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About This Documentation

This preface discusses:

- Understanding This Documentation
- Prerequisites
- Audience
- Organization
- Typographical Conventions
- Products
- Related Information
- Comments and Suggestions

Understanding This Documentation

This documentation is designed to direct you through the process of upgrading to your new PeopleSoft release.

This section describes information that you should know before you begin working with PeopleSoft products and documentation, including PeopleSoft documentation conventions.

Prerequisites

You must complete the tasks in the document *Getting Started on Your PeopleSoft Upgrade* before beginning this upgrade. If you have not yet completed these tasks, do so now. Go to My Oracle Support and search for *Getting Started on Your PeopleSoft Upgrade*.

Audience

This documentation is written for the individuals responsible for upgrading to your new PeopleSoft release. This documentation assumes that you have a basic understanding of the PeopleSoft system. One of the most important components of a successful upgrade of your PeopleSoft installation is your on-site expertise.

You should be familiar with your operating hardware environment and have the necessary skills to support that environment. You should also have a working knowledge of:

- SQL and SQL command syntax.
- PeopleSoft system navigation.
- PeopleSoft windows, menus, and pages, and how to modify them.

- Microsoft Windows.

Oracle recommends that you complete training before performing an upgrade.

See Oracle University <http://education.oracle.com>

Organization

This documentation is divided into chapters that represent major milestones in the upgrade process.

This documentation may also contain appendixes. When additional information is required to complete an upgrade task, you will be directed to the appropriate appendix.

Typographical Conventions

To help you locate and understand information easily, this documentation uses the conventions listed in the following table:

Convention	Description
Monospace	Indicates a PeopleCode program or other code, such as scripts that you run during the upgrade. Monospace also indicates messages that you may receive during the upgrade process.
<i>Italics</i>	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter <i>O</i> .
Initial Caps	Field names, commands, and processes are represented as they appear on the window, menu, or page.
lower case	File or directory names are represented in lower case, unless they appear otherwise on the interface.
Menu, Page	A comma (,) between menu and page references indicates that the page exists on the menu. For example, “Select Use, Process Definitions” indicates that you can select the Process Definitions page from the Use menu.
Cross-references	Cross-references that begin with <i>See</i> refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation. Cross-references under the heading <i>See Also</i> refer you to additional documentation that has more information regarding the subject.
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.

Convention	Description
Note. Note text.	Text that begins with <i>Note</i> indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with <i>Important!</i> is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with <i>Warning!</i> contains crucial configuration information or implementation considerations; for example, if there is a chance of losing or corrupting data. Pay close attention to warning messages.

Products

This documentation may refer to these products and product families:

- Oracle's PeopleSoft Application Designer
- Oracle's PeopleSoft Change Assistant
- Oracle's PeopleSoft Data Mover
- Oracle's PeopleSoft Process Scheduler
- Oracle's PeopleSoft Pure Internet Architecture
- Oracle's PeopleSoft Customer Relationship Management
- Oracle's PeopleSoft Financial Management
- Oracle's PeopleSoft Human Capital Management
- Oracle's PeopleSoft Enterprise Learning Management
- Oracle's PeopleSoft Pay/Bill Management
- Oracle's PeopleSoft PeopleTools
- Oracle's PeopleSoft Enterprise Performance Management
- Oracle's PeopleSoft Portal Solutions
- Oracle's PeopleSoft Staffing Front Office
- Oracle's PeopleSoft Supply Chain Management

Note. This documentation refers to both Oracle's PeopleSoft Portal Solutions and to PeopleSoft PeopleTools portal or portal technologies. PeopleSoft Portal Solutions is a separate application product. The PeopleSoft PeopleTools portal technologies consist of PeopleSoft Pure Internet Architecture and the PeopleSoft PeopleTools portal technology used for creating and managing portals.

See <http://www.oracle.com/us/products/applications/peoplesoft-enterprise/index.html> for a list of PeopleSoft products.

Related Information

Oracle provides additional information that may help with your upgrade. The following information is available on My Oracle Support:

- *Release Notes.* Before you begin your upgrade, read the release notes to determine what has changed in the system and to familiarize yourself with the new features. The release notes also indicate whether you need to upgrade other portions of your system, such as your relational database management system (RDBMS) software or batch files.

Go to My Oracle Support and search for the Release Notes for your product and release level.

- *Installation Guides.* Before you begin your upgrade, ensure that you have installed PeopleSoft PeopleTools and completed the installation of your PeopleSoft application, if applicable.

To find the installation documentation for PeopleSoft PeopleTools or for your PeopleSoft application, go to My Oracle Support and search for the installation guide for your product and release level.

- *Upgrade Documentation.* The upgrade documentation on My Oracle Support contains information posted after shipment of this release that may not be included in these upgrade instructions. Always check My Oracle Support for the most current documentation and information.

Important! Before upgrading, it is imperative that you check My Oracle Support for updates to the upgrade instructions. We continually post updates as we refine the upgrade process.

To find updates to the upgrade documentation, go to My Oracle Support and search for the upgrade documentation for your product and release level.

- *Getting Started on Your PeopleSoft Upgrade.* Before beginning a PeopleSoft upgrade, you must complete the tasks in the document *Getting Started on Your PeopleSoft Upgrade*. This document guides you through planning your upgrade as well as installing the software necessary to upgrade to the new PeopleSoft product release. If you did not complete the tasks in this documentation, do so now.

Go to My Oracle Support and search for *Getting Started on Your PeopleSoft Upgrade*.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like changed about our documentation, PeopleSoft PeopleBooks, and other Oracle reference and training materials. Please send your suggestions to:

PSOFT-Infodev_US@oracle.com

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions. We are always improving our product communications for you.

CHAPTER 1

Planning Your Application Upgrade

This chapter discusses:

- Understanding Application Upgrade Planning
- Understanding Your Upgrade
- Preparing Your Upgrade Job
- Identifying Customizations
- Backing Up Demo Databases

Understanding Application Upgrade Planning

You must make a copy of your production database before you start preparations for the technical portion of the upgrade. Unless otherwise noted, run these tasks on your Copy of Production database (not the New Release Demo database). In this chapter, you will also prepare your upgrade job and identify any customizations you have made to your database.

Important! You must read the documentation *Getting Started on Your PeopleSoft Upgrade* before you continue with your upgrade. This getting started guide explains the upgrade process, terminology, and setup tasks that must be performed prior to starting your upgrade.

Task 1-1: Understanding Your Upgrade

This section discusses:

- Understanding PeopleSoft Upgrades
- Verifying the Software Installation
- Defining Upgrade Databases
- Increasing Database Space
- Reviewing Upgrade Notes and Tips

Understanding PeopleSoft Upgrades

This task reviews information that you need to know before you begin your upgrade. It explains the different types of databases that you will use and provides useful upgrade tips and information that you may need to apply before beginning your upgrade.

Task 1-1-1: Verifying the Software Installation

Before continuing with the upgrade, you must complete all of the tasks in *Getting Started on Your PeopleSoft Upgrade*, “Starting Your Upgrade.” Verify that the following tasks are complete:

- Installing the new release.
- Applying PeopleSoft PeopleTools patches.
- Installing PeopleSoft Change Assistant.
- Making a Copy of Production Database.
- Retrieving and applying upgrade files.
- Creating and configuring an upgrade job.
- Setting the Configuration Manager profile.
- Reviewing upgrade step properties.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 1-1-2: Defining Upgrade Databases

The following databases will be used during your upgrade:

- The New Release Demo database always refers to the database delivered with your new PeopleSoft release. It contains the new and changed database objects that you want to add. The New Release Demo database is also referred to as the Demo database later in the upgrade.
- The Copy of Production database refers to the copy of your production database, into which you will add the new and changed objects for this release from the New Release Demo database.

Note. You will create more than one Copy of Production database. Your second and subsequent copies are referred to as the New Copy of Production.

- The Copy of Current Demo refers to the copy of the demo database for the release that you are currently using.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 1-1-3: Increasing Database Space

To prepare for the upgrade, you may need to increase the space allocated to your Copy of Production database. Depending on your relational database management system (RDBMS), this may include allocating space to tablespaces or allocating database primary space and log files. Be aware that your new environment needs to accommodate both the existing data in your Copy of Production database as well as the new data, new data structures, and new database objects. Every site and configuration is different, so Oracle cannot offer a guaranteed estimate of your database sizing needs.

As part of the initial upgrade pass, you may need to revisit your initial space allocation settings more than once as you progress through the upgrade. At the end of the initial pass, the final space allocation settings will closely reflect the space you will need to complete any subsequent Move to Production passes. Work with your database administrator to ensure that your environment is set up appropriately for both the initial and Move to Production passes.

See the PeopleSoft installation documentation for your product line and release.

Note. Oracle RDBMS customers also need to alter the tablespace for PSIMAGE and increase it to 200 MB; autoextend on next 10 MB; maxsize unlimited.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 1-1-4: Reviewing Upgrade Notes and Tips

This section contains information that may apply to your upgrade product. Review the information in this section before beginning your upgrade.

- Third-Party Product Setup

Be sure to review the release notes for your new application release, as third-party components such as Verity and Crystal Reports are no longer supported for the new application. The release notes will indicate the replacement component, such as Oracle Secure Enterprise Search (SES), XML Publisher, etc. Upgrading to the new application release will require you to set up these new third-party products. Review your application release notes and upgrade documentation for additional instructions.

- Microsoft SQL Server Column Statistics

As of Microsoft SQL Server 2000, user-defined statistics can be created on columns within a table. This feature is not supported by PeopleSoft PeopleTools. If you added user-defined statistics to any columns in your PeopleSoft application, it may cause errors to occur during the upgrade steps that alter tables. Oracle recommends that you drop all user-defined statistics on columns of PeopleSoft tables before proceeding with your upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 1-2: Preparing Your Upgrade Job

This section discusses:

- Modifying the DB2 Scripts
- Editing the Language Swap Scripts
- Editing the Top Administrator Script
- Editing the Prefix and Owner ID Script
- Evaluating Upgrade Steps for Your Upgrade Job
- Modifying Compare Report Options
- Optimizing the Create and Alter Process

Task 1-2-1: Modifying the DB2 Scripts

Perform this step only if your database platform is DB2 z/OS. DB2 z/OS scripts that create tables need the `set_current_sqlid` statement so that the tables are created with the correct owner ID. Open each script listed below, then uncomment and modify all of the DB2-specific statements to reflect your environment.

Note. You can find these scripts in the new release `PS_APP_HOME` directory.

For SQL scripts, if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment, inserting the appropriate owner ID in uppercase characters:

```
set current sqlid = 'OWNERID (in uppercase)';
```

For PeopleSoft Data Mover scripts (DMSs), if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment, inserting the appropriate owner ID in uppercase characters:

```
set execute_sql set current sqlid = 'OWNERID (in uppercase)';
```

Following is a list of the scripts you need to edit:

```
DLUPX02I.DMS
DLUPX13I.DMS
DLUPX96I.DMS
DLPALASYSI_REV2.DMS
DLPASYSI_REV2.DMS
DLPAX03C.DMS
DLUPX15I.DMS
DLUPX16I_REV2.DMS
```

Note. The DLUPX96I.DMS script runs on your Source database. Remember to edit this script for your *Source* database. All of the other scripts listed run against the Target database.

In several steps in the upgrade process, project definitions are copied into the database. Any DB2 z/OS scripts that are built from these projects need to be modified before running them. When the SQL scripts are built after copying the projects, the database/tablespace names are the default values. These values need to be changed to the Target database-specific values.

Set the steps that run the generated scripts (typically, the "Running the xxx Script" step following a "Building/Generating the xxx Script/Project" step) in your PeopleSoft Change Assistant job to a manual stop, and edit the scripts for correct database/tablespace information. To set a step as a manual stop in PeopleSoft Change Assistant, highlight the step and select Edit, Stop from the menu bar.

In chapter 5, "Applying Application Changes," set the step Re-Creating Upgrade Tables (in the task Modifying the Database Structure) as a manual stop and edit the UPGCONVERT_CRTTBL.SQL script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 1-2-2: Editing the Language Swap Scripts

This step should only be completed if your Copy of Production has a base language other than English.

Later in the upgrade, you will swap system data tables and PeopleSoft PeopleTools managed object tables that have related languages on your New Release Demo database. This ensures that the tables are translated correctly when you copy to your Copy of Production. In this step, you must edit the swap scripts to set your New Release Demo database language to the same language as your Copy of Production.

Follow the edit instructions in each script.

Note. You can find your application script in the PS_APP_HOME directory. The PT_RELEASE_SWAP.DMS script is in the PS_HOME directory.

The swap scripts for your path are:

```

DLPALASWAP_REV2.DMS
PT_RELEASE_SWAP.DMS

```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	Non-English Base Language

Task 1-2-3: Editing the Top Administrator Script

The conversion program requires that the upgrade user be listed as a Content Management Top Administrator.

Modify the Top Administrator script text by replacing *all* occurrences of <Upgrade User ID> with the upgrade user's User ID. The script is in your new release PS_APP_HOME\SCRIPTS directory.

The script name for the upgrade path is:

DLPAX01.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 1-2-4: Editing the Prefix and Owner ID Script

The conversion program uses the Prefix and Owner ID values in the Portal Options table when creating Pagelet Wizard definitions and Navigation Collection objects. You must modify this Prefix and Owner ID script text before running it.

To modify the script text:

1. Replace the prefix 'ADMN' with a 1 to 4 character prefix unique to your organization

Do *not* use:

- PAPP, PAPX, PAPQ, PAPI, PRTL, EO, or PT.
- Any product line-specific prefix (CR, HC, EP, CI, etc).
- A blank value.

2. Enter the Owner ID value with your organization's specific Owner ID.

The Owner ID is a translate value on the PeopleTools field OBJECTOWNERID.

Note. Do *not* use any delivered product Owner ID. If you do not have an Owner ID, create one or leave the Owner ID value as a blank space.

The script is in your new release PS_APP_HOME\SCRIPTS directory. The script name for your upgrade path is:

DLPAX02U.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 1-2-5: Evaluating Upgrade Steps for Your Upgrade Job

In this step, evaluate steps in your upgrade job that need editing in order to meet your project requirements.

Editing the Create and Alter Scripts: If you are reusing any create and alter scripts from a prior upgrade pass during any Move to Production passes, review the scripts to determine if the appropriate edits have been made. If they have been made, then at this time, the step Editing the Create and Alter Scripts may be marked as complete.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 1-2-6: Modifying Compare Report Options

For compare steps, PeopleSoft Change Assistant templates are delivered with the default reports filter turned on in the compare options. This limits the size of the reports and keeps them manageable. Before you start the compares, review the PeopleSoft Change Assistant job for each compare step listed below and modify the compare options based on your requirements.

If you decide not to modify the compare options, the objects are still compared. However, the results are only available online in PeopleSoft Application Designer and are not written to the compare reports. The compare reports are tools to help you review changed objects. However, based on the report filters you select, you may need to review the action flags for other objects in the compare project in PeopleSoft Application Designer.

For example, you can modify the compare options so that the report contains customized objects that are present in your Copy of Production database but absent from the Demo database. Alternatively, you can review these objects online, through PeopleSoft Application Designer, after the compare.

To modify upgrade compare options:

1. Highlight the “Running the UPGCUST Compare” step and right-click.
2. Select Step Properties.

The Step Properties dialog box appears.

3. Click Upgrade.

The Compare and Report dialog box appears.

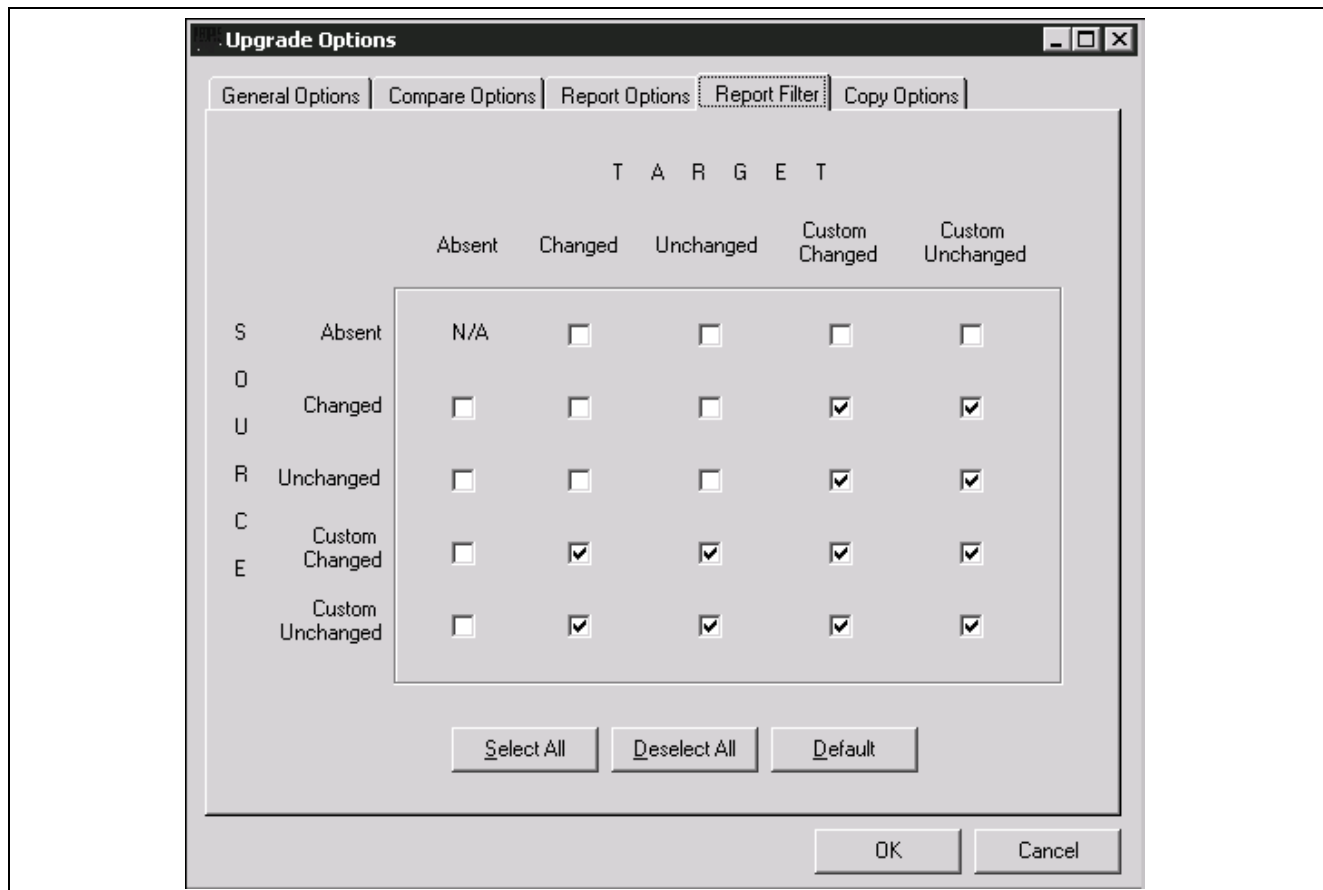
4. Click Options.

5. Select the Report Filter tab.

The default options include your custom changes on the reports.

6. Change the default options as necessary and click OK.

This example shows the Report Filter page of the Upgrade Options dialog box, with several options selected.



Upgrade Options page, Report Filter tab

7. In the Compare and Report dialog box, click OK.
8. In the Step Definitions dialog box, click OK.
9. Repeat steps 2 through 8 for the Running the New Release UPGCUST Compare and Creating the UPGIB Project steps.
10. Select File, Save Job.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 1-2-7: Optimizing the Create and Alter Process

During the initial pass, you generate and sometimes edit, then execute the SQL scripts to create and alter tables. In the Move to Production pass, you may be able to skip the SQL script generation steps and use the SQL that you previously generated and edited. This practice may save time in your critical go-live window and is the ultimate goal, but it is an incremental process to get to that point.

In the first Move to Production pass, everyone must generate the SQL scripts. There are small differences between the initial and Move to Production passes that require the SQL to be regenerated in at least one Move to Production pass. The PeopleSoft Change Assistant templates are delivered with the steps set this way.

In subsequent Move to Production passes, you may choose to turn off the generation steps if possible. If you have not changed any records at the end of one Move to Production pass then you can use that SQL in your next pass. If you have done anything to change records, you need to generate the SQL scripts again. This includes changes such as applying PeopleSoft PeopleTools upgrades (for example, 8.50 or 8.51), applying updates from My Oracle Support that involve record changes, or making additional customizations to records.

If you chose to skip regenerating the scripts, mark each step complete in your PeopleSoft Change Assistant job. You can also modify the step properties in the template so the step will never show up in any future Move to Production job.

To modify the step properties:

1. Double-click the step to open the step properties dialog box.
2. Change the Apply Type to *Initial Pass*.

In addition, copy the SQL scripts from the previous pass output directory to the new pass output directory. PeopleSoft Change Assistant looks for the SQL scripts in the output directory set on the job's Database Configuration. Therefore, ensure that PeopleSoft Change Assistant will find the SQL scripts when it tries to run them.

The steps you may choose to skip regenerating the scripts are:

- Creating New Tablespaces
- Creating the Upgrade Projects
- Editing the Create and Alter Scripts

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 1-3: Identifying Customizations

In this task, identify your modifications to Mass Change, EDI, Message Catalog, SQR Strings, XML Service Information, Setup Manager data, Pagelet Wizard objects, and related-language system data, so that you can reload them later in the upgrade process.

Important! If you use any of the features listed above, you must analyze your data because the upgrade replaces the data in the Target database with the delivered data in the New Release Demo database.

The upgrade tasks will replace all Mass Change processes and Setup Manager data. Only modifications to delivered Pagelet Wizard objects will be overwritten because any non-delivered custom Pagelet Wizard objects will be preserved during the upgrade. You cannot print Mass Change code. Be sure that you have extracted your modifications to reapply them later. You must extract your modifications, using cut and paste, to a file for manual reapplication later. EDI tables must be handled in the same way. Reload additional data and review customizations in Oracle-delivered data.

Message sets 0-19,999 will be overlaid during the upgrade, so any customizations that you made in this range will be lost. In addition, all SQR strings will be replaced. To save your customizations, cut and paste your changes to a file and manually reapply them.

Be aware that the data loaded by the PeopleSoft software must not be overwritten.

If you have multiple languages loaded, you should save any custom data that you have in related-language tables for system data. For these tables, data will be exported from the New Release Demo database when you export related-language system data, and imported to your Copy of Production when you import related-language system data. The import may delete your custom data, depending on the import option.

The tables that need to be reviewed are listed in the following scripts. These scripts can be found in your new release *PS_APP_HOME\SCRIPTS* directory.

Important! These scripts are delivered with and run from your new PeopleSoft release. These scripts are *not* run in this task. You will run these scripts later in the upgrade process.

Review the tables that will be overwritten in the scripts listed in this table:

Tables	Script
Message Catalog	DLUPX01E.DMS
SQR Strings	DLUPX04E.DMS
EDI	DLUPX05E.DMS
Mass Change	DLUPX06E.DMS
XML Service Information	DLUPX13E.DMS
Setup Manager and Optimization Models	DLUPX16E_REV2.DMS
Pagelet Wizard	DLUPX14E.DMS DLUPX15E.DMS

If your database contains translations, review the list of related-language system data tables that will be exported and imported in these scripts:

DLPALASYSE_REV2.DMS
DLPALASYSI_REV2.DMS

Note. Move to Production: Once you have reapplied these customizations at the end of your initial upgrade pass, you will not need to apply them again. The affected tables are moved from the old Copy of Production to the New Copy of Production by the scripts listed in the following table:

Tables	Scripts
Mass Change	MVAPPEXP_REV2.DMS MVAPPIMP.DMS
EDI	MVPRDEXP.DMS MVPRDIMP.DMS
Strings	MVAPPEXP_REV2.DMS MVAPPIMP.DMS
Messages	MVAPPEXP_REV2.DMS MVAPPIMP.DMS

Tables	Scripts
XML Service Information	MVPRDEXP.DMS MVPRDIMP.DMS
Setup Manager and Optimization Models	MVAPPEXP_REV2.DMS MVAPPIMP.DMS
Pagelet Wizard	MVUPX16E.DMS

See Also

"Applying Application Changes," Loading Data for Data Conversion.

"Applying Application Changes," Loading Data to Complete System Setup.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 1-4: Backing Up Demo Databases

This section discusses:

- Backing Up the Copy of Current Demo
- Backing Up the New Release Demo

Task 1-4-1: Backing Up the Copy of Current Demo

Back up your Copy of Current Demo database now. This upgrade requires you to run scripts on this database. Before the upgrade starts, you need to take a backup of this environment to preserve your Oracle-delivered demo implementation.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Copy of Current Demo	Initial	All	All	All

Task 1-4-2: Backing Up the New Release Demo

Back up your New Release Demo database now. This upgrade requires you to run scripts on this database. Before the upgrade starts, you need to take a backup of this environment to preserve your Oracle-delivered demo implementation.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

CHAPTER 2

Preparing Your Database for Upgrade

This chapter discusses:

- Understanding Database Preparation
- Editing Upgrade Planning DB2 Scripts
- Updating Statistics
- Running Initial Audit Reports
- Reviewing Table Row Counts
- Preparing Your Database
- Comparing Customizations
- Preparing for the Application Upgrade
- Backing Up After Preparing Your Database

Understanding Database Preparation

In this chapter, you begin preparations for the upgrade. Unless otherwise noted, run these tasks on your Copy of Production database (not the New Release Demo database). These tasks do not use the new PeopleSoft release. You should use your current codeline and current PeopleSoft PeopleTools release to perform these tasks unless instructed otherwise.

Important! You must read the documentation *Getting Started on Your PeopleSoft Upgrade* before you continue with your upgrade. This getting started guide explains the upgrade process, terminology, and setup tasks that *must* be performed prior to starting your upgrade.

Task 2-1: Editing Upgrade Planning DB2 Scripts

Perform this step only if your database platform is DB2 z/OS. DB2 z/OS scripts that create tables need a `set current sqlid` statement so that the tables are created with the correct owner ID. Open each script listed here, then uncomment and modify all of the DB2-specific statements to reflect your environment.

Note. You can find the scripts in the old release PS_APP_HOME directory.

For SQL scripts, if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment, inserting the appropriate owner ID in uppercase characters:

```
set current sqlid = 'OWNER_ID';
```

For Data Mover scripts (DMS), if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment, inserting the appropriate owner ID in uppercase characters:

```
set execute_sql set current sqlid = 'OWNER_ID';
```

The following is a list of scripts that you need to edit:

```
PUUPX07.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 2-2: Updating Statistics

Run this task to improve the performance of your compare and copy processes. Have your database administrator update statistics on your database before proceeding with your upgrade. Later in the upgrade, you will update your statistics again due to changes in the database structure.

See Getting Started on Your PeopleSoft Upgrade, Appendix: “Improving Performance.”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3: Running Initial Audit Reports

This section discusses:

- Understanding Running Initial Audit Reports
- Running the Initial DDDAUDIT Report
- Running the Initial SYSAUDIT Report
- Running the Initial SYSAUD01 Report
- Running the Initial SWPAUDIT Report
- Creating the INITALTAUD Project
- Running the Initial Alter Audit
- Reviewing the Initial Audits

Understanding Running Initial Audit Reports

In this task, you run and review your initial DDDAUDIT, SYSAUDIT, SYSAUD01 (if applicable), and Alter Audit reports. Running these reports ensures that your database is as clean as possible for the remainder of the upgrade.

Task 2-3-1: Running the Initial DDDAUDIT Report

DDDAUDIT is an SQR script that compares your production SQL data tables with the PeopleSoft PeopleTools record definitions to identify inconsistencies.

In this step, DDDAUDIT is run using SQR from your current (old) PeopleSoft release against the Copy of Production to ensure that you are starting with a clean database.

You will review the output from the report in a later step.

See Reviewing the Initial Audits.

See the Enterprise PeopleTools PeopleBook: System and Server Administration for your current release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3-2: Running the Initial SYSAUDIT Report

SYSAUDIT is an SQR script used to identify “orphaned” PeopleSoft objects. For example, SYSAUDIT can identify a module of PeopleCode that exists but does not relate to any other objects in the system. SYSAUDIT also identifies other inconsistencies within your database.

In this step, SYSAUDIT is run using SQR from your current (old) PeopleSoft release against the Copy of Production to ensure that you are starting with a clean database.

You will review the output from the report in a later step.

See Reviewing the Initial Audits.

See the Enterprise PeopleTools PeopleBook: System and Server Administration for your current release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3-3: Running the Initial SYSAUD01 Report

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.52.

SYSAUD01 is an SQR script used to identify “orphaned” PeopleSoft objects. SYSAUD01 also identifies other inconsistencies within your database.

In this step, SYSAUD01 is run using SQR from your current (old) PeopleSoft release against the Copy of Production to ensure that you are starting with a clean database.

You will review the output from the report in a later step.

See Reviewing the Initial Audits.

See the Enterprise PeopleTools PeopleBook: System and Server Administration for your current release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3-4: Running the Initial SWPAUDIT Report

SWPAUDIT is an SQR script used to identify potentially *orphaned* PeopleSoft objects in a multilingual database. For example, SWPAUDIT can identify a base and related-language record with mismatched key fields. This type of issue may cause inconsistent behavior between base and non-base language usage, or between pre-swapped and post-swapped databases.

SWPAUDIT should be run against your database before you run the Data Mover command SWAP_BASE_LANGUAGE. It can optionally be run again after a swap, or any time, to check database integrity in a multilingual context. If you are upgrading a database that has already been swapped, it is not mandatory to run SWPAUDIT again before proceeding with the upgrade.

In this step, SWPAUDIT is run using SQR from your current (old) PeopleSoft release against the Copy of Production.

You will review the output from the report in a later step.

See Reviewing the Initial Audits.

See the PeopleTools: Global Technology PeopleBook for your current release, “Using Related Language Tables,” Swapping the Base Language.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All non-English

Task 2-3-5: Creating the INITALTAUD Project

In this step, you create the INITALTAUD project and use it to run your initial Alter Audit. Creating this new project now ensures that all of the records with the type *Table* in your system are audited. This project also includes any custom records that you created in your system.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3-6: Running the Initial Alter Audit

To verify that the PeopleSoft PeopleTools definitions are synchronized with the underlying SQL data tables in your database, run the PeopleSoft PeopleTools alter record process on all records in your system. This process, called an Alter Audit, compares the data structures of your database tables with the PeopleSoft PeopleTools definitions to identify inconsistencies. The Alter Audit then creates SQL scripts with the data definition language (DDL) changes that are required to synchronize your database with the PeopleSoft PeopleTools definitions.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-3-7: Reviewing the Initial Audits

In this step, you review the audits that you performed earlier in this task. Review the audits before proceeding with the upgrade.

Review the output from the SYSAUDIT, SYSAUD01 (if applicable), SWPAUDIT, and DDDAUDIT reports and correct any discrepancies. When application tables are deleted from PeopleSoft Application Designer, they are not automatically deleted from the system tables. Oracle takes this precaution in case you have customized information that you want to preserve. When you review your DDDAUDIT listing, these tables are listed as a discrepancy between the PeopleSoft application and the database.

Now you must decide whether to drop these tables or retain them. In most cases, you will want to drop the tables, using your SQL tool to drop the tables from the system catalogs. If you have customized information or processes that access these tables, you may want to retain them in the system tables even though they will no longer be accessed or updated by the PeopleSoft system. Drop any unnecessary deleted tables now so that your future DDDAUDIT reports will be as clean as possible.

The Alter Audit produces the scripts INITIALAUD_ALTTLB.SQL, INITIALAUD_CRTIDX.SQL, and INITIALAUD_CRTTRG.SQL. These scripts contain SQL that corrects any discrepancies between your PeopleSoft PeopleTools record definitions and the database system catalog table definitions. Review the Alter Audit output and correct any discrepancies.

Note. Triggers are always dropped and re-created during the alter process and will always show up in the generated Alter Audit script. You can ignore the generated script for triggers.

Note. For Microsoft SQL Server and DB2 UNIX/NT platforms, if your database has tables containing the MSSCONCATCOL or DBXCONCATCOL column, you will see SQL alter the tables and re-create their associated indexes, even though the underlying tables and indexes may not have changed.

Note. You will rerun the DDDAUDIT, SYSAUDIT, SYSAUD01 (if applicable), and SWPAUDIT SQR scripts later in the upgrade. If you want to preserve the log files generated by PeopleSoft Change Assistant from this run, you will need to rename the files manually after completing this task.

Note. Additionally, you may choose to clean up the discrepancies listed in these audits directly in production if they are also an issue in your production database.

See the Enterprise PeopleTools PeopleBook: System and Server Administration for your current release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-4: Reviewing Table Row Counts

You may find it helpful to run a report that identifies any table without rows, that is, any table not used in your production database. This information can help you determine whether to accept a change from the New Release Demo database. The UPGCOUNT process reports the row counts of all PeopleSoft tables in your database. You can find the resulting report (UPGCOUNT.LIS) in the TEMP directory specific to your machine.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 2-5: Preparing Your Database

This section discusses:

- Understanding Database Preparation
- Verifying Database Integrity
- Cleaning the PSOBJCHNG Table
- Purging Message Queues
- Dropping PeopleTools Tables
- Cleaning Up PeopleTools Data
- Dropping Temporary Tablespace

- Shrinking Images

Understanding Database Preparation

In this task, you perform a variety of steps in preparation for the PeopleSoft PeopleTools upgrade. These steps prevent errors in tasks later in the upgrade.

Task 2-5-1: Verifying Database Integrity

Have a database consistency check performed on your Target database to ensure that it is clean and to minimize any potential upgrade errors due to possible database corruption. Work with your database administrator to ensure that the check that is run is similar to the one shown for your database platform in the following table.

This table lists database platforms and commands to run a database consistency check:

Platform	Command
DB2 UNIX/NT	<code>db2dart</code>
Informix	<code>oncheck</code>
Microsoft SQL Server	<code>DBCC CHECKDB</code>
Oracle	<code>dbv</code>
Sybase	<code>DBCC CHECKDB</code>

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT Informix MS SQL Server Oracle Sybase	All

Task 2-5-2: Cleaning the PSOBJCHNG Table

This step deletes all data stored in the PSOBJCHNG table, which contains all renamed records and fields. The data stored in the PSOBJCHNG table must be deleted before starting your upgrade. The build process looks in this table when running alter renames. PeopleSoft Change Assistant will execute the following SQL:

```
DELETE FROM PSOBJCHNG
```

Note. Move to Production: If you rename records or fields later in your upgrade, you should expect to see rows in the PSOBJCHNG table at the end of the upgrade pass. During the Move to Production these rows will be copied from your old Copy of Production to your new Copy of Production. Thus, this step is not necessary during Move to Production.

See “Applying Application Changes,” Modifying the Database Structure.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 2-5-3: Purging Message Queues

Ensure that all of your message transactions are complete before starting the upgrade. Message functionality and structure changed in the new release, which will prevent old messages from processing successfully.

This step runs the following PeopleSoft Data Mover script (DMS), found in the *PS_HOME\SCRIPTS* directory of your old release codeline, on your Copy of Production database to purge your message queues:

```
APPMMSGPURGEALL.DMS
```

Warning! A script of the same name is found in the codeline of the release to which you are upgrading. Do not use this script; it will not run successfully.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-5-4: Dropping PeopleTools Tables

In this step, you drop PeopleSoft PeopleTools tables to ensure the successful completion of your upgrade. You will drop the following tables, if they exist in your database, using the SQL tool of your choice.

Drop the following tables:

- PSOPTIONS_TMP
- PSLANGUAGES_TMP
- PS_PSMCFQUEUESLANG

Note. The table, PS_PSMCFQUEUESLANG, contains no data and can be safely dropped. Do *not* drop the table PSMCFQUEUESLANG.

- PSOPTSTATUS

The table, PSOPTSTATUS, will be converted into a view and can be safely dropped. Do not drop the view PSOPTSTATUS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-5-5: Cleaning Up PeopleTools Data

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.46, 8.47, 8.48, 8.49, 8.50, or 8.51. In this step, you modify or delete PeopleSoft PeopleTools data prior to performing the PeopleSoft PeopleTools upgrade. This is necessary so that tables can be altered and indexes can be created successfully later in the upgrade.

Use the following instructions for your specific PeopleSoft PeopleTools release:

- If you are upgrading from PeopleSoft PeopleTools 8.46, 8.47, 8.48, or 8.49:
PSLOCALEORDER has three fields defined: ISO_LOCALE, SEQNUM, and ISO_LOCALE_CHILD. This table is used internally by PeopleSoft PeopleTools to prioritize locales when consuming a remote WSRP service description. Priority is defined by the SEQNUM field.

See the PeopleTools: PeopleTools Portal Technologies PeopleBook, Appendix: “Language Support for Consuming and Producing Remote Portlets.”

As of PeopleSoft PeopleTools 8.50, a unique index with the keys ISO_LOCALE and SEQNUM will be created for the PSLOCALEORDER table. You need to ensure that PSLOCALEORDER does not contain any duplicates so that the unique index can be created successfully later in the upgrade. To determine whether you have any rows of data that share the same set of values for ISO_LOCALE and SEQNUM, run the following SQL:

```
SELECT ISO_LOCALE, SEQNUM, COUNT(SEQNUM) AS NUMBER_OF_DUPLICATE_ROWS FROM⇒
PSLOCALEORDER GROUP BY ISO_LOCALE, SEQNUM HAVING COUNT(SEQNUM) > 1;
```

This SQL will return the number of duplicate rows that share the same set of values for ISO_LOCALE and SEQNUM. If any rows are returned, decide which row of data you want to keep and delete the other rows. After deleting the duplicate rows, re-run the above SQL to verify that no further duplicates exist.

Note. You may skip the cleanup of the PSLOCALEORDER table in Move to Production upgrade passes.

- If you are upgrading from PeopleSoft PeopleTools 8.50 or 8.51:
PSCUBRUNCNTL is the run control table that stores the set of parameters required for running the process to build Essbase cube. The run control table should be keyed by user ID and run control ID.
See the PeopleTools: PeopleSoft Process Scheduler PeopleBook, Submitting and Scheduling Process Requests, Understanding Run Control IDs.
Prior to PeopleSoft PeopleTools 8.52, CUB_OUTLINEID, CUB_CONNECTID, ANALYSIS_DB_APP, and ANALYSIS_DB_NAME were incorrectly defined as keys, causing non-unique run control IDs to be created. As of PeopleSoft PeopleTools 8.52, a unique index with the keys OPRID and RUN_CNTL_ID will be created for the PSCUBRUNCNTL table. You need to ensure that PSCUBRUNCNTL does not contain any duplicates so that the unique index can be created successfully later in the upgrade. To determine whether you have any rows of data that share the same set of values for OPRID and RUN_CNTL_ID, run the following SQL:

```
SELECT OPRID, RUN_CNTL_ID, COUNT(RUN_CNTL_ID) AS NUMBER_OF_DUPLICATE_ROWS FROM⇒
```

```
PSCUBRUNCTL GROUP BY OPRID, RUN_CNTL_ID HAVING COUNT(RUN_CNTL_ID) > 1;
```

This SQL will return the number of duplicate rows that share the same set of values for OPRID and RUN_CNTL_ID. If any rows are returned, decide which row of data you want to keep and delete the other rows. After deleting the duplicate rows, re-run the above SQL to verify that no further duplicates exist.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-5-6: Dropping Temporary Tablespace

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.51. In this step, you will drop temporary tablespaces prior to performing the PeopleSoft PeopleTools upgrade.

If you are upgrading from PeopleSoft PeopleTools 8.51, drop the PSTBSPC and PSTBSP32 tablespaces, if they exist, from the PSPTDMO database, or from the database where the PeopleSoft PeopleTools tables are stored.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 2-5-7: Shrinking Images

If you have customized images stored in your database, you may need to shrink these images before updating PeopleSoft PeopleTools system tables later in the upgrade. Large image fields could cause that step to fail because it is not possible to bind long raw data that is longer than 32 KB.

To shrink images using a PeopleSoft PeopleTools release later than 8.44.14:

1. Launch Configuration Manager and select the Profile tab.
2. Select the profile for the upgrade database and click Edit.
3. Select the Common tab.
4. Select the option that is labeled either Convert and Shrink Images to Image Size Limit, or Convert DIB and BMP images to JPG.
5. Click OK.

Note. If you shrink images again, select Don't Convert, but Shrink Images to Image Size Limit. Specify the number of bytes for the image size limit.

6. Launch PeopleSoft Application Designer.
7. Select Tools, Upgrade, Convert Images...
8. Select Convert Static Images in Image Catalog.
9. Click Start to convert or shrink images.

10. Select Tools, Upgrade, Convert Images...
11. Select Convert Dynamic Images for fields. Select the box for all of the fields listed.
12. Click Start to convert or shrink images.

If you are using a PeopleSoft PeopleTools release earlier than 8.44.15, you will need to manually save and temporarily remove any custom images greater than 32 KB. Using your SQL query tool, run the following SQL to identify images greater than 32 KB:

```
-- CREATE A TABLE TO HOLD THE CONVERTED IMAGE
CREATE TABLE PS_CONVIMG (CONTNAME VARCHAR2(30), IMAGESIZE BLOB);
-- LOAD CONVERTED DATA INTO THE TABLE
INSERT INTO PS_CONVIMG SELECT CONTNAME, TO_LOB(CONTDATA) FROM PSCONTDEFN;
-- RETRIEVE IMAGES OVER 32K
SELECT CONTNAME, DBMS_LOB.GETLENGTH(IMAGESIZE) IMAGESIZE FROM PS_CONVIMG WHERE⇒
  DBMS_LOB.GETLENGTH(IMAGESIZE) > 32768;
```

To manually save images greater than 32 KB:

1. In PeopleSoft Application Designer, insert your images into a project.
Select Insert, Definitions into Project.
2. Save the project.
3. Copy the images to file.
Select Tools, Upgrade, Copy Project to File.
4. Delete the rows for the images in your project from the PSCONTDEFN table.
5. When you are finished with the upgrade, copy the project from file to restore your custom images.
Select Tools, Upgrade, Copy Project from File.

See “Applying PeopleTools Changes,” Updating PeopleTools System Tables.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 2-6: Comparing Customizations

This section discusses:

- Running the UPGCUST Compare
- Running the UPGCUST Filter Script
- Reviewing the UPGCUST Compare Log
- Restoring the Copy of Current Demo

Note. In this task, you identify customizations on the Copy of Production by running a database compare against the Copy of Current Demo database.

Task 2-6-1: Running the UPGCUST Compare

This step creates a project on your Copy of Production database called UPGCUST and executes a database compare of all comparable object types. This compare is run to identify all customizations on the Copy of Production database. The database compare occurs between your Copy of Production and the Copy of Current Demo database. The following comparable object types are omitted from the comparison:

- Feed categories
- Feed data types
- Feed definitions
- File reference type codes
- IB queues
- Java portlet user preferences
- Message catalog entries
- Messages
- Message schemas
- Portal registry user favorites
- Portal registry user home pages
- Related content layouts
- Related content services
- Related content service configurations
- Related content service definitions
- Service operation routings
- Service operations
- Service operations handlers
- Service operation versions
- Services
- WSDL

Message catalog entries are exported and imported with PeopleSoft Data Mover in a later step. Portal registry user home pages, portal registry user favorites, file reference type codes, and Java portlet user preferences remain in the Copy of Production environment and are not copied from the New Release Demo database. Integration Broker objects will be compared later in the upgrade. Feed and Related Content objects may not be comparable on the old PeopleSoft PeopleTools release and are compared later in the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Copy of Current Demo	Initial	All	All	All

Task 2-6-2: Running the UPGCUST Filter Script

This step removes all objects, excluding Permission Lists and Portal Registry Structures, from the UPGCUST project that are not marked **Changed* or **Unchanged* in your Copy of Production environment. It is used to isolate only custom objects in the UPGCUST project.

The script name for your upgrade is:

```
PUUPX99.DMS
```

See Appendix: “Using the Comparison Process.”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 2-6-3: Reviewing the UPGCUST Compare Log

In this step, review the log file and compare reports generated by the database compare in the previous step to ensure that it completed successfully. A detailed analysis of these compare reports is not necessary. Later in the upgrade, you will review a new set of compare reports when customizations are compared to the New Release Demo database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 2-6-4: Restoring the Copy of Current Demo

Restore your Copy of Current Demo database from the backup made earlier in the upgrade. The backup was made before rename scripts ran against the Copy of Current Demo. This is done to restore the environment to an Oracle-delivered demo implementation. If no rename scripts were run against the Copy of Current Demo, then skip this step since no changes were made to the database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Copy of Current Demo	Initial	All	All	All

Task 2-7: Preparing for the Application Upgrade

This section discusses:

- Creating a Copy of RecField Definitions
- Loading the Alter Analyzer Data

Task 2-7-1: Creating a Copy of RecField Definitions

This step creates a copy of the contents of PSRECFIELD, before the upgrade is begun. It is used by the data conversion code to determine the structure of tables that may have been impacted by fixes you applied.

Note. If you upgraded your system before, you may need to drop PSRECFIELD_TMP prior to running this script.

The script name is:

PUUPX07.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 2-7-2: Loading the Alter Analyzer Data

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later. In this step, you run the PTALTDATLOAD Application Engine program for the Move to Production pass. This process preserves the database structure from your current release into temporary tables to be used later in the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 2-8: Backing Up After Preparing Your Database

Back up your Copy of Production database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

CHAPTER 3

Applying PeopleTools Changes

This chapter discusses:

- Understanding PeopleTools Changes
- Verifying the Upgrade User
- Performing Script Modifications
- Preparing for the DB2 Data Type Conversion
- Performing Updates to PeopleTools System Tables
- Turning Off Change Control
- Loading Model Definition Data
- Loading Message Data
- Reviewing PeopleTools Objects
- Copying Projects
- Populating Tablespace Data
- Building the Updated PeopleTools Project
- Migrating Records to New Tablespaces
- Converting DB2 Data Types
- Loading Base Data
- Loading Language Data
- Loading PeopleTools Data
- Loading PeopleTools Definition Group
- Converting PeopleTools Objects
- Creating PeopleTools Views
- Converting Integration Broker
- Converting Integration Broker Objects
- Updating Process Request Tables
- Clearing the Rowset Cache
- Setting Object Version Numbers
- Converting Database Data Types
- Converting Oracle Time Data Types

- Backing Up After the PeopleTools Upgrade
- Configuring the Scheduler and Server

Understanding PeopleTools Changes

To implement a successful upgrade, you must apply the necessary PeopleSoft PeopleTools changes. This involves updating the following PeopleSoft PeopleTools features: system tables, copying and building projects, loading seed data, and converting objects. From this point forward, you run all steps using your newly installed version of the software.

Note. Unless otherwise indicated, all scripts can be found in your new release PeopleSoft codeline *PS_HOME\SCRIPTS* directory. The actual script name is indicated in the description of each step in uppercase letters.

Task 3-1: Verifying the Upgrade User

In this task, you verify that the user performing the upgrade steps has proper permissions to complete the upgrade.

Ensure that your upgrade user has PeopleSoft administrator privileges. This allows access to the PeopleSoft portal to make necessary security changes for the upgrade and to run the Portal Application Engine upgrade program. You use this ID to update the security setting for your other users so they can sign in after the upgrade.

Warning! You must perform this step now using your old version of PeopleSoft PeopleTools. If you skip this step, or if your user has insufficient PeopleSoft administrator privileges, you will not be able to complete your upgrade. You cannot complete this step later in the upgrade process. Perform the following steps to grant administrator privileges now.

To grant your upgrade user PeopleSoft administrator privileges:

1. From the browser, select PeopleTools, Security, User Profiles, User Profiles.
2. Select the user ID for your upgrade user.
3. Select the Roles tab.
4. Add the role *PeopleSoft Administrator* if it is not already granted to your upgrade user.
5. Save the user profile.

The following two conditions must be satisfied for the Upgrade User to access tools like Application Designer and Data Mover.

1. Verify that at least one of the Permission Lists the Upgrade User is tied to also exists in the New Release Demo database.
 - a. Run the following query on your Target database to determine the Permission Lists tied to the Upgrade user:

```
SELECT DISTINCT A.CLASSID FROM PSROLECLASS A, PSROLEUSER B, PSOPRDEFN C
WHERE A.ROLENAME = B.ROLENAME
AND B.ROLEUSER = C.OPRID
```

```
AND C.OPRID = 'Upgrade User'
```

- b. Run the following query on the New Release database for the list of Permission Lists defined in it:

```
SELECT DISTINCT CLASSID FROM PSCLASSDEFN
```

- c. Verify that at least one of the values returned by the first query is present in the list returned by the second query.
2. This Permission List should have access enabled to tools like Application Designer and Data Mover in the New Release Demo database. To verify this:
- Log on to the New Release Demo database's Pure Internet Architecture.
 - Select PeopleTools, Security, Permissions & Roles, Permission Lists.
 - Enter the above Permission Lists name in the search box and click Search.
 - Select the PeopleTools tab.
 - Check the Application Designer Access and Data Mover Access check boxes if not already checked.
 - Click Save.

See the product documentation for PeopleTools: Security Administration for your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-2: Performing Script Modifications

This section discusses:

- Understanding Script Modifications
- Updating the Configuration Manager Profile
- Copying the PTDDLUPG Script
- Editing the PTDDLUPG Script
- Running a DBTSFIX Report
- Editing the DBTSFIX Output Scripts
- Editing the GRANT Script
- Editing the PTxxxTLS Scripts
- Editing the DB2 Scripts
- Editing Move to Production Import Scripts
- Editing the Move to Production Password
- Editing the DDL Parameters

- Preparing for the Integration Broker Conversion
- Preparing for a PeopleTools Patch
- Editing Application Tablespace Step Properties
- Editing Multilingual Step Properties
- Editing Data Type Steps

Understanding Script Modifications

In this task, you perform preparation steps and make manual modifications to scripts delivered with your new PeopleSoft release. You must make the following modifications before proceeding with the remainder of your upgrade.

Note. Move to Production: These steps will be repeated in the Move to Production (MTP) pass. The script that you previously edited may be acceptable, or you may need to change it again if your New Copy of Production has a different security or data definition language (DDL) configuration.

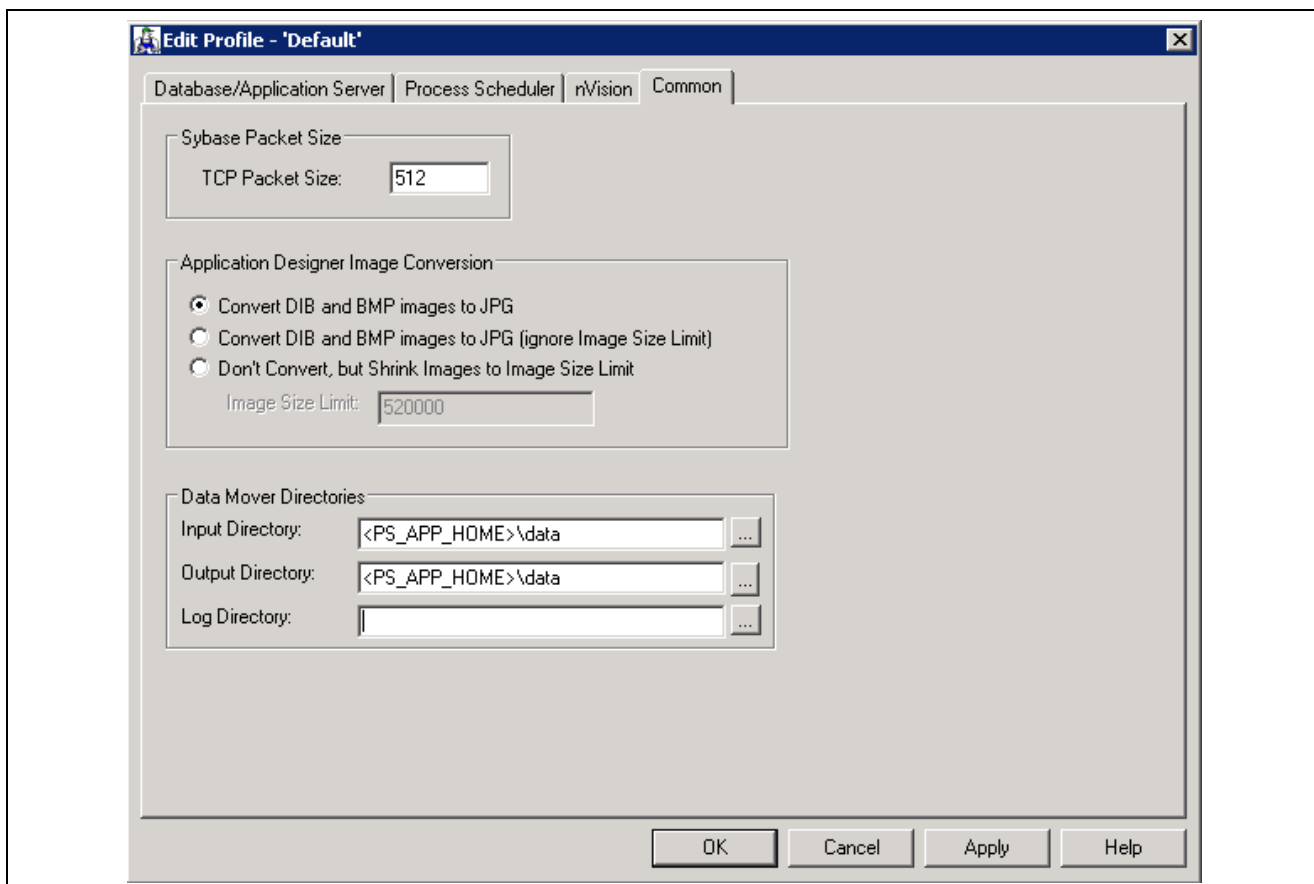
Task 3-2-1: Updating the Configuration Manager Profile

The PeopleSoft Configuration Manager default profile needs to be updated to use values for your new release *PS_APP_HOME*. PeopleSoft Change Assistant uses this information to run automated steps for the rest of the upgrade. These are settings on the workstation and you need to do this for each workstation that you may use during the upgrade.

To update the profile:

1. Open PeopleSoft Configuration Manager.
2. On the Profile tab, select the Default profile, click Edit, and select the Common tab.

The following is an example of the Common tab.



Edit Profile - Default dialog box: Common tab

Note. As illustrated in the example above, the Input Directory must be *PS_APP_HOME\data*, substituting *PS_APP_HOME* with your directory. The Output Directory must be the same.

3. The Log Directory is set by PeopleSoft Change Assistant and should be left as is.
4. Select the Process Scheduler tab and verify your SQR settings. PeopleSoft Change Assistant will use these settings to launch SQR.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-2-2: Copying the PTDDLUPG Script

In this step, you copy the PTDDLUPG.SQL script to the *PS_HOME\SCRIPTS* directory. If you are an Oracle/UNIX customer, transfer the file from the UNIX file server (*PS_HOME/SCRIPTS/UNIX*) to your Windows file server *PS_HOME\SCRIPTS* directory. If you are an Oracle/NT customer, you can find the file in *PS_HOME\SCRIPTS\NT*.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle	All

Task 3-2-3: Editing the PTDDLUPG Script

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

In this step, you edit *PS_HOME\SCRIPTS\PTDDLUPG.SQL* to add site-specific tablespace names, tablespace parameters, database names, and STOGROUPs as applicable for your database platform. PeopleSoft PeopleTools delivers new tablespaces in the new PeopleSoft release. The PTDDLUPG.SQL script builds new tablespaces as part of the upgrade, so you need to remove any tablespaces from the script that already exist in your database. Review the script with your DBA and follow the instructions in the script for your platform.

Note. If you are an Oracle customer, you need to edit the script to ensure that all of the DDL within this script is permissible for the access ID because the PTDDLUPG.SQL script will be automatically run later in the upgrade using the access ID.

Note. DB2 UNIX/NT Unicode customers need to rename the PTDDLUPGU.SQL script to PTDDLUPG.SQL. If you choose not to rename the file, you will need to modify the step titled “Creating Tablespaces” to run the PTDDLUPGU.SQL script. You can find this file in the *PS_HOME\SCRIPTS* directory.

Note. DB2 z/OS customers need to edit the PTDDLUPG.SQL script generated during installation. This script needs to be placed in the *PS_HOME\SCRIPTS* directory so it can be run later during the upgrade.

See Updating PeopleTools System Tables.

See Creating Tablespaces.

Note. Informix customers need to edit the *PS_HOME\SCRIPTS\UNIX\PTDDLUPG.SH* script.

See Creating Tablespaces for Informix.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS Informix Oracle	All

Task 3-2-4: Running a DBTSFIX Report

The DBTSFIX.SQR script aligns the tablespaces in the delivered release scripts with the Target database used during the upgrade. This process generates new release scripts, conforming to the REL_{xxx}DBTSFIX.SQL naming convention that you run in a later task. Run this script to preserve your existing table-to-tablespace mapping in the Target database. The result of this task will be a REL_{xxx}DBTSFIX.SQL script in which *xxx* represents a release number (for example, 849, 850, 851, and so on) associated with your particular path.

Important! Do not run the new release script at this point. You will be instructed to run this script later in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle Informix DB2 UNIX/NT DB2 z/OS	All

Task 3-2-5: Editing the DBTSFIX Output Scripts

Edit the generated REL_{xxx}DBTSFIX scripts according to the comments within each script. Verify that the data definition language (DDL) is accurate for your environment for tablespaces, database names, owner IDs, and so forth. The scripts can be found in your PeopleSoft Change Assistant output directory for this upgrade path.

Warning! Do not run output scripts at this time. At this point in the upgrade process, you must only review the DBTSFIX output scripts.

Note. If you are a DB2 z/OS customer, when you upgrade from one PeopleSoft release to the next, it is possible to move tables from a tablespace using a 4-KB buffer pool to one using a 32-KB buffer pool. The tablespaces PSIMAGE, PSIMGR, and PSIMAGE2 use 32-KB buffer pools in Oracle-delivered applications. To maintain the tablespace schema used at your site, the DBTSFIX.SQR script will revise the upgrade scripts with the database and tablespace information from your database (the Target database). Tables assigned to tablespaces PSIMAGE, PSIMGR, or PSIMAGE2 in the upgrade scripts are the exception to this approach. Note that Oracle has reassigned some tables to PSIMAGE2 because they now require a 32-KB buffer pool. You must manually edit the “Create Table” statements in the upgrade scripts to replace the tablespace name PSIMAGE, PSIMGR, or PSIMAGE2 with an appropriate tablespace name in your implementation that utilizes a 32-KB buffer pool. For DB2 z/OS customers, the database name must also be replaced with the value corresponding to the tablespace that you are using.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle Informix DB2 UNIX/NT DB2 z/OS	All

Task 3-2-6: Editing the GRANT Script

Edit *PS_HOME\SCRIPTS\GRANT.SQL* and make the necessary modifications as documented in the script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-2-7: Editing the PTxxxTLS Scripts

This step applies only if you are running on a DB2 z/OS platform.

To edit the PTxxxTLS scripts:

1. Edit all of the scripts in the *PS_HOME\SCRIPTS* directory on the file server that conform to this file naming convention:

```
PTxxxTLS.DMS
PTxxxTLSyyy.DMS
```

The *xxx* represents a PeopleSoft PeopleTools release greater than your current PeopleSoft PeopleTools release and *yyy* represents the three-letter language code.

2. Uncomment and modify the set owner ID command within each script, as in the following example:

```
set execute_sql set current sqlid = 'OwnerId In Upper Case';
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 3-2-8: Editing the DB2 Scripts

Perform this step only if your database platform is DB2 z/OS. DB2 z/OS scripts that create tables need the `set current sqlid` statement so that the tables are created with the correct owner ID. Open each script listed below, then uncomment and modify all of the DB2-specific statements to reflect your environment.

For SQL scripts, if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment:

```
set current sqlid = 'OWNERID (in uppercase)';
```

For PeopleSoft Data Mover scripts (DMSs), if the script does not contain DB2-specific statements, add the following line to the top of the script and edit it for your environment:

```
set execute_sql set current sqlid = 'OWNERID (in uppercase)';
```

Following is a list of the scripts that you need to edit:

```
DB2TMPIDXCREATE.SQL
MSGTLSUPG.DMS
PSLANGUAGES.DMS
pt_languagedata.dms
pt_licensecode.dms
PT_RELEASE_IMPORT.DMS
tlsupgnoncomp.dms
```

In several steps in the upgrade process, project definitions are copied into the database. Any DB2 z/OS scripts that are built from these project definitions will need to be modified before you run them. Set the following steps in your PeopleSoft Change Assistant job to a manual stop and edit the scripts for correct database/tablespace information. When you build the SQL scripts after copying the project, the database/tablespace names are the default values. You need to change these to the Target database specific values. To set a step to a manual stop in PeopleSoft Change Assistant, highlight the step and select Edit, Stop from the menu bar.

In chapter 5, “Applying Application Changes,” set the step Re-Creating Upgrade Tables (in the task Modifying the Database Structure) as a manual stop and edit the UPGCONVERT_CRTTBL.SQL script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 3-2-9: Editing Move to Production Import Scripts

Perform this step only if your database platform is DB2 z/OS.

During the Move to Production, there are several scripts that export data from the previous Copy of Production to the New Copy of Production. These scripts export the tables to a DAT file. When the tables are exported, all the table attributes, including the database-specific information (table owner, database name, and tablespace name), are stored in the DAT file. When you run the import script, it tries to create the tables and indexes using the database-specific information from the DAT file. So even though you ran the import script against your Copy of Production, you would still create tables in the upgraded database (which is the Source database for the Move to Production step). To create the tables in the Target database, open each script listed below, then uncomment and modify all of the DB2-specific statements to reflect your environment.

You will also need to add the following command into `MVPRDIMP.DMS`, near the end of the script, just after the `REPLACE_DATA PSSTATUS` command, but before the `REPLACE_VIEW PSTEMPBLCNTVW` command, to change *ownerid* to the owner ID of your database.

```
Update PSSTATUS set OWNERID='OWNERID (in uppercase)';
```

Following is a list of the scripts that you need to edit:

`MVAPPIMP.DMS`

`MVPRDIMP.DMS`

If you prefer, you can copy these overrides from the `xxDMODBO.DMS` script that was generated from DBSetup while installing your database. Make sure you remove the `SET NO RECORD` if you copy from the DBSetup generated file.

See the product documentation for PeopleTools: Data Management for your new release.

See “Applying Changes to the Production Database,” Performing the Move to Production.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	DB2 z/OS	All

Task 3-2-10: Editing the Move to Production Password

If your access ID and access password are different in the Copy of Production database than in the New Copy of Production database, you need to reset the access password in the `MVPRDIMP.DMS` script.

To modify passwords in your New Copy of Production database, append the following to your `MVPRDIMP.DMS` script and replace *ownerID*, *accessID*, and *accesspswd* with your values in the New Copy of Production database:

```
UPDATE PSSTATUS set OWNERID = 'ownerID';
UPDATE PSACCESSPRFL SET ACCESSID = 'accessID',
ACCESSPSWD = 'accesspswd', ENCRYPTED = 0;
ENCRYPT_PASSWORD *;
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 3-2-11: Editing the DDL Parameters

Edit the `PS_HOME\SCRIPTS\DDLxxx.DMS` script for your database platform, as specified in the table below:

Script	Platform
DDLDB2 . DMS	DB2 z/OS
DDLDBX . DMS	DB2 UNIX/NT
DDLINF . DMS	Informix
DDLORA . DMS	Oracle

At the bottom of this script, there will be an insert into PSDDLDEFPARMS. This insert contains default information used when creating a table, an index, a unique index, or a tablespace. Verify with your database administrator that the last value for each row is appropriate for your environment by checking the values currently stored in your PSDDLDEFPARMS table. Otherwise, the values will be reset to the default values delivered in this script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Oracle Informix	All

Task 3-2-12: Preparing for the Integration Broker Conversion

This section discusses:

- Understanding Integration Broker Conversion
- Editing PTIBUPGRADE.DMS
- Editing PTUPGIBDEL.SQL
- Editing the Change Assistant Template

Understanding Integration Broker Conversion

In this step, you edit various Integration Broker scripts that are run during the upgrade. You also need to modify PeopleSoft Change Assistant step properties with an updated script name so that the upgrade does not error out on an incorrect script name.

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.47 or earlier. You must perform this step if you are upgrading from PeopleSoft PeopleTools 8.47 or earlier.

Editing PTIBUPGRADE.DMS

Edit *PS_HOME\SCRIPTS\PTIBUPGRADE.DMS* and make the necessary modifications as documented in the script. User level node security and transactional security have been added as of PeopleSoft PeopleTools 8.48. Service namespace information, a low-level user on the node, and a low-level permission list for service operations, need to be specified. Consult with your Integration Broker specialist for assistance.

Editing PTUPGIBDEL.SQL

Edit *PS_HOME\SCRIPTS\PTUPGIBDEL.SQL* to delete data from the tables that only exist in the old PeopleSoft PeopleTools release. Open the script and modify it as follows.

To modify the PTUPGIBDEL.SQL script:

1. Search for the string `? --- End of PT8.xx --- ?` in which *xx* represents the last two digits of the PeopleSoft PeopleTools release from which you are upgrading.
2. Delete the entire portion of the script below this string.
3. Save the script as *PS_HOME\SCRIPTS\PTUPGIBDEL8xx.SQL* in which *xx* represents the last two digits of the PeopleSoft PeopleTools release from which you are upgrading, as determined in step 1.

Important! Save the script using the naming convention shown above. This will preserve the original script for use in updating other databases at different PeopleSoft PeopleTools releases and assist in running the script automatically.

Editing the Change Assistant Template

Follow this procedure to edit your PeopleSoft Change Assistant template so that the correct script is run.

To edit the template:

1. In PeopleSoft Change Assistant, in the task Performing Updates to PeopleTools System Tables, right-click the step Cleaning Up Message Data, and then select Step Properties.
2. Change the Script/Procedure value from *PTUPGIBDEL8xx* to the specific name that you used in step 3 of the procedure Editing PTUPGIBDEL.SQL, without the .SQL extension.
3. Click OK.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-2-13: Preparing for a PeopleTools Patch

This section discusses:

- Understanding Preparing for a PeopleTools Patch
- Upgrading Without a PeopleTools Patch
- Upgrading With a PeopleTools Patch

Understanding Preparing for a PeopleTools Patch

You may be upgrading using a patched PeopleSoft PeopleTools release. In this step, you modify your PeopleSoft Change Assistant upgrade job depending on whether you are applying a PeopleSoft PeopleTools patch or not. Follow the instructions in the appropriate section below.

Upgrading Without a PeopleTools Patch

If you are *not* applying a PeopleSoft PeopleTools patch as part of the upgrade process, mark the following steps as complete in your upgrade job in PeopleSoft Change Assistant. These steps are not applicable when upgrading to an unpatched version of PeopleSoft PeopleTools:

- “Applying PeopleTools Changes,” Performing Updates to PeopleTools System Tables, Updating PeopleTools Patch Information
- “Applying PeopleTools Changes,” Copying Projects, Copying the PATCH85X Project
- “Applying PeopleTools Changes,” Copying Projects, Copying the PATCH85XML Project

To set the patch steps as complete:

1. In PeopleSoft Change Assistant, select the step.
2. Select Edit, Complete, or press F7.

Upgrading With a PeopleTools Patch

If you are applying a PeopleSoft PeopleTools patch as part of the upgrade process, review the patch documentation and perform any additional database upgrade instructions, other than running PTPATCH.DMS, that may be listed prior to the copy of the patch project. Do not run PTPATCH.DMS at this time, as PTPATCH.DMS will be run later in the upgrade.

Additionally, verify whether a database project was delivered with the patch. Perform the following steps only if you are applying a PeopleSoft PeopleTools patch that includes a database project.

To prepare for applying a PeopleSoft PeopleTools patch:

1. In PeopleSoft Change Assistant, open your upgrade job.
2. In the task Copying Projects, right-click the step Copying the PATCH85X Project, and then select Step Properties.
3. In the Step Properties dialog box, change the #PROJECT value in the Parameters field from *PATCH85X* to the actual name of the PeopleTools patch project (e.g., *PATCH850*).

85X represents the PeopleSoft PeopleTools release of the patch project, which should correspond to the PeopleSoft PeopleTools release to which you are upgrading.

4. Click OK.
5. If you license multiple languages and translatable changes were delivered in the patch, perform the following steps:

- a. In the task Copying Projects, right-click the step Copying the PATCH85XML Project, and then select Step Properties.

- b. In the Step Properties dialog box, change the #PROJECT value in the Parameters field from *PATCH85XML* to the actual name of the PeopleTools patch project (e.g., *PATCH850ML*).

85X represents the PeopleSoft PeopleTools release of the patch project, which should correspond to the PeopleSoft PeopleTools release to which you are upgrading.

- c. Click the Upgrade button, and then click the Options button.
- d. On the Copy Options tab, deselect any languages that you do not license.
Common and English should remain deselected.
- e. Click OK three times.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-2-14: Editing Application Tablespace Step Properties

During each Move to Production pass, you must create any new tablespaces. You can reuse the same script created during the initial pass when you created new tablespaces, or you can build a new one if you plan to use different tablespaces on your production system.

See "Applying Application Changes," Updating Database Overrides, Creating New Tablespaces.

The script supplied by Oracle to create tablespaces for your upgrade is:

- PADDL.SQL for Oracle or DB2 z/OS ANSI
- PADDLU.SQL for DB2 z/OS Unicode
- PADDLDMS.SQL for DB2 UNIX/NT ANSI
- PADDLDMSU.SQL for DB2 UNIX/NT Unicode

Once you have determined which script to run during Move to Production, modify your upgrade job with the correct script name.

To update the step Creating Application Tablespaces with the correct script name:

1. In PeopleSoft Change Assistant, open your upgrade job.
2. In the task Populating Tablespace Data, right-click the step Creating Application Tablespaces and then select Step Properties.
3. In the Script/Procedure field, change *xxDDL* to the name of the script that you want to run and click OK.
4. Select File, Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	Oracle DB2 UNIX/NT DB2 z/OS	All

Task 3-2-15: Editing Multilingual Step Properties

In this step, you edit the PeopleSoft Change Assistant step properties for the multilingual PeopleSoft PeopleTools project copy step (or steps). Copy only the translated objects for the languages that you license. This prevents the translated objects for unlicensed languages from copying over. You will copy any multilingual projects later in the upgrade process.

Depending on which languages you license, you will need to complete the following instructions once or twice. If you license any of these languages—Arabic, Bulgarian, Croatian, Czech, Danish, Finnish, French, Greek, Hebrew, Hungarian, Malay, Norwegian, Polish, Romanian, Russian, Serbian, Slovak, Slovenian, Turkish, or UK English—perform the following instructions for the step “Copying the PPLTLSML Project.” If you license any of these languages—Canadian French, Dutch, German, Italian, Japanese, Korean, Portuguese, Simplified Chinese, Spanish, Swedish, Traditional Chinese, or Thai—perform the following instructions for the step “Copying the PPLTLS84CURML Project.”

To edit multilingual step properties:

1. In PeopleSoft Change Assistant, select the step.
2. Open the Step Properties dialog box.
3. Click the Upgrade button, and then click the Options button.
4. On the Copy Options tab, deselect any languages that you do not license.
Common and English should remain deselected.
5. Click OK three times.
6. Save the template in PeopleSoft Change Assistant.

See Copying the PPLTLS84CURML Project.

See Copying the PPLTLSML Project.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All Non-English

Task 3-2-16: Editing Data Type Steps

For PeopleSoft PeopleTools 8.48 and later, new data types are supported for Microsoft SQL Server 2005 or later and Oracle. These data type changes are only available for use in conjunction with PeopleSoft application release 9.0 or later. If you have already converted data types or are upgrading to a PeopleSoft application release earlier than 9.0, you must mark these steps as complete in the template now. Do *not* run these steps unnecessarily.

To set the Data Conversion steps as complete:

1. In PeopleSoft Change Assistant, select all the steps within the task Converting Database Data Types and press the F7 key.
2. Additionally, during Move to Production passes, in PeopleSoft Change Assistant, select the step *Resetting the Database Options Flag* within the task Performing Updates to PeopleTools System Tables and press the F7 key.
3. Save the upgrade job in PeopleSoft Change Assistant.

See Converting Database Data Types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server Oracle	All

Task 3-3: Preparing for the DB2 Data Type Conversion

This section discusses:

- Understanding the Conversion Preparation
- Editing the DB2 Data Type Conversion Scripts
- Running the DB2 Data Type Length Audit
- Reviewing the Initial Audits Before DB2 Conversion

Understanding the Conversion Preparation

In this task, you perform steps to prepare for the DB2 LOB data type conversion. You will edit scripts needed for the conversion, run audits to review data integrity for the conversion, and fix issues reported by the audits.

PeopleSoft Change Assistant will display the steps in this task only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

Task 3-3-1: Editing the DB2 Data Type Conversion Scripts

Edit the following SQL scripts and make the necessary modifications as documented in the script for the OWNERID.

- DB2 z/OS:

```
PTDB2LOBPOSAUDIT.SQL
UPGDB2DBOPTIONS_ENABLE.SQL
UPGDB2DBOPTIONS_DISABLE.SQL
```

- DB2 UDB:

```
PTDB2LOBPOSAUDIT.SQL
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-3-2: Running the DB2 Data Type Length Audit

This step runs LOBPRAUD.SQR, which lists the tables and fields where the average data length of the field in the table exceeds the PeopleSoft-defined field length of the Long Character field type.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-3-3: Reviewing the Initial Audits Before DB2 Conversion

Examine the log file from the previous step “Running the DB2 Data Type Length Audit.” It contains a list of columns on tables where the average data length of the field in the table exceeds the PeopleSoft-defined field length of the Long Character field type. Fix the data contained in each field listed so that it is shorter than the PeopleSoft-defined field length before proceeding with the upgrade. After fixing the data, you may rerun all of the steps in this task to rerun this audit.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-4: Performing Updates to PeopleTools System Tables

This section discusses:

- Understanding Updating PeopleTools System Tables
- Cleaning Up Message Data
- Creating Tablespaces
- Creating Tablespaces for Informix
- Updating System Catalog Views
- Updating PeopleTools System Tables
- Granting Privileges to the CONNECT ID
- Exporting Installation Data
- Updating the Product License Code
- Updating the Database for Timestamp
- Updating PeopleTools Patch Information

- Creating Temporary Performance Indexes
- Exporting PeopleTools System Tables
- Importing PeopleTools System Tables
- Resetting the Database Options Flag
- Enabling the DB2 CAST Function
- Rerunning Update Statistics for DB2 zOS
- Rerunning the RUNSTATS Report for DB2 UNIX NT
- Rerunning Update Statistics for DB2 UNIX NT
- Rerunning Update Statistics for Informix
- Rerunning Update Statistics for Oracle
- Saving Transparent Data Encryption Information
- Saving Oracle Fine Grained Auditing Information

Understanding Updating PeopleTools System Tables

In this task, you update your PeopleSoft PeopleTools system tables by running various scripts.

Important! From this point forward, run all steps using the new release of PeopleSoft PeopleTools on your Copy of Production database, unless otherwise indicated.

Task 3-4-1: Cleaning Up Message Data

This step runs PTUPGIBDEL8xx.SQL, where *xx* represents the last two digits of the PeopleSoft PeopleTools release from which you are upgrading. Message functionality and structure changed as of PeopleSoft PeopleTools 8.48, and the old data is obsolete.

PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.47 or earlier. You must perform this step to clean out obsolete message data if you are upgrading from PeopleSoft PeopleTools 8.47 or earlier.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-4-2: Creating Tablespaces

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

This step runs the PTDDLUPG script, which builds new tablespaces as part of the upgrade to the new PeopleSoft release.

Note. DB2 UNIX/NT and DB2 z/OS Unicode customers: If you did not rename the PTDDLUPGU.SQL file when you edited the PTDDLUPG script, you must modify this step to run the PTDDLUPGU.SQL script. This file can be found in the *PS_HOME\SCRIPTS* directory.

See Editing the PTDDLUPG Script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS Oracle	All

Task 3-4-3: Creating Tablespaces for Informix

Transfer the PTDDLUPG.SH script file to the server. Log in as the database owner (Informix user) and run PTDDLUPG.SH to create the new tablespaces. This script creates new tablespaces introduced in the new PeopleSoft release.

See Editing the PTDDLUPG Script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Informix	All

Task 3-4-4: Updating System Catalog Views

This step runs the UPDOBJ.SQL script, which re-creates system catalog views that both PeopleSoft Data Mover and PeopleSoft PeopleTools use.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server Sybase	All

Task 3-4-5: Updating PeopleTools System Tables

Release scripts are SQL scripts that modify the underlying table structure of a database so that it is compatible with a more recent PeopleSoft PeopleTools release. They are located in the *PS_HOME\SCRIPTS* directory. Release scripts can be identified by their common naming standard, RELxxx.SQL, in which xxx designates a PeopleSoft PeopleTools release number.

These release (REL) scripts alter and update your PeopleSoft PeopleTools tables to the current release. PeopleSoft Change Assistant determines which RELxxx scripts to run based on the PeopleSoft PeopleTools release of your Source and Target databases.

If you created RELxxxDBTSFIX (in which xxx is a PeopleSoft PeopleTools release) earlier in your upgrade, the procedure will look at your Output folder and will know to run RELxxxDBTSFIX. If you did not run DBTSFIX, PeopleSoft Change Assistant will run RELxxx.

Note. Before running this step, verify that the *PS_HOME* values are set correctly in the PeopleSoft Change Assistant environment for your upgrade job. Your new release *PS_HOME/SCRIPTS* directory should contain all scripts that will be run during this step. This step runs at least one script. Do not proceed to the next step until these scripts run successfully.

See the product documentation for PeopleTools: Change Assistant and Update Manager for your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-4-6: Granting Privileges to the CONNECT ID

This step runs the GRANT.SQL script. This script grants select access to the connect ID for tables necessary for sign-in.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-4-7: Exporting Installation Data

This step runs PT_INSTALLDATA.DMS, which exports data that was loaded into the New Release Demo during installation.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 3-4-8: Updating the Product License Code

The new PeopleSoft release stores your application product license code on the database. This code is used to unlock the pages and Application Engine programs that you licensed. It also provides necessary product information about your database to be used for identifying software maintenance that may need to be applied.

You need to populate the databases that were upgraded to the new PeopleSoft release so that you have the correct access to pages and Application Engine programs that you licensed.

When your new PeopleSoft databases were installed, the appropriate application license code was added to your database in the PSOPTIONS table. This was done in an update statement that was created when DBSETUP was run to create the PeopleSoft Data Mover script for the new PeopleSoft release. The location of this script is:

```
PS_HOME\SCRIPTS\DBnameDBplatform.DMS
```

DBname is the name of the Demo database that you installed and *DBplatform* represents the code used for the database platform, as shown in the following table:

Database Platform	Code Used
Microsoft SQL Server	MSS
DB2 UDB z/OS	DB2
DB2 UDB UNIX/NT	DBX
Oracle	ORA
Informix	INF
Sybase	SYB

This step runs PT_LICENSECODE.DMS, which updates your upgrade database with the same license code and license group that was used to install the New Release Demo database. You will be able to access the pages and Application Engine programs that you licensed after running the script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-4-9: Updating the Database for Timestamp

This step runs *PS_HOME/SCRIPTS/UPGDBOPTIONS_ENABLETIMESTAMP.SQL*. This script updates the database to indicate that the new **TIMESTAMP** data types are now enabled. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.49 or earlier.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle	All

Task 3-4-10: Updating PeopleTools Patch Information

This step runs PTPATCH.DMS, which updates your database with the version of the PeopleSoft PeopleTools patch being applied.

Note. You only need to run this step if you are applying a PeopleSoft PeopleTools patch as part of the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-4-11: Creating Temporary Performance Indexes

Perform this step only if you are running on a DB2 z/OS platform. This step runs the DB2TMPIDXCREATE script to create multiple indexes for rename performance. You will drop these indexes later in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 z/OS	All

Task 3-4-12: Exporting PeopleTools System Tables

The script for this step exports the content of the PeopleSoft PeopleTools tables from the Copy of Production database during your Move to Production passes. During the initial pass, you run programs to convert some objects, like PeopleCode and fields. You perform analysis to decide which objects, such as records and menus, to bring over to your production database and which customized objects to keep. At the end of the initial pass, you reapply customizations or make other changes, such as modifying your permission lists. You do not need to repeat those tasks in the Move to Production pass because this script exports all of your changes to the PeopleSoft PeopleTools objects.

The script name for your upgrade path is:

MVPRDEXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	MTP	All	All	All

Task 3-4-13: Importing PeopleTools System Tables

The script for this step imports the content of the PeopleSoft PeopleTools tables into your New Copy of Production database during your Move to Production passes.

These MVPRD* scripts replace tasks and steps performed in the initial pass. These tasks and steps may include:

- Copying Projects
- Renaming Records and Fields
- Running Upgrade Compare Reports
- Running Project Compare Reports

- Running the Upgrade Copy

If your RDBMS uses tablespaces, edit this script for the proper DDL information.

The script name for your upgrade path is:

MVPRDIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 3-4-14: Resetting the Database Options Flag

This step runs UPGDBOPTIONS_DISABLE.SQL, which resets the PSSTATUS.UPGDBOPTIONS flag. The flag is reset only for upgrades where you are coming from a PeopleSoft application release prior to 9.0 and going to a PeopleSoft application release of 9.0 or later with PeopleSoft PeopleTools 8.48 or later. The SQL script assumes that your database is accurately stamped with the correct release information. The PeopleSoft PeopleTools upgrade must be applied using the old data types as the data type conversion will occur after the PeopleSoft PeopleTools changes have been completed.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	MS SQL Server Oracle	All

Task 3-4-15: Enabling the DB2 CAST Function

This step runs UPGDB2DBOPTIONS_ENABLE.SQL, which updates the database to enable the conversion of the LONG VARCHAR FOR BIT DATA data type to the BLOB data type. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-4-16: Rerunning Update Statistics for DB2 zOS

Earlier in the upgrade process, you updated your statistics for DB2 z/OS. Due to changes in the database structure, you must update statistics again to improve the performance of your compare and copy. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 3-4-17: Rerunning the RUNSTATS Report for DB2 UNIX NT

This script creates the RUNSTATS.DAT file for the script to update the statistics for DB2 UDB on UNIX, Linux, or Windows.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 3-4-18: Rerunning Update Statistics for DB2 UNIX NT

Earlier in the upgrade process, you updated your statistics for DB2 UDB on UNIX, Linux, or Windows. Due to changes in the database structure, you must update statistics again to improve the performance of your compare and copy. This step runs `RUNSTATS .SQL` to update statistics on your database.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 3-4-19: Rerunning Update Statistics for Informix

Earlier in the upgrade process, you updated your statistics for Informix. Due to changes in the database structure, you must update statistics again to improve the performance of your compare and copy. This step runs `UPDATESTATS` to update statistics on your database.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Informix	All

Task 3-4-20: Rerunning Update Statistics for Oracle

Earlier in the upgrade process, you updated your statistics for Oracle. Due to changes in the database structure, you must update statistics again to improve the performance of your compare and copy. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-4-21: Saving Transparent Data Encryption Information

PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later. If you have defined encrypted fields within PeopleSoft PeopleTools for Oracle's Transparent Data Encryption (TDE) feature, note that all metadata field definitions are delivered from PeopleSoft applications without any encryption attributes enabled. PeopleSoft applications will not deliver any metadata indicating that encryption is enabled for any field for an initial installation database file, project, or a PeopleSoft PeopleTools or PeopleSoft application patch. If you customize any fields by adding TDE encryption, you will need to keep track of the fields and their associated record definitions and ensure that you maintain the desired encryption status throughout any upgrades that you perform.

If you have TDE enabled, run *PS_HOME\SCRIPTS\PREUPGTDEPROCESS.SQL*. This script clears the TDE encryption algorithm currently defined in the PeopleSoft metadata. The script also creates two projects, ENCRYPTEDFLDSB and ENCRYPTEDTBLSB. The project ENCRYPTEDFLDSB contains fields that currently have distinct encrypted columns and the project ENCRYPTEDTBLSB contains recfields that currently have distinct encrypted columns, as indicated in the Oracle database catalog.

You will need the information in the projects and the log file that results from running this script in order to reimplement TDE after the upgrade.

See “Completing Database Changes,” Enabling Oracle Transparent Data Encryption.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-4-22: Saving Oracle Fine Grained Auditing Information

If you have implemented Oracle's Fine Grained Auditing (FGA) feature on PeopleSoft tables, disable it for the duration of the upgrade to improve upgrade performance.

To disable Fine Grained Auditing:

1. Run *PS_HOME\SCRIPTS\PREUPGFGAREPORT.SQL*. This script reports on the current (pre-upgrade) FGA policies stored in *USER_AUDIT_POLICIES*, detailing all columns by table for all tables with FGA policies. Keep this report to use at the end of the final pass of the upgrade.
2. Run *PS_HOME\SCRIPTS\PREUPGFGAPROCESS.SQL*. This script generates the scripts *PSCREATEFGA.SQL* and *PSDISABLEFGA.SQL*.
3. Run the generated *PSDISABLEFGA.SQL* to disable FGA policies.

You will run the generated *PSCREATEFGA.SQL* script at the end of the final pass of the upgrade. Do not run it at this time.

See the product documentation for PeopleTools: Data Management for your new release for more information about administering PeopleSoft databases on Oracle.

See "Completing Database Changes," Enabling Oracle Fine Grained Auditing.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-5: Turning Off Change Control

This task executes a SQL statement that turns off the Change Control feature to improve performance for the upgrade copy. One of the tasks for completing database changes will remind you to turn this feature on again, if you want to use it.

Note. Move to Production: The Change Control feature slows down copy functions. The large copy projects are executed only during the initial pass and the feature is disabled only for the initial pass.

See "Completing Database Changes," Reviewing Change Control.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-6: Loading Model Definition Data

This section discusses:

- Understanding Loading Model Definition Data
- Loading Model Definitions for DB2 zOS
- Loading Model Definitions for DB2 UNIX NT
- Loading Model Definitions for Oracle
- Loading Model Definitions for Informix
- Loading Model Definitions for Microsoft
- Loading Model Definitions for Sybase

Understanding Loading Model Definition Data

In this task, you load model definition scripts for your database platform and populate DDL model definitions. This step runs the DDL model definition script applicable to your database platform. If required by your database platform, you modified this script in the task Performing Script Modifications, to use your site-specific information.

See Performing Script Modifications.

Task 3-6-1: Loading Model Definitions for DB2 zOS

This step runs the DDLDB2.DMS script to populate DDL model definitions for the DB2 z/OS platform.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 3-6-2: Loading Model Definitions for DB2 UNIX NT

This step runs the DDLDBX.DMS script to populate DDL model definitions for DB2 UDB on UNIX, Linux, or Windows.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 3-6-3: Loading Model Definitions for Oracle

This step runs the DDLORA.DMS script to populate DDL model definitions for the Oracle platform.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-6-4: Loading Model Definitions for Informix

This step runs the DDLIFX.DMS script to populate DDL model definitions for the Informix platform.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Informix	All

Task 3-6-5: Loading Model Definitions for Microsoft

This step runs the DDLMSS.DMS script to populate DDL model definitions for the Microsoft SQL Server.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-6-6: Loading Model Definitions for Sybase

This step runs the DDLSYB.DMS script to populate DDL model definitions for the Sybase platform.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Sybase	All

Task 3-7: Loading Message Data

This step runs the MSGTLSUPG.DMS script, which loads system messages in the message catalog.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-8: Reviewing PeopleTools Objects

Run this task to identify any PeopleSoft PeopleTools objects that you have customized. This task only identifies the customized PeopleSoft PeopleTools objects. You still must overwrite the customized objects with the new PeopleSoft PeopleTools definitions when you copy the project.

During the upgrade process, you copy PeopleSoft PeopleTools objects into your database. PeopleSoft PeopleTools functionality, such as Security, is built using PeopleSoft PeopleTools objects, and it is possible that you could have modified the objects that make up a product like Security.

Warning! Do not change the delivered PeopleSoft PeopleTools objects. The delivered objects are integral to the smooth operation of your system, and the modification of these objects could cause system instability.

When you perform the copy of the PeopleSoft PeopleTools projects during the upgrade, you may overwrite modifications that you have made. Excluding any PeopleSoft PeopleTools-delivered objects from the upgrade may result in instability due to dependencies on specific objects.

To review PeopleSoft PeopleTools objects:

1. Open the PPLTLS84CUR project on your Target database.
 - a. Launch PeopleSoft Application Designer and sign in to the Target database.
 - b. Select Tools, Compare and Report..., From File...
 - c. Navigate to *PS_HOME*\projects and select the PPLTLS84CUR project.

Note. It is OK to have the project definition overwritten by the project that is being copied from file.

2. Verify that all object types are selected.
3. Select Options.
4. Select a value for Target Orientation.
5. For Comparison, use one of these options:
 - For Comparison by Release, select the highest release in the list.
 - For Compare by Date, select a date.
6. Under Compare Languages, select Common and English.
7. If you have non-English languages loaded, select the other languages that are loaded into your database.
8. On the Report Options tab, deselect the Generate Output to Tables check box.
9. On the Report Filter tab, click Default.

This will cause only customizations to appear on the compare reports.

10. Click OK.
11. Click Compare to start the compare process.
12. Evaluate the compare reports to identify whether the delivered objects conflict with any of your customizations.

Note. To preserve the PPLTLS84CUR compare reports, you must perform one of the following actions: rename the reports, move the reports to a different folder, or reset the Compare Report Output Directory.

To reset the Compare Report Output Directory, in PeopleSoft Application Designer, select Tools, Options. On the General tab, change the path specified for the Report Output Directory.

You will overwrite the customized objects with the new PeopleSoft PeopleTools definitions when you copy the PeopleSoft PeopleTools projects in a later task. You must not make any modifications that will affect PeopleSoft PeopleTools objects when reimplementing your customizations after the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-9: Copying Projects

This section discusses:

- Understanding Copying Projects
- Copying the PPLTLS84CUR Project
- Copying the PPLTLS84CURML Project
- Copying the PPLTLSML Project
- Copying the PPLTLS84CURDEL Project
- Copying the PATCH85X Project
- Copying the PATCH85XML Project

Understanding Copying Projects

In this task, you copy projects. The copy process overwrites all customizations, which can include configuration settings stored on the PeopleSoft PeopleTools objects.

Oracle recommends that you verify the results of all copied projects. After a project has been copied, each object is identified with a check mark in the Done column. You can view these results from the Upgrade tab in PeopleSoft Application Designer. It is also recommended that you copy the PeopleSoft PeopleTools projects with the take action flags set as they originally were set when the database was delivered.

Note. If you are running Sybase, check the configuration parameter for “open objects.” If this parameter is set too low, you may encounter the following error: `ct_connect(): network packet layer: internal net library error` during the compare or copy process. If you encounter this error, you will need to increase your parameter accordingly.

See the product documentation for PeopleTools: PeopleSoft Application Designer Developer’s Guide for your new release.

Task 3-9-1: Copying the PPLTLS84CUR Project

This process copies specified objects to the database that are necessary for the proper operation of PeopleSoft PeopleTools. The PPLTLS84CUR project contains all PeopleSoft PeopleTools objects that have been created or updated since PeopleSoft PeopleTools 8.40 was released.

Before the copy of records and fields, the upgrade process detects if the object definition exists or not. The PPLTLS84CUR project is delivered with an action of `CopyProp` to prevent the possible overwrites of custom field labels and recfields. When the upgrade process detects that a given field or record does not exist, it changes that action so that the entire definition can be copied. You can ignore any errors that you may receive at this time similar to the following examples:

```
Changed Action from CopyProp to Copy, definition does not exist on target.
Definition Name: OBJECTNAME not copied, entire definition already copied.
```

These warnings occur because the PeopleSoft PeopleTools project contains fields along with their field label. This is necessary so that the software does not overwrite any customized field labels on PeopleSoft field objects.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-9-2: Copying the PPLTLS84CURML Project

This process copies language-specific PeopleSoft PeopleTools objects to the database that are necessary for the proper operation of PeopleSoft PeopleTools.

Before the copy of records and fields, the upgrade process detects if the object definition exists or not. The PPLTLS84CURML project is delivered with an action of `CopyProp` to prevent the possible overwrites of custom field labels. When the upgrade process detects that a given field does not exist, it changes that action so that the entire definition can be copied. You can ignore any errors that you may receive at this time similar to the following example:

```
Changed Action from CopyProp to Copy, definition does not exist on target.
Definition Name: OBJECTNAME not copied, entire definition already copied.
```

This warning occurs because the PeopleSoft PeopleTools project contains fields along with their field label. This is necessary so that the software does not overwrite any customized field labels on PeopleSoft field objects.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	Canadian French Dutch German Italian Japanese Korean Portuguese Simplified Chinese Spanish Swedish Traditional Chinese Thai

Task 3-9-3: Copying the PPLTLSML Project

This process copies language-specific PeopleSoft PeopleTools objects to the database that are necessary for the proper operation of PeopleSoft PeopleTools.

Before copying records and fields, the upgrade process detects whether the object definition exists. The PPLTLSML project is delivered with an action of CopyProp to prevent the possible overwrites of custom field labels and recfields. When the upgrade process detects that a given field or record does not exist, it changes that action so that the entire definition can be copied. You can ignore any errors that you may receive at this time similar to the following examples:

```
Changed Action from CopyProp to Copy, definition does not exist on target.
Definition Name: OBJECTNAME not copied, entire definition already copied.
```

These warnings occur because the PeopleSoft PeopleTools project contains fields along with their field labels. This is necessary so that the PeopleSoft system does not overwrite any customized field labels on PeopleSoft field objects.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	Arabic Bulgarian Croatian Czech Danish Finnish French Greek Hebrew Hungarian Malay Norwegian Polish Romanian Russian Serbian Slovak Slovenian Turkish UK English

Task 3-9-4: Copying the PPLTLS84CURDEL Project

This process deletes specified PeopleSoft PeopleTools objects from your database.

The copy process detects whether any deleted fields are in use on other objects, such as records. You may see the following kind of warning during the copy:

Field *FIELDNAME* is in use on at least one record.

You must clean up any objects that reference deleted fields after the upgrade. When the PeopleSoft PeopleTools upgrade process deletes a field, it no longer exists in the new release, but you may still have objects that reference the deleted field. After fixing any objects that reference the field, delete the field from your system.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-9-5: Copying the PATCH85X Project

This process copies specified objects to the database that are necessary for the proper operation of PeopleSoft PeopleTools. The PATCH85X project contains all PeopleSoft PeopleTools objects that have been updated in the patch. Earlier in the upgrade, you modified the step properties of this step with the appropriate patch project name.

See “Applying PeopleTools Changes,” Performing Script Modifications, Preparing for a PeopleTools Patch.

Note. Perform this process only if you are applying a PeopleSoft PeopleTools patch that includes a database project. Check the patch documentation to verify whether a database project was delivered with the patch.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-9-6: Copying the PATCH85XML Project

This process copies language-specific PeopleSoft PeopleTools objects to your database that are necessary for the proper operation of PeopleSoft PeopleTools. The PATCH85XML project contains all translatable PeopleSoft PeopleTools objects that have been updated in the patch. Earlier in the upgrade, you modified the step properties of this step with the appropriate patch project name and the appropriate languages.

See “Applying PeopleTools Changes,” Performing Script Modifications, Preparing for a PeopleTools Patch.

Note. Perform this process only if you are applying a PeopleSoft PeopleTools patch that includes a database project. Check the patch documentation to verify whether a multilingual database project was delivered with the patch.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All Non-English

Task 3-10: Populating Tablespace Data

This section discusses:

- Creating Application Tablespaces
- Creating Application Tablespaces for Informix
- Populating Updated Tablespace Data
- Auditing DB2 Tablespace Assignments
- Updating Tablespace Names
- Updating DB2 Tablespace Assignments

Task 3-10-1: Creating Application Tablespaces

This step creates any new tablespaces needed for the upgrade. Earlier in the upgrade, you modified the step properties of this step with the appropriate script name.

See "Applying PeopleTools Changes," Performing Script Modifications, Editing Application Tablespace Step Properties.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	Oracle DB2 UNIX/NT DB2 z/OS	All

Task 3-10-2: Creating Application Tablespaces for Informix

During each Move to Production pass, you must create any new tablespaces. You can reuse the same script created during the initial pass when you created new tablespaces, or you can build a new one if you plan to use different tablespaces on your production system.

See "Applying Application Changes," Updating Database Overrides, Creating New Tablespaces.

The script supplied by Oracle to create tablespaces for your upgrade is:

```
PADDL.SH
```

Transfer the script to the server. Sign in as the database owner (Informix user) and run the script to create the new tablespaces.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	Informix	All

Task 3-10-3: Populating Updated Tablespace Data

This step populates all tablespace information in the PSRECTBLSPC table. This step runs the SETSPACE.SQR script, which ensures that the correct tablespace information is populated for tasks later in the upgrade process.

The values stored in the DDLSPACENAME field are updated with current values found in the system catalog for tables already defined in your database. If you modified tablespace names from the delivered names, this step makes those same changes in the PeopleSoft record definition.

If you receive any errors when you run this script, correct them by creating the needed tablespace or changing the tablespace definition on the record object. Then run the script again to validate that you have created all tablespaces.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle Informix DB2 UNIX/NT DB2 z/OS	All

Task 3-10-4: Auditing DB2 Tablespace Assignments

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.53 or later.

This step runs LOBDB2TS.SQR, which audits the tablespace information stored in the PeopleSoft system for records with Long, Image, or Attachment fields to make sure the tablespace has a sufficiently large page size and buffer pool size. LOBDB2TS.SQR reports on any records in a tablespace with an insufficiently sized page size or any records assigned to a nonexistent tablespace.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-10-5: Updating Tablespace Names

The SETSPACE SQR script identifies the tables with an invalid tablespace or database name/tablespace combination. However, the PeopleSoft PeopleTools metadata tables in your Copy of Production (Target) database contain the database/tablespace values from the Demo (Source) database. For DB2 z/OS, this also occurs if your Demo and Copy of Production databases are in the same DB2 subsystem after the upgrade/copy is completed. SETSPACE.SQR corrects these values for those tables defined in DB2. For those tables that are defined in the PeopleSoft PeopleTools metadata tables, but have not been defined in DB2, you need to review the SETSPACE SQR script for those tables that are reported as not defined in the database, but where the database/tablespace combination is valid. If the report shows an invalid database/tablespace combination, or shows your Demo (Source) database and tablespace names instead of your Copy of Production (Target) database and tablespace names, you can correct the database and tablespace names.

Additionally, if you are upgrading from 8.53 or later, review the output from the LOBDB2TS.SQR script in order to reassign any PeopleTools records with Long, Image, or Attachment field types to a tablespace with a sufficiently large page size and buffer pool size.

To correct the database and/or tablespace names use one of the following options:

- Generate the alter/create scripts and globally edit the scripts, changing the database/tablespace values to those of your Copy of Production database.
- Directly update the PSRECTBLSPC table with your Target database names before generating the alter/create scripts.

This will ensure that the database name/tablespace names in the generated alter/create scripts will be correct. The syntax to update the PSRECTBLSPC table is as follows:

```
UPDATE PSRECTBLSPC SET DBNAME = dbname, DDLSPACENAME = tablespace name WHERE⇒
DDLSPACENAME = tablespace identified in SETSPACE OUTPUT AND DBNAME = database⇒
identified in SETSPACE OUTPUT;
```

If you are using the delivered tablespaces, you can omit the references to DDLSPACENAME in the SQL statement above.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT	All

Task 3-10-6: Updating DB2 Tablespace Assignments

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

This step runs LOBEXAUD.SQR, which audits the tablespace information stored in the PeopleSoft system and, if needed, reassigns records to a platform-specific tablespace with a sufficiently large page size and buffer pool size. This is to ensure the success of any subsequent steps to create or alter tables. Tables that are updated will be reassigned to the PSIMAGE2 tablespace. LOBEXAUD.SQR reports on the old tablespace name and the table/record name for the records that are updated by the audit program.

See "Converting DB2 Data Types," Understanding the DB2 Data Type Conversion.

Note. PSPTDMOX and PSIMAGE2 are the default database and tablespace values for DB2 z/OS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-11: Building the Updated PeopleTools Project

This section discusses:

- Generating the Updated PeopleTools Script
- Editing the Updated PeopleTools Script
- Running the Updated PeopleTools Script

Task 3-11-1: Generating the Updated PeopleTools Script

This step generates the SQL script to create and alter records of the type Table that are delivered in the PPLTLS84CUR project. The tables are altered to add new columns, rename existing columns, and change columns that have modified properties, such as length, and delete columns. The script will also create new indexes, re-create modified indexes, and create triggers. The script name is:

PPLTLS84CURTABLES.SQL

Note. For DB2 z/OS sites, if this step takes an exceptionally long time, performing a RUNSTATS on the system catalog tablespace SYSDBASE may improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-11-2: Editing the Updated PeopleTools Script

In this step, you edit the PPLTLS84CURTABLES.SQL script that was generated in the previous step for tablespace names and sizing. If you are running on a RDBMS platform that uses tablespaces, and you are *not* using the PeopleSoft tablespace names, have your database administrator review this script and modify the tablespace names appropriately. The script can be found in your PeopleSoft Change Assistant output directory for this upgrade path.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Oracle Informix	All

Task 3-11-3: Running the Updated PeopleTools Script

This step runs the script you generated in this task to create all records of the type Table. This creates new table structures, alters existing PeopleSoft table structures, creates new indexes, re-creates modified indexes, and creates triggers.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-12: Migrating Records to New Tablespaces

This section discusses:

- Understanding Record Migration to New Tablespaces
- Copying the PT84TBLSPC Project
- Building the Tablespace Alter Script
- Editing the Tablespace Alter Script
- Running the Tablespace Alter Script

Understanding Record Migration to New Tablespaces

In this task you migrate the tables delivered in the PT84TBLSPC project to the correct tablespaces. Prior to starting this task, you may find it useful to compare the PT84TBLSPC project to find out which tables were assigned to a different tablespace in the new release.

Task 3-12-1: Copying the PT84TBLSPC Project

This process copies the records that moved to different tablespaces in the new release of PeopleSoft PeopleTools. The upgrade copy options are set to Copy From Source for record DDL to pick up the new tablespace information.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 z/OS DB2 UNIX/NT Oracle Informix	All

Task 3-12-2: Building the Tablespace Alter Script

This step generates the SQL script to alter records of the type Table that are delivered in the PT84TBLSPC project. The tables are altered to move them to the correct tablespaces for the new release of PeopleSoft PeopleTools. The script name is:

TABLESPACEALTERTABLES.SQL

Note. For DB2 z/OS sites, if this step takes an exceptionally long time, performing a RUNSTATS on the system catalog tablespace SYSDBASE may improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Informix Oracle	All

Task 3-12-3: Editing the Tablespace Alter Script

In this step, you edit the TABLESPACEALTERTABLES.SQL script for tablespace names and sizing. If you are running on an RDBMS platform that uses tablespaces, and you are *not* using the PeopleSoft tablespace names, you need to review and modify the scripts above. Have your database administrator review these scripts and modify the tablespace names appropriately. The script can be found in your PeopleSoft Change Assistant output directory for this upgrade path.

Note. If you are a DB2 z/OS customer, you must edit the scripts for database name regardless of whether you are using the delivered PeopleSoft tablespace names.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Informix Oracle	All

Task 3-12-4: Running the Tablespace Alter Script

This step runs the TABLESPACEALTERTABLES.SQL script to move the tables to the new tablespaces.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Informix Oracle	All

Task 3-13: Converting DB2 Data Types

This section discusses:

- Understanding DB2 Data Type Conversion
- Copying the DB2 Data Type Conversion Script
- Creating the DB2 Conversion Project
- Populating the DB2 Conversion Project
- Generating DB2 Conversion Scripts
- Editing DB2 Conversion Scripts
- Altering DB2 Conversion Tables
- Creating DB2 Conversion Indexes
- Creating DB2 Conversion Triggers
- Auditing After the DB2 Conversion
- Reviewing DB2 Conversion Reports
- Disabling the DB2 CAST Function

Understanding DB2 Data Type Conversion

As of PeopleSoft PeopleTools 8.53, LOB data types, as well as a length threshold for Long Character fields, are now supported on DB2. The data types as defined in PeopleSoft Application Designer are not changed; only the database-level definition will be different.

Note. PeopleSoft Change Assistant will display the steps in this task only if you are upgrading from PeopleSoft PeopleTools 8.52 or earlier.

The following table lists DB2 z/OS EBCDIC and DB2 LUW non-Unicode data types that are available as of PeopleSoft PeopleTools 8.53:

PS Field Type	Current Data Type	Data Type as of PeopleTools 8.53
Long Character (0)	LONG VARCHAR	CLOB
Long Character (n) n > 0, n<=2000	LONG VARCHAR	VARCHAR(n)
Long Character with Raw Binary (DB2 z/OS EBCDIC only)	LONG VARCHAR FOR BIT DATA (DB2 z/OS EBCDIC only)	BLOB (DB2 z/OS EBCDIC only)
Image	LONG VARCHAR FOR BIT DATA	BLOB
Attachment	LONG VARCHAR FOR BIT DATA	BLOB

The following table lists DB2 z/OS and DB2 LUW Unicode data types that are available as of PeopleSoft PeopleTools 8.53:

PS Field Type	Current Data Type	Data Type as of PeopleTools 8.53
Long Character (0)	LONG VARGRAPHIC	DBCLOB
Long Character (n) n > 0, n<=4000	LONG VARGRAPHIC	VARGRAPHIC(n)
Image	LONG VARCHAR FOR BIT DATA	BLOB
Attachment	LONG VARCHAR FOR BIT DATA	BLOB

Task 3-13-1: Copying the DB2 Data Type Conversion Script

During Move to Production passes, copy PTUPGDB2LOBCONV_ALTER.SQL, PTUPGDB2LOBCONV_INDEX.SQL, and PTUPGDB2LOBCONV_TRIGGER.SQL from the output directory of your initial pass and place them into the output directory for your Move to Production pass. These scripts are only generated during the initial pass.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-2: Creating the DB2 Conversion Project

In this step, you create an empty PTUPGDB2LOBCONV project. This project will be used in the data type conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-3: Populating the DB2 Conversion Project

This step runs PTUPGDB2LOBCONV.SQL, which populates the PTUPGDB2LOBCONV project. The project contains all of the records that need to be modified to use the newly supported data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-4: Generating DB2 Conversion Scripts

This step builds the PTUPGDB2LOBCONV project and generates the SQL scripts PTUPGDB2LOBCONV_ALTER.SQL, PTUPGDB2LOBCONV_INDEX.SQL, and PTUPGDB2LOBCONV_TRIGGER.SQL. The generated scripts will alter tables and re-create indexes and triggers for tables in the PTUPGDB2LOBCONV project.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-5: Editing DB2 Conversion Scripts

In this step, you edit the DB2 conversion scripts for tablespace names and sizing. If you are not using the PeopleSoft tablespace names, you need to review and modify the script created previously in the step “Generating DB2 Conversion Scripts.” Have your database administrator review these scripts and modify the tablespace names appropriately. The script can be found in your PeopleSoft Change Assistant output directory for this upgrade pass.

The script names for your upgrade path are:

```
PTUPGDB2LOBCONV_ALTER.SQL
PTUPGDB2LOBCONV_INDEX.SQL
PTUPGDB2LOBCONV_TRIGGER.SQL
```

In a Move to Production pass, you may encounter errors with dropping nonexistent temporary tables if the number of temporary table instances for a specific record decreased between passes. Modify the alter script as needed to remove any extra temporary table instances.

Note. If you are a DB2 z/OS customer, you must edit the scripts for database name regardless of whether you are using the delivered PeopleSoft tablespace names. Additionally, in a Move to Production pass, note that the database name needs to point to the Target database for the pass.

Note. DB2 z/OS customers do not need to edit the PTUPGDB2LOBCONV_TRIGGER.SQL script because all database triggers will be created in the Finalizing the Database Structure task.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-6: Altering DB2 Conversion Tables

This step runs the PTUPGDB2LOBCONV_ALTER.SQL script. This will alter the existing tables to use the new data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-7: Creating DB2 Conversion Indexes

This step runs the PTUPGDB2LOBCONV_INDEX.SQL script. This will re-create the indexes for the tables being altered in the DB2 data type conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-8: Creating DB2 Conversion Triggers

This step runs the PTUPGDB2LOBCONV_TRIGGER.SQL script. This will re-create the triggers for the tables being altered in the DB2 data type conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 3-13-9: Auditing After the DB2 Conversion

This step runs the PTDB2LOBPOSAUDIT.SQL script that you created earlier in the upgrade. This audit verifies that all of the old data types were converted from LONG VARCHAR/LONG VARGRAPHIC to the new data types CLOB/DBCLOB/BLOB. It also verifies if any Long Character field in PSDBFIELD with a length less than documented MAXLENGTH was converted to VARCHAR(n)/VARGRAPHIC(n). This audit will go against system catalog for every single record in PSRECDEFN of type table and temporary table. For each of these records, it will check if any column refers to the old data type. If it finds any table with old data types, it will add that record/table name and the column name to the report.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-10: Reviewing DB2 Conversion Reports

Examine the log file from the step “Auditing After the DB2 Conversion.” The file contains a list of unconverted columns on tables and any unresolved errors from the step “Altering DB2 Conversion Tables,” “Creating DB2 Conversion Indexes,” and “Creating DB2 Conversion Triggers.” If you are using these tables, you can update them manually to use the new data types with an ETL or SQL query tool. Be very cautious when changing a table because this could result in data loss or affected functionality. Correct any errors listed on the log files or conversion reports before proceeding with the upgrade. You can manually convert any tables listed in the audit, or resolve errors that led to the unconverted columns, and rerun the conversion.

Note. During Move to Production passes, you must manually convert any remaining objects. Also, the record definition differs from the database table structure during Move to Production passes, so do *not* build the record with PeopleSoft Application Designer. During a Move to Production pass, if new tables show up in the audit that are due to record definition changes in the new release, you can ignore those at this time, rerun the audit after finishing the “Applying Application Changes” chapter, and correct any issues at the end of the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-13-11: Disabling the DB2 CAST Function

This step runs UPGDB2DBOPTIONS_DISABLE.SQL, which resets the database setting to use the LOB data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 3-14: Loading Base Data

These PeopleSoft Data Mover scripts (DMSs) initialize and modify the data in various PeopleSoft PeopleTools tables required for the system to execute properly. This step runs scripts conforming to the PTxxxTLS.DMS and PTxxxTLSyyy.DMS naming conventions, where xxx represents a PeopleSoft PeopleTools release number and yyy represents a three-letter language code, that are greater than your current PeopleSoft PeopleTools release. For some upgrades, no data scripts are required. In this case, PeopleSoft Change Assistant continues to the next step without producing a log file.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-15: Loading Language Data

This section discusses:

- Populating the Language Table
- Loading the Language Data

Task 3-15-1: Populating the Language Table

This step runs the PSLANGUAGES.DMS script. This script populates the PSLANGUAGES table with Verity Locale data and other language-specific data.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-15-2: Loading the Language Data

This step runs PT_LANGUAGEDATA.DMS, which updates your upgrade database with the list of installed languages from the New Release Demo database. The PeopleSoft Data Mover import script used to create the New Release Demo database contained an update statement similar to the following:

```
UPDATE PSLANGUAGES SET INSTALLED=1 WHERE LANGUAGE_CD = 'xxx' ;
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All Non-English

Task 3-16: Loading PeopleTools Data

This section discusses:

- Loading Noncomparable Objects
- Loading English Messages
- Loading English String Data
- Loading Stored Statements Data

Task 3-16-1: Loading Noncomparable Objects

This step runs the TLSUPGNONCOMP.DMS script. This script loads the TLSUPGNONCOMP project and all PeopleSoft PeopleTools-owned object definitions that cannot be delivered using Copy Project to File.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-16-2: Loading English Messages

This step runs the MSGTLENG.DMS script, which loads English messages into your database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-16-3: Loading English String Data

This step runs the PTSTRENG.DMS script, which loads English string data into the STRINGS_TBL table.

Note. The non-English language data was loaded in the task Loading Base Data.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-16-4: Loading Stored Statements Data

Loading the stored statements ensures that the dynamic SQL statements will work correctly with the delivered COBOL programs.

This step runs the STOREPT.DMS script, which loads the dynamic SQL used by the PeopleSoft PeopleTools-delivered COBOL.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-17: Loading PeopleTools Definition Group

This task runs the PTDEFNSEC.DMS script that loads the PeopleTools definition security group. This ensures that the definition security group is updated with the PeopleTools objects introduced in this release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-18: Converting PeopleTools Objects

This section discusses:

- Updating the REN Server Configuration
- Populating MCF Data

- Converting Portal Objects
- Converting Query Prompt Headings
- Encrypting Connector Passwords
- Loading Conversion Data
- Reporting Conversion Details
- Running PeopleTools Data Conversion

Task 3-18-1: Updating the REN Server Configuration

This step runs the Application Engine program UPGMCF843, which converts real-time event notification (REN) server configuration information to the new format. REN servers run in the application server domain. They are used for the PeopleSoft PeopleTools MultiChannel Framework (MCF) and Reporting Window output option. The program converts standard REN server configurations to the new format, including MCF cluster information. All REN server configuration information is now stored within the database. You must upgrade old REN server configurations before attempting to boot with the new version of PeopleSoft PeopleTools. If you did not have any REN servers configured prior to starting the upgrade, then the UPGMCF843 program does not make any changes. If one of your configurations cannot be converted, error messages will be written in the Application Engine message log. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.42 or earlier.

After running this step, you should also check the PSRENCONFIG.TXT file located in each application server domain that started an old REN server. (The file will not exist in domains that did not start a REN server.) Each old file should be replaced with the new template file located at *PS_HOME/APPSEV/REN/PSRENCONFIG.TXT*. Old template files cannot be used with the new version of REN server. If you customized your old configuration files, manually edit the new files and update them with your customizations.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-18-2: Populating MCF Data

This step runs the Application Engine program MCF_UPGR_SND, which populates the PS_MCFEM_MAIL_DSCR table with data. In PeopleSoft PeopleTools 8.44, the REPLY_TO header functionality was added. The field PS_MCFEM_MAIL_DSCR.MCF_REPLY_TO is populated with the values stored in PS_MCFEM_MAIL_MAIN.MCF_EMAIL_SENDER. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.43 or earlier.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-18-3: Converting Portal Objects

This step runs the Application Engine program UPG844PORTAL, which splits PSPRSMDEFN.PORTAL_URLTEXT into segments and stores them in separate columns: PORTAL_URI_SEG1, PORTAL_URI_SEG2, PORTAL_URI_SEG3, and PORTAL_URI_SEG4. This is performed for PeopleSoft Component URLs to extract values for Menu, Component, and Market. Values for Record, Field, Event, and Function Names are extracted from PeopleSoft URLs. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.43 or earlier.

There may be some errors or messages in your log. Following is a list of some of the errors and what to do about them:

- Not authorized CRef: *Portal Object Name* (95,5032).

This means that you do not have proper privileges to run this conversion. You need to grant the user ID that you are using to upgrade Portal Administrator permissions.

- Security synchronization failed for Portal Object: *Portal Object Name* (96,61).

This is not a fatal error. It may be caused by a content reference that contains invalid URL text and indicates that there was an internal error writing to the security table. The invalid URL text may be pointing to a component or script that does not exist in the database. You need to fix the content reference and then rerun the UPG844PORTAL process.

- Cref *Portal Object Name* points to Menu: *Menu Name*, Component *Component Name* which doesn't exist. (96,80).

The content reference is pointing to an invalid Menu/Component combination. You need to fix the content reference so that it points at a valid Menu/Component combination and then rerun the UPG844PORTAL process.

- Duplicate key. Portal: *Portal Name*, Obj Name: *Portal Object Name*, Nodename: *Node*, URL: *URL* (133,4).

This portal object has the same URL as another portal object. Delete or modify this object to remove the conflict and then rerun the UPG844PORTAL process.

See the product documentation for PeopleTools: PeopleTools Portal Technologies for your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-18-4: Converting Query Prompt Headings

This step runs the Application Engine program UPGQRYDUPHED, which searches for duplicate prompt headings in the table PSQRYBIND and appends numbers onto the text. For example, *Item ID* would become *Item ID 2*. When you run Crystal through the process scheduler, it cannot handle queries with two or more prompts that have the same heading. These duplicates are also not legal in Query. You need to alter any old queries that have duplicate prompt headings so that they work with Crystal. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.43 or earlier.

If you find a duplicate heading that exceeds the length of the field HEADING, you need to change the heading manually. In these cases, the following error is written to the log file:

The prompt heading *HEADING* for Query *QUERY* is duplicated. Please manually correct.⇒
(108, 1108)

See the product documentation for PeopleTools: PeopleSoft Query for your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-18-5: Encrypting Connector Passwords

This step runs the Application Engine program UPGRDPASSWDS, which encrypts the password property field for the POP3Target, FTPTarget, GetMailTarget, and JMSTarget connectors. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.43 or earlier.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-18-6: Loading Conversion Data

This step runs the PTUPGCONV.DMS script, which imports PeopleSoft PeopleTools data conversion Application Engine driver data into your database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-18-7: Reporting Conversion Details

This step runs the PTUCONV.SQR script. It details which sections will be called by the Upgrade Driver program and what they are doing. Each of the upgrade data conversion sections contains comments that describe the processing done by the section. The information contained in the report is used to evaluate the conversions run in the next step and any actions that are required as a result of the conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-18-8: Running PeopleTools Data Conversion

The Upgrade Driver Application Engine program, PTUPGCONVERT, runs additional PeopleSoft PeopleTools upgrade data conversions. The program then reads the table PS_PTUPGCONVERT, selecting all rows with the group number of 01 and ordering them by the sequence number on the row. A list of Application Engine library sections that must be run for data conversion is returned. The program then calls each section in the order of the sequence number. Review the output file generated in the previous step for more details on the conversions run in this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-19: Creating PeopleTools Views

This section discusses:

- Creating Updated PeopleTools Views

Task 3-19-1: Creating Updated PeopleTools Views

This step creates all views defined in the PPLTLS84CUR project. These are PeopleTools views that have changed and are required for tasks later in the upgrade.

Note. If you are performing an application-only upgrade, this step does not run in the initial pass of the upgrade; it only runs during the MTP pass(es).

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-20: Converting Integration Broker

This section discusses:

- Understanding Converting Integration Broker
- Updating Integration Broker Defaults
- Creating Integration Broker Objects
- Saving Application Messaging Objects
- Exporting Node Transactions
- Preparing Integration Broker Deletes
- Deleting Application Messaging Objects
- Deleting Node Transactions

Understanding Converting Integration Broker

PeopleSoft Change Assistant will display and run the steps in this task only if you are upgrading from PeopleSoft PeopleTools 8.47 or earlier.

Task 3-20-1: Updating Integration Broker Defaults

This step runs the PTIBUPGRADE.DMS script. This script populates the default values specified earlier in the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-2: Creating Integration Broker Objects

The PeopleSoft PeopleTools Upgrade Driver Application Engine program, PTUPGCONVERT, runs additional PeopleSoft PeopleTools upgrade data conversions. The program then reads the table PS_PTUPGCONVERT, selecting all rows with a group number of 03 and ordering them by the row sequence number. A list of Application Engine library sections that must be run for data conversion is returned. The program then calls each section in the sequence number order. Review the report generated by PTUCONV.SQR for details on the conversions run in this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-3: Saving Application Messaging Objects

This step copies the PTUPGIBCLONE project to the *PS_HOME*\projects directory. This project was created by the UPGPT848IBUG Application Engine program and contains objects that were successfully converted. The objects are copied to file as a precautionary measure because they will be deleted from the upgrade database.

After running this step, save the exported project in a permanent location where it can be accessed post-upgrade in case there is a need to review or import the old objects.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-4: Exporting Node Transactions

This step runs PTUPG_TRX_EXPORT.DMS to save out the old preconversion node transaction data. The generated .dat file is written to the PeopleSoft Data Mover output directory defined in PeopleSoft Configuration Manager, which should be your *PS_HOME*\data directory.

After running this step, save PTUPG_TRX_EXPORT.DAT in a permanent location where it can be accessed post-upgrade in case there is a need to review or import the old objects.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-5: Preparing Integration Broker Deletes

This step copies the PTUPGIBDELETE project to your *PS_HOME*\projects directory in preparation for deleting the obsolete pre-conversion object definitions from the upgrade database. This project was created by the UPGPT848IBUG Application Engine program and contains the same objects as PTUPGIBCLONE.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-6: Deleting Application Messaging Objects

This step copies the PTUPGIBDELETE project definition from file. Since the actions in the project are set to Delete, this will delete the obsolete preconversion object definitions from the upgrade database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-20-7: Deleting Node Transactions

This step runs PTUPG_TRX.DMS, which removes obsolete node transaction data associated with the obsolete objects in the PTUPGIBDELETE project. This script was generated by the UPGPT848IBUG Application Engine program.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-21: Converting Integration Broker Objects

In this task, the PeopleTools Upgrade Driver Application Engine program PTUPGCONVERT runs additional PeopleSoft PeopleTools upgrade data conversions. The program then reads the table PS_PTUPGCONVERT, selecting all rows with a group number of 04 and ordering them by the row sequence number. A list of Application Engine library sections that must be run for data conversion is returned. The program then calls each section in the sequence number order. Review the report generated by PTUCONV.SQR for details on the conversions that are run in this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-22: Updating Process Request Tables

This task runs the MGRPRCSTBL Application Engine program, which updates existing processes with the correct values for your environment.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-23: Clearing the Rowset Cache

This step runs `CLEAR_ROWSET_CACHE.DMS`, which removes RowsetCache objects from the database. The structure of RowsetCache objects may not be compatible across PeopleSoft PeopleTools releases. New RowsetCache objects will automatically be generated after the old RowsetCache objects have been cleared out. This will ensure proper operation of your application with the new PeopleSoft PeopleTools release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-24: Setting Object Version Numbers

In this task, you run the VERSION Application Engine program. This ensures that all of your version numbers are correct and, if not, resets them to 1.

Note. You will rerun the VERSION application engine program later in the upgrade. If you want to preserve the log files generated by PeopleSoft Change Assistant from this run, you will need to rename the files manually after completing this task.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-25: Converting Database Data Types

This section discusses:

- Understanding Converting Database Data Types
- Backing Up Before Platform Changes
- Running the Long Data Audit
- Validating the Microsoft Database
- Reviewing Microsoft Settings
- Creating the Microsoft Conversion Project
- Generating the Microsoft Conversion Script
- Running the Microsoft Conversion Script

- Granting Permissions to the CONNECT ID
- Running the Microsoft Conversion Report
- Validating the Oracle Database
- Creating Oracle Audit Tables
- Auditing Duplicate Length Constraints
- Auditing Disabled Constraints
- Reviewing Oracle Settings
- Generating Oracle Conversion Scripts
- Running Long to LOB Script 1
- Running Long to LOB Script 2
- Running Long to LOB Script 3
- Running Long to LOB Script 4
- Running Long to LOB Script 5
- Running Long to LOB Script 6
- Running Long to LOB Script 7
- Running Long to LOB Script 8
- Auditing the Long to LOB Conversion
- Running CLS Drop Indexes Script 1
- Running CLS Drop Indexes Script 2
- Running CLS Drop Indexes Script 3
- Running CLS Drop Indexes Script 4
- Running CLS Drop Indexes Script 5
- Running CLS Drop Indexes Script 6
- Running CLS Drop Indexes Script 7
- Running CLS Drop Indexes Script 8
- Running Character Length Script 1
- Running Character Length Script 2
- Running Character Length Script 3
- Running Character Length Script 4
- Running Character Length Script 5
- Running Character Length Script 6
- Running Character Length Script 7
- Running Character Length Script 8
- Running CLS Rebuild Indexes Script 1

- Running CLS Rebuild Indexes Script 2
- Running CLS Rebuild Indexes Script 3
- Running CLS Rebuild Indexes Script 4
- Running CLS Rebuild Indexes Script 5
- Running CLS Rebuild Indexes Script 6
- Running CLS Rebuild Indexes Script 7
- Running CLS Rebuild Indexes Script 8
- Auditing Character Length Semantics
- Reviewing Conversion Reports
- Updating Database Options
- Creating the Oracle VARCHAR2 Conversion Project
- Populating the Oracle VARCHAR2 Conversion Project
- Generating the Oracle VARCHAR2 Conversion Script
- Editing the Oracle VARCHAR2 Conversion Script
- Running the Oracle VARCHAR2 Conversion Script

Understanding Converting Database Data Types

As of PeopleSoft PeopleTools 8.48, new database data types are supported for Microsoft SQL Server 2005 or later and Oracle 9i or later. These data type changes are mandatory for PeopleSoft application releases 9.0 or later. However, if you are either already using the new data types in conjunction with a PeopleSoft application release that is 9.0 or later, or are upgrading to a PeopleSoft application release that is earlier than 9.0, you should *not* run this task and should have already marked the steps in this task as complete in the PeopleSoft Change Assistant template. Do *not* run this task unnecessarily.

For Microsoft SQL Server 2005 and later, the data types VARCHAR, NVARCHAR, VARBINARY(MAX), and VARCHAR(MAX) are now supported. Databases on Microsoft SQL Server 2000 and earlier will not use these new data types. The data types as defined in PeopleSoft Application Designer are not changed; only the database-level definition will be different:

- Records with fields defined as PeopleSoft CHAR(N) will now use VARCHAR(N).
- Records with fields defined as PeopleSoft NCHAR(N) will now use NVARCHAR(N).
- Records with fields defined as PeopleSoft Long Character(N) will now use VARCHAR(N) if N is <=4000 and VARCHAR(MAX) if N is > 4000 for non-Unicode.
- Records with fields defined as PeopleSoft Long Character(N) will now use NVARCHAR(N) if N is <=4000 and VARCHAR(MAX) if N is > 4000 for Unicode databases.
- Records with fields defined as PeopleSoft IMAGE will now use VARBINARY(MAX).

For Oracle 9i or later, the data types CLOB and BLOB are now supported. In addition, the Character Length Semantics feature is also supported for Unicode databases when creating PeopleSoft CHAR fields and LONG CHARACTER fields with specified lengths less than 1334:

- Records with fields defined as PeopleSoft IMAGE or PeopleSoft LONG CHARACTER with Raw Binary will now use BLOB.

- Records with fields defined as PeopleSoft LONG CHARACTER with no length specified, length greater than 1333 (UNICODE), or length greater than 1333 (ANSI) will now use CLOB.

Task 3-25-1: Backing Up Before Platform Changes

Back up your upgrade database now. This enables you to restart your upgrade from this point, in case you experience any database integrity problems during the remaining tasks in the upgrade process.

Important! For Oracle platforms, contact your database administrator to update the statistics on the database catalog. This will improve performance for subsequent steps in the upgrade. Typically only the users *sys* and *sysdba* have the authority to perform this task:

The following command updates the statistics on the database catalog:

```
EXEC DBMS_STATS.GATHER_SCHEMA_STATS('SYS');
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server Oracle	All

Task 3-25-2: Running the Long Data Audit

This step runs LONGS-AUDIT.SQL, which audits for any fields exceeding the actual data length for PeopleSoft long character columns. You will review the output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-3: Validating the Microsoft Database

This step runs DBSETTINGS.SQL, which checks the Microsoft SQL Server version. The data type conversion is supported only with Microsoft SQL Server 2005 or later. You will review the output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-4: Reviewing Microsoft Settings

If you are upgrading to a PeopleSoft 9.0 or later application release, the data type update *and* a minimum of Microsoft SQL Server 2005 are required. You will run a conversion process that will substitute the old data types for new ones. The data type conversion is supported for Microsoft SQL Server 2005 or later with PeopleSoft PeopleTools 8.48 or later and an application release 9.0 or later. Examine the log file from the step Validating the Microsoft Database to ensure that you are running a supported version of Microsoft SQL Server. Do *not* perform the rest of this task if you do not meet the qualifications.

Examine the log file from the step Running the Long Data Audit to determine if there are any fields shorter than length 4000 in the database that exceed the actual data length defined for the PeopleSoft long character fields. Prior to PeopleSoft PeopleTools 8.48, all PeopleSoft long character fields were created using the TEXT SQL Server data type, and no matter the length defined by the PeopleSoft Application Designer, the data in the field could grow as much as the TEXT limits on SQL Server. After the data type conversion, the length specified in PeopleSoft Application Designer will be enforced for all fields shorter than length 4000, except for those with length zero. If your data is larger than the length defined in PeopleSoft Application Designer, then you must correct the length using PeopleSoft Application Designer or change the data itself using your SQL query tool. You must decide whether you want a change in the field length definition or a change in the data. The log file created by LONGS-AUDIT.SQL will only show all of the fields that contain data exceeding a length between 1 and 4000 and will be empty if this condition does not occur with no other action to take.

Resolve these problems before continuing to the next step, otherwise the conversion process will fail. If necessary, contact your DBA for assistance in modifying the fields. If no fields are listed in the log file, no further action is needed and you may proceed with the upgrade.

Note. During Move to Production passes, copy MSSNEWTYPE_ALTER.SQL from your initial pass upgrade's output directory and place it into the output directory for your Move to Production pass. This script is only generated during the initial pass. Edit the script and correct the database name on the first line of the script to point to the Target database for the pass.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-5: Creating the Microsoft Conversion Project

This step runs MSSNEWTYPE.SQL, which generates and populates the MSSNEWTYPE project. The project contains all of the records that need to be modified to use the newly supported data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	MS SQL Server	All

Task 3-25-6: Generating the Microsoft Conversion Script

This step generates the SQL script MSSNEWTYPE_ALTER.SQL to alter the records in the MSSNEWTYPE project. The generated script will alter the tables with the new data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	MS SQL Server	All

Task 3-25-7: Running the Microsoft Conversion Script

This step runs the generated script from the previous step. This will alter the existing tables to use the new data types. All of the tables will be copied into their new representation using the new data types and all of the additional padding blanks derived from the use of the old data types will be truncated.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-8: Granting Permissions to the CONNECT ID

This step runs the GRANT.SQL script. This script grants select access to the CONNECT ID for tables necessary for sign-in.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-9: Running the Microsoft Conversion Report

This step runs CONVERSION-AUDIT.SQL, which audits for all unconverted fields. You will review the output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server	All

Task 3-25-10: Validating the Oracle Database

This step runs the DBSETTINGS.SQL script, which queries the database to determine the value of the NLS_LENGTH_SEMANTICS parameter. You will review the output in a later step.

There are two possible conversions that may occur depending on whether or not the database is Unicode. The Long to LOB conversion will apply to all databases, Unicode or ANSI. CHARACTER LENGTH SEMANTICS (CLS) only applies to Unicode databases. The CLS conversion has a dependency on the init.ora parameter NLS_LENGTH_SEMANTICS. The init.ora parameter NLS_LENGTH_SEMANTICS=CHAR, must be enabled for PeopleSoft Unicode databases prior to executing the conversion. If the database being converted is ANSI, then this setting is not necessary.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-11: Creating Oracle Audit Tables

This step runs PRECNVADT1A.SQL, which drops and re-creates some temporary tables required by the pre-conversion audit SQRs.

If the tables being dropped, CHECK_CONSTRAINTS, DUPLICATE_CONSTRAINTS, and DROP_CONSTRAINTS, don't exist, the execution of this script will generate the following error, which can safely be ignored:

```
ORA-00942: table or view does not exist
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-12: Auditing Duplicate Length Constraints

This step runs PRECNVADT1.SQR, which checks for duplicate length constraints. This condition can generally exist if the database was created using the Oracle Import utility and CONSTRAINTS=Y was enabled, which is the default setting. You will review the output in a later step.

Note. If this SQR needs to be rerun for any reason, you *must* run PRECNVADT1A.SQL before rerunning PRECNVADT1.SQR.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-13: Auditing Disabled Constraints

This step runs PRECNVADT2.SQR, which checks for 'not_validated' constraints. Although this condition should not exist in a production database, it may have occurred if data was imported with external utilities, such as SQL Loader. You will review the output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-14: Reviewing Oracle Settings

The data type conversion is only supported for Oracle 9i or later when you are upgrading to PeopleSoft PeopleTools 8.48 or later and to a PeopleSoft application release that is 9.0 or later. Do *not* perform the rest of this task if you do not meet the qualifications.

For Unicode databases, examine the log file from the step Auditing Duplicate Length Constraints. If there are any duplicate length constraints, those duplicate constraints must be dropped. Run the utility SQL script, *PS_HOME\SCRIPTS\GENDROPDUPCONSTRAINTS.SQL*, to generate the script *DROPDUPCONSTRAINTS.SQL*, containing an *ALTER TABLE TABLE_NAME DROP CONSTRAINT* for every duplicate constraint found. Run the *DROPDUPCONSTRAINTS.SQL* to resolve the duplicate length constraints.

For Unicode databases, examine the log file from the step Auditing Disabled Constraints. If there are any disabled or non-validated constraints, these constraints should be re-validated. Run the utility SQL script, *PS_HOME\SCRIPTS\GENREVALIDATECONSTRAINTS.SQL* to generate the script *REVALIDATECONSTRAINTS.SQL*, containing an *ALTER TABLE TABLE_NAME ENABLE VALIDATE CONSTRAINT CONSTRAINT_NAME* for every invalid constraint found. Run the *REVALIDATECONSTRAINTS.SQL* to enable the constraints.

For Unicode databases, examine the log file from the step “Validating the Oracle Database” to determine if the values in the *init.ora* file are set properly. For Unicode databases, the *NLS_LENGTH_SEMANTICS* parameter needs to have a value of *CHAR*. This indicates that *CHARACTER LENGTH SEMANTICS* is enabled and the conversion can continue. If you need to enable Character Length Semantics, work with your database administrator to modify the *init.ora* for the Target database’s SID and set *NLS_LENGTH_SEMANTICS* to *CHAR*. Then stop and restart the database SID for the setting to take effect.

Note. The *NLS_LENGTH_SEMANTICS* parameter should be set to *CHAR* *only* at this point in the upgrade, and should not be set to *CHAR* earlier in the upgrade. If it is set at the time of database creation, the data type conversion scripts will fail with an ORA-30556 error due to the existence of functional indexes on the table.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-15: Generating Oracle Conversion Scripts

Work with your database administrator to set the following *init.ora* parameters for the Target database’s system identifier (SID). Stop and restart the database SID for the following settings to take effect:

- Set the following *init.ora* parameters:

```
db_block_size=8192
db_cache_size=325165824
```

```

db_file_multiblock_read_count=8
job_queue_processes=10
shared_pool_size=425829120
pga_aggregate_target=5871947670
parallel_max_servers=8
workarea_size_policy=AUTO

```

Note. If you are using Oracle 10.2.0.5 or higher, you may use the parameters `SGA_TARGET=300M` and `SGA_MAX_SIZE=350M` instead of `SHARED_POOL_SIZE`, `DB_CACHE_SIZE`, and `DB_BLOCK_BUFFERS`.

2. Pre-allocate the PSTEMP tablespace to at least 10 GB.
3. Pre-allocate the PSDEFAULT tablespace to at least 2 GB with 10-MB local uniform extents.
4. Ensure that you have at least six redo logs sized at 500 MB each.

The Oracle data types script generation program is a Java program that connects to an Oracle database. The prerequisites are Java and the Oracle JDBC Drivers.

The Java JDK required for this conversion program to run (Version 1.5) will automatically be picked up by the .bat file if the `PS_HOME` environment variable is set.

Note. When setting environment variables or directories to reference paths, if any of your paths contain spaces, they will need to be wrapped in double quotes; for example, `SET PS_HOME = "PS_HOME_location"`.

To verify whether the `PS_HOME` environment variable is set:

1. At the workstation command prompt, enter the following:

```
echo %PS_HOME%;
```

This should return a path, for example:

```
c:\PSOFT\PT852
```

2. If the `PS_HOME` environment variable is not set, then set it in the command prompt window by entering the following at the workstation command prompt:

```
SET PS_HOME=PS_Home_location
```

The Oracle JDBC drivers will automatically be picked up by the .bat file provided that the `%ORACLE_HOME%` environment variable is set.

To verify whether the `ORACLE_HOME` environment variable is set:

1. At the workstation command prompt, enter the following:

```
echo %ORACLE_HOME%;
```

This should return a path, for example:

```
c:\oracle\product\10.2.0\client_1;
```

2. If the `ORACLE_HOME` environment variable is not set, then set it in the command prompt window by entering the following at the workstation command prompt:

```
SET ORACLE_HOME=Oracle_Home_location
```

The Oracle data types script generation program is executed using the `PS_HOME\utility\PSORADDataTypesConversion.BAT` file, which requires six input parameters:

- **THREADS:** The number of Java threads that the conversion script generation creates to produce the scripts. Oracle recommends 10 threads for running this program on Windows.
- **ACCESSID:** The access ID for the database to be converted.
- **ACCESSIDPW:** The access password for the database to be converted.
- **DBNAME:** The database name.
- **OUTPUTDIR:** A directory path to redirect the generated conversion scripts to a user-specified directory. This must be set to the PeopleSoft Change Assistant output directory for your upgrade pass. PeopleSoft Change Assistant will run the generated scripts later in the upgrade.
- **ORACLEVERSION:** The version of Oracle Connectivity that you are using (9, 10, or 11).

Example:

```
PS_HOME\utility\PSORADDataTypesConversion.bat 10 SYSADM SYSADM MYDB c:\upgrade=>
\output\Change_Assistant_job_directory 11
```

In the example command line above:

- **THREADS** = 10
- **ACCESSID** = SYSADM
- **ACCESSIDPW** = SYSADM
- **DBNAME** = MYDB
- **OUTPUTDIR** = c:\upgrade\output\Change_Assistant_job_directory
- **ORACLEVERSION** = 11

Open a command prompt window on the client workstation and execute the Oracle data types script generation program *PS_HOME\utility\PSORADDataTypesConversion.bat*. The program will display and write a log (PsOraCnv.log) to the directory specified by the OUTPUTDIR parameter indicating the status of the conversion program. Review PsOraCnv.log and ensure that the conversion scripts were generated cleanly.

For ANSI databases, only LONGTOLOBALTER conversion scripts are generated. For Unicode databases, four sets of scripts are generated: LONGTOLOBALTER conversion scripts, CLSDROPINDEXES scripts, CHARACTERLENGTHSEMANTICSALTER scripts, and CLSREBUILDINDEXES scripts.

After successfully running the conversion program, verify that the generated SQL scripts are located in the staging PeopleSoft Change Assistant output directory for your upgrade pass. Later in the upgrade, PeopleSoft Change Assistant will automatically run the SQL scripts later in the upgrade from the PeopleSoft Change Assistant output directory for your upgrade pass.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-16: Running Long to LOB Script 1

This step runs LONGTOLOBALTER1.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-17: Running Long to LOB Script 2

This step runs LONGTOLOBALTER2.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-18: Running Long to LOB Script 3

This step runs LONGTOLOBALTER3.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-19: Running Long to LOB Script 4

This step runs LONGTOLOBALTER4.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-20: Running Long to LOB Script 5

This step runs LONGTOLOBALTER5.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-21: Running Long to LOB Script 6

This step runs LONGTOLOBALTER6.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-22: Running Long to LOB Script 7

This step runs LONGTOLOBALTER7.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-23: Running Long to LOB Script 8

This step runs LONGTOLOBALTER8.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle long to LOB conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-24: Auditing the Long to LOB Conversion

This step runs L2LAUDIT.SQR to report on the output of the long to LOB conversion. You will review the report output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-25: Running CLS Drop Indexes Script 1

This step runs CLSDROPINDEXES1.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-26: Running CLS Drop Indexes Script 2

This step runs CLSDROPINDEXES2.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-27: Running CLS Drop Indexes Script 3

This step runs CLSDROPINDEXES3.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-28: Running CLS Drop Indexes Script 4

This step runs CLSDROPINDEXES4.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-29: Running CLS Drop Indexes Script 5

This step runs CLSDROPINDEXES5.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-30: Running CLS Drop Indexes Script 6

This step runs CLSDROPINDEXES6.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-31: Running CLS Drop Indexes Script 7

This step runs CLSDROPINDEXES7.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-32: Running CLS Drop Indexes Script 8

This step runs CLSDROPINDEXES8.SQL, which was generated using PSORADDataTypesConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-33: Running Character Length Script 1

This step runs CHARACTERLENGTHSEMANTICSALTER1.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-34: Running Character Length Script 2

This step runs CHARACTERLENGTHSEMANTICSALTER2.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-35: Running Character Length Script 3

This step runs CHARACTERLENGTHSEMANTICSALTER3.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-36: Running Character Length Script 4

This step runs CHARACTERLENGTHSEMANTICSALTER4.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-37: Running Character Length Script 5

This step runs CHARACTERLENGTHSEMANTICSALTER5.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-38: Running Character Length Script 6

This step runs CHARACTERLENGTHSEMANTICSALTER6.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-39: Running Character Length Script 7

This step runs CHARACTERLENGTHSEMANTICSALTER7.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-40: Running Character Length Script 8

This step runs CHARACTERLENGTHSEMANTICSALTER8.SQL, which was generated using PSORADDataTypesConversion.bat. The Oracle character length semantics conversion scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-41: Running CLS Rebuild Indexes Script 1

This step runs CLSREBUILDINDEXES1.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-42: Running CLS Rebuild Indexes Script 2

This step runs CLSREBUILDINDEXES2.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-43: Running CLS Rebuild Indexes Script 3

This step runs CLSREBUILDINDEXES3.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-44: Running CLS Rebuild Indexes Script 4

This step runs CLSREBUILDINDEXES4.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-45: Running CLS Rebuild Indexes Script 5

This step runs CLSREBUILDINDEXES5.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-46: Running CLS Rebuild Indexes Script 6

This step runs CLSREBUILDINDEXES6.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-47: Running CLS Rebuild Indexes Script 7

This step runs CLSREBUILDINDEXES7.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-48: Running CLS Rebuild Indexes Script 8

This step runs CLSREBUILDINDEXES8.SQL, which was generated using PSORADDataTypesConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-49: Auditing Character Length Semantics

This step runs CLSAUDIT.SQR to report on the output of the character length semantics conversion. You will review the report output in a later step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-50: Reviewing Conversion Reports

To review the conversion report for Microsoft, examine the log file from the step “Running the Microsoft Conversion Report.” It contains a list of unconverted columns on tables along with its old data type. Fields on tables with no PeopleSoft Application Designer definition will be included in this log. Any unresolved errors from the step “Running the Microsoft Conversion Script” will also be included. If you are using these tables, it is possible to update them manually to use the new data types with a SQL query tool or with an ETL tool. Be very cautious when changing a table, as this could result in data loss or affected functionality. Once any underlying problems have been resolved, you may rerun all of the previous steps in this task to reconvert any remaining objects listed by the audit report.

Note. During Move to Production passes for Microsoft, you must manually convert any remaining objects. During Move to Production passes, the record definition differs from the database table structure, so do *not* build the record with PeopleSoft Application Designer.

To review the conversion reports for Oracle, examine the log files from running the LONGTOLOBALTER*.SQL scripts. If the database is Unicode, also examine the log files for the CHARACTERLENGTHSEMANTICS*.SQL scripts. Review the output from the step “Auditing the Long to LOB Conversion.” L2LAUDIT.SQR reports on any unconverted long raw columns. The table name, column name, and column data type are listed. For Unicode databases, review the output from the step “Auditing Character Length Semantics.” CLSAUDIT.SQR reports on any unconverted character length columns (Unicode only). Correct any errors listed on the log files or conversion reports before proceeding with the upgrade. You can manually convert any tables listed in the audit, or resolve errors that led to the unconverted columns and rerun the conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server Oracle	All

Task 3-25-51: Updating Database Options

This step runs UPGDBOPTIONS_ENABLE.SQL. This script updates the database to indicate that the new data types are now enabled.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	MS SQL Server Oracle	All

Task 3-25-52: Creating the Oracle VARCHAR2 Conversion Project

In this step, you create an empty PTUPGVARCHARTOLOB project. This project will be used in the data type conversion to convert any records containing fields with lengths between 1334 and 4000 to CLOB data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle	All

Task 3-25-53: Populating the Oracle VARCHAR2 Conversion Project

This step runs PTUPGVARCHARTOLOB_POPULATE.SQL, which populates the PTUPGVARCHARTOLOB project with the records containing recfields with lengths between 1334 and 4000. These fields need to be converted from VARCHAR2 to CLOB.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle	All

Task 3-25-54: Generating the Oracle VARCHAR2 Conversion Script

This step generates the SQL script PTUPGVARCHARTOLOB_ALTER.SQL to alter the records in the PTUPGVARCHARTOLOB project. The generated script will alter the tables with the new data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle	All

Task 3-25-55: Editing the Oracle VARCHAR2 Conversion Script

In this step, you edit the PTUPGVARCHARTOLOB_ALTER.SQL script for tablespace names and sizing. If you are not using the PeopleSoft tablespace names, you need to review and modify the script created previously in the step “Generating DB2 Conversion Scripts.” Have your database administrator review these scripts and modify the tablespace names appropriately. The script can be found in your PeopleSoft Change Assistant output directory for this upgrade pass.

Note. During Move to Production passes, copy PTUPGVARCHARTOLOB_ALTER.SQL from your output directory from the initial pass and place it into the output directory for your Move to Production pass. This script is only generated during the initial pass. Edit the script and correct the database name on the first line of the script to point to the Target database for the pass.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-25-56: Running the Oracle VARCHAR2 Conversion Script

This step runs the PTUPGVARCHARTOLOB_ALTER.SQL script. This will alter the existing tables to use the new data types.

Note. During Move to Production passes, you must manually convert any remaining objects. In addition, during Move to Production passes, the record definition differs from the database table structure, so *do not* build the record with PeopleSoft Application Designer.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26: Converting Oracle Time Data Types

This section discusses:

- Understanding Oracle Time Data Types Conversion
- Backing Up Before Converting Data Types
- Creating Conversion Audit Tables
- Auditing Date to Timestamp Conversion
- Generating Timestamp Conversion Scripts
- Running Drop Indexes Script 1
- Running Drop Indexes Script 2
- Running Drop Indexes Script 3
- Running Drop Indexes Script 4
- Running Drop Indexes Script 5
- Running Drop Indexes Script 6
- Running Drop Indexes Script 7
- Running Drop Indexes Script 8
- Running Alter Timestamps Script 1
- Running Alter Timestamps Script 2
- Running Alter Timestamps Script 3
- Running Alter Timestamps Script 4
- Running Alter Timestamps Script 5
- Running Alter Timestamps Script 6
- Running Alter Timestamps Script 7
- Running Alter Timestamps Script 8
- Running Rebuild Indexes Script 1
- Running Rebuild Indexes Script 2
- Running Rebuild Indexes Script 3
- Running Rebuild Indexes Script 4
- Running Rebuild Indexes Script 5
- Running Rebuild Indexes Script 6
- Running Rebuild Indexes Script 7
- Running Rebuild Indexes Script 8

Understanding Oracle Time Data Types Conversion

In PeopleSoft PeopleTools 8.50 and higher, the **TIMESTAMP** data type is now supported for the PeopleSoft **TIME** and **DATETIME** field types. These data type changes are mandatory, and the **DATE** data type will no longer be used for the **TIME** and **DATETIME** fields.

PeopleSoft Change Assistant will display and run the steps in this task *only* if you are upgrading from PeopleSoft PeopleTools 8.49 or earlier.

Task 3-26-1: Backing Up Before Converting Data Types

Back up your upgrade database now. This enables you to restart your upgrade from this point, in case you experience any database integrity problems during the remaining tasks in the upgrade process.

Important! Contact your database administrator to update the statistics on the database catalog. This will improve performance for subsequent steps in the upgrade. Typically, only the users *sys* and *sysdba* have the authority to perform this task.

The following command updates the statistics on the database catalog:

```
EXEC DBMS_STATS.GATHER_SCHEMA_STATS('SYS');
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-2: Creating Conversion Audit Tables

This step runs **PRETSCNVADT1A.SQL**, which drops and re-creates some temporary tables required by the pre-conversion audit SQRs. If the tables being dropped, **DERIVEDPSSQLTABLEANDINDEX**, **DROP_FUNCIDX_CANDIDATES**, and **DERIVEDTABLESWITHFUNCINDEXES**, don't exist, the execution of this script will generate the following error, which you can safely ignore:

```
ORA-00942: table or view does not exist
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-3: Auditing Date to Timestamp Conversion

This step runs **TSCAUDIT.SQR**, which reports which columns by table are candidates for **DATE** to **TIMESTAMP** data type conversion.

Note. If this SQR needs to be rerun for any reason, you must run **PRETSCNVADT1A.SQL** before rerunning **TSCAUDIT.SQR**.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-4: Generating Timestamp Conversion Scripts

This section discusses:

- Understanding Timestamp Conversion Scripts
- Setting Parameters for the Database System Identifier
- Verifying Environment Variables
- Setting the Script Generation Parameters
- Executing the Script Generation Program

Understanding Timestamp Conversion Scripts

If you are performing your initial upgrade pass, complete all sections in this step to generate timestamp conversion scripts.

Important! During Move to Production passes, copy the DROPINDEXESn.SQL, ALERTTIMESTAMPSn.SQL, and REBUILDINDEXESn.SQL scripts from your initial upgrade pass output directory and place them in the output directory for your Move to Production pass. Edit the REBUILDINDEXESn.SQL scripts and replace the database name in the create index statement with the Move to Production database name, if needed. These scripts can only be generated correctly during the initial pass. You can skip the remaining sections of this step, which only apply to the initial upgrade pass.

You must manually convert any objects that are missed by the conversion; for example, those due to maintenance on records applied on the old release.

Setting Parameters for the Database System Identifier

Work with your database administrator to set init.ora parameters for the Target database's system identifier (SID). You must stop and restart the database SID for these settings to take effect.

To set the parameters:

1. Set the following init.ora parameters:

```
db_block_size=8192
db_cache_size=325165824
db_file_multiblock_read_count=8
job_queue_processes=10
shared_pool_size=425829120
pga_aggregate_target=5871947670
parallel_max_servers=8
workarea_size_policy=AUTO
```

Note. If you are using Oracle 10g or higher, you may use the parameters `SGA_TARGET=300M` and `SGA_MAX_SIZE=350M` instead of `SHARED_POOL_SIZE`, `DB_CACHE_SIZE`, and `DB_BLOCK_BUFFERS`.

2. Pre-allocate the PSTEMP tablespace to at least 10 GB.
3. Pre-allocate the PSDEFAULT tablespace to at least 2 GB with 10-MB local uniform extents.
4. Ensure that you have at least six redo logs sized at 500 MB each.

Verifying Environment Variables

The Oracle data types script generation program is a Java program that connects to an Oracle database. The prerequisites are Java and the Oracle JDBC Drivers.

The Java JDK required for this conversion program to run (Version 1.5) will automatically be picked up by the .bat file if the `PS_HOME` environment variable is set.

Note. When setting environment variables or directories to reference paths, if any of your paths contain spaces, they will need to be wrapped in double quotes; for example, `SET PS_HOME = "PS_HOME_location"`.

To verify whether the `PS_HOME` environment variable is set:

1. At the workstation command prompt, enter the following:

```
echo %PS_HOME%;
```

This should return a path, for example:

```
c:\PSOFT\PT850
```

2. If the `PS_HOME` environment variable is not set, then set it in the command prompt window by entering the following at the workstation command prompt:

```
SET PS_HOME=PS_Home_location
```

The Oracle JDBC drivers will automatically be picked up by the .bat file provided that the `ORACLE_HOME` environment variable is set.

To verify whether the `ORACLE_HOME` environment variable is set:

1. At the workstation command prompt, enter the following:

```
echo %ORACLE_HOME%;
```

This should return a path, for example:

```
c:\oracle\product\10.1.0\client_1;
```

2. If the `ORACLE_HOME` environment variable is not set, then set it in the command prompt window by entering the following at the workstation command prompt:

```
SET ORACLE_HOME=Oracle_Home_location
```

Setting the Script Generation Parameters

You execute the Oracle data types script generation program using the `PS_HOME\utility\PSORATimestampConversion.bat` file, which requires six input parameters. Set the following parameters:

- **ACCESSID:** The access ID for the database to be converted.

- **ACCESSIDPW**: The access password for the database to be converted.
- **DBNAME**: The database name.
- **OUTPUTDIR**: A directory path to redirect the generated conversion scripts to a user-specified directory. This must be set to the PeopleSoft Change Assistant output directory for your upgrade pass. PeopleSoft Change Assistant will run the generated scripts later in the upgrade.
- **SCRIPTQTY**: The number of concurrent scripts to generate. This parameter is mandatory. The recommendation is 8.
- **ORACLEVERSION**: The version of Oracle Connectivity that you are using (9, 10, or 11).

Example:

```
PS_HOME\utility\PSORATimestampConversion.bat SYSADM SYSADM MYDB c:\upgrade\output⇒
\Change_Assistant_job_directory 8 11
```

In the example command line above:

- **ACCESSID** = SYSADM
- **ACCESSIDPW** = SYSADM
- **DBNAME** = MYDB
- **OUTPUTDIR** = c:\upgrade\output\Change_Assistant_job_directory
- **SCRIPTQTY** = 8
- **ORACLEVERSION** = 11

Executing the Script Generation Program

Open a command prompt window on the client workstation and execute the Oracle data types script generation program *PS_HOME\utility\PSORATimestampConversion.bat*.

The program will display and write a log (PsTSOraCnv.log) to the directory specified by the **OUTPUTDIR** parameter indicating the status of the conversion program. Review PsOraCnvTS.log and ensure that the conversion scripts were generated cleanly.

For all databases, ANSI or Unicode, the following three sets of scripts are generated:

- **DROPINDEXESn.SQL**
- **ALERTIMESTAMPSn.SQL**
- **REBUILDINDEXESn.SQL**

After successfully running the conversion script generation program, verify that the generated SQL scripts are located in the PeopleSoft Change Assistant output directory for your upgrade pass. Later in the upgrade, PeopleSoft Change Assistant will automatically run the SQL scripts from the PeopleSoft Change Assistant output directory for your upgrade pass.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-5: Running Drop Indexes Script 1

This step runs DROPINDEXES1.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-6: Running Drop Indexes Script 2

This step runs DROPINDEXES2.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-7: Running Drop Indexes Script 3

This step runs DROPINDEXES3.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-8: Running Drop Indexes Script 4

This step runs DROPINDEXES4.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-9: Running Drop Indexes Script 5

This step runs DROPINDEXES5.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-10: Running Drop Indexes Script 6

This step runs DROPINDEXES6.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-11: Running Drop Indexes Script 7

This step runs DROPINDEXES7.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-12: Running Drop Indexes Script 8

This step runs DROPINDEXES8.SQL, which was generated using PSORATimestampConversion.bat. All of the indexes in the script must be successfully dropped before altering tables. The drop indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-13: Running Alter Timestamps Script 1

This step runs ALTERNSTAMPSTAMP1.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-14: Running Alter Timestamps Script 2

This step runs ALTERNSTAMPSTAMP2.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-15: Running Alter Timestamps Script 3

This step runs ALTERNSTAMPSTAMP3.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-16: Running Alter Timestamps Script 4

This step runs ALTERNSTAMPSTAMP4.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-17: Running Alter Timestamps Script 5

This step runs ALTERNSTAMP5.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-18: Running Alter Timestamps Script 6

This step runs ALTERNSTAMP6.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-19: Running Alter Timestamps Script 7

This step runs ALTERNSTAMP7.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-20: Running Alter Timestamps Script 8

This step runs ALTERNSTAMP8.SQL, which was generated using PSORATimestampConversion.bat. The tables must be altered successfully before continuing on and rebuilding indexes. The Oracle DATE to TIMESTAMP alter scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-21: Running Rebuild Indexes Script 1

This step runs REBUILDINDEXES1.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-22: Running Rebuild Indexes Script 2

This step runs REBUILDINDEXES2.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-23: Running Rebuild Indexes Script 3

This step runs REBUILDINDEXES3.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-24: Running Rebuild Indexes Script 4

This step runs REBUILDINDEXES4.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-25: Running Rebuild Indexes Script 5

This step runs REBUILDINDEXES5.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-26: Running Rebuild Indexes Script 6

This step runs REBUILDINDEXES6.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-27: Running Rebuild Indexes Script 7

This step runs REBUILDINDEXES7.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-26-28: Running Rebuild Indexes Script 8

This step runs REBUILDINDEXES8.SQL, which was generated using PSORATimestampConversion.bat. The table alters must have successfully run prior to rebuilding indexes. The rebuild indexes scripts are designed to run concurrently to improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 3-27: Backing Up After the PeopleTools Upgrade

Back up your Copy of Production database now. This enables you to restart your upgrade from this point, in case you experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 3-28: Configuring the Scheduler and Server

Tips for configuring and starting the application server:

- Make sure that the application server domain that is being configured points to the Target database for this pass of the upgrade.
- Set a different JSL port for each database instance.
- Clear your application server cache.

Tips for configuring and starting the process scheduler: Do not enable load balancing, setup a distribution server, or configure a report node for the Process Scheduler at this point in time of the upgrade. PeopleSoft Change Assistant parses the generated log files for errors within a single specified output directory. Review the Process Scheduler log/output directory that is defined within the PeopleSoft Change Assistant environment for any database with the Enable Process Scheduler check box selected.

See the PeopleTools installation guide for your database platform for the new release.

See Getting Started on Your PeopleSoft Upgrade, Appendix: “Improving Performance.”

Note. In addition, verify your PeopleSoft Change Assistant environment settings for the process scheduler and application server. Modify them as needed to match the servers that you just started.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

CHAPTER 4

Running and Reviewing Compare Reports

This chapter discusses:

- Understanding Compare Reports
- Preparing for Application Changes
- Running the Alter Analyzer Loader
- Running New Release Compare Reports
- Reviewing New Release Compare Reports

Understanding Compare Reports

Now that your Copy of Production database is at the same PeopleSoft PeopleTools release as your new release, you can compare the two databases to see the differences. In this chapter you run and review compare reports to make decisions regarding your upgrade. Be sure that you have plenty of space to run these reports, as some can be rather large.

Task 4-1: Preparing for Application Changes

This section discusses:

- Exporting Project Definitions
- Importing Project Definitions
- Copying the Upgrade Delete Project

Task 4-1-1: Exporting Project Definitions

In this step, you export from your Demo database the project definitions that will be used later in this upgrade. This step is run in the initial and Move to Production passes; therefore, during the Move to Production pass, the export is not run against the Demo database.

DLUPX08E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Both	All	All	All

Task 4-1-2: Importing Project Definitions

In this step you will import the project definitions into your Copy of Production database. These projects will be used later in this upgrade. Your import script is:

```
DLUPX08I.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 4-1-3: Copying the Upgrade Delete Project

This step copies the delete project. The delivered Interaction Hub registry structures contained in this project are no longer used. They are deleted to clean up your registry and to prevent conflicts with the new registry structures delivered with the new release. The project name for your upgrade path is:

```
UPGPADEL
```

Note. Copying the delete project may list some folders that cannot be deleted at this time due to non-deleted child content. After the conversion program, this project will be copied again to clean up any missed folders whose content has been resolved by the conversion program.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-2: Running the Alter Analyzer Loader

In this step, you run the PTALTDATLOAD Application Engine program. This process preserves the database structure from your current release in temporary tables to be used later in the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-3: Running New Release Compare Reports

This section discusses:

- Understanding the New Release Compare
- Preserving the Local Message Node
- Comparing Converted New Release Objects
- Running the New Release UPGCUST Compare
- Creating the UPGIB Project
- Resetting Take Action Flags in UPGCUST

Understanding the New Release Compare

In this task you will compare your customizations to the new release objects by running a project compare against the Demo database.

Task 4-3-1: Preserving the Local Message Node

In this step, you run the PTUPGMSGNODE Application Engine process to preserve the Local Message Node in the UPGCUST project before the project compare between the Copy of Production and Demo databases.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-3-2: Comparing Converted New Release Objects

This step populates the UPGCUST project with object types that previously existed as non-comparable system data in the old release and are now comparable in the new release. They are marked **Changed* or **Unchanged* in your Copy of Production environment. Only custom objects should remain in the UPGCUST project.

This step compares the following object types:

- Feed category
- Feed data type
- Feed definition

- Related content layout
- Related content service
- Related content service configuration
- Related content service definition

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 4-3-3: Running the New Release UPGCUST Compare

This step executes a project compare of comparable objects in the UPGCUST project.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 4-3-4: Creating the UPGIB Project

This step creates a project on your New Release Demo database called UPGIB and executes a database compare of Integration Broker objects. This project will be used to copy new release Integration Broker objects to the Copy of Production and to delete obsolete Integration Broker objects from the Copy of Production.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-3-5: Resetting Take Action Flags in UPGCUST

This step turns *off* all Take Action flags, except for some Permission Lists and Portal Registry Structures, in the UPGCUST project after the compare. You will analyze the compare results and adjust the upgrade flags in the next step.

The script for your upgrade is:

```
DLUPX98.DMS
```

See Appendix: “Using the Comparison Process.”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-4: Reviewing New Release Compare Reports

This section discusses:

- Reviewing New Release Changes
- Reviewing Additional Upgrade Projects

Task 4-4-1: Reviewing New Release Changes

The UPGCUST projects exist in your Copy of Production database and contain objects that you customized in the old release, including Permission Lists and Portal Registry Structures. This project may include object definitions that are on your Copy of Production database but are not on the New Release Demo database. If these are objects that you intend to keep in your upgraded system, you will want to ensure that they are set to copy in the UPGCUST project. The project compare produces compare reports that you can view by opening the project in PeopleSoft Application Designer. You can use these reports to determine your copy action for each object in the project. Currently all Upgrade Flags are deselected, meaning no action will take place. However, you will also want to keep any Permission Lists and Portal Registry Structures that are imported from other PeopleSoft applications. The upgrade flags for any Oracle-delivered objects of these two object types were pre-selected to preserve them. Analyze the UPGCUST project and select the Upgrade Flags for the customizations you wish to retain.

If the Target column has the value *Absent* it can indicate one of two possible conditions. If Oracle originally delivered the object definition, then it can be considered obsolete in the new release. This value can also indicate that you originally created the object definition for some custom functionality. To ensure the integrity and functionality of the system, delete obsolete Oracle-delivered objects. If you have made a customization to an obsolete object, refer to the product's Release Notes to assess the functionality of the customization and determine where to reapply it in the new release.

See Appendix: "Using the Comparison Process."

Warning! Carefully review the compare results for URLs, permission lists, and message nodes. It is highly likely that you will want to keep any customizations that you have made to these objects. You will want to migrate your customized local message node. Please be sure to select the Upgrade Flags from within PeopleSoft Application Designer to retain these customizations.

Note. Steps in the database or third-party software installation documentation can result in Oracle-delivered objects being identified in the compare reports as **Changed* in the Source column. You should investigate all instances where objects are identified as **Changed* in the Source column to determine their origin and determine a plan of action based on the findings for each object.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 4-4-2: Reviewing Additional Upgrade Projects

In this step, analyze the UPGIB project and related compare reports, and the UPGNONCOMP project.

The UPGIB project is created in your Demo database by running a full database compare. It contains Integration Broker object definitions. The database compare produces compare reports that you can view by opening the project in PeopleSoft Application Designer. You can use these reports to determine your copy action for each object in the project. Analyze the UPGIB project and select the Upgrade Flags for the customizations you wish to retain.

If the Source column has the value *Absent* it can indicate one of two possible conditions. If Oracle originally delivered the object definition, then the object can be considered obsolete in the new release. Or, this value can indicate that you originally created the object definition for custom functionality. To ensure the integrity and functionality of the system, delete obsolete Oracle-delivered objects. If you have made a customization to an obsolete object, refer to the Release Notes for that product to assess the functionality of the customization and to determine where to reapply it in the new release.

The UPGNONCOMP project is delivered in your Demo database. It contains object definitions that cannot be compared using PeopleSoft Application Designer. The UPGNONCOMP project for your upgrade may contain some or all objects of the following object types: trees, access groups, roles, dimensions, cube definitions, and cube instance definitions. These object definitions are required for your upgraded database to function correctly. You need to review this project to see whether you customized any of the objects. You then need to reapply those customizations later in the upgrade.

See Appendix: “Using the Comparison Process”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

CHAPTER 5

Applying Application Changes

This chapter discusses:

- Understanding Application Changes
- Running the New Release Upgrade Copy
- Updating Database Overrides
- Backing Up After the Upgrade Copy
- Preparing for Data Conversion Analysis
- Modifying the Database Structure
- Loading Data for Data Conversion
- Applying Updates Before Data Conversion
- Running the Data Conversion Analyzer
- Backing Up Before Data Conversion
- Running Data Conversion
- Backing Up After Data Conversion
- Finalizing the Database Structure
- Loading Data to Complete System Setup
- Running Final Update Statistics
- Completing Application Conversion
- Updating Language Data
- Completing the PeopleTools Conversion
- Updating Object Version Numbers
- Restoring the New Release Demo
- Running the Final Audit Reports

Understanding Application Changes

Earlier in the upgrade, you made various application changes. Now it is time to apply these application changes to your Copy of Production database.

Task 5-1: Running the New Release Upgrade Copy

This section discusses:

- Exporting Selected PeopleTools Tables
- Importing Selected PeopleTools Tables
- Copying the UPGCUST Project
- Reviewing Copy Results
- Swapping PeopleTools Tables
- Updating Target Values
- Copying the UPGIB Project
- Copying the UPGNONCOMP Project
- Reviewing Project Copy Results
- Exporting New Release Objects
- Importing New Release Objects
- Resetting Object Version Numbers

Task 5-1-1: Exporting Selected PeopleTools Tables

Depending on your upgrade path you will need to export one or more PeopleSoft PeopleTools tables to preserve values on your Copy of Production database. This step exports PeopleSoft PeopleTools tables in the Copy of Production before the upgrade copy has occurred.

The script for your upgrade path is:

DLUPX96E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-1-2: Importing Selected PeopleTools Tables

Depending on your upgrade path you will need to import one or more PeopleSoft PeopleTools tables to preserve values on your Copy of Production database. This step imports PeopleSoft PeopleTools tables into the Demo database before the upgrade copy occurs.

The script for your upgrade path is:

DLUPX96I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-3: Copying the UPGCUST Project

This step copies your customized PeopleSoft PeopleTools and application objects from the Copy of Production database to your Demo database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-4: Reviewing Copy Results

Review the results of the project copies that were performed in this task. For each of the projects copied, review the copy logs for any errors. Also, verify in PeopleSoft Application Designer that each of the projects copied shows the Done options are checked for those objects you expected to be copied.

There are many different errors you can find in the copy logs, depending on which objects you chose to copy or not copy. For example, if you chose not to copy a record definition, but neglected to deselect the PeopleCode Upgrade check box for that record, you will receive errors when trying to copy the PeopleCode. PeopleSoft Application Designer maintains PeopleSoft PeopleTools integrity during the copy and will not copy PeopleCode for records that do not exist.

Review any errors you receive during the copy process and determine whether they are acceptable cases or unacceptable errors that need correction. In the example above, either the PeopleCode error is acceptable because you do not intend to copy the record definition, or the error is unacceptable and you should copy the record and then copy the PeopleCode for that record again.

You may get messages similar to “Warning: FIELDNAME is a key field and has been appended to the end of the RECORDNAME record.” This is an acceptable message and you can ignore it.

The following error occurs when copying a Portal Registry Structure that has a different PORTAL_OBJNAME but the same PORTAL_URLTEXT as an existing registry object.

```
Duplicate Key. Portal: portalname, Obj name: objectname, CP: nodename, URL (1st 50⇒
char): URL
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-5: Swapping PeopleTools Tables

This step swaps the base language for tables that contain PeopleSoft PeopleTools Managed Object data and related-language data on your Demo database. This is in preparation for the step, “Exporting New Release Objects.” This script should only be run if your Copy of Production has a base language other than English. The script name for your upgrade path is:

```
PT_RELEASE_SWAP.DMS
```

If you would like to automate this step, follow the procedure below.

To make this step automated:

1. Select the step Swapping PeopleTools Tables in PeopleSoft Change Assistant.
2. Open the Step Properties dialog box.
3. Change the Type from *ManualStop* to *DataMoverUser*.
4. Click OK.
5. In your upgrade job, mark the step as Run.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	Non-English Base Language

Task 5-1-6: Updating Target Values

This step updates the Message Node table on the Demo database to keep the assignment of the Local Node defined in the Copy of Production. The update uses the copy of the Message Node table taken earlier in the upgrade.

The script for your upgrade path is:

```
DLUPX97.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-7: Copying the UPGIB Project

This step copies new release Integration Broker objects from the Demo database to your Copy of Production database. This step also deletes obsolete Integration Broker objects from your Copy of Production database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-1-8: Copying the UPGNONCOMP Project

In this step, copy the non-compare project, UPGNONCOMP. This project consists of object types you cannot compare and object types not included in your compare project. In a previous step, you reviewed this Oracle-delivered project and modified the Upgrade check box for any objects you did not want to copy.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-1-9: Reviewing Project Copy Results

Review the results of the UPGIB and UPGNONCOMP project copy steps that were performed earlier in this task. Review each copy log for any errors and verify in PeopleSoft Application Designer that the Done options are checked for the objects in each of the projects.

There are many different errors you can find in the copy logs, depending on which objects you chose to copy or not copy. Review any errors you received during the copy process to determine whether they are acceptable cases or unacceptable errors that need corrective action.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-10: Exporting New Release Objects

This step exports the new release objects and your customizations that you copied to the Demo database in an earlier step, to a file.

The script name for your upgrade path is:

```
PT_RELEASE_EXPORT.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-1-11: Importing New Release Objects

This step imports the new release objects and your customizations into your Copy of Production database.

The script name for your upgrade path is:

```
PT_RELEASE_IMPORT.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-1-12: Resetting Object Version Numbers

In this step, you run the VERSION Application Engine program. This ensures that all of your version numbers are correct and, if not, resets them to 1.

Note. You will rerun the VERSION Application Engine program later in the upgrade. If you want to preserve the log files generated by PeopleSoft Change Assistant from this run, you will need to manually rename the files after completing this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-2: Updating Database Overrides

This section discusses:

- Understanding Database Overrides
- Setting Index Parameters After Copy
- Setting Tablespace Names After Copy
- Creating New Tablespaces

Understanding Database Overrides

In this task, you update PeopleSoft PeopleTools tables with DDL information from your physical database DDL. You may have overwritten information about where tables exist in your database during the copy project steps of this upgrade. The following steps synchronize your PeopleSoft PeopleTools table definitions with your database again.

Task 5-2-1: Setting Index Parameters After Copy

This step updates index overrides stored in the PSIDXDDLPARM table. The values stored in the PARMVALUE field are updated with current values found in the system catalog. The name of the process is:

SETINDEX.SQR

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	DB2 z/OS	All

Task 5-2-2: Setting Tablespace Names After Copy

This step updates tablespace names stored in the PSRECTBLSPC table. In addition, the values stored in the DDLSPACENAME field are updated with current values found in the system catalog. If you modified tablespace names from the delivered names, this process makes those same changes in the PeopleSoft system record definition. It also corrects any tablespace names that were reset with values from the Demo database during the copy project step. The process then lists any tablespaces defined in the PeopleSoft PeopleTools tables that are not currently on your database. Use this report to create new tablespaces later in this task. The name of the process is:

SETSPACE.SQR

Note. This step updates both the database and tablespace names in the PSRECTBLSPC table for DB2 z/OS sites. The report produced by this process lists database/tablespace combinations that were not defined in the DB2 system catalog. The report may show your Demo database and tablespace names instead of your Copy of Production database and tablespace names. You will correct this situation when you create new tablespaces.

See Creating New Tablespaces.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle Informix DB2 UNIX/NT DB2 z/OS	All

Task 5-2-3: Creating New Tablespaces

This section discusses:

- Prerequisites
- Creating Delivered Tablespaces
- Creating Custom Tablespaces

Prerequisites

Before you perform this step, you must make sure that your database administrator has created all new tablespaces that will be used in new tables.

Note. DB2 z/OS sites need to create databases as well as tablespaces at this time.

Creating Delivered Tablespaces

If you use delivered tablespace names, be aware that there may be new ones in this release. The report that you produced when you set tablespace names after copying provides a list of tablespaces that are missing from your database.

See Setting Tablespace Names After Copy.

You need to create all the tablespaces on the report listed as missing on the database. Once you create all the tablespaces, you can rerun the SETSPACE.SQR; the report should show that no additional modifications are needed.

Oracle delivered a shell SQL script containing the DDL commands to create all the delivered tablespaces. Edit the script to create just the new tablespaces and to set up the script for your environment.

The script supplied by Oracle to create tablespaces for your upgrade is:

- PADDL.SQL for Oracle or DB2 z/OS ANSI
- PADDLU.SQL for DB2 z/OS Unicode
- PADDLDMS.SQL for DB2 UNIX/NT ANSI
- PADDLDMSU.SQL for DB2 UNIX/NT Unicode
- PADDL.SH for Informix

Note. For DBX sites, create all the tablespaces on the report listed as missing on the database in addition to the corresponding index (IDX) tablespace.

Note. For DB2 z/OS only, some tables were reassigned to larger tablespaces because they now require a 32-KB buffer pool. You must manually edit the Create Table statements in the upgrade scripts to replace the tablespace names with an appropriate tablespace name in your implementation that utilizes a 32-KB buffer pool.

DB2 z/OS sites must also consider how database names are assigned. After the upgrade/copy is completed, some of the PeopleSoft PeopleTools metadata tables in your Copy of Production database will contain the database values from the Demo database. Review the SETSPACE SQR report for those tables that are reported as not defined in the database. If the report shows your Demo database names instead of your Copy of Production database names you can reset them with the following SQL:

```
UPDATE PSRECTBLSPC SET DBNAME = 'Copy of Production dbname'
```



```
WHERE DBNAME = 'Demo dbname'
```

Creating Custom Tablespaces

If you will use custom tablespaces, create those tablespaces now. Choose one of the following two methods to get the information into PeopleSoft PeopleTools:

- Update PeopleSoft PeopleTools for each record you will put into a custom tablespace. You can do this directly through PeopleSoft Application Designer, or you can update PSRECTBLSPC directly by using the appropriate SQL for your site, as follows:

DB2 z/OS sites:

```
UPDATE PSRECTBLSPC
SET DBNAME = 'new dbname', DDLSPACENAME = 'new tablespacename'
WHERE DBNAME = 'current dbname'
AND DDLSPACENAME = 'current tablespacename';
```

All other sites:

```
UPDATE PSRECTBLSPC
SET DDLSPACENAME = 'new tablespacename'
WHERE DDLSPACENAME = 'current tablespacename';
```

To update each table individually, add the following clause to the predicate of the above statement, making sure you use the record name in this clause:

```
AND RECNAME = record name
```

The SETSPACE report contains the table name. The record name will not have the “PS_” prefix.

You can double-check that you created all tablespaces by rerunning the SETSPACE.SQR report. If you created all tablespaces for records defined in PeopleSoft PeopleTools, the report will be empty.

- When you edit the Create and Alter scripts, you can change the SQL to create the tables in the correct tablespaces. Later in this task you will set tablespace names, which will update PeopleSoft PeopleTools with the correct tablespaces or database/tablespace in DB2 z/OS. The report should be empty at that time.

Note. For DB2 z/OS sites, the SETSPACE report may list some database/tablespace combinations as “Table Undefined - DB/TS OK” when in fact the database name is one that was defined for your Demo database. This occurs if your Demo and Copy of Production databases are in the same DB2 subsystem. The SETSPACE.SQR detected that the database/tablespace combinations do exist in the subsystem and are therefore valid. Make sure that you update these database/tablespace names to match those that exist in your Copy of Production, using the instructions above.

Note. During the Move to Production pass, you will create these tablespaces when you populate tablespace data. You can reuse this script, or you can create a new script for your production environment. To reuse the script you have created for this task, save it and copy it into the *PS_APP_HOME*\SCRIPTS directory that you use during the Move to Production pass.

See the PeopleTools installation guide for DB2 UDB for z/OS for your new release, “Creating a Database,” Correcting Invalid Database/Tablespace Combinations.

See Modifying the Database Structure, Editing the Create and Alter Scripts.

See Modifying the Database Structure, Setting Tablespace Names.

See “Applying PeopleTools Changes,” Populating Tablespace Data.

See “Applying Changes to the Production Database,” Performing the Move to Production.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	Oracle Informix DB2 z/OS DB2 UNIX/NT	All

Task 5-3: Backing Up After the Upgrade Copy

This section discusses:

- Backing Up Your Database After Upgrade Copy
- Backing Up the New Release Demo Again

Task 5-3-1: Backing Up Your Database After Upgrade Copy

Back up your database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-3-2: Backing Up the New Release Demo Again

Back up your New Release Demo database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remainder of the tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-4: Preparing for Data Conversion Analysis

This section discusses:

- Populating the Initial Alter Analyzer Repository
- Populating the MTP Alter Analyzer Repository
- Copying the EOUP_UPGRADE_FRAMEWORK Project
- Building the EOUP_UPGRADE_FRAMEWORK Project
- Running the EOUP_UPGRADE_FRAMEWORK Script

Task 5-4-1: Populating the Initial Alter Analyzer Repository

This task runs the PTALTANLYZR Application Engine program. This program determines how the database structure is different between your current release and the new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-4-2: Populating the MTP Alter Analyzer Repository

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later. This task runs the PTALTANLYZER Application Engine program for the Move to Production pass. This program determines how the database structure is different between your current release and the new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 5-4-3: Copying the EOUP_UPGRADE_FRAMEWORK Project

This step copies the EOUP_UPGRADE_FRAMEWORK project from the Source database to the Target database. The EOUP_UPGRADE_FRAMEWORK project contains all objects that need to exist in the database in order for the Data Conversion analyzer to run properly.

Run this step only in the initial pass. The project is copied in the task Preparing for Application Changes during the Move to Production passes.

See "Running and Reviewing Compare Reports," Preparing for Application Changes.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-4-4: Building the EOUF_UPGRADE_FRAMEWORK Project

This step generates the SQL script to create and alter tables and views delivered in the EOUF_UPGRADE_FRAMEWORK project. The tables are altered to add new columns, rename existing columns, change columns that have modified properties, and delete columns. The script re-creates views and modified indexes. New indexes are also created.

The script for your upgrade path is:

EOUF_UPGRADE_FRAMEWORK.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-4-5: Running the EOUF_UPGRADE_FRAMEWORK Script

This step runs the script generated in the previous step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5: Modifying the Database Structure

This section discusses:

- Understanding Modifying the Database Structure
- Backing Up for DB2
- Updating DB2 Tablespace Assignments Again
- Re-Creating the DB2 Conversion Project
- Repopulating the DB2 Conversion Project
- Regenerating DB2 Conversion Scripts
- Editing DB2 Conversion Scripts Again

- Altering DB2 Conversion Tables Again
- Re-Creating DB2 Conversion Indexes
- Re-Creating DB2 Conversion Triggers
- Re-Creating Updated PeopleTools Views
- Updating Tablespace Names Again
- Building the Upgrade Tables Script
- Re-Creating Upgrade Tables
- Creating the Upgrade Projects
- Building the Alter Temporary Tables Script
- Building the Optional Temporary Tables Script
- Creating the ALLTEMPTABS Project
- Building the Create Temporary Tables Script
- Creating the ALLTABS Project
- Building the Create and Alter Scripts
- Recycling Tablespace Version Numbers
- Editing the Create and Alter Scripts
- Re-Creating Required Temporary Tables
- Re-Creating Optional Temporary Tables
- Creating Temporary Tables
- Creating Tables
- Altering Tables
- Creating Indexes
- Re-Creating Triggers
- Reviewing Tablespace and Index States
- Reviewing the Create Indexes Log
- Setting Index Parameters
- Setting Temporary Table Tablespace Names
- Setting Tablespace Names
- Generating the DB2 UNIX RUNSTATS Script
- Updating Statistics for DB2 UNIX
- Updating Statistics for DB2 zOS
- Updating Statistics for Informix
- Updating Statistics for Oracle

Understanding Modifying the Database Structure

In this task you create and run various scripts and processes that will modify your database structure, including creating new tables and indexes, altering tables that have changed, and re-creating modified indexes.

Note. In the PeopleSoft Change Assistant job, some of the steps may complete without error, but display a Warning icon indicating that warning messages exist in the log file.

See the product documentation for PeopleTools: Change Assistant and Update Manager for your new release for more information on error handling.

Task 5-5-1: Backing Up for DB2

If you are using the DB2 z/OS platform, back up your database now. This enables you to restart your upgrade from this point if you should experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	DB2 z/OS	All

Task 5-5-2: Updating DB2 Tablespace Assignments Again

This step runs LOBEXAUD.SQR, which audits the tablespace information stored in the PeopleSoft system and, if needed, reassigns records to a platform-specific tablespace with a sufficiently large page size and buffer pool size. Tables that are updated will be reassigned to the PSIMAGE2 tablespace. LOBEXAUD.SQR reports on the old tablespace name and the table/record name for the records that are updated by the audit program.

Note. PSPTDMOX and PSIMAGE2 are the default database and tablespace values for DB2 z/OS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-3: Re-Creating the DB2 Conversion Project

In this step, you create an empty PTUPGDB2LOBCONV project. This project will be used to migrate tables with LOB fields to an appropriately sized tablespace.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-4: Repopulating the DB2 Conversion Project

This step runs PTUPGDB2LOBCONV.SQL, which populates the PTUPGDB2LOBCONV project. The project contains all of the records that need to be modified to use the newly supported data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-5: Regenerating DB2 Conversion Scripts

This step builds the PTUPGDB2LOBCONV project and generates the SQL scripts PTUPGDB2LOBCONV_ALTER_2.SQL, PTUPGDB2LOBCONV_INDEX_2.SQL, and PTUPGDB2LOBCONV_TRIGGER_2.SQL. The generated scripts will alter tables and re-create indexes and triggers for tables in the PTUPGDB2LOBCONV project.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-6: Editing DB2 Conversion Scripts Again

In this step, you edit the DB2 conversion scripts for tablespace names and sizing. If you are not using the PeopleSoft tablespace names, you need to review and modify the script created previously in the step “Regenerating DB2 Conversion Scripts.” Have your database administrator review these scripts and modify the tablespace names appropriately. The script can be found in your PeopleSoft Change Assistant output directory for this upgrade pass.

The script names for your upgrade path are:

```
PTUPGDB2LOBCONV_ALTER_2.SQL
PTUPGDB2LOBCONV_INDEX_2.SQL
PTUPGDB2LOBCONV_TRIGGER_2.SQL
```

Note. If you are a DB2 z/OS customer, you must edit the scripts for database name regardless of whether you are using the delivered PeopleSoft tablespace names. Additionally, in a Move to Production pass, note that the database name needs to point to the Target database for the pass.

Note. DB2 z/OS customers do not need to edit the PTUPGDB2LOBCONV_TRIGGER.SQL script because all database triggers will be created in the Finalizing the Database Structure task.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 5-5-7: Altering DB2 Conversion Tables Again

This step runs the PTUPGDB2LOBCONV_ALTER_2.SQL script. This will alter the existing tables to use the new data types.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-8: Re-Creating DB2 Conversion Indexes

This step runs the PTUPGDB2LOBCONV_INDEX_2.SQL script. This will re-create the indexes for the tables being altered in the DB2 data type conversion.

Note. When PeopleSoft Change Assistant runs the create indexes script to create indexes, it will not stop when it encounters errors. When you view the log file, you will see that some indexes cannot be created due to unique index constraints. The data causing those indexes to fail will be updated during the task, “Running Data Conversion.” The indexes will then create successfully during the task, “Finalizing the Database Structure.” Ignore any errors for now as you will review the same index errors in the later step “Reviewing the Create Indexes Log.”

See “Reviewing the Create Indexes Log.”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-9: Re-Creating DB2 Conversion Triggers

This step runs the PTUPGDB2LOBCONV_TRIGGER_2.SQL script. This will re-create the triggers for the tables being altered in the DB2 data type conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 5-5-10: Re-Creating Updated PeopleTools Views

This step creates all views defined in the PPLTLS84CUR project. These are PeopleTools views that may have been dropped during data type conversion and are required for tasks later in the upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-11: Updating Tablespace Names Again

This step populates all tablespace information in the PSRECTBLSPC table. The values stored in the DDLSPACENAM field are updated with current values found in the system catalog. If you modified tablespace names when you edited the SQL script PTUPGDB2LOBCONV_ALTER_2.SQL from the delivered names, this will make those same changes in the PeopleSoft record definition. The name of the process is:

```
SETSPACE.SQR
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 5-5-12: Building the Upgrade Tables Script

This step generates the SQL script to drop and re-create all the tables in the project named UPGCONVERT. These tables will be used during data conversion by Application Engine programs. They can be safely dropped at this time because they do not contain application data required by your PeopleSoft system.

The script name for your upgrade path is:

UPGCONVERT_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-13: Re-Creating Upgrade Tables

This step runs the SQL script you generated to re-create all the tables in the project named UPGCONVERT.

The script name for your upgrade path is:

UPGCONVERT_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-14: Creating the Upgrade Projects

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later.

In this step, you run the EOUPPOPPROJ Application Engine program. This program generates multiple project definitions and inserts record definitions into the generated projects in your Copy of Production database. Later in the upgrade, create and alter SQL scripts are generated for each of the projects created in this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-15: Building the Alter Temporary Tables Script

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later.

This step generates the SQL script to drop and re-create the records of the type Temporary Table in the UPGCRTTMPTBL project. Processes use the Temporary Tables dynamically in your system. They can be safely dropped at this time because they do not contain transaction data required by your PeopleSoft system.

The script name for your upgrade path is:

UPGCRTTMPTBL_CRTTBL.SQL

Note. This step is required.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-16: Building the Optional Temporary Tables Script

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later.

This step generates a SQL script to drop and re-create the Temporary Table record type in the UPGCRTTMPTBLOPT project. Processes use the Temporary Tables dynamically in your system. They can be safely dropped at this time because they do not contain transaction data required by your PeopleSoft system.

The script name for your upgrade path is:

UPGCRTTMPTBLOPT_CRTTBL.SQL

Note. This step is optional.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-17: Creating the ALLTEMPTABS Project

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.49 or earlier.

This step creates a project named ALLTEMPTABS and inserts all records of the type *Table*.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-18: Building the Create Temporary Tables Script

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.49 or earlier.

This step generates the SQL script to drop and re-create all the records of type Temporary Table in the database. Processes use the Temporary Tables dynamically in your system. They can be safely dropped at this time because they do not contain transaction data required by your PeopleSoft system.

The script name for your upgrade path is:

ALLTEMPTABS_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-19: Creating the ALLTABS Project

This step creates a project named ALLTABS and inserts all records of the type *Table*.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-20: Building the Create and Alter Scripts

This step generates the SQL script to create all new records of the type *Table*. The script name is:

ALLTABS_CRTTBL.SQL

This step generates the SQL script to alter all existing records of the type *Table*. This script is referred to as Alter Without Deletes. The tables are altered to add new columns, rename existing columns and change columns that have modified properties, such as length. Columns that will eventually be deleted will still exist on the tables after this script is executed. The script name is:

ALLTABS_ALTTBL.SQL

This step also generates the SQL script to create new indexes and to re-create modified indexes as needed for the tables in the first two scripts. The script name is:

ALLTABS_CRTIDX.SQL

Note. This step also creates the script ALLTABS_CRTTRG.SQL, which re-creates all database triggers. You do not need to run this script, because all database triggers will be created in the “Finalizing the Database Structure” task.

Note. For DB2 z/OS sites, if this step takes an exceptionally long time, performing a RUNSTATS on the system catalog tablespace SYSDBASE may improve performance.

See Finalizing the Database Structure.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-21: Recycling Tablespace Version Numbers

The PeopleSoft PeopleTools alter processing for DB2 z/OS was designed to prevent DB2 from creating an excessive number of tablespace versions by carefully controlling which table alters are committed per tablespace. However, it is possible that DB2 may still create the maximum number of tablespace versions when running the alter script if there are shared tablespaces already close to the maximum 255 version numbers.

To minimize the possibility that the alter script will stop with SQL code -4702 (exceeding the maximum number of tablespace versions), find any tablespaces that may be close to the maximum allowed version number and run the Reorg Tablespace and Modify Recovery utilities.

See the product documentation for PeopleTools: Data Management for your new release for more information about administering PeopleSoft databases on DB2 UDB for z/OS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-5-22: Editing the Create and Alter Scripts

In this step, you will edit the SQL create and alter scripts for tablespace names and sizing. The script names for your upgrade path are:

```
ALLTABS_CRTTBL.SQL
ALLTABS_ALTTBL.SQL
ALLTABS_CRTIDX.SQL
```

The following scripts may or may not appear in your database. If these are present, edit them for tablespace names and sizing:

```
UPGCRTTMPTBL_CRTTBL.SQL
UPGCRTTMPTBLOPT_CRTTBL.SQL
ALLTEMPTABS_CRTTBL.SQL
```

If you are not using the PeopleSoft tablespace names, you will need to review and modify the scripts above. When the new record was copied to the Copy of Production database, the PeopleSoft default tablespace name was copied as well. When you performed the step, “Creating New Tablespaces,” you were given the option to correct the tablespace names online or to wait and edit the scripts. After you have completed running these scripts you will run the programs that synchronize the PeopleSoft PeopleTools definitions with the database catalog again. Therefore, any changes you make to the scripts now will be reflected in the PeopleSoft PeopleTools definition. Have your database administrator review these scripts and modify the tablespace names appropriately.

Many of the new tables and indexes will be populated during the upgrade. If they are not sized appropriately for your database, the conversion programs will stop with errors. After the upgrade is complete, you may want your database administrator to review and make adjustments to the amount of free space left in some of the tables or tablespaces.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS DB2 UNIX/NT Oracle Informix	All

Task 5-5-23: Re-Creating Required Temporary Tables

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later.

This step runs the SQL script you generated to create records of the type *Temporary Table* in the UPGCRTTMPTBL project. The script name for your upgrade path is:

UPGCRTTMPTBL_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-24: Re-Creating Optional Temporary Tables

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later.

This step runs the SQL script generated to create records of the type *Temporary Tables* in the UPGCRTTMPTBLOPT project.

The script name for your upgrade path is:

UPGCRTTMPTBLOPT_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-25: Creating Temporary Tables

PeopleSoft Change Assistant displays and runs this step only if you are upgrading from PeopleSoft PeopleTools 8.49 or earlier.

This step runs the SQL script you generated to create all the records of the type *Temporary Table*. The script name for your upgrade path is:

ALLTEMPTABS_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-26: Creating Tables

This step runs the SQL script you generated to create all the records of the type *Table*. This step creates new table structures in your database. The script name for your upgrade path is:

ALLTABS_CRTTBL.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-27: Altering Tables

This step runs the SQL script you generated to alter the existing records of type *Table*. This step alters existing PeopleSoft table structures to comply with your new PeopleSoft release.

The script name for your upgrade path is:

ALLTABS_ALTTBL.SQL

Note. PeopleSoft Change Assistant disables auto-commit when it runs SQL scripts. This is designed to prevent DB2 from creating an excessive number of tablespace versions.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-28: Creating Indexes

This step runs the SQL script you generated to create indexes on records of the type *Table*. This step creates or modifies indexes as required.

The script name for your upgrade path is:

ALLTABS_CRTIDX.SQL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-29: Re-Creating Triggers

This step executes the script CREATETRGR.DMS, which will re-create all PeopleSoft triggers in the database. The triggers on PeopleSoft tables were invalidated when the tables were altered and need to be re-created.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 5-5-30: Reviewing Tablespace and Index States

After altering tables, DB2 may have placed tablespaces or indices in either an Advisory Reorg Pending (AREO*) or Rebuild Pending (RBDP) status depending on the nature of the change made to a particular table. Run the DB2 display database command to find any tablespaces or indices with either status. Resolve any AREO* or RBDP states by running the DB2 Reorg Tablespace utility before continuing with the upgrade.

See the product documentation for PeopleTools: Data Management for your new release for more information about administering PeopleSoft databases on DB2 UDB for z/OS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-5-31: Reviewing the Create Indexes Log

When PeopleSoft Change Assistant runs the create indexes script to create indexes, it will not stop when it encounters errors. When you view the log file, you will see that some indexes cannot be created due to unique index constraints. The data causing those indexes to fail will be updated during the task, “Running Data Conversion.” The indexes will then create successfully during the task, “Finalizing the Database Structure.”

Review the errors in the log file. Unique constraint errors are acceptable. If you see any other types of index creation errors, such as space problems, you must correct them before you continue with the upgrade. If you do not correct the errors, it may degrade your performance during data conversion.

The log file name for your upgrade path is:

ALLTABS_CRTIDX.LOG

See Running Data Conversion.

See Finalizing the Database Structure.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-5-32: Setting Index Parameters

This step updates index overrides stored in the PSIDXDDLPRM table. The values stored in the PARMVALUE field are updated with current values found in the system catalog. The name of the process is:

SETINDEX.SQR

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-5-33: Setting Temporary Table Tablespace Names

This step populates the PeopleSoft PeopleTools table PSRECTBLSPC with the table name, database name, and tablespace name information for the temporary table instances created on the database in a previous step. This information will be required by processes that perform in-stream RUNSTATS (%UpdateStats) on the temporary table instances. The name of the process is:

SETTMPIN.SQR

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-5-34: Setting Tablespace Names

This step populates all tablespace information in the PSRECTBLSPC table. The values stored in the DDLSPACENAM field are updated with current values found in the system catalog. If you modified tablespace names when you edited the SQL script that created your new tables from the delivered names, this will make those same changes in the PeopleSoft record definition. The name of the process is:

SETSPACE.SQR

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle Informix DB2 UNIX/NT DB2 z/OS	All

Task 5-5-35: Generating the DB2 UNIX RUNSTATS Script

This step executes the RUNSTATS.SQR that creates the RUNSTATS.SQL to update the statistics on DB2 UNIX/NT.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 5-5-36: Updating Statistics for DB2 UNIX

Earlier in the upgrade process, you updated your statistics. Now that you have copied your new objects and created new indexes, update your statistics again. Run the RUNSTATS.SQL script created in the previous step to improve performance of your data conversions and generation of the Alter with Delete script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 5-5-37: Updating Statistics for DB2 zOS

Earlier in the upgrade process, you updated your statistics. Now that you have copied your new objects and created new indexes, update your statistics again to improve performance of your data conversions and generation of the Alter with Delete script. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-5-38: Updating Statistics for Informix

Earlier in the upgrade process, you updated your statistics. Now that you have copied your new objects and created new indexes, update your statistics again to improve performance of your data conversions and generation of the Alter with Delete script.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Informix	All

Task 5-5-39: Updating Statistics for Oracle

Earlier in the upgrade process, you updated your statistics. Now that you have copied your new objects and created new indexes, update your statistics again to improve performance of your data conversions and generation of the Alter with Delete script. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 5-6: Loading Data for Data Conversion

This section discusses:

- Swapping Languages on System Data
- Exporting Application Messages
- Importing Application Messages
- Exporting Record Groups
- Importing Record Groups
- Exporting the System Setup Data
- Importing the System Setup Data
- Exporting the PW Pagelet Data
- Importing the PW Pagelet Data
- Exporting the PW Setup Data
- Importing the PW Setup Data
- Exporting the Pagelet Wizard Data
- Importing the Pagelet Wizard Data

- Exporting the Feed Data
- Importing the Feed Data
- Updating the Top Administrator Data
- Updating the Prefix and Owner ID Data
- Creating the API Views
- Copying the System Delete Project
- Exporting Data Conversion Driver Data
- Importing Data Conversion Driver Data

Task 5-6-1: Swapping Languages on System Data

This script swaps the base language for tables that contain system data on your Demo database and have related-language data, in preparation for the system data exports in the next step. This script should be run only if your Copy of Production has a base language other than English. The script name for your upgrade path is:

`DLPALASWAP_REV2.DMS`

If you want to make this step automated, follow the steps below.

To make this step automated:

1. Select the step Swapping Languages on System Data in PeopleSoft Change Assistant.
2. Open the Step Properties dialog box.
3. Change the Type from *ManualStop* to *DataMoverUser*.
4. Click OK.
5. In your upgrade job, mark the step as Run.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	Non-English Base Language

Task 5-6-2: Exporting Application Messages

This step exports Application Messages data from the Demo database. The script name for your upgrade path is:

`DLUPX01E.DMS`

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-3: Importing Application Messages

This step imports Application Message data into your Copy of Production database. Message Sets 0-999 are overlaid during the PeopleSoft PeopleTools Upgrade. Application Message Sets 1000-19,999 are overlaid with this task. If you have added custom messages in this set range, you must add those messages again at the end of the upgrade. To prevent this from happening in future maintenance or upgrades, add your custom messages in a set range of 20,000 or greater.

Note. If the script fails, verify that your Configuration Manager Profile output and input directories are set to the same location. If not, this could be the cause of the problem.

The script name for your upgrade path is:

DLUPX01I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-4: Exporting Record Groups

This step exports Record Group data from the Demo database. The script name for your upgrade path is:

DLUPX02E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-5: Importing Record Groups

This step imports Record Group data and populates Set Control data in your Copy of Production database. The following records are related to Record Groups and Set Control data:

- REC_GROUP_REC
- REC_GROUP_TBL
- SET_CNTRL_TBL
- SET_CNTRL_GROUP

- SET_CNTRL_REC
- SETID_TBL

The import script deletes from, and then reloads, the Record Group tables, REC_GROUP_REC and REC_GROUP_TBL. These are the tables that are modified when you use PeopleTools, Utilities, Administration, Record Group. The script then rebuilds the related setID tables, PS_SET_CNTRL_GROUP and PS_SET_CNTRL_REC. The PS_SET_CNTRL_TBL and PS_SETID_TBL tables contain the setIDs you use in your system; this script does not update PS_SET_CNTRL_TBL. However, it does check for orphan setID references in PS_SET_CNTRL_REC and adds the missing setIDs to PS_SETID_TBL.

If you have moved an Oracle-delivered record into a custom added record group, and deleted the record from the Oracle-delivered record group, this script will put the record back into the Oracle-delivered record group and remove it from the custom added record group.

If you have created a new record group, it will be deleted in this step if all of its records are assigned to Oracle-delivered record groups in the new release. To continue using your custom record group, you will need to re-create it in the Reapplying Customizations task.

This script creates an output file and uses it to create a temporary table. To run successfully, the PeopleSoft Configuration Manager input and output PeopleSoft Data Mover directories should be the same.

Note. If the script fails, verify that your Configuration Manager Profile output and input directories are set to the same location. If not, this could be the cause of the problem.

The script name for your upgrade path is:

DLUPX02I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-6: Exporting the System Setup Data

This script exports the contents of the Message, Strings, Stored Statements, Record Group, data conversion driver, EDI, and Mass Change tables from the Copy of Production database during your Move to Production passes. During the initial pass, you ran other scripts to load this data and in some cases had to reapply customizations. This script exports the entire contents of these tables, including customizations, so that you will not need to reapply them after the Move to Production. The script name for your upgrade path is:

MVAPPEXP_REV2.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	MTP	All	All	All

Task 5-6-7: Importing the System Setup Data

This script imports the data exported in the previous step into your New Copy of Production database during your Move to Production passes. This script replaces many scripts that you ran in the initial pass. It will move all data in these tables so that any customizations you have added to these tables during your initial pass will be moved to your New Copy of Production database. Also, it will rebuild the Set Control tables using the Record Groups from the Copy of Production database and your current Set Control values on the New Copy of Production database. The script name for your upgrade path is:

MVAPPIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 5-6-8: Exporting the PW Pagelet Data

This script exports the application-specific Pagelet Wizard pagelet definition, header, footer, and category tables from the Demo database in the initial pass. The script name for your upgrade path is:

DLUPX14E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-9: Importing the PW Pagelet Data

This script imports the application-specific data for the Pagelet Wizard pagelet definition, header, footer, and category tables into your Copy of Production database during the initial pass. This data is needed for the data conversion. The script name for your upgrade path is:

DLUPX14I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-10: Exporting the PW Setup Data

This script exports the application-specific data for the Pagelet Wizard setup tables from the Demo database in the initial pass. This data is needed for the data conversion. The script name for your upgrade path is:

DLUPX15E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-11: Importing the PW Setup Data

This script imports the application-specific Pagelet Wizard setup tables into your Copy of Production database during the initial pass. This data is needed for the data conversion. The script name for your upgrade path is:

DLUPX15I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-12: Exporting the Pagelet Wizard Data

This script exports the contents of the Pagelet Wizard tables from the Copy of Production database during your Move to Production passes. During the initial pass, you ran programs and scripts to load this data and, in some cases, had to make changes. This script exports the entire contents of these tables, including changes, so that you will not need to reapply them after the Move to Production. This data is needed for the data conversion. The script name for your upgrade path is:

MVUPX16E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	MTP	All	All	All

Task 5-6-13: Importing the Pagelet Wizard Data

This script imports the Pagelet Wizard tables from the Copy of Production database into the New Copy of Production during your Move to Production passes. This script replaces processes that you ran in the initial pass. It will move all data in the affected tables so that any changes you have made during your initial pass will be moved to your New Copy of Production database. This data is needed for the data conversion. The script name for your upgrade path is:

MVUPX16I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 5-6-14: Exporting the Feed Data

This script exports the application-specific Feed Definitions, Feed Data Type Definitions, and other Feed-related system data from the Demo database in the initial upgrade pass. The script name for your upgrade path is:

PTUPGPTFPEXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-15: Importing the Feed Data

This script imports the application-specific Feed Definitions, Feed Data Type Definitions, and other Feed-related system data into your Copy of Production database during the initial upgrade pass. The script name for your upgrade path is:

PTUPGPTFPIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-16: Updating the Top Administrator Data

This script sets the upgrade user as a Content Management Top Administrator. This data is needed for the data conversion.

The script name for your upgrade path is:

DLPAX01.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-6-17: Updating the Prefix and Owner ID Data

This script updates the portal options prefix and Owner ID used for generated IDs and object names for the initial pass. These values are used when creating Pagelet Wizard definitions and Navigation Collection objects. This data is needed for the data conversion.

The script name for your upgrade path is:

`DLPAX02U.DMS`

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-18: Creating the API Views

This script creates the views needed in the PeopleSoft Portal data conversion. The views are used by some of the application program interface (API) programs for generating object definitions. The script name for your upgrade path is:

`DLPAX03C.DMS`

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-6-19: Copying the System Delete Project

This step copies the delete project. The delivered PeopleSoft Portal registry structures contained in this project are Demo objects. They are deleted to clean up your registry and the security of the PeopleSoft PeopleTools-managed objects that are delivered as sample data. The project name for your upgrade path is:

`PORTAL_PASYSDEL`

Note. Copying the delete project may list some folders that cannot be deleted at this time due to non-deleted child content. This project will be copied again after the conversion program to clean up any missed folders whose content has been resolved by the conversion program.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-6-20: Exporting Data Conversion Driver Data

This step exports data conversion Application Engine driver data from the Demo database. The script name for your upgrade path is:

DLUPX03E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-6-21: Importing Data Conversion Driver Data

This step imports data conversion Application Engine driver data into your Copy of Production database.

The script name for your upgrade path is:

DLUPX03I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-7: Applying Updates Before Data Conversion

You should have downloaded and applied Required For Upgrade updates just after you installed your Demo database. Now you should check My Oracle Support again for any new postings, and apply them now.

This is just one place that you can apply updates. There are other places in the upgrade process where applying updates may be applicable as well. How you apply the update varies depending on where you are in the upgrade.

See Appendix: “Applying Fixes Required for Upgrade.”

Important! Apply all fixes listed under the product line/release, even if you have not licensed the product the fix is listed under. There are many interdependencies between products and database objects. If you do not apply the fix, you may be introducing another error in a different area of the conversion code.

To apply PeopleSoft project fixes before data conversion:

1. Download Required for Upgrade Change Packages using the “Download Change Package” functionality in PeopleSoft Change Assistant.
2. Use PeopleSoft Change Assistant to install and apply the updates into your Demo database for this upgrade pass. Review the documentation included with each update prior to applying the update.

See PeopleTools: PeopleSoft Change Assistant for your current release.

3. The project is now loaded on your Demo database. You should run a project compare to make sure the objects in the fix will not overwrite any of your customizations. If you find customizations, you must decide how to deal with them before you copy the fix to your Copy of Production.
4. If you are performing a Move to Production upgrade pass, first migrate the Change Packages into the Source database for this upgrade pass. If needed, first set up PeopleSoft Change Assistant with the environment information for your Source database. If you customized any of the objects delivered in the Change Package, you should repackage the fix to include your customizations. If you did not customize any objects delivered in the fix you may directly apply it to the Source database.

See the PeopleTools: Change Assistant for your new release, “Applying Updates.”

5. Migrate the Change Packages into the Target database for this upgrade pass. If needed, first set up PeopleSoft Change Assistant with the environment information for your Target database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-8: Running the Data Conversion Analyzer

In this task, you will run the EOUFANALYSIS Application Engine program. This program performs a detailed analysis of the data conversion code within the MAIN data conversion group for your upgrade path to determine the Source and Target tables used in each Application Engine step. The data generated by this process is used later in the upgrade to calculate the table dependencies between the data conversion sections that are executed at runtime. Review the log file for any warnings or issues that were encountered in analyzing the data conversion code. Review the log file for any warnings regarding SQL that the analyzer was unable to process. You may want to resolve issues on customized data conversion to improve the performance of data conversion.

See Appendix: “Using Data Conversion Utilities.”

See Running Data Conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-9: Backing Up Before Data Conversion

Back up your database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remainder of the tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-10: Running Data Conversion

This section discusses:

- Understanding Data Conversion
- Reviewing Data Conversion Tips
- Turning Trace On
- Performing Data Conversion Concurrently
- Turning Trace Off

Understanding Data Conversion

In this task you will populate new tables and columns. Earlier, you altered tables and added all new and modified columns. You did not, however, remove obsolete columns. The following steps will move data from the obsolete columns to the new columns and tables. Later in this chapter, in the task “Finalizing the Database Structure,” you will generate and run SQL to delete those obsolete columns.

Task 5-10-1: Reviewing Data Conversion Tips

This section discusses:

- Reviewing the Upgrade Driver Programs
- Using the Data Conversion Documentation
- Writing Data Conversion for Your Non-Oracle Records
- Reviewing Data Conversion Errors Expected During the Initial Upgrade Pass
- Restarting Data Conversion

Reviewing the Upgrade Driver Programs

UPG_DATACONV is an Application Engine program designed to run upgrade data conversions that are defined in the PRE and POST data conversion groups. Each time the program is run during an upgrade pass, PeopleSoft Change Assistant passes a group number parameter to the program. The program then reads the table PS_UPG_DATACONV, selecting all rows with that group number and ordering them by the sequence number on the row. A list of Application Engine library sections that must be run for data conversion is returned. The program then calls each section in the order of the sequence number. You can review the sections that are called by the Upgrade Driver program by accessing the Define Upgrade Drivers page on the Demo database.

EOUFDATACONV is an Application Engine program designed to run upgrade data conversions that are defined in PS_UPG_DATACONV for the MAIN data conversion group. However, unlike UPG_DATACONV, EOUFDATACONV leverages dependency analysis to optimize the runtime of the data conversion. Multiple instances of the EOUFDATACONV Application Engine program are designed to be run in parallel to execute against a single set of dependency information.

Using the Data Conversion Documentation

Each section called by the Upgrade Driver program contains comments describing the underlying conversion. By running the UDATACNV.SQR report you can find which sections are called by the Upgrade Driver program and what they are doing.

See Appendix: “Using Data Conversion Utilities.”

Writing Data Conversion for Your Non-Oracle Records

The data conversion code delivered for this upgrade was written to handle only Oracle-delivered records. You may have added your own records to the system. To convert data in the underlying tables, you may need to create your own Application Engine library. The Upgrade Driver program can call an Application Engine library section that you create. To have the Upgrade Driver program call your custom section during this task, you will need to add the section on the Define Upgrade Drivers page.

See Appendix: “Using Data Conversion Utilities.”

Reviewing Data Conversion Errors Expected During the Initial Upgrade Pass

During your initial upgrade pass you can expect to have data conversion programs fail. This is because your PeopleSoft software installation is unique, which makes it difficult to write data conversions that will work for everyone all of the time. Your database may be larger than most, you may have customized Oracle-defined records, or you may not have copied all object deletions onto your Copy of Production. These differences will cause data conversion to fail. You must fix each problem on your initial Copy of Production and restart the Application Engine program. Your fixes will be automatically copied to your New Copy of Production during the Move to Production passes and data conversion will run smoothly.

If you have customized records that are delivered from Oracle, you may need to make changes to the Application Engine programs to handle these customizations. For example, here are two situations in which you may need to customize data conversion code:

- If you added fields to an Oracle-delivered record, you may need to add your additional fields to the conversion code for those records.
- If an Oracle-delivered record that you customized will be deleted, you may need to add your own conversions to move the data to a new location.

Use the Find In feature of PeopleSoft Application Designer to determine which Application Engine programs affect your customized records.

To use the Find In feature:

1. Create a project and add all Application Engine programs and related objects that have a name starting with *UPG* and save the project.
2. Select Edit, Find In.
3. Enter each customized record name in the Find What field and your project name in the Project field.
4. Click Find.

The results will appear in the output window.

Document any changes you make to data conversion programs. This way, if a new version of the program is delivered on My Oracle Support, you will know exactly what changes you have made. You can then reapply the changes to the new version of the program.

If your database is large, you may have data conversion programs that fail due to running out of space as you move data from one table to another. This problem can happen on all RDBMS platforms, but is more of a problem on those platforms using tablespaces. If your data conversion terminates abnormally with a space error, examine the Application Engine SQL statements that caused the problem. Determine where the data is coming from and how much will be moved. Have your database administrator adjust the allocated space accordingly. The data conversion can then be restarted.

See Appendix: “Using the Comparison Process.”

Restarting Data Conversion

Processes run through the PeopleSoft Change Assistant Application Engine step type, do not automatically rename the old log files on restart. Therefore, before restarting a data conversion step that is run through the PeopleSoft Change Assistant Application Engine step type, rename the log file. PeopleSoft Change Assistant uses the same log file name each time you start or restart an Application Engine program. This means that the restarted Application Engine program will replace the original log file if it is not renamed.

Processes run through the PeopleSoft Change Assistant Process Scheduler step type, automatically rename the old log files and create a new log file on restart. The PeopleSoft Change Assistant Log Viewer only displays the logs from the current run process. However, logs from the previous (unsuccessful) runs are retained and accessible in the PeopleSoft Change Assistant Log Directory.

If your data conversion program fails, fix the problem on your Copy of Production and restart the program. When you set the data conversion step to Restart in your PeopleSoft Change Assistant job, it will rerun the program using the `PROCESS_INSTANCE` and `RUN_CNTL_ID` from the initial run and the conversion will restart right after the last committed SQL command. Application Engine keeps track of data committed to the database in the table `PS_AERUNCONTROL`, keyed by `PROCESS_INSTANCE` and `RUN_CNTL_ID`.

See Finalizing the Database Structure.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-10-2: Turning Trace On

Set the Application Engine tracing level to include TraceAE = 16384 for the Process Scheduler prior to running data conversion. This allows details on Application Engine execution time for SQL steps and PeopleCode SQL statements to be collected. This information can be analyzed and used to tune long-running data conversion steps, as reported through EOUF0005.SQR.

See Appendix: “Using Data Conversion Utilities,” Understanding EOUFDATA CONV Reporting.

See, the *PeopleTools: Application Engine*, “Tracing Application Engine Programs”.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-10-3: Performing Data Conversion Concurrently

This step runs the EOUFDATA CONV Application Engine program for the MAIN data conversion group. After this step completes, you may want to run additional optional reports to obtain information about the data conversion such as execution and duration timings to help you optimize data conversion for your next upgrade pass.

See Appendix: “Using Data Conversion Utilities,” Reviewing EO Upgrade Framework Reporting.

Note. In most cases, if an error occurs in running data conversion, the Application Engine program stops immediately, and the error messages appear at the end of the log. In rare cases, PeopleSoft Change Assistant reports that the data conversion step failed, but the log indicates that it successfully ran to completion. In these cases, please review the log, and resolve any error messages.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-10-4: Turning Trace Off

Prior to data conversion, Application Engine tracing level 16384 was enabled for the Process Scheduler. After running data conversion, turn off the Application Engine tracing for the Process Scheduler.

See, the *PeopleTools: Application Engine*, “Tracing Application Engine Programs”.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-11: Backing Up After Data Conversion

Back up your database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12: Finalizing the Database Structure

This section discusses:

- Understanding the Final Database Structure
- Building the Alter with Deletes Scripts
- Altering Tables with Deletes
- Creating Indexes Again
- Creating Triggers
- Running the AE SYNCIDGEN Process
- Creating All Views

Understanding the Final Database Structure

Now that data conversion is complete, this task will alter the tables to remove obsolete columns, and create final indexes and views.

Task 5-12-1: Building the Alter with Deletes Scripts

This step uses the previously created project ALLTABS and generates three SQL scripts: one that will alter tables to drop obsolete columns, one that will also create any remaining indexes that could not be created with the first alter, and one that will create triggers. The script names are:

```
ALLTABS_DEL_ALTTBL.SQL
ALLTABS_DEL_CRTIDX.SQL
ALLTABS_DEL_CRTRTG.SQL
```

Important! All indexes should be created when the ALLTABS_DEL_CRTIDX.SQL script is run. When a unique index fails to be created, it is probably due to a data conversion issue. If a unique index fails to be created, you must resolve the issue and not simply remove the index. To prevent this issue, you can back up tables in the ALLTABS_DEL_ALTTBL.SQL script that will be dropping recfields that have data. This way, if you have an issue you may have the old fields and data that you need to correct it.

Note. For DB2 z/OS sites, if this step takes an exceptionally long time, performing a RUNSTATS on the system catalog tablespace SYSDBASE may improve performance.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12-2: Altering Tables with Deletes

This step executes the script ALLTABS_DEL_ALTTBL.SQL, which was generated in the previous step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12-3: Creating Indexes Again

This step executes the script ALLTABS_DEL_CRTIDX.SQL, which was generated in the previous step. All indexes should be created at this time.

Important! Review the log to find any unique indexes that might have failed to be created. All indexes should be created at this time, so those errors are not acceptable and should be corrected. When a unique index fails to be created, it is probably due to a data conversion issue.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12-4: Creating Triggers

This step executes the script ALLTABS_DEL_CRTTRG.SQL, which was generated in a previous step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12-5: Running the AE SYNCIDGEN Process

This step executes the AE_SYNCIDGEN Application Engine program to regenerate synchronization IDs. PeopleSoft PeopleTools uses synchronization IDs to give each row a unique identifier. For any tables with the Sync ID column set to the default value of zero, the AE_SYNCIDGEN program will populate the column with the next valid Sync ID value.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-12-6: Creating All Views

This step runs CREATEVW.DMS to re-create all views in the Copy of Production database. The script will try to create every view in Application Designer. If there is an error on one view, it will keep going until it gets to the end of the list.

Important! Review the log to find any views that failed to be created. All views should be created at this time, so those errors are not acceptable and should be corrected.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-13: Loading Data to Complete System Setup

This section discusses:

- Exporting Strings
- Importing Strings
- Exporting EDI Statements
- Importing EDI Statements
- Exporting Mass Change Data
- Importing Mass Change Data
- Exporting XML Service Information
- Importing XML Service Information
- Exporting Related-Language System Data
- Importing Related-Language System Data

- Exporting Application System Data
- Importing Application System Data
- Exporting Common Portal System Options
- Importing Common Portal System Options
- Exporting Setup Data
- Importing Setup Data
- Exporting Activity Guide Data
- Importing Activity Guide Data
- Exporting Authorization Service Data
- Importing Authorization Service Data
- Exporting File Extension Lists
- Importing File Extension Lists
- Exporting Interwindow Communication Data
- Importing Interwindow Communication Data
- Exporting Pivot Grid Data
- Importing Pivot Grid Data
- Exporting WorkCenter Data
- Importing WorkCenter Data
- Setting Portal System Options
- Setting Menu Pagelet Values

Task 5-13-1: Exporting Strings

This script exports Strings data from the Demo database. The script name for your upgrade path is:

`DLUPX04E.DMS`

This data will be exported during Move to Production by the script `MVAPPEXP_REV2.DMS`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-2: Importing Strings

This script imports Strings data into the Copy of Production database. The script name for your upgrade path is:

`DLUPX04I.DMS`

This data will be imported during Move to Production by the script `MVAPPIMP.DMS`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-3: Exporting EDI Statements

This script exports EDI Statements from the Demo database. The script name for your upgrade path is:

`DLUPX05E.DMS`

This data will be exported during Move to Production by the script `MVPRDEXP.DMS`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-4: Importing EDI Statements

This script imports the EDI Statements into the Copy of Production database. The script name for your upgrade path is:

`DLUPX05I.DMS`

This data will be imported during Move to Production by the script `MVPRDIMP.DMS`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-5: Exporting Mass Change Data

This script exports Mass Change tables from the Demo database. The script name for your upgrade path is:

`DLUPX06E.DMS`

This data will be exported during Move to Production by the script `MVAPPEXP_REV2.DMS`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-6: Importing Mass Change Data

This script imports Mass Change tables into the Copy of Production database. The script name for your upgrade path is:

`DLUPX06I.DMS`

This data will be imported during Move to Production by the script MVAPPIMP.DMS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-7: Exporting XML Service Information

This script exports XML service data from the Demo database. The script name for your upgrade path is:

`DLUPX13E.DMS`

This data will be exported during Move to Production by the script MVPRDEXP.DMS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-8: Importing XML Service Information

This script imports XML service data into the Copy of Production database. The script name for your upgrade path is:

`DLUPX13I.DMS`

This data will be imported during Move to Production by the script MVPRDIMP.DMS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-9: Exporting Related-Language System Data

This script exports system data from various application-related language tables in your Demo database into a PeopleSoft Data Mover *.DAT file. In a later step, this data will be loaded into your Copy of Production. The script name for your upgrade path is:

`DLPALASYSE_REV2.DMS`

Note. During Move to Production passes you can reuse the data files that are created by this export script. Preserve this DAT file, and set the Apply Type property in the PeopleSoft Change Assistant template to *Initial Pass* for this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Both	All	All	All Non-English

Task 5-13-10: Importing Related-Language System Data

This script will delete old related-language system data from related-language tables. The script then imports the data exported by the scripts above. The script name for your upgrade path is:

DLPALASYSI_REV2.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All Non-English

Task 5-13-11: Exporting Application System Data

This script exports system data from various application tables from the Demo database into a PeopleSoft Data Mover *.DAT file. In a later step, this data will be loaded into the Copy of Production database. The script name for your upgrade path is:

DLPASYSE_REV2.DMS

Note. During Move to Production passes, you can reuse the data files that are created by this export script. To do this, change the Apply Type from *Both* to *Initial Pass* in the step properties and save the job.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Both	All	All	All

Task 5-13-12: Importing Application System Data

This script imports the application system data, exported in the previous step, into the Copy of Production database. The script name for your upgrade path is:

DLPASYSI_REV2.DMS

Note. Some of the data will be imported using the *ignore dups* option. These data loads will give the message “Error: duplicate SQL rows” and then give a “Successful completion” message. These error messages can be ignored because duplicate data is expected.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-13-13: Exporting Common Portal System Options

This script exports the contents of the Common Portal System Options table from the Demo database. The script name for your upgrade path is:

DLEOX01E.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Both	All	All	All

Task 5-13-14: Importing Common Portal System Options

This script imports the Common Portal System Options data into your Copy of Production database. The script name for your upgrade path is:

DLEOX01I.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-13-15: Exporting Setup Data

This script exports setup data from the Demo database. The script name for your upgrade path is:

DLUPX16E_REV2.DMS

This data will be exported during Move to Production by the script MVAPPEXP_REV2.DMS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-16: Importing Setup Data

This script imports setup data into the Copy of Production database. The script name for your upgrade path is:

```
DLUPX16I_REV2.DMS
```

This data will be imported during Move to Production by the script MVAPPIMP.DMS.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-17: Exporting Activity Guide Data

This script exports Activity Guide lists and items from the Demo database during the initial upgrade pass. The script name for your upgrade path is:

```
PTUPGPTAIEXP.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-18: Importing Activity Guide Data

This script imports Activity Guide lists and items into your Copy of Production database during the initial upgrade pass. The script name for your upgrade path is:

```
PTUPGPTAIIMP.DMS
```

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-19: Exporting Authorization Service Data

This script exports Authorization as a Service configuration data from the Demo database. The script name for your upgrade path is:

PTCAC_AUTHSERVICE_CONFIG_EXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-20: Importing Authorization Service Data

This script imports Authorization as a Service configuration data into your Copy of Production database. The script name for your upgrade path is:

PTCAC_AUTHSERVICE_CONFIG_IMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-21: Exporting File Extension Lists

This script exports the definition and contents of every file extension list defined for attachments in the new release. The script name for your upgrade path is:

PTFX_EXTLSTS_EXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-22: Importing File Extension Lists

This script imports the definition and contents of every file extension list delivered in the new release. Note that for any duplicates, this script will overwrite any customizations that were made. The script name for your upgrade path is:

PTFX_EXTLSTS_IMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-23: Exporting Interwindow Communication Data

This script exports Interwindow Communication (IWC) configuration data from the Demo database, which includes IWC and message event definitions.

The script name for your upgrade path is:

PTUPGPTIWCEXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-24: Importing Interwindow Communication Data

This script imports Interwindow Communication (IWC) configuration data into your Copy of Production database.

The script name for your upgrade path is:

PTUPGPTIWCIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-25: Exporting Pivot Grid Data

This script exports Pivot Grid definitions, data source types, and other Pivot Grid data from the Demo database during the initial upgrade pass. The script name for your upgrade path is:

PTUPGPGEXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-26: Importing Pivot Grid Data

This script imports Pivot Grid definitions, data source types, and other Pivot Grid data into your Copy of Production database during the initial upgrade pass. The script name for your upgrade path is:

PTUPGPGIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-27: Exporting WorkCenter Data

This script exports WorkCenter configuration data from the Demo database. The script for your upgrade path is:

PTUPGALEXP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-13-28: Importing WorkCenter Data

This script imports WorkCenter configuration data into your Copy of Production database. The script name for your upgrade path is:

PTUPGALIMP.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-29: Setting Portal System Options

This script enables the Tangerine look and feel to your system, in addition to the new grid defaults. The script for your upgrade path is:

DLUPX25_REV2.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-13-30: Setting Menu Pagelet Values

This script replaces the menu navigation pagelet with the "Top Menu Features" pagelet. The script name for your upgrade path is:

PTREMOVEMENUPGLT.DMS

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-14: Running Final Update Statistics

This section discusses:

- Generating Final RUNSTATS for DB2 UNIX
- Running Final Statistics for DB2 UNIX
- Running Final Statistics for DB2 zOS
- Running Final Statistics for Informix
- Running Final Statistics for Oracle

Task 5-14-1: Generating Final RUNSTATS for DB2 UNIX

This step executes the RUNSTATS.SQR that creates the RUNSTATS.SQL to update statistics on DB2 UNIX/NT.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX/NT	All

Task 5-14-2: Running Final Statistics for DB2 UNIX

Earlier in the upgrade process you updated your statistics. Now that you have converted all of your data and modified all indexes, update your statistics again to improve performance of your post upgrade processes and testing. Run the RUNSTATS.SQL script created in the previous step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 UNIX	All

Task 5-14-3: Running Final Statistics for DB2 zOS

Earlier in the upgrade process you updated your statistics. Now that you have converted all of your data and modified all indexes, update your statistics again to improve performance of your post upgrade processes and testing. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

Task 5-14-4: Running Final Statistics for Informix

Earlier in the upgrade process you updated your statistics. Now that you have converted all of your data and modified all indexes, update your statistics again to improve performance of your post upgrade processes and testing. This step runs UPDATESTATS to update the statistics on your database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Informix	All

Task 5-14-5: Running Final Statistics for Oracle

Earlier in the upgrade process you upgraded your statistics. Now that you have converted all of your data and modified all indexes, update your statistics again to improve performance of your post upgrade processes. Contact your database administrator to have the statistics updated on your database before proceeding with your upgrade and testing.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	Oracle	All

Task 5-15: Completing Application Conversion

This section discusses:

- Copying the Upgrade Delete Project Again
- Copying the System Delete Project Again

Task 5-15-1: Copying the Upgrade Delete Project Again

This step copies the delete project again after the conversion to clean up any missed folders whose content has been resolved by the conversion program. This project deletes previous release portal registry objects that are no longer used in the current release. The project name for your upgrade path is:

UPGPADEL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-15-2: Copying the System Delete Project Again

This step copies the delete project again after the conversion to clean up any missed folders whose content has been resolved by the conversion program. This project deletes Demo objects delivered as sample data. The project name for your upgrade path is:

PORTAL_PASYSDEL

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-16: Updating Language Data

This section discusses:

- Understanding Updating Language Data
- Running the TSRECPOP Script

Understanding Updating Language Data

In this task, you run scripts to modify data in PeopleSoft PeopleTools-related language tables.

Note. For DB2 z/OS customers, Oracle recommends that you run RUNSTATS against the system catalog tables at this time.

Task 5-16-1: Running the TSRECPOP Script

In this step, the TSRECPOP script initializes and modifies the data in PeopleSoft PeopleTools-related language architecture tables.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 5-17: Completing the PeopleTools Conversion

The PeopleSoft PeopleTools Upgrade Driver Application Engine program, PTUPGCONVERT, runs additional PeopleSoft PeopleTools upgrade data conversions. The program then reads the table PS_PTUPGCONVERT, selecting all rows with a group number of 02 and ordering them by the sequence number on the row. A list of Application Engine library sections that must be run for data conversion is returned. The program then calls each section in the order of the sequence number. Review the report generated by PTUCONV.SQR for details on the conversions run in this step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-18: Updating Object Version Numbers

In this task, you run the VERSION Application Engine program. This ensures that all of your version numbers are correct and, if not, resets them to 1.

Note. Do not update statistics after you complete this task.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-19: Restoring the New Release Demo

Restore your New Release Demo database from the backup made earlier in the chapter "Planning Your Application Upgrade." The backup was taken before projects were copied and scripts were run against the New Release Demo. This is done to restore the environment to an Oracle-delivered Demo implementation. If your Copy of Production has a base language other than English, this restore will undo any changes you might have made on your New Release Demo (Source) in the tasks "Swapping PeopleTools Tables" and "Swapping Languages on System Data" in the chapter "Applying Application Changes."

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Source	Initial	All	All	All

Task 5-20: Running the Final Audit Reports

This section discusses:

- Running the Final DDDAUDIT Report
- Running the Final SYSAUDIT Report
- Running the Final SWPAUDIT Report
- Creating the FNLALTAUD Project
- Running the Final Alter Audit
- Reviewing the Final Audits
- Running the Final SETINDEX Report

Task 5-20-1: Running the Final DDDAUDIT Report

DDDAUDIT is an SQR that compares your production SQL data tables with the PeopleSoft PeopleTools record definitions to uncover inconsistencies. You can expect some errors from this report. You will review the output from the report in another step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-20-2: Running the Final SYSAUDIT Report

SYSAUDIT is an SQR that identifies *orphaned* PeopleSoft objects. For example, SYSAUDIT will identify a module of PeopleCode that exists but does not relate to any other objects in the system. SYSAUDIT also identifies other inconsistencies within your database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-20-3: Running the Final SWPAUDIT Report

SWPAUDIT is an SQR that checks database integrity in a multilingual context. For example, SWPAUDIT can identify a base and related-language record with mismatched key fields.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All non-English

Task 5-20-4: Creating the FNLALTAUD Project

In this step, you create the FNLALTAUD project and use it to run your final Alter Audit. Creating this new project now ensures that all the records in your system are audited, including SQL tables. This project also includes any custom records that you have created in your system.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-20-5: Running the Final Alter Audit

Run the PeopleSoft PeopleTools alter record process on all tables in your system to check whether the PeopleSoft PeopleTools definitions are synchronized with the underlying SQL data tables in your database. This process is called an Alter Audit. An Alter Audit compares the data structures of your database tables with the PeopleSoft PeopleTools definitions to uncover inconsistencies. The Alter Audit then creates an SQL script with the DDL changes needed to synchronize your database with the PeopleSoft PeopleTools definitions.

The Alter Audit script is built using the FNLALTAUD project created in the previous step.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-20-6: Reviewing the Final Audits

The Alter Audit process creates SQL scripts that correct any discrepancies between your PeopleSoft PeopleTools record definitions and the database system catalog table definitions. Review the Alter Audit output and correct any discrepancies noted by running the generated scripts with your platform-specific SQL tool. The script names are:

```
FNLALTAUD_ALTTBL.SQL
FNLALTAUD_CRTIDX.SQL
```

Note. The Alter Audit process also creates the script FNLALTAUD_CRTTRG.SQL, which re-creates all database triggers. You do not need to run this script, since all database triggers were created in a previous task.

See Finalizing the Database Structure.

Note. For Informix sites, if your database has Application Functions, you use SQL to drop and re-create these functions and their associated indexes, even though the underlying tables and indexes have not changed.

Note. For Microsoft SQL Server and DB2 UNIX/NT platforms, if your database has tables containing the MSSCONCATCOL or DBXCONCATCOL column, you will see SQL alter the tables and re-create their associated indexes, even though the underlying tables and indexes may not have changed.

Review the output from the SYSAUDIT, SWPAUDIT, and DDDAUDIT reports and correct any discrepancies.

Your DDDAUDIT listing shows some expected discrepancies. Tables and views deleted from PeopleSoft Application Designer are not automatically deleted from the system tables. Oracle takes this precaution in case you have customized information that you want to preserve. Therefore, the report lists any tables and views that the new release does not have. Review these tables to verify that you do not wish to preserve any custom data, and then drop the tables and views.

Similarly, your SYSAUDIT reports may have some errors due to references to obsolete PeopleSoft-owned objects. Invalid references are not automatically cleaned up during the upgrade in case you have customizations that you want to modify. For instance, if a PeopleSoft Permission List is deleted, and you have a Role that still refers to that Permission List, then it will appear on the SYSAUDIT and reports.

See the product documentation for PeopleTools: Data Management for your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 5-20-7: Running the Final SETINDEX Report

The SETINDEX SQR updates index overrides stored in the PSIDXDDLPRM table. The SQR updates the values stored in the PARMVALUE field with current values found in the system catalog. Running SETINDEX cleans up fragmentation issues that may have occurred during data conversion.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	DB2 z/OS	All

CHAPTER 6

Completing Database Changes

This chapter discusses:

- Understanding Database Changes
- Configuring the Upgrade Environment
- Reapplying Customizations
- Setting Up Security
- Reviewing PeopleTools Functionality
- Enabling Oracle Transparent Data Encryption
- Enabling Oracle Fine Grained Auditing
- Configuring the Application
- Configuring Oracle Secure Enterprise Search
- Updating the Portal Options Data
- Deleting Rename Data
- Stamping the Database
- Reviewing Change Control
- Backing Up Before Testing
- Testing Your Copy of Production

Understanding Database Changes

Many changes were made in the previous chapters of this documentation. In this chapter, you complete these changes so that you can begin testing your Copy of Production. By testing your Copy of Production, you ensure that you can still operate day-to-day processes on your new PeopleSoft release.

Task 6-1: Configuring the Upgrade Environment

This section discusses:

- Configuring the Web Server
- Configuring Portal

Task 6-1-1: Configuring the Web Server

Running PeopleSoft Portal requires a fully functional web server. In this step, configure your web server. Make sure that you also configure your web server for PeopleSoft PeopleBooks so that you can easily refer to the documentation while reviewing the new release.

See the PeopleSoft PeopleTools Installation for your database platform on your new release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 6-1-2: Configuring Portal

Running PeopleSoft Portal requires a fully functional application server domain. The application server was configured earlier in the upgrade. PeopleSoft applications are accessed through the portal. You need to grant users access to complete the upgrade process. You must install and configure the PeopleSoft Portal to complete the upgrade.

Note. If you configured your PeopleSoft Portal earlier in the upgrade, you can skip this step.

You also must define a password on the Node Definitions page for Single Signon to work properly. If you do not define a password, the sign-on page appears when trying to access a report directly, instead of the report itself. To avoid this issue, follow the procedure below to assign a password.

To assign a password:

1. Select PeopleTools, Integration Broker, Integration Setup, Nodes.
2. Click Search.
3. Select the database's default local node.
The default local node shows a *Y* in the Default Local Node column.
4. On the Node Definitions page, select *Password* in the Authentication Option field.
5. Enter a password in the Node Password field.
6. Enter the password again in the Confirm Password field.
7. Enter the default user in the Default User ID field.
8. Save the node definition.
9. Reboot the application server and web server.

See the PeopleSoft PeopleTools Installation for your database platform.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 6-2: Reapplying Customizations

This section discusses:

- Understanding the Reapplication
- Performing Customized Object Adjustment

Understanding the Reapplication

In this task, you work with your customized objects to ensure that they are properly integrated into your upgraded database.

Task 6-2-1: Performing Customized Object Adjustment

When you reviewed your upgrade compare reports, you decided whether to take the Source or Target version of the objects. If you took the Oracle-delivered version of an object instead of your own customized version, you may need to customize the new objects to get the blend of new standard features and your custom features. In complex cases, this may take several iterations. You need to make manual adjustments to the objects to apply these customizations.

Once you reapply all of your customizations, you should run the DDDAUDIT and SYSAUDIT reports to make sure that you did not introduce any problems into your system.

In another step, you applied the Oracle-delivered record group assignments.

See “Applying Application Changes,” Loading Data for Data Conversion, Importing Record Groups.

If you maintain any custom record group assignments, reapply them to your Copy of Production database now.

During Move to Production passes, you will not need to reapply these customizations. The changes you make now will be copied to any subsequent Copy of Production database using PeopleSoft Data Mover scripts.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-3: Setting Up Security

This section discusses:

- Understanding Security
- Performing Security Setup
- Granting Access to the Upgrade User ID

Understanding Security

In this task you perform steps to set up security, grant access to the user ID, set up permissions lists, and grant access to navigation and homepages.

Task 6-3-1: Performing Security Setup

This section discusses:

- Understanding Security Setup

Understanding Security Setup

Select the PeopleTools, Security folder now to add the new PeopleSoft PeopleTools and application menus, delete old menus, and set up appropriate operator security for your system.

Many menu additions and deletions have occurred. Examine the menu compare report and the Demo database for details of the required security changes, then decide which of your roles and permission lists should have access to each of the new menus.

Many tasks in this chapter instruct you to select a specific menu within the new PeopleSoft release. To perform these tasks, set up appropriate security for each of the menus referenced in each of the tasks.

Note. Review the newly delivered or updated permission lists and add them to your roles, using the roles delivered by Oracle as a guide.

See the PeopleSoft Interaction Hub: Portal and Site Administration for your new release, information on PeopleSoft-delivered security.

Note. Move to Production: If you changed the user profiles in your production system after you froze your PeopleSoft PeopleTools, you must manually apply the changes to your Copy of Production database before the end of the final Move to Production.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-3-2: Granting Access to the Upgrade User ID

This step requires security access to system and administrator pages. You need to grant the necessary security access to the user ID that performs manual changes. Oracle refers to that user ID as the Upgrade User ID in this step.

Follow the steps below to add the needed roles to the Upgrade User ID.

To add the needed roles:

1. From your browser, sign in to the Copy of Production database.
2. Select PeopleTools, Security, User Profiles, User Profiles.
3. Enter the upgrade user ID.
4. Click Search.
5. Click the Roles tab.
6. If the following roles do not already exist for the Upgrade User ID, insert them by clicking the Plus icon. Then type in the role name.
 - a. *PAPP_SYSTEM_ADMIN*
 - b. *PAPP_EMPLOYEE*
 - c. *PAPP_CUSTOMER*
 - d. *Portal Administrator*
 - e. *PeopleSoft Administrator*
7. Click the ID tab.
8. Change the ID Type to *None*.
9. Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-4: Reviewing PeopleTools Functionality

The PeopleSoft PeopleBooks detail the current PeopleSoft PeopleTools functionality. There are many new features delivered in the new release that you may want to use. You should now review the PeopleSoft PeopleBooks and PeopleTools installation guide to configure your environment properly. This may include, but is not limited to, configuring and starting a process scheduler and a report server, and reviewing portal settings.

See the PeopleSoft PeopleTools Installation for your database platform on your new release.

To review the PeopleSoft PeopleTools Release Notes, go to My Oracle Support and search for the PeopleSoft PeopleTools Release Notes for your new release.

You should review the following considerations:

- If you applied a PeopleSoft PeopleTools patch earlier in the upgrade, review the patch documentation and run any steps that you have not already performed during the upgrade.

Check your PeopleSoft Change Assistant output directory if you do not know whether a script was already run during the upgrade process.

- Oracle has updated the styles that define the look of the user interface.

Five user interface options were delivered with your current PeopleSoft release.

As part of the application upgrade, your PeopleSoft database was updated to the default style for your application release.

The following table lists the default style for each PeopleSoft release:

Style Name	Release
Classic (deprecated as of PeopleTools 8.50)	PeopleSoft 8.4 applications and pre-850 PeopleTools system databases
Light blue (deprecated as of PeopleTools 8.50)	NA
Dark blue	PeopleSoft 8.8, 8.9, 9.0 applications and 8.51 or later PeopleTools system databases
SWAN	PeopleSoft 9.1 applications
Tangerine	PeopleSoft 9.2 applications Note. As of Interaction Hub 9.1 Revision 2, Tangerine is the default style.

See the product documentation for PeopleTools: PeopleSoft Application Designer Developer's Guide, for your new release for more information about creating style sheet definitions.

- Integration Broker was rewritten in PeopleSoft PeopleTools 8.48.

If you use Integration Broker, you will need to perform setup configuration and review the explanation of metadata mapping.

See the product documentation for PeopleTools: PeopleSoft Integration Broker for your new release for more information about understanding migrated integration metadata.

- In PeopleSoft PeopleTools 8.50, Microsoft SQL Server customers need to use a non-system administrator access ID. If you are upgrading from PeopleSoft PeopleTools 8.49 or earlier, enable and configure the access ID after completing the final pass of the upgrade.

See the PeopleTools Installation for Microsoft SQL Server guide for your new release, Appendix: "Synchronizing the ACCESSID User."

- Review your PeopleSoft Portal settings, as the values may have changed during the upgrade.

See the product documentation for PeopleTools: Portal Technology for your new release for more information about understanding changes in portal configuration settings.

- As of PeopleSoft PeopleTools 8.51, Oracle database customers can now restrict the Access ID to the minimum privileges needed to run PeopleSoft applications. If you are upgrading from PeopleSoft PeopleTools 8.50 or earlier, restrict the Access ID privileges after completing the final pass of the upgrade.

See the PeopleTools Installation for Oracle guide for your new release, "Creating a Database Manually on Windows" and "Creating a Database on UNIX," Creating PeopleSoft Database Roles.

- Password security has been enhanced as of PeopleSoft PeopleTools 8.53. After completing the last pass of the upgrade, you will need to reset your passwords using PSHOME\SCRIPTS\BSE\RESETPSWD.DMS to take advantage of this security enhancement.
- For PeopleSoft Interaction Hub customers, review *E-PORTAL: Interaction Hub's PeopleTools Upgrade Impacts* (doc id 1340982.1) on My Oracle Support for any application resolutions that must be applied after upgrading to this PeopleSoft PeopleTools release.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-5: Enabling Oracle Transparent Data Encryption

PeopleSoft Change Assistant will display this step only if you are upgrading from PeopleSoft PeopleTools 8.50 or later. Oracle's Transparent Data Encryption (TDE) feature was disabled at the beginning of the upgrade. If you had TDE enabled prior to the upgrade, then after finishing the final Move to Production pass of the upgrade, you need to re-enable TDE by running scripts in the sequence specified in the following procedure.

To re-enable TDE:

1. Run *PS_HOME\SCRIPTS\POSTUPGTDEPROCESS1.SQL*.

The script POSTUPGTDEPROCESS1.SQL performs similarly to the script PREUPGTDEPROCESS.SQL, which you ran at the beginning of the upgrade, to find any tables that are encrypted, generate a list of fields that need to have the PeopleSoft metadata encryption attribute re-enabled, and create the ENCRYPTEDTBLSA project. The ENCRYPTEDTBLSB project is compared with the ENCRYPTEDTBLSA project, and the resulting list of differences between the recfields is input to the script POSTUPGTDEPROCESS2.SQL.

See "Applying PeopleTools Changes," Performing Updates to PeopleTools System Tables, Saving Transparent Data Encryption Information.

2. Run *PS_HOME\SCRIPTS\POSTUPGTDEPROCESS2.SQL*.

The script POSTUPGTDEPROCESS2.SQL generates four scripts, which you will run in the next step to reapply TDE to the records identified by the POSTUPGTDEPROCESS1.SQL. Review the generated scripts (particularly PSTDEREBUILDFUNCIDX.SQL) to make sure that the syntax, sizing, and tablespace information is intact and is not split at the end of a line. If necessary, modify the scripts as needed for your environment.

3. Run the scripts that were generated when you ran POSTUPGTDEPROCESS2.SQL in the following order:
 - PSTDEDROPFUNCIDX.SQL
 - PSTDEREENCRYPT.SQL
 - PSTDEREBUILDFUNCIDX.SQL
 - PSTDEREENCRYPTMETADATA.SQL
4. Run *PS_HOME\SCRIPTS\POSTUPGTDEVALIDATION.SQL*.

The script POSTUPGTDEVALIDATION.SQL validates that all tables and columns that were encrypted before the upgrade have maintained encryption. It lists any records that contain encrypted fields but were not included in the ENCRYPTEDTBLSB project. It also sets the value for the TDE algorithm defined within PSOPTIONS.

See the product documentation for PeopleTools: Data Management for your new release for more information about administering PeopleSoft databases on Oracle.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	Oracle	All

Task 6-6: Enabling Oracle Fine Grained Auditing

After completing the final pass of the upgrade, you can re-enable Oracle Fine Grained Auditing (FGA).

To re-enable FGA:

1. Review the log file generated by running PREUPGFGAREPORT.SQL at the beginning of the upgrade.
2. Edit the script PSCREATEFGA.SQL, generated earlier in the upgrade, to remove any entries that no longer apply to the new release as some of the tables and columns referenced in the script may have been removed during the upgrade.

You may want to enable FGA on additional tables and columns in the new release.

3. After editing the script, run the PSCREATEFGA.SQL script to re-enable Oracle Fine Grained Auditing.

See “Applying PeopleTools Changes,” Performing Updates to PeopleTools System Tables, Saving Oracle Fine Grained Auditing Information.

See the product documentation for PeopleTools: Data Management for your new release for more information about administering databases on Oracle.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	Oracle	All

Task 6-7: Configuring the Application

This section discusses:

- Understanding the Application Configuration
- Determining the Default Local Node Name

- Synchronizing Portal Permissions
- Adjusting the Guest User Display
- Assigning the Guest Branding Theme
- Assigning the Tangerine Branding Theme
- Setting the FTP URLs for Files
- Setting the FTP URL for Images
- Updating Collaborative Workspaces
- Adding New Workspace Modules
- Updating and Reviewing Single Signon
- Enabling Unified Navigation
- Adjusting the Default Homepage Tab
- Adding Feeds to Pagelets
- Converting Frame Templates to iFrame Templates
- Updating Custom Menu Styles
- Adding My Links in the My Favorites Menu
- Enabling Content in a WorkCenter Template

Understanding the Application Configuration

This task includes the manual steps performed at the end of the upgrade process.

Note. Some of the steps in this task refer to your Content Provider databases. Your Content Provider database is all the active PeopleSoft application databases that you connect to and from within the Portal Solutions database, for example, Human Capital Management, Customer Relationship Management, and so on.

Task 6-7-1: Determining the Default Local Node Name

In this step, you determine the Default Local Node Name used by the PeopleSoft Interaction Hub. This node name is referred to in subsequent steps as the *Default Local Node*.

To determine the Default Local Node Name:

1. From the browser, sign in to the Copy of Production database.
2. Select PeopleTools, Portal, Portal Definitions.
3. Click Search.
4. Make a note of the Node Name that is indicated by a “Y” in the Default Local Node column of the search dialog list. This is the Default Local Node Name for the Portal Solutions database.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 6-7-2: Synchronizing Portal Permissions

This section discusses:

- Understanding the Synchronization of Portal Permissions
- Running the Portal Synchronization Process

Understanding the Synchronization of Portal Permissions

The Portal security synchronization (PORTAL_CSS) process updates the portal content references and folders with the existing permission lists as defined in the Interaction Hub Copy of Production database.

The Portal security synchronization process does not update Content References that are specified as external, that are associated with a remote node, or that contain an additional parameter value, such as a query string.

The synchronization process also updates the portal registry parent folders to include the permission lists of the child folders and child Content References. Synchronization begins by removing permissions from all parent folders. It does not remove folder permission lists for any folder that does not have children, or whose child content references are specified *public*.

The process appends the current permission lists from the child folders and child Content References to the parent folder. It does not append permission lists to any parent folders that are specified as public.

Note. Synchronization takes from a few minutes to a few hours, depending upon the volume of the portal data. Make sure that the User ID you use to invoke this process has the security role Portal Administrator, otherwise the process will not run to completion.

Running the Portal Synchronization Process

Follow the steps below to run the portal security synchronization process, which updates portal content references and folder security.

To run the Portal security synchronization process:

1. From your browser, sign in to your Copy of Production database.
2. Select PeopleTools, Portal, Portal Security Sync.
3. Perform the following steps for each EMPLOYEE, CUSTOMER, PARTNER, or SUPPLIER registry, and for any additionally created registries (sites).
 - a. Enter the run control ID UPG_PORTAL_SYNC_BOTH.
 - b. Click Search.
(If the run control ID UPG_PORTAL_SYNC_BOTH does not exist, select Add a New Value, enter the run control ID, and click Add).
 - c. Enter the name of the portal registry that you are synchronizing.
 - d. Click Save.
 - e. Click Run.

- f. On the Process Scheduler Request page, verify that your parameters are correct, then click OK.
- g. Click the Process Monitor link to monitor the program's process.
4. Repeat step 3 for each additional portal registry you want to use.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-7-3: Adjusting the Guest User Display

This section discusses:

- Adjusting the Guest User ID
- Recording the Guest User Homepage
- Adjusting the Guest Homepage Tab
- Testing the Guest Homepage Tab

Adjusting the Guest User ID

In this step, you adjust the security for the guest User ID.

To adjust the guest User ID:

1. From your browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Security, User Profiles, User Profiles.
3. Enter the user ID *GUEST*.
4. Click Search.

Click on the User ID GUEST in the search list.

Note. This step assumes that the user ID defaulted on the web server is GUEST. If a different user ID is used, adjust the directions to apply to the actual Guest user ID.

5. Select the Roles tab.
6. If the following roles do not already exist on the Guest user, insert them by clicking the plus (+) button. Then type in the role name.

PeopleSoft Guest

PAPP_GUEST

7. Delete the following roles by clicking the minus (-) button next to the role name. (Click OK on the message about deleting the row.)

PeopleSoft User

PAPP_USER

8. Select the ID tab.
9. Change the ID Type to None.

10. Click Save.

Recording the Guest User Homepage

In this step you will record the guest user's homepage from your current non-upgraded PeopleSoft Interaction Hub production database. This screenshot will be used for comparison to configure the Guest Homepage tab in your Copy of Production database

To record the guest user's homepage:

1. From your browser, sign in to your non-upgraded Interaction Hub Production database as the guest user (GUEST/GUEST).
2. Take a screenshot of the guest user's homepage showing all of the pagelets that are available to the guest user.
3. Sign out of the non-upgraded Production database.

Adjusting the Guest Homepage Tab

In this step you will edit the guest homepage tab.

To adjust the guest homepage tab:

1. From your browser, sign in to your Interaction Hub Copy of Production database as the upgrade user.
2. Select PeopleTools, Portal, Structure and Content.
3. In the Structure and Content page, click each link to Portal Objects, then Homepage and Tabs.
4. Click the Edit link on the Guest content reference.
5. Select the Hide pagelet action bar option under the Homepage tab attributes, as shown in the following example:



Homepage tab attributes pagelet with Hide pagelet action bar checked

6. Select the Tab Content tab.
7. Clear the Include All check box if it is selected for all of the pagelet categories.
8. In the pagelet category Organizers:
 - a. Check the Signon pagelet and select *Req-Fix*.
 - b. If you have a multilingual database, then check the Language Selection pagelet and select *Req-Fix*.
9. For the remaining pagelets, select the check box next to each pagelet that is visible to a Guest user. Specify *Required* for each of the Guest enabled pagelets.

Note. For each pagelet selected as visible for a guest user, you must grant security access to the pagelet by placing the applicable feature permission lists either in the PAPP_GUEST role, or in an equivalent role assigned to the guest user.

10. Select the Tab Layout tab.
11. Arrange the pagelets to match the orientation of the non-upgraded Production database's Guest Homepage.

12. Click Save.

Testing the Guest Homepage Tab

To test the upgraded guest homepage tab:

1. Delete your application server cache, then stop and restart your web server.
2. Delete your browser's temporary Internet files.
3. From your browser, sign in to your Interaction Hub Copy of Production database as the Guest user (GUEST/GUEST).
4. Test that the selected Guest Pagelets show up and that they do not have any personalization buttons.

For more information on managing guest user accounts, see *PeopleSoft Interaction Hub 9.1: Portal and Site Administration*, "Managing Guest User Accounts".

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-7-4: Assigning the Guest Branding Theme

A special branding theme is available for guest users. It will hide the non-clickable Personalize Content link on the homepage. You can create your own theme or use this delivered one. To enable this theme for guest users, you assign it to the role PAPP_GUEST.

See *PeopleSoft Interaction Hub 9.1: Branding*, "Previewing Delivered Branding Themes".

To assign the Branding Theme for guest users:

1. From the browser, sign in to your Interaction Hub Copy of Production database.
2. Select Portal Administration, Branding, Assign Themes.
3. Click Correct History.
4. In the Assign Themes to Roles grid, click View All.
5. If a guest theme is not already assigned to the PAPP_GUEST role, use the table below to add a row with the following values:

Field	Value
Priority #	200
Theme ID	PAPPBR_THEME_GUEST_TANGERINE
Role Name	PAPP_GUEST

6. Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-5: Assigning the Tangerine Branding Theme

A new Tangerine branding theme is available. You can create your own theme or use the delivered one. Assign to the appropriate roles to enable the theme for the users.

See *PeopleSoft Interaction Hub 9.1: Branding*, “Previewing, Selecting and Assigning Branding Themes, Components, Images, and Style Sheets”.

To assign a Branding Theme for a role:

1. From the browser, sign in to your Interaction Hub Copy of Production Database.
2. Select Portal Administration, Branding, Assign Themes.
3. Click Correct History.
4. In the Assign Themes to Roles grid, click View All.
5. Assign Theme ID *PAPPBR_THEME_PT_TANGERINE* to the roles. If role *PAPP_GUEST* exists it should be set to Theme ID *PAPPBR_THEME_GUEST_TANGERINE*.
6. Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-6: Setting the FTP URLs for Files

This section discusses:

- Understanding the Setting of the FTP URLs
- Updating the Task URL
- Updating the Menu Item URL
- Updating the Content Management URL
- Updating the Related Information URL

Understanding the Setting of the FTP URLs

In this step, you adjust the FTP file attachment locations for the features. File attachments may be stored either on an FTP server or in a database table. Different features provide one or both of the storage options.

The file storage URL setup listed below may be correct as is. However, any file storage URL with the exact value *ftp://user:password@fileserv* must be updated to a correct FTP URL.

If you change the storage location of an FTP URL value from one file server to another, then you must also copy the files to the new location.

Note. You can move file attachments currently stored in a file server so that they are stored in the database (and vice versa).

See *PeopleTools: System and Server Administration*, “Working with File Attachments, Application Deployment and System Configuration Considerations” for your current PeopleSoft PeopleTools release.

Updating the Task URL

To update the Task file attachment location:

1. From the browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Utilities, Administration, URLs.
3. Enter the URL Identifier *TASKS*.
4. Click Search.
5. Run the following SQL query to determine if you have used the Tasks feature. If any values are returned, proceed to step 7.

```
SELECT * FROM PS_EO_PE_TASK_DTL
```

6. *If no values were returned* from the step 5 query, then you *have not* used the Task feature. You have the option to store the file attachments in the database or on a file server. To select a storage option, do one of the following:
 - To store the file attachments in the database, keep the URL field value *record://EO_PE_TASK_FILE*.
 - To store the Menu Item file attachments on a file server, update the URL field value to a file server URL using the form *ftp://user:password@fileservers*.
7. *If any values were returned* from the step 5 query, then you *have* used the Task feature. Perform the following steps to ensure that the TASKS URL identifier points to the correct TASK files location:
 - a. Run the following SQL query to determine if the files are stored in the database:

```
SELECT * FROM PS_EO_PE_TASK_FILE
```

- b. If *any* values are returned from the step 7a query, then the files are stored in the database. Enter the URL field value *record://EO_PE_TASK_FILE*.
 - c. If *no* values were returned from the step 7a query, then the files are stored on a file server. Update the URL field value to the correct file server URL where the current files are stored. Use the form *ftp://user:password@fileservers*.
8. Click Save.

Updating the Menu Item URL

To update the Menu Item file attachment location:

1. From the browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Utilities, Administration, URLs.
3. Enter the URL Identifier *MENU_ITEMS*.
4. Click Search.

5. Run the following SQL queries to determine if you have used the Menu Item feature with file attachments. If any values are returned, proceed to step 7.

```
SELECT * FROM PS_EO_PE_CREF_STG WHERE STG_REQUEST_TYPE = 'A'
SELECT * FROM PS_EO_PE_VW_ATTACH
```

6. *If no values were returned* from the step 5 query, then you *have not* used the Menu Item feature. You have the option to store the file attachments in the database or on a file server. Perform *one* of the following:
 - To store the file attachments in the database, keep the URL field value *record://EO_PE_MENU_FILE*.
 - To store the Menu Item file attachments on a file server, update the URL field value to a file server URL using the form *ftp://user:password@filesaver*.
7. *If any values were returned* from the step 5 query, then you *have* used the Menu Item feature. Perform the following steps to ensure that the MENU_ITEMS URL identifier points to the correct Menu Item files location:
 - a. Run the following SQL query to determine if the files are stored in the database:

```
SELECT * FROM PS_EO_PE_MENU_FILE
```

- b. If *any* values are returned from the step 7a query, then the files are stored in the database. Enter the URL field value *record://EO_PE_MENU_FILE*.
 - c. If *no* values were returned from the step 7a query, then the files are stored on a file server. Update the URL field value to the server URL where the current files are stored. Use the form *ftp://user:password@filesaver*.
8. Click Save.

Updating the Content Management URL

To update the managed content FTP file attachment location:

1. From the browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Utilities, Administration, URLs.
3. Enter the URL Identifier *CMDOCF*.
4. Click Search.
5. Update the URL field value to the correct file server URL using the form *ftp://user:password@filesaver*.
6. Click Save.

Updating the Related Information URL

To update the related information FTP file attachment location:

1. From your browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Utilities, Administration, URLs.
3. Enter the URL Identifier *RCDOCF*.
4. Click Search.
5. Update the URL field value to the correct file server URL using the form *ftp://user:password@filesaver*.
6. Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Initial	All	All	All

Task 6-7-7: Setting the FTP URL for Images

This section discusses:

- Understanding the FTP URL for CM Images
- Extending the Web Server Directory
- Establishing an FTP Server for Content Management Image Attachment
- Updating the URL EPPCM_IMAGE Definition
- Updating the Image Attachment URL Path

Understanding the FTP URL for CM Images

The Interaction Hub can upload, render, and access image files through an FTP service. To render the uploaded image files as an image, an FTP service must exist on a web server directory within the PeopleSoft domain.

Note. Create the web server directory extension and the FTP service only on a single web server used by the Portal Solutions database. For clustered web servers, all image attachments will be rendered and stored on a single, selected web server as defined in the Installation Options Image Attachment URL Path value.

Extending the Web Server Directory

To extend the Web Server Directory:

1. Copy the contents of the portal_pa directory from <PS_APP_HOME>\ps\images\portal_pa\ into the appropriate web server machine directory:

- Oracle WebLogic Server - NT:

```
<PIA_HOME>\webserver\<peoplesoft>\applications\peoplesoft\PORTAL.war\ps\images⇒
\portal_pa\
```

- Oracle Weblogic Server - UNIX:

```
<PIA_HOME>/webserver/<peoplesoft>/applications/peoplesoft/PORTAL.war/ps/images⇒
/portal_pa/
```

- IBM WebSphere Server - NT:

```
<PIA_HOME>\webserver\<peoplesoft>\installedApps\<peoplesoft>NodeCell
\<peoplesoft>.ear\PORTAL.war\ps\images\portal_pa\
```

- IBM WebSphere Server - UNIX:

```
<PIA_HOME>/webserver/<peoplesoft>/installedApps
/<peoplesoft>NodeCell/<peoplesoft>.ear/PORTAL.war/ps/images/portal_pa/
```

2. The resulting directory path is:

- Oracle WebLogic Server - NT:

```
<PIA_HOME>\webserver\<peoplesoft>\applications\peoplesoft\PORTAL.war\ps\images⇒  
\portal_pa\website folder + image files + other files>
```

- Oracle WebLogic Server - UNIX:

```
<PIA_HOME>/webserver/<peoplesoft>/applications/peoplesoft/PORTAL.war/ps/images⇒  
/portal_pa/<website folder + image files + other files>
```

- IBM WebSphere - NT:

```
<PIA_HOME>\webserver\<peoplesoft>\installedApps\<peoplesoft>NodeCell⇒  
\<peoplesoft>.ear\PORTAL.war\ps\images\portal_pa\<website folder +>  
image?files + other files>
```

- IBM WebSphere - UNIX:

```
<PIA_HOME>/webserver/<peoplesoft>/installedApps/<peoplesoft>NodeCell⇒  
/<peoplesoft>.ear/PORTAL.war/ps/images/portal_pa/<website folder +>  
image?files + other files>
```

Establishing an FTP Server for Content Management Image Attachment

Create an FTP service on the web server machine with a real path to the extended folder path of the web server directory.

To establish an FTP server for Content Management Image Attachment:

1. Establish an FTP server on the machine hosting the Portal Solutions web server.
2. Set the FTP home directory to that of the web server's extended path. For example, if the web server extended directory is:

```
C:\pshome\webserver\peoplesoft\applications\peoplesoft\PORTAL.war\ps\images⇒  
\portal_pa
```

Then the FTP home directory must be set to the same path as follows:

```
C:\pshome\webserver\peoplesoft\applications\peoplesoft\PORTAL.war\ps\images⇒  
\portal_pa
```

Updating the URL EPPCM_IMAGE Definition

Set the FTP path in the URL definition EPPCM_IMAGE, to point to the created FTP service on the web server machine.

To update the URL_ID EPPCM_IMAGE:

1. Sign in to the PeopleSoft Interaction Hub from your browser.
2. Select PeopleTools, Utilities, Administration, URLs.
3. Enter the URL ID *EPPCM_IMAGE*.
4. Click Search.

5. Update the URL value to point to the created FTP server on the web server machine by replacing the user, password, and localhost values with the values matching your FTP server using the form `ftp://user:password@localhost`.

For example: `ftp://paftp:paftp1@RT-SUN25`.

Updating the Image Attachment URL Path

Update the Installation Options Image Attachment URL Path value to point to the web server's relative or absolute URL of the extended path that will contain the image files from the FTP server.

To update the Image Attachment URL path:

1. Sign in to the PeopleSoft Interaction Hub from your browser.
2. Select Portal Administration, System Data, Installation Options.
3. Update the value in the Image Attachment URL path as follows:
 - For a single web server, use the defaulted relative URL that matches the extended web server directory path that the FTP server maps to; for example, `/ps/images/portal_pa/`.
 - For multiple (clustered) web servers, enter the absolute URL for the single extended web server directory path that the FTP server maps to; for example, `http://RT-SUN25/ps/images/portal_pa/`.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-8: Updating Collaborative Workspaces

This section discusses:

- Understanding Updating Collaborative Workspaces
- Updating Existing Workspace Templates
- Updating Existing Workspace Instances

Understanding Updating Collaborative Workspaces

In this step you will update existing collaborative workspaces from Portal Solutions 9.0 with the new modules and the Tangerine branding theme that are part of the Portal Solutions 9.1 Release.

Updating Existing Workspace Templates

To update existing workspace templates:

1. From the main portal, select Portal Administration, Workspaces, Manage Templates.
2. Click the link for the base template in your system. This will be the template with the greyed-out checkbox.
3. Click the Administration link from within the base template.
4. In the Branding Theme drop-down list, select "CW Theme-Tangerine Style".
5. Select the Copy Changes tab in the Administration component.

6. Verify that the copy check box corresponding to Modules is selected. Do not select other check boxes in the Items to Copy grid.
7. Select all target workspaces by clicking the Select All link below the Target Workspaces grid.
8. Click the Copy Changes button.

Updating Existing Workspace Instances

To update existing workspace instances:

1. From the main portal, select Portal Administration, Workspaces, Manage Templates.
2. Click the link for a workspace template used in your system.
3. Click the Administration link from within the template.
4. Select the Copy Changes tab in the Administration component.
5. Verify that the copy check box corresponding to Modules is selected. Do not select other check boxes in the Item to Copy grid.
6. Select all target workspaces by clicking the Select All link below the Target Workspaces grid.
7. Click Copy Changes.
8. Repeat steps 1–7 for all workspace templates used in your system.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-9: Adding New Workspace Modules

New Workspace Modules have been added in PeopleSoft Portal Solutions 9.1. For more information on the new modules, refer to the PeopleSoft Portal Solutions 9.1 documentations.

To enable Workspace Modules:

1. Log into the workspace as Workspace Administrator.
2. Click on the Administration link.
3. Select the Modules tab, as shown in the following example:

[Properties](#)
[Members](#)
[Modules](#)
[Contextual Data](#)
[Feed](#)
[Advanced](#)

Select which modules you would like for this workspace.

Modules			
Select	Module Name	Description	Properties
<input checked="" type="checkbox"/>	Welcome	The overview page of the collaborative workspace	
<input checked="" type="checkbox"/>	Discussions	Maintain multiple discussion topics with members	
<input checked="" type="checkbox"/>	Documents	Upload, organize and securely share documents with other members of the workspace	Properties
<input checked="" type="checkbox"/>	Blogs	Maintain Workspace Blog posts	
<input checked="" type="checkbox"/>	Links	Maintain a list of easily accessible links for the team	
<input checked="" type="checkbox"/>	Action Item Lists	Maintain multiple Action Item Lists with members	
<input checked="" type="checkbox"/>	Calendar	Maintain Calendar Events with members	
<input checked="" type="checkbox"/>	Members	View a list of all members with links to user profiles	
<input checked="" type="checkbox"/>	Related Data	Display related data pagelets for a specific workspace template	
<input checked="" type="checkbox"/>	Polls	Maintain the workspace poll questions	
<input checked="" type="checkbox"/>	Browse Workspaces	Access related collaborative workspaces or perform searches for specific workspaces to which you have access.	
<input checked="" type="checkbox"/>	Administration	Manage the properties and members of your workspace	

Related Pagelets				
Name	Menu Item Label	Context-Sensitive	Map Keys	
PAPP_EPPCW_DEMO_SCR	Demo Contextual Pagelet	<input checked="" type="checkbox"/>	Map	Edit Pagelet

[Add Related Pagelet](#)

[Save](#)

[Properties](#) |
 [Members](#) |
 [Modules](#) |
 [Contextual Data](#) |
 [Feed](#) |
 [Advanced](#)

Workspace Administration page: Modules tab

- Select the new modules that you want to enable.
- Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-10: Updating and Reviewing Single Signon

This section discusses:

- Understanding the Updating and Reviewing of Single Signon
- Updating Single Signon in the 8.4x Content Provider Database
- Reviewing Single Signon

Understanding the Updating and Reviewing of Single Signon

In this step, you will update and review the single signon data. Single signon requires the use of a password on the Portal Solutions database's local default node. You have already set this password on the Portal Solutions database in the "Configure Portal" task of this chapter. This password must be matched on the same node name in each Content Provider database that is accessed from the Portal Solutions database.

Note. If a password is not defined, the signon page appears when a user tries to access a page from a content provider.

Updating Single Signon in the 8.4x Content Provider Database

Follow the steps below for each Content Provider PeopleSoft application database on PeopleTools 8.4x that your Portal Solutions database connects to using single signon.

To update the Interaction Hub local default node password in a 8.4x Content Provider database:

1. From your browser, sign in to your Content Provider database.
2. Select PeopleTools, Portal, Node Definitions.
3. Click Search.
4. Select the node name that matches the Interaction Hub's default local node.
This node will not be local nor will it be a default local node in the Content Provider database.
5. On the Node Definition tab, select *Authentication Option = Password*.
6. In the Password field, type the password for the Portal Solutions database.
7. Click Save.
8. To initiate the change, either stop and start the web server for the Content Provider database, or wait until the cache expires.

Reviewing Single Signon

Follow the steps below to review the content provider node definitions.

To review the single signon data:

1. From your browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Portal, Node Definitions.
3. Click Search.
4. For each applicable Content Provider Node Name, perform the following steps:
(The delivered content provider nodes include BP, CIS, CRM, EIM, ELM, EPM, ERP, GFHA, HRMS, SAHA, SA, STAF, and VAN.)
 - a. Select the Content Provider Node Name.
 - b. Select the Portal tab.
 - c. Make sure that the values in the Content URI Text and the Portal URI Text correctly point to the Content Provider's web site URL.
 - d. Click Return to Search to review the next applicable content provider node definition.

See *PeopleSoft Portal Solutions 9.1 Revision 2 Installation*, "Installing Single Signon".

See *PeopleSoft Portal Solutions 9.1 Revision 2 Installation*, “Accessing PeopleSoft Content Providers”.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	MTP	All	All	All

Task 6-7-11: Enabling Unified Navigation

Unified navigation provides a framework to federate PeopleSoft applications under a single portal system—the PeopleSoft Interaction Hub. Using the delivered Unified Navigation WorkCenter, you can configure and federate nodes from content provider systems into a unified system.

See, *PeopleSoft Interaction Hub 9.1: Portal and Site Administration*, “Administering Unified Navigation in PeopleSoft Applications Portal.”

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 6-7-12: Adjusting the Default Homepage Tab

Follow the steps below to adjust the default homepage tab.

To adjust the default homepage tab:

1. From the browser, sign in to your Interaction Hub Copy of Production database.
2. Select PeopleTools, Portal, Structure and Content.
3. In the Structure and Content page, click each link to Portal Objects, then Homepage, and Tabs.
4. In the Structure and Content page of Tabs, click the Edit link on the My Page content reference.
5. Select the Tab Content tab.
6. In the pagelet category PeopleSoft Applications do the following:
 - a. Clear the Include All check box if it is selected.
 - b. Clear the Menu, Main Menu and Enterprise Menu Pagelet.
 - c. If there are any other pagelets that you want to implement in the PeopleSoft Applications category, individually select the pagelets to be available to users.

Note. The navigation pagelets Menu, Main Menu, and Enterprise Menu should not be available at the same time since all depict the menu navigation.

7. Review the other Pagelet Categories. If there are any other pagelets that you want to implement, either select the Include All check box for the pagelet category, or individually select the pagelets to be available to users.
8. Click Save.

Properties

Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 6-7-13: Adding Feeds to Pagelets

Feed capability has been added to the discussion forum, news publication, and content management folder pagelets in PeopleSoft Portal Solutions 9.1. Newly created pagelets will have feeds enabled by default. For existing pagelets, perform the following steps to enable feed. This regenerates the XSL stored with the pagelet definitions to handle the feed icon.

To enable the feeds:

1. Select Portal Administration, Pagelets, Pagelet Wizard, Pagelet Wizard.
2. Select the Pagelet.

The Pagelet Wizard page appears.

Pagelet Wizard

1
2
3
4
5
6

< Previous
Next >

Step 5 of 6

Specify Display Options

Specify the visual options related to the display format for your pagelet.

Company News

Custom Options

XSL Template
News Publication in modal
Generate

XML
<?xml version="1.0"?>
<news-publication-result id="1031"
portal="EMPLOYEE"><news-publication-
ton_start><item id="1021"><image>

XSL
<?xml version="1.0" encoding="UTF-8"?>
<!--
Description: XSLT supplied with the
News Publication pagelet

Additional Text

Header
Opening Text
Closing Text
Footer

Search Options

Search is supported for homepage pagelets and embeddable pagelets only.

*Search Box
No Search Box

Custom Search Class

Pagelet Preview

Save the Date to Celebrate

Bring your family and come celebrate on Thursday, September 7 at Headquarters. We've got lots in store for you including food, drink, and special musical guests.

Tags: celebrate, event, party

Grand Opening in Milano

The grand opening will be held in a "magic," themed location (Umanitaria), where guests will be invited to experience the Middle Ages with a fairy-tale flavor.

Tags: event, press release

Headline News

- A Visitor's Guide to the San Francisco area
- Bring Your Parents to Work Day
- Get the Weather Report

More...

Submit Article | Update Submitted Articles |

Feed

View All Articles and Sections

Save
Notify

Pagelet Wizard page

- Remove the text within the XSL text box
- Choose the appropriate template from the XSL Template drop down list.
- Click Generate
- Click Save.
- Navigate back to the homepage and refresh the Pagelet.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | MTP | All | All | All |

Task 6-7-14: Converting Frame Templates to iFrame Templates

PeopleSoft PeopleTools 8.50 has added support for iFrame-based templates to enhance the performance of your Portal application. To use the new features, you must convert any existing custom frame-based templates you have to iFrame templates.

See, *PeopleTools: Portal Technologies*, “Converting Frames-Based Templates to iFrame-Based Templates” for your current PeopleTools release..

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

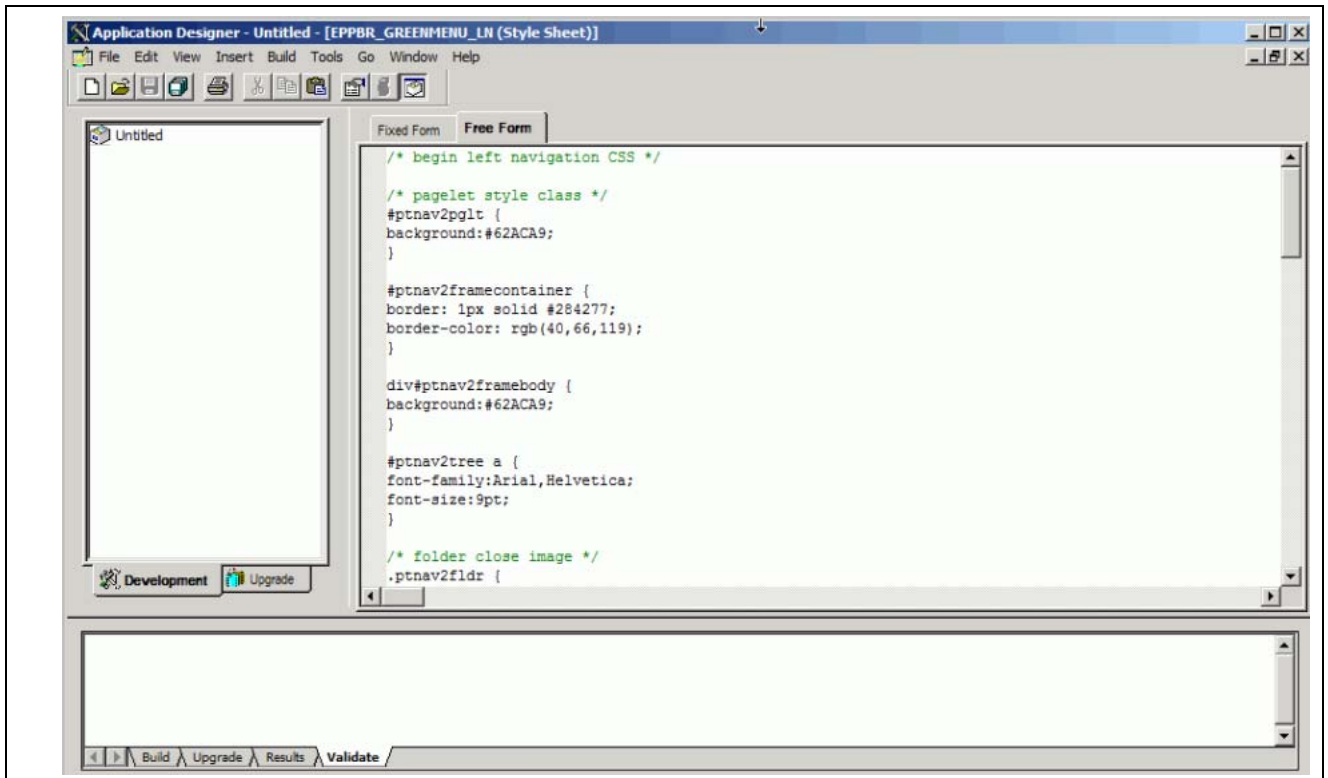
Task 6-7-15: Updating Custom Menu Styles

PeopleSoft PeopleTools 8.50 has introduced a new navigational design that is not compatible with the Interaction Hub menu branding page. Therefore you must use Cascading Style Sheets (CSS) to update any custom menu styles you created.

To update your custom menu style:

1. For each custom menu theme, find the name of the existing CSS.
2. Select Portal Administration, Branding, Define Menu styles.

The Application Designer - Untitled style sheet appears.



Application Designer - Untitled page

3. Note the CSS name.
4. Perform this step only if you are planning to override the Hover navigation style:
 - a. In Application Designer, open CSS *PSHNAV*.
This is the delivered CSS style for the Hover navigation.
 - b. Create a copy of this CSS.
Don't make changes in the delivered CSS.
 - c. Save the copy of the CSS with a new name.
 - d. Make changes in the CSS according to your branding style.
5. Perform this step only if you are planning to override the left navigation style.
 - a. In Application Designer, open CSS *PSNAV2*.
This is the delivered CSS style for the left navigation.
 - b. Create a copy of this CSS.
Don't make changes in the delivered CSS.
 - c. Save the copy of the CSS with a new name.
 - d. Make changes in the CSS according to your branding style.
6. Attach the two new free form styles to the original CSS file you opened in Step 1, as follows:
 - a. Open your CSS from Step 1.
 - b. In the Application Designer menu, select Insert, Insert Sub Style Sheet.
 - c. Select the two style sheets created in step 4 and 5.

- d. Save the CSS when you complete it.
 - e. You should now see two Free Form Sub Style Sheets attached to the original CSS.
7. Reboot the web server and application server to see the new changes.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 6-7-16: Adding My Links in the My Favorites Menu

To add My Links in the My Favorites menu:

1. Select Main Menu, PeopleTools, Portal, General Settings.
2. In the Favorites Options, enable Display My Favorites folder.
3. Select Main Menu, PeopleTools, Structure and Content.
4. Click on the Applications Portal – Hidden link.
5. Click on the Edit link for the Interaction Hub profile.
6. Perform the following steps to create the Content Reference attribute MYFAVORITES_CLASS, if it does not exist.
 - a. Click the Add button displayed in the Content Reference Attributes grid.
 - b. Set the attribute name to MYFAVORITES_CLASS.
 - c. Set the label to My Favorites Application Class.
 - d. Deselect the Translate check box.
 - e. Set the attribute value to *EPPSC_MY_SHORTCUTS:Links*.
 - f. Click the Save button.
 - g. Click the Home link in the header to return to the Home Page.
7. Click the Favorites link in the header.

The My Favorites menu should display the menu items Favorites, Add to My Links, and Edit My Links.

See, *PeopleSoft Interaction Hub 9.1: Portal and Site Administration*, “Enabling or Disabling My Links”.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 6-7-17: Enabling Content in a WorkCenter Template

In the new PeopleSoft Portal Solutions 9.1 release, managed content from the Portal Content Management system can be viewed in a WorkCenter. This capability provides you with valuable information about the content you are currently viewing, without having to search for it.

To enable content in a WorkCenter template:

1. Select Main Menu, Portal Administration, System Data, Installation Options.
2. Select the Enable Content in WorkCenter check box.

The Default Poll field will have the default rating value *DEF_RATINGS*, as shown in the following example:



The screenshot shows a web interface titled "Content Management". It contains a form with the following fields and controls:

- *Image Attachment URL Path: /ps/images/portal_pa/
- Default Poll: DEF_RATINGS (with a look up icon)
- ☒ Enable Content in WorkCenter

Content Management page

Note. The value *DEF_RATINGS* is an existing delivered poll, which will be associated with contents having no polls associated. If you want to change the default ratings, override the value by selecting a value from the look up table using the look up icon.

3. Save the changes.

See, *PeopleSoft Interaction Hub 9.1: Portal and Site Administration*, “Defining Installation Options”.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 6-8: Configuring Oracle Secure Enterprise Search

This section discusses:

- Adding Application Search in the Home Page Header

Task 6-8-1: Adding Application Search in the Home Page Header

This section discusses:

- Connecting to the SES Server
- Deploying Search Categories in SES
- Adding Search Groups to Proper Permission List
- Adding Search Categories to Search Context

Connecting to the SES Server

Oracle Secure Enterprise Search is the central repository of all search indexes from different databases and environments. It is required to connect a SES server with the Portal Solutions database so that when you use Global search, values are returned from the SES server.

Note. Integration Broker must be set up to complete this step.

To connect to the SES server:

1. Select Main Menu, PeopleTools, Search Framework, Administration, Search Instance.
2. Search for the search instance.

You can use the default value or create a new search instance and use it.

3. Enter the appropriate values to set up the connection.
4. Click the Test Login button to test.

The status should show as “Success”.

Deploying Search Categories in SES

In this step you deploy scope search categories in SES.

To deploy scope search categories:

1. Select Main Menu, PeopleTools, Search Framework, Administration, Deploy/Delete Object.
2. Select all the definitions and click the Deploy button.

When the definitions get deployed, the status shows “Deployed” as shown in the following example:

Search Category Name

Filter by name

| Deploy Search Definition | | | | Personalize Find | | | First | 1-22 of 22 | Last |
|--------------------------|------------------------------|---|---------------|--------------------|---------------|---------------------|-------|------------|------|
| | Definition | Description | Deploy Status | Crawl Status | Run Date/Time | User/Run Control ID | | | |
| <input type="checkbox"/> | 1 PAPP_ACTION_ITEMS | Action Items | Deployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 2 PAPP_BLOGS | Blogs | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 3 PAPP_BLOG_POSTS | Blog Posts | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 4 PAPP_CALENDAR_EVENTS | Calendars | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 5 PAPP_CONTENT | Content Author Index | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 6 PAPP_CONTENT_PUB | Content | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 7 PAPP_CONTENT_PUB_ARC | Content Archived | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 8 PAPP_CW_ACTION_ITEMS | Workspace Action Items | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 9 PAPP_CW_BLOGS | Workspace Blogs | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 10 PAPP_CW_BLOG_POSTS | Workspace Blog Posts | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 11 PAPP_CW_CALENDARS | Workspace Calendars | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 12 PAPP_CW_DISCUSSION_FORUMS | Workspace Discussion Forums | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 13 PAPP_CW_DISCUSSION_POSTS | Workspace Discussion Posts | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 14 PAPP_CW_DOCUMENTS | Workspace Documents | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 15 PAPP_CW_LINKS | Workspace Links | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 16 PAPP_CW_MEMBERS | Workspace Members | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 17 PAPP_CW_WIKI | Workspace Wiki | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 18 PAPP_DISCUSSION_FORUMS | Discussion Forums | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 19 PAPP_DISCUSSION_POSTS | Discussion Posts | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 20 PAPP_SAMPLE_WEBSOURCE | Sample source. Do not deploy. Remove from Crawled Content Search Category before deploying. | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 21 PAPP_WORKSPACES | Workspace Portals | Undeployed | Not Crawled | | | | | |
| <input type="checkbox"/> | 22 PTPORTALREGISTRY | Menu | Undeployed | Not Crawled | | | | | |

Select All Report Sync Issues Audit

Deploy Undeploy Update Delete

[Deploy Search Definition](#) | [Deploy Search Category](#)

Deploy Search Definition page

Adding Search Groups to Proper Permission List

In this step, you add search categories to proper permission list.

To add search categories to proper permission list:

1. Select PeopleTools, Security, Permission and Roles, Permission list.
2. Select the appropriate permission, for example PTPT_XXX, to ensure that all users added to the permission list get the Application search categories.
3. Select the Search Groups tab for permission PTPT_XXX.
4. Add all the search groups that need to be displayed at Global Search Category drop down list box for users sharing the selected permission list.

The table below lists the permission lists and the search group:

| Permission List | Permission List Description | Search Group | Search Group Description |
|-----------------|-----------------------------|----------------------------------|-----------------------------|
| PAPP5600 | Access Action Items | PAPP_ACTION_ITEMS | Action Items |
| PAPP5710 | Access Blogs | PAPP_BLOG | Blogs |
| PAPP5500 | Access Community Calendars | PAPP_CALENDAR_EVENTS | Calendar Events |
| PAPP4810 | Access Discussion Forums | PAPP_DISCUSSIONS | Forums |
| PAPP5300 | Access Workspaces | PAPP_CW_WORKSPACES | Workspaces |
| PAPP2000 | Access Published Content | PAPP_CONTENT_PUB | Content |
| PAPP2000 | Access Published Content | PAPP_CONTENT_PUB_ARC | Content Archived |
| PAPP2010 | Access Content Management | PAPP_CONTENT_CRAWLED | Content Crawled |
| PAPX0000 | Base Repository Objects | PAPP_RESOURCE_FINDER_PARTICIPANT | Resource Finder Participant |
| PTPT1000 | PeopleSoft User | PTPORTALREGISTRY | MENU |

5. Click Save.

Adding Search Categories to Search Context

To add search categories to search context:

1. Select PeopleTools, Search Framework, Administrator, Define Search Context.
2. Select the Context Type in the Homepage.
3. Click the *Plus* (+) sign to add the search categories in the grid that need to be displayed in the Homepage context.
4. Click Save.

See *PeopleSoft Interaction Hub: Portal and Site Administration*, “Configuring PeopleSoft Interaction Hub for Application Search.”

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 6-9: Updating the Portal Options Data

In this step you update the PeopleSoft PeopleTools Portal Options data.

Note. Only perform this step if your upgraded database is on PeopleSoft PeopleTools 8.46 or greater.

This step sets the portal options prefix and Owner ID. These values are used when creating Pagelet Wizard definitions and Navigation Collection objects.

To set the Portal Options Prefix and Owner ID:

1. From your browser, sign in to your New Copy of Production database.
2. Select PeopleTools, Portal, Portal Utilities, System Options.
3. Update the value for the Registry Object Prefix with a 1- to 4-character prefix that is unique to your organization.

Note. Do *not* use PAPP, PAPX, PAPQ, PAPI, PRTL, EO, or PT. Do *not* use any product line specific prefix (such as CR, HC, EP, or CI). Do *not* use a blank value.

4. Enter the Owner ID value with your organization's specific owner ID.

Note. The Owner ID is a translate value on the PeopleSoft PeopleTools field OBJECTOWNERID. Do *not* use any delivered product Owner ID. If you do not have an Owner ID, then either create one, or leave the Owner ID value as a blank space.

5. Click Save.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | MTP | All | All | All |

Task 6-10: Deleting Rename Data

After completing the final Move to Production pass, delete all the data stored in the PSOBJCHNG table. Do not delete this data if you have not completed your final Move to Production pass. The application rename data stored in the PSOBJCHNG table must be deleted before starting your next PeopleTools-only upgrade. The build process looks in this table when running alter renames.

Run the following SQL on your Target database:

```
DELETE FROM PSOBJCHNG
```

Important! Perform this task only once, after you complete your final Move to Production pass.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | MTP | All | All | All |

Task 6-11: Stamping the Database

In this step, you set the database to the release level of the Demo database. The values that you enter here appear whenever you view the Help, About PeopleTools dialog.

To stamp the database:

1. Launch PeopleSoft Application Designer on your Copy of Production database using the new PeopleSoft release.
2. Select Tools, Upgrade, Stamp Database.
3. Fill in all three of the PeopleSoft Release fields with the appropriate value for your product line and release number:

Portal Solutions, 9.10

4. In the Service Pack field, enter the service pack number to which you are upgrading. For example, if you are upgrading to SP2, enter the number 2. If you are upgrading to a release that is not at a service pack level, enter 0.

Note. If you are upgrading directly to a Feature Pack or Revision, enter 0.

5. Click Stamp.
6. Close PeopleSoft Application Designer.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

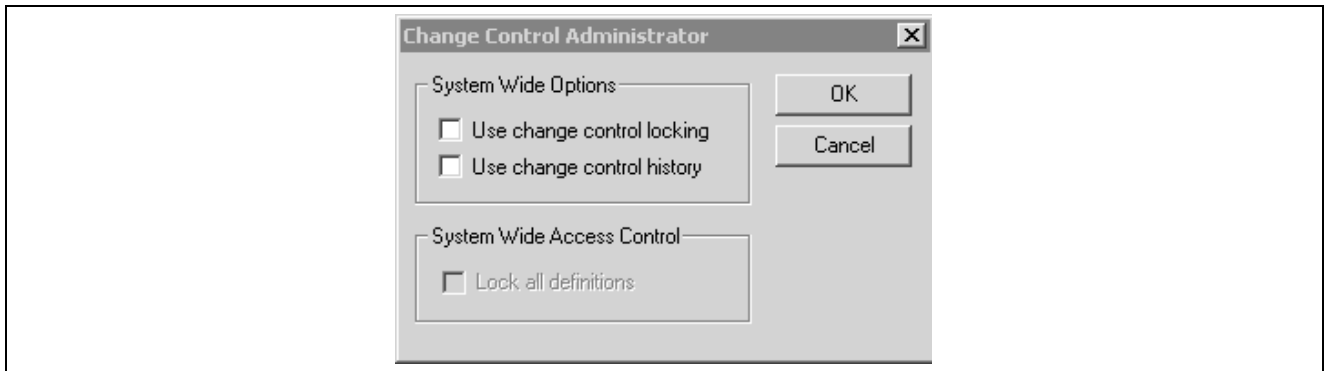
Task 6-12: Reviewing Change Control

Earlier in the upgrade process, in the beginning of the chapter “Applying PeopleTools Changes,” the Change Control feature was disabled. In this step, you re-enable Change Control, if your site uses this functionality.

To turn on Change Control:

1. Sign in to the Target database using PeopleSoft Application Designer.
2. Select Tools, Change Control, Administrator.

The following example shows the options available on the Change Control Administrator dialog box:



Change Control Administrator dialog box

- Set “Use change control locking” and “Use change control history” according to your site specifications.

Note. Move to Production: The Change Control feature slows down copy functions. The large copy projects are only executed during the initial pass, and the feature is only disabled during the initial pass. If you enable the feature at this point, it will remain enabled during future test Move to Production passes.

See “Applying PeopleTools Changes,” Turning Off Change Control.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Initial | All | All | All |

Task 6-13: Backing Up Before Testing

Back up your Copy of Production database now. This enables you to restart your upgrade from this point, should you experience any database integrity problems during the remaining tasks in the upgrade process.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 6-14: Testing Your Copy of Production

In this task, you test your Copy of Production. Testing your Copy of Production will ensure that you can still operate your day-to-day processes on your new release. After you have reviewed your DDDAUDIT and SYSAUDIT, verify that the system is working properly by reviewing the system online. After you are comfortable that the system is working properly, you can perform the Test Move to Production upgrade pass.

See Getting Started on Your PeopleSoft Upgrade, Appendix: “Planning for Upgrade Testing.”

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|-----------------------------|-----------------------|-----------------|------------------|------------------|
| Target | Both | All | All | All |

CHAPTER 7

Applying Changes to the Production Database

This chapter discusses:

- Understanding the Move to Production
- Testing the Move to Production
- Testing Once More
- Performing the Move to Production

Understanding the Move to Production

Once you complete all of the necessary tasks to launch your system into production, you are ready to begin your Test Move to Production passes or to move your system into production.

Task 7-1: Testing the Move to Production

This section discusses:

- Understanding the Test Move to Production Passes
- Understanding the Test Move to Production Steps
- Creating a New Change Assistant Job

Understanding the Test Move to Production Passes

Everything you have done to this point is the initial pass of the upgrade process. Now you are ready to start the Test Move to Production pass. The initial pass is very time consuming and requires a lot of analysis at different steps of the process to troubleshoot issues. The Test Move to Production pass is a different series of steps, which includes a subset of the previous tasks, and takes advantage of the tasks performed during the first upgrade pass.

You should perform as many test moves to production as necessary to work out any issues and to be comfortable with the process. During each Test Move to Production you will be able to refine the process so that you can save time and avoid manual processes. These test passes will also let you know how long the process takes so you can plan your production downtime for your move to production weekend.

Task 7-1-1: Understanding the Test Move to Production Steps

The following text is a high level view of what you will be doing in the Move to Production test pass. The remaining steps in this task will prepare your test environment. For example, you may need to move some scripts generated in the initial pass to a new PeopleSoft Change Assistant staging directory. Next you will create a new PeopleSoft Change Assistant job, setting the Apply Type to *Move to Production*. That will give you a job with steps filtered with only those steps that apply to the Move to Production (MTP) test pass. From that point forward, you will simply follow the steps as they exist in your new job.

One of those first steps will be to take a Copy of Production. This second Copy of Production is sometimes referred to as the “New Copy of Production.” The first Copy of Production, or “old” Copy of Production, will now be the Source database (it was the Target database in the initial test pass). The New Copy of Production is now the Target database.

The steps executed in the MTP pass vary in several ways. Many of the tasks and steps in the initial test pass will be replaced in the MTP pass with PeopleSoft Data Mover export and import scripts. In the initial pass, some steps required you to make functional decisions and take time to manually set up data. That data can be copied from the first database to the next, saving you setup time and eliminating the chance for manual error or typos.

Also, the MTP pass does not repeat the database compare/copy steps. You made the decisions once; there is no need to repeat these steps. Instead, a PeopleSoft Data Mover script, MVPRDEXP, will export all of the tables that contain the PeopleSoft PeopleTools objects like records and PeopleCode from the first database. Another PeopleSoft Data Mover script, MVPRDIMP, will import those tables into the second database. Anything you have done to PeopleSoft PeopleTools objects while executing or testing the first pass—copied objects from the Demo database, reapplied customizations, applied updates from the My Oracle Support website—will be moved to the second Copy of Production with these scripts.

Another important difference with the MTP pass is the handling of SQL scripts that create and alter tables. In the initial pass, you generated the SQL scripts, sometimes edited the SQL script, and then executed the SQL scripts. In the MTP pass, you may be able to skip the generation steps and use the SQL you previously generated. This is another way to save time in your critical go-live window and is the ultimate goal, but it is an incremental process to get to that point.

In the first MTP pass, everyone must regenerate the SQL. There are small differences between the initial and MTP passes that require the SQL to be regenerated in at least one MTP pass. The PeopleSoft Change Assistant templates are delivered with the steps set this way.

In subsequent MTP passes, you may choose to “turn off” the generation steps if possible. If you have not changed any records at the end of one MTP pass, then you can reuse the SQL in your next pass. If you have done anything to change records, you should generate SQL again. This can include changes such as applying PeopleSoft PeopleTools upgrades (for example, 8.47 to 8.48), or applying updates from the My Oracle Support website that involve record changes, or making additional customizations to records.

If you choose to skip some of these steps, do one of the following: mark the step complete in your job, or change the step properties in the template, so that the step will never show up in your MTP filtered job again. To change the step properties, double-click on the step to open the Step Properties dialog, and change the Apply Type to *Initial Pass*. In addition, copy the SQL scripts from the previous pass output directory to the new pass output directory. PeopleSoft Change Assistant will look for the SQL scripts in the output directory set on the job’s Database Configuration, so make sure it will find them when it tries to run them.

The steps that are eligible for this treatment will contain Move To Production documentation notes indicating such.

Note. If you have made any changes to your trees, tree structures, or PS/Query objects since the upgrade began, you may want information on how to preserve those changes.

See Appendix: “Preserving Queries and Tree Objects.”

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 7-1-2: Creating a New Change Assistant Job

You need to create a new PeopleSoft Change Assistant job for each test Move to Production pass.

To create a new PeopleSoft Change Assistant job:

1. Oracle recommends that you use new output and stage directories for each new test pass. Create those directories now.
2. From PeopleSoft Change Assistant, select Tools, Options and specify the new output and staging directories on the Change Assistant Options page.
3. Select File, Open Environment and select the environment.
4. Review the configuration in the General Settings dialog box.
The Database Type, Language and SQL Query Executable will be the same as your previous job. Make changes to the *PS_HOME* and *PS_APP_HOME* settings, if necessary, and select Next.
5. Specify the Source Database setup information and click Next.
This is the Copy of Production database from your previous pass.
6. Specify the Target Database setup information and click Next.
This is the new Copy of Production database.
7. Review the environment configuration on the Confirm Selections dialog box, and click Next to save the changes to the environment.
8. Select File, New Job.
9. In the Use Template dialog box, select the template and click OK.
10. In the Apply Type dialog box, select Move to Production.
11. Click OK.
A new upgrade job is created, using the naming convention “*Template_Environment_Move to Production.*”
12. Highlight the job name and select Edit, Set Documentation Directory, then select the directory where the documentation is located and click OK.
13. Select View, Documentation.
14. Select View, Expand All to display all the steps in the job that apply to your upgrade.
The job will contain steps that were not in the initial upgrade pass and will exclude some steps that were in the initial upgrade pass, based on the step properties.

Now you are ready to run the job.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 7-2: Testing Once More

As in any implementation project, you must consider planning, resources, development, and training. Testing also needs to be an integral part of your implementation project. Testing your database once more, after you have completed the upgrade, ensures that you can still operate your day-to-day processes on your new PeopleSoft release.

The level of testing in this task will focus primarily on the strategies to employ before moving into production.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | Both | All | All | All |

Task 7-3: Performing the Move to Production

When you are ready, you can move the system into production. Take your system out of production and perform all of the steps involved in testing the Move to Production against your production database.

See Testing the Move to Production.

Properties

| Database Orientation | Initial or MTP | Products | Platforms | Languages |
|----------------------|----------------|----------|-----------|-----------|
| Target | MTP | All | All | All |

CHAPTER 8

Appendices

Understanding Appendices

The appendices portion of this documentation contains information that you may need for your upgrade. The appendices have been referenced throughout the upgrade documentation for further understanding of the upgrade that you are performing. Oracle recommends that you read each appendix as it is referenced in the documentation.

APPENDIX A

Applying Fixes Required for Upgrade

This appendix discusses:

- Preparing to Apply Fixes
- Applying Fixes During Installation
- Applying Fixes After Copying Project
- Applying Fixes After Data Conversion
- Applying Fixes Between Upgrade Passes
- Applying Fixes in Move to Production

Task A-1: Preparing to Apply Fixes

This appendix gives general instructions for applying a Required for Upgrade fix for your upgrade. If the directions given in a particular fix are different from those given here, then follow the instructions in the fix.

It is important that you run your upgrade using the latest versions of all upgrade software. On My Oracle Support, check the upgrade page and the patches and updates page to ensure that you have all of the latest code.

Ideally, you should follow the steps below to apply the various files and fixes.

To apply files and fixes:

1. Install the new release from the CD.
2. Apply any additional scripts and projects from the My Oracle Support upgrade page to your new release codeline (and to the New Release Demo database, if applicable).
3. Apply any other Required for Upgrade fixes from My Oracle Support's patches and updates page to your new release codeline (and to the New Release Demo database, if applicable).
4. Run your initial pass of the upgrade.
5. Before you begin each subsequent upgrade pass, check the upgrade page for new versions of any files that you previously applied.

Then check patches and updates for any new Required for Upgrade fixes.

Your initial upgrade pass will differ from your subsequent Test Move to Production passes. Some of the upgrade tasks and steps are common to both the initial upgrade pass and the Move to Production pass. For this reason, you may find Required for Upgrade fixes that do not apply to the upgrade pass that you are currently performing. The details provided with each fix will help you determine whether to apply the fix and when to apply it. The fix will also tell you what to do if you have already passed the step for which the fix is needed.

How you apply a fix depends on where you are in the upgrade process. This appendix explains how to apply a typical fix, and is organized by the various points within the upgrade where you will apply fixes.

Task A-2: Applying Fixes During Installation

In the chapter, “Starting Your Upgrade,” in *Getting Started on Your PeopleSoft Upgrade*, you should first download and apply all files and objects from the upgrade page on My Oracle Support. Then you must download all Required for Upgrade fixes from the patches and updates page on My Oracle Support. You can use the instructions in this section to apply any additional fixes that are posted, until you reach the task, “Running New Release Compare Reports.”

If a fix contains a project that needs to be copied from a file, apply it to your New Release Demo database during installation. If the project contains changes for records or fields, those objects will be updated during the normal compare and copy steps in the upgrade. You will not have to build objects in the project separately or consider whether it will have an impact on customizations. You will do that with the rest of the objects during the upgrade. Apply as many of the fixes as you can at this time.

To apply script fixes during installation:

1. Download Required for Upgrade change packages using the “Download Change Package” functionality in PeopleSoft Change Assistant.
2. Use PeopleSoft Change Assistant to apply the updates into your New Release Demo database.

Review the documentation included with each update prior to applying each update. You may need to perform manual steps to successfully apply the update.

See the Enterprise PeopleTools PeopleBook: PeopleSoft Change Assistant for your current release, “Applying Updates.”

Task A-3: Applying Fixes After Copying Project

It is best not to apply fixes during the compare and copy tasks in the “Running and Reviewing Compare Reports” and “Applying Application Changes” chapters of the initial upgrade pass. It can also be cumbersome to apply record and field changes during the creating and altering of tables in the “Completing Database Changes” chapter. It is, therefore, best to wait until just before the “Running Data Conversion” task in the “Applying Application Changes” chapter to apply additional fixes. Most of the fixed objects will be data conversion code, delivered in projects.

To apply PeopleSoft project fixes before data conversion:

1. Download Required for Upgrade change packages using the “Download Change Package” functionality in PeopleSoft Change Assistant.
2. Use PeopleSoft Change Assistant to apply the updates into your New Release Demo database for this upgrade pass.

Review the documentation included with each update prior to applying each update.

See the PeopleTools: PeopleSoft Change Assistant and Update Manager, “Applying Updates,” for your current release.

3. The project is now loaded on your New Release Demo database. You should run a project compare to make sure that the objects in the fix will not overwrite any of your customizations.

If you find customizations, you must decide how to deal with them before you copy the fix to your Copy of Production.

4. If you are performing a Move to Production upgrade pass, first migrate the change packages into the Source database for this upgrade pass.

If needed, first set up PeopleSoft Change Assistant with the environment information for your Source database. If you customized any of the objects delivered in the change package, you should repackage the fix to include your customizations. If you did not customize any objects delivered in the fix you may directly apply them to your Source database.

See the PeopleTools: PeopleSoft Change Assistant and Update Manager, “Applying Updates,” for your current release.

5. Migrate the change packages into the Target database for this upgrade pass.

If needed, first set up PeopleSoft Change Assistant with the environment information for your Target database.

Task A-4: Applying Fixes After Data Conversion

At this point, you have already converted all of your data for the upgrade pass, and you cannot apply Application Engine program fixes and use them in this upgrade pass. You should refer to the fix instructions to determine what to do in each case. Often, the instructions say that you need to restore your database from a pre-conversion backup and rerun data conversion to get the benefits of the fix. Because this is the only way you can get the fix onto your current Copy of Production, you may decide to allow the error and not apply the fix until you do a Test Move to Production. Then after you have completed that test pass, you can test the affected function. However, you should not do this if your next pass is your final Move to Production, and you are going into production with the resulting database. You should always test your upgraded database between test passes if changes have been made to procedures, scripts, or programs. You do not want any surprises during the final Move to Production.

Task A-5: Applying Fixes Between Upgrade Passes

You can apply fixes just before you start a Test Move to Production pass in the same way you would in the step above, Applying Fixes After Copying Project. In those instructions, you apply the fix to your New Release Demo database and compare it to the Copy of Production. Make sure that you do the database comparison to verify that the fix does not wipe out any customizations you made to Application Engine programs during your initial upgrade pass. If you have made customizations, merge your customizations into the new Application Engine code on the New Release Demo database. Then apply the fix to your Copy of Production, which you will use as the Source database in the Test Move to Production. The fix will then get moved to your New Copy of Production when you run the MVPRDