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Project Management Configuration Guide

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Contents

Chapter 1: Getting Started with Project Management Configuration

Introduction to Project Management Configuration

Project Management enables organizations to streamline and standardize the management of project activities using a template-based, collaborative approach.

The **Project Details** tab of the Project Overview page contains fields delivered with the Best Practices installation (see *Installation and Administration Guide* for more information). These fields do not need to be set up or altered in any way before you start using Project Management, but if you want to change them, they can be customized to suit your business needs in the following ways:

- Individual field names and values can be changed. These fields and their workflow interactions are contained and defined by a request type that can be altered in the PPM Workbench. See "Configuring Project Details Tab Fields" on page 13, for more detailed information.
- Fields themselves can be configured to be hidden, visible, or read-only depending on what stage has been reached in the project process.

The project process, which is driven by the workflow discussed in "Configuring the Project Process" on page 16, can also be changed; for example, security on each workflow step can be configured to suit your business needs. Also see this section for details on configuring the underlying project process.

Project Management includes specialized project control items that can be submitted and resolved during project execution as Demand Management requests:

- Issues can be filed against a particular project to raise issues that require attention.
- Risks can be brought up to highlight risks that may endanger project execution.
- Scope changes can be requested to adjust the scope of the project.

Once submitted, these requests follow their own workflows to resolution. Each request type and its workflow are delivered with the Best Practices installation, ready for you to use. But, if you want to change them, they can be customized to match your project control processes. (For more information

about Best Practices installation, see *Installation and Administration Guide*.) The following project control request aspects can be changed to suit your business needs:

- Individual fields and possible values can be changed.
- Fields themselves can be configured to be hidden, visible, or read-only depending on what stage has been reached in the workflow.
- The workflows can be changed, including workflow structure and security settings for each step.

For detailed discussion of these project control request types and workflow configuration, see "Configuring Project Control Processes" on page 19.

Work plans organize the specific tasks or deliverables for a project into a hierarchical structure. Project Management provides scalability for viewing work plans of different sizes by providing a mechanism for controlling the number of tasks displayed at any given time. In this way, larger work plans are divided into pages that display sets of tasks. Users can choose from a set of options in their profiles how large they want a work plan page to be. "Key Server Parameters and Scheduled Services" on page 7, explains how to configure the available options, as well as settings related to:

- Cost calculation roll-up
- Microsoft® Project integration

Project Management also includes task user data, custom fields that can be associated with every task on a work plan. If you have no need of custom fields for tasks on your work plans, then you do not need to configure task user data. "Configuring Task User Data" on page 28, explains task user data configuration.

Specific features of Project Management relating to work plan page size, cost calculation roll-up, or Microsoft Project integration can be configured by modifying the `server.conf` file on the PPM Server. "Key Server Parameters and Scheduled Services" on page 7, contains details on these features and their controls.

Related Documents

The following documents provide information related to using and configuring Project Management:

- *Project Management User's Guide*
- *Demand Management Configuration Guide*

Chapter 2: Key Server Parameters and Scheduled Services

Overview

Several important features of Project Management are controlled by parameters in the `server.conf` file and scheduled services on the PPM Server. Changing the values of these parameters and services can alter the way these features work. This section explains the `server.conf` parameters and scheduled services for Project Management, along with their default values.

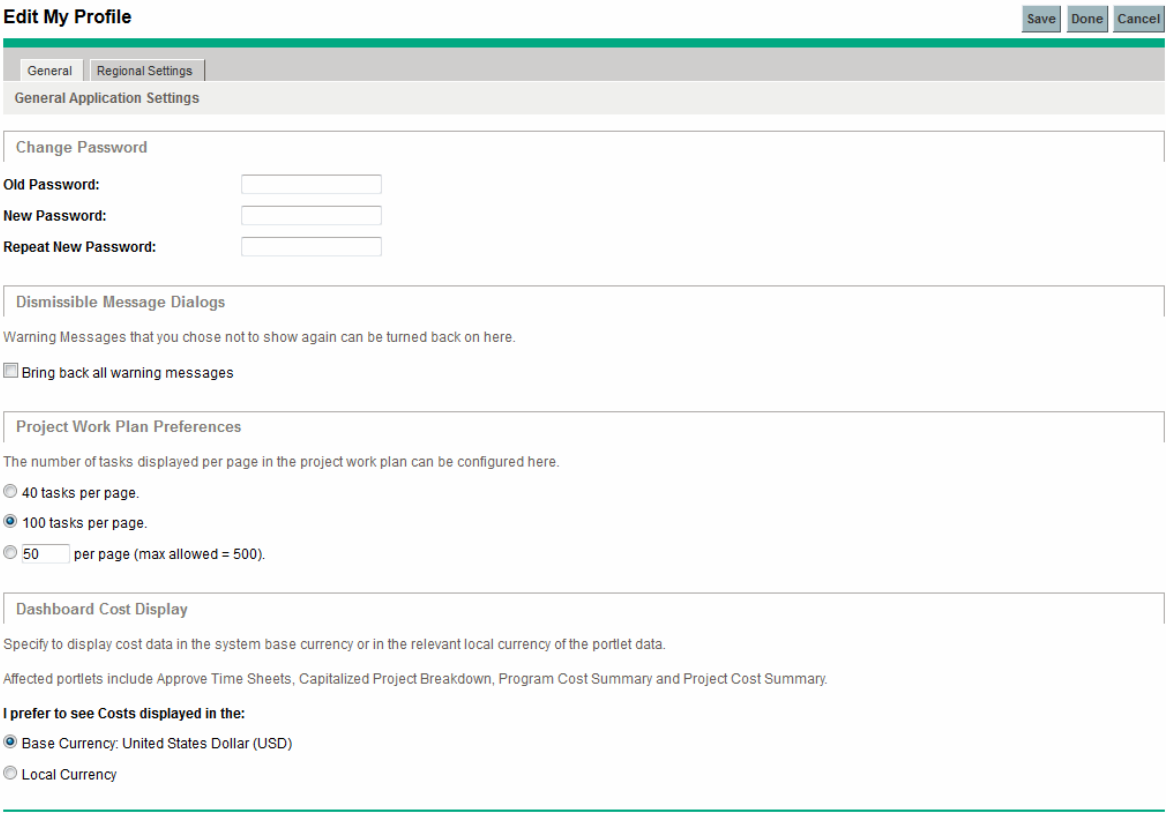
For more detailed information on configuring the `server.conf` file, see the *Installation and Administration Guide.*

Work Plan Page Size Controls

The Work Plan page displays a set number of tasks at a time, referred to as a "page." You can navigate between pages in a large work plan by using the < and > buttons or by specifying a task number in **Seq #** and clicking **Go.**

Users can adjust the number of rows per work plan page in the **Project Work Plan Preferences** section of the Edit My Profile page, accessed by selecting **Open > Administration > Edit My Profile** from the menu bar.

Figure 2-1. Edit My Profile page



These options are controlled by the `server.conf` parameters described in "Table 2-1. server.conf parameters for work plan page size controls" below.

Table 2-1. server.conf parameters for work plan page size controls

Parameter	Description	Default Value
LOW_PAGE_SIZE	The number of work plan lines to load per page when the user is using a slow connection, such as a WAN. This is presented to the user as a selection option. Possible values: Any whole number	20
HIGH_PAGE_SIZE	The number of work plan lines to load per page when the user is using a fast connection, such as a LAN. Possible values: Any whole number	100
DEFAULT_PAGE_SIZE_OPTION	This is the default setting for all new users, and indicates whether to use the fast setting or the slow setting (rather than indicating a specific size). • Companies with mostly LAN users should set this to use the fast setting.	LOW_PAGE_SIZE

Table 2-1. server.conf parameters for work plan page size controls, continued

Parameter	Description	Default Value
	• Companies with mostly WAN/VPN users or highly mixed usage should set this to use the slower setting. Possible values: LOW_PAGE_SIZE, HIGH_PAGE_SIZE, DEFAULT_PAGE_SIZE	
MAX_PAGE_SIZE	The maximum number of work plan lines that can be loaded into the Work Plan page, at a given time. The user can set their own page size up to this value (higher values are ignored). Possible values: Any whole number	500
DEFAULT_PAGE_SIZE	The default number of work plan lines supplied in the user-defined option. Possible values: Any whole number	50

Enter Actuals Page Size

You can modify the following `server.conf` parameter:

- **PM_NUM_EDIT_ASGMTS.** Default: 200. The maximum number of assignments that can be open on the Enter Actuals page. Specify any whole number greater than zero.

Cost Calculation Settings

Cost data that involves roll-ups from other sources is recalculated system-wide on a periodic basis. These types of cost data can include the following possible scenarios:

- Work plan tasks roll up planned and actual cost data to summary tasks
- Work plan actual cost data rolls up to the project financial summary
- Project actual cost data rolls up to the program financial summary

Since these roll-up calculations are performed periodically, cost data for one entity may not match its dependent entity until the next calculation interval.

Periodic cost roll-up is performed system-wide and is governed by the `server.conf` parameter described in "Table 2-2. server.conf parameter for periodic cost calculations" below and scheduled services described in "Table 2-3. Scheduled services for periodic cost calculations" below.

Table 2-2. server.conf parameter for periodic cost calculations

Parameter	Description	Default Value
PM_CAN_ROLLUP_ACTUALS_ON_SAVE	Determines if a project manager has the option of forcing the system to calculate roll-ups upon saving entries to the Enter Actuals page, rather than waiting.	TRUE

Table 2-3. Scheduled services for periodic cost calculations

Service	Description	Default Values
Cost Rollup Service	Determines if periodic cost roll-up calculations are performed and the frequency with which the roll-up calculations are performed.	Status: Enabled Schedule Type: Simple Schedule: 1 hour
FX Rate Update Service	Determines if financial exchange rates are recalculated after updates are made to them and the frequency with which financial exchange rate rules are checked for updates and costs recalculated.	Status: Enabled Schedule Type: Simple Schedule: 2 hours
Cost Rate Rule Update Service	Determines if costs are recalculated after updates are made to cost rate rules and the frequency with which cost rate rules are checked for updates and costs recalculated.	Status: Enabled Schedule Type: Simple Schedule: 1 hour

Periodic roll-up of other information is also performed system-wide:

- Roll-up of task information to summary tasks is deferred when resources enter task actuals through the My Tasks portlet or time sheets.
- Calculation of schedule exceptions and schedule health for work plans is deferred when resources enter task actuals, or when work plan schedule information is updated through Microsoft Project.

These calculations are governed by the scheduled services described in "Table 2-4. Scheduled services for work plan information" below.

Table 2-4. Scheduled services for work plan information

Service	Description	Default Values
Task Actual Rollup Service	Determines if periodic task actual roll-up calculations are performed and the frequency with which the task actual roll-up calculations are performed.	Status: Enabled Schedule Type: Simple

Table 2-4. Scheduled services for work plan information, continued

Service	Description	Default Values
		Schedule: 250 seconds
Exception Rule Service	Determines if task exceptions are recalculated and the frequency with which task exceptions are recalculated.	Status: Enabled Schedule Type: Simple Schedule: 1 hour
Task Scheduler Service	Determines if the work plan schedule health is recalculated and the frequency with which work plan schedule health is recalculated.	Status: Enabled Schedule Type: Simple Schedule: 1 minute

Microsoft Project Integration Options

There are two `server.conf` parameters that are important for the following aspects of Microsoft Project integration:

- "Enabling Microsoft Project Launch from a Work Plan" below
- "Mapping Work Plans to Microsoft Project Files" on the next page

Enabling Microsoft Project Launch from a Work Plan

In Project Management, when viewing or editing a work plan that has been integrated with Microsoft Project, you can click **Actions** in the Work Plan page and select **Open Work Plan in Microsoft Project** to launch Microsoft Project and open the associated Microsoft Project file.

If, for security reasons, you cannot enable this option, users can manually open the Microsoft Project file and all Microsoft Project integration features are available from the Microsoft Project menus. Users will not be able to open the associated Microsoft Project file from the Project Management work plan.

To enable Microsoft Project launch from an Project Management work plan, do the following:

1. Install a supported version of Microsoft Internet Explorer on the user's system (refer to the *System Requirements and Compatibility Matrix* for a list of supported versions of Microsoft Internet Explorer)
2. The `server.conf` parameter `ENABLE_PROJECT_LAUNCH_FROM_ACTION_MENU` must be set to `True`

(this parameter controls the ability of users to launch Microsoft Project from an Project Management work plan)

> **Note:** The **Open Work Plan in Microsoft Project** option will result in an error when opening projects that are Microsoft Project Server-based. If your business relies on the use of Microsoft Project Server, you may want to disable this menu option (by setting `ENABLE_PROJECT_LAUNCH_FROM_ACTION_MENU` to `False`.

Mapping Work Plans to Microsoft Project Files

All projects in Project Management that are integrated with Microsoft Project must store a link to the project in the Microsoft Project file. This link must be contained in a custom field in Microsoft Project that remains consistent and untouched across all projects. The `server.conf` parameter `MSP_PROJECT_CUSTOM_FIELD` stores the Microsoft Project field where the project link information is kept. Its default value is `Text30`.

> **Note:** This parameter is a system-level setting and must not be changed after you have begun work with projects that are integrated with Microsoft Project.

Chapter 3: Configuring Project Details Tab Fields

Overview of Configuring Project Details Tab Fields

This section provides details on the fields in the **Project Details** tab of the Project Overview page, and how to modify them to suit your business needs, if desired.

Project Details Tab Fields

The **Details** tab of the Project Overview page contains fields delivered ready to use for projects. These fields and their workflow interactions are contained and defined by a request type that can be altered in the PPM Workbench.

- If you have not installed Portfolio Management, the request type delivered by default is called Project Details and is specified in the default project type. Its fields are described in "Table 3-1. Default project fields" below.
- If you have installed Portfolio Management, another request type is provided called PFM - Project. Its fields are discussed in the *Portfolio Management Configuration Guide.*

Table 3-1. Default project fields

Field Name	Description
Summary section	
Project No.	A number that uniquely identifies the project. This field cannot be altered.
Project Name	The name of the project. This field should be made visible and editable if you want users to be able to change the project name.
Project Manager	The manager of the project. This field can be made editable, but it is recommended that it be made display-only, and that project managers be defined using the project's Configure Participants page.

Table 3-1. Default project fields, continued

Field Name	Description
Planned Start Period	The planned start date for the project. This field should not be altered.
Planned Finish Period	The planned finish date for the project. This field should not be altered.
Project Status	The status of the project. This field should not be altered.
Project Health	The overall health of the project. This field should not be altered.
Description	A brief description of the project.
Benefits Manager	The manager of benefits of the project's financial summary.
PFM Project section	
Business Unit	The business unit from which this project originated.
Business Objective	The business objective with which the project is aligned.
Project Dependencies	Any dependencies the project has.
Staffing Profile	The resource demand of the project. This field is read-only and should not be altered, as the staffing profile can be accessed from the **Project Summary** tab of the Project Overview page.
Net Present Value	If enabled, the NPV for the project. (For a definition, see the *Portfolio Management Configuration Guide.*)
Associated Programs	Name of the program(s) to which the project is associated. This field is a link to the program. The programs listed are only those programs to which you have the View Programs, Edit Programs, or Edit All Programs access grant. The project can be associated to only one program that has Portfolio Management enabled. The project can be associated to one or more programs that do not have Portfolio Management enabled. To add or remove an association to a program, go to the program's overview page.
Financial Summary	Name of the financial summary for the project. This field is a link to the financial summary.

Configuring Project Details Tab Fields

The fields on the **Details** tab do not need to be set up or altered in any way before you start using Project Management. But, if you want to change them, they can be customized to suit your business needs in the following ways:

- Viewing and editing security on certain fields can be altered.
- Certain individual field names and values can be changed.
- Fields themselves can be configured to be hidden, visible, or read-only depending on what stage has been reached in the project process, which is driven by the workflow discussed in "Configuring the Project Process" on page 16.
- New fields can be added to capture any information not already covered.

These fields and their workflow interactions are contained and defined by a request type that can be altered in the PPM Workbench.

- If you have not installed Portfolio Management, the request type delivered by default is called Project Details and is specified in the default project type.
- If you have installed Portfolio Management, another request type is provided called PFM - Project.
- If you choose to configure your own request type to define the **Details** tab, you must include the PFM Project field group in the request header type. For more details on field groups and request header types, see the *Demand Management Configuration Guide.*

If you want to add other lifecycle and planning information to the project, HPE recommends that you create a new section in the request type and add the new fields there.

For general recommendations on altering this request type in the context of Portfolio Management, see the *Portfolio Management Configuration Guide.*

User access to these request types should be carefully considered. The **User Access** tab of the Request Type window defines user access to the request type, which in turn defines the list of users who can participate in the project process. These project process participants can see all the projects whose **Details** tab is governed by that request type.

For more detailed information on creating and modifying request type fields, see the *Demand Management Configuration Guide.*

Chapter 4: Configuring the Project Process

Overview of Configuring the Project Process

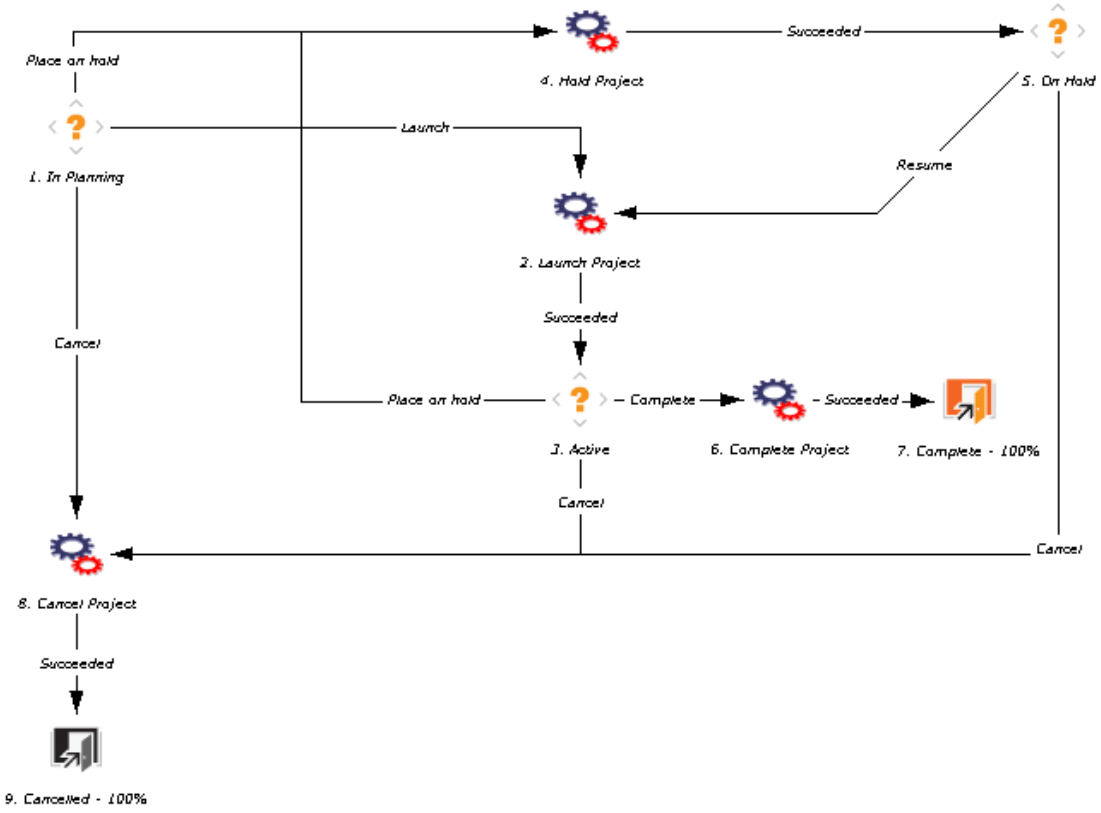
This section provides details on the workflow associated with the request type used to define the **Project Details** tab, which determines the project process, and how to modify this workflow to suit your business needs, if desired. The workflow provided by default models a very simple lifecycle.

Project Process

The project process is determined by a workflow in Project and Portfolio Management Center (PPM Center). The workflow is associated with the request type that defines the fields in the **Project Details** tab in the Project Overview page.

- The Project Process workflow is delivered by default, and presents the high-level stages of a project being implemented. Steps are updated manually, either by the project manager to signal the completion of a stage, or by approvers who verify that the stage is complete. The project workflow is shown in "Figure 4-1. Project process" on the next page.
- If you have installed Portfolio Management, a different workflow is used which also defines the process for projects in your portfolio. This workflow is discussed in the *Portfolio Management Configuration Guide*.

Figure 4-1. Project process



The default workflow steps are described as follows:

1. **In Planning.** The project is being planned.
2. **Active.** The project is in its execution phase.
3. **On Hold.** The project is on hold. This step can be reached from the Active or In Planning steps, but is not necessary.
4. **Complete.** The project is complete.

Configuring the Project Process

The project workflow is delivered with the Best Practices installation, ready for you to use in Project Management. But, if you want to change the workflow, it can be customized to match your general project execution process. For more information about Best Practices installation, see *Installation and Administration Guide*.

- If you have not installed Portfolio Management, the workflow is called Project Process.
- If you have installed Portfolio Management, the workflow is called PFM - Project.

Steps in the workflow can also be configured to integrate with fields on the **Project Details** tab, determining whether they are visible or editable.

Consider the following when making changes to the project workflow:

- You might want to significantly change the project workflow to represent the major project phases at your company. You need to make sure the request statuses are updated to be consistent with any project workflow changes.
- You can also add steps, change step names, and modify notifications, although HPE recommends that the project stages be tracked at a high level, totaling under fifteen steps; they are not meant to emulate a detailed work plan.
- The automated workflow steps included in the Project Process workflow are used to control the internal status of the project, as well as the status of the staffing profile associated with the project. These automated steps should be included in your workflow to take full advantage of Project Management functionality.
- If you have installed Portfolio Management, the Complete Project and Create Asset steps should be retained in the final workflow to take full advantage of Portfolio Management functionality.
- Each step in the workflow is associated with a security group or groups. Users who are not part of the security group for a workflow step cannot act on it. Review the security for each workflow step to ensure that it is sufficient for your organization.

