resource Pool** field is used to specify a default resource pool from which a staffing profile makes requests. This can be a convenient way to save time when creating new lines for a staffing profile.

Special Command for Baseline Staffing Profile

You can use the system special command `ksc_create_baseline_staffing_profile` to create baselines for staffing profiles that are associated with projects. This special command includes the following two default parameters:

- STAFFING_PROFILE_ID

- SP_BASELINE_NAME

You can configure the special command in the following entities:

- Object types

- Request types

- Report types

- Validations

- Workflow step sources

> **Note:** To use this special command, you must have the edit special command access grant. For details about how to use special commands, see *Commands, Tokens, and Validations Guide and Reference.*

Exceptions

If you run this special command in the following scenarios, you receive errors:

- You do not have the permission to create baseline in the project.

- You create a base line for a staffing profile which is not associated with any project.

Calculating Forecasted Labor Costs from Staffing Profiles

Financial Management allows you to organize and track costs. You can roll up actual costs from a work plan to the financial summary. If you choose to calculate forecasted labor costs from the staffing profile position forecasts and allocations, you are creating lines in the financial summary for planned labor costs that are automatically calculated using cost rate rules.

For more details on cost rate rules and financial summaries, see the *Financial Management User's Guide.* For more details about Financial Management settings in the Cost and Effort policy, see *Project Management User's Guide* and *Financial Management User's Guide.*

PPM Center keeps two decimals when calculating forecasted labor costs and thus may lead to tiny deviation in Financial Summary.

> **Note:** For example, there are 23 working days in May 2012. You fill 10 hours as labor costs in this month. *PPM Center* stores data by working day, so the average labor cost per day is 10 / 23 = 0.434782608695652. When PPM Center calculates forecasted labor costs in Financial Summary, the forecasted labor costs in May 2012 is 0.434782608695652 * 40.45 * 23 = 404.4999999999998382 not 10 * 40.45 = 404.5.

For more examples of Unmet Demand Calculation, see .

Entering Actuals Directly

You can specify actual load or effort for a position directly from the **Table** view of the Staffing Profile page.

> **Note:** You cannot enter actuals in the position dialog box opened from the **Gantt** view of the Staffing Profile page. It is read-only.

1. Open an existing staffing profile.

2. Click on a position for which you want to enter actuals.

3. In the Assignments Needed table, scroll down to the user for which you want to enter actuals and provide the actual effort.

4. If you want to add actuals for additional users, click **Save.** Otherwise, click **Done** to save your data and exit the dialog.

The actual effort can be viewed in the Analyze Assignment Load portlet.

> **Note:** Data display format inconsistency between the staffing profile page and the Analyze Assignment Load portlet: the staffing profile page displays data by hours in the format of one decimal place, while the Analyze Assignment Load portlet displays data in the format of two decimal places.

If the staffing profile is associated with a project, the actual effort can be used to track resource usage. This is controlled through the projects settings in the **Cost and Effort** policy. For more information on project settings and policies, see the *Project Management User's Guide*.

Allocation Time Period Adjustment

When a project (with a staffing profile associated with it) changes its start/end date, the last viewed forecasts and allocations (either hours or FTE) is maintained while the non-viewed allocation is adjusted. For example, if a project (starting in January and ending in February, viewed in FTEs with one FTE per month) is adjusted back by one month (starting in December and ending in January), the allocation time period for each month is maintained at 1 FTE per month while the hours are adjusted to equal 1 FTE per month. Or, if the project (for the month of January is viewed in hours with 80 hours) is adjusted ahead by

one month (to February), the allocation time period for February is maintained at 80 hours while the FTE is adjusted to equal 80 hours.

Promised Allocations

Promised allocations are resource allocations who are not specifically named or identified. They can be used when a resource is allocated but the resource is not defined in PPM Center (for example, a subcontractor). Or, they can be used to commit resources and then assign a specific resource at a later time. Actuals cannot be entered for promised allocations.

This feature must be enabled and can be used from the staffing profile and Resource Allocation Management page. To enable this feature, set the ENABLE_PROMISE_RESOURCE_ALLOCATION parameter to **TRUE.** To add, assign, modify or delete promised allocations, the user must have the Resource Mgmt: Promise Unspecified Resources access grant.

Calculations, such as unmet demand, current demand, and remaining capacity, always include promised allocations. Even if this feature is disabled, if promised allocations exist (that is, values were entered before the feature was disabled), then promised allocations are used in all calculations even though they are not viewable from the interface.

Calculations that rely on a calendar (such as recalculating a promised allocation from hours to FTE or when rolling up forecasted labor costs from the staffing profile to a financial summary) use the regional calendar of the resource pool of the position to which the promised allocation belongs. The regional calendar determines the promised allocation's working and non-working days. A resource calendar cannot be set up for a promised allocation.

Forecast Planning

When planning for multiple projects in an organization, the staffing profile manager may find several projects require deliverables from his team. Rather than accessing the staffing profile of each project one at a time, the staffing profile manager can create his forecast plans for these multiple projects from a single page, the Forecast Planning page.

The Forecast Planning page allows the staffing profile manager to:

- View all positions and staffing profiles he owns, even if they span multiple projects

- Filter the positions and staffing profiles displayed

- View forecasts for all projects simultaneously to quickly and accurately estimate resource needs

- Edit resource forecasts across multiple staffing profiles

- Add positions to a staffing profile

- Send resource requests

Configuring Forecast Planning Page

You can modify parameters in the `server.conf` file to change the number of staffing profile positions that appear on a single page and change the default units that appear in the Display Options dialog for measurements and groupings. Modifying these parameters are optional.

See the *Installation and Administration Guide* for more information about editing the `server.conf` file.

Table 4-8. Forecast planning server.conf parameters

Parameter	Description
FORECAST_ PLANNING_ PAGE_SIZE	The number of staffing profile positions that appear on a Forecast Planning page.
RM_ DEFAULT_ EFFORT_ TYPE	The default effort type that appears in the Display Options dialog. The staffing profile manager can change the effort type by modifying the `Measure Effort in` field in the Display Options dialog. Valid values: FTE, hours, person days. Default: FTE.
RM_ DEFAULT_ PERIOD_ TYPE	The default time period section that appears in the Display Options dialog. The staffing profile manager can change the time period section by modifying the `Group Periods by` field in the Display Options dialog. Valid values: week, month. Default: month.

You can modify the parameter EXCEL_EXPORT_POSITIONS_LIMIT in the Administration Console to change the maximum number of positions that can be exported to Microsoft Excel on the Forecast Planning page. By default, the value is 2000.

> **Note:** When you configure this parameter, consider your performance objectives. If large amounts of data are exported, you might encounter performance issue.

Configuring Access Grants

To access the Forecast Planning page, users must have one of the following access grants:

- Resource Mgmt: Edit All Staffing Profiles

- Resource Mgmt: Edit Staffing Profiles

See the *Security Model Guide and Reference* for more information about access grants.

Accessing the Forecast Planning Page

You can access the Forecast Planning page from the menu bar.

> **Note:** To access the Forecast Planning page, you must have the required access grants. See "Configuring Access Grants" on the previous page.

1. Select **Open** > **Project Management** > **Staffing Profiles** > **Manage Forecast**.

2. Select the search criteria and click **Search.** For more information about the search fields, see "Search Filter" on page 123.

   The Forecast Planning page appears.

> **Note:** The staffing profiles that appear in the Forecast Planning page are ones that you manage and do not have the status of Lock Down, Cancelled, or Completed.
>
> The Forecast Planning page loads data once. If the data is modified by another user (outside of the current Forecast Planning page or using another instance of the Forecast Planning page), the data on the current Forecast Planning page is not updated. If any modifications you made collide with modifications saved by another user, your modifications are not saved. The

Forecast Planning page is reloaded and you must retype your data. To avoid these collisions, you should save your modifications often.

Using the Forecast Planning Page

Use the Forecast Planning page to:

- Edit and save forecast data

- Add or remove a position

- Send a resource request

- View more detailed information about a staffing profile or position

You can also modify the amount of the information that appears on the Forecast Planning page by using the search and time period filters or adjusting display options.

Changing Forecast Data

To update a forecast value:

1. Select the cell to update.

2. Replace the existing value with a new forecast value.

3. Press TAB or click on another cell.

To copy a value from one cell to multiple cells:

1. Select a cell to copy.

2. Use SHIFT + **click** to copy the value to all contiguous cells. That is, all cells from the copied cell to the selected cell will have their values updated.

Saving Forecast Data Changes

To save changes made to or exit from the Forecast Planning page, do one of the following:

- To save changes made to the Forecast Planning page, click **Save.**

- To exit and save any changes made to the Forecast Planning page, click **Done.**

- To cancel any changes made to the Forecast Planning page since the last save, click **Cancel.**
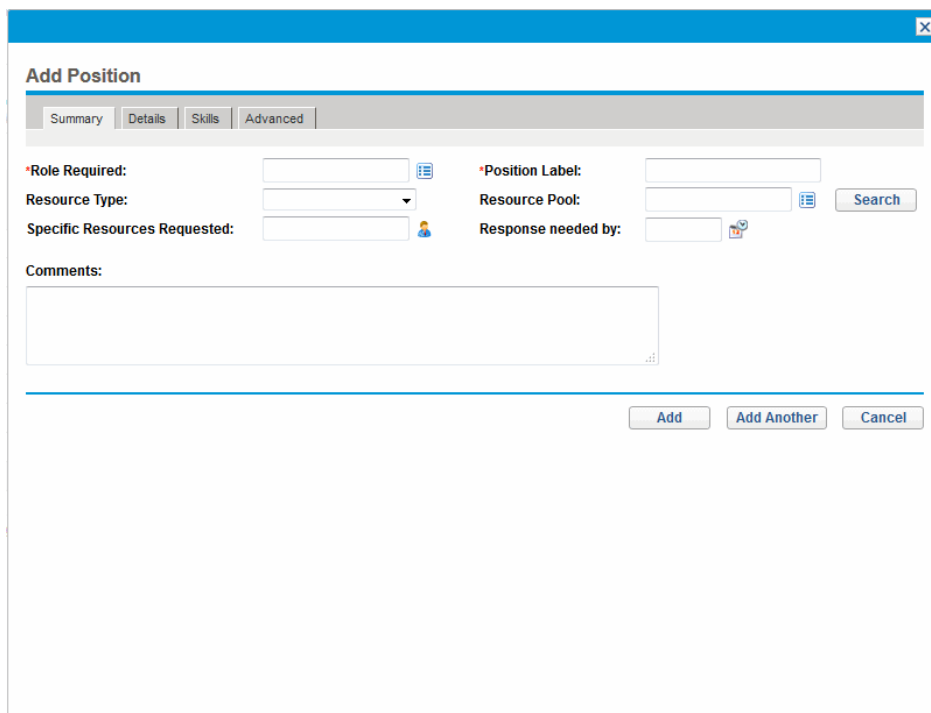
> **Note:** If you made changes to and try to save data that has been recently modified by another user (that is, the data that appears in the Forecast Planning page is not the most current data), a message appears and the data is not saved. The Forecast Planning page is reloaded and you must retype your data.

Adding a Position

To add a position to a staffing profile, do the following:

1. From the Forecast Planning page, click ▤ ▼ next to the staffing profile and select **Add Position.**

   The Add Position dialog box opens.

2. Specify a **Role Required, Position Label** (name of the position)**,** and **Resource Pool**.

> **Note:** When you click **Search** on the right of the Resource Pool field in the Add Position dialog box to search resource pools, the search result will list all the resource pools that fit the search criteria, regardless of whether you have the view access grant to all of them.

3. (Optional) Provide data for any optional fields.

> **Note:** A message appears if any data provided does not match the filter information specified in the Search for Staffing Profile dialog (the added position will not appear in the Forecast Planning page.

For a description of the fields, see step b.

4. Repeat as necessary.

You can add more than one position at a time without returning to the Forecast Planning page by clicking **Add Another** once you have filled in the values for one position.

5. Click **Add.**

The Forecast Planning page reloads with the position(s) added.

Removing a Position

A position that has been added to a staffing profile can also be removed from that staffing profile. To remove a position, do the following:

1. Click ✖ next to the position to select it for removal. The position and its data remain, but appear in gray.

2. Click **Save** on the Forecast Planning page.
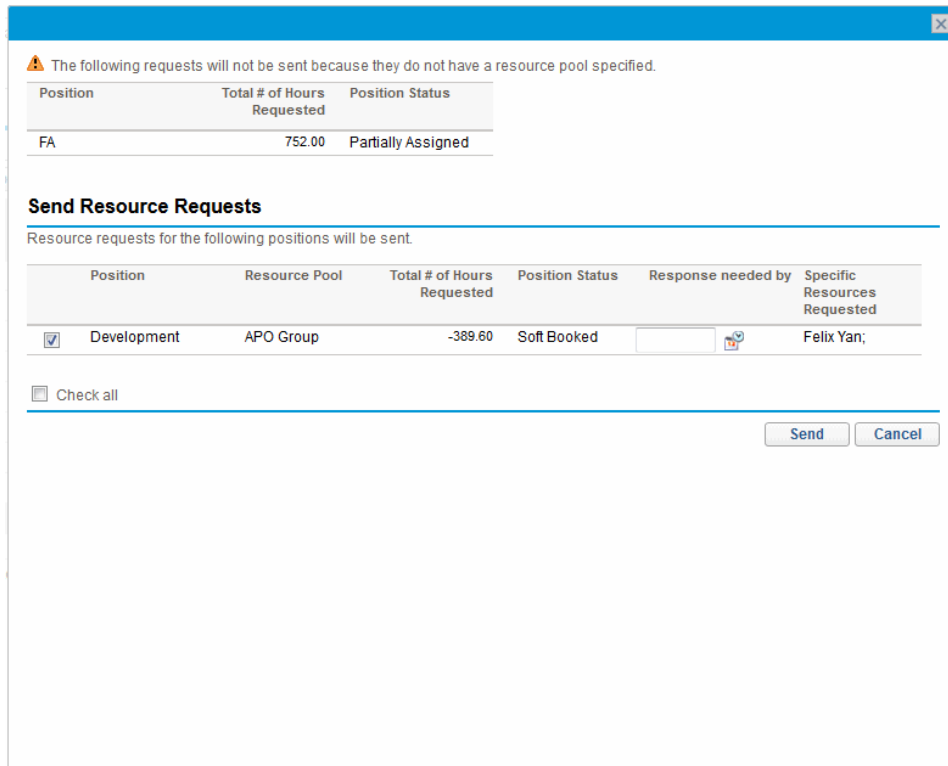
You can re-add a position that has been selected for removal by clicking 🔄 . This icon only appears when a position has been selected for removal but *before* clicking the **Save** button on the Forecast Planning page.

Sending a Resource Request

To send a resource request for one or more positions of a staffing profile:

1. From the Forecast Planning page, click [icon] next to the staffing profile and select **Send Requests.**

   The Send Resource Requests dialog box opens.

2. Select the checkbox next to each position for which you want to send a resource request.

3. Specify a date by which a response should be made in the **Response needed by** date field.

4. Click **Send.**

   The resource requests are sent to the appropriate resource pools. See "Assigning Resources to Tasks" on page 181 for details about assigning resources.

Viewing Information about a Staffing Profile or Position

You view additional information about a staffing profile or position by using a tooltip or opening an overview window.

Viewing Staffing Profile Information

You can view information about a staffing profile in two different ways:

- Place the cursor on a staffing profile to view the tooltip. The following information appears: staffing profile name, status, staffing profile manager, project name, start date, end date, and work load category.

- Click on the staffing profile name to open a Staffing Profile overview page in another window.

> **Note:** The information that appears is for reference only. Do not edit the staffing profile from this window. If you make changes in this window, changes in the Forecast Planning page may not be saved.

Viewing Position Information

You can view information about a position in two different ways:

- Place the cursor on a position to view the tooltip. The following information appears: position name, status, response needed by, role, resource pool, and resource type.

- Click on the position name to open a position overview page in another window.

Filtering and Sorting

Filtering allows you to modify the information that appears in the Forecast Planning page. The search filter allows you to filter on staffing profiles, roles, resources pools, and positions. The time period filter allows you to filter on a start and end period. You can also sort the information by staffing profile.

The filters currently applied to the Forecast Planning page appear at the top of the table along with the time the page was opened. If the list of applied filters is truncated, you can place the cursor on the filter to show all of the applied filters.

Search Filter

Use the search filter to select multiple items on which to filter the Forecast Planning page. To set the search filter, do the following:

1. Click **Modify** next to the **Filter For** header.

   The Search Positions page appears.

Search Positions

| Staffing Profile: | | Role: | |
| Resource Pool: | | Position Name (contains): | |

Search

2. Provide the information for one or more fields on which you want to filter.

Field Name	Description
Staffing Profile	Select one or more staffing profiles. This filter displays data for staffing profile positions contained in the selected staffing profile(s).
Role	Select one or more roles. This filter displays data for staffing profile positions that contain the selected role(s).
Resource Pool	Select one or more resource pools. This filter displays data for staffing profiles that belong to the selected resource pool(s).
Position Name (contains)	Type a text string. This filter displays data for staffing profile positions that contain the typed text in the position name.

3. Click **Search.**

Time Period Filter

`Showing from`<*date*>`to`<*date*> is the time period of the data that appears. The default time period that appears is one year, starting one month prior to the current month.

To change the time period, do the following:

1. Click **Change,** located next to the time period that appears (Showing from *<date>* to *<date>*).

   The Change Time Periods dialog appears.
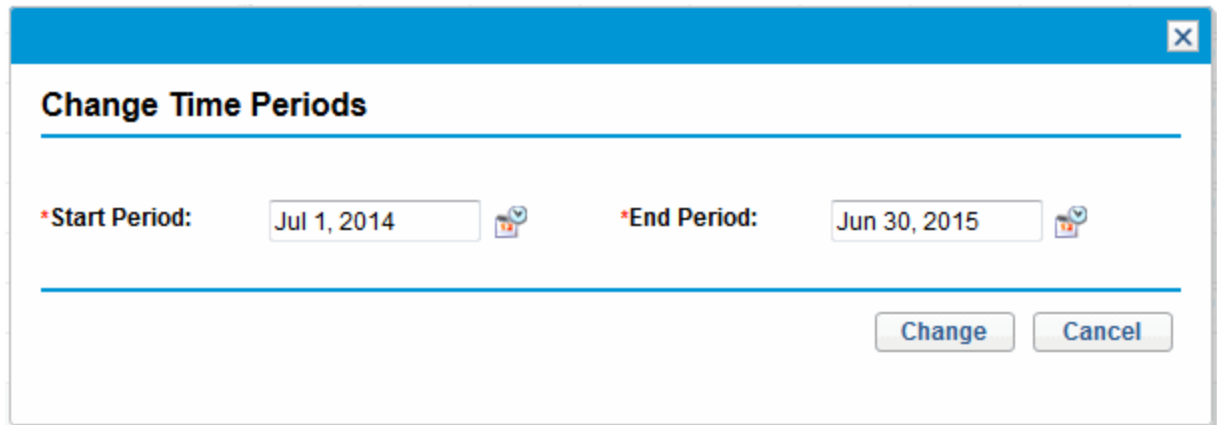
2. Select the Start Period and End Period dates. The months specified are included in the time period of the data that appears.

3. Click **Change.**

Sorting by Staffing Profile

By default, the list of staffing profiles are sorted in alphabetical order. You can sort the staffing profiles in reverse alphabetical order by clicking on the staffing profile header. The Sort icon (⊿) appears next to the staffing profile header.

Changing the Display Options

Display options alter the amount of data that appears in the Forecast Planning page. You can change the period type and effort type.

To modify display options, do the following:

1. Click **Display Options.** The change Display Options dialog appears.

2. Edit one or more of the following.

Field Name	Description
Group Periods by	The period type (how the time period is divided). Select Week, Month, or Quarter.
Measure Effort in	The effort type (how effort is measured). Select FTE, Hour, or Person Day.

3. Click **Change.**

Displaying Positions

You can expand and collapse a staffing profile to view its positions in the Forecast Planning page:

- To view all positions of all staffing profiles, click ⩘ .

- To hide all positions of all staffing profiles, click ⩗ .

- To view the positions of a staffing profile, click ▶ next to the staffing profile.

- To hide the positions of a staffing profile, click ▼ next to the staffing profile.

Displaying Additional Pages of Data

Depending on the filters you select, data may appear on more than one page of the Forecast Planning page. In the top-right corner of the table, you can see how many pages of data are available to view and which page you are viewing.

To go to the next page of data, click **Next.**

To go to the previous page of data, click **Prev.**

Assigning Resource Pool Resources

When a staffing profile is created, its positions represent needed roles without resources specified. After creating a staffing profile, a project manager can send resource assignment requests from the staffing profile to the various resource pools specified in each staffing profile position (see "Sending Resource Requests from a Staffing Profile" on page 106 for details). The resource manager can then review the assignment requests for each resource pool and go into each staffing profile, making the appropriate assignments for each line.

Collecting Resource Requests

To view resource requests, open the Resource Pool page for any resource pool. All resource assignment requests submitted against a resource pool appear on the Resource Pool page.

Figure 4-8. Resource pool with unfilled resource requests

You can also view resource requests by adding the Resource Request portlet to your PPM Dashboard or from the Resource Allocation Management page.

The Resource Request portlet displays collections of resource requests filtered by resource pool manager, staffing profile, or role (fulfilled or partially assigned requests are not displayed in the resource requests list). The portlet lists positions where the values of Total Unmet Hours are either less than zero (which means over-allocation) or more than zero (which means unmet demand). Positions where the values of Total Unmet Hours equal zero are not displayed.

The Resource Allocation Management page displays resource requests sorted by staffing profile or position.

Click on the name of a resource pool to open its Resource Pool page.

Making Assignments

You can only make assignments from the **Table** view of the Staffing Profile page and the Resource Allocation Management page.

To fill a resource assignment request:

1. Open a resource pool.

2. In the Resource Requests section of the Resource Pool page, click on the name of a staffing profile.

   The Staffing Profile page opens.

3. Assign one or more resources in one of the following ways.

   ○ From the **Table** view of the Staffing Profile page, positions with open resource assignment requests display **Unmet Demand** in orange.

      i. Select the Unmet Demand checkbox of the position you want to assign.

      ii. Click **Assign** to assign one or more resources, or click the Resource Finder icon to search for a suitable resource using the Resource Finder.

   The Resource Capacity with Assignments dialog box opens, displaying the selected resource's current capacity with the staffing profile line's commitments marked as **Soft Booked.**

   ○ From the Resource Allocation Management page, see "Assigning a Resource to a Resource Request from Resource Allocation Management Page" on page 161.

   > **Note:** If one or more specific resources were requested, the Specific Resources Requested dialog opens. You can select and assign the specified resource(s) or you can click **Choose Other Resources** to assign other resources.

4. Make any changes to the resource's commitment to the staffing profile line.

   ○ You can change the nature of the resource's commitment between **Soft Booked** and **Committed,** or you can remove it entirely.

   ○ You can change the number of hours committed to the staffing profile.

   ○ If the resource pool is configured to send notifications to a resource, you can choose not to send an email notification.

5. Click **Done.**

   The Staffing Profile page reloads with your changes made. If unmet demand still remains, you can repeat the assignment process as needed.

> **Note:** A resource must be in a resource pool in order to be assigned to a staffing profile. By default, only the resource pool manager (or a manager of a parent resource pool) is permitted to make that assignment. To allow a project manager to assign any resource (from any resource pool) to a work plan, staffing profile, or both, set the RM_OVERRIDE_ASSIGNMENT_ CONTROLS parameter in the `server.conf` file on the PPM Server to `TRUE`.
>
> You can only make assignments from the resource pool specified by the originating requests when using the **Assign** button, but you can assign resources from other resource pools that you manage by using the Resource Finder. The specified resource pool includes resources from its child resource pools.

