HP Project and Portfolio Management Center

Software Version: 8.00

Upgrade Guide

Document Release Date: November 2012, Edition 3

Software Release Date: July 2009

hp ®

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Open Source and Third Party License Agreements

For information about third-party license agreements, see the *Open Source and Third-Party License Agreements* on the HP Software Manuals Web site at h20230.www2.hp.com/selfsolve/manuals.

To view open source code, see the *<PPM_HOME>*/integration/freeware/ directory of your PPM Center installation.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

Trademark Notices

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Intel®, Intel® Itanium®, Intel® Xeon®, and Pentium® are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Java is a registered trademark of Oracle and/or its affiliates.

Microsoft®, Windows®, Windows Vista®, and Windows® XP are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered U.S. trademark of Oracle Corporation and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Support

You can visit the HP Software Support Web site at:

hp.com/go/hpsoftwaresupport

HP Software Support Online provides an efficient way to access interactive technical support tools. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to:

h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to:

h20229.www2.hp.com/passport-registration.html

Documentation Updates

This manual's title page contains the following identifying information:

- Software version number, which indicates the software version

- Document release date, which changes each time the document is updated

- Software release date, which indicates the release date of this version of the software

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

h20230.www2.hp.com/selfsolve/manuals

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

The following table indicates changes made to this document.

Summary of Changes
Chapter 1   • The document *FM Upgrade Patch Release Notes* was added in the section "Before You Begin" to remind users to read the release notes before upgrading to PPM Center version 8.00.   • The section "Supported Upgrade Paths" was modified to inform users that the scripts in the FM upgrade patch file shold be run before upgrading to version 8.00.
Chapter 2   • "Task 2: Run the FM Upgrade Patch Script to Prepare PPM Center Data" was added to clarify the steps for preparing PPM Center version 7.5 or 7.5 SPs 1~7 data for upgrading purpose.   • "Task 9, Back Up Customizations" was changed to indicate that any JavaScript files that are customized in the currently installed instance will be overwritten during an upgrade to PPM Center version 8.00.
Chapter 3   • The procedure described in the section "Upgrading a PPM Center Server Cluster" was modified to clarify the steps for upgrading secondary physical servers.   • The task "Running the FM Upgrade Patch Script to Ensure Data Consistency" was added in the section "Post-Upgrade Tasks" to clarify the steps for ensuring data consistency after upgrading to version 8.00.

Contents

1 Upgrade Overview

Before You Begin

While this guide provides all of the information you need to prepare for and then perform the upgrade to HP Project and Portfolio Management Center (PPM Center) version 8.00, it does not contain details on the effects of the upgrade or on what has changed in version 8.00. Before you perform the upgrade steps presented in this guide, consult the following documents:

- *FM Upgrade Patch Release Notes*

   HP strongly recommends that before you perform any of the tasks associated with upgrading to PPM Center version 8.00, you first read *FM Upgrade Patch Release Notes.* This patch release notes contains details about the scripts that shall be run before and after running the upgrade bundle.

   ➤ If you do not use the Financial Management module, it is optional for you to run the scripts before and after upgrading to PPM Center version 8.00. You can safely ignore this patch release notes.

- *What's New and What's Changed*

   HP strongly recommends that before you perform any of the tasks associated with upgrading to PPM Center version 8.00, you first read *What's New and What's Changed.* That document contains details about the impact of upgrading and information on the platforms desupported in version 8.00.

- *System Requirements and Compatibility Matrix*

To make sure that your operating environment meets all of the minimum requirements, review the *System Requirements and Compatibility Matrix.*

- *Installation and Administration Guide*

  This guide includes initial product installation procedures as well as configuration, operation, maintenance, migration, and performance information. This guide provides an overview of the PPM Center architecture and optional configurations—this information can help you determine the optimal configuration of your deployment.

  The *Installation and Administration Guide* also provides important about information about the following, which have changed significantly in PPM Center version 8.00:

  o PPM Server cluster configuration

  o Background services management

  o Performance enhancements

- *Multilingual User Interface Guide*

  This document provides important information on the support of multiple languages on a single PPM Center version 8.00 instance.

- *Release Notes*

  The *Release Notes* for PPM Center version 8.00 provide product information that is not included in the manuals.

To obtain these and other documents related to PPM Center, go to the HP Software Product Manuals Web site (h20230.www2.hp.com/selfsolve/manuals).

Overview of Upgrading to Version 8.00

This section provides information about the path for upgrading from installed releases of PPM Center and the high-level tasks you perform to upgrade to version 8.00.

Supported Upgrade Paths

To upgrade to PPM Center version 8.00, you must have PPM Center version 7.5 (with or without service packs) installed. If an earlier version is installed, you must first upgrade to version 7.5, and then run the script in the FM upgrade patch file to prepare version 7.5 data before upgrading to version 8.00. For information on how to prepare the data, see *Task 2: Run the FM Upgrade Patch Script to Prepare PPM Center Data* on page 27; and for information on how to upgrade to version 7.5, see the *Upgrade Guide* for version 7.5. For information on supported upgrade paths for an HP Deployment Management Extension, see the documentation for that product.

Deploying Language Packs During an Upgrade

If you are upgrading from an English language instance of PPM Center version 7.1, and you plan to support languages in addition to English in your system, HP recommends that you stay with an English instance until you upgrade from version 7.5 to 8.00.

Do not deploy a language pack on the 7.5 version. If you deploy a language pack on PPM Center 7.5, custom lookups are overwritten. During the upgrade from PPM Center 7.5 to 8.00, you can choose additional languages to deploy.

For information about language pack deployment during an upgrade, see the *Multilingual User Interface Guide.*

Other Software Components

The supported Oracle® database versions may require that you perform additional upgrade steps. For an overview of the Oracle database versions supported for the PPM Server in PPM Center versions 7.5 and 8.00, see *What's New and What's Changed.* For more details specific to PPM Center version 8.00, see the *System Requirements and Compatibility Matrix.*

PPM Center version 8.00 uses Java Stored Procedures in Oracle. This enables you to call Java code from Procedural Language/Structured Query Language (PL/SQL). To successfully upgrade to PPM Center version 8.00 and to use this feature, you must install and configure Oracle Java virtual machine (JVM) is

installed. For more information, see *Task 6: Enable the Oracle JVM on page 28*.

Changes to the supported versions of other software such as the Sun Java™ Software Development Kit (SDK), Secure Shell (SSH), and EMC Documentum will also require that you perform additional steps to upgrade to PPM Center version 8.00. For information about the supported versions of these and other products for PPM Center version 8.00, see the *System Requirements and Compatibility Matrix*.

Overview of Upgrade Tasks

To upgrade to PPM Center version 8.00, perform the following steps:

1. Read:

   ● This chapter

   ● *System Requirements and Compatibility Matrix*

   ● *What's New and What's Changed* for information on new features in version 8.00 and the potential impact of upgrading

   ● *Release Notes* for important information that is not in the version 8.00 document set

   ● Chapter 2, *Preparing to Upgrade to PPM Center Version 8.00, on page 27* for information about how to prepare to upgrade

2. If you plan to upgrade one of the HP Deployment Management Extensions, see the documentation for the product.

   ➤ After you upgrade to, and then configure, PPM Center version 8.00, you can install or upgrade Extensions in any order you choose. For information about optional product installations, see the *Installation and Administration Guide*.

3. Back up both the file system and the database schema (using any third-party tool).

4. Perform and verify the upgrade.

For detailed upgrade instructions, see Chapter 3, *Upgrading to PPM Center Version 8.00,* on page 47.

5. Install or configure optional products you have purchased to work with PPM Center.

About Prevalidation

After you start the upgrade process, you have the option to run the *prevalidation* step. HP strongly recommends that you select this option. Prevalidation checks for data inconsistencies that might cause upgrade problems. If you run prevalidation, the upgrade utility creates one or more html reports in the `<PPM_Home>/PPM_Upgrade/upgrade_800/logs/reports/html/integrity/validator` directory.

HP recommends that, at a minimum, you start the upgrade just to run the prevalidation step for upgrades performed in advance of your production system upgrade. Running the prevalidation step can give you a good estimate of how long it takes to run prevalidation scripts against your specific data set, and allow you to plan your upgrade appropriately.

If the time to execute prevalidation scripts against your environment consumes a significant amount of the time allocated for the production upgrade, then consider performing the prevalidation step and resolving any uncovered issues before you upgrade your production instance.

Prevalidation Reports

Prevalidation can generate several reports that list any problems detected, their cause, and any corrective action to take before you start the upgrade process. The following table lists the generated prevalidation report files.

Prevalidation Report File Name	Invalid Data Reported
INTPreValidation.html	Reports any of the following, if detected: • Requests integrated with Mercury Application Mapping that must now be moved to Universal CMDB tables • Request types that contain the MAM Impact Analysis field group, which must now be replaced with the uCMDB field group
MLUPreValidation.html	Lists any and all duplicate entries in the KNTA_VALIDATION_SQL_HEADERS table associated with the same validation name.
PFMPreValidation.html	Reports any of the following, if detected: • Fiscal periods (of any type) that contain date gaps • Budgets and benefits linked to the same parent and using different local currencies. • Freestanding budgets (budgets not associated with any PPM Center entities)[a] • Multiple budgets linked to a single org unit • Discrepancies in the relationships between budgets and projects in different database tables • Obsolete portlet reference data sources
PMPreValidation.html	Reports any of the following, if detected: • Dates that fall outside a range of 50 years from the current date in tasks and projects • Obsolete validations based on obsolete budgets and benefit database objects • Validations to be deleted from the system • Lists fields using obsolete or deleted validations • Portlets that use data sources that refer to obsolete budgets and benefit database objects
SYSPreValidation.html	Lists any missing access grants that are required for the PPM Center user.

Prevalidation Report File Name	Invalid Data Reported
TBLSPCPreValidation.html	Lists any tablespaces that are configured in PPM Center but are missing from your database. The tablespace names are configured in the kins_tablespaces table in the database schema. If problems are detected, you must manually update the kins_tablespaces table.
TMPreValidation.html	Lists any of the following, if detected: ● Actuals in HP Time Management that do not match the corresponding actuals in HP Project Management for one or more tasks or projects ● Duplicate records in the TM_WORK_UNITS table for root task nodes ● Incorrect work item types for projects or tasks in the HP Time Management database tables

a. In PPM Center version 8.00, what were budgets and benefits in PPM Center version 7.5 and earlier versions are combined in what are termed "financial summaries". For details, see *Understanding Conversion of Budgets and Benefits into Financial Summaries and Financial Data Tables* on page 40.

Prevalidation also detects the following problems, if they exist:

● Invalid configuration and insufficient database access rights

● Duplicated notifications (sharing the same request type parent or workflow step parent)

● Rows in the KNTA_VALIDATION_SQL_HEADERS table that have duplicate sequence numbers assigned to the same validation

● Deprecated validations that refer to obsolete budget and benefit tables

● References to deprecated validations that refer to obsolete budget and benefit tables

● Existing calendar names that conflict with PPM Center system calendar names to be added during the upgrade

● Portlet data sources that use obsolete budget and benefit tables or views

Financial Summaries and Financial Data Tables

Version 8.00 introduces financial summaries. Each financial summary has as its parent a lifecycle entity (proposal, project, or asset), a program, or an organization unit. The upgrade process creates financial summaries as follows:

● **Lifecycle entities.** Each new and upgraded lifecycle entity has a financial summary that includes a table of forecast and actual costs and a table of forecast and actual financial benefits (hereafter called benefits), each table covering a range of years. The financial summaries also include an approved budget covering a range of years.