For general recommendations on altering this workflow in the context of Portfolio Management, see the *Portfolio Management Configuration Guide.*

For more detailed information on modifying workflows, see the *Demand Management Configuration Guide.*

Chapter 5: Configuring Project Control Processes

Overview of Configuring Project Control Processes

This section provides details on:

- The following project control entities delivered with Project Management and how to modify their fields and their behavior to suit your business needs, if desired:
  - Project issues
  - Risks
  - Scope changes
- The processes associated with the project control entities, and how to modify them to suit your business needs, if desired.

Configuring Project Control Entities

Project Management delivers pre-defined project control request types that can be used without additional configuration. If desired, these request types can be altered to suit your business needs. It is recommended that you review the security settings for these request types at a minimum, to ensure that they are sufficient for your organization.

Project Issue Request Type

Project Management delivers a preconfigured project issue request type called Project Issue that can be used without additional configuration to log project-level issues. If you have installed Program Management, a separate but similar Program Issue request type is delivered for use at the program level.

The project issue request type's fields are described in "Table 5-1. Project issue" below.

Table 5-1. Project issue

Field Name	Description
Header Section: Summary	
Issue Status	The status of the issue.
Created By	The user who created the issue.
Assigned To	The user to whom the issue is assigned.
Project	The project associated with the issue.
Priority	The priority of the issue. Values in this field are linked to the issue health of a project, configured in the **Issue Health** policy. See the "Configuring Project Types" section of the *Project Management User's Guide* for more detailed information.
Escalation Level	The escalation level of the issue. Possible values are **Project** or **Program.** If there are program(s) associated with the project, escalating to the **Program** level will make the issue visible at the program level. If you are not using programs, you may want to hide this field.
Description	A brief description of the issue.
Details Section: Issue Details	
Date Identified	The date the issue was identified.
Due Date	The date by which the issue should be resolved.
Issue Type	The type of issue being raised.
Detailed Description	A detailed description of the issue.
Proposed Solution	The proposed solution for the issue.
Business Function	The business function that is affected by the issue.

Risk Request Type

Project Management delivers a preconfigured risk request type called Project Risk that can be used without additional configuration to log project-level risks. If the project is associated with any programs, risks will be displayed at the program level based on the settings for that program.

The risk request type's fields are described in "Table 5-2. Risk fields" below.

Table 5-2. Risk fields

Field Name	Description
Header Section: Summary	
Risk Status	The status of the risk.
Created By	The user who created the risk.
Assigned To	The user to whom the risk is assigned.
Project	The project associated with the risk.
Priority	The priority of the risk.
Risk Impact Level	The impact level of the risk.
Probability	The probability of the risk occurring.
Description	A brief description of the risk.
Details Section: Risk Details	
Risk Type	The type of risk being raised.
Date Identified	The date the risk was identified.
Detailed Description	A detailed description of the risk.
Closure Criteria	The criteria for successfully closing the risk.
Action Plan	The proposed plan of action for dealing with the risk.

Scope Change Request Type

Project Management delivers a preconfigured scope change request type called Project Scope Change Request that can be used without additional configuration to request changes in project scope. If the

project is associated with any programs, scope changes will be displayed at the program level based on the settings for that program.

The fields of a scope change request type are described in "Table 5-3. Scope change request fields" below.

Table 5-3. Scope change request fields

Field Name	Description
Header Section: Summary	
Scope Change Status	The status of the scope change.
Created By	The user who created the scope change.
Assigned To	The user to whom the scope change is assigned.
Project	The project associated with the scope change.
Priority	The priority of the scope change.
CR Level	A ranking of the impact or importance of the scope change.
Business Impact Severity	The severity of the scope change's impact on the business.
Description	A brief description of the scope change.
Details Section: Scope Change Details	
Assigned Release	The release to which the scope change is assigned.
Target Implementation Date	The date by which the scope change should be implemented.
Detailed Description	A detailed description of the scope change.
Benefit of Proposed Change	The benefit the proposed scope change would have.
Alternatives	Any alternatives to the scope change that exist.
List of Impacted Deliverables	A list of the deliverables impacted by the scope change.
Impact Summary	A summary of the impact the scope change will have.
Financial Impact	The dollar amount of the scope change's impact.
Schedule Impact (in days)	The number of days by which the scope change affects the schedule.

Configuring the Project Control Entities

The project control entities do not need to be set up or altered in any way before you start using Project Management. However, if you want to change them, they can be customized to suit your business needs in the following ways:

- Viewing and editing security on certain fields can be altered.
- Individual field names and values can be changed.
- Fields themselves can be configured to be hidden, visible, or read-only depending on what stage has been reached in each project control process, which are driven by the workflows discussed in "Configuring Project Control Processes" below.
- New fields can be added.

If you choose to configure your own project control request types, you must include one of the following field groups in the request header type:

- Project Issue
- Project Risk
- Project Scope Change

For more details on field groups and request header types, see the *Demand Management Configuration Guide*.

For more detailed information on creating and modifying request type fields, see the *Demand Management Configuration Guide.*

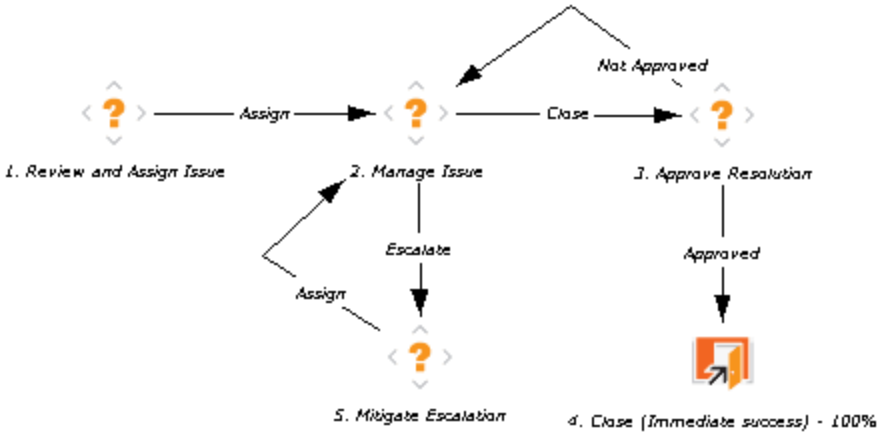
Configuring Project Control Processes

The project control processes are defined by the workflows delivered by Project Management, which can be used without additional configuration. If desired, the workflows can be altered to suit your business needs.

Project Issue Workflow

The project issue process is determined by the workflow called Issue Management Process in PPM Center. The workflow is associated with the project issue request type. If you have installed Program Management, the program issue request type also uses this workflow. The issue management workflow is shown in "Figure 5-1. Issue management workflow" below.

Figure 5-1. Issue management workflow



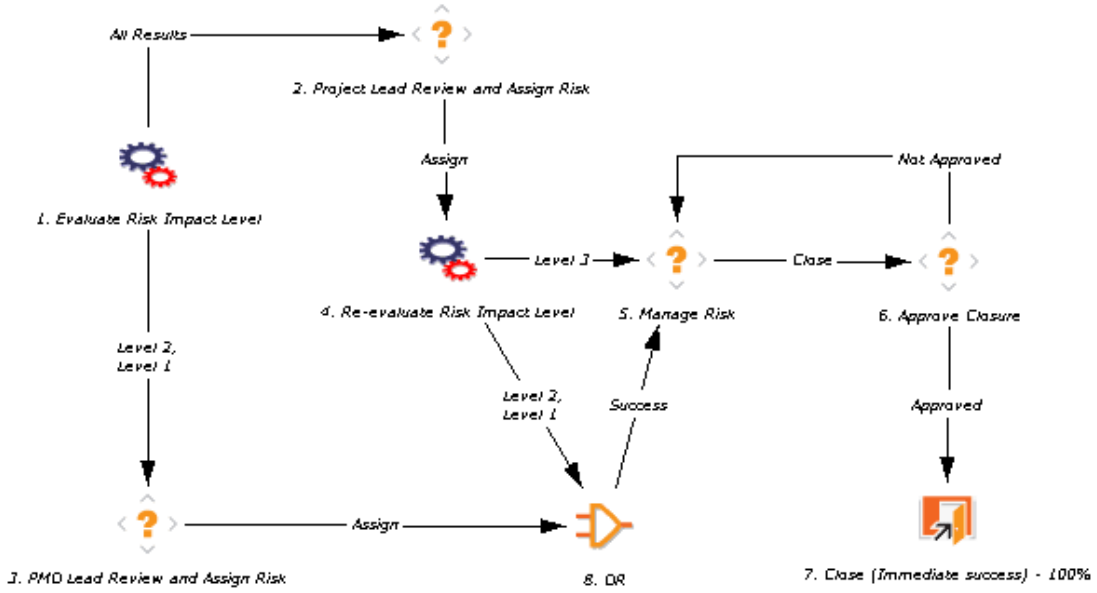
The default workflow steps are described as follows:

1. **Review and Assign Issue.** The issue is reviewed and assigned to the appropriate user.
2. **Manage Issue.** The issue is resolved.
3. **Approve Resolution.** The resolution to the issue is reviewed.
4. **Close.** The issue is closed.

Risk Workflow

The risk process is determined by the workflow called Risk Management Process in PPM Center. The workflow is associated with the risk request type. The risk management workflow is shown in "Figure 5-2. Risk management workflow" below.

Figure 5-2. Risk management workflow



The default workflow steps are described as follows:

1. Evaluate Risk Impact Level. The risk's impact is evaluated.

2. PMO Lead Review and Assign Risk. The risk is reviewed by the Program Management Office and assigned to the appropriate user.

3. Project Lead Review and Assign Risk. The risk is reviewed by the project lead and assigned to the appropriate user.

4. Manage Risk. The risk is resolved.

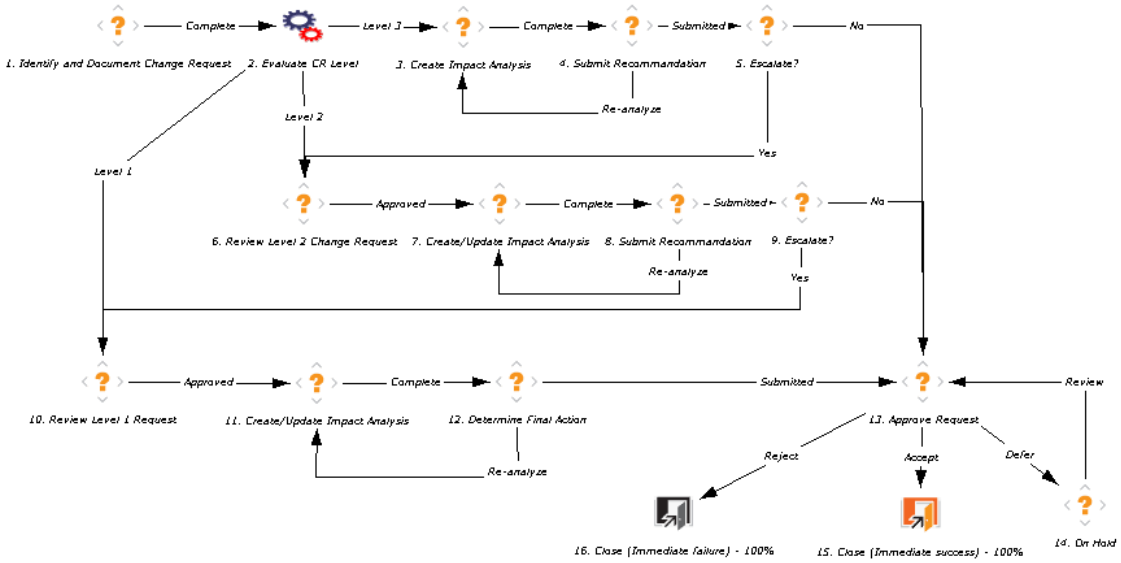
5. Approve Closure. The resolution to the risk is reviewed.

6. Close. The risk is closed.

Scope Change Workflow

The scope change process is determined by the workflow called Scope Change Request Process in PPM Center. The workflow is associated with the scope change request type. The scope change request workflow is shown in "Figure 5-3. Scope change request workflow" below.

Figure 5-3. Scope change request workflow



The default workflow steps are described as follows:

1. Identify and Document Change Request. The initiator builds a case for the change and sets the change request level.

2. Evaluate CR Level. The scope change's impact is evaluated. Depending on the level, the scope change is routed to a different branch of the workflow, each of which includes steps to create or update an impact analysis of the scope change. This ensures that decisions regarding the scope change are well-founded.

3. Create/Update Impact Analysis. Once the impact analysis has been created and updated, the scope change is analyzed and a recommendation issued. Often this will be the selection of a specific option or a recommendation not to pursue.

4. Submit Recommendation. The scope change is either submitted for approval or escalated for additional analysis.

5. Approve Request. The scope change may be rejected, deferred, or accepted. Usually a change control board issues the final approval.

6. Close. The scope change is closed.

Configuring the Project Control Workflows

The project control workflows are delivered with the Best Practices installation, ready for you to use in Project Management. But, if you want to change them, they can be customized to match your project

control processes. (For more information about Best Practices installation, see the *Installation and Administration Guide*.) Steps in the workflow can also be configured to integrate with fields on the project control request types, determining whether they are visible or editable.

Consider the following when making changes to the project control workflows:

- You need to make sure the request statuses are updated to be consistent with any project control workflow changes.
- Each step in the workflow is associated with a security group or groups. Users who are not part of the security group for a workflow step cannot act on it.

For more detailed information on modifying workflows, see the *Demand Management Configuration Guide*.

Chapter 6: Configuring Task User Data

Configuring User Data

User data is the set of custom fields that can be defined for various Project Management entities. User data fields can be used to capture data not covered by the default project/task information fields, such as a cross-listing of the task to a specific process or deliverable identifier when coordinating with major vendor implementation methodologies. These fields are accessed through the **User Data** tab in the Task Details page. Required user data is enforced when the Task Details page is opened. If no user data has been defined for a particular entity, the tab does not appear. Field-level security configured for task user data is not enforced.

User data fields are configured in the PPM Workbench.