Rejecting and Forwarding Demand

Resource demand that comes from staffing profiles can be rejected from a particular resource pool outright, or forwarded to a different resource pool for assignment. You can reject or forward demand from the **Table** view of the Staffing Profile page and the Resource Allocation Management page.

When making assignments to a staffing profile in response to resource assignment requests, the **Reject** and **Forward** buttons appear next to the **Assign** button and Resource Finder icon on the **Table** view of the Staffing Profile page.

To reject unmet resource demand for a staffing profile line:

1. Select the checkbox next to the unmet demand for the staffing profile line(s) you wish to reject, if you are on the **Table** view of the Staffing Profile page.

   Or, click the down arrow next to the Assign icon of the staffing profile line(s) you wish to reject, if you are on the **Gantt** view of the Staffing Profile page.

2. Click **Reject.**

   The Reject Request for Unmet Demand dialog box opens.

3. Supply a reason for rejecting the resource demand in the **Comments** field and click **Done.**

To forward unmet resource demand for a staffing profile line to a different resource pool:

1. Select the checkbox next to the unmet demand for the staffing profile line(s) you wish to forward.

2. Click **Forward.**

The Forward Request to Another Pool dialog box opens.

3. Specify a resource pool in the **Forward to Resource Pool** field.

4. Supply a reason for forwarding the resource demand in the **Comments** field and click **Done.**

You can also reject and forward demand from the Resource Allocation Management page. See and for more information.

Assigning Promised Allocations

You can only assign promised allocations from the **Table** view of the Staffing Profile page and the Resource Allocation Management page.

To fill a resource assignment request with a promised allocation:

1. Open a resource pool.

2. In the Resource Requests section of the Resource Pool page, click on the name of a staffing profile.

   Positions with open resource assignment requests display **Unmet Demand** in orange. The position requesting resources will be selected.

3. Assign a promised allocation in one of the following ways.

   > **Note:** You must have the Resource Mgmt: Promise Unspecified Resources access grant and the parameter `ENABLE_PROMISE_RESOURCE_ALLOCATION` must be enabled to use the **Promise** button.

   ○ From the **Table** view of the Staffing Profile page, Positions with open resource assignment requests display **Unmet Demand** in orange.

      i. Select a checkbox next to Unmet Demand (only one checkbox can be selected).

      ii. Click **Promise.**

The Adjust Allocations for Promise dialog box opens, displaying the promised allocation and status.

- From the Resource Allocation Management page, see "Assigning a Resource to a Promised Allocation from Resource Allocation Management Page" on page 164.

4. Make any changes to the promised resource's commitment to the staffing profile line.

- You can change the nature of the promise's commitment between **Soft Booked** and **Committed,** or you can remove it entirely. The commitment defaults to **Soft Booked.**

- You can change the number of hours/FTE/person days committed to the staffing profile. The values default to the position's unmet demand.

5. Click **Done.**

The Staffing Profile page reloads with your changes made. If unmet demand still remains, you can repeat the assignment process as needed.

Analyzing Resource Pools

Resource capacity planning typically involves the use of both resource pools and staffing profiles. The projected capacity of resources can be tracked with resource pools, while anticipated demand is tracked with staffing profiles. Comparing a resource pool to a staffing profile can yield valuable insight on future resource deployments as they are weighed against planned resource capacity.

Comparing Resource Pools to Staffing Profiles

The Analyze Resource Pools portlet provides a way to assess planned load on resource pools by directly comparing the projected demand in a staffing profile or Profiles to projected capacity in a resource pool or pools. "Figure 4-9. Analyze Resource Pools portlet" on the next page shows the Analyze Resource Pools portlet.

Figure 4-9. Analyze Resource Pools portlet
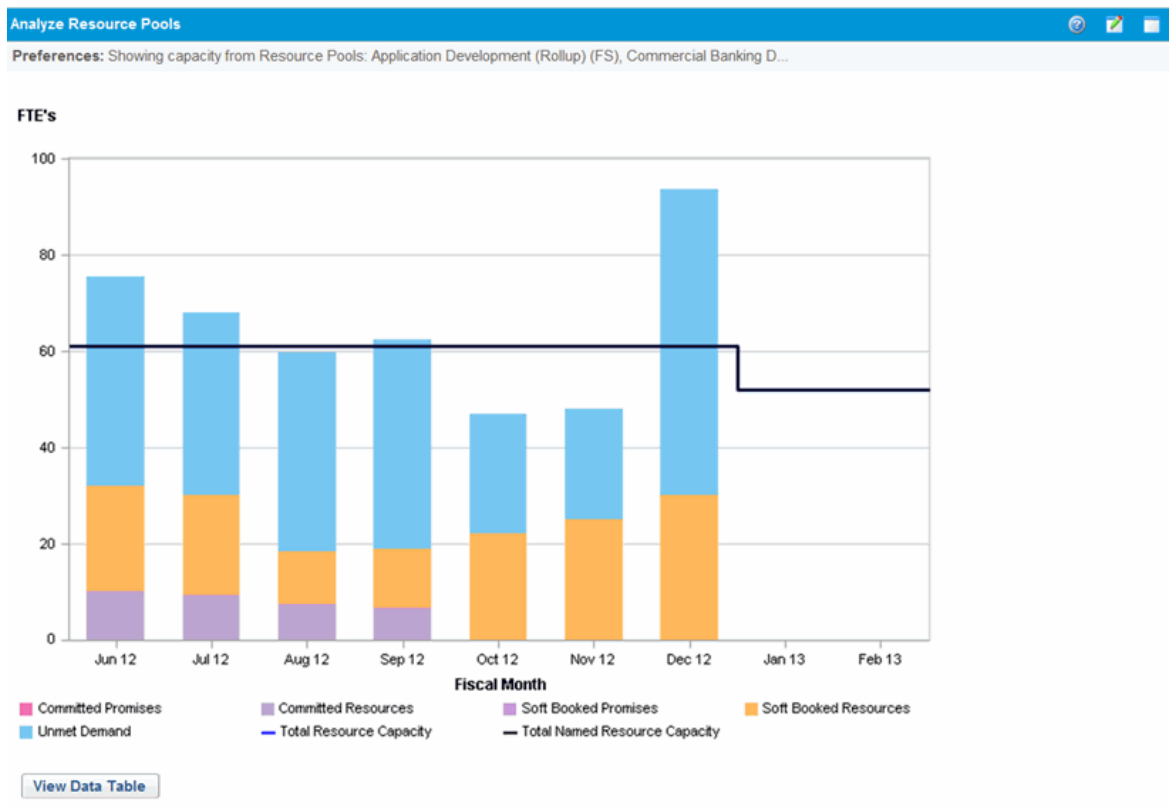
Key features of the Analyze Resource Pool portlet include:

- The blue line represents the total capacity of the resource pool or pools being analyzed

- The black line represents the total named capacity of the resource pool or pools being analyzed

- Bars on the chart represent resource allocations from staffing profiles by period, which can be split internally by staffing profile or status

The Analyze Resource Pools portlet can be filtered using the parameters described in Table 4-9.

Table 4-9. Analyze Resource Pools portlet - parameters

Field Name	Description
Filter By	
Analyze Capacity from Resource Pools	A multi-select auto-complete field that selects the resource pool or pools you wish to analyze.
Include (only) Staffing Profiles with Status	Selects staffing profiles with the specified Statuses to display.

Table 4-9. Analyze Resource Pools portlet - parameters, continued

Field Name	Description
Staffing Profiles with Workload Category	Selects staffing profiles of a specific **Workload Category** to display.
Include (only) Lines from Resource Pools and Staffing Profiles with Specific Role	A multi-select auto-complete field that selects a role or set of roles to display from the resource pools and staffing profiles being analyzed.
Time Period	
Period	Selects the time period being used by the Analyze Resource Pools portlet such as **Weeks, Day, Quarters, Month,** or **Year.**
Display (x) past periods	Selects up to 20 time periods before the current date to include in the Analyze Resource Pools portlet. If the period is yearly, selects up to 12 time periods. Useful for viewing historical trends.
Display (x) future periods	Selects up to 20 time periods after the current date to include in the Analyze Resource Pools portlet. If the period is yearly, selects up to 8 time periods.
Arrange Data	
Group By	Determines whether to display the results by **Staffing Profile** or **Committed, Soft-booked, and Unmet Demand.**

> **Note:** If a staffing profile is completed, future forecast and assignments (those past the finish date of the staffing profile) can be cleared and will not display in the portlet. See "Clearing Future Forecast and Assignments" on page 112 for more information.

If large amounts of data are supplied to the portlet, there may be performance problems. Therefore, thresholds for this portlet can be specified in the `server.conf` file and default values are provided for optimal performance.

- ARP_MAX_RESOURCES: the maximum number of total resources. The default value is 300.

- ARP_MAX_RESOURCE_POOLS: the maximum number of total resource pools. The default value is 30.

See the *Installation and Administration Guide* for more information about editing the `server.conf` file.

When a threshold is exceeded, the portlet does not display. Instead, a message containing the threshold value and current value that exceeds the threshold appear. To make the portlet display, you can edit the preferences of the portlet so that the threshold is no longer exceeded. HP does not recommend that you increase the threshold values as this may cause performance problems.

If the amount of data you need to analyze exceeds the thresholds, you can export the data to Microsoft Excel. To export Analyze Resource Pool portlet data to Microsoft Excel, do the following:

1. Select **Open** > **Resource Management** > **Data Exports** > **Analyze Resource Pool**.

2. Set the filter criteria for export.

   An additional field is included for the filter criteria: Include Detailed Data. Select this checkbox if you want to get a breakdown of total resource capacity viewed against load by staffing profile (data displayed in the Analyze Resource Pool Breakdown table).

3. Click **Export To Excel**.

The date when the snapshot was taken is included in the export.

Analyze Resource Pools Breakdown Table

To get a breakdown of total resource capacity viewed against load by staffing profile, click **View Data Table.** The Analyze Resource Pools Breakdown table, pictured in "Figure 4-10. Analyze Resource Pools Breakdown table" on the next page, opens in a new window.

> **Note:** For parent resource pools, the capacity line includes the FTEs from all child resource pools as well, meaning all roll-up lines are included. Similarly, the resource allocation bars represent all staffing profiles that draw from the child resource pools.

Figure 4-10. Analyze Resource Pools Breakdown table

The Analyze Resource Pools Breakdown table can be used to obtain a more numerically precise breakdown of projected load distribution. The figures can also be exported to Microsoft Excel for further manipulation.

You can have multiple instances of this portlet on your PPM Dashboard, for keeping track of different resource pools.

Table 4-10. Analyze Resource Pools Breakdown table row descriptions

Row	Description
Named Resources	Maximum amount of effort that can be allocated for named resources.
Unnamed Resources	Maximum amount of effort that can be allocated for unnamed resources.
Total Capacity	Maximum total amount of effort that can be allocated for named and unnamed resources.

Table 4-10. Analyze Resource Pools Breakdown table row descriptions, continued

Row	Description
Total Forecast	Anticipated demand for named and unnamed resources.[a]
Soft Booked Resources	Amount of effort provided by allocated resources that are not yet committed.
Committed Resources	Amount of effort provided by allocated resources that are committed.
Soft Booked Promises	Amount of effort provided by promised resources that are not yet committed. Viewable if the ENABLE_PROMISE_RESOURCE_ ALLOCATION parameter is enabled.
Committed Promises	Amount of effort provided by promised resources that are committed. Viewable if the ENABLE_PROMISE_RESOURCE_ ALLOCATION parameter is enabled.
Total Assignments	Total effort provided by allocated and promised resources that are soft-booked and committed.[b]
Unmet Demand	Amount of effort needed from unallocated resources. It is shown in different dimensions based on the setting of period type (how the time period is divided) and effort type (how effort is measured). Unmet Demand = Total Forecast − Total Assignments[c] For examples about how to use Unmet Demand Calculation in different scenarios, see "Unmet Demand Calculation Sample Scenarios" on page 220
Remaining Capacity	The available capacity of the selected resource pool. Remaining Capacity = Total Capacity − Total Assignments
Breakdown by Role	
Named	Maximum amount of effort that can be allocated for named resources for the specified role.
Unnamed	Maximum amount of effort that can be allocated for unnamed resources for the specified role.
Total	Maximum total amount of effort that can be allocated for named and unnamed resources for the specified role.
Forecast Total	Anticipated demand for named, unnamed, and promised

Table 4-10. Analyze Resource Pools Breakdown table row descriptions, continued

Row	Description
	resources for the specified role.
Assigned Total	Total amount of effort that is allocated for named, unnamed, and promised resources for the specified role.

a.   Total Forecast is calculated based on the position associated pool calendar. If the position doesn't have a resource pool, it will use the staffing profile regional calendar.

b.   Total Assignment is calculated based on the assigned resource associated resource calendar. Total Assignment is also calculated based on the project's Cost and Effort settings: If "Staffing Profile represents the work load imposed by the project" is selected, Total Assignment includes the sum of effort scheduled in the related staffing profiles. If "Work plan task assignments represents the work load imposed by the project" is selected, Total Assignment includes the sum of the effort scheduled in the related work plan.

c.   A special case on unmet demand calculation is on the resource pool view forecasted demanding page. The negative unmet (that is, an overbooking on one position) is ignored while showing unmet demand for the entire resource pool. This is because when we focus on the real unmet demand for a resource pool, we may not want the negative unmet demand for position 1 to offset the positive unmet demand for position 2 for a given period.

Analyzing Staffing Profiles Associated with Projects

Staffing profiles that are associated with projects can be compared with those projects to see how well they match up in terms of resource allocation and actual workload.

Automatic Tracking of Actuals for Staffing Profiles

If a staffing profile is associated with a project, you can set it to roll up values for Actual Effort directly from the work plan. This is controlled through the project settings, in the **Cost and Effort** policy. For more information on project settings and policies, see the *Project Management User's Guide*.

> **Note:** A staffing profile can only be associated with one project, and vice versa.

The roll-up of Actual Effort values from a work plan works thusly:

- Actual FTE values are calculated from the Actual Effort tracked on the work plan's tasks. The actual effort values appear only in the Analyze Staffing Profile page.

- The Analyze Staffing Profile page shows the scheduled and actual effort from the project's work plan, grouped by either resource or role.

- When viewing the Analyze Staffing Profile page grouped by resource, if a resource is not yet assigned to a task, the roll-up of scheduled effort will appear in the unassigned collection.

- When viewing the Analyze Staffing Profile page by role, the scheduled and actual effort appears under the role specified on the task.

- Actual effort includes promised allocations.

> **Note:** A staffing profile for a project must be created from that project's Project Overview page.

To set Staffing Profile to track actuals for a project:

1. Log on to PPM Center.

2. From the menu bar, select **Search** > **Projects** and open the project you want.

3. Click **Settings** and click on the **Cost and Effort** policy.

> **Note:** The Cost and Effort policy may not be editable. If not, you cannot modify the project's Cost and Effort settings unless you modify the project type that governs the project. See the *Project Management User's Guide* for more detailed discussion of how project types govern project settings through project policies.

4. Select **Staffing Profile represents the work load imposed by the project.**

5. Select **Use actual information from the work plan and Time Management when viewing actuals in the staffing profile.**

6. Click **Save**.

Automatic Tracking of Actuals with HP Time Management

A staffing profile linked to a project can roll up even more accurate Actual Effort data if HP Time Management has been enabled and is properly set for the project. For more details on HP Time Management, see the *Time Management User's Guide.*

The **Cost and Effort** policy in the project's settings determines whether or not financial data is tracked for a project, and how actuals are to be calculated, if at all. The **Cost and Effort** policy also determines

how HP Time Management is used to track effort, if HP Time Management has been enabled for the system.

Figure 4-11. Project Settings: Cost and Effort policy

Once HP Time Management is activated for the project, the Actual Effort values provided will roll up into the staffing profile, assuming the staffing profile is set properly (see "Automatic Tracking of Actuals for Staffing Profiles" on page 137).

To set HP Time Management to track Actual Effort for a project:

1. Log on to PPM Center.

2. From the menu bar, select **Search** > **Projects** and open the project you want.

3. Click **Settings** and click on the **Cost and Effort** policy.

   > **Note:** The Cost and Effort policy may not be editable. If not, you cannot modify the project's Cost and Effort settings unless you modify the project type that governs the project. See the *Project Management User's Guide* for more detailed discussion of how project types govern project settings through project policies.

4. Select **Use Time Management to track actual effort against this project**.

5. Select the appropriate level of the work plan to track.

6. Click **Save**.

Comparing a Project's Assignments to its Staffing Profile

The Analyze Staffing for Project page, pictured in "Figure 4-12. Analyze Staffing for Project page" on the next page, compares capacity (as the active staffing profiles for a project) to assignments within the associated project's work plan, viewable by role or by resource. It can be used to monitor compliance of the work plan and actuals to organizationally agreed-upon staffing levels for the project. Open it by clicking **Compare to Work Plan** in the Staffing Profile page.

Figure 4-12. Analyze Staffing for Project page

Role	Q2 14 Ma...	Ju...	Q3 14 Jul ...	Au...	Se...	Q4 14 Oct...	No...	De...	Q1 15 Jan...	Fe...	Ma...	Q2 15 Ap...	Ma...	Ju...	Q3 15 Jul ...
Development															
Forecast			252.0	252.0	252.0	264.0	216.0	264.0	240.0						
Allocation		4.4	241.2	252.0	320.0	352.0	288.0	352.0	320.0						
Scheduled Effort			168.0	168.0	168.0	176.0	144.0	176.0	160.0	152.0	176.0				
Actual Effort															
FA															
Forecast	168.0		168.0	168.0	168.0	176.0	288.0	352.0	320.0	304.0					
Allocation	80.0		168.0	168.0	136.0	176.0	144.0	176.0	160.0	152.0					
Scheduled Effort			336.0	336.0	336.0	352.0	288.0	352.0	320.0	304.0	352.0				
Actual Effort															
Project Manager															
Forecast															
Allocation															
Scheduled Effort															
Actual Effort															
Testing															
Forecast			336.0	336.0	336.0	352.0	288.0	352.0	320.0	304.0					
Allocation			328.0	336.0	304.0	352.0	288.0	352.0	320.0	304.0					
Scheduled Effort			168.0	168.0	168.0	176.0	144.0	176.0	160.0	152.0	176.0				
Actual Effort															

The data in the Analyze Staffing for Project page can also be exported to a Microsoft Excel file for use in presentations or for further analysis. To export the Analyze Staffing for Project page to a Microsoft Excel file, click the **Export to Excel** link.

> **Note:** If you are having problems with the data in Excel, you may need to configure the Internet options of your Web browser. See the *Project Management User's Guide* for more information.

Analyzing Staffing Profiles Associated with Assets

If a staffing profile is associated with an asset, you can:

- collect actuals from a time sheet and roll them up into the staffing profile,

- view actuals entered against an asset, and

- view resource load that includes time logged against an asset.

Rolling up Time of an Asset to a Staffing Profile

If the request type of an asset request is configured to use HP Time Management to track actuals (actuals are collected from the asset's time sheet), time is rolled up to the staffing profile of the asset.

Viewing Actuals

If a staffing profile is associated with an asset, you can view a table that contains the breakdown of the actuals entered against the asset:

1. Open the staffing profile.

2. Click **View Actuals.**

The table displays actuals and assigned loads for resources who have provided time against the asset associated with the staffing profile.

The actuals are not limited by the staffing profile period.

Analyze Assignment Load Portlet

If a staffing profile is associated with an asset, the Analyze Assignment Load portlet includes time logged against an asset (time logged against asset requests is counted as actual effort).

Managing Resource Allocation

Resource allocation management enables the resource pool manager to assess and manage resources and resource requests for a single resource pool from a quick edit page.

From the Resource Allocation Management page, you can:

- Allocate resources to staffing profile position requests

- Assess total capacity, committed and soft-booked allocations, and remaining capacity of a single resource pool

- View all resource requests and balance resource allocation across projects

- Make changes and view their impact before saving them

Accessing Resource Allocation Management Page

You can access the Resource Allocation Management page from two different locations in the interface.

- From the menu bar:

  a. Select **Open** > **Resource Management** > **Resources** > **Manage Allocations.**

  b. Select a resource pool by clicking **Select a Resource Pool** or **Please Specify a Resource Pool.**

- From the Resource Pool Overview page: click **Manage Allocation.**

> **Note:** You must be the manager of at least one resource pool in order to access the Resource Allocation Management page.

PPM Center version 9.30 introduces a new view, the **Gantt** view, for the Resource Allocation Management page, and in the meanwhile still supports the old view of this page. The old view is name **Table** view in this version. These two views provide you with different ways of looking at the page. You can switch between these two views. If you open the page for the first time. It is opened in the **Gantt** view. Resource Management keeps track of the view of each Resource Allocation Management page. If you log out and return to the page later, it is opened in the view as when you left it. For descriptions about the **Gantt** view, see "Interpreting Gantt View of Resource Allocation Management Page" on the next page.

The Resource Allocation Management page loads data once. If the data is modified by another user (outside of the current Resource Allocation Management page or using another instance of the Resource Allocation Management page), the data on the current Resource Allocation Management page is not updated. If any modifications you make collide with modifications saved by another user, your modifications are not saved. You must exit and reload the Resource Allocation Management page and retype your data. To avoid these collisions, you should save your modifications often.

Interpreting Resource Allocation Management Page

- ["Interpreting Gantt View of Resource Allocation Management Page" below](#)

- ["Interpreting Table View of Resource Allocation Management Page" on the next page](#)

Interpreting Gantt View of Resource Allocation Management Page
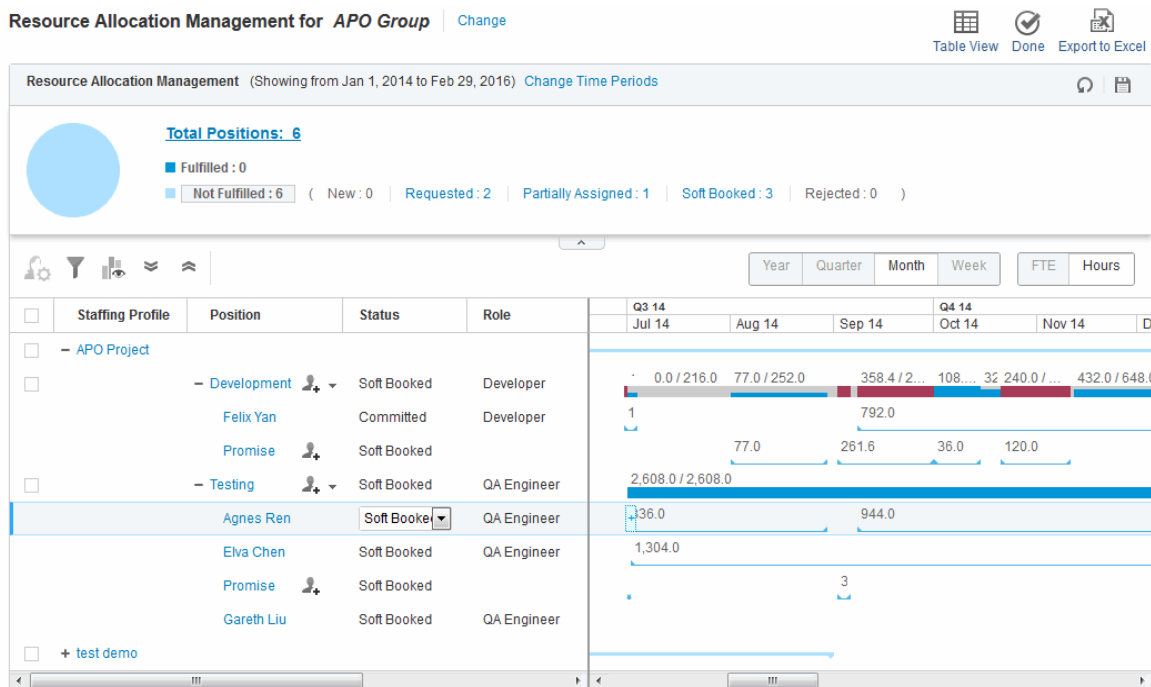
The **Gantt** view of the Resource Allocation Management page lists all the positions and resources of the specified resource pool in one single page (without pagination). The data load simultaneously as you scroll down the page. If you have a large number of positions and resources in the specified resource pool, HP recommends that you switch to the **Gantt** view to avoid OutOfMemory error and for better performance.