The same financial summary is shared on an ongoing basis by a proposal, by the project that is created when the proposal is approved, and by the asset that is created when the project is completed. The financial summary is not copied from one lifecycle entity to another as it progresses from proposal to project to asset. You can take snapshots of the financial summary of any lifecycle entity at any time.

The upgrade process converts the budgets and benefits attached to lifecycle entities in version 7.5 to financial summaries as described in *Understanding Conversion of Budgets and Benefits into Financial Summaries and Financial Data Tables* on page 40.

● **Programs.** Each program has a non-editable roll-up financial summary that is a summation of the financial summaries of all the projects in the program. Each program can also have an editable financial summary.

● **Organization units.** Each organization unit has a financial summary that can include an approved budget.

The upgrade process does not convert any *freestanding* budgets and benefits (those not associated with any entity) that are in version 7.5. However, after the upgrade, you can use a script provided in version 8.00 to identify the freestanding budgets and benefits retained in the database, assign them to the desired parent requests, and import them for viewing as financial summary snapshots in version 8.00. For more information, see Appendix A, *Importing Freestanding Budgets and Benefits into Financial Summary Snapshots,* on page 77.

Version 8.00 also introduces financial data tables, which are very similar to financial summaries. Financial data tables are used as follows during upgrade:

- If a lifecycle entity request type in version 7.5 allowed attachment of multiple budgets and/or multiple benefits, then the primary budget and the primary benefit are upgraded to financial summaries, and all other budgets and benefits attached to the request are upgraded to separate financial data tables.

- For requests based on request types that are not associated with lifecycle entities, the upgrade process converts each attached budget and benefit to a separate financial data table.

Upgrading Document Management

If the document management module is installed and integrated with your PPM Center system, and you want to upgrade the module, you must first ensure that the currently supported version of the EMC Documentum software is installed. For the requirements and instructions for upgrading document management in PPM Center, see the *Document Management Guide and Reference.* You can access this document from the HP Software Product Manuals Web site (h20230.www2.hp.com/selfsolve/manuals).

Upgrading an HP Deployment Management Extension

If you have purchased one of the following HP Deployment Management Extensions, you must upgrade the Extension(s) after you upgrade PPM Center:

- HP Deployment Management Extension for Oracle E-Business Suite

- HP Deployment Management Extension for Oracle Technology

- HP Deployment Management Extension for SAP® Solutions

For detailed upgrade instructions, see the documentation for the individual products. You can access the documentation from the HP Software Product Manuals Web site (h20230.www2.hp.com/selfsolve/manuals).

Reviewing System Requirements

Before you start to upgrade to PPM Center version 8.00, ensure that your system environment meets all the requirements listed in the *System Requirements and Compatibility Matrix* document. You can access this document from the HP Software Product Manuals Web site (h20230.www2.hp.com/selfsolve/manuals).

Upgrading Best Practices Content

If the product license your organization purchased (for PPM Center version 7.5 or earlier) included Best Practices, you had the option of installing request types and workflows specifically designed to enhance your use of HP Demand Management, HP Project Management, and HP Portfolio Management.

Except for customized request types, all Best Practices content in your current instance is preserved during the upgrade to version 8.00. This includes request types and workflows that are not delivered in version 8.00.

HP Project Management and HP Portfolio Management access the request type content installed as part of Best Practices. This includes HP-supplied menu items that attempt to access these request types. *Table 1-1* lists the Best Practices request types and their associated workflows, and provides descriptions of the product functionality they provide.

For PPM Center products to function correctly, you must have Best Practices installed on your system.

If you are upgrading an instance that has PPM Center version 7.1 or earlier installed, then you must manually change the reference codes for Best Practices request types and workflows after the you successfully complete the upgrade. For details, see *Adding Reference Codes for Best Practices Request Types and Workflows (If You Upgraded from PPM Center Version 7.1) on page 61*

Table 1-1. Product functionality enabled by Best Practices content (page 1 of 4)

Request Type / Workflow	Description	Menu Selections	Field Groups
PFM - Proposal / PFM - Proposal	Represents a proposal for a project.	• Create > Proposal • Open > Portfolio Management > Create Proposal	PFM Proposal
PFM - Project / PFM - Project	Represents the data and process associated with a project. This request type is connected to a project type.	Not accessible as a menu selection. This request type must be connected to a project type.	PFM Project
PFM - Asset / PFM - Asset	Represents the ongoing costs and maintenance of the result of a project.	• Create > Asset • Open > Portfolio Management > Create an Asset	PFM Asset
Project Issue / Issue Management Process	Represents issues associated with a project. (Also associated with a project type. This enables users to create requests of this type from the Project Overview page.)	• Search > Project Issues • Create > Project Issue • Open > Project Management > Project Controls > Submit Project Issue • Open > Program Management > Issues > Search Project Issues	• Project Issue • Project Reference

Table 1-1. Product functionality enabled by Best Practices content (page 2 of 4)

Request Type / Workflow	Description	Menu Selections	Field Groups
Project Risk / Risk Management Process	Represents the risks associated with a project. (Also associated with a project type. This enables creating a request of this type from the Project Overview page.)	- Search > Project Risks - Create > Project Risk - Open > Project Management > Projects Controls > Search Risks - Open > Project Management > Projects Controls > Submit Risk - Open > Program Management > Risks > Search Risks	- Project Risk - Project Reference
Project Scope Change Request / Scope Change Request Process	Represents scope changes associated with a project.	- Search > Project Scope Changes - Open > Project Management > Project Controls > Search Scope Changes - Open > Project Management > Project Controls > Submit Scope Change - Open > Program Management > Scope Changes > Search Scope Changes	- Project Scope Change - Project Reference

Table 1-1. Product functionality enabled by Best Practices content (page 3 of 4)

Request Type / Workflow	Description	Menu Selections	Field Groups
Program Issue	Represents issues associated with a program.	• Search > Program Issues • Create > Program Issues • Open > Program Management > Issues > Search Program Issues • Open > Program Management > Issues > Submit Program Issue	• Program Issue • Program Reference
DEM - Application Enhancement / DEM - Enhancement Request Process	Represents requests for new functionality in current applications.	• Create > Request • Search > Requests • Open > Demand Management > Create Request • Open > Demand Management > Search Requests • Open > Demand Management > Request Browser > Browse Requests	• Demand Management SLA Fields • Demand Management Scheduling Fields

Table 1-1. Product functionality enabled by Best Practices content (page 4 of 4)

Request Type / Workflow	Description	Menu Selections	Field Groups
DEM - Database Refresh / DEM - Database Refresh	Represents the database refresh requests made for applications in the testing phase.	- Create > Request - Search > Requests - Open > Demand Management > Create Request - Open > Demand Management > Open > Search Requests - Open > Demand Management > Request Browser > Browse Requests	- Demand Management SLA Fields - Demand Management Scheduling Fields
DEM - Application Bug / DEM - Bug Request Workflow	Represents reported defects in current applications.	- Create > Request - Search > Requests - Open > Demand Management > Create a Request - Open > Demand Management > Search Requests - Open > Demand Management > Request Browser > Browse Requests	- Demand Management SLA Fields - Demand Management Scheduling Fields
DEM - Initiative / DEM - Project Initiative Process	Represents requests for key projects for future quarters.	- Demand Management > Create a Request - Demand Management > Search Requests - Demand Management > Request Browser > Browse Requests	- Demand Management SLA Fields - Demand Management Scheduling Fields

> ► To improve its usability, the PPM Dashboard has a new look and feel in PPM Center version 8.00. Changes include a redesigned horizontal menu bar, which includes a new field that you can use to search for menu items and PPM Center entities. For detailed information, see the *Getting Started* guide.

Keeping Customized Request Types Following the Upgrade

If you customized a Best Practices request type provided with an earlier release, and you want to keep that customization, perform the following steps.

> ► If you installed Best Practices before the upgrade, then there is no need to reinstall it. If Best Practices is not installed on your system, then run the following to install a translated 8.00 version:

```
sh ./kDeploy.sh -best-practices
```

1. Log on to the current PPM Center instance.

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

   The PPM Workbench opens.

3. From the shortcut bar, select **Demand Mgmt > Request Types.**

   The Request Type Workbench opens.

4. Click **List.**

   The Request Type Workbench lists all request types.

5. Double-click the row for a customized request type that you want to keep.

   The Request Type window opens and displays the record.

6. In the **Request Type Name** field, type a new name for the request type.

7. Click **OK.**

8. Repeat step 5 through step 7 for all each additional customized Best Practices request type you want to keep.

Backing Up the Database Schema and the PPM Center Home Directory

Before you upgrade to PPM Center version 8.00, you must back up both the file system and the database schema. You can use any third-party tool to perform the backup.

HP recommends that you set up a copy of your current instance and run the upgrade on that system before you upgrade your Production instance. For information on how to copy an instance, see the *Installation and Administration Guide.*

Obtaining License Keys

You must have license keys for the earlier release of PPM Center that you purchased. PPM Center license keys are delivered in the license.conf file, which resides in the *<PPM_Home>*/conf directory.

In this document, *<PPM_Home>* represents the path where your PPM Center instance is installed.

Key Considerations

To prepare to install PPM Center, review the issues described in this section. This section addresses several decisions you must make before you begin to upgrade your PPM Center products.

Running on a Single Database Schema (HP Object Migrator)

Before you upgrade to PPM Center version 8.00, it is important that you work with your database administration team to determine the appropriate backup and recovery strategy for your instance. HP recommends that you shut down the database and perform a cold backup of your database and a full file system backup to back up your PPM Center instance and its configuration files. Your organization may require a different strategy.

If the HP Object Migrator is installed and running on the same schema as PPM Center, it is especially important that you perform a cold backup before you begin the upgrade. If you encounter problems during the upgrade, you can revert to the cold backup to preserve your HP Object Migrator installation.

Running in Graphic (Swing) or Console Mode (UNIX)

On Windows® platforms, you can only upgrade the PPM Server in graphic (or *swing*) mode. On UNIX® platforms, you can either upgrade the PPM Server in graphic mode or in console mode (from the command line).

► In this guide, "UNIX" is used to refer to all supported UNIX-based operating systems. For a list of these, see the *System Requirements and Compatibility Matrix.*

In some cases, you can only perform a console upgrade. If you choose to upgrade in graphic mode, and you are accessing the target machine remotely, you may require additional software or configuration. For example, if you access a UNIX system from a Windows system, you must have software that enables the UNIX application to redirect the display to Windows.

Changing the PPM Center System Language

During the upgrade to PPM Center version 8.00, you have the option of changing your PPM Center system language. Keep in mind that, after the upgrade is completed, all PPM Center 8.00 boilerplate content, and all of the custom data defined in the PPM Center 7.5 user space are set to the system language you select at upgrade. For more information, see the *Multilingual User Interface Guide.*

PPM Center Documentation

To complete the upgrade successfully, it is important that you read the following PPM Center version 8.00 documentation:

- *FM Upgrade Patch Release Notes*

- *What's New and What's Changed*

- *System Requirements and Compatibility Matrix*

- *Multilingual User Interface Guide*

- *Release Notes*

Upgrading PPM Center Documentation

In PPM Center version 8.00, the PPM Documentation Library accessed through the standard interface no longer provides links to the core product documents. Instead, the PPM Documentation Library includes a customizable framework that the PPM Center administrator can use to add only the documents that meet the needs of your PPM Center instance users.

After you upgrade to PPM Center version 8.00, you will need to add PPM Center version 8.00 documentation to the PPM Documentation Library. For detailed instructions on how to do this, see the *Customizing the Standard Interface* guide.

2 Preparing to Upgrade to PPM Center Version 8.00

Preparing to Upgrade

Before you start the PPM Center upgrade procedure, perform the tasks described in this section.

► The placeholder *<PPM_Home>* is used throughout this document. It refers to the directory where PPM Center is installed. The specific name and location of this directory are up to you.

Task 1: If Your Installed Instance is Earlier than PPM Center Version 7.5

If you have a PPM Center instance earlier than version 7.5 installed, upgrade to version 7.5.

► For information on how to upgrade to PPM Center version 7.5, see the *Upgrade Guide* for version 7.5.

Task 2: Run the FM Upgrade Patch Script to Prepare PPM Center Data

To prepare PPM Center version 7.5 or 7.5 SPs 1~7 data for upgrading purpose:

1. Obtain the FM upgrade patch file.

2. Copy the patch file `fm-upgrade-750-800-patch.zip` to the *<PPM_Home>* directory.

3. Unzip the patch file in the directory.

4. In the `<PPM_Home>/fm-upgrade-750-800-patch` directory, run the
   following script:

   - On a Windows system, run: `sh ./run-pre.bat`

   - On a Unix system, run: `sh ./run-pre.sh`

Task 3: Assess the Impact of Upgrading

Review *What's New and What's Changed* for details about the impact of
upgrading, platforms desupported, objects now obsolete in version 8.00.

Task 4: Ensure Upgrade Requirements are Met

Review the *System Requirements and Compatibility Matrix* document to
ensure that your system meets the minimum requirements for upgrading to
PPM Center version 8.00.

Task 5: Read the Latest Product and Upgrade Information

Review the *Release Notes* for recent changes to the product or upgrade process
that are not addressed in the product documentation.

Task 6: Enable the Oracle JVM

PPM Center version 8.00 uses Java Stored Procedures in Oracle. This enables
you to call Java code from Procedural Language/Structured Query Language
(PL/SQL).

To successfully upgrade to PPM Center version 8.00 and to use this feature,
you must first do the following:

1. Check to ensure that the Oracle Java virtual machine (JVM) is installed and
   configured on your system.

2. If the JVM is not enabled in Oracle, then install and configure it.

> For information about how to install and configure the JVM, see the documentation for your Oracle version.

Task 7: Shut Down Your PPM Center Instance

Stop your PPM Server(s). For information on how to start and stop PPM Server(s), see the *Installation and Administration Guide.*

Task 8: Back Up Your PPM Center Instance

Before you start to upgrade PPM Center, back up your PPM Center instance. This involves backing up both the file system and database schema.

> HP recommends that you set up a copy of your current instance and run the upgrade on that system before you upgrade your Production instance. For information on how to copy an instance, see the *Installation and Administration Guide.*

Backing Up the File System

There are many ways to back up the PPM Server file system. A common approach is described in *Backing Up the File System on Windows* and *Backing Up the File System On UNIX*. Regardless of the method you use, you must stop the PPM Server first.

> The following procedure specifies that you stop the PPM Server and not restart it until after the upgrade is complete. The upgrade cannot run if the server is running. If you do not stop the server, users may be able to access the system; if problems occur, any data stored between the time you backed it up and the time the upgrade completes may be unrecoverable.

Backing Up the File System on Windows

To back up the file system on Windows:

1. Open the control panel.

2. To stop the PPM Center service, select it (the default name is HP PPM `<ID>`, where `<ID>` is the name that you or another PPM Center administrator gave to the PPM Center service), and then click **Stop.**

3. Open a Command Prompt window and navigate to the parent directory of `<PPM_Home>`.

4. Create a `zip` archive by executing the following command:

   ```
   zip <Backup_Filename>.zip -r <PPM_Home>
   ```

   where `<Backup_Filename>` represents the name you give to the archive file.

   The archive named `<Backup_Filename>.zip` is placed in the parent directory of `<PPM_Home>`. Keep this archive at least until you verify that the upgrade completed successfully and works correctly.

   If you must restore the file system later, move the `.zip` file into the `<PPM_Home>` directory, and then extract the files.

Backing Up the File System On UNIX

To back up the file system on UNIX:

1. To stop the PPM Server, run the `kStop.sh` script, which is located in the `<PPM_Home>/bin` directory:

   ```
   sh ./kStop.sh -now
   ```

2. In the `<PPM_Home>` directory, use SQL*Plus to create a `.tar` archive of the complete PPM Center directory tree by typing the following command (ensure that you have enough disk space):

   ```
   tar cvf ../<Backup_Filename>.tar *
   ```

   where `<Backup_Filename>` is the name you give to the archive file.

   ▶ For detailed information about creating an Oracle directory, see "Creating Directory Objects" on the Oracle By Example (OBE) web site (http://www.oracle.com/technology/obe/start/index.html).

   The `<Backup_Filename>.tar` archive file is placed in the parent directory of `<PPM_Home>`. Keep this archive at least until you verify that the upgrade completed successfully and works correctly.

   If you must restore the file system later, move the `<Backup_Filename>.tar` file to the `<PPM_Home>` directory, and then type the following command:

```
tar xvf <Backup_Filename>.tar
```

Exporting the Database Schema

Before you begin the upgrade, back up all PPM Center schemas (PPM Center database schema and RML schema) and tablespaces. For information on how to back up your schemas, see the documentation for your version of Oracle software.

> Ensure that all PPM Server connections are closed and shut down the PPM Server before you export or import the schema. For instructions on how to stop and restart the PPM Server, see the *Installation and Administration Guide.*

HP recommends that you keep the exported file at least until you verify that the upgrade was successful.

> For instructions on how to import from the export file, see the *Installation and Administration Guide* or your Oracle documentation.

If you must restore the archive later, remove the schema from the database, re-initialize the database schema, and then import from the export file. Before you can restore an archive, you must first perform two tasks:

1. After you import the .dmp file, run the CreateKintanaUser.sql script (as SYSTEM) to create a PPM Center user.

2. Run the GrantSysPrivs.sql script (as SYS DBA) to give the new PPM Center user to grant the privileges required by the PPM Server.

You can find the CreateKintanaUser.sql and GrantSysPrivs.sql scripts in the upgrade bundle.

Task 9: Back Up the PPM Center Configuration Files

Make copies of the tune.conf, cache.conf, siteminder.conf, and LdapAttribute.conf files. If you have made changes to these, you can revert each conf file to conf.pre8.00 after the upgrade.

Task 10: Back Up Customizations

Back up any customizations (such as request rules and JavaScript methods, which are overwritten during an upgrade) that you want to continue to use with PPM Center version 8.00.

Task 11: Gather Required Information

Collect the information you are required to provide during the upgrade process. This information is listed in *Table 2-1*.

Table 2-1. Required upgrade information

Prompt	Description
PPM Center Schema	PPM Center database schema password.
System Password	System password (if required).
License Configuration File	File that contains valid PPM Center license keys. The PPM Server is activated by license keys, provided in a `license.conf` file, which you must obtain before installation. If you do not have a valid license.conf file, go to the HP Software Support Web site (hp.com/go/hpsoftwaresupport).
JAVA_HOME	Directory in which Java is installed. **Note:** The directory path must not contain any spaces.
ORACLE_HOME	Directory in which Oracle is installed.

Task 12: Extract the Upgrade Files

To extract the upgrade files:

1. Obtain the upgrade software.

2. Extract the files in `ppm-800-upgrade.zip` to *<PPM_Home>*. This creates a new `upgrade_800` directory that contains the upgrade executable file (`upgrade.exe` for Windows and `upgrade.sh` for UNIX systems.)

Task 13: Optionally Evaluate Freestanding Budgets and Benefits

During the upgrade, budgets and benefits that are associated with lifecycle entities (proposals, projects, and assets) in version 7.5 become part of the financial summaries for those lifecycle entities in version 8.00. For details, see *Understanding Conversion of Budgets and Benefits into Financial Summaries and Financial Data Tables* on page 40.

In PPM Center version 7.5, budgets and benefits could be freestanding, that is, not associated with any entity. Version 8.00 does not support freestanding (also known as orphaned) budgets or benefits, and the upgrade process does not convert them to financial summaries. After the upgrade, you cannot view the freestanding budgets and benefits in their original version 7.5 formats, but they are retained in the database.

After the upgrade, you can run the `kBudgetBenefitImport.sh` script provided in version 8.00. The script identifies the freestanding budgets and benefits in the database and exports information about them to a spreadsheet. Then, using the spreadsheet, you assign the freestanding budgets and benefits to parent lifecycle entities you select. Then you run the script again to import the budgets and benefits as snapshots of financial summaries for those lifecycle entities.

This capability is useful for preserving version 7.5 data that represented, in effect, a snapshot of the planned budget or benefit of a proposal or project.

Since you cannot view the freestanding budgets and benefits in PPM Center after the upgrade, you might want to evaluate them before the upgrade to determine whether and how you intend to use them after the upgrade. HP recommends that you delete obsolete freestanding budgets and benefits before you perform the upgrade.

For details about running the script, see Appendix A, *Importing Freestanding Budgets and Benefits into Financial Summary Snapshots,* on page 77.

Task 14: Verify Environment Variables

PPM Center requires that the JAVA_HOME and ORACLE_HOME environment variables be set in the system environment of the user account that is to be used to start the PPM Server(s).

Determining the JAVA_HOME or ORACLE_HOME Path on a Windows System

To determine the environment variable path from the command prompt on a Windows system:

● At the command line, type **echo %<*Environment_Variable_Name*>%.**

  where **<*Environment_Variable_Name*>** represents either the JAVA_HOME or ORACLE_HOME environment variable.

Determining the JAVA_HOME or ORACLE_HOME Path on a UNIX System

To determine the environment variable path in a UNIX shell (SH, BASH, or KSH):

● At the prompt, type **echo $<*Environment_Variable_Name*>.**

  where **<*Environment_Variable_Name*>** represents either the JAVA_HOME or ORACLE_HOME environment variable.

Setting the Environment Variables from the Control Panel on a Windows System

To set the environment variable value on a Windows system:

1. Open the Control Panel.

2. Open the System Properties window.

3. Click the **Advanced** tab.

4. Click **Environment Variables.**

   The Environment Variables window opens.

5. In the **System variables** section, click **New.**

   The New System Variable dialog box opens.

6. In the **Variable name** field, type **%<*Environment_Variable_Name*>%.**

7. In the **Variable value** field, type the full install directory path.

8. To save the new variable and close the New System Variable dialog box, click **OK.**

9. In the Environment Variables window, click **OK.**

10. In the System Properties window, click **OK.**

Setting the Environment Variables from the Command Prompt

To set the environment variable value from the command prompt, run the following command:

```
set <Environment_Variable_Name>=<Install_Directory>
```

where *<Install_Directory>* represents either the directory in which Java is installed, or the home directory for the Oracle client tools on the PPM Server machine.

Using the Bourne Shell to Set the Environment Variables on a UNIX System

To set the environment variable value in UNIX using the Bourne shell (SH, BASH, or KSH), run the following commands:

```
<Environment_Variable_Name>=<Install_Directory>
export <Environment_Variable_Name>
```

where *<Install_Directory>* represents either the directory in which Java is installed, or the home directory for the Oracle client tools on the PPM Server machine.

Task 15: Modify Oracle Database Parameters

This section provides information about temporary changes that you must make to the Oracle database before you upgrade PPM Center. It also contains information on how you can modify Oracle database parameters to improve upgrade performance.

➤ To modify these parameter settings, you must have SYS DBA privileges.

After you verify a successful upgrade, you can restore your original database parameter settings.

Archive Logging

Because archive logging adds additional overhead, HP recommends that you turn it off before you upgrade. The upgrade can migrate or update large volumes of data, which can result in unnecessary storage demands. In addition, archive logs are unnecessary since they would not provide any useful transactional data in this case; the upgrade completes or it does not.

For instructions on how to turn off archive logging, see the documentation for your Oracle software.

⚠ This recommendation is based on the assumption that PPM Center is the only application using the Oracle database instance that contains the data to be upgraded. If data for other third-party applications resides in the same Oracle database instance, then disabling archive logging might not be appropriate.

NLS_LENGTH_SEMANTICS Parameter

HP strongly recommends that you use a database whose NLS_LANG_SEMANTICS value is set to CHAR, especially if you are running a non-English version of PPM Center. If NLS_LENGTH_SEMANTICS is set to CHAR, Oracle allocates storage for VARCHAR fields in characters, not bytes. This is important if data contains international characters, which require more than one byte to store. So if NLS_LENGTH_SEMANTICS is set to BYTE, it accepts strings with international characters with length of two to three times less than the declared field length.

To see the current value set for NLS_LENGTH_SEMANTICS, run the following statement:

```
select * from v$nls_parameters;
```

To change the value to CHAR, run the following statement:

```
alter system set NLS_LENGTH_SEMANTICS=char scope=both;
```

Alternatively, you can change this parameter in (or add it to) the `init.ora` file.

OPTIMIZER_NATIVE_FULL_OUTER_JOIN

If your PPM Center database schemas are based on a version of Oracle that is earlier than version 11.1.0, you must add the `optimizer_native_full_outer_join` database parameter, and set its value to `force`.

UNDO_RETENTION Parameter

The database parameter UNDO_RETENTION specifies the minimum length of time that the system keeps undo information. The Oracle database retains undo information for at least the time specified for this parameter, and automatically tunes the undo retention period to satisfy the undo requirements of the queries. The default value for UNDO_RETENTION is 900 seconds, or 15 minutes.

To determine the amount of time for which undo information is retained for the Oracle database for the current undo tablespace, query the TUNED_UNDORETENTION column of the V$UNDOSTAT dynamic performance view.

Because upgrade operations can run for hours, especially with large databases, HP strongly recommends that you set the UNDO_RETENTION parameter value to 21,600 seconds, or six hours.

To set this parameter dynamically, run the following statement:

```
SQL> alter system set UNDO_RETENTION = 21600 scope=both;
```

After you verify a successful upgrade, you can restore the original setting.

SGA_TARGET Parameter (Oracle 10g)

The `SGA_TARGET` parameter specifies the dynamic System Global Area (SGA) memory for Oracle 10g databases. If you are using Oracle 10g, set the `SGA_TARGET` parameter value to a minimum of 1.66 GB.

▶ The value of the SGA_TARGET parameter is dependent on the value of the SGA_MAX_SIZE parameter. The value set for SGA_TARGET must be less than or equal to the value set for SGA_MAX_SIZE.

Because SGA_MAX_SIZE is a static parameter, if you change its value, you must restart the database instance.

LOG_BUFFER Parameter

To reduce expensive log switches, set the `LOG_BUFFER` parameter to 50 MB.

UNDO_TABLESPACE Parameter

For a large deployment (more than 1,000 projects), set the `UNDO_TABLESPACE` parameter to at least 10 GB.

REDO LOG GROUPS

To reduce expensive log switches for large deployments (more than 1,000 projects), drop and then re-create the redo log groups. Create two redo log groups, each on a separate fast disk, and each with a single redo log file of 250 MB.

CURSOR_SHARING Parameter

Set the `CURSOR_SHARING` parameter to `similar`.

PGA_AGGREGATE_TARGET Parameter

For a large deployment (more than 1,000 projects), set the `PGA_AGGREGATE_TARGET` parameter to 1 GB or more.

Understanding Conversion of Budgets and Benefits into Financial Summaries and Financial Data Tables

The following sections describe the results of the upgrade in regard to the conversion of version 7.5 budgets and benefits into version 8.00 financial summaries, financial summary snapshots, and financial data tables, for lifecycle entities (proposals, projects, and assets), programs, and organization units.

For an introduction to financial summaries and financial data tables, see *Financial Summaries and Financial Data Tables* on page 16. For detailed information, see the *HP Financial Management User's Guide*.

Upgrade of Lifecycle Entities and Other Request Types

The upgrade process converts budgets and benefits in version 7.5 lifecycle entities to parts of financial summaries, to financial summary snapshots, or to financial data tables in version 8.00, as described in *Table 2-2*. All conversions are automatic except for freestanding budgets and benefits, as described. Both forecast (planned) and actual data gets converted in all cases.

Table 2-2. Entity conversions made during upgrade (page 1 of 2)

Version 7.5 Entity	Version 8.00 Entity
The *primary* budget and/or benefit of an active lifecycle entity.	Costs and/or benefits in the financial summary of the active lifecycle entity.
Additional budgets and/or benefits of an active lifecycle entity that allows multiple budgets and/or benefits.	For each additional budget and/or benefit, a separate financial data table for the active lifecycle entity.
The budget and/or benefit of an approved proposal that became a project or of a completed project that became an asset.	A snapshot of the financial summary of the proposal or project.

Table 2-2. Entity conversions made during upgrade (page 2 of 2)

Version 7.5 Entity	Version 8.00 Entity
The final budget and/or benefit, if any, of a lifecycle entity that was closed (without creating a subsequent lifecycle entity) or cancelled.	Costs and/or benefits in a read-only financial summary of the lifecycle entity.
A freestanding budget or benefit.	A snapshot of the financial summary for the lifecycle entity, if you use the new `kBudgetBenefitImport.sh` script to create a spreadsheet in which you assign the budget or benefit to a request. This capability is useful for preserving version 7.5 data that represented, in effect, a snapshot of the planned budget or benefit of a proposal or project. For more information, see Appendix A, *Importing Freestanding Budgets and Benefits into Financial Summary Snapshots,* on page 77.
Budgets and/or benefits for a request that is based on a request type *not* associated with a lifecycle entity.	For the request, a separate financial data table for each budget and/or benefit.

After the upgrade, you can display the financial summary for a lifecycle entity in its local currency (or, optionally, the system default currency). In the upgrade process, the financial summary's local currency becomes the currency derived using the following sequence and conditions:

- The budget's local currency if the parent entity in version 7.5 had a budget and a benefit that used the same region.

- The currency of the benefit's region if the parent entity in version 7.5 had a benefit but no budget.

- The currency of the budget's region if the parent entity in version 7.5 had a budget but no benefit.

- The currency of the parent entity's region if the parent entity in version 7.5 had no budget and no benefit, but did have a region.

- The system default currency if the parent entity in version 7.5 had no budget, no benefit, and no region.

- The currency that both regions used if the parent entity in version 7.5 had a budget and a benefit that used different regions and those regions used the same currency.

- The system default currency if the parent entity in version 7.5 had a budget and a benefit that used different regions having different currencies.

Upgrade of Programs

The upgrade process creates two financial summaries of different types for each program, as follows:

- The program *roll-up* financial summary is a non-editable summation of the financial summaries of the projects in the program.

  After the upgrade, if the same currency is used for all of the projects in the program, the program roll-up financial summary uses that currency. If the projects use different currencies, the program roll-up financial summary uses the system default currency.

  The program's **Cost** tab, including its link to the program roll-up financial summary, is available only if the **Enable Financial Management for this Program** checkbox on the Program Settings page is selected.

- The program *editable* financial summary is populated with the forecast and actual cost data of the budget, if any, that was attached to the program in version 7.5.

  The program editable financial summary uses the same currency as the budget in version 7.5.

  The link to the program editable financial summary on the **Cost** tab is available only if both the **Enable Financial Management for this Program** checkbox and the **Enable and show the Editable Financial Summary** checkbox on the Program Settings pare are selected.

Upgrade of Organization Units

For organization units, the upgrade from version 7.5 to version 8.00 converts plan values in budgets for organization units in version 7.5 to plan values in approved budgets in financial summaries for those organization units in version 8.00. Actuals are not converted. Monthly budget data is aggregated by quarter in the financial summary.

If the organization unit in version 7.5 does not have an associated budget, the upgrade process creates a financial summary with an approved budget that has no data for that organization unit in version 8.00.

After the upgrade, the approved budget entries that were upgraded are displayed in the columns described in *Table 2-3*.

Table 2-3. Approved budget entries after upgrade

Column	Description
Name	Quarter and year for the budget line. Monthly data from version 7.5 is aggregated to quarterly data in version 8.00. In version 7.5, a month or quarter can have multiple budget lines with different values for **Type, Category,** and **Expense Type,** so in version 8.00, the same **Name** can appear in multiple rows of the approved budget, with different values in the **Description** column.
Date	First day of the quarter in the **Name** column.
Amount	Budget amount for the budget line indicated in the **Description** column, for the entire quarter identified in the **Name** column.
Fiscal Year	Fiscal year of the budget in version 7.5.
Created By	Organization unit manager, or if there is none, the person who last updated the budget in version 7.5.
Description	Text that indicates whether the budget line was automatically created by the upgrade from version 7.5, followed by **Type, Category,** and **Expense Type** data from the budget line in version 7.5.

As with any approved budget in version 8.00, existing entries cannot be updated, but you can add entries by clicking **Update Budget** if you have the required access. For more information, see the *HP Financial Management User's Guide.*

The currency of an upgraded organization unit's financial summary is determined as follows:

- If the organization unit in version 7.5 is a primary organization unit that has an associated budget, after the upgrade the currency of the financial summary is the currency of that budget.

- If the organization unit in version 7.5 is a primary organization unit that does not have an associated budget, after the upgrade the currency of the financial summary is the currency of the organization unit's region, identified using parents in that organization unit as may be needed.

- If the organization unit in version 7.5 is a matrix organization unit, after the upgrade the currency of the financial summary is the system default currency.

Upgrading Custom Integrations

If you have custom integrations that can be used to update PPM Center version 8.00 data, make sure that you perform the updates using a supported method. Using SQL to update the data directly in the database is very risky and could corrupt the data. HP strongly discourages direct updates to the database tables.

3 Upgrading to PPM Center Version 8.00

Performing the Upgrade

This section provides the steps used to upgrade from PPM Center version 7.5 to version 8.00 on Windows and UNIX systems. It includes instructions for upgrading a stand-alone instance and additional PPM Servers in a clustered system configuration. *Post-Upgrade Tasks* on page 61 provides information on what to do after you upgrade.

➤ HP strongly recommends that you upgrade a test instance before you upgrade your production instance. If you do not have a test instance, consider creating one for this purpose. For instructions on how to do this, see the *Installation and Administration Guide.*

The upgrade executable (Windows) or upgrade utility (UNIX) starts the file system and database schema upgrade process. Upgrading the database schema can take several hours. The upgrade utility asks you for the password for the PPM Center user, and for a user with system-level database accounts.