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 **Navigate > Configuration > User Data.**

   The User Data Workbench window opens.
4. Select **Task User Data** from the **User Data Type** drop-down list.
5. Click **List.**

   The **Results** tab opens with the task user data type loaded.
6. Select the task user data and click **Open.**

   The User Data Context: Task User Data window opens.
7. Click **New.**

   The Field: New window opens.
8. Configure the new field as desired.

   For more information on configuring fields and validations, see the *Commands, Tokens, and Validations Guide and Reference.*

Chapter 7: Enabling Service Portfolio for Tasks

As a project manager, you can enable a single service for each task when you plan your work plan.

After you enable the service settings with administrator privilege, the **Service** task field is displayed as an additional column in the **Schedule** view of work plan. Then, you will be able to specify which business service each task supports on the work plan for your project.

To enable specifying a service for a task, do the following:

1. "Enabling Service Settings for Project Types and Projects" below
2. "Configuring Service Settings for Project Types and Projects" on the next page
3. "Enabling and Editing Services for Tasks in Work Plan" on page 31

Enabling Service Settings for Project Types and Projects

To enable service settings for project types and projects:

1. In the PPM Workbench, create a new Request Header Type with **PFM Project** and **Service** field groups enabled.
    a. Open Request Header Type workbench window and create a new Request Header Type, for example, `MyProject_RHT`.
    b. In the Field Groups window, select **PFM Project** and **Service** field groups, and then click **OK**.

    For more information about enabling the service field group for request header types, see the *Demand Management Configuration Guide*.
2. In the PPM Workbench, create a new Request Type using the new request header type.
    a. Open Request Type workbench window and create a new Request Type, for example, `MyProject_RT`.
    b. Select **MyProject_RHT** as the request header type.
    c. Complete other fields as necessary. Click **OK**.

> **Note:** In order for services to be used on a project, make sure to associate the newly created request type with your project type. See "Configure Service Settings for Project Types " below.

For more information about creating and configuring request types, see the *Demand Management Configuration Guide.*

Configuring Service Settings for Project Types and Projects

Configure Service Settings for Project Types

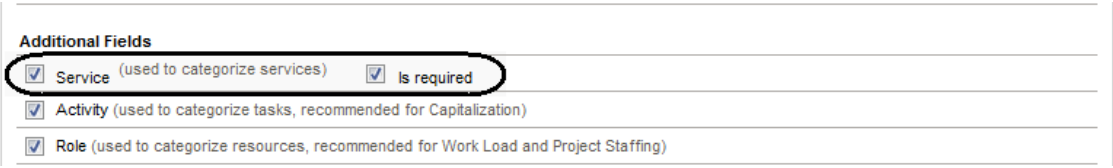
In PPM Center, create a project type and configure service settings.

1. On the Create Project Type page of PPM Center (from the menu bar, select **Create > Administration > Project Type**), in the Project Type field, provide a project type name, for example, `MyProjectType_n`.
2. Click **Request Types** policy in the left pane.

   The Request Types page opens.
3. Click the selector icon for the **Project Process Request Type** field.

   In the request type window that opens, select the new request type, for example, **MyProject_RT**.
4. Click **Project Fields** policy in the left pane.

   The Project Fields page opens. The **Service** checkbox setting becomes available.
5. Under **Additional Fields** section, select the **Service** checkbox if you want to enable the **Service** field for the new request type.
6. The **Is Required** checkbox now becomes available. If you want the Service field to be required for projects created from the current project type, select the **Is Required** checkbox; otherwise, the **Service** field is optional.



7. Click **Create**.

For more information about project types, see the *Project Management User's Guide*.

Configure Service Settings for Projects

Create projects from the new project type, and configure the **Service** and **Is Required** settings.

The **Service** and **Is Required** settings are available for all projects you create from the new project type.

1. After you have created a project from the new project type (for example, **MyProjectType_n**), on the Project Overview page, click **Settings**.

   The Project Settings page opens.

2. Click **Project Fields** policy in the left pane.

   The Project Fields page opens.

You can configure **Service** and **Is Required** settings here for your project. See step 5 and step 6.

For more information about setting project policies, see the *Project Management User's Guide*.

Enabling and Editing Services for Tasks in Work Plan

If you have selected the **Service** checkbox from the Project Fields policy of a project's Project Settings page, the **Service** field is enabled for the project. When you create a work plan for the project and add tasks to it, the **Service** field is displayed in the work plan as a column in its **Schedule** view.

Service as a Non-Required Field

If you selected only the **Service** checkbox from the project policy for a project, the **Service** field is enabled but not required. It means that empty fields are allowed.

When you create a work plan for the project (by clicking **Create blank work plan**, **Create work plan from a template...** or **Create work plan from another project...** from the Project Summary tab of the Project Overview page), the **Service** field for the root task or **Service** fields for all task items inherit the default service setting if you already specified a default service in the project's Project Details page; otherwise the **Service** field(s) will be empty. See "(Optional) Specify a Default Service for a Project" on page 34.

Each new task item you add to the work plan follows certain service inheritance rules. See "Service Inheritance Behavior" on page 35. If there is no default service or parent service, the **Service** field for the new child task will be empty.

However, after you finish adding task items, you may edit the **Service** field value for each of the tasks or summary tasks individually. You can also specify different services for different task items on the same work plan. See "Setting Services for Tasks" on page 35.

> **Note:** Based on your Project Policy settings, all **Service** fields for task items on a single work plan are either required or non-required. You cannot have both required and non-required fields on one work plan.

Service as a Required Field

If you have selected both **Service** and **Is Required** checkboxes on the project policy page for a project, the **Service** field is enabled and required for the project, and empty fields are not allowed.

When you create a work plan for the project:

- If you already specified a default service in the project's Project Details tab, the **Service** field for the root task inherits the default service setting;
- If you have not specified a default service in the Project Details tab, you will be prompted to specify a default service.
  - When you click **Create blank work plan** from the Summary tab of the Project Overview page, the Choose Default Service dialog opens.

    To specify a default service, click the selector icon, select a service from the list, then click **Create** to proceed.
  - When you click **Create work plan from a template**, the Create Work Plan from Template dialog opens.

    In addition to specifying a work plan template, you also need to specify a default service for the work plan.
  - When you click **Create work plan from another project**, the Create Work Plan from Another Project dialog opens.

    In addition to specifying a project, you need to specify a default service for the work plan.

Each new task item you add to the work plan follows certain service inheritance rules. See "Service Inheritance Behavior" on page 35.

After you finish adding task items, you may edit the **Service** field value for each of the tasks or summary tasks individually. You can also specify different services for different task items on the same work plan. See "Setting Services for Tasks" on page 35.

Set Service to Required for an Existing Project

If the work plan for an existing project contains blank **Service** fields, when you set service to required for the project by selecting the **Is Required** setting on the Project Settings page and click **Save**, the Action Required dialog opens:

You may click **Auto Fill** to fill all blank **Service** fields with the value from the parent project. Click **Cancel** to discard the changes you made.

(Optional) Specify a Default Service for a Project

When you have enabled and configured service settings from the Project Fields policy of the Project Settings page, you can specify a default service for the project before creating the project's work plan.

To specify a default service,

1. On the project's Project Overview page, click **Details**.

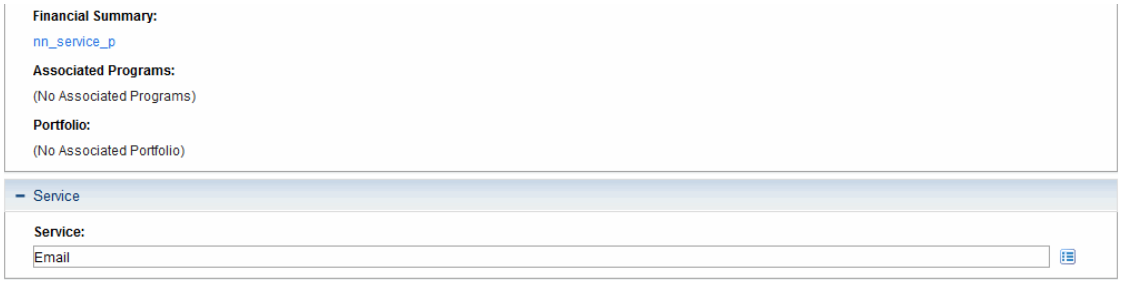
   The Details tab opens.

2. Under the Service section, click the selector icon for the **Service** field.

   The service list window opens.

3. Select a service from the list as the default service, for example, **Email** service.

4. Click **Save**.



   The default service is specified.

Setting Services for Tasks

You can set values for the **Service** fields for tasks like setting any other editable fields on a work plan. You can also set the Service value for a specific task in the Task Details page.

To set **Service** fields on the work plan page:

1. In the Project Summary tab of the Project Overview page, click **Edit Work Plan**.

   The Work Plan page opens.

2. Select the task item that you want to edit the **Service** field for, click the selector icon for the **Service** field to select a different service setting, or simply delete the service value.

3. Click **Save** to save your changes.

   If the **Service** field is required,

   - When you remove the service value for a child task and then click **Save**, the empty **Service** field for the child will be automatically filled with the parent task's service value.
   - Removing the service value for the root task is not allowed. If you do so, you will be prompted with an error message.

     To resolve the error, simply go back to the Work Plan page and specify a service value for the root task before you click **Save**.

4. Click **Done** to exit the Work Plan page after you have finished editing the service value.

Service Inheritance Behavior

Tasks, summary tasks, and root tasks can inherit their service settings from their parent projects, making it unnecessary to manually set the service for every task and summary task within a project.

Service inheritance follows certain rules:

- When a service is set on a project, the same service cascades down to all its children. These children will continue to inherit their parent's service setting. If one of these children is moved to a different parent with a different service setting, the child will acquire the new parent's service setting.
- When a child is specified with a different service setting than its parent, the service setting cascade

stops and that child's service setting is preserved. This child's service setting will be preserved even if the child is indented, outdented, or cut-and-pasted under a different parent.

> **Note:** When service is required, the child's service setting inherits its parent's only in the following scenario after the cascade relationship is broken:
>
> The child is specified with a different service setting than its parent, the service setting cascade stops and that child's service setting remains preserved. Then, the parent's service setting is modified to another service setting, and the child service setting is deleted. When you click **Save**, the child will inherit the parent's new service setting as empty field is not allowed. This is designed to minimize your manual effort.
>
> However, this does not mean that the service setting cascade relationship is resumed. Once the service setting cascade stops, it cannot be resumed. Even if you modify the parent's service setting to a different one at this time, the child's new service setting is preserved.

- In the case of a child with a different service setting, manually setting that child's service setting to that of its parent means that its service setting will no longer be preserved, and will become that of its current parent.
- Manually setting a child's service to an empty value will keep it empty, but it will not stay empty if the child is moved to a parent with a non-empty service setting.
- If a summary task's parent changes its service setting, the new service will be applied to the summary task and all its children as well, unless the summary task's service setting is different than its parent's, in which case the summary task and its children will remain untouched.

Additional rules regarding service inheritance behavior:

- In Project Management controlled mode, when services are synchronized, if a child's service is empty in PPM Center, it will remain empty in Microsoft Project.
- In Microsoft Project controlled mode and shared controlled mode, when services are synchronized, if a child's service is empty in Microsoft Project, that child's service will inherit its parent's service in PPM Center.

Chapter 8: Synchronizing Actuals from Time Management

Overview

This section details the procedures used to synchronize actuals from Time Management to Project Management for projects that have Time Management and Project Management integrated. Synchronization allows actuals specified using Time Management to be copied to Project Management work plan tasks. Actuals may need to be synchronized if the sum of actual efforts in Time Management do not match the total actual efforts in Project Management (for example, actuals may not match after an upgrade or if time sheet data is imported into Time Management from an external application).

The following actuals can be synchronized from Time Management to Project Management:

- Actual effort
- Actual start date
- Actual finish date
- Percent complete

Using the `kPMTMSync.sh` script, you can synchronize actuals for projects that have been enabled for synchronization. You can either specify a single project to synchronize or synchronize all projects that have been enabled for synchronization. You can have multiple sessions running a single instance of the script, but each instance must be run for a different project. That is, do not simultaneously run more than one instance of the script for the same project.

> **Caution:** Back up the database before running this script. Synchronization cannot be undone. Once you run the script, actuals that have been deleted can only be recovered from a database backup.

When `kPMTMSync.sh` is run, actuals with matching tasks and resources are copied from Time Management to Project Management.

If actuals are entered in Time Management and the project has Time Management enabled, for tasks/resources that match between the work plan and Time Management, actuals are synchronized from Time Management. If actuals have been entered directly from both the work plan and Time Management (for the same tasks/resources), the actuals in the work plan are replaced by the Time Management actuals.

In all other situations, if actuals have been entered directly in the work plan, they are retained; if no actuals have been entered directly in the work plan, nothing is synchronized. It is not possible to have actuals entered for a project from Time Management if the project does not have Time Management enabled. See "Table 8-1. Scenarios for actuals synchronization" below for more details.

Table 8-1. Scenarios for actuals synchronization

Project Management-Entered Actuals	Project is Time Management-Enabled	Time Management-Entered Actuals	Tasks/Resources Match	Results after `kPMTMSync.sh` is Run
X	X	X	X	Actuals in the work plan are replaced by Time Management-entered actuals
				Project Management-entered actuals are retained
			X	Project Management-entered actuals are retained
				Project Management-entered actuals are retained
		X	X	Scenario is not possible
				Scenario is not possible
			X	Project Management-entered actuals are retained
				Project Management-entered actuals are retained
	X	X	X	Actuals in the work plan are copied from Time Management-entered

Table 8-1. Scenarios for actuals synchronization, continued

Project Management-Entered Actuals	Project is Time Management-Enabled	Time Management-Entered Actuals	Tasks/Resources Match	Results after `kPMTMSync.sh` is Run
				actuals
				Nothing is copied
			X	Nothing is copied
				Nothing is copied
		X	X	Scenario is not possible
				Scenario is not possible
			X	Nothing is copied
				Nothing is copied

If the `includeDates` option is specified, the actual start date and actual finish date in Project Management are updated from Time Management. If the `includePC` option is specified, percent complete is calculated using the actual effort. For more detailed information about these and other options, see "Running the Synchronization Script" on the next page.

After the script has run, actuals are updated according to the schedule for the Task Actual Rollup Service. Therefore, you may not see up-to-date actuals immediately after the script has completed.

Enabling Projects for Synchronization

Enabling a project for synchronization requires the modification of the PM_WORK_PLANS table in the PPM Center schema. A project may be automatically enabled after an upgrade or if the time sheet data loader script is run (see *Time Management Configuration Guide* for more information about loading time sheet data from external applications). Otherwise, you must manually update the table.

A project is automatically enabled after an upgrade if:

- Time Management and Project Management are integrated AND
- Upgraded projects are in one of the following states: New, Approved, Closed, or In Progress.

To enable a project for synchronization:

1. Get the project ID. The project ID is available in the URL when viewing the project's overview page:
   a. Log on to PPM Center.
   b. From the menu bar, select **Search > Projects.** The Search Projects page opens.
   c. Provide search criteria in the appropriate fields and click **Search.** The Project Search page reloads, displaying the results of your search.
   d. Click the name of the project to open its Project Overview page.
   e. Look for the `projectId=` in the URL that is displayed for the Project Overview page. The number listed after this field is the project ID.
2. Get the work plan ID of the project using the project ID. Use the following SQL query to get the work plan ID:

   ```
   SELECT work_plan_id FROM pm_work_plans
   WHERE project_id = <projectId> AND is_active_flag = `Y'
   AND entity_type = `WORK_PLAN';
   ```

3. Enable the project for synchronization. Use the following SQL to set the SOURCE column to **NEEDS_TM_SYNC** in the PM_WORK_PLANS table:

   ```
   UPDATE pm_work_plans SET source = `NEEDS_TM_SYNC'
   WHERE work_plan_id = <workplanID>;
   ```

4. Commit the change:

   ```
   commit;
   ```

Running the Synchronization Script

To run the synchronization script, do the following:

1. Back up the database.

   > **Caution:** Synchronization cannot be undone. Once you run the script, actuals that have been deleted can only be recovered from a database backup.

2. From the PPM Server, change to the <*PPM_Home*>`/bin` directory.
3. Run the following command:

```
sh ./kPMTMSync.sh -username <username> -password <password> [-projectno
<projectnumber>] [-projectname <projectname>] [-includeDates yes] [-includePC
yes] [-removeEmpty yes]
```

> **Note:** Messages from the script are sent as standard output to the screen. To log these messages, see "Logging Messages" on page 43.

Option (*Required)	Description
*username	Any existing PPM Center user who has the Edit All Projects access grant.
*password	The password for the PPM Center user.
projectno	The project number of the project to which the actuals are synchronized. The project number is available on the Search Projects page or in the Project Details tab of the project. If you also specify the `projectname` argument, the project name and project number must correspond to the same project. If neither the `projectno` nor the `projectname` argument is specified, all projects with synchronization enabled have their actuals synchronized.
projectname	The project name of the project to which the actuals are synchronized. The project name is available on the Search Projects page or in the Project Details tab of the project. If you also specify the `projectno` argument, the project number and project name must correspond to the same project. If neither the `projectno` nor the `projectname` argument is specified, all projects with synchronization enabled have their actuals synchronized.
includeDates	If set to yes, the actual start date and actual finish date (if available) is copied from Time Management. The actual start date is the earliest date for which effort is provided on any time sheet for a task. The actual finish date is the latest date for which effort is provided on any time sheet for a task and is copied only if percent complete for the task is equal to 100 (the task has been completed). If the task has not been completed, the actual finish date from Project Management is used. If this option is not included, both the actual start date and actual finish date from Project Management are used. **WARNING:** For a completed project, if actuals for resources have been added from both Project Management and Time Management, using this option on this project ignores the actuals from Project Management. The status of all tasks that had actuals entered from Project Management are changed from **Completed** to **In Progress** and the actuals entered from Project Management are lost.
includePC	The following describes the calculations for percent complete (PC) and estimated remaining effort (ERE). The calculations may use actual effort (AE) or scheduled effort (SE).

Option (*Required)	Description
	If set to yes and if **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is enabled: **ERE Calculations** ◦ ERE = SE – AE ◦ If ERE <= 0, ERE = 0 **PC Calculations** ◦ If ERE > 0, PC = [AE / (AE + ERE)] * 100 ◦ If ERE <= 0, PC = 100
	If set to yes and if **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is not enabled: **PC Calculations** ◦ If AE = 0, PC = 0 ◦ If AE > 0, PC is calculated by Project Management based on data entered by users
	If set to no or is not included (the setting of **Track Estimated Remaining Effort per resource assignment** in the **Cost and Effort** policy is not relevant): **ERE Calculations** ◦ If PC = 0, ERE = SE – AE ◦ If PC = 100, ERE = 0 ◦ If 0 < PC < 100 and AE = 0, ERE = SE ◦ if 0 < PC < 100 and AE > 0, ERE = (AE * 100 / PC) – AE **PC Calculations** ◦ PC is calculated by Project Management based on data entered by users
removeEmpty	If set to yes, resources whose actual efforts are zero or null for a task are removed.

The following are examples of running the script.

User1 wants to synchronize the actuals of all projects with synchronization enabled. User1 has the Edit All Projects access grant and runs the following command:

sh ./kPMTMSync.sh -username User1 -password User1_password

User2, who also has the Edit All Projects access grant, wants to synchronize the actuals for a project named Project1 whose project number is 311223. User2 can run one of the following commands:

sh ./kPMTMSync.sh -username User2 -password User2_password -projectno 311223

or

sh ./kPMTMSync.sh -username User2 -password User2_password -projectname Project1

or

sh ./kPMTMSync.sh -username User2 -password User2_password -projectno 311223 -projectname Project1

Logging Messages

By default, messages from the script are sent as standard output to the screen. To log these messages, redirect standard output to a file: when you run the script, type **> <*filename*>** at the end of the command where <*filename*> is the name of the file where messages are logged.

For example, User2, who has the Edit All Projects access grant, wants to synchronize the actuals for a project named Project1 and redirect standard output to a file named `SyncLog01.txt` in the `/tmp` directory. User2 runs the following command:

sh ./kPMTMSync.sh -username User2 -password User2_password -projectname Project1 > /tmp/SyncLog01.txt

If the message `The specified project does not require a TM-PM Sync.` displays or is logged, the project is not enabled for synchronization. See "Enabling Projects for Synchronization" on page 39.

Appendix A: Appendix A: Typical Usage

The following information is based on typical usage of PPM Center and Project Management. HPE cannot warrant that you will have the same or similar experience.

"Table A-1. Project Management Typical Usage" below lists entities with an amount for its typical usage, comments about 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. Project Management Typical Usage

	Typical	Complex	Performance Impact	Recommendations/Comments
Number of Tasks	50–500	> 5,000	Load work plan, cost roll-ups	Do not create a task that represents a generic topic such as vacation or training. Shorten the project duration and simplify work breakdown.
Number of Levels in a Work Plan	< 5–7			
Number of Resources Assigned to a Single Task	< 100[a]	>= 50	Time sheet submission, cost roll-ups	Performance depends on the number of resources per project rather than the number of resources per task.
Number of Resources Assigned to an Entire Project		hundreds		Make tasks more granular to optimize performance for resources entering time and for project managers and summary task owners.
Duration of a Single Leaf Task	<= 1 year			Model large projects with a separate project for each phase, with each phase lasting three to five years.
Duration of a Single Summary Task	< 5 years[b]	> 2 years	View work plan, enter time on a time sheet or task, approve time	

Table A-1. Project Management Typical Usage, continued

	Typical	Complex	Performance Impact	Recommendations/Comments
Duration of a Project			Cost roll-ups	Accumulation of time sheets increases work load for services and resource utilization calculations.
Number of Time Sheets Logged Against a Single Task		thousands		Performance depends on the number of resources assigned to the task and the task duration.

a. For tasks with a duration of less than five years.
b. For tasks with less than 100 resources.

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