

HP Project and Portfolio Management Center

Software Version: 7.5

Upgrade Guide

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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 7.5, it does not contain details on the effects of the upgrade or on what has changed in version 7.5. Before you perform the upgrade steps presented in this guide, consult the following documents:

- *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 7.5, 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 7.5.

- *System Requirements and Compatibility Matrix*

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

- *Release Notes*

The *Release Notes* for PPM Center version 7.5 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 7.5

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 7.5.

Supported Upgrade Paths

To upgrade to PPM Center version 7.5, you must have PPM Center version 7.1 installed. If an earlier version is installed, you must first upgrade to version 7.1, and then upgrade to PPM Center version 7.5. For information on how to upgrade to version 7.1, see the *Upgrade Guide* for version 7.1.

For information on supported upgrade paths for an HP Deployment Management Extension, see the documentation for that product. For information about supported paths for installing a language pack, see *Language Pack Installation* on page 17.

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 of PPM Center versions 6.0, 7.0, 7.1, and 7.5, see *What's New and What's Changed*. For more details specific to PPM Center version 7.5, see the *System Requirements and Compatibility Matrix*.

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 7.5. For information about the supported versions of these and other products for PPM Center version 7.5, see the *System Requirements and Compatibility Matrix*.

Overview of Upgrade Tasks

To upgrade to PPM Center version 7.5, perform the following steps:

1. Read the rest of this chapter.
2. Read *System Requirements and Compatibility Matrix*.
3. Read *What's New and What's Changed* for information about new features in version 7.5 and the potential effects of upgrading.
4. Review the *Release Notes* for important information that is not in the version 7.5 document set.
5. 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 7.5, you can install or upgrade Extensions in any order you choose. For information about optional product installations, see the *System Administration Guide and Reference*.

6. Read [Chapter 2, Preparing to Upgrade to PPM Center Version 7.5, on page 21](#) for information about how to prepare to upgrade.
7. Back up both the file system and the database schema (using any third-party tool).
8. Perform and verify the upgrade.

For detailed upgrade instructions, see [Chapter 3, Upgrading to Version 7.5, on page 35](#).

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

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).

Upgrading HP Migrators

If you are using Oracle 12, you must upgrade HP Object Migrator to version 7.5. If you are using earlier versions of Oracle, you are not required to upgrade HP Object Migrator. For information on how to upgrade HP Object Migrator, see the *HP Object Migrator Guide*.

You are not required to upgrade HP GL Migrator with PPM Center version 7.5.

Reviewing System Requirements

Before you start to upgrade to PPM Center version 7.5, 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 7.1 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 7.5. This includes request types and workflows that are not delivered in version 7.5.



For information on installing a language pack on an instance on which Best Practices is installed, see [Language Pack Installation on page 17](#).

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.

Table 1-1. Product functionality enabled by Best Practices content (page 1 of 5)

Request Type / Workflow	Description	Menu Bar Selection(s)	Field Group(s)
PFM - Proposal / PFM - Proposal	Represents a proposal for a project within HP Portfolio Management.	Portfolio Management > Create a 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 in HP Portfolio Management.	Portfolio Management > Create an Asset	PFM Asset
Project Issue / Issue Management Process	Represents issues associated with a project.	<ul style="list-style-type: none"> • Project Management > Project Controls > Search Project Issues • Project Management > Project Controls > Submit a Project Issue • Program Management > Issues > Search Project Issues <p>Also associated with a project type. This enables creating a request of this type from the Project Overview page.</p>	<ul style="list-style-type: none"> • Project Issue • Project Reference

Table 1-1. Product functionality enabled by Best Practices content (page 2 of 5)

Request Type / Workflow	Description	Menu Bar Selection(s)	Field Group(s)
Project Risk / Risk Management Process	Represents the risks associated with a project.	<ul style="list-style-type: none"> • Project Management > Projects Controls > Search Risks • Project Management > Projects Controls > Submit a Risk • Program Management > Risks > Search Risks <p>Also associated with a project type. This enables creating a request of this from the Project Overview page.</p>	<ul style="list-style-type: none"> • Project Risk • Project Reference

Table 1-1. Product functionality enabled by Best Practices content (page 3 of 5)

Request Type / Workflow	Description	Menu Bar Selection(s)	Field Group(s)
Project Scope Change Request / Scope Change Request Process	Represents scope changes associated with a project.	<ul style="list-style-type: none"> • Project Management > Project Controls > Search Scope Changes • Project Management > Project Controls > Submit a Scope Change • Program Management > Scope Changes > Search Scope Changes <p>Also associated with a project type. This enables creating a request of this type from the Project Overview page.</p>	<ul style="list-style-type: none"> • Project Scope Change • Project Reference
Program Issue	Represents issues associated with a program.	<ul style="list-style-type: none"> • Program Management > Issues > Search Program Issues • Program Management > Issues > Submit a Program Issue 	<ul style="list-style-type: none"> • Program Issue • Program Reference

Table 1-1. Product functionality enabled by Best Practices content (page 4 of 5)

Request Type / Workflow	Description	Menu Bar Selection(s)	Field Group(s)
DEM - Application Enhancement / DEM - Enhancement Request Process	Represents requests for new functionality in current applications.	<ul style="list-style-type: none"> • Demand Management > Create a Request • Demand Management > Search Requests • Demand Management > Request Browser > Browse Requests 	<ul style="list-style-type: none"> • Demand Management SLA Fields • Demand Management Scheduling Fields
DEM - Database Refresh / DEM - Database Refresh	Represents the database refresh requests made for applications in the testing phase.	<ul style="list-style-type: none"> • Demand Management > Create a Request • Demand Management > Search Requests • Demand Management > Request Browser > Browse Requests 	<ul style="list-style-type: none"> • Demand Management SLA Fields • Demand Management Scheduling Fields
DEM - Application Bug / DEM - Bug Request Workflow	Represents reported defects in current applications.	<ul style="list-style-type: none"> • Demand Management > Create a Request • Demand Management > Search Requests • Demand Management > Request Browser > Browse Requests 	<ul style="list-style-type: none"> • Demand Management SLA Fields • Demand Management Scheduling Fields

Table 1-1. Product functionality enabled by Best Practices content (page 5 of 5)

Request Type / Workflow	Description	Menu Bar Selection(s)	Field Group(s)
DEM - Initiative / DEM - Project Initiative Process	Represents requests for key projects for future quarters.	<ul style="list-style-type: none"> • Demand Management > Create a Request • Demand Management > Search Requests • Demand Management > Request Browser > Browse Requests 	<ul style="list-style-type: none"> • Demand Management SLA Fields • Demand Management Scheduling Fields

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:

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**.

Language Pack Installation

Several language packs are available for PPM Center version 7.5.

Language pack installation involves the following steps:

1. Upgrade to PPM Center version 7.5.
2. Install the language pack.



For detailed information on language packs and their installation, see the release notes for the language pack. You can find these release notes at the HP Software Product Manuals Web site (h20230.www2.hp.com/selfsolve/manuals).

3. 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 7.5 version:

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



Translated Best Practices are placed in the `<PPM_Home>` directory when you install the language pack.

Backing Up the Database Schema and the PPM Center Home Directory

Before you upgrade to PPM Center version 7.5, 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 *System Administration Guide and Reference*.

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. For example: `xyzserver/E/PPMServer`.

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 version 7.5, HP recommends that you back up all of your PPM Center data. 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.



To perform a cold backup, shut down the Oracle database, and then copy all necessary files to a secure location. This is the safest way to back up because you do not risk copying data that may be in the process of being updated.

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 allows the UNIX application to redirect the display to Windows.

PPM Center Documentation

To complete the upgrade successfully, it is important that you read the following PPM Center version 7.5 documentation:

- *What’s New and What’s Changed*
- *System Requirements and Compatibility Matrix*
- *Release Notes*

Upgrading PPM Center Documentation

In PPM Center version 7.5, 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 7.5, you will need to add PPM Center version 7.5 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 7.5

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.



Extract the files in `mitg-750-upgrade.zip` to `<PPM_Home>`. This creates a new directory that contains the upgrade executable file (`upgrade.exe` for Windows and `upgrade.sh` for UNIX).

Task 1: If Your Installed Instance is Earlier than PPM Center Version 7.1

If you have a PPM Center instance earlier than version 7.1 installed, upgrade to version 7.1.



For information on how to upgrade to PPM Center version 7.1, see the *Upgrade Guide* for version 7.1.

Task 2: Assess the Impact of Upgrading

Review *What's New and What's Changed* for details about the impact of upgrading and information on platforms desupported in version 7.5.

Task 3: 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 version 7.5.

Task 4: 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 5: Shut Down Your PPM Center Instance

Shut down your PPM Center instance.

Task 6: 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 *System Administration Guide and Reference*.

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, 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.

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 (the PPM Center database schema and the RML schema) and tablespaces.



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 *System Administration Guide and Reference*.

Oracle 9i

To back up PPM Center database schemas based on Oracle 9i:

- From the command line on an Oracle server that has direct or SQL*Net access to the database on which the PPM Center database schemas reside, type the following command (all on one line):

```
exp USERID=system/<System_Password>@<Connect_String>  
COMPRESS=N INDEXES=Y FILE=<PPM>_<Date>.dmp OWNER=<PPM_Owner>
```

where

`<System_Password>` represents the password for the Oracle system user

`<Connect_String>` represents the Java database connectivity (JDBC) URL that connects to the database

`<PPM>` represents the PPM Center database schema name

<code><Date></code>	represents the current date
<code><PPM>_<Date>.dmp</code>	represents the name of the file that is to contain the export
<code><PPM_Owner></code>	represents the name of the PPM Center database schema owner.

Keep the exported file at least until you verify that the upgrade was successful.

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.



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

Before you can restore an archive, you must first perform two tasks:

1. After you export into a `<PPM>_<Date>.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.

Both of these scripts are located in the upgrade bundle.

Oracle 10g or Later

To back up PPM Center schemas based on Oracle 10g or later version:

1. Open a Command Prompt window and navigate to the home directory for the Oracle client tools on the PPM Server machine.
2. Connect to the database as SYSTEM, and then create a directory `<My_Dir>` for log files and dump files.
3. Grant read/write access on `<My_Dir>` to public.

4. From the command line on an Oracle server that has direct or SQL*Net access to the database on which the PPM Center database schemas reside, export the schemas, as follows:

- a. To export the PPM Center database schema, type the following command (all on one line):

```
expdp USERID=system/<System_Password>@<Connect_String>  
DIRECTORY=<My_Dir> COMPRESS=N INDEXES=Y FILE=<PPM>_  
<Date>.dmp OWNER=<PPM_Owner>
```

<System_Password> is the password for the Oracle system user

<Connect_String> is the Java database connectivity (JDBC) URL that connects to the database

<PPM> is the name of the PPM Center database schema

<Date> is the current date

<PPM>_<Date>.dmp is the name of the file that is to contain the export

<PPM_Owner> is the name of the PPM Center database schema owner.

- b. Similarly, run the expdp utility to export the PPM Center RML schema.

Keep the exported file at least until you verify that the upgrade was successful.

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.



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

Before you can restore an archive, you must first perform two tasks:

1. After you export into a <PPM>_<Date>.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.

Both of these scripts are located in the upgrade bundle.

Task 7: 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.pre7.5.0` after the upgrade.

Task 8: Back Up Customizations

Back up any customizations that you want to apply to version 7.5.

Task 9: 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 containing valid PPM Center license keys. The PPM Server is activated by license keys, provided in a <code>license.conf</code> file, which you must obtain before installation. If you do not have a valid <code>license.conf</code> file, go to the HP Software Support Web site (hp.com/go/hpsupport).
JAVA_HOME	Directory in which Java is installed.
ORACLE_HOME	Directory in which Oracle is installed.

Task 10: Determine Whether to Unmount File Systems (UNIX Only)

During an upgrade on a UNIX machine that has large numbers of mounted file systems, the upgrade process can hang indefinitely. The problem is that the upgrade utility calls the mount program and tries to analyze its output. If the output is 4,096 or more characters long, the upgrade hangs.

To prevent this from occurring before you start to upgrade PPM Center on a UNIX machine, run the following command:

```
mount | wc -c
```

This command returns three numbers, ordered by size. The more file systems you have mounted, the larger the numbers returned. If the largest number returned is greater than 4,095, unmount some file systems until the command returns a number less than 4,096. The upgrade will then run without hanging. After you complete the upgrade, you can remount as many file systems as you need.

Task 11: Extract the Upgrade Files

To extract the upgrade files:

1. Obtain the upgrade software.
2. Unzip the `mitg-750-upgrade.zip` file into the `<PPM_Home>` directory. This creates the `<PPM_Home>/upgrade_750` subdirectory.

After you extract the files, you can delete the `mitg-750-upgrade.zip` file.

Task 12: 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 13: 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

Turn off archive logging.



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

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.

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;
```

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.

DB_CACHE Parameter (Oracle 9i)

If you are using Oracle 9i, set `DB_CACHE_SIZE` to at least 800 MB and `SHARED_POOL_SIZE` to at least 450 MB.

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.

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

Upgrading Your Custom Integrations

If you have custom integrations that can be used to update PPM Center version 7.5 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 Version 7.5

Performing the Upgrade

This section provides the steps used to run the upgrade utility on Windows and on UNIX systems. It also includes information on what you must do to upgrade PPM Center in a server cluster system configuration.

- ▶ 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 an instance for this purpose. For information on how to do this, see the *System Administration Guide and Reference*.

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

- ▶ For PPM Center to keep track of the open database sessions it uses, ensure 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;
```

Upgrading PPM Center in a Server Cluster Configuration

To upgrade PPM Center installed in a server cluster setup, you upgrade every PPM Server in the cluster.

To upgrade PPM Center in a server cluster setup:

1. Stop all servers in the cluster.



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

2. Perform the upgrade on every server in the cluster. (See *Upgrading On a Windows System* and *Upgrading On a UNIX System* on page 39.)



When you run the upgrade on the first server, both the file system and the database portions of the upgrade are executed. Running the upgrade on each subsequent server will be much faster because only the file system portion is run.

3. Restart the servers.

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

Upgrading On a Windows System

Perform the following steps to upgrade from PPM Center version 7.1 to PPM Center version 7.5 on a Windows system.

To run the upgrade utility on a Windows system:

1. Stop the PPM Server.



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

2. Navigate to the `<PPM_Home>\upgrade_750` directory, and then double-click `upgrade.exe`.

The upgrade asks you for password information, performs system tests (to check for temporary tables left over from a previous upgrade), and begins 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 encounter unexpected errors at that point, visit the HP Software Support Web site (hp.com/go/hpsoftwaresupport).

The upgrade utility starts and displays basic requirements information.

3. Click **Next**.

The upgrade utility asks you to indicate whether you want to check space availability before you continue.

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

5. Click **Next**.

If you provided your Oracle system user password, the upgrade utility displays information about the tablespaces created for the PPM Center schemas.

6. Click **Next**.

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

8. Click **Next**.

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.

9. Click **Next**.

The upgrade begins. 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.

10. To recompile 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.

11. Click **Next**.

The upgrade utility asks you to indicate whether you want to generate database statistics now. This process improves performance.

12. To generate database statistics, leave **Yes, I would like to gather the statistics now** selected. To skip this step, select **No, I will gather the statistics myself later**.

13. Click **Next**.

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.

14. Click **Next**.

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

15. Click **Next**.

The upgrade utility displays any invalid database objects and advises you to reconcile these before you restart the PPM Server.

16. Make a note of any and all invalid database objects listed, and then click **Next**.

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

18. Investigate and recompile any invalid database objects that the upgrade detected.

19. Restart 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 *System Administration Guide and Reference*.

2. Navigate to the `<PPM_Home>/upgrade_750` directory:

```
cd <PPM_Home>/upgrade_750
```

3. Do one of the following:

a. Run the script in console mode (described in the following steps):

```
sh ./upgrade.sh -console
```

b. Run the script in graphical mode:

```
sh ./upgrade.sh -swing
```

▶ If you run the script in graphical mode, run in an X Window session.

4. To accept the default and continue with the upgrade, press `Enter`.

The upgrade utility asks you to indicate whether you want to check space availability before you continue.

5. Do one of the following:

- To skip the check, press `Enter`.
- To check for space availability:
 - i. At the Password prompt, type your Oracle System user password.
 - ii. At the next Password prompt, type the PPM Center schema password.

6. To continue, press `Enter`.

The upgrade utility displays installation directory path and the amount of space (in MB) required to upgrade.

7. To begin the upgrade, press `Enter`.

8. 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.

To recompile all JSP pages now, press `Enter`. To skip this step and have the PPM Server compile the pages at run time, type `2`, and then press `Enter`.



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

9. The upgrade utility asks you to indicate whether you want to generate database statistics. This process improves performance.

To generate database statistics, press `Enter`. To skip this step, type `2`, and then press `Enter`.

10. To quit the upgrade utility, press `Enter`.

11. Reconcile any invalid objects detected during the upgrade process.

12. Restart the PPM Server.

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 *System Administration Guide and Reference*.

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

Verifying the Upgrade

To verify the installation, perform the following tasks:

1. Open the `ppm_upgrade.log` file (located in the `<PPM_Home>/upgrade_750` directory) and check for error messages at the end of the file.
2. If your review of the `ppm_upgrade.log` file reveals errors, contact HP Software Support Web site (hp.com/go/hpsoftwaresupport). Otherwise, continue to the next step.
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).

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 Plug-in for PPM from the standard interface after you upgrade. For information on the HP Project Management and Microsoft Project requirements for installing the Plug-in for PPM, see the *HP Project Management User's Guide*.



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

Contacting Support

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

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