> **Note:** If you select a resource pool and time periods in the **Gantt** view of the Resource Allocation Management page, and then refresh the page, the resource pool and time periods you selected are wiped out. This is a limitation. You can switch to the **Table** view if you want to do so.

The following table describes the items that are specific to the **Gantt** view of the Resource Allocation Management page.

Item	Description
Pie Chart	The pie chart above the table indicates the total number of the positions in the specified resource pool. It is categorized in color by position status. The statuses and numbers displayed next to the pie chart serves as the quick filters for the Resource Allocation Management page. For details, see "Quick Filters in Gantt View" on page 152.
▦⚙	Gets resource recommendations for you to better decide on the resource to assign to a position. For details, see "Getting Resources Recommendation from Resource Allocation Management Page" on page 165.
▼	Filters positions in the specified resource pool by position attributes. For details, see "Advanced Filter in Gantt View" on page 154.
▥👁	Opens the Gantt Legend dialog box, illustrating the meanings of the indicators in the Gantt chart.
Gantt Chart	Displays position's forecast demands and resource's assignments. For details, see "Viewing and Configuring Gantt Chart on Resource Allocation Management Page" on page 148.
↺	Discards the changes you made to the Resource Allocation Management page.
💾	Saves the changes you made to the Resource Allocation Management page.

Interpreting Table View of Resource Allocation Management Page

Figure 4-13. Resource Allocation Management page (Table View)
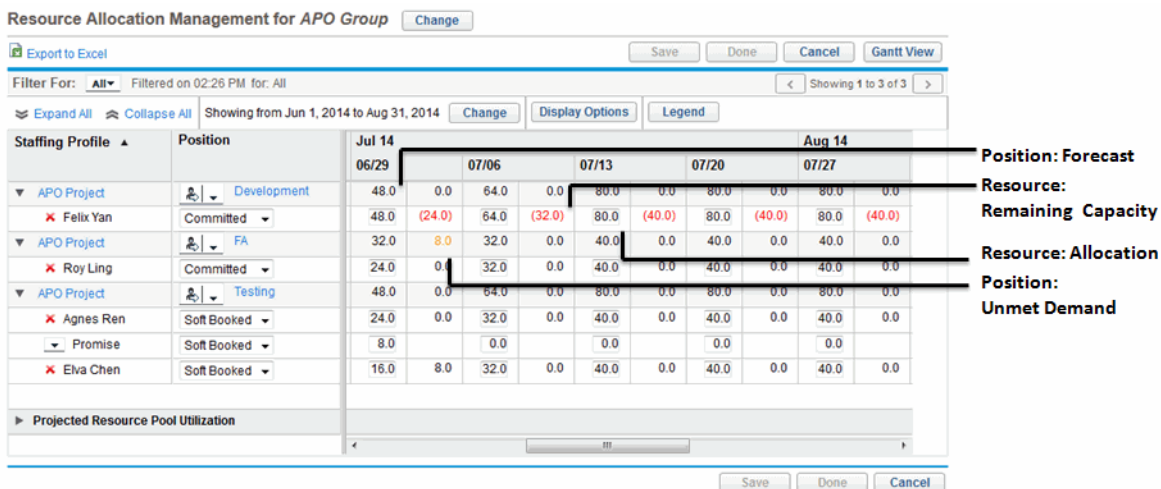
The following table describes the data that displays in the Resource Allocation Management page. The data is only for the selected resource pool and changes dynamically when a resource allocation is modified.

Table 4-11. Data displayed in the Resource Allocation Management page

Time Period Data	Description
Position: Forecast	The anticipated demand for a staffing profile position. This information is located in the first column of a time period section for a staffing profile position.
Position: Unmet Demand	A position with open resource assignment requests. This information is located in the second column of a time period section for a staffing profile position. Unmet Demand = Forecast − (Named Resource Allocations + Promised Allocations)
Resource: Allocation	Modifiable capacity of a resource allocated to a staffing profile position. For promised allocations, if you do not have the Resource Mgmt: Promise Unspecified Resources access grant or if the ENABLE_PROMISE_RESOURCE_ ALLOCATION parameter is not enabled, this data is view-only and not modifiable. When this value is updated, the unmet demand value is automatically updated. This information is located in the first column of a time period section for a resource.

Table 4-11. Data displayed in the Resource Allocation Management page, continued

Time Period Data	Description
Resource: Remaining Capacity	The available capacity of a resource. A number displayed in red denotes an overallocation of a resource's effort. If the resource is assigned to more than one staffing profile, allocations for the other staffing profiles are reflected in this number. For a promised resource, there is no remaining capacity and this cell is empty. This information is located in the second column of a time period section for a resource. Remaining Capacity = Resource Capacity – (Named Resource Allocations + Promised Allocations)
Projected Resource Pool Utilization	The allocation and capacity for the selected resource pool. Click ▶ to view the data. This information changes dynamically when resource allocations are modified. **NOTE:** Loading this data may cause system performance to decrease. This data never includes resources of child resource pools. Selecting the **Include children resource pools when calculating the resource load for this resource pool** checkbox (from the Edit Resource Pool page) does not affect the data on the Resource Allocation Management page. See "Viewing Projected Resource Pool Utilization from Resource Allocation Management Page" on page 173 for more information.

Note: Even if the promised allocation feature is disabled, if promised allocations exist (that is, values were entered before the feature was disabled), then promised allocations are used in all calculations (such as current demand and remaining capacity) even though they are not viewable from the interface.

Viewing and Configuring Gantt Chart on Resource Allocation Management Page

You can view and configure Gantt chart in the **Gantt** view of the Resource Allocation Management page. The Gantt chart is displayed in the right pane of the table.
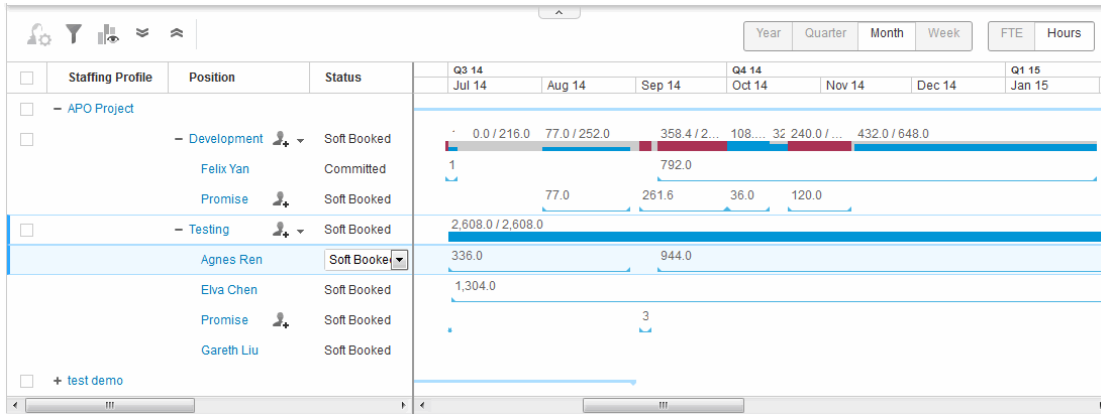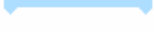
The Gantt chart displays the following information for the specified resource pool:

- Status of the every position

- Period and demanded effort of every position

- Period and allocated effort of every resource

Clicking the Gantt legend icon, , opens the Gantt legend of the Resource Allocation Management page.

Configuring Gantt Chart on Resource Allocation Management Page

You can use the Gantt chart of the Resource Allocation Management page to create or adjust resource's assignment.

- "Creating Resource's Assignment" below

- "Adjusting Resource's Assignment" on the next page

Creating Resource's Assignment

To create a resource's assignment in the **Gantt** view of the Resource Allocation Management page:

1. In the Gantt chart, click the line of the resource you want to create assignment.

   The ⊞ icon appears.
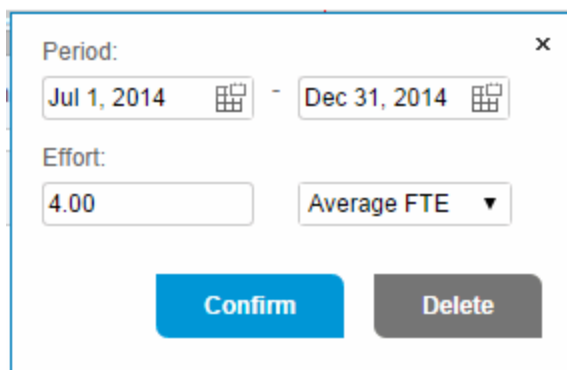
2. Locate the icon to the period when the resource's assignment begins.

   You are unable to locate the icon in the period earlier than the staffing profile start period.

3. Click and hold the icon, and drag it to the period when the resource's assignment ends.

   You are unable to draft the icon to the period later than the staffing profile end period.

4. Release the mouse button. A dialog box as follows opens:

   Note: Clicking **Delete**, you cancel the creation of the assignment.
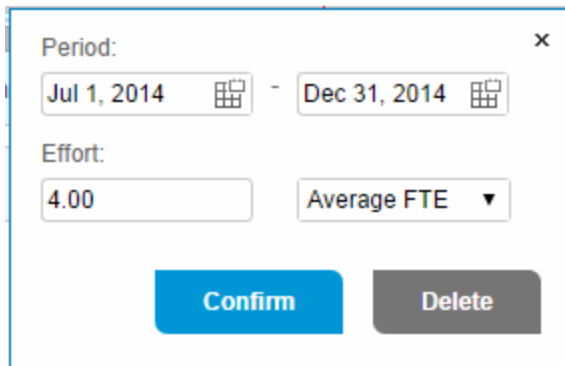
5. Modify the period of the resource's assignment.

6. Specify the effort of the resource's assignment.

7. Click **Confirm**.

8. Click 💾 to save the changes.

Adjusting Resource's Assignment

To adjust a resource assignment in the **Gantt** view of the Resource Allocation Management page:

1. In the Gantt chart, click on the resource's assignment you want to adjust.

2. Place the cursor in the left end of the assignment bar if you want to adjust the start date of the resource's assignment, or place the cursor in the right end of the assignment bar if you want to adjust the finish date of the resource's assignment, until the two-headed arrow appears.

3. Click and hold the cursor, and drag it leftwards or rightwards to your desired date.

4. Release the mouse button, and the dialog box opens.

> **Note:** Clicking **Delete**, you delete the assignment.

5. Modify the period and effort of the resource's assignment.

6. Click **Confirm**.

7. Click 💾 to save the changes.

Also, you can adjust resource's assignment by double-clicking the assignment bar to open the dialog box, and then modify the period and effort.

Filtering and Sorting Table View of Resource Allocation Management Page

Filtering allows you to modify the information displayed in the Resource Allocation Management page. Quick filters are used to select a single item on which to filter. The advanced filter allows you to filter on multiple items. The time period filter allows you to filter on a start and end period. You can also sort the information by staffing profile and staffing profile position.

The filters currently applied to the Resource Allocation Management page are displayed at the top of the table along with the time the page was opened. If the list of applied filters is truncated, placing the cursor on the filter displays a tooltip that shows all of the applied filters.

> **Note:** All resources of a filtered position are displayed. That is, results are filtered by position, not resource status. For example, if Resource A of Position 1 is soft-booked, Resource B of Position 1 is committed, and Resource C of Position 1 is committed, Position 1 is a soft-booked position. If you filter on soft-booked, Position 1 is displayed and includes Resource A, Resource B, and Resource C.

Quick Filters

- "Quick Filters in Gantt View" below

- "Quick Filters in Table View" on the next page

Quick Filters in Gantt View

In the **Gantt** view of the Resource Allocation Management page, there is a pie chart as follows to indicate the number of positions categorized by the position status, including fulfilled, new, requested, partially assigned, soft booked, and rejected.

Clicking a specific position status filters positions in that status. Clicking **Total Requests** filters all the positions in the specified resource pool.

Total Requests: 3
■ Fulfilled : 1
■ Not Fulfilled : 2   (New : 0 | Requested : 0 | Partially Assigned : 1 | Soft Booked : 1 | Rejected : 0   )
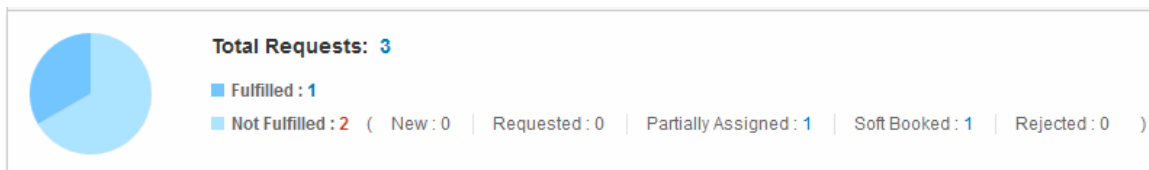
Quick Filters in Table View

In the **Table** view of the Resource Allocation Management page, use the **Filter For** drop-down list to select a filter item.

Table 4-12. Filter items for the Resource Allocation Management page

Filter Item	Description
All	Displays all positions for which resources have been requested, soft-booked, partially assigned, fulfilled, or rejected. New positions are not displayed.
Not Fulfilled	Displays all positions for which resources have been requested, soft-booked, or partially assigned. By default, this filter is selected when the Resource Allocation Management page is opened.
Requested	Displays all positions for which resources have been requested.
Soft Booked	Displays all positions for which resources are soft-booked. Soft-booked positions contain soft-booked resources from the selected resource pool (and include forwarded requests).
Partially Assigned	Displays all positions for which resources are partially assigned. Partially assigned positions have all resources committed and there is unmet demand. If one or more resources are not committed (that is, one or more resources are soft-booked), the position is considered soft-booked. Partially assigned positions do not include positions whose resource request is partially allocated from the selected resource pool and the remaining portion of the request has been forwarded.
Staffing Profile	Displays all positions of the staffing profile(s) you select from the dialog. A staffing profile with the status of Lock Down, Completed, or Cancelled is not displayed by the filter.
Resource	Displays all positions of the resource(s) you select from the dialog.

Advanced Filter

Use the advanced filter to select multiple items on which to filter the Resource Allocation Management page.

- "Advanced Filter in Gantt View" on the next page

- "Advanced Filter in Table View" on page 156

Advanced Filter in Gantt View

To set the advanced filter in the **Gantt** view:

1. Click ▼ to open the dialog box as follows.

2. Provide the information for one or more fields on which you want to filter.

Field Name	Description
Staffing Profile	Select one or more staffing profiles. This filter displays data for staffing profile positions contained in the selected staffing profile(s). A staffing profile with the status of Lock Down, Completed, or Cancelled is not displayed by the filter.
Role	Select one or more roles. This filter displays data for staffing profile positions that contain the selected role(s).
Resources	Select one or more resources. This filter displays data for staffing profile positions that contain the selected resource(s).

3. Click 🔍 and the staffing profile positions that meet the criteria are listed. The selected filters are displayed in the pie chart section.

4. Click ▼ and then **Advanced** if you want to use filters other than Staffing Profile, Role, and Resources.

The Search for Staffing Profile Positions dialog displays.

The filters you have specified before clicking **Advanced** are preserved.

5. Provide the information for the other fields on which you want to filter.

Field Name	Description
Position Status	Select one or more position statuses. This filter displays all staffing profile positions that have an assigned resource whose status matches the selected status(es). Choices include: New, Requested, Partially Assigned, Soft Booked, Fulfilled, and Rejected.
Staffing Profile Status	Select one or more staffing profile statuses. This filter displays all staffing profile positions whose staffing profile status matches the selected status (es). Choices include: Active, In Planning, Cancelled, Completed, and Lock Down. Note that Approved and Baselined are not available.
Skill	Select one or more skills. This filter displays data for staffing profile positions that contain the selected skill(s).
Staffing Profile Manager	Select one or more staffing profile managers. This filter displays data for staffing profile positions controlled by the selected staffing profile manager (s).
Position Name (contains)	Specify a text string. This filter displays data for staffing profile positions that contain the specified text in the position name.
Resource Type	Select one or more resource types. This filter displays data for staffing profile positions that contain the selected resource type(s).

6. Click **Search**.

Advanced Filter in Table View

To set the advanced filter in the **Table** view:

1. Open the **Filter For** menu.

2. Select **Advanced.**

   The Search for Staffing Profile Positions dialog displays.

3. Provide the information for one or more fields on which you want to filter.

   For the field descriptions, see the tables in "Advanced Filter in Gantt View" on page 154.

4. Click **Search.**
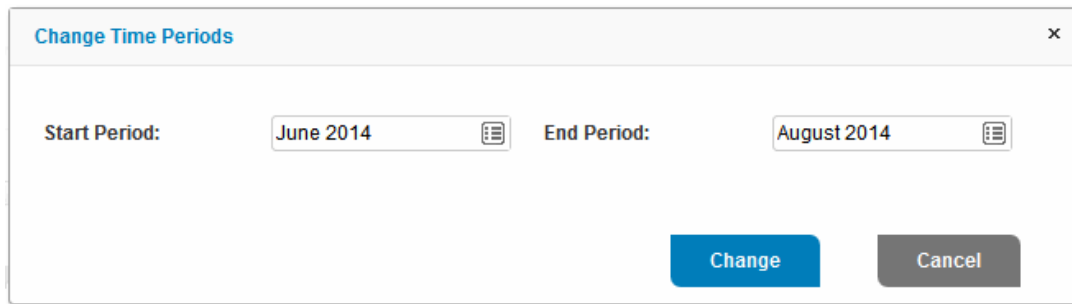
Time Period Filter

`Showing from` <*date*> `to` <*date*> is the time period of the data displayed. The default time period displayed is one year, starting one month prior to the current month.

To change the time period, do the following:

1. Click **Change Time Periods** (in the **Gantt** view) or **Change** (in the **Table** view) located next to the displayed time period (`Showing from` <*date*> `to` <*date*>).

   The Change Time Periods dialog appears.

2. Specify the Start Period and End Period dates.

Field Name	Description
Start Period	Specify the initial time period from which to start the display of data.
End Period	Specify the final time period for which to end the display of data.

3. Click **Change.**

Sorting by Staffing Profile and Staffing Profile Position

By default, the list of staffing profiles and positions are sorted in alphabetical order by staffing profile. You can also sort by staffing profile position by clicking the Position header. The Sort icon (⌂) appears next to the header of the item on which the sort is taking place.

You can sort the staffing profiles or staffing profile positions in reverse alphabetical order by clicking on the appropriate header.

This is only specific to the **Table** view of the Resource Allocation Management page.

Changing Display Options of the Resource Allocation Management Page

Display options alter the amount of data displayed in the Resource Allocation Management page. You can change the period type, effort type, and the columns of data displayed.

To modify display options in the **Gantt** view, you can simply click the period type or the effort type you want to use in the upper-right corner of the page.

To modify display options in the **Table** view:

1. Click **Display Options.**

   The Change Display Options dialog appears.

2. Edit one or more of the following:

Field Name	Description
Group Periods by	The period type (how the time period is divided). Select either Month or Week. Default: The value to which the RM_DEFAULT_PERIOD_TYPE parameter is set in the PPM Application Configuration page or `server.conf` file. Valid values for the parameter: `week, month`.
Measure Effort in	The effort type (how effort is measured). Select either FTE (full time equivalents) or Hours. **NOTE:** If set to FTE, the position's unmet demand may be calculated incorrectly. Use the unmet demand values from the Staffing Profile page instead. Default: The value to which the RM_DEFAULT_EFFORT_TYPE parameter is set in the PPM Application Configuration page or `server.conf` file.
Hide Available Capacity/Unmet Demand Columns	Select this checkbox to hide the second column of data (containing unmet demand and remaining capacity) for each time period section. By default, this checkbox is not selected. If this checkbox is selected and you assign a resource, the resource's allocations are automatically set to zero. Because the position's unmet

Field Name	Description
	demand and the resource's remaining capacity are not calculated, the resource's allocation cannot be calculated and is therefore set to zero.

3. Click **Change.**

Displaying Resources

You can expand and collapse a staffing profile position to display its resources in the Resource Allocation Management page:

- To display all resources of all staffing profiles, click the Expand All icon ⩔ .

- To hide all resources of all staffing profiles, Click the Collapse All icon ⩓ .

- To display the resources of a staffing profile,

  - Click **+** next to the staffing profile in the **Gantt** view.

  - Click ▶ next to the staffing profile in the **Table** view.

- To hide the resources of a staffing profile,

  - Click **-** next to the staffing profile in the **Gantt** view.

  - Click ▼ next to the staffing profile in the **Table** view.

Displaying Additional Pages of Data

Depending on the filters you select, data may be displayed on more than one page of the Resource Allocation Management page. This is only specific to the **Table** view of the page. In the **Gantt** view, all data are displayed in one single page, and the page loads data as you scroll down the page.

In the top right corner of the table, you can see how many pages of data are available to view and which page you are viewing.

To go to the next page of data, click [>] .

To go to the previous page of data, click [<] .

If you made changes on the current page, you are prompted to save or discard these changes.

Modifying Keys or server.conf Parameters

You can modify keys from the PPM Application Configuration page or parameters in the `server.conf` file to enable or disable promised allocations, change the maximum number of rows displayed on a single page, change the number of staffing profile positions displayed on a single page, change the units displayed in the Display Options dialog for measurements, change the default unit displayed in the Display Options dialog for groupings and measurements, and change the maximum number of resources for which the Projected Resource Pool Utilization summary is calculated.

See the *Installation and Administration Guide* for more information about using the PPM Application Configuration page or editing the `server.conf` file.

Table 4-13. Resource allocation management server.conf parameters

Parameter	Description
ENABLE_PROMISE_RESOURCE_ ALLOCATION	Enable or disable the allocation of promised resources. Promised resources or allocations are resource allocations who are not specifically named or identified. They can be used when a resource is allocated but the resource is not defined in PPM Center (for example, a subcontractor) or to commit a resource and then assign a specific resource at a later time.
	If enabled but the user does not have the Resource Mgmt: Promise Unspecified Resources access grant, promised allocations are view-only.
	If enabled or disabled, promised allocations are used in all calculations (such as current demand and remaining capacity).
	Promised allocations may exist when this parameter is disabled if values were entered before the parameter was disabled. That is, the parameter was enabled, promised allocations were entered, and then the parameter was disabled.
	If disabled, any existing promised allocations are view-only.
	Default: false (disabled)
RAMP_MAX_RA_PER_PAGE [a]	The maximum number of rows of data to display on a single page. Default: 200.
RAMP_PAGE_SIZE [a]	The maximum number of staffing profile positions to display on a single page. Default: 20.
RM_ALLOWED_EFFORT_TYPES	The effort types from which the resource pool manager can

Table 4-13. Resource allocation management server.conf parameters, continued

Parameter	Description
	select for the `Measure Effort in` field in the Display Options dialog. Valid values: FTE, hours, person days. Default: FTE, hours.
RM_DEFAULT_EFFORT_TYPE	The default effort type. The resource pool manager can change the effort type by modifying the `Measure Effort in` field in the Display Options dialog. Valid values: fte, hours, person days. Default: fte.
RM_DEFAULT_PERIOD_TYPE	The default time period section. The resource pool manager can change the time period section by modifying the `Group Periods by` field in the Display Options dialog. Valid values: year, quarter, week, month. Default: month.
RM_MAX_RESOURCE_IN_POOL [a]	The maximum number of resources in a resource pool for which the Projected Resource Pool Utilization summary will be calculated. If the number of resources in a resource pool exceeds this number, you cannot load or view the Projected Resource Pool Utilization summary data. Default: 250.

a. These parameters are specific to the **Table** view of the Resource Allocation Management page.

Assigning a Resource to a Resource Request from Resource Allocation Management Page

To assign a resource to a resource request in the **Gantt** view:

1. From the Resource Allocation Management page, click 👤 next to the position to assign.
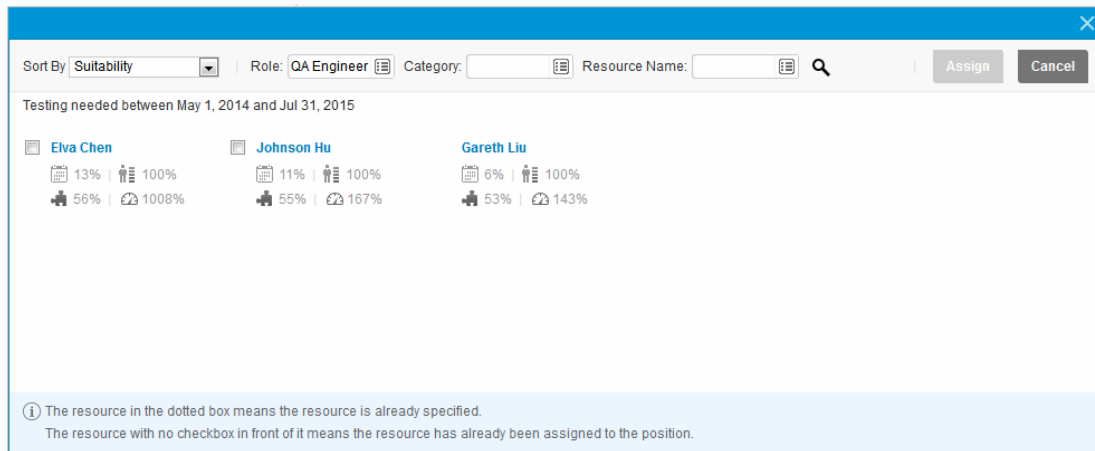
> **Note:** Resources from a child resource pool are not displayed in the window.

By default, the resources with the same role as the position are listed in the order of suitability. You can also find resources by using the filters described in the following table.

Filter Name	Description
Sort By	The order in which the resources are displayed. ○ **Capacity**: Availability score of the resource. ○ **Skill**: Skill score of the resource. ○ **Suitability**: Suitability of the resource. ○ **Projected Utilization**: Project utilization of the resource. These four scores are shown under the resource. For information about how these scores are calculated, see "Resource Finder Calculations" on page 201.
Role	The role of the resource to assign.
Category	The resource type of the resource to assign.

Resource Name	The name of the resource.

2. Select the checkbox in front of the resource to assign to the position.

   You can select more than one resource to assign.

   > **Note:**
   >
   > ○ The resource in the dotted box means the resource is already specified.
   >
   > ○ The resource with no checkbox in front of it means the resource has already been assigned to the position.

3. Click **Assign**.

   The allocation provided for the resource is the lowest value of either the remaining capacity of the resource or the position's unmet demand. If the resource's capacity is used as the resource allocation, the position's unmet demand is updated (the updated position's unmet demand= initial unmet demand– the resource's allocation).

   If you assign more than one resource to a position, the allocated efforts of the resources are used in a specific order which is decided by how the resources are displayed according to the **Sort By** field. In this example, if you assign Elva and Johnson to the position, the allocation of Elva is used first.

To assign a resource to a resource request in the **Table** view:

1. From the Resource Allocation Management page, click [icon] next to the position to assign and select **Assign.**

   > **Note:** If one or more specific resources were requested, the Specific Resources Requested dialog opens. You can select and assign the specified resource(s) or you can click **Choose Other Resources** to assign other resources.

2. Search for a specific resource and select the resource to assign to the position.

   > **Note:** Resources from a child resource pool are not displayed in the auto-complete window.

3. Click **Save.**

> **Note:** You must click **Save** from the **Table** view of the Resource Allocation Management Page in order to save any assignments you made.

Assigning a Resource to a Promised Allocation from Resource Allocation Management Page

A promised allocation that has been assigned to a position can be assigned a specific resource (you must have the Resource Mgmt: Promise Unspecified Resources access grant and the parameter ENABLE_PROMISE_RESOURCE_ALLOCATION must be enabled).

To assign a resource to a promised allocation in the **Gantt** view:

1. Click ![icon] next to the promise to assign.

2. Select a resource to assign to the promised allocation.

3. Click **Assign**.

   The allocation provided for the resource is the lowest value of either the capacity of the resource or the promised allocation. If the resource's capacity is used and it is lower than the promised allocation, the promised allocation in the staffing profile remains, showing the remaining allocation (remaining allocation = initial promised allocation – the resource's used capacity). If there is no remaining allocation, Promise is removed.

To assign a resource to a promised allocation in the **Table** view:

1. Click ![icon] next to Promise and select **Assign.**

2. Select a resource to assign to the promised allocation.

   > **Note:** Only one resource can be assigned to a promised allocation.

3. Click **Save** on the Resource Allocation Management page.

Getting Resources Recommendation from Resource Allocation Management Page

In the **Gantt** view of the Resource Allocation Management page, you can take advantage of the Resource Management Optimization feature, that is to say, you can get resources recommendation for the positions you want to assign resources. This helps you better decide on the resources to assign.

To use the Resource Management Optimization feature,

1. From the Resource Allocation Management page, select the position or positions to which you want to assign resources.

   If you want to assign resources to all the positions of a staffing profile, select the staffing profile directly.

   If you want to assign resources to all the positions on the page, select the check-all checkbox.

2. Click .

   The Get Resources Recommendation dialog box opens.

Note: The recommendation is done primarily on resource role and secondly on resource availability.

Field	Description
Demanded Effort	The total demanded effort (in hours) of the positions listed in the Get Resources Recommendation dialog box.
Recommended Effort	The total recommended effort (in hours) of the recommended resources you select in the Get Resources Recommendation dialog box. The default value of this field is the total recommended effort of all the resources in the dialog box because all the resources are selected by default. The value is updated immediately when you deselect any of the resources.
Unmet Effort	The total unmet effort of the listed positions after you

	select the recommended resources for them.

Unmet Effort = Demanded Effort- Recommended Effort |
| Ratio | The ratio of the number of positions listed in the dialog box to the number of positions for which you have selected recommended resources. |
| Staffing Profile | The staffing profiles to which your selected positions belong. |
| Position | The positions you select to get resources recommendation.

The percentage behind each position = allocated effort of the selected resources for the position/demanded effort of the position |
| Role | The role of the position. |

> **Note:** No resources are available for recommendation in either of the following two cases:
>
> - The positions you selected are fulfilled, or,
>
> - None of the resources in the current resource pool have capacity left.

3. All the recommended resources are selected by default. Deselect the resources you do not want to assign to the positions.

4. Click **Confirm the Assignment**.

   To cancel the assignment, click **Cancel** or close the dialog box.

Modifying server.conf Parameters

You can modify parameters in the `server.conf` file to change the maximum number of users that can concurrently use the Resource Management Optimization feature, change the maximum amount of data handled by the feature, and change the timeout of the feature.

For information about editing the `server.conf` file, see the *Installation and Administration Guide*.

Parameter Name	Description, Usage	Default and Valid Values
RMO_OPTIMIZE_	The maximum number of concurrent	Default: 1

CONCURRENT_ THRESHOLD	threads for the feature Resource Management Optimization supported by the system . For example, if the value of this parameter is set to 1, it means only one user is allowed to use the feature at a time.	Valid Values: Positive integer
RMO_OPTIMIZE_ AMOUNT_THRESHOLD	The maximum amount of data to be handled by the feature Resource Management Optimization. The amount of the data for calculation = (number of positions) x (number of resources in the specified resource pool) x (number of days)	Default: 11,000,000 (100 positions, 100 resources, 3 years) Valid Values: Positive integer
RMO_OPT_CONCURRENT_ TIMEOUT	The timeout (in milliseconds) of the feature Resource Management Optimization.	Default: 10,000 Valid Values: Positive integer

Exceptions
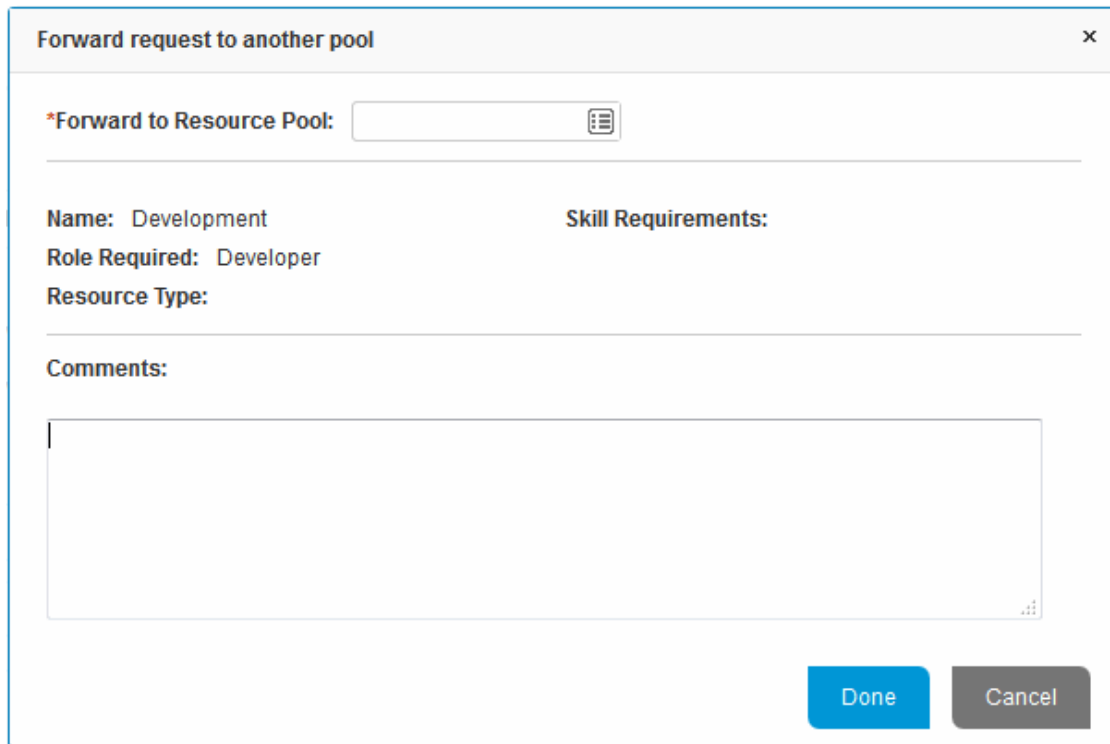
- The error message "The system is busy now. Please try again later." appears

  - If the concurrent thread number exceeds the value specified in the parameter RMO_OPTIMIZE_ CONCURRENT_THRESHOLD, or

  - If the thread waits longer than the time specified in the parameter RMO_OPT_CONCURRENT_ TIMEOUT.

- The error message "The system cannot deal with your request. You can either try submitting less positions or contact the administrator." appears if the amount of data for calculation is bigger than the value specified in the parameter RMO_OPTIMIZE_AMOUNT_ THRESHOLD

Forwarding a Resource Request from Resource Allocation Management Page

To forward a resource, do the following:

1. From the Resource Allocation Management page, click ▼ (in the **Gantt** view) or [icon] ▼ (in the **Table** view) next to the position to forward and select **Forward.**

   The Forward Request to Another Pool dialog opens.

2. Specify a resource pool in the **Forward to Resource Pool** field.

3. Supply a reason for forwarding the resource demand in the **Comments** field.

4. Click **Done** (in the **Gantt** view) or **Forward** (in the **Table** view).

Promising Allocations from Resource Allocation Management Page

To allocate a promise (you must have the Resource Mgmt: Promise Unspecified Resources access grant and the parameter ENABLE_PROMISE_RESOURCE_ALLOCATION must be enabled), do the following:

1. From the Resource Allocation Management page, click ▼ (in the **Gantt** view) or ▼ (in the **Table** view) next to the position to promise and select **Promise.**

   A new line appears with Promise as the resource. The status defaults to soft-booked and the promised allocation defaults to the position's unmet demand. You can edit the promised allocation value as needed.

2. Click **Save.**
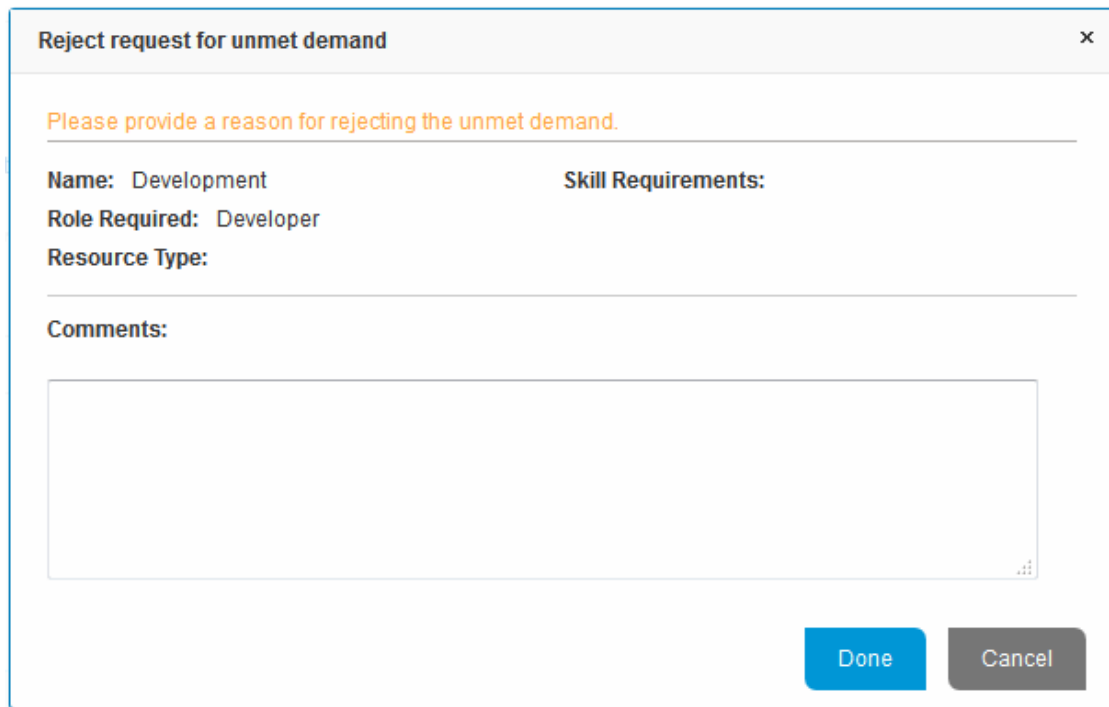
   > **Note:** You must click **Save** from the **Table** view of the Resource Allocation Management Page in order to save any promises you made. In the **Gantt** view, the promises you made are saved automatically.

Rejecting a Resource Request from Resource Allocation Management Page

To reject a resource, do the following:

1. From the Resource Allocation Management page, click ▼ (in the **Gantt** view) or ▼ (in the **Table** view) next to the position to reject and select **Reject.**

   The Reject Request for Unmet Demand dialog opens.

2. Supply a reason for rejecting the resource demand in the **Comments** field.

3. Click **Done.**

Removing a Resource from Resource Allocation Management Page

A resource that has been assigned to a position can also be removed from that position.

To remove a resource in the **Gantt** view:

1. From the Status field of the resource you want to remove, select **Remove**.

2. Click 💾 on the Resource Allocation Management page.

To remove a resource in the **Table** view:

1. Click ✖ next to the resource to select it for removal. The resource and its data remain, but are displayed in gray.

2. Click **Save** on the Resource Allocation Management page.

You can re-add a resource that has been selected for removal by clicking ⟳. This icon only appears when a resource has been selected for removal but *before* clicking the **Save** button on the Resource Allocation Management page.

> **Note:** If a resource request has been forwarded to your resource pool and that resource has been assigned to a position, you cannot remove this resource if you do not manage this resource.

Removing a Promised Allocation

A Promise that has been assigned to a position can also be removed from that position (you must have the Resource Mgmt: Promise Unspecified Resources access grant and the parameter ENABLE_ PROMISE__RESOURCE_ALLOCATION must be enabled).

To remove a promised allocation in the **Gantt** view:

1. From the Status field of the promise you want to remove, select **Remove**.

2. Click 💾 on the Resource Allocation Management page.

To remove a promised allocation in the **Table** view:

1. Click ▼ next to Promise and select **Remove**.

> **Note:** If a Promise has been added but the page has not been saved, the Promise is immediately removed (you do not have the option to re-add the Promise).
>
> You can re-add a promised allocation that has been selected for removal by clicking ⟳. This icon only appears when a promised allocation has been selected for removal but *before* clicking the **Save** button on the Resource Allocation Management page.

2. Click **Save** on the Resource Allocation Management page.

Changing Resource Status from Resource Allocation Management Page

Once a resource has been assigned to a position, you can change the status of the resource to either committed or soft-booked. By default, the status of a resource is soft-booked.

To change the status of a resource, open the menu located to the right of the resource and select a status.

Saving Allocation Data Changes in the Resource Allocation Management Page

If you made changes to and try to save data that has been recently modified by another user (that is, the data displayed in the Resource Allocation Management page is not the most current data), a message displays the data that cannot be saved. You must exit and reload the Resource Allocation Management page and re-type your data.

If financial management is enabled and if forecasted labor costs on the financial summary are to be calculated (rolled up) from the staffing profile, allocation data changes are reflected in the financial summary after the allocation data changes are saved and when the Staffing Profile Financial Summary Sync Service runs.

To save changes made to the Resource Allocation Management page, click **Save.**

To exit and save any changes made to the Resource Allocation Management page, click **Done.**

To cancel any changes made to the Resource Allocation Management page since the last save, click **Cancel.**

Viewing Projected Resource Pool Utilization from Resource Allocation Management Page

Only in the **Table** view of the Resource Allocation Management page, can you view the Projected Resource Pool Utilization section. This section displays the total capacity, total committed allocations, total soft-booked allocations, and remaining capacity for the resource pool. The data is updated dynamically when resource allocations are modified in the Resource Allocation Management page.

> **Note:** This data never includes resources of child resource pools. Selecting the **Include children resource pools when calculating the resource load for this resource pool** checkbox (from the Edit Resource Pool page) does not affect the data on the Resource Allocation Management page.

To view the total capacity, total committed allocations, total soft-booked allocations, and remaining capacity, click ▶ next to Projected Resource Pool Utilization.

> **Note:** Loading this data may cause system performance to decrease.

Table 4-14. Data displayed in the Projected Resource Pool Utilization section

Time Period Data	Description
Total Capacity	The direct capacity of the selected resource pool. This information is located in the first column of a time period section for the projected resource pool utilization.
Total Committed Resources	The total number of named resources in the selected resource pool committed to a staffing profile.
Total Soft Booked Resources	The total number of named resources in the selected resource pool not yet committed to a staffing profile.
Total Committed Promises	The total number of promised resources in the selected resource pool committed to a staffing profile.
Total Soft Booked Promises	The total number of promised resources in the selected resource pool not yet committed to a staffing profile.
Remaining Capacity	The available capacity of the selected resource pool. A number displayed in red denotes an overallocation. This information is located in the second column of a time period section for the projected resource pool utilization. Remaining Capacity = Total Capacity – (Total Committed Resources + Total Soft Booked Resources + Total Committed Promises + Total Soft Booked Promises)

Viewing Information about a Staffing Profile, Resource, or Position from Resource Allocation Management Page

You can display additional information about a staffing profile, resource, or position by using a tooltip or opening an overview window (staffing profile and position only).

Viewing Staffing Profile Information

In the **Table** view, you can view information about a staffing profile in two different ways:

- Place the cursor on a staffing profile to display a tooltip. The following information displays: staffing profile name, status, staffing profile manager, start date, end date, and work load category.

- Click on the staffing profile name to open a Staffing Profile page in another window.

In the **Gantt** view, you can only view information about a staffing profile by clicking on the staffing profile name to open the Staffing Profile page in another window.

Viewing Resource Information

In the **Table** view, to view information about a resource, place the cursor on a resource to display a tooltip. The following information displays: full name, user name, role, and email address.

In the **Gantt** view, clicking on the resource name opens the Resource Capacity with Assignments page of the resource.

Viewing Position Information

In the **Table** view, you can view information about a position in two different ways:

- Place the cursor on a position to display a tooltip. The following information is displayed: position name, status, response needed by, role, resource pool, and resource type.

- Click on the position name to open the position dialog box.

In the **Gantt** view, you can only view information about a position by clicking on the position name to open the position dialog box.

> **Note:** The information in the position dialog box opened from the Resource Allocation Management page is read-only.

Changing the Resource Pool Displayed in Resource Allocation Management Page

If you manage more than one resource pool, you can load the data from another resource pool (including a child resource pool if you are the manager of its parent resource pool):

1. Click **Change** next to the resource pool name at the top of the page.

2. Select the resource pool to view.

You can only view data for one resource pool in the Resource Allocation Management page.

Performance and Other Considerations of Resource Allocation Management Page

- (Specific to the **Table** view only) Do not load the Projected Resource Pool Utilization data unless you must view it. Loading this data may cause system performance to decrease.

- The Mozilla Firefox browser renders tables more efficiently than Microsoft Internet Explorer.

- Save your changes often. This reduces the chance of losing data due to collisions (other users updating the same data at the same time).

- Use the filters to display a small number of positions (20 or less) if you are allocating resources.

- Change the time period to display the smallest period of time possible if you are allocating resources.

Chapter 5: Using HP Resource Management for Work Plan and Request Execution

Overview of Using Resource Management for Work Plan and Request Execution

This chapter explains how to use Resource Management functionality to perform operational planning tasks and analyze current resource usage. Resource Management can be used for operational resource planning, which concerns itself with how resources are being used for current work. Operational resource planning using Resource Management can consist of the following activities:

- Viewing present resource usage

- Determining areas of over-allocation and under-allocation of workload among resources (load balancing)

- Displaying personal workload for the present and near future

- Finding the most appropriate resources to complete a task or request

Whereas resource capacity planning typically involves only management-level personnel and higher, operational resource planning concerns two main sets of users:

- **Managers.** Project or team managers use Resource Management to analyze resource workload for their teams and take the appropriate actions.

- **Team members.** Team members view their own workload with handy visualizations and spot potential trouble areas.

Workload tracked in Resource Management can consist of either project tasks or requests.

> **Note:** Assignments made to resources in staffing profile lines can also be tracked as operational load if so desired. See "Tracking Demand with Staffing Profiles" on page 70 for more information on staffing profiles.
>
> The system takes into account users' start and end dates in resource capacity calculations and visualizations. For example, a user who is set to leave the company at a certain date cannot be assigned to a task or staffing profile afterward. Likewise, users starting work in the future can be selected for relevant entities scheduled to be active in the future.

Configuring Requests for Resource Management

In order to consider requests as work items to be tracked in Resource Management, you must associate work item fields with them. See "Setting Up Request Work Item Fields" on page 27 for more detailed information on associating work item fields with requests.

> **Note:** In order to view or use requests, you must have an Demand Management license.

A request work item features the fields described in "Table 5-1. Request work item fields" below.

Table 5-1. Request work item fields

Field Name	Description
Workload/Non Workload	Whether the request work item is counted as load against the assigned resource's capacity.
Workload Category	The reporting category of the request work item.
Scheduled Start Date	The scheduled start date for the request work item.

Table 5-1. Request work item fields, continued

Field Name	Description
Scheduled Finish Date	The scheduled finish date for the request work item.
Scheduled Duration	The scheduled duration for the request work item.
Scheduled Effort	The scheduled effort for the request work item.
Assigned Resource	(Already present as the **Assigned User.**)
Role	The role being used by the **Assigned Resource.**
% Complete	(Automatically updated by request workflow.)
Actual Start Date	The actual start date for the request work item.
Actual Finish Date	The actual finish date for the request work item.
Actual Duration	The actual duration for the request work item.
Actual Effort	The actual effort for the request work item.

These work item fields have Resource Management interaction built into them through request type rules and other built-in system functionality. For more information on request type rules, see the *Demand Management Configuration Guide* document.

The following work item fields can be safely customized with minimal impact to Resource Management functionality:

- Workload/Non Workload (if set to **No,** the request is not counted as workload)

- Workload Category

Note: Certain work item fields have strong functional defaults, such that altering the way they work could have unintended side effects. The following work item fields can have Rules that read their values, but generally should not be altered unless you need to specify effort other than full time:

- Scheduled Duration

- Actual Duration

- Scheduled Effort

- Actual Effort

Assigning Requests

Requests are assigned using Demand Management. Setting a resource as the **Assigned To** user for a request automatically books that resource for the request.

Booking a resource for a request also books that resource's primary role. If the resource has a different role you want to book, you can change the value in the **Role** field.

The request is counted as load against the resource's capacity and will show up in Resource Management visualizations, such as the resource Gantt chart on the **Capacity/Load** tab of the View Resource page, pictured in "Figure 5-1. View Resource page: Capacity/Load tab" below. If the **Workload** flag is enabled, the request will show up in load histograms.

Figure 5-1. View Resource page: Capacity/Load tab
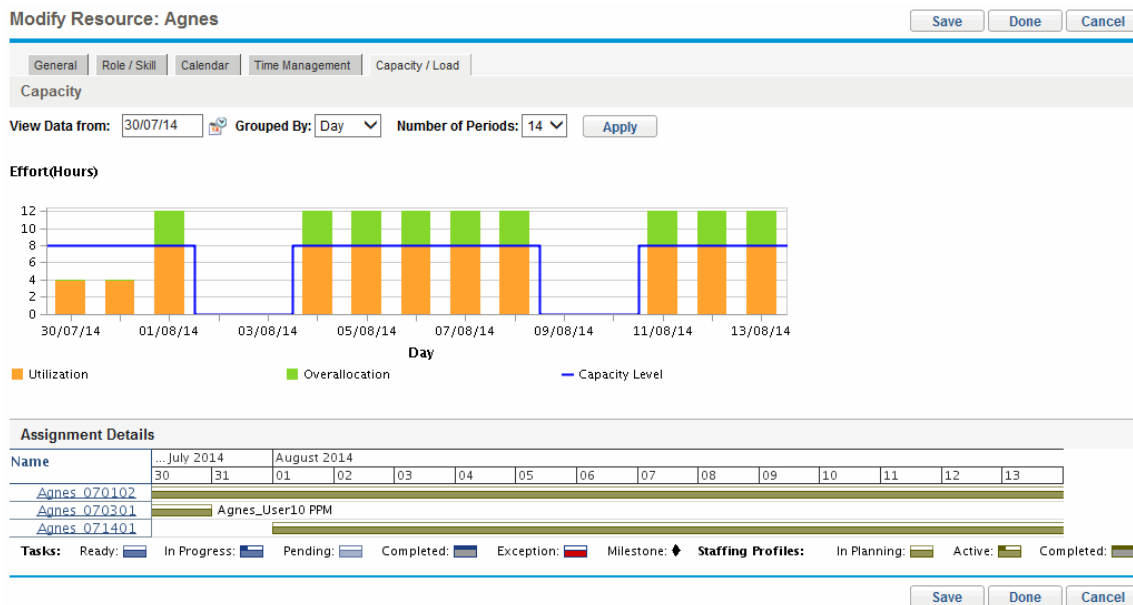
To view your resource Gantt chart, select **Open > Administration > View My Resource Information** from the menu bar in the standard interface and click the **Capacity/Load** tab. The resource Gantt chart can be altered to display a wide range of time periods.

Note: To view a Gantt chart, you must have a license for Project Management.

A request that is in progress but is 0 percent complete appears as Ready in the Gantt chart.

Assigning Tasks

Tasks can be assigned to a role or a specific resource.

Associating Roles with Tasks

When planning a project, tasks can be associated with a specific role prior to booking the exact resource who will complete the task. This can help produce more accurate cost estimates as well as a detailed role load view in the early stages of project plan management.

Figure 5-2. Task with role assigned but no resource

To book a role for a task:

1. Open the work plan.

2. Select the task to which you want to assign a role.

3. Provide a value in the **Role** field.

4. Click **Save.**

Assigning Resources to Tasks

Setting a resource as the **Resource** for a task automatically books that resource for the task.

Booking a resource for a task also books that resource's primary role.

To book a resource for a role other than their primary role:

1. Open the work plan.

2. Double-click the task to which you want to assign a role.

   The Task Details page opens.

3. Click the **Resources** tab.

4. Provide a value in the **Assigned Role** field.

5. Click **Save.**

Assigned tasks can be automatically counted as load against a resource's capacity, but it is recommended that the project staffing profile (if one exists) be configured to count as workload. This allows the work plan to be laid out and scheduled in phases without concern that resources will appear free when they are not yet assigned to specific tasks. Work plan task assignments will show up in Resource Management visualizations such as the two-week Resource Gantt chart pictured in "Figure 5-1. View Resource page: Capacity/Load tab" on page 180.

The Resource Finder can also be used to find the most appropriate resource to complete the task. The Resource Finder scores resources based on role and skill suitability and availability. See "Using the Resource Finder" on page 185 for more detailed information.

Booking Multiple Resources on a Task

A task can be assigned to more than one resource. Assigning multiple resources to a task results in the following Resource Management behavior:

- Each assigned resource is booked for the task's entire scheduled duration. The scheduled effort is adjusted proportionately. For example, a one-day duration task, with a 10-hour workday and two resources assigned, would default to 20 hours of effort.

To assign multiple resources to a task:

1. Open the work plan.

2. Double-click the task to which you want to assign a role.

   The Task Detail page opens.

3. Click the **Resources** tab.

4. Click **Add Resource** to select a new resource to add to the task.

   Repeat as necessary.

5. Click **Save.**

The values for each individual resource's scheduled effort can be altered in the Task Detail page.

To change the scheduled effort for multiple resources assigned to a task:

1. Open the work plan.

2. Double-click the task to which you want to assign a role.

   The Task Detail page opens.

3. Click the **Resources** tab.

4. Click **Change to Manual Control.**

5. For each resource, type a value in the **Scheduled Effort** numeric field.

   The **Total Effort (hours)** and **Unassigned Effort** fields update themselves automatically. If **Total Effort** is altered directly, the partial effort of each resource is adjusted proportionately.

6. Click **Save.**

Comparing Project Capacity to Work Plan Load

The Compare to Work Plan for Project page can be used to compare the forecasts made by the project staffing profile to the task assignments made on the work plan. If the rolled-up scheduled effort from the work plan does not align with the high-level assignments made in the staffing profile, this could be an indication of unbalanced utilization of the resources committed to the project. This is the same page used to compare the actual effort from the work plan with the assigned capacity in the staffing profile.

Compare to Work Plan for Project

The Compare to Work Plan for Project page displays a data table for a staffing profile that can be broken down by role or resource.

Figure 5-3. Compare to Work Plan for Project page

The page shows a different set of details depending on which view is chosen, listed in "Table 5-2. Details available in Compare to Work Plan for Project page" below.

Table 5-2. Details available in Compare to Work Plan for Project page

View by	Available details	Description
Role	Forecast	Anticipated demand for named and unnamed resources.
	Allocation	Total effort allocated (includes assigned and promised resources).
	Scheduled Effort	Total effort required.
	Actual Effort	Total effort completed.
Resource	Allocation	Total effort allocated.
	Scheduled Effort	Total effort required.
	Actual Effort	Total effort completed.

Open the Compare to Work Plan for Project page by clicking **Compare to Work Plan** in the Staffing Profile page. The data in the Compare to Work Plan for Project page can also be exported to a Microsoft Excel file for use in presentations or for further analysis. To export the Compare to Work Plan for Project page to a Microsoft Excel file, click the **Export to Excel** link.

> **Note:** If you are having problems with the data in Excel, you may need to configure the Internet options of your Web browser. See the *Project Management User's Guide* for more information.

Work Plan Resource Usage View

The Resource Usage page for work plans allows you to view the load placed on each resource by the work plan, broken down by task by day.

Open the Resource Usage page by clicking **Actions** at the top of the Work Plan page and selecting **Resource Usage.** For more details on the Resource Usage page, see the *Project Management User's Guide.*

Using the Resource Finder

Resource Management's Resource Finder allows you to locate and compare resources for assignment to the following entities:

- Tasks

- Requests

- Staffing profile positions

The **Resource Finder** icon, ⬚, is typically the second icon associated with the **Resource** field on a task, request, or staffing profile line.

You can also open the Resource Finder for a generic resource availability search by selecting **Open > Resource Management > Analyze Resources > Search Resource Availability** from the menu bar in the standard interface.

> **Note:** The Resource Finder may display some results in grey. These are resources that belong to a resource pool you do not manage. These resources can be viewed in the Resource Finder, but not assigned.

The Resource Finder's main fields are described in "Table 5-3. Resource Finder fields and buttons" on the next page. Its header fields vary depending on whether a search is being run for a task, request, staffing profile, or generically.

Figure 5-4. Resource Finder

Table 5-3. Resource Finder fields and buttons

Field/Button Name	Definition
Resource Results	
[checkbox]	Selecting this option keeps the selected resource at the top of the Resource Finder when paging through or revising the search.
Resource Name	The name of the resource. Sortable column.
Suitability Score	A numeric score representing the resource's suitability for the entity in question, based on their related role, skills, and availability. The higher this score, the better. See "Suitability Score Calculation" on page 201 for more detailed information on how this score is computed.

Table 5-3. Resource Finder fields and buttons, continued

Field/Button Name	Definition
Availability Score	A numeric score representing the resource's availability for the entity in question, based on their current load and capacity. A higher score (close or equal to 100) means better availability. See "Calculating Availability Score" on page 202 for more detailed information on how this score is computed.
Skill Score	A numeric score representing the resource's suitability for the entity in question relative to the skill required. A higher score (close or equal to 100) means better suitability. See "Calculating Skill Score" on page 205 for more detailed information on how this score is computed.
Projected Utilization	How much the resource would be used if the assignment were made. See "Calculating Projected Utilization" on page 206 for more detailed information on how projected utilization is computed.
Current Utilization (chart)	How much the resource is currently being used during the selected time period, displayed in a chart. Utilization is expressed by color. Current utilization is current load divided by capacity for the given time period.
Check All	Selects the checkboxes next to all resources listed.
View Resource Load	Opens the Resource Load page with data for all selected resources.
Compare Skills	Opens the Compare Skills page with data for all selected resources.
Prev/Next	Moves on to the next or previous set of search results, with the selected resources (if any) retained at the top of the list.
Assign	Enabled when one or more resources are selected. Assigns the selected resource(s) to the entity in question and closes the Resource Finder.
Cancel	Closes the Resource Finder without making changes.
Modify Search Criteria	
Availability Within Dates	Searches for resources available within the selected dates.
Effort	The amount of effort in hours or FTEs required within the available dates. This field only appears on the Resource Finder for tasks and requests.
Delete icon	Removes the skill from the filter list.
Skill	Searches for resources with the selected skill.
Ideal Proficiency	Searches for resources near the selected Proficiency Level.

Table 5-3. Resource Finder fields and buttons, continued

Field/Button Name	Definition
Add Skill	Adds another skill line to the filter list.
Only show results with a Suitability Score greater than	Searches for resources with a Suitability Score greater than the provided value.
Resource Name	Only displays the selected resources.
Resource Category	Only displays resources in the selected category.
Role	Only displays resources with the selected role.
Location	Only displays resources in the selected location.
Resource Pool	Only displays resources in the selected resource pool.
Department	Only displays resources in the selected department.
Organization Unit	Only displays resources in the selected organization unit.
Search	Reloads the Resource Finder with search results based on the new criteria.

By using the Resource Finder, you can update the search criteria more effectively as described in the following sections:

- "Utilizing Resource User Data Fields for Resource Searching" on page 192

- "Modifying Skill Criteria for Resource Searching" on page 195

Additionally, you can use the Resource Finder on the Resource Allocation Management page.

> **Note:** By using the Resource Finder on the Resource Allocation Management page, you can assign direct resources in the resource pool only.

Furthermore, the user experience is improved when viewing, selecting and comparing resources on the Resource Results tab. For more details, see the "Enhanced Resource Finder " below section.

Enhanced Resource Finder

You can use the enhanced Resource Finder for staffing profiles, the Resource Allocation Management page, and the Resource Availability search page. The improvements include:

- "Column Refresh" below

- "Scalable Resource Results" on the next page

> **Note:** The Resource Finder for requests and work plans remains unchanged.

Figure 5-5. Improved resource results
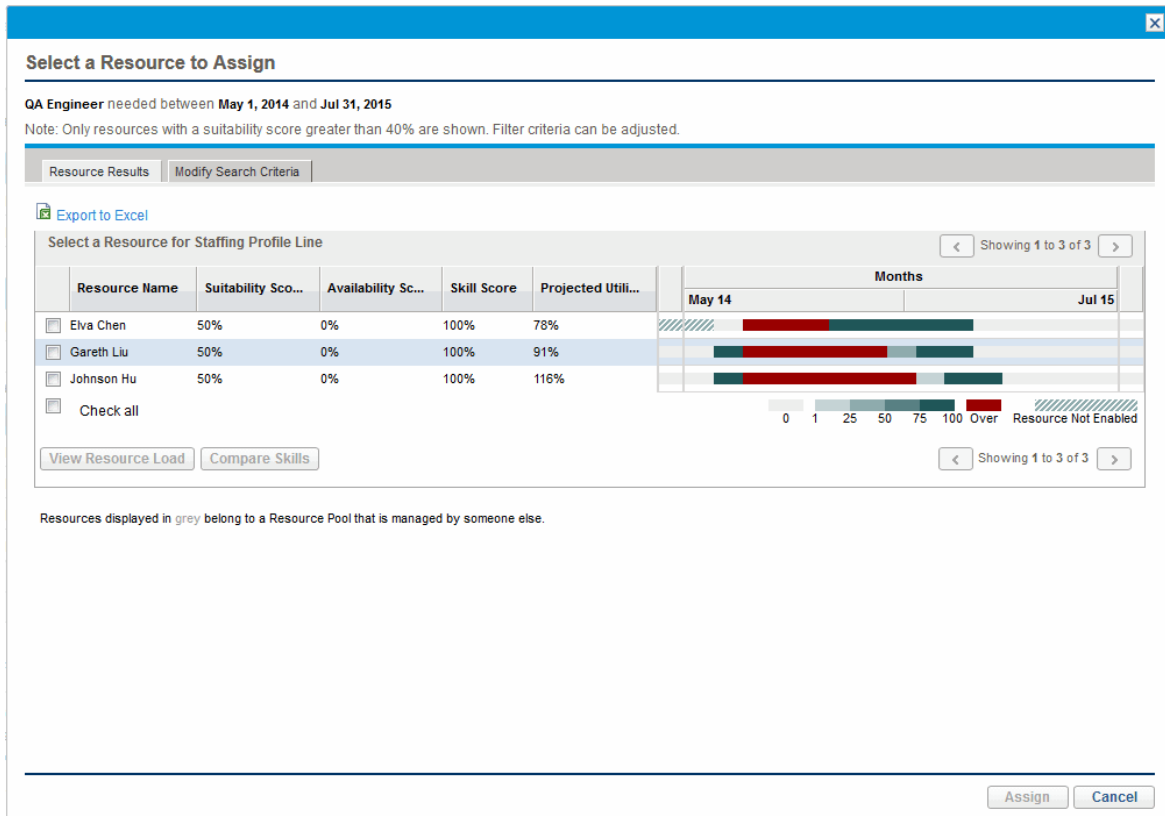
Column Refresh

Columns described in "Table 5-4. New Columns in Resource Results" below are added to the **Resource Results** tab:

Table 5-4. New Columns in Resource Results

Column Name	Description
# of Skill Matched	Represents the sum of RSN and PSN. For more information about RSN and PSN, see the "Calculating Skill Score" on page 205 section.

Table 5-4. New Columns in Resource Results, continued

Column Name	Description
Category	Represents the category (such as full time employee, or contractor) of a resource.
Role	Represents the role of the resource.
Resource Pool	Represents the resource pool of the resource.
Email	Represents the Email address of the resource.
Direct Manager	Represents the direct manager of the resource.

The following columns are sortable:

- Resource Name

- Suitability Score

- Availability Score

- #of Skill Matched

By default, the results are sorted by the suitability score in a descending order. The following columns are removed from the **Resource Results** tab:

- Projected Utilization

- Gantt chart

- Skill Score

Except for the column additions and removals, the column width is resizable. You can drag to expand the column width to display long strings. Correspondingly, a horizontal scroll-bar enables you to view the rightmost data if you expand the column width.

Scalable Resource Results

You can modify the maximum number of resources that can be targeted in a user search. To do this, you must add the following entry to the `server.conf` file:

```
com.kintana.core.server.SCALABLE_RESOURCE_FINDER_MODE = 1
```

By default, the entry is not added, meaning that the system uses the original Resource Finder mode which reads the RESOURCE_FINDER_SEARCH_MAX_USERS parameter to determine the maximum number of resources that can be targeted. Setting the SCALABLE_RESOURCE_FINDER_MODE parameter to 0 also makes the system use the original Resource Finder mode.

When you set the SCALABLE_RESOURCE_FINDER_MODE parameter to 1, the system uses the parameters described in "Table 5-5. Parameters for scalable Resource Finder" below.

Table 5-5. Parameters for scalable Resource Finder

Parameter	Description	Default Value
SCALABLE_ RESOURCE_ FINDER_ SEARCH_MAX_ RESOUCES	Determines the maximum number of resources that can be targeted in a user search. If the targeted number exceeds this value, the Resource Finder displays the message that the number of resources targeted is too large.	5,000
SCALABLE_ RESOURCE_ FINDER_PAGE_ SIZE	Determines the maximum number of resources that can be displayed in one page.	50

Searching for a Resource

To use the Resource Finder to search for a resource to assign to a task, request or staffing profile:

1. Provide a **Role** for the desired entity.

2. Click the **Resource Finder** icon next to the **Resource** field.

   The Resource Finder opens, displaying a set of resources with the desired role.

3. Select the checkboxes next to any of the resources displayed to retain them in case you want to page to the next set of results or refine the search.

   If you select some resources and click **Search Again** in the **Modify Search Criteria** tab, the Resource Finder reloads with the selected resources collected at the top of the list for easy comparison.

4. If needed, refine the Resource Finder's search by providing filter criteria in the fields in the **Modify**

Search Criteria tab and clicking **Search Again.**

The filter fields in the **Modify Search Criteria** tab vary depending on whether you are looking at a task, request, or staffing profile line.

5. If desired, drill down into the selected resources' load and skill profiles by clicking **View Resource Load** or **Compare Skills.**

    See "Viewing Resource Load" on page 196 or "Comparing Skills" on page 200 for more detailed information.

6. Click **Assign** once you have selected the resources you wish to assign.

    The Resource Finder closes and the **Resource** field on the current entity is automatically filled in with the selected resources.

Utilizing Resource User Data Fields for Resource Searching

Starting with version 9.11, PPM Center added 100 resource user data fields to extend the usability for resource entities. This enhancement utilizes these user data fields for resource searching, which enables you to specify the user data fields as search conditions when searching for resources.

Resource User Data

To make user data fields available for resource searching, the **Display on Search and Filter** option is added to the Attributes tab of a resource user data field in Workbench. See "Figure 5-6. The Display on Seach and Filter option in Workbench" on the next page

Figure 5-6. The Display on Seach and Filter option in Workbench
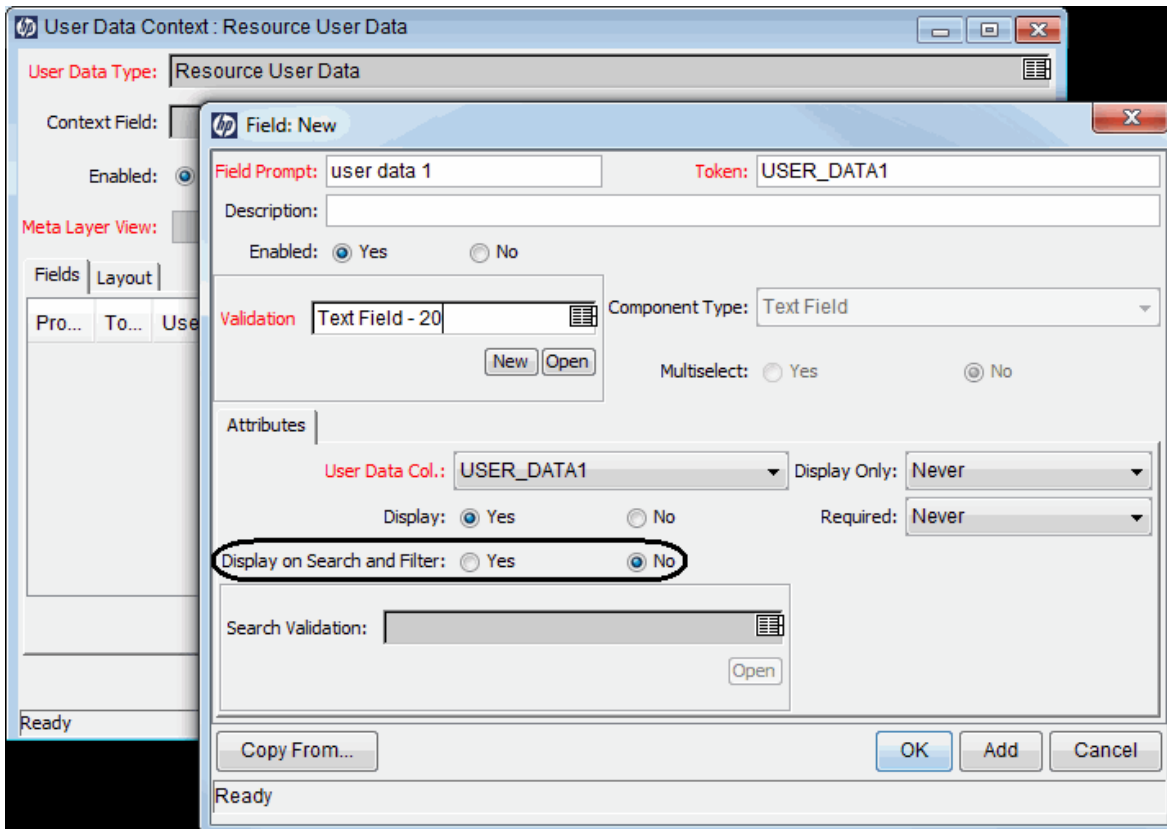
This option indicates whether or not the resource user data field is displayed in resource searching pages. If you set this option to Yes, the field is displayed in the following pages:

- Modify Search Criteria page for the Resource Finder

- Search Resources page

- Search Resources Availability page

User data fields with the following component types have the **Display on Search and Filter** option:

- Text Field

- Text Area

- Drop Down List

- Radio Buttons (Yes / No)

- Auto Complete List

- Date Field

Fields with other component types, such as Link and Attachment, do not have the **Display on Search and Filter** option. Therefore, these fields cannot be displayed in resource searching pages.

If a user data field uses one of the component types mentioned in "Table 5-6. Default component type switch" below, the field will be rendered differently a resource searching page (compared with how the field is rendered on the **Details** tab of the Modify Resource page). This is because the system performs a component type switch and adds values for these user data fields. "Table 5-6. Default component type switch" below details the default component type switches and additional values.

Table 5-6. Default component type switch

Component Type on the Modify Resource page	Component Type on Resource Searching Pages	Additional Value
Drop Down List	Auto Complete List [a]	The value *<Blank>* is added to the Auto Complete List. This option enables you to filter out all resources that have a value set for the field.
Radio Buttons (Yes / No)	Drop Down List	The value *<Blank>* is added to the Drop Down List. This option enables you to filter out all resources that have a value set for the field.
Auto Complete List	Auto Complete List [a]	The value *<Blank>* is added to the Auto Complete List. This option enables you to filter out all resources that have a value set for the field.
Date Field	Date Field	Two Date fields are displayed. These two fields enable you to specify a time period.

a.   On resource searching pages, fields with the Auto Complete List component type support multiple selections.

Search Validation

For fields that use the component types mentioned in "Table 5-6. Default component type switch" above, you can customize the validations (the component type, and possible field values) that the fields use in resource searching pages by configuring the **Search Validation** field in Workbench.

For example, field A is an auto complete list that contains three values (average, good, excellent). You can configure the **Search Validation** field to make it only contain two values (good, excellent) in resource searching pages.

> **Note:** The **Search Validation** field does not take effect if the **Display on Search and Filter** option is set to No.

Retrieving Values from Position User Data Fields

You may create staffing profile position user data fields in Workbench, and specify position user data fields on the **Details** tab of a position page. To simplify your resource searching, a resource user data field will retrieve the value from a position user data field if the resource user data field uses the same token and component type with the position user data field. In this case, the resource user data field is automatically populated with the position user data value when you open a resource searching page.

> **Note:** You can update or remove the value if the populated value does not fit your search criteria.

Modifying Skill Criteria for Resource Searching

When you use the Resource Finder to search for resources to assign, the skills you add to the position automatically appear on the **Modify Search Criteria** tab. You can do the following modification to the skill criteria:

- Click **Add Skill** to add more skills.

- Click the ✖ icon to remove a skill.

- Set the **Required** field. This field indicates whether the skill is a required skill or a preferred skill. By default, this field is set to Yes.

- Modify the **Minimum Proficiency** field for the skill. By default, this field is set to the value you specified in the **Aptitude** field of the position.

  If you set a skill to be a preferred one (set the **Required** field to No), the **Minimum Proficiency** field will be grayed out.

Figure 5-7. Modifying skill criteria

Compared with the skills specified in the position (shown in "Adding Positions" on page 93), the following changes occur after the skill criteria modification (shown in "Figure 5-7. Modifying skill criteria" on the previous page).

- The skill C becomes a preferred skill. And thus, resources that do not have this skill will not be filtered out. While resources that have this skill may have higher suitability scores.

- The minimum proficiency of the skill java is set to "Trained." This change makes more resources that have the skill Java become eligible.

The skill Linux is added as a required one. This change filters out all the resources that do not have the skill Linux.

Viewing Resource Load

The Resource Finder allows you to view a breakdown table of selected resource load similar to the table accessed from the Analyze Assignment Load page. This table includes scheduled effort values for all assigned tasks and requests, resource allocations for staffing profiles, and the available capacity for each resource.

Figure 5-8. Resource Finder Resource Load Breakdown table

To access this table:

1. Click **View Resource Load** in the Resource Finder window.

   The Resource Load Breakdown page opens. Resources are listed alphabetically, by last name.

   The Resource Load Breakdown table can be filtered to show different data.

Filter	Description
View	Chooses the data to display in the table. **Assignment Summary** — Shows each resource's assignment total in working hours. **Assignment Details** — Shows the work items that contribute to the resource's

Filter	Description
	assignment totals.
Highlight	Select **Overallocation** to highlight overallocation data in red, **Availability** to highlight availability data in green, or neither.

The following table lists the column and row descriptions.

Column/Row	Description
Sched	The scheduled effort of the resource. Scheduled effort is evenly distributed across working days from the scheduled start date to the scheduled finish date. Hours per week may differ based on regional and personal calendars (for example, holidays and personal vacations). Decimal values may not be displayed when viewing this table from the Analyze Assignment Load portlet.
Actual	The actual effort of the resource.
Total Capacity	Maximum total amount of effort that can be allocated for the resource.
Total Assignments	Total effort provided by the resource.
Available Capacity	The remaining capacity of the resource. Available Capacity = Total Capacity – Total Assignments

2. Click **Done** to return to the Resource Finder.

Required Skill and Preferred Skill

In some resource searching scenario, you may have to set one or more skills as required skills while the others as nice-to-have (preferred) ones. To fit your business needs, the system classifies skills as follows:

- **Required Skill:** Skills that a resource must have. Additionally, the resource's skill proficiency must meet or exceed the minimum skill proficiency. Otherwise, the resource will be filtered out. For more information, see "Skill Proficiency" on the next page.

- **Preferred Skill:** Skill that a resource does not have to have. Having a preferred skill increases the Suitability Score of a resource. For more information, see "Suitability Score Calculation" on page 201.

Skill Proficiency

You can modify the value displayed in the **Minimum Proficiency** field by configuring the RSC – Skill Proficiency validation. This validation defines a sequence of proficiency levels. The system measures the proficiency level according to the sequence number. A high sequence number indicates a high proficiency level.

Figure 5-9. Skill Proficiency validation
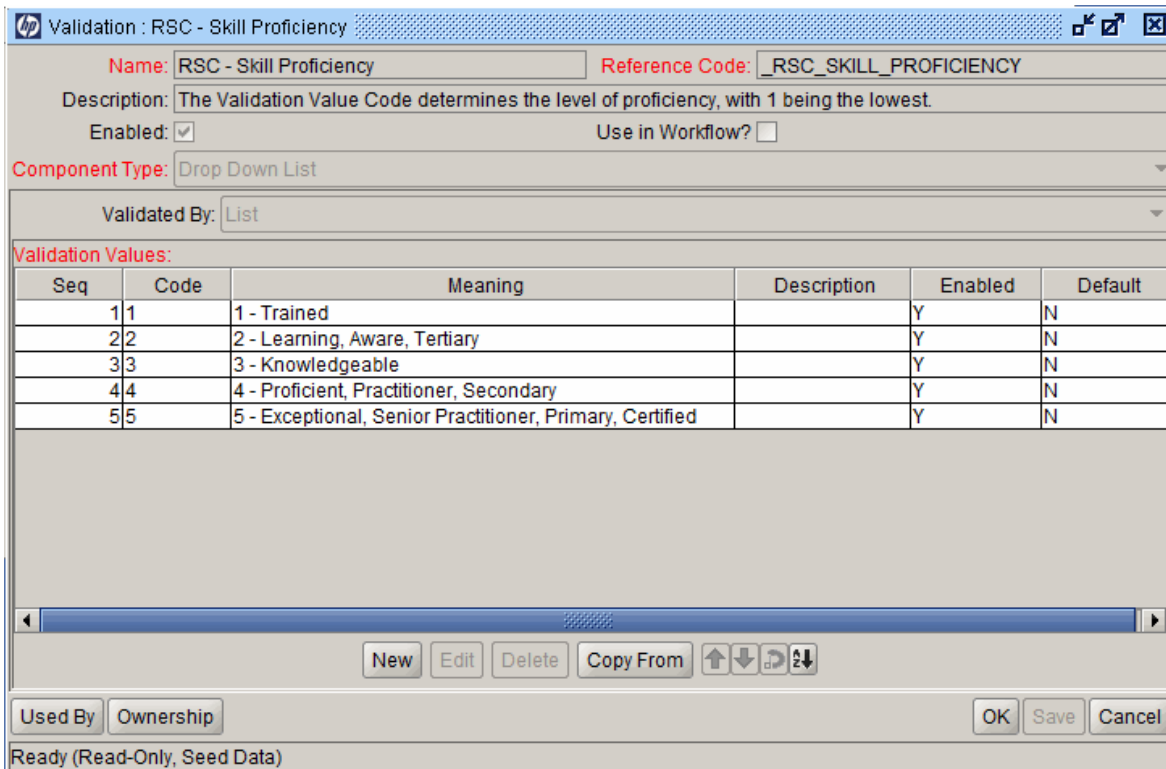
In "Figure 5-9. Skill Proficiency validation" above, the value `Level 5 (High)` with the sequence number 5 is the highest proficiency level. "Figure 5-10. Proficiency levels on UI" below illustrates the corresponding values in Web user interfaces.

Figure 5-10. Proficiency levels on UI
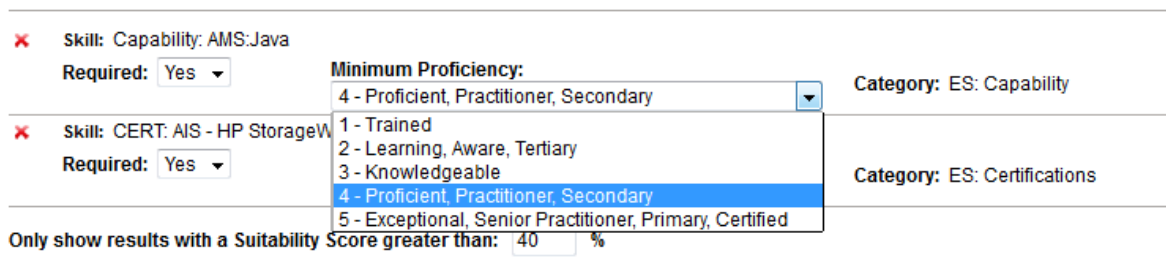
Comparing Skills

The Resource Finder allows you to view a table comparing the skills of selected resources, including each resource's skill level.

Figure 5-11. Resource Finder Compare Resource Skills page

To access this table:

1. Click **Compare Skills** in the Resource Finder window. The Compare Resource Skills page opens.

Column	Description
Resource Name	The name of the resource.
Role	User responsibility that helps describe resource requirements.
Overall Skill Score	The average of all skill scores of a resource.
Skill Score	A numeric score representing the resource's suitability relative to the skill required. A higher score (close or equal to 100) means better suitability. See "Calculating Skill Score" on page 205 for more detailed information on how this score is computed.
Desired Skills	Skills selected in the Resource Finder that you would like the resource to possess.
Level	The proficiency level of the resource for the specified skill.

2. Click **Done** to return to the Resource Finder.

Resource Finder Calculations

- "Suitability Score Calculation" below

- "Calculating Availability Score" on the next page

- "Calculating Skill Score" on page 205

- "Calculating Projected Utilization" on page 206

Suitability Score Calculation

The Suitability Score is a numeric value representing the resource's suitability for a resource request, based on their related skills, and availability. The higher this score, the better. The system computes suitability scores using the following values:

- **Availability Score.** See "Calculating Availability Score" on the next page for more detailed information on how this score is computed.

- **Skill Score.** See "Calculating Skill Score" on page 205 for more detailed information on how this score is computed.

The availability score and skill score are weighted according to the following formulae to produce the final suitability score:

Availability Weight = 100 – Skill Weight

Suitability Score = Availability Score * (Availability Weight%) + Skill Score * (Skill Weight%)

You can change the skill weight by altering the `RESOURCE_FINDER_SKILL_WEIGHT` server.conf parameter. This parameter represents the weight given to the skill score in suitability score calculations for the Resource Finder. (Possible values: 0~100)

> **Tip:** The system computes the suitability score, availability score, and skill score for a resource only when both of the following conditions are true:
>
> ○ The resource has all the required skills you specify in the Resource Finder.
>
> ○ For each required skill, the skill proficiency of the resource meets or exceeds the minimum skill proficiency you specify in the Resource Finder.

Calculating Availability Score

The availability score is a numeric score representing the resource's availability for the entity in question, based on their current load and capacity.

> **Note:** Only the resource allocations from staffing profiles are calculated, which does not include the allocations from requests and project tasks.

A higher score (close or equal to 100) means better availability. The availability score is the average of the availability by time period (years, quarters, months, or weeks). The availability by time period is calculated from the available resource capacity (remaining capacity) over a non-zero position forecast (available resource capacity = resource capacity – resource allocation), expressed as a percentage.

Availability Score	= [AT(1) + AT(2) + … + AT(n)] / N or
	= { [RC(1) / PF(1)] * 100 + [RC(2) / PF(2)] * 100 + … + [RC(n) / PF (n)] * 100 } / N

where:

AT = availability by time period = (RC / PF) * 100
RC = available resource capacity

PF = position forecast (0 < PF <= 1)

N = number of time periods

> **Note:** The availability by time period cannot be greater than 100% (that is, a resource cannot be available more than 100% of the time). If this calculation is greater than 100%, the availability by time period is set to 100%.
>
> The position forecast cannot be greater than one (that is, a resource cannot be booked for more than one FTE per time period). If the position forecast is zero, the availability by time period is not used in the calculation of the availability score.

Table 5-7. Example availability score calculations

RC	PF	N	Availability by Time Period			Availability Score
.33, .25, 1	.33, .5, 1	3	(.33 / .33) * 100 = 100%	(.25 / .5) * 100 = 50%	(1 / 1) * 100 = 100%	(100% + 50% + 100%) / 3 = 83%
.33, .25, 1	0, .5, 1	3	N/A	(.25 / .5) * 100 = 50%	(1 / 1) * 100 = 100%	(50% + 100%) / 2 = 75%*

*Because the position forecast is zero in the first time period, the first time period is not included in the calculation of the availability score.

Example: Availability Score for William Klein

In the following example, William Klein is an application developer who has 75% of his time allocated in May to Project A. He is also planning to take two weeks of vacation in July.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October.

The following are William Klein's capacity, allocation, available capacity, and availability by month:

Table 5-8. William Klein's monthly availability calculations for Project B

	May.	Jun.	Jul.	Aug.	Sept.	Oct.
Capacity	1	1	.5	1	1	1
Allocation	.75	0	0	0	0	0
Available Capacity (RC) (Capacity - Allocation)	.25	1	.5	1	1	1

Table 5-8. William Klein's monthly availability calculations for Project B, continued

	May.	Jun.	Jul.	Aug.	Sept.	Oct.
Position Forecast (PF) (0 < PF <= 1)	1	1	1	1	1	.5
Availability by Month (AT) ([RC / PF] * 100, <= 100%)	25%	100%	50%	100%	100%	100%

William Klein's availability score for Project B is:

(25% + 100% + 50% + 100% + 100% + 100%) / 6 = 79%

Example: Availability Score for Joseph Bank

In the following example, Joseph Bank is an application developer who has 50% of his time allocated in May and June to Project A and 100% of his time allocated in September and October to Project C. He is planning to take two weeks of vacation in August.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October. William Klein is expected to be allocated to the work in September and October.

The following are Joseph Bank's capacity, allocation, available capacity, and availability by month:

Table 5-9. Joseph Bank's monthly availability calculations for Project B

	May.	Jun.	Jul.	Aug.	Sept.	Oct.
Capacity	1	1	1	5	1	1
Allocation	.5	.5	0	0	1	1
Available Capacity (RC) (Capacity - Allocation)	.5	.5	1	.5	0	0
Position Forecast (PF) (0 < PF <= 1)	1	1	1	1	0	0
Availability by Month (AT) ([RC / PF] * 100, <= 100%)	50%	50%	100%	50%	N/A	N/A

Joseph Bank's availability score for Project B is:

(50% + 50% + 100% + 50%) / 4 = 63%

Example: Availability Score for Barbara Getty

In the following example, Barbara Getty is a Java™ developer who has no time allocated from May through October. She is not planning to take any vacation during that time.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October. William Klein is expected to be allocated to the work in September and October.

The following are Barbara Getty's capacity, allocation, available capacity, and availability by month:

Table 5-10. Barbara Getty's monthly availability calculations for Project B

	May.	Jun.	Jul.	Aug.	Sept.	Oct.
Capacity	1	1	1	1	1	1
Allocation	0	0	0	0	0	0
Available Capacity (RC) (Capacity - Allocation)	1	1	1	1	1	1
Position Forecast (PF) (0 < PF <= 1)	1	1	1	1	0	0
Availability by Month (AT) ([RC / PF] * 100, <= 100%)	100%	100%	100%	100%	N/A	N/A

Barbara Getty's availability score for Project B is:

(100% + 100% + 100% + 100%) / 4 = 100%

Calculating Skill Score

The skill score is a numeric score representing the resource's suitability for a resource request, based on their skills and skill proficiency. The system computes the skill score with the following formula:

Skill Score = 100 * (RSN + PSN) / (SSN)

where,

RSN = number of required skills with a skill proficiency higher or equal to the minimum proficiency that the resource has

PSN = number of preferred skills that the resource has

SSN = number of skills you specify in the Resource Finder

Calculating Projected Utilization

Projected utilization is how much the resource would be used if the assignment were made. If the resource will not be overallocated, projected utilization is less than 100%. If the resource will be overallocated, projected utilization is greater than 100%. Projected utilization is calculated by the sum of the total resource allocation and the total position forecast divided by the total resource capacity.

Projected Utilization = (RA + PF) / RC

where:

RA = resource allocation total
PF = position forecast total
RC = resource capacity total

> **Note:** Projected utilization is calculated in hours. The totals used must be converted to hours before projected utilization can be calculated.

Example: Projected Utilization for William Klein

In the following example, William Klein is an application developer who currently has 75% of his time allocated in May to Project A. He is also planning to take two weeks of vacation in July.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October.

William Klein's allocation and capacity are:

Table 5-11. William Klein's projected utilization calculations

	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Total
Allocation	.75 (120 hrs)	0	0	0	0	0	.75 (120 hrs)
Capacity	1 (160 hrs)	1 (176 hrs)	.5 (96 hrs)	1 (168 hrs)	1 (168 hrs)	1 (176 hrs)	5.5 (944 hrs)
Position Forecast (<= 1)	1 (160 hrs)	1 (176 hrs)	1 (176 hrs)	1 (168 hrs)	1 (168 hrs)	.5 (88 hrs)	5.5 (936 hrs)

William Klein's projected utilization from May through October is:

(120 + 936) / 944 = 119%

Example: Projected Utilization for Joseph Bank

In the following example, Joseph Bank is an application developer who has 50% of his time allocated in May and June to Project A and 100% of his time allocated in September and October to Project C. He is planning to take two weeks of vacation in August.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October. William Klein is expected to be allocated to the work in September and October.

Joseph Bank's allocation and capacity are:

Table 5-12. Joseph Bank's projected utilization calculations

	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Total
Allocation	.5 (80 hrs)	.5 (88 hrs)	0	0	1 (168 hrs)	1 (176 hrs)	3 (512 hrs)
Capacity	1 (160 hrs)	1 (176 hrs)	1 (176 hrs)	.5 (88 hrs)	1 (168 hrs)	1 (176 hrs)	5.5 (944 hrs)
Position Forecast (<= 1)	1 (160 hrs)	1 (176 hrs)	1 (176 hrs)	1 (168 hrs)	0 (0 hrs)	0 (0 hrs)	4 (680 hrs)

Joseph Bank's projected utilization from May through October is:

(512 + 680) / 944 = 126%

Example: Projected Utilization for Barbara Getty

In the following example, Barbara Getty is a Java developer who has no time allocated from May through October. She is not planning to take any vacation during that time.

Project B requires application developers for six months from May through October. Staffing requirements are three FTEs for May through August, tapering off to one FTE for September, and 1/2 FTE for October. William Klein is expected to be allocated to the work in September and October.

Barbara Getty's allocation and capacity are:

Table 5-13. Barbara Getty's projected utilization calculations

	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Total
Allocation	0	0	0	0	0	0	0
Capacity	1 (160 hrs)	1 (176 hrs)	1 (176 hrs)	1 (168 hrs)	1 (168 hrs)	1 (176 hrs)	6 (1024 hrs)

Table 5-13. Barbara Getty's projected utilization calculations, continued

	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Total
Position Forecast (<= 1)	1 (160 hrs)	1 (176 hrs)	1 (176 hrs)	1 (168 hrs)	0 (0 hrs)	0 (0 hrs)	4 (680 hrs)

Barbara Getty's projected utilization from May through October is:

(0 + 680) / 1024 = 66%

Overriding Scheduled and Actual Values

Work items (both tasks and requests) have fields for the **Scheduled** and **Actual** values for:

- **Start Date**

- **Finish Date**

- **Duration**

- **Effort**

> **Note:** Requests use the System Default Regional Calendar's setting for the number of working hours in a day.
>
> Tasks use the setting defined in the project's selected region, defined in the Project Settings window.
>
> Requests with resources assigned use the number of working hours in a day set by the resource's regional calendar.

Scheduled Value Field Relationships

The **Scheduled Duration** and **Scheduled Effort** for a request work item are automatically calculated in the following manner:

- **Scheduled Duration** = **Scheduled Finish Date** − **Scheduled Start Date** −Regional calendar non-working days)

- **Scheduled Effort** = **Scheduled Duration** * (Working hours in a day defined from regional calendar)

Each of these fields automatically updates the other:

- If the **Scheduled Start Date** is changed by the user, then the **Scheduled Finish Date** is automatically updated to reflect the **Scheduled Duration.**

- If the **Scheduled Finish Date** is changed by the user, then the **Scheduled Duration** is automatically updated and **Scheduled Effort** is recalculated.

- If the **Scheduled Duration** is changed by the user, then the **Scheduled Finish Date** is automatically updated to reflect the **Scheduled Duration,** and **Scheduled Effort** is recalculated.

- For a work item with multiple resources, the total **Scheduled Effort** is simply the sum of all resources' **Scheduled Effort.** If the total **Scheduled Effort** is changed by the user, each assigned user's **Scheduled Effort** is changed proportionately. (If the total is doubled, for example, each resource's **Scheduled Effort** will also double.) Concordantly, if an assigned user's **Scheduled Effort** is updated, total **Scheduled Effort** is recalculated automatically.

Note: Scheduled Effort is evenly distributed across working days from the **Scheduled Start** to the **Scheduled Finish.** Hours per week may differ based on regional and personal calendars (for example, holidays and personal vacations).

Changes to **Scheduled Effort** values do not have a "backstream" effect. Updating only the **Scheduled Effort** field will not change the **Scheduled Duration,** which is always derived from the **Scheduled Start** and **Finish** values. This allows a task to be assigned at less than full time.

Actual Value Field Relationships

Actual field values for work item requests are captured in the following ways:

- **Start Date.** When the work item is started (task is set to **In Progress** or request is submitted)

- **Finish Date.** When the work item is completed (task is set to **Completed** or request is closed)

- **Duration.** Calculated as **Actual Finish Date** – **Actual Start Date** – (Regional calendar non-working days)

- **Effort.** Calculated as **Total Scheduled Effort** * **(Actual Duration / Scheduled Duration)**

If the **Actual Duration** is changed by the user, then the **Actual Effort** is automatically updated.

Note: Though the **Actual Effort** field can be updated independently, changes to **Actual Effort** do

not have a "backstream" effect. Updating only the **Actual Effort** field will not change the **Actual Duration.**

To prevent the system from overriding a manually updated **Actual Effort** value, make sure that you have updated the **Actual Duration** or **ActualStart/Finish Dates** before specifying the new **Actual Effort** value.

Viewing Work Items

Once work items have been assigned, there are several ways for resources to view and update their workload from the standard interface.

My Tasks Portlet

Task work items can be viewed and updated from the My Tasks portlet.

Resources with a Project Management or Time Management license can add the My Tasks portlet to one of their PPM Dashboard pages, enabling them to view task work items that have been assigned to them. The My Tasks portlet can be filtered along many useful parameters.

For example, the My Tasks portlet can be filtered to display only tasks beginning within the next two weeks that are ready for action whose Predecessors are more than 50% complete.

For more information on using the My Tasks portlet, see the *Project Management User's Guide.* For more information on using the My Tasks portlet in conjunction with HP Time Management, see the *Time Management User's Guide.*

My Requests Portlet

Request work items can be viewed and updated from the My Requests portlet.

Figure 5-12. My Requests portlet

Req # ▲	Req Type	Description	Status	Assigned To	Priority	Created By
30125	Project Details		In Planning			Admin User
30152	Project Details		In Planning			Admin User
30302	PFM - Proposal		Detailed Business Case			Admin User
30305	ZJYRT	1245	Not Submitted			Admin User
30332	ZJYRT	1245	Not Submitted			Admin User

Export to Excel   Showing 1 to 5 of 114

Resources with a Demand Management license can add the My Requests portlet to one of their PPM Dashboard pages, enabling them to view request work items that have been assigned to them, or that they have created.

Personal Load and Capacity Visualizations

To see what their upcoming workload looks like, resources with the View my personal resource information only access grant can select **Open > Administration > View My Resource Information** from the menu bar.

"Figure 5-13. View Resource page: Capacity/Load tab" below shows the **Capacity/Load** tab of the View Resource page for a resource, including capacity graph and personalized Gantt chart.

Figure 5-13. View Resource page: Capacity/Load tab
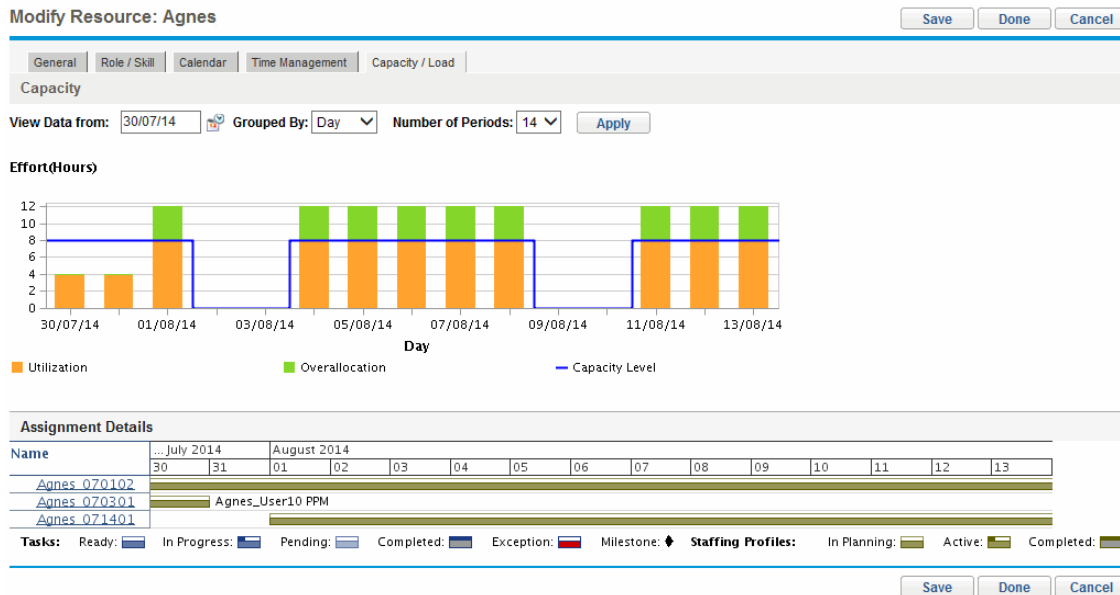
Of particular interest are the visualizations in the **Capacity/Load** tab:

- **Capacity.** Charts the resource's capacity against their current assignments, and shows areas of over-allocation. Non-Workload assignments are omitted.

- **Assignment Details.** A Gantt chart that displays all of the resource's assignments, as well as showing task exceptions.

The time scale of both of these visualizations can be altered to view a wide range of time periods. They are also available as portlets.

The Analyze Assignment Load portlet pictured in "Figure 5-16. Analyze Assignment Load portlet" on the next page can be personalized to display only allocations for one resource. For more detailed information on the Analyze Assignment Load visualization, see "Visualizing Assignments" below.

The Resource Gantt portlet can be personalized to display only allocations for one resource ("Figure 5-14. Resource Gantt portlet, one resource" below) and can display both task and staffing profile allocations.

Figure 5-14. Resource Gantt portlet, one resource
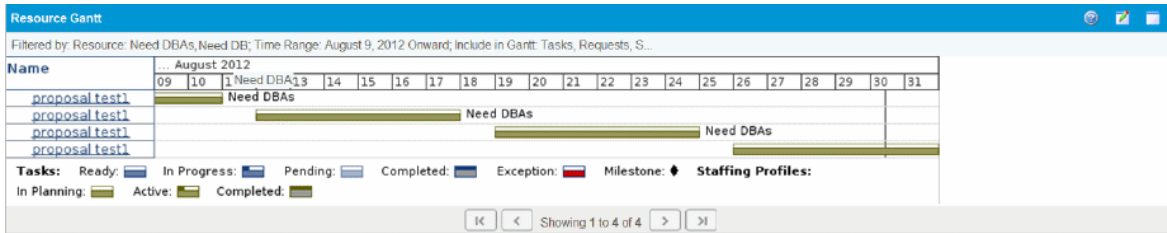
Figure 5-15. Resource Gantt portlet, non-workload tasks
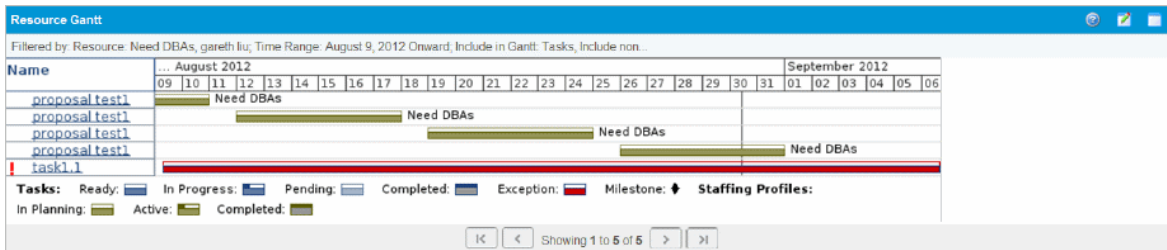
Visualizing Assignments

A basic task for project managers and request managers is to ensure that work items are assigned to their team members without overloading anyone. This task of balancing the assignments of all resources is called load balancing.

The Analyze Assignment Load portlet provides a tool for visualizing assignments that allows a manager to view workload sorted according to different criteria and levels of specificity, giving them better control and visibility over their resources' workload.

"Figure 5-16. Analyze Assignment Load portlet" on the next page shows the Analyze Assignment Load portlet, which can help a manager rapidly pinpoint areas of over- or under-allocation.

Figure 5-16. Analyze Assignment Load portlet
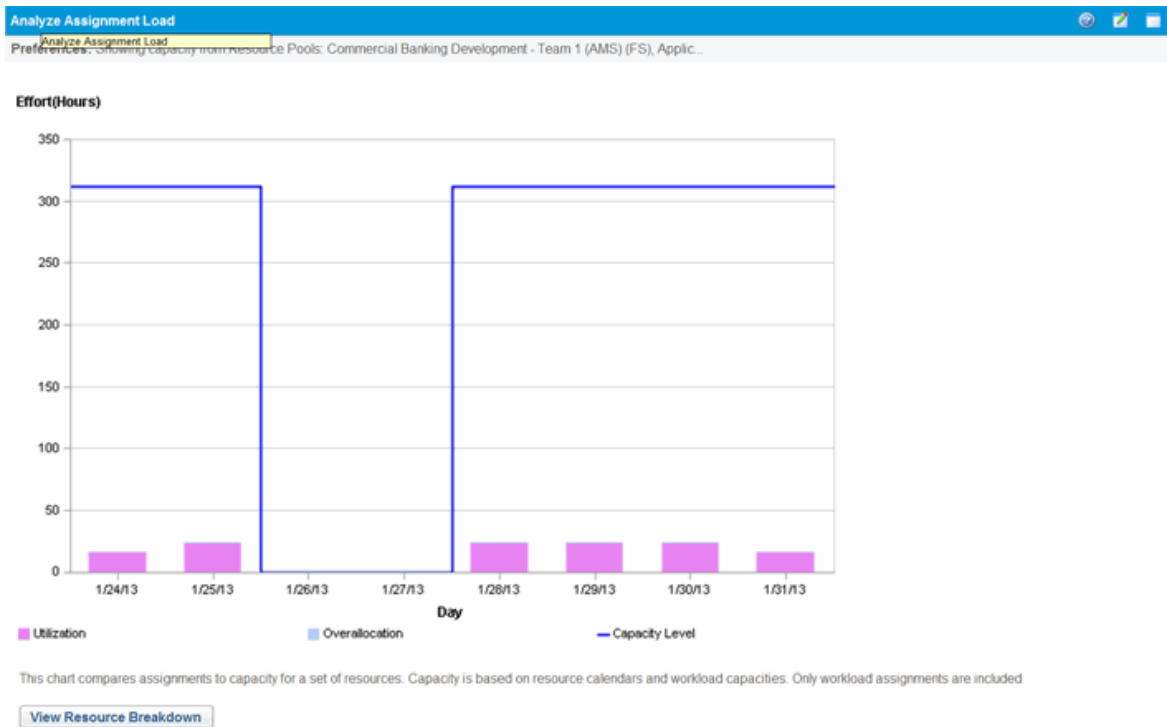
Table 5-14. Analyze Assignment Load portlet legend

Name	Description
Utilization	The amount of effort that has been allocated to the selected resources during the time period.
Overallocation	The amount of effort that exceeds the capacity level of the selected resources.
Capacity Level	The maximum amount of effort that can be allocated to the selected resources during the time period.

The Analyze Assignment Load portlet can be filtered according to the parameters described in "Table 5-15. Analyze Assignment Load portlet - parameters" below.

Table 5-15. Analyze Assignment Load portlet - parameters

Field Name	Description
Preferences	
Analyze Capacity from	A choice of multi-select auto-complete fields that selects the sets of resources to display in the Analyze Assignment Load page.
	Possible choices: **Organization Units, Resources in the Resource Pool,**

Table 5-15. Analyze Assignment Load portlet - parameters, continued

Field Name	Description
	Resources Managed By, Resource Name, Resources on Project If you select **Resources in the Resource Pool**, two additional options are available: • **Include children resource pools.** Include resources from children resource pools of the selected resource pools. • **Limit capacity against selected resource pools.** Include the capacity and scheduled effort (from staffing profiles) of resources for the selected resource pools only. If a resource belongs to more than one resource pool, the capacity and scheduled effort for only the selected resource pools are used. Scheduled effort entered in a work plan or request (effort not associated with a resource pool) is not limited.
Assignments with Workload Category	Selects assignments of a specific **Workload Category** to display.
Resources with Role	A multi-select auto-complete field that selects a role or set of roles to display from the sets of resources being analyzed.
Total Assignment Values for	Select to display **Scheduled Effort, Actual Effort,** or **Scheduled and Actual Effort** in the Analyze Assignment Load page. If you are analyzing capacity from a resource pool and have selected **Limit capacity against selected resource pools,** only **Scheduled Effort** can be selected.
Time Period	
Period	Sets the time period being used by the Analyze Assignment Load page.
Display __ past periods	Selects up to 20 time periods before the current date to include in the Analyze Assignment Load page. Useful for viewing historical trends.
Display __ future periods	Selects up to 20 time periods after the current date to include in the Analyze Assignment Load page.

Note: If a staffing profile is completed, future forecast and assignments (those past the finish date of the staffing profile) can be cleared and will not display in the portlet. See "Clearing Future Forecast and Assignments" on page 112 for more information.

If large amounts of data are supplied to the portlet, there may be performance problems. Therefore, a threshold for this portlet can be specified in the `server.conf` file and a default value is provided for optimal performance.

- AAL_PORTLET_MAX_RESOURCES: the maximum number of total resources. The default value is 300.

See the *Installation and Administration Guide* for more information about editing the `server.conf` file.

When the threshold is exceeded, the portlet does not display. Instead, a message containing the threshold value and current value that exceeds the threshold appear. To make the portlet display, you can edit the preferences of the portlet so that the threshold is no longer exceeded. HP does not recommend that you increase the threshold value as this may cause performance problems.

If the amount of data you need to analyze exceeds the threshold, you can export the data to Microsoft Excel. To export Analyze Assignment Load portlet data to Microsoft Excel, do the following:

1. Select **Open > Resource Management > Data Exports > Analyze Assignment Load.**

2. Set the filter criteria for export.

   An additional field is included for the filter criteria: Include Detailed Data. Select this checkbox if you want to get a breakdown of total resource capacity and workload (data displayed in the Analyze Assignment Load Breakdown table).

3. Click **Export To Excel.**

The date when the snapshot was taken is included in the export.

> **Note:** The data may not contain decimal places. Therefore, numbers such as 2.47 may display as 3.

Resource Load Breakdown Table

To get a detailed breakdown of total resource capacity and workload, click **View Resource Breakdown.** The Resource Load Breakdown table, pictured in , opens in a new dialog box.

Figure 5-17. Resource Breakdown table

The Resource Load Breakdown table can be filtered to show different data according to the parameters described in "Viewing Resource Load" on page 196. Column and row descriptions are also listed in this section.

With the visualizations available from the Analyze Assignment Load portlet, you can see areas of resource overallocation or under-utilization, broken down by any number of filter criteria. You can use the graphs as a guide to help balance workload among resources. Data from the Resource Load Breakdown table can be exported to Microsoft Excel for further manipulation.

Note: Workload assigned to a resource's non-working days (vacation, for example) will be redistributed to days when the resource is present. This may result in over-allocations for that resource, which can be adjusted in any or all of the usual ways:

- Modifying staffing profiles that call on the resource

- Adjusting the resource's workload capacity

- Assigning a different resource

Adjusting Resource Calendars

Individual resource calendars can be modified by a resource or the resource's manager, depending on their levels of access. Modifying an individual's resource calendar can help create more accurate visualizations of that resource's capacity and workload. For more detailed information on modifying resource calendars, see "Setting Up the Resource Calendar" on page 41.

Appendix A: Typical Usage

The following information is based on typical usage of PPM Center and Resource Management. HP cannot warrant that you will have the same or similar experience.

"Table A-1. HP Resource Management Typical Usage" below lists entities with an amount for its typical usage, amounts that are considered complex and might impact performance, where that performance impact might occur, and recommendations or comments about complex usage.

Table A-1. HP Resource Management Typical Usage

	Typical	Complex	Performance Impact	Recommendations/Comments
Duration of a Staffing Profile [a]	<= 3 years	> 3 years	View staffing profile when allocation entered in weeks	Enter allocation for a staffing profile in months, quarters, or years. Use the Forecast Planning page for resource planning.
Number of Positions and Resources in a Staffing Profile [a]	100	> 200	View staffing profile when allocation entered in weeks	Enter allocation for a staffing profile in months, quarters, or years. Use the Forecast Planning page for resource planning.
Number of Projects to which a Single Resource is Assigned	<= 10	> 10		Plan for unknown resources using promises. Use the Resource Allocation Management page to manage individual resources across multiple projects.
Resources in a Resource Pool	<= 300	> 300	Manage Pool Capacity page, View Forecasted Demand page, View Resource Load page	
Total	<= 300	> 300	Analyze Assignment Load	The maximum number of total

Table A-1. HP Resource Management Typical Usage, continued

	Typical	Complex	Performance Impact	Recommendations/Comments
Resources in the Analyze Assignment Load Portlet			portlet	resources in the Analyze Assignment Load portlet is set by the AAL_PORTLET_MAX_ RESOURCES parameter.
Total Resources in the Analyze Resource Pools Portlet	<= 300	> 300	Analyze Resource Pools portlet	The maximum number of total resources in the Analyze Resource Pools portlet is set by the ARP_MAX_RESOURCES parameter.
Total Resource Pools in the Analyze Resource Pools Portlet	<= 30	> 30	Analyze Resource Pools portlet	The maximum number of total resource pools in the Analyze Resource Pools portlet is set by the ARP_MAX_RESOURCE_ POOLS parameter.
a. If the number of positions and resources of in a staffing profile exceeds the recommended typical number, HP recommends that you switch to the **Gantt** view of the Staffing Profile page where all the data are displayed in one single page and load simultaneously as you scroll down the page. This helps you experience better system performance and avoid OutOfMemory error.			

Appendix B: Unmet Demand Calculation Sample Scenarios

- "Sample Data" below

- "Scenario 1: Unmet demand calculation when forecast demands and assignments use the same calendar" on the next page

- "Scenario 2: Unmet demand calculation when forecast demands and assignments use different calendars" on page 223

- "Scenario 3: Unmet Demand Calculation when Assigned Resources are Partially Allocated" on page 225

- "Scenario 4: Unmet Demand Calculation when Unmet Demand is Forwarded to Another Pool" on page 226

- "Scenario 5: Unmet Demand Calculation when Forecasted Demand is Viewed on the Resource Pool Page" on page 227

Sample Data

"Table B-1. Example Regional Calendar Settings" below lists an example of regional calendar settings.

Table B-1. Example Regional Calendar Settings

Region	Regional Calendar	Hours per day	Working Days per week	Oct. 11 (Working Days)	Nov. 11	Dec. 11	Jan. 12	Feb. 12	Mar. 12	Apr. 12
America	US	8 hrs	5 days	21	21	21	21	20	22	21
China	China	10 hrs	5 days	21	22	22	21	21	21	20
EMEA	Germany	6 hrs	5 days	16	22	20	22	21	22	19

"Table B-2. Example Resource Pool Settings" on the next page lists an example of the resource pool settings

Table B-2. Example Resource Pool Settings

Resource Pool	Region	Resources	Resource Calendar	% of participation
US Pool	America	Joseph Bank	Inheriting US Calendar	100%
		William Klein	Inheriting US Calendar	100%
		Barbara Getty	Inheriting US Calendar	75%
EMEA Pool	Germany	Lan Zhang	Using China Calendar	100%
		Jian Wang	Using German Calendar	100%

Scenario 1: Unmet demand calculation when forecast demands and assignments use the same calendar

In the following example, Project A requires two senior Java engineers for four months from October 11 through January 12 in US pool. Staffing requirements are two FTEs for October through November, tapering off to one FTE for December, and 1/2 FTE for January.

William Klein and Joseph Bank both are senior java engineers in US pool who have 100% of their time allocated to Project A. William plans to take two weeks of vacation in November.

"Figure B-1. Allocation Detail for Project A in FTEs View" below shows the allocation detail for project A in FTEs view.

Figure B-1. Allocation Detail for Project A in FTEs View

Allocation Detail for Aug 1, 2011 to Jan 31, 2012								Enter Allocation in: Years | Quarters | Months | Weeks	
Add A Position	Send Resource Requests	Import Positions							
Position	Status	Resource Pool	Q3 11		Q4 11			Q1 12	Average FTE's Requested
			Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	Jan 12	
Senior Java Engineer	Soft Booked	US Pool			2.00	2.00	1.00	0.50	0.92
Joseph Bank	Soft Booked	US Pool			1.00	1.00	1.00	0.50	0.58
William Klein	Soft Booked	US Pool			1.00	0.52			0.25
☐ Unmet Demand						0.48			0.08
Period Total			0.00	0.00	2.00	2.00	1.00	0.50	0.92

"Figure B-2. Allocation Detail for Project A in Hours View" below shows the allocation detail for project A in Hours View

Figure B-2. Allocation Detail for Project A in Hours View

Position	Status	Resource Pool	Q3 11 Aug 11	Sep 11	Q4 11 Oct 11	Nov 11	Dec 11	Q1 12 Jan 12	Total Hours
Senior Java Engineer	Soft Booked	US Pool			336.0	336.0	176.0	84.0	932.0
Joseph Bank	Soft Booked	US Pool			168.0	168.0	176.0	84.0	596.0
William Klein	Soft Booked	US Pool			168.0	88.0			256.0
☐ Unmet Demand						80.0			80.0
Period Total			0.0	0.0	336.0	336.0	176.0	84.0	932.0

Allocation Detail for Aug 1, 2011 to Jan 31, 2012   Enter Allocation in: Years | Quarters | Months | Weeks

"Table B-3. Example Unmet Demand Calculations for Project A" below lists the forecasts, assignments, and unmet demand calculations in different effort types.

Table B-3. Example Unmet Demand Calculations for Project A

	Oct. 11 FTE	Hours	Nov. 11 FTE	Hours	Dec. 11 FTE	Hours	Jan. 12 FTE	Hours
Forecast: Senior Java Engineer	2.00	8*21*2=336.0	2.00	8*21*2=336.0	1.00	8*21*1=168.0	0.50	8*21*.5=84.0
Joseph Bank	1.00	8*21*1=168.0	1.00	8*21*1=168.0	1.00	8*21*1=168.0	0.50	8*21*.5=84.0
William Klein	1.00	8*21*1=168.0	1*(21-11)/21=0.52[a]	8*(21-11)*1=88.0	0.00	0.0	0.00	0.0
Unmet Demand	0.00	0.0	1.00-0.52=0.48	336.0-168.0-88.0=80.0	0.00	0.0	0.00	0.0

a.   William's assignment (FTE) = 1 FTE * (working days in his resource calendar US - his personal leavings)/ working days in his resource calendar

Note: Forecast Hours is calculated based on position resource pool associated region calendar. In this example, the position relevant resource pool calendar is US.

Forecast (Hours) = working hrs per day in position calendar * working days per month in position calendar * number of FTE

Note: Assignment Hours is calculated based on the assigned resource associated calendar and his/her personal working day setting. In this example, William Klein is inheriting US calendar and takes two-week leave in Nov.

Assignment (FTE) = (working days in resource calendar - resource personal leaving days)/ working days in resource calendar * 1 FTE

Assignment (Hours) = working hrs per day in US * (working days per month in US - resource personal Leaving Days) * 1 FTE

Unmet Demand = Forecast - Assignment

> **Note:** The calculation logic for different period types (Years, Quarters, Months, Weeks) are the same, it is just a data aggregation from different dimensions.

Scenario 2: Unmet demand calculation when forecast demands and assignments use different calendars

In the following example, Project B requires application developers for three months from October 11 through December in EMEA Pool.

Wang Jian and Zhang Lan who are assigned to this position are currently in EMEA pool. Jian is using German calendar while Lan is using China calendar. Both of them have 100% of their time allocated to project B. Lan plans to take 11 days of vacation in November.

"Figure B-3. Allocation Detail for Project B in FTEs View" below shows the allocation detail for project B in FTEs view

Figure B-3. Allocation Detail for Project B in FTEs View

Allocation Detail for Oct 1, 2011 to Dec 31, 2011						Enter Allocation in: Years | Quarters | Months | Weeks	
Add A Position Send Resource Requests Import Positions							
Position	Status	Resource Pool	Q4 11			Average FTE's Requested	
			Oct 11	Nov 11	Dec 11		
Application Developer	Soft Booked	EMEA Pool	2.00	2.00	2.00	2.00	
Jian Wang	Soft Booked	EMEA Pool	1.00	1.00	1.00	1.00	
Lan Zhang	Soft Booked	EMEA Pool	0.46	0.50	0.55	0.50	
☐ Unmet Demand				0.17		0.06	
Period Total			2.00	2.00	2.00	2.00	

"Figure B-4. Allocation Detail for Project B in Hours View" below shows the allocation detail for project B in hours view

Figure B-4. Allocation Detail for Project B in Hours View

Allocation Detail for Oct 1, 2011 to Dec 31, 2011						Enter Allocation in: Years | Quarters | Months | Weeks	
Add A Position Send Resource Requests Import Positions							
Position	Status	Resource Pool	Q4 11			Total Hours	
			Oct 11	Nov 11	Dec 11		
Application Developer	Soft Booked	EMEA Pool	192.0	264.0	240.0	696.0	
Jian Wang	Soft Booked	EMEA Pool	96.0	132.0	120.0	348.0	
Lan Zhang	Soft Booked	EMEA Pool	96.0	110.0	120.0	326.0	
☐ Unmet Demand				22.0		22.0	
Period Total			192.0	264.0	240.0	696.0	

shows the forecasts, assignments, and unmet demand calculations in different effort types.

Table B-4. Example Unmet Demand Calculation for Project B

	Oct. 11		Nov. 11		Dec. 11	
	FTE	Hours	FTE	Hours	FTE	Hours
Forecast: Application Developer	2.00	6*16*2=192.0	2.00	6*21*2=264.0	2.00	6*20*2=240.0
Jian Wang	1.00	6*16*1=96.0	1.00	6*21*1=132.0	1.00	6*20*1=120.0
Lan Zhang	96/10/21=0.46[a]	96.0[b]	110/10/22=0.50	10*(22-11)=110[c]	120/10/20=0.55	120.0
Unmet Demand	0.00	0.0	(132.0- 120.0)/6/ 22=0.17[d]	132.0-120.0=22.0	0.00	0.0

a. Lan's assignment FTE = assignment hours/working hours in Lan's resource calendar China/working days in Lan' resource calendar China
b. Lan's capacity in October is 210 hours, greater than the forecast hours (96 hours) required. So the assignment hours is 96.
c. Lan's capacity in October is 110 hours, less than the forecast hours (132 hours) required. So the assignment hours is 110.
d. The unmet demand on this position = unmet hours /working hours in EMEA/working days in EMEA.

Note: The forecast is calculated based on position resource pool associated region calendar. In this example, it is EMEA. Assignment Hours is calculated based on the assigned resource associated calendar and his/her personal working day setting. In this example, Lan Zhang is using China calendar and takes 11 days leave in November.

The position is using different calendars from the assigned resource. In this case, position related resource pool is using EMEA calendar that has six working hours per day and 16 working days in October while resource Lan is using China calendar that has ten working hours per day and 21 working days in October. This means working hours in one FTE on the position may differ form working hours in one FTE on the assigned resource. In this example, one FTE on the Application Developer only requires Lan 0.46 FTE to fulfill it. That is why the forecast demands is 2.00 FTEs and the assignment is 1.46 FTEs, but the unmet demand is 0.00 FTE.

PPM first compares the resource capacity with the forecast demand.

- If resource capacity hrs > forecast hours required, Assignment (Hours) = forecast hours

- If resource capacity hours < forecast hours required, Assignment (Hours) = resource capacity

Assignment (FTE) = assignment hours/working hours per day in resource calendar /working days in resource calendar

Unmet Demand (FTE) = (forecast hours - assignment hours)/working hours per day in position calendar/working days in position calendar

Scenario 3: Unmet Demand Calculation when Assigned Resources are Partially Allocated

In the following example, Project C requires senior java engineers for four months from October 2011 through January 2012 from US Pool. Staffing requirements are three FTEs for October 2011 through November 2011, tapering off to one FTE for December 2011, and 1/2 FTE for January 2012.

Barbara Getty is a senior java engineer who has 75% of her time allocated from October 2011 through January 2012 to Project C. She is not planning to take any vacation during that time.

"Figure B-5. Allocation Detail for Project C in FTEs View" below shows the allocation detail for Project C in FTEs view.

Figure B-5. Allocation Detail for Project C in FTEs View

"Figure B-6. Allocation Detail for Project C in Hours View" below shows the allocation detail for Project C in hours view.

Figure B-6. Allocation Detail for Project C in Hours View

"Table B-5. Example Unmet Demand Calculations for Project C" below lists the forecasts, assignments, and unmet demand calculations for Project C in FTEs and hours views.

Table B-5. Example Unmet Demand Calculations for Project C

	Oct. 2011		Nov. 2011		Dec. 2011		Jan. 2012	
	FTEs	Hours	FTEs	Hours	FTEs	Hours	FTEs	Hours
Forecast: Senior Java Engineer	3.00	8*21*3=504.0	3.00	8*21*3=504.0	1.00	8*22*1=176.0	0.50	8*21*.5=84.0
Barbara Getty	0.75	8*21*.75=126.0	0.75	8*21*.75=126.0	0.75	8*22*.75=132.0	0.75	8*21*.75=126.0
Unmet Demand	2.25	504.0-126.0=378.0	1.00-0.52=0.48	504.0-126.0=378.0	0.25	176.0-132.0=44.0	(0.25)	(42.0)

Assignment hours = working hours per day in resource calendar * (working days per month in resource calendar – personal leaving days) * percentage of allocation

Scenario 4: Unmet Demand Calculation when Unmet Demand is Forwarded to Another Pool

In the following example, Project D requires senior java engineers for three months from February through April from US Pool.

Joseph Bank is a senior java engineer who has 50% of his time allocated from February through April to Project D. The rest 50% unmet demand is forwarded to EMEA pool.

"Figure B-7. Allocation Detail for Project D in FTEs View" below shows the allocation detail for Project D in FTEs view.

Figure B-7. Allocation Detail for Project D in FTEs View

			Allocation Detail for Feb 1, 2012 to Jun 30, 2012					Enter Allocation in: Years	Quarters	Months	Weeks
Add A Position	Send Resource Requests	Import Positions						
Position	Status	Resource Pool	Q1 12		Q2 12			Average FTE's Requested
			Feb 12	Mar 12	Apr 12	May 12	Jun 12	
Senior Java Engineer	Soft Booked	EMEA Pool	1.27	1.33	1.47			0.81
Joseph Bank	Soft Booked	US Pool	0.50	0.50	0.50			0.30
Unmet Demand			0.63	0.67	0.74			0.41
Period Total			1.27	1.33	1.47	0.00	0.00	0.81

"Figure B-8. Allocation Detail for Project D in Hours View" on the next page shows the allocation detail for Project D in hours view.

Figure B-8. Allocation Detail for Project D in Hours View

"Table B-6. Example Unmet Demand Calculations for Project D" below lists the forecasts, assignments, and unmet demand calculations for Project D in FTEs and hours views.

Table B-6. Example Unmet Demand Calculations for Project D

	Feb.		Mar.		Apr.	
	FTEs	Hours	FTEs	Hours	FTEs	Hours
Forecast: Senior Java Engineer	160/6/21=1.27[a]	8*20*1=160.0	176/6/22=1.33	8*22*1=176.0	168.0/6/19=1.47	8*21*1=168.0
Joseph Bank	0.5	8*20*.5=80.0	0.5	8*22*.5=88.0	0.5	8*21*.5=84.0
Unmet Demand	80.0/6/21=0.63[b]	160.0-80.0=80.0	88.0/6/22=0.67	176.0-88.0=88.0	84.0/6/19=0.74	176.0-84.0=84.0

a. Position Forecasted FTE = original forecasted hours/working hours in the forwarded pool calendar (for Project D, it is EMEA pool)/working days in the forwarded pool calendar (for Project D, it is EMEA pool).
b. Position Unmet FTE = unmet hours/working hours in the forwarded pool calendar (for Project D, it is EMEA pool)/working days in the forwarded pool calendar (for Project D, it is EMEA pool).

When the position's unmet demand is forwarded to another pool, the position's FTE based forecasted demand is re-calculated using the new pool's calendar, and the unmet demand FTE is re-calculated using the new pool's calendar.

Scenario 5: Unmet Demand Calculation when Forecasted Demand is Viewed on the Resource Pool Page

In the following example, Project E requires application developers and senior java engineers for May and June from US Pool. Staffing requirements are 1/2 FTE on application developer for May and June, and one FTE on senior java engineer for May and June.

William Klein is an application developer who has 100% of his time allocated in May and June to Project E. Joseph Bank is a senior java engineer who has 25% of his time allocated in May and June to Project E.

"Figure B-9. Allocation Detail for Project E in FTEs View" below shows the unmet demand on the Staffing Profile page.

Figure B-9. Allocation Detail for Project E in FTEs View

"Figure B-10. Resource Pool Details for Project E in FTEs View" below shows the unmet demand on the Resource Pool page.

Figure B-10. Resource Pool Details for Project E in FTEs View

"Table B-7. Example Unmet Demand Calculations for Project E" below lists the total capacity, forecast, assignment and unmet demand calculation for Project E on the Resource Pool page.

Table B-7. Example Unmet Demand Calculations for Project E

	May. 12	June. 12
	FTEs	FTEs
Total Capacity	2.75	2.75

Table B-7. Example Unmet Demand Calculations for Project E, continued

	May. 12	June. 12
	FTEs	FTEs
Total Forecast	(0.50+1.00)=1.50	(0.50+1.00)=1.50
Total Assignment	(1.00+0.25)=1.25	(1.00+0.25)=1.25
Unmet Demand	(0+0.75)=0.75[a]	(0+0.75)=0.75
a. Unmet Demand = Σ (Positive Position Unmet Demand)		

When viewing forecasted demand on the Resource Pool page (In ARP portlet and **View Forecasted Demand** on the Resource Pool page), you can find that the negative unmet demand (that is, an overbooking on one position) is ignored when unmet demand for the entire resource pool is displayed. This is because we are interested in the real unmet demand for a resource pool, and do not want the negative unmet demand for position application developer to offset the positive unmet demand for position senior java engineer for a fixed period.

Appendix C: Tracing PPM Center Data

This section describes:

- "Calculating Unmet Demand" below

- "Calculating Estimated Remaining Effort" below

- "Configuring Project Health" on the next page

- "Calculating Financial Management Data" on page 232

- "Calculating Data in Financial Summary" on page 235

- "Calculating Data in Scenario Comparison" on page 239

Calculating Unmet Demand

For information about calculating unmet demand, see "Analyzing Resource Pools" on page 131 and "Unmet Demand Calculation Sample Scenarios" on page 220.

Calculating Estimated Remaining Effort

This section describes how PPM Center calculates the Estimated Remaining Effort (ERE) of a task.

ERE is an estimated value derived from actuals, which means that having actuals is key to reflecting changes in ERE. If there are no actuals, PPM Center resets ERE to zero.

If actuals have been logged against a task, the ERE value gets updated whenever the **% Complete** field on the Task Details page is modified. This means that ERE is not reset to zero and stays in sync with changes in the **% Complete** field.

If you manually input ERE, % Complete is calculated as Actual Effort / (Actual Effort + ERE)

If you manually input % Complete, ERE is calculated as one of the following:

- ERE = Scheduled Effort (SE) - Actual Effort (AE)

- ERE = (Last ERE + Last AE) - AE

Configuring Project Health

This section includes additional information about configuring schedule health and cost health of a project. For more information about configuring project health, see "Schedule Health", "Cost and Earned Value Health", "Project Health", and "Issue Health" under Chapter 3 of *Project Management User's Guide*.

Configuring Schedule Health

On the project settings page, the Schedule Health policy controls the project's schedule health indicator, as well as determines the active exception rules for a project.

In the **Health** section, you can specify the following two rules:

- Percent of tasks that have Exceptions to turn the Schedule Health Red

- Percent of tasks that have Exceptions to turn the Schedule Health Yellow

For example, you set the first rule to 60 and the second to 30. If the percent of tasks that have exceptions is less than 30%, the schedule health indicator is green. If the percent of tasks that have exceptions is more than 30% but less than 60%, the indicator is yellow. Otherwise, the indicator is red. The percent of tasks that have exceptions is calculated as Count of Exceptional Tasks / Count of Total Tasks.

> **Note:** When calculating the count of total tasks, PPM Center does not include the summary task or tasks whose status is either "Completed" or "Cancelled".

Configuring Cost and Earned Value Health

The Cost and Earned Value Health policy controls whether or not to track the cost health for a project, and if so, which metrics will be evaluated to determine health. It is used to indicate the health of a project in terms of its cost.

If you do not select the **For prior months, if actual costs exceed the plan of record by** checkbox when defining the Cost and Earned Value Health policy, the cost health of a project is that of its root task. If you select the **For prior months, if actual costs exceed the plan of record by** checkbox, the cost health of a project represents the factor in the worst condition. The cost health of a project turns red, when either the cost health of the root task or the indicator for the **For prior months, if actual costs exceed the plan of record by** checkbox is red.

The indicator for the **For prior months, if actual costs exceed the plan of record by** checkbox is determined by the value of BudgetOverrun which is calculated as follows:

- If either pastActualTotal or ForecastTotal is null, BudgetOverrun = 0

- If pastForecastTotal > 0, BudgetOverrun = (pastActualTotal - pastForecastTotal) * 100 / pastForecastTotal

- If pastForecastTotal = 0 and pastActualTotal > 0, BudgetOverrun = 100

- If both pastForecastTotal and pastActualTotal is zero, BudgetOverrun = 0

Values of pastActualTotal and pastForecastTotal are loaded according to the following queries:

For pastActualTotal,

```
select sum(s.actual_total_lcl)
from fm_forecast_actual_period_sum s, ppm_fiscal_periods_nls p
where s.PERIOD_ID = p.FISCAL_PERIOD_ID and p.period_type = 4
and s.FORECAST_ACTUAL_ID = {finacial summary.Forecast().Id()}
and p.seq >= {startPeriod.getSequence()} and p.seq < (select p1.seq from ppm_
fiscal_periods_nls p1
where p1.start_date <= sysdate and p1.end_date>= sysdate and p1.period_type = 4)
```

For pastForecastTotal,

```
select sum(s.plan_total_lcl)
from fm_forecast_actual_period_sum s, ppm_fiscal_periods_nls p, fm_financial_
summary ffs
where ffs.active_fs_id = {finacial summary.Id()} and ffs.plan_of_record_flag = 'Y'
and s.PERIOD_ID = p.FISCAL_PERIOD_ID and p.period_type = 4
and s.FORECAST_ACTUAL_ID = ffs.forecast_actual_id
and p.seq >= {startPeriod.getSequence()} and p.seq < (select p1.seq from ppm_
fiscal_periods_nls p1
where p1.start_date <= sysdate and p1.end_date>= sysdate and p1.period_type = 4)
```

Calculating Financial Management Data

This section describes additional information about calculating Financial Management data items.

For more information about calculating Financial Management data, see Chapter 5 of *Financial Management User's Guide*.

Cost Performance Index (CPI)

CPI is calculated as follows:

- If EV is null, CPI is null

- If Actual Cost != 0, CPI = EV / Actual Cost

- If Actual Cost = 0, and

    ○ If EV = 0, CPI = 1

    ○ If EV != 0, CPI = 0

Schedule Performance Index (SPI)

SPI is calculated as follows:

- If EV is null, SPI is null

- If PV != 0, SPI = EV / PV

- If PV = 0, and

    ○ If EV = 0, SPI = 1

    ○ If EV != 0, SPI = 0

Earned Value (EV)

If a task is the summary task, its EV is calculated as Sum (EV of all its child tasks).

If a task is the leaf task, its EV is calculated as follows:

- If there is no task baseline, EV is null

- If the `EV_ALLOW_PRORATING` server configuration parameter is set to `true`, EV = Baseline Cost * % Complete

- If the `EV_ALLOW_PRORATING` server configuration parameter is set to `false`, and

- If % Complete = 100, EV = Baseline Cost

- If % Complete < 100, EV = 0

Planned Value (PV)

Calculating Schedule Start and Schedule Finish Dates

If the `PV_USE_ACTIVE_BASELINE_DATES` server configuration parameter is set to `true` and task baseline exists,

- Schedule start is the schedule start date of the task baseline

- Schedule finish is the schedule finish date of the task baseline

Otherwise,

- Schedule start is the schedule start date of the task

- Schedule finish is the schedule finish date of the task

Calculating PV

For all tasks,

- If there is no task baseline, PV is null.

- If task baseline exists, in one of the following cases, PV = 0:

  - The task status is cancelled, or

  - The schedule start date of the task is null, or

  - Schedule start is later than the current system date

If a task is the summary task, its PV is calculated as Sum (PV of all its child tasks).

For leaf tasks, if task baseline exists and

- If schedule end is earlier than the current system date, PV = Baseline Cost

- Otherwise, PV = Baseline Cost * (passed days / total days)

  In this formula, passed days is calculated as follows:

- If schedule start is the current system date, passed days = 1.

- If the PV_USE_ACTIVE_BASELINE_DATES server configuration parameter is set to true, passed days = Today's Date - Baseline Start Date]

- Otherwise, passed days = Today's Date - Start Date

Total days is calculated as follows:

- If the PV_USE_ACTIVE_BASELINE_DATES server configuration parameter is set to true, total days = Baseline Finish Date - Baseline Start Date

- Otherwise, total days = Finish Date - Start Date

Calculating Data in Financial Summary

This section describes how PPM Center calculates data in a financial summary.

Calculating Forecasted Labor Costs From Staffing Profile

You can specify whether forecasted labor costs on the financial summary are to be calculated (rolled up) from the staffing profile. If this option is selected, separate, non-editable forecast lines are automatically created in the financial summary to reflect the staffing profile estimates, including the percentage split between capital and operating costs.

The forecast labor cost of a staffing profile equals to the total sum of forecast labor costs of all positions in this staffing profile. The forecast labor cost of a particular position is calculated as follows:

Forecast Labor Cost of a Position = Sum (Forecast Labor Cost of Assignment/Promise of the position) + (Unmet Demand * Cost rate of the position)

where,

- Forecast Labor Cost of Assignment = Total committed effort of the assigned resource * Cost rate of the resource

> **Note:** Starting from version 9.31, you can decide to use the cost rate of the resource role or the position role to calculate the forecast labor cost of assignment. If you set the SP_RESOURCE_ ROLE_RATE_ENABLE parameter to true, the forecast labor cost of assignment is calculated by

the cost rate of the resource role. If you set this parameter to `false`, the forecast labor cost of assignment is calculated by the cost rate of the position role. By default, this parameter is set to `true`. When the resource has no role defined, and you set the parameter to `true`, the cost rate of the position role is used.

- Forecast Labor Cost of Promise = Total promised effort of the assignment * Cost rate of the position

The cost rate of a position/resource is determined by the cost rule described in "Best Matching Strategy" on the next page.

Note: If there is over allocation on assignments, the unmet demand becomes negative. To include cost of over allocation, the calculation of forecast labor cost ignores the negative unmet demand.

The following table describes cost factors used for calculating the forecast labor cost.

Table 4-2. Cost factors and entities to which they apply

Entity	Relevant Cost Factors
Forecast labor cost of a position	**Role:** Role of the position. **Region:** Region of the staffing profile where the position belongs. **Resource Type:** Resource type of the position. **Project:** If the parent entity of the staffing profile where the position belongs is a project, the project is included as a cost factor. **Org Unit:** If the default resource pool of the position is defined, the default org unit of the resource pool is included as a cost factor.
Forecast labor cost of an assignment	**Role**: If the role of the assigned resource is defined, use it. Otherwise, use the role of the position to which the resource is assigned. **Region**: If the region of the assigned resource is defined, use it. Otherwise, use the region of the staffing profile where the resource belongs. **Resource Type**: If the resource type of the assigned resource is defined, use it. Otherwise, use the resource type of the position to which the resource is assigned. **Resource**: Resource assigned to the position. **Department**: If the department of the assigned resource is defined, it is included as a cost factor. **Project**: If the parent entity of the staffing profile where the assigned resource

Table 4-2. Cost factors and entities to which they apply, continued

Entity	Relevant Cost Factors
	belongs is a project, the project is included as a cost factor.
	Org Unit: If the primary Org Unit of the assigned resource is defined, it is included as a cost factor.

The forecast labor cost is not updated immediately when you change cost factors described in "Table 4-2. Cost factors and entities to which they apply" on the previous page. Instead, it is recalculated base on the latest cost factors when the SP-FS sync service is triggered by effort or status change of the position or assignment. PPM Center does not keep or consider historic cost rates after you change cost factors.

> **Note:** If you change the cost rate by clicking the Add New Rate button on the Edit Cost Rule page and specify a effective start date in the pop-up window, PPM Center keeps and considers historic cost rates when calculating the forecast and actual labor costs for periods earlier than the effective start date.

For more information about calculating forecast labor cost, see "Configuring a Lifecycle Entity Financial Summary for Capitalization and Roll-Ups" under Chapter 4 of *Financial Management User's Guide*.

Best Matching Strategy

PPM Center calculates a score for each cost rule and considers the rule with the highest score as the best matching one. Cost rate of a position/resource used in the calculation of forecast labor cost is the one defined in the best matching rule.

Before calculating a score for a cost rule, PPM Center checks whether the cost rule and the position/resource contain the same cost factor and whether values of the factor are the same. If yes, the cost factor is considered matching. Then, scores of cost rules are calculated as follows:

- If a cost rule contains no matching cost factors, it is considered not applicable and gets -1 point.

- If a cost rule contains one or more matching cost factors, PPM Center assigns 2^n points to each matching factor according to its priority. Priorities of cost factors are configured on the Change Cost Factors page (**Open** > **Administration** > **Financials** > **Change Cost Factors**). In the **Selected Columns** field, all cost factors are listed according to their priorities from top to bottom.

  For example, if a cost rule contains four cost factors and they are all matching factors, the factor of top priority gets $2^4 = 16$ points; the one of second priority gets $2^3 = 8$ points; the one of third priority

gets 2^2 = 4 points; and the last one gets 2^1 = 2 points. The score of this cost rule is the sum of all points its factors get. In this example, it is 16 + 8 + 4 + 2 = 30 points.

- If a cost factor contains no value, it is considered as a wildcard factor. PPM Center assigns one point to each wildcard factor.

- Besides matching and wildcard factors, all other cost factors get no point.

- If a cost rule is not the default one, add one point to its score. Therefore, if a cost rule contains the same cost factors with the default cost rule, it gets a higher score than the default one.

Note: There is at least one matching rule, that is, the default rule which cannot be deleted and whose cost factors are all wildcard factors.

Actual Labor Cost Period Break Down

The actual efforts you log in time sheets and work plans are in a continuous range. However, when rolling up the actual labor cost to the financial summary, PPM Center breaks it down into periods. The cost of each month is calculated as follows:

Actual Labor Cost of month n = Total Actual Cost * Working days in month n / Total working days during the period when actual efforts are logged

For example, a resource has been working on a task from July 17th to August 20th, 2013 and costs USD $10000. Data used when calculating the actual labor cost of this resource is as follows:

- Total actual cost is USD $10000.

- Total working days from July 17th to August 20th is 25 days.

- Working days in July is 11 days.

- Working days in August is 14 days.

Note: Working days are calculated according to the calendar of the resource.

Therefore, actual labor cost of this resource in July is USD $10000*11/25 = USD $4400, while that in August is USD $10000*14/25 = USD $5600.

The calculation of actual labor cost is the same for part time and full time resources.

For more information about calculating forecast labor cost, see "Configuring a Lifecycle Entity Financial Summary for Capitalization and Roll-Ups" under Chapter 4 of *Financial Management User's Guide*.

Net Present Value and Total Nominal Return

For information about net present value and total nominal return, see Appendix A of *Portfolio Management User's Guide*.

Calculating Data in Scenario Comparison

Data on the **Role Availability** tab of the Scenario Details page are calculated as follows:

- **Total FTE Required** comes from all the staffing profiles attached to the lifecycle entities included in the scenario comparison.

  Note: Total FTE Required does not reflect the real-time data. Instead, it is aggregated by the Staffing Profile Period Sum Update Service configured on the Schedule Services page.

- **Total FTE Available** comes from the resource pool defined in the **Calculate Total Available Resources for comparison from the following Resource Pools** field on the Scenario Comparison page.

- **Resource Difference** is calculated as Total FTE Available – Total FTE Required.

For more information about calculating data in the scenario comparison, see Chapter 5 of *Portfolio Management User's Guide*.

Appendix D: Enhanced Export to Excel Functionality

The "Export to Excel" functionality is enhanced on the following pages:

- Staffing Profile page

- Search Resource page

This enhanced functionality is also available on the following pages:

- Resource Finder page

- Search Resource Availability page

- Resource Allocation Management page

- Forecast Planning page

With this enhanced functionality, you can:

- Export data to a Microsoft Excel file, not HTML page. In this way, you can process your data by using more Excel functions, such as format and calculation.

- Export more data attributes to the Excel file.

> **Caution:** HP recommends that you use Microsoft Excel 2007 or higher for this functionality.

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Feedback on HP Resource Management User's Guide (Project and Portfolio Management Center 9.30)

Just add your feedback to the email and click send.

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