➤ To enable PPM Center to keep track of the open database sessions it uses, make sure that a public grant exists on the v_$session dynamic performance table. To do this, connect as SYS DBA to the database that contains the PPM Center database schema, and then run the following SQL statement:

```
SQL> grant select on v_$session to public;
```

Changes to Server Clustering in PPM Center Version 8.00

To prevent potential performance problems that could result from resource-intensive processes and large numbers of concurrent users, *cluster partitioning* has been introduced for server clustering in PPM Center version 8.00. Cluster partitioning employs the advanced technologies available in application servers, JBoss, and Tomcat to enhance the segregation and distribution of background services and logical modules in PPM Center.

You can now deploy PPM Center with a partition for each background service or any combination of services. Furthermore, server cluster partitioning enables you to deploy individual application modules deployed to their own partitions.

▶ If you upgrade a stand-alone PPM Center version 7.5 instance, your upgraded instance is also stand-alone. For information, see *Switching Between Stand-Alone and Server Cluster Configurations* on page 73.

Upgrading On a Windows System

Perform the following steps to upgrade from PPM Center version 7.5 to PPM Center version 8.00 on a Windows system.

To perform the upgrade on a Windows system:

1. Stop the PPM Server. If you have a server cluster setup, stop all PPM Servers in the cluster.

    ▶ For information about how to start and stop the server, see the *Installation and Administration Guide.* For information on how to upgrade a server cluster, see *Upgrading a PPM Center Server Cluster* on page 59.

2. Navigate to the `<PPM_Home>\upgrade_800` directory, and then double-click `upgrade.exe`.

    A language selection window opens.

3. Select the language that you want the upgrade wizard to use to display steps, and then click **OK.**

    The upgrade wizard starts and displays basic requirements information.

4. Click **Next.**

   The wizard asks if you want to check tablespace space availability before you continue.

5. To check space availability for the tablespaces, in the **Oracle System User Password** field, type your Oracle system user password. To skip this check, leave the field empty.

6. Click **Next.**

   If you provided your Oracle system user password, the upgrade tool displays information about the tablespaces created for the PPM Center schemas. If information about a tablespace is displayed in red text, then the available space is too small for this upgrade. HP recommends that you quit the upgrade, resize the tablespace, and then restart the upgrade.

   ▶ If any system tests fail, follow the prompts to fix the problem. After all temporary tables are reconciled, you can restart the upgrade. If you then encounter unexpected errors, visit the HP Software Support Web site (hp.com/go/hpsoftwaresupport).

7. Click **Next.**

8. In the **Password** field, type the PPM Center schema password.

9. Click **Next.**

10. The wizard asks whether you want to run the prevalidation step. To perform prevalidation, leave **Yes, I would like to run prevalidation step now** selected, and click **Next.** To skip prevalidation, select **No, I would like to skip the prevalidation step,** and then click **Next.**

    ▶ HP strongly recommends that you perform this step as part of the upgrade. Prevalidation checks for data inconsistencies that might cause upgrade problems. For more details, see *About Prevalidation* on page 13.

11. If you run prevalidation:

    a. Review the PreValidationResultsIndex.html file, which is located in the *<PPM_Home>*/upgrade_800/logs/reports/html/integrity/validator directory.

The report lists all issues that you must resolve before you can successfully upgrade to PPM Center 8.00.

b. If prevalidation revealed problems, cancel the upgrade, resolve the problems, and then begin the upgrade again.

➤ If you need assistance with database issues, consult your database administrator.

c. If prevalidation uncovered no problems, click **Next.**

Next, the upgrade utility:

- Checks to ensure that the PPM Server is shut down.

- Checks for old tables.

- Determines the directories in `<PPM_Home>/server` to upgrade and lists these.

- Lists the PPM Server or servers declared in the `server.conf` file, and which of these is to be upgraded.

12. Click **Next.**

13. If the **Directory Name** field does not display the Java installation directory path, provide the path.

14. Click **Next.**

The system language selection step opens.

15. From the list of supported languages, select your preferred system language.

Use care in selecting this option. It is intended for use only by those who developed the content in an unsupported language in 7.5, for which English was the only system language. Now with version 8.00 multilingual user interface (MLU) capabilities, such a user can now set the system language correctly.

➤ The system language is the PPM Center default language for the installation. It is used as the default language setting for all regions (and by extension, all users). The system language is also the language used to generate system-level information such as server logs. For more information about the system language, see the *Multilingual User Interface Guide.*

16. Click **Next.**

    The additional languages selection step opens.

17. (Optional) Select the checkboxes for any additional languages to install.

    ▶ If your organization includes staff in other countries who use this PPM Center instance, the additional languages you install enable them to work with PPM Center in their own languages (if supported). If you prefer not to install additional languages now, you can install them any time later. For more information about the session language, see the *Multilingual User Interface Guide.*

18. Click **Next.**

    The wizard displays the current server mode (Stand-alone or Cluster) of the PPM Center instance.

19. Click **Next.**

    The wizard lists the current server configuration settings for the PPM Server and JBoss server. The server configuration parameters listed for a stand-alone PPM Server are different than those listed for the primary PPM Server (the first node) in a server cluster.

20. If necessary, change the values for the listed parameter, and then click **Next.**

    ▶ For descriptions of and valid values for these parameters, see the *Installation and Administration Guide.*

    The upgrade utility displays the directory path in which the upgrade is to be installed, and the total size (in MB) of the upgraded files.

21. Click **Next.**

    The upgrade utility displays labeled indicators so that you can monitor the upgrade process.

22. The PPM Center standard interface uses Java Server Page (JSP) technology to display dynamic content. Each page must be compiled the

first time it is accessed, which results in a delay for users. This process can take several minutes.

▶ HP strongly recommends that you recompile the JSP pages during the upgrade.

To precompile all JSP pages now, leave **Yes, I would like to compile all JSP files now** selected. To skip this step, select **No, I will let the server compile them at run-time.**

23. After the JSP files are all compiled, click **Next.**

To improve system performance, the upgrade utility can generate statistics for the Oracle optimizer.

24. To generate database statistics, leave **Yes. Gather the statistics now** selected. To skip this step, select **No. I will gather the statistics myself later.**

The upgrade utility installs additional languages you selected (if any) in .

25. Click **Next.**

26. The PPM Center database must have at least 400 MB of undo tablespace allocated for every one million (1,000,000) records in the itg_compressed_ elements table. During the upgrade, monitor the size of the itg_ compressed_element table in the PPM Center database. If the number of records in the table exceeds 40M, contact HP support.

After the upgrade is completed, the upgrade utility displays the upgrade log file path and asks you to check subsequent screens for information about what (if any) actions you need to take regarding the PPM Server.

27. Click **Next.**

The upgrade process checks the database tables and generates log files.

28. Click **Next.**

29. After the upgrade is completed, click **Finish.**

30. Start the PPM Server.

Upgrading On a UNIX System

To perform the upgrade:

In this guide, "UNIX" is used to refer to all supported UNIX-based operating systems. For a list of these, see the *System Requirements and Compatibility Matrix.*

1. Stop the PPM Server.

   For information about how to start and stop the server, see the *Installation and Administration Guide.*

2. Navigate to the `<PPM_Home>/upgrade_800` directory:

   ```
   cd <PPM_Home>/upgrade_800
   ```

3. Start an X Window session.

   To run X Window System applications on a remote Unix or Linux system and have the graphics displayed on your Microsoft Windows workstation, you must run an X Window server on your workstation. If you need assistance with this, contact your system administrator.

4. Run the upgrade script (as the SYSTEM user) and specify the upgrade mode.

   Example

   ```
   sh ./upgrade.sh [-swing|-console]
   ```

   where `-swing` represents the GUI-based mode (this requires an X Window session) and `-console` represents the interactive command-line mode.

   Although the remaining steps describe the GUI-based upgrade steps, the information you are required to provide is the same.

   A language selection window opens.

5. Select the language that you want the upgrade wizard to use to display steps, and then click **OK.**

   The upgrade wizard starts and displays basic requirements information.

6. Click **Next.**

    The wizard asks if you want to check tablespace space availability before you continue.

7. To check space availability for the tablespaces, in the **Oracle System User Password** field, type your Oracle system user password. To skip this check, leave the field empty.

8. Click **Next.**

    If you provided your Oracle system user password, the upgrade tool displays information about the tablespaces created for the PPM Center schemas. If information about a tablespace is displayed in red text, that the available space is too small for this upgrade. HP recommends that you quit the upgrade, resize the tablespace, and then restart the upgrade.

    ▶ If any system tests fail, follow the prompts to fix the problem. After all temporary tables are reconciled, you can restart the upgrade. If you then encounter unexpected errors, visit the HP Software Support Web site (hp.com/go/hpsoftwaresupport).

9. Click **Next.**

10. In the **Password** field, type the PPM Center schema password.

11. Click **Next.**

12. The wizard asks whether you want to run the prevalidation step. To perform prevalidation, leave **Yes, I would like to run prevalidation step now** selected, and click **Next.** To skip prevalidation, select **No, I would like to skip the prevalidation step,** and then click **Next.**

    ▶ HP strongly recommends that you perform this step as part of the upgrade. Prevalidation checks for data inconsistencies that might cause upgrade problems. For more detain, see *About Prevalidation* on page 13.

13. If you run prevalidation:

    a. Review the `PreValidationResultsIndex.html` file, which is located in the `<PPM_Home>/upgrade_800/logs/reports/html/integrity/validator` directory.

    The report lists all issues that you must resolve before you can successfully upgrade to PPM Center 8.00.

    b. If prevalidation revealed problems, cancel the upgrade, resolve the problems, and then begin the upgrade again.

> If you need assistance with this, consult your database administrator.

    c. If prevalidation revealed problems, click **Next.**

Next, the upgrade utility:

- Checks to ensure that the PPM Server is shut down.

- Checks for old tables.

- Determines the directories in `<PPM_Home>/server` to upgrade and lists these.

- Lists the PPM Server or servers declared in the `server.conf` file, and which of these is to be upgraded.

14. Click **Next.**

15. If the **Directory Name** field does not display the Java installation directory path, provide the path.

16. Click **Next.**

The system language selection step opens.

17. From the list of supported languages, select your preferred system language.

Use care in selecting this option. It is intended for use only by those who developed the content in an unsupported language in 7.5, for which English was the only system language. Now with version 8.00 multilingual user interface (MLU) capabilities, such a user can now set the system language correctly.

The system language is the PPM Center default language for the installation. It is used as the default language setting for all regions (and by extension, all users). The system language is also the language used to generate system-level information such as server logs. For more information about the system language, see the *Multilingual User Interface Guide.*

18. Click **Next.**

The additional languages selection step opens.

19. (Optional) Select the checkboxes for any additional languages you want to install.

If your organization includes staff in other countries who use this PPM Center instance, the additional languages you install enable them to work with PPM Center in their own languages (if supported). If you prefer not to install additional languages now, you can install them any time later. For more information about the session language, see the *Multilingual User Interface Guide.*

20. Click **Next.**

The wizard displays the current server mode (Stand-alone or Cluster) the PPM Center instance.

21. Click **Next.**

The wizard lists the current server configuration settings for the PPM Server and JBoss server. The server configuration parameters listed for a stand-alone PPM Server are different (and fewer) than those listed for a PPM Server that is the first node in a server cluster.

22. If necessary, change the values for the listed parameter, and then click **Next.**

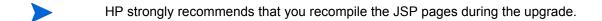For descriptions of and valid values for these parameters, see the *Installation and Administration Guide.*

The upgrade utility displays the directory path in which the upgrade is to be installed, and the total size (in MB) of the upgraded files.

23. Click **Next.**

   The upgrade utility displays labeled indicators so that you can monitor the upgrade process.

   The PPM Center standard interface uses Java Server Page (JSP) technology to display dynamic content. Each page must be compiled the first time it is accessed, which results in a delay for users. This process can take several minutes

24. To precompile all JSP pages now, leave **Yes, I would like to compile all JSP files now** selected. To skip this step, select **No, I will let the server compile them at run-time.**

▶   HP strongly recommends that you recompile the JSP pages during the upgrade.

25. After the JSP files are all compiled, click **Next.**

   To improve system performance, the upgrade utility can generate statistics for the Oracle optimizer.

26. To generate database statistics, leave **Yes. Gather the statistics now** selected. To skip this step, select **No. I will gather the statistics myself later.**

   The upgrade utility installs additional languages you selected (if any) in .

27. Click **Next.**

28. The PPM Center database must have at least 400 MB of undo tablespace allocated for every one million (1,000,000) records in the itg_compressed_ elements table. During the upgrade, monitor the size of the itg_ compressed_element table in the PPM Center database. If the number of records in the table exceeds 40M, contact HP support.

   After the upgrade is completed, the upgrade utility displays the upgrade log file path and asks you to check subsequent screens for information about what (if any) actions you need to take regarding the PPM Server.

29. Click **Next.**

   The upgrade process checks the database tables and generates log files.

30. Click **Next.**

31. After the upgrade is completed, click **Finish.**

32. Start the PPM Server.

If you are upgrading a server cluster, see *Upgrading a PPM Center Server Cluster* on page 59 for information on how to upgrade the remaining PPM Servers in the cluster.

In Case of Upgrade Failure

If the upgrade fails at any point, run the kSupport.sh script. This extracts relevant information about the problem from the database log tables and log files generates an html file that contains the information.

The generated html file helps pinpoint the root cause by listing each upgrade task and indicating whether he task was successfully run, failed, or was not run. It also includes the upgrade build number for reference. For complete information about the kSupport.sh script and how to run it, see the *Installation and Administration Guide.*

Upgrading a PPM Center Server Cluster

To upgrade a PPM Center server cluster, JBoss clustering technology requires parameters that are specific to the cluster, as well as parameters that are specific to each node in the cluster. Without this configuration, all nodes would use the same default port configuration, which can lead to server startup failure or other problems.

► .Make sure that you set the cluster-specific and the the server-specific parameters *before* you begin the upgrade process. The *Installation and Administration Guide* provides information on all of the server configuration parameters required for server cluster setup

To upgrade a PPM Center server cluster:

1. Stop all nodes in the cluster.

► For information on how to stop and start a PPM Server, see the *Installation and Administration Guide.*

2. Perform the upgrade on the primary node in the cluster. (See *Upgrading On a Windows System* and *Upgrading On a UNIX System* on page 53.)

► When you run the upgrade on the first server, both the file system and the database portions of the upgrade are executed.

3. For each additional node in the cluster, do the following:

   a. Configure a unique port set.

      HP supplies port number sets that you can assign to your PPM Servers in the `server.conf` file. For instructions on how to configure port settings for each node, see the *Installation and Administration Guide.*

   b. Run the `kUpdateHtml.sh` script on the server.

➤ Running the `kUpdateHtml.sh` script ensures that all server configuration parameters related to server clustering are correctly propagated to the system. Keep in mind that you must run the script after any change to the `server.conf` file.

4. If the nodes in the server cluster are hosted on multiple machines, run the upgrade on each host machine, one at a time.

➤ This upgrades only the file system on subsequent machines, without upgrading the PPM Center database schema.

5. Restart the nodes, one node at a time.

➤ You can define all nodes (clustering ports and node-specific configuration settings) in a single `server.conf` file, even if they are distributed among different machines. Each node configuration correctly reflects the same information. This allows scripts such as `kStatus.sh` to gather information from all the nodes in the cluster, and not just the nodes that reside on the machine from which you run the script. You can reuse this `server.conf` file on other machines with nodes that are part of the same cluster. This assumes that you modify the machine-specific server configuration parameter values.

For detailed information about server cluster configurations, see the *Installation and Administration Guide.*

Post-Upgrade Tasks

This section addresses tasks to perform after you upgrade to PPM Center version 8.00.

➤ The conversion of budgets to financial summaries that takes place during upgrade requires that EV values be recalculated upon restart of the PPM Center instance. This can cause a relatively long queue of projects with associated EV data for the Pending EV update service to recalculate. You may find that the background services activity on the instance is somewhat high after you upgrade because of the recalculation that is performed.

Running the FM Upgrade Patch Script to Ensure Data Consistency

After the upgrade to PPM Center version 8.00 is completed, such data as program financial summaries and project health in version 8.00 may not be consistent with those in version 7.5 or 7.5 SPs 1~7.

To ensure the data consistency,

1. Go to the `<PPM_Home>`/fm-upgrade-750-800-patch directory.

2. Run the following script:

   - On a Windows system, run: `sh ./run-post.bat`

   - On a Unix system, run: `sh ./run-post.sh`

➤ Running the above script once may not be sufficient for proper calculation of project health. Project health is the weighted average of schedule health, issue health, and cost health. The Cost Rollup Service can only calculate one of them at a time. To calculate another one, you may have to use the Cost Rollup Service again by running the above script.

Adding Reference Codes for Best Practices Request Types and Workflows (If You Upgraded from PPM Center Version 7.1)

Starting with PPM Center version 7.5, Best Practices request types and workflows have associated reference codes that facilitate tracking. If you upgraded an instance of PPM Center version 7.1 or earlier, then you must

manually add the reference codes for Best Practices request types and workflows after you upgrade.

Updating Reference Codes for Best Practices Request Types

Table 3-1 lists the Best Practices request types and the reference codes to specify for them on your updated instance.

To add reference codes to Best Practices request types:

1. Log on to PPM Center.

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

   The PPM Workbench opens.

3. From the shortcut bar, select **Demand Mgmt > Request Types.**

   The Request Type Workbench opens.

4. Click **List.**

   The Results tab lists all of the request types in the system.

5. For each request type listed in *Table 3-1*:

   a. Open the request type.

   b. In the **Reference Code** box, type the value in the **Reference Code** column in *Table 3-1* that corresponds to the request type.

   c. Click **Save.**

Table 3-1. Request type reference codes

Request Type Name	Reference Code
DEM - Application Bug	_DEM_APPLICATION_BUG
DEM - Application Enhancement	_DEM_APPLICATION_ENHANCEMENT
DEM - Database Refresh	_DEM_DATABASE_REFRESH
DEM - Initiative	_DEM_INITIATIVE
PFM - Asset	_PFM_ASSET

Table 3-1. Request type reference codes

Request Type Name	Reference Code
PFM - Project	_PFM_PROJECT
PFM - Proposal	_PFM_PROPOSAL
Project Issue	_PROJECT_ISSUE
Project Risk	_PROJECT_RISK
Project Scope Change Request	_PROJECT_SCOPE_CHANGE_REQUEST
Program Issue	_PROGRAM_ISSUE

Updating Reference Codes for Best Practices Workflows

Table 3-2 lists the Best Practices workflows. The **8.00 Reference Code** column lists the reference codes to specify for these workflows on your updated instance.

To add the reference codes for Best Practices workflows:

1. Log on to PPM Center.

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

   The PPM Workbench opens.

3. From the shortcut bar, select **Configuration > Workflows.**

   The Workflow Workbench opens.

4. Click **List.**

   The Results tab lists all of the workflows in the system.

5. For each workflow listed in *Table 3-2*:

   a. Open the workflow.

   b. Click the **Workflow** tab.

   c. In the **Reference Code** box, type the value in the **Reference Code** column in *Table 3-2* that corresponds to the workflow.

   d. Click **Save.**

Table 3-2. Workflow reference codes

Workflow Name	Reference Code
DEM - Bug Request Workflow	_DEM_BUG_REQUEST_WORKFLOW
DEM - Database Refresh	_DEM_DATABASE_REFRESH
DEM - Enhancement Request Process	_DEM_ENHANCEMENT_REQUEST_ PROCESS
DEM - Project Initiative Process	_DEM_PROJECT_INITIATIVE_PROCESS

Table 3-2. Workflow reference codes

Workflow Name	Reference Code
PFM - Asset	_PFM_ASSET
PFM - Project	_PFM_PROJECT
PFM - Proposal	_PFM_PROPOSAL
Issue Management Process	_ISSUE_MANAGEMENT_PROCESS
Risk Management Process	_RISK_MANAGEMENT_PROCESS
Scope Change Request Process	_SCOPE_CHANGE_REQUEST_PROCESS

(Optional) Removing Obsolete Database Objects

After you have successfully upgraded to PPM Center version 8.00 and have used it without encountering problems with data, you can run the `drop_75_objects.sql` script to remove obsolete tables from your system. This script removes all PPM Center version 6.0, 7.1, and 7.5 database objects.

Keep in mind that, after you run the `drop_75_objects.sql` script, you can no `kBudgetBenefitImport.sh` script to manage freestanding benefits and budgets. For information about the `kBudgetBenefitImport.sh` script, see Appendix A, *Importing Freestanding Budgets and Benefits into Financial Summary Snapshots,* on page 77.

Changing the Start Day of the Week in Fiscal Periods if Necessary

In version 8.00, you can change the start day of the week, which is used by the Analyze Cumulative Cost Metrics page and portlet. The default is Sunday.

In version 7.5, the start day of the week is Monday. To maintain consistency with periods generated for version 7.5, after the upgrade you must change the start day of the week to Monday. For the procedure, see the *Generating Fiscal Periods* document.

Installing Unicode Fonts for Export to PDF

The PPM Dashboard supports exporting PPM Center portlet content in PDF format in supported languages. To do this, the PPM Dashboard must have access to Unicode fonts.

The Unicode character encoding standard enables the sharing of messages and other items in a multilingual environment when the languages involved span multiple code pages. This means that translated portlet content is exported to PDF files in multiple languages, in one string, and in different locales.

Some operating systems, such as Windows, provide Unicode fonts. If your PPM Center instance runs on an operating system that does not provide Unicode, you must install a Unicode font on the machine that hosts the PPM Server, and then specify the font location by setting the `com.kintana.core.server.dashboard.PDF-Unicode-Font-File-Path` dashboard server configuration parameter. You can use any Unicode font (for example, Arial Unicode MS or Code2000). You can set additional font directory paths by setting the `com.kintana.core.server.dashboard.Fonts-Directory-Path` dashboard server configuration parameter in the `server.conf` file.

The PPM Dashboard looks for a Unicode font in the standard font locations for the operating system. The following table lists the operating system-specific fonts directories.

Unicode is the default mode that the PPM Dashboard uses. However, if it cannot locate a Unicode font, it switches to regular mode.

Operating System	Fonts Location
UNIX	• /usr/openwin/lib/X11/fonts/TrueType • /usr/X11/lib/X11/fonts/TrueType • /usr/X11/lib/X11/fonts/Type1
HPUX	• /usr/contrib/xf86/xterm/fonts • /usr/lib/X11/fonts/ms.st/typefaces

Operating System	Fonts Location
Linux	• /usr/share/fonts/truetype • /usr/share/fonts/local
Windows	• C:\\WINDOWS\\\Fonts • C:\\WINNT\\\Fonts
AIX	/usr/lpp/Acrobat3/Fonts

For information about how to install fonts, see the documentation for your operating system. For information about how to set server configuration parameters, see the *Installation and Administration Guide.*

Updating TMG Configurable Filters Request Type

The TMG Configurable Filters request type has been updated in PPM Center version 8.00. A deprecated version of this request type exists. If you customized this request type, the deprecated version of the TMG Configurable Filters request type contains your customizations. You can view the customizations in the deprecated version and add them to the new TMG Configurable Filters request type.

Updating Proposal and Project Workflows to Create Financial Summary Snapshots

If you want the proposal and project workflows to automatically take a financial summary snapshot marked as the Plan of Record when a proposal is approved, and automatically take a financial summary snapshot when a project is completed, as do the workflows for a new installation of version 8.00, update the PFM - Proposal and PFM - Project workflows. See the *HP Portfolio Management Configuration Guide.*

(Optional) Synchronizing Project Manager and Benefits Manager Fields

In PPM Center version 7.5, a Project Manager edited both costs and benefits in HP Portfolio Management. In PPM Center version 8.00, the Project Manager role is broken out into the Project Manager and Benefits Manager roles. The Project Manager still edits costs, but the Benefits Manager now edits benefits. Both roles have corresponding **Project Manager** and **Benefits Manager** fields on proposal and project requests, however, by default the **Benefits Manager** field is not displayed.

During the upgrade, the name of the resource in the **Project Manager** field in version 7.5 is copied to the new **Benefits Manager** field. After the upgrade, the **Project Manager** and **Benefits Manager** fields are specified independently.

If you want to automatically keep the **Benefits Manager** field synchronized with the **Project Manager** field after the upgrade, create a request type rule to do so. For information about request type rules, see the *HP Demand Management Configuration Guide.*

(Optional) Changing Field Labels from Return on Investment to Nominal Return

On new installations at version 8.00, the PFM - Proposal, PFM - Project, and PFM - Asset request types have fields labeled **Nominal Return** in the **Business Case Details** section, whereas the field labels were **ROI** (for return on investment) in version 7.5. The upgrade does not change the field labels. If you want to change them, open the corresponding request header types in the PPM Workbench. For more information about changing request header types, see the *HP Demand Management Configuration Guide.*

(Optional) Importing Freestanding Budgets and Benefits

After the upgrade, you can optionally assign former freestanding budgets and benefits retained in the database to requests you specify, and then import the budgets and benefits as financial summary snapshots for those requests. See *Task 13: Optionally Evaluate Freestanding Budgets and Benefits* on page 34 and Appendix A, *Importing Freestanding Budgets and Benefits into Financial Summary Snapshots,* on page 77.

(Project Management Web Services) Regenerating Stubs and Recompiling Web Services Clients

Because of budget and benefit fields deprecated in PPM Center version 8.00, the following Project Management Web service operations were changed:

- createProject

- updateProjects

- bulkImportProjects

- getProjectsDetails

If you are using Project Management Web services, after you upgrade to PPM Center version 8.00, do the following:

- Regenerate stubs

- Recompile your Web services clients

Assigning the Financial Mgmt: Edit Cost Security Access Grant

In earlier versions of PPM Center, a user could add or remove users on budgets and benefits without having a specific grant that allowed this. Now, users who need to be able to edit user access on the access control list (ACL) of a financial summary must be given the Financial Mgmt: Edit Cost Security access grant. Make sure that users who need to edit financial summary ACLs have the Edit Cost Security access grant.

To assign the Edit Cost Security access grant to the users who require it, do one of the following:

- If you have an existing security group that consists of all users who must be able to configure financial summary access, add the Edit Cost Security access grant to that group.

- Alternatively, compile a list of all of the users who require the access grant, create a new security group with the Edit Cost Security access grant, and add the identified users to that security group.

➤ For information on how to create security groups and assign access grants to PPM Center users, see the *Installation and Administration Guide.*

Configuring the FTP Server (Windows Systems Only)

PPM Center uses FTP to move files between machines. To transfer files between machines on a network, each source and destination machine must be running an FTP server. On UNIX platforms, this is standard functionality, but machines running Windows require additional FTP server configuration to function with PPM Center.

If you are configuring PPM Server after upgrading, you probably already have an FTP server set up. If you do, ensure that the installed FTP server is supported. For information about how to configure an FTP server, see the *Installation and Administration Guide.*

Supported communication software is documented in the *System Requirements and Compatibility Matrix* document.

Reinstalling HP Center Management for Quality Center

Because of data model changes in PPM Center version 8.00, if you are using HP Center Management for Quality Center (CMQC), then after you upgrade to PPM Center version 8.00, you must reinstall your CMQC version 2.0 software. For details, see the *HP Center Management for Quality Center Guide.*

Verifying the Upgrade

To verify the installation, perform the following tasks:

1. Open the `ppm_upgrade.log` file (located in the `<PPM_Home>/upgrade_800` directory) and check for error messages at the end of the file.

2. If your review of the `ppm_upgrade.log` file reveals errors, do the following. Otherwise, continue to the next step.

   a. Run the `kSupport.sh` script to gather information useful to HP Software Support in diagnosing system problems, and create a Zip file with a timestamp in the `support/zipfiles` directory. For information about the `kSupport.sh` script and how to run it, see the *Installation and Administration Guide.*

   b. Contact HP Software Support Web site (hp.com/go/hpsoftwaresupport) and provide them with the `Log.txt` file produced by the `kSupport.sh` script run.

3. Log on to PPM Center.

4. Start the PPM Workbench.

5. Run a report.

6. Create a request.

7. Test the graphical view of the request.

If you encounter any problems, or have questions about the upgrade, visit the HP Software Support Web site (hp.com/go/hpsoftwaresupport).

Execution Log Files

The upgrade process generates and maintains several log files that you can use to assist with troubleshooting should a problem occur. You can find these log files in the `<PPM_Home>/install_800/logs` or `<PPM_Home>/upgrade_800/logs` directory (where `<PPM_Home>` represents the path where the PPM Center software was installed).

Integrating Microsoft Project with HP Project and Portfolio Management Center

If you are a Microsoft® Project user, note that integrating PPM Center with Microsoft Project involves installing the PPM Plug-In for Microsoft Project from the standard interface after you upgrade. For information on the HP Project Management and Microsoft Project requirements for installing the PPM Plug-In for Microsoft Project, see the *HP Project Management User's Guide.*

You must download and install the latest version of the PPM Plug-In for Microsoft Project. However, before you install the latest version, you must first manually uninstall the earlier version using **Add or Remove Programs** from the Control Panel.

Switching Between Stand-Alone and Server Cluster Configurations

If you upgrade a stand-alone instance of PPM Center, and you later determine that a server cluster configuration better meets the needs of your organization, you can switch to a clustered server setup. Conversely, if you install PPM Center in a server cluster configuration, and later determine that a stand-alone setup better meets your needs, you can transition to a stand-alone setup on your instance. This section provides instructions for performing both of these transitions.

For information about server clustering, see the *Installation and Administration Guide.*

Switching from Server Cluster to Stand-Alone Configuration

If, after you install a stand-alone instance of PPM Center, and you then determine that you need a server cluster setup, you can reconfigure the instance for server clustering.

To switch from a server cluster configuration to a stand-alone configuration:

1. Stop all PPM Servers. (For instructions, see the *Installation and Administration Guide.*)

2. Navigate to the `<PPM_Home>/upgrade_800/archives` directory and locate the `deployStandalone.zip` file.

3. Extract the `deployStandalone.zip` file contents to the `<PPM_Home>/bin/` directory.

4. Run the following command:

   ```
   sh ./kStandaloneDeploy.sh
   ```

5. The script asks you to provide the .zip file name. Type the relative or absolute path to the `deployStandalone.zip` file.

The `kStandaloneDeploy.sh` script does the following:

- Removes any server cluster-related files

- Unzips the `deployStandalone.zip`

- Runs the `kUpdateHtml.sh` script.

6. After the script run is completed, run the `kStart.sh` script to start the PPM Server.

Switching from Stand-Alone to Server Cluster Configuration

If you plan to migrate data from a Production instance to a Development, Test, or Sandbox instance, and you do not want to migrate all the cluster configurations, you can switch from a stand-alone to a server cluster deployment.

To switch from a stand-alone to a server cluster deployment:

1. Stop the PPM Server. (For instructions, see the *Installation and Administration Guide.*)

2. Navigate to the *<PPM_Home>*`/ppm800/archives` directory and locate the `deployCluster.zip` file.

3. Open the *<PPM_Home>*`/bin/server.conf` file in a text editor, and check to make sure it contains all of the following server cluster-related port parameters, and that they are uncommented:

- `PPM_CLUSTER_NAMING_SERVICE_RMI_PORT`

- `PPM_CLUSTER_NAMING_SERVICE_BINDING_PORT`

- `PPM_CLUSTER_WEBSERVICE_PORT`

- `PPM_CLUSTER_JRMP_INVOKER_RMI_PORT`

- `PPM_CLUSTER_POOLED_INVOKER_BINDING_PORT`

- `PPM_CLUSTER_HAJNDI_RMI_PORT`

- PPM_CLUSTER_HAJNDI_BINDING_PORT
- PPM_CLUSTER_POOLEDHA_BINDING_PORT
- PPM_CLUSTER_JMX_RMI_PORT
- PPM_CLUSTER_UIL2_BINDING_PORT

4. Save and close the server.conf file.

5. From the <*PPM_Home*>/bin directory, run the following command:

   sh ./kClusterDeploy.sh

6. The script asks you to provide the .zip file name. Type the relative or absolute path to the deployCluster.zip file.

7. Complete the PPM Server cluster environment setup as described in the *Installation and Administration Guide.*

8. After the script run is completed, run the kStart.sh script to start the PPM Server.

Contacting Support

If you have upgraded PPM Center to version 8.00 without applying the FM Upgrade Patch, you may encounter the issue that project health may not be calculated correctly because plan of record does not exist for a project financial summary. Contact HP Software Support when you encounter the issue.

If you encounter any other problem, or have questions about the upgrade, visit the HP Software Support Web site (hp.com/go/hpsoftwaresupport).

A Importing Freestanding Budgets and Benefits into Financial Summary Snapshots

Introduction to Importing Freestanding Budgets and Benefits into Financial Summary Snapshots

For background information about using the `kBudgetBenefitImport.sh` script to import freestanding budgets and financial benefits (hereafter called benefits) as financial summary snapshots, see the pre-upgrade information in *Task 13: Optionally Evaluate Freestanding Budgets and Benefits* on page 34.

In more detail, you import freestanding budgets and benefits as follows:

- Run the script with the `-export` option. The script exports data related to the freestanding budgets and benefits to a spreadsheet.

  The script can be run with the `-export` option as often as needed after the upgrade. After the upgrade, you cannot view the freestanding budgets or benefits that were accessible in version 7.5.

- Distribute parts of the spreadsheet to the appropriate proposal, project, or asset owners, who specify which lifecycle entities should serve as parents for which freestanding budgets and benefits when those budgets and benefits are imported into financial summary snapshots.

  There is no requirement to import all or any subset of the budgets or benefits into financial summary snapshots, or to do so at any particular time. Multiple budgets and/or multiple benefits can be assigned to the same lifecycle entity request. In general, each will become a separate financial summary snapshot for that request. (However, you can make one budget and one benefit appear in the same snapshot.)

- Consolidate the information from the owners and update the spreadsheet, assigning request IDs for lifecycle entities to the freestanding budgets and benefits you want to import into financial summary snapshots.

- Run the script with the `-import` option. The script creates the snapshots of budget or benefit forecasts in the financial summaries for the lifecycle entities specified in the spreadsheet. For information about financial summaries and viewing snapshots of them, see the *HP Financial Management User's Guide.*

User access to a financial summary snapshot is the same as for its lifecycle entity.

Creating a Spreadsheet for Freestanding Budgets and Benefits

After the upgrade, you can run the `kBudgetBenefitImport.sh` script with the `-export` option to create a spreadsheet listing all the freestanding budgets and benefits from version 7.5 that have not yet been imported into financial summary snapshots in version 8.00. To export data to the spreadsheet:

1. On the PPM Server, navigate to the directory that contains the `kBudgetBenefitImport.sh` script:

   ```
   cd <PPM_Home>/bin
   ```

2. Run the following script:

   ```
   sh ./kBudgetBenefitImport.sh -export
        '<path>/<spreadsheet>.csv' '<path>/<log>.txt'
   ```

   where

<path>/<spreadsheet>	represents the directory path and name of the spreadsheet that will list the freestanding budgets and benefits. (If not specified, the spreadsheet is saved in *<PPM_Home>*.)
<path>/<log>	represents the directory path and name of the log that the script will generate to provide information about successes and errors in running the script. (If not specified, the log is saved in *<PPM_Home>*.)

   For example, run:

   ```
   sh ./kBudgetBenefitImport.sh -export
        'c:/Temp/exported_data.csv' 'c:/Temp/export_log.txt'
   ```

The script generates the spreadsheet and log using the paths and names you specified. The spreadsheet rows list all the freestanding budgets, and then all the freestanding benefits. The spreadsheet has columns as described in the following table.

Column Name	Notes
Columns with data from freestanding budgets	
BUDGET_ID	For rows with benefit-related data, the initial value in this field is 0.
BUDGET_NAME	
BUDGET_STATUS	
BUDGET_DESCRIPTION	
BUDGET_CREATION_DATE	This field is for information only. [a]
BUDGET_CREATED_BY	This field is for information only. [a]
BUDGET_LAST_UPDATE_DATE	This field is for information only. [a]
BUDGET_LAST_UPDATED_BY	This field is for information only. [a]
Columns to be used to specify parent requests	
PARENT_REQUEST_ID	The initial value in this field is 0.
PARENT_REQUEST_NAME	This field is initially blank.
Columns to be used to specify snapshot information	
SNAPSHOT_NAME	This field is initially blank.
SNAPSHOT_DESCRIPTION	This field is initially blank.
SNAPSHOT_DATE	This field is initially blank.
Columns with data from freestanding benefits	
BENEFIT_ID	For rows with budget-related data, the initial value in this field is 0.
BENEFIT_NAME	
BENEFIT_STATUS	
BENEFIT_DESCRIPTION	

Column Name	Notes
BENEFIT_CREATION_DATE	This field is for information only. [a]
BENEFIT_CREATED_BY	This field is for information only. [a]
BENEFIT_LAST_UPDATE_DATE	This field is for information only. [a]
BENEFIT_LAST_UPDATED_BY	This field is for information only. [a]

a. Even if you change value of this field in the spreadsheet, it will not be changed in PPM Center when you run the script with the -import option.

3. If any errors are identified in the log file, correct them as necessary and run the script again.

4. (Optional) Copy the `<spreadsheet>.csv` file. You will modify this spreadsheet (or the copy) in the following sections, and you might want to preserve the original spreadsheet.

Updating the Spreadsheet to Specify Parent Entities and Snapshot Data

As indicated in the table above, some of the data in the spreadsheet is provided for information only and cannot be changed by the script. HP recommends not changing any data the script retrieved from the freestanding budgets and benefits, except when you want to import both a budget and a benefit into one snapshot, as described later.

Distribute the spreadsheet entries to the appropriate proposal, project, or asset owners and have them identify the request IDs for the parent lifecycle entities to be assigned to each budget or benefit to be imported into a snapshot. The parent request IDs must be request numbers for lifecycle entities—proposals, projects, or assets. Multiple budgets and/or benefits can be assigned to one request ID.

When you are ready to import the budgets and/or benefits into PPM Center financial summary snapshots, consolidate the responses from the owners and complete the spreadsheet columns for parent requests and snapshots, as follows:

- **PARENT_REQUEST_ID.** You must specify this field for each budget or benefit you want to import.

  When you later run the script, a new snapshot will be created for each spreadsheet row that has a specified **PARENT_REQUEST_ID** and a specified **BUDGET_ID** or **BENEFIT_ID** for a budget or benefit that has not been previously imported.

  If you want a financial summary snapshot to include one of the budgets *and* one of the benefits, specify the **PARENT_REQUEST_ID** for the budget, copy the **BENEFIT_ID** cell in the benefit row to the **BENEFIT_ID** cell in the budget row, and delete the benefit row in the spreadsheet.

  ➤ Specify each **PARENT_REQUEST_ID** carefully. You can import a budget or a benefit into a parent request's financial summary snapshot only once, and when any snapshot has been created, it cannot be changed.

- **PARENT_REQUEST_NAME.** This field is optional. See the description of the **SNAPSHOT_NAME** field.

- **SNAPSHOT_NAME.** Specify this field as desired. If you leave it blank, the script will copy the value of the **BUDGET_NAME** to this field. If the **BUDGET_NAME** is not specified, the script will copy the value of the **PARENT_REQUEST_NAME** to this field. If the **PARENT_REQUEST_NAME** is not specified, the script will complete this field with the text **Snapshot for Request:** followed by the value of the **PARENT_REQUEST_ID.**

- **SNAPSHOT_DESCRIPTION.** Specify this field as desired. If you leave it blank, the script will copy the value of the **BUDGET_DESCRIPTION** to this field.

- **SNAPSHOT_DATE.** Specify this field as desired. If you leave it blank, the script will copy the value of the **BUDGET_CREATION_DATE** to this field. If the **BUDGET_CREATION_DATE** is not specified, the script will copy the value of the **BENEFIT_CREATION_DATE** to this field. If the **BENEFIT_ CREATION_DATE** is not specified, the script uses the current date for this field.

In addition to the fields you can specify in the spreadsheet as described above, the script automatically completes the **Created By** field that appears in snapshots by copying the value in the **BUDGET_CREATED_BY** field, or if that field is not specified, the value in the **BENEFIT_CREATED_BY** field.

After PPM Center has been upgraded to version 8.00 and the spreadsheet has been updated as described in this section, run the script to import the budgets and/or benefits as snapshots. See *Importing Assigned Budgets and Benefits*.

Importing Assigned Budgets and Benefits

After completing the spreadsheet to assign parent entities to some or all of the freestanding budgets and benefits, run the kBudgetBenefitImport.sh script with the -import option to import data from the spreadsheet, as follows:

1. On the PPM Server, navigate to the directory that contains the kBudgetBenefitImport.sh script:

   ```
   cd <PPM_Home>/bin
   ```

2. Run the following script:

   ```
   sh ./kBudgetBenefitImport.sh -import
        '<path>/<spreadsheet>.csv' '<path>/<log>.txt' commit
   ```

   where

<path>/<spreadsheet>	represents the directory path and name of the spreadsheet that lists the current set of freestanding budgets and benefits and the lifecycle entities that are to be their parents when they are imported into financial summary snapshots.
<path>/<log>	represents the directory path and name of the log that the script will generate to provide information about the successes and errors in running the script.

   If you run the script without the commit option, validation occurs and you can check the log for errors, but no snapshots are created. If you run the script with the commit option, validation occurs and the snapshots are created for the spreadsheet rows for which no error occurs.
   ```
   For example, run:
   ```

   ```
   sh ./kBudgetBenefitImport.sh -import
     'c:/Temp/exported_data.csv' 'c:/Temp/import_log.txt'
     commit
   ```

The log indicates success or failure in importing each budget or benefit into a snapshot. Errors are logged if, for example:

- The budget or benefit has already been imported into a financial summary snapshot.

- No parent request ID has been specified.

- A parent request ID is specified but it is not for a lifecycle entity, that is, a proposal, project, or asset.

3. If any errors are identified in the log file, correct them as needed and run the script again.

Running the `-import` option does not change the spreadsheet. If you want to update the spreadsheet to reflect the new, smaller set of freestanding budgets and benefits, rerun the script with the `-export` option. (If you want to preserve the updates you made to the spreadsheet you used for the `-import` option, specify a different spreadsheet when you rerun the script with the `-export` option.)

You can run the script with the `-import` option to import freestanding budgets and benefits into financial summary snapshots as often as necessary.

Index

setting on UNIX, **36**
setting on Windows, **35**

JAVA_HOME environment variable, **33**

K

kBudgetBenefitImport.sh script, **34**, **79**, **84**

kClusterDeploy.sh script, **75**

kStandaloneDeploy.sh script, **74**

kSupport.sh script, **58**, **71**

kUpdateHtml.sh script, **60**

L

License Configuration File prompt
upgrade procedure, **33**

license keys, **24**

lifecycle entities, **16**
upgrading budgets and benefits to financial summaries and financial data tables, **40**

LOG_BUFFER database parameter, **39**

M

Microsoft Project
plug-in for integrating with PPM Center, **72**

MLUPreValidation.html report, **14**

N

NLS_LENGTH_SEMANTICS database parameter
setting for upgrades, **37**

Nominal Return fields
renaming from Return on Investment, **68**

O

Object Migrator
running on a single database schema, **25**

obsolete database objects
removing after upgrade, **65**

OPTIMIZER_NATIVE_FULL_OUTER_ JOIN parameter, **38**

Oracle database parameters
OPTIMIZER_NATIVE_FULL_OUTER_ JOIN, **38**

ORACLE_HOME
setting on UNIX, **36**
setting on Windows, **35**

organization units
upgrading budgets to approved budgets in financial summaries, **44**

P

performance
speeding up the upgrade process, **37**

PFMPreValidation.html report, **14**

PGA_AGGREGATE_TARGET database parameter, **39**

PMPreValidation.html report, **14**

PPM Center Schema prompt
upgrade procedure, **33**

PPM directory, **27**

PPM Documentation Library
upgrading, **26**

PPM server clustering
in version 8.00, **48**

PPM Servers
cluster partitioning., **48**

prevalidation
during the PPM Center upgrade, **13**
PreValidationResultsIndex.html, **49**, **55**

Prevalidation Reports, **13**

prevalidation step
during an upgrade, **49**, **54**

PreValidationResultsIndex.html file, **49**, **55**

programs
upgrading budgets and benefits to financial summaries, **43**

lifecycle entity budgets and benefits to
    financial summaries or financial data
    tables, **40**
Microsoft Project
    plug-in, **72**
on UNIX, **53**
on Windows, **48**
organization unit budgets to approved
    budgets in financial summaries, **44**
PPM Center documentation, **26**
preparing for, **27**
prevalidation during, **49**, **54**
prevalidation step, **13**, **49**, **55**
program budgets and benefits to financial
    summaries, **43**
public grant on v_$session dynamic
    performance table, **47**
request budgets and benefits to financial
    data tables, **40**
retaining customized request types, **23**
server clusters, **59**
tasks to perform after upgrading, **61**
verifying, **71**

V

v_$session, granting select privileges to, **47**

W

Windows
    backing up the file system, **29**
    setting JAVA_HOME, **35**
    setting ORACLE_HOME, **35**
    upgrading on, **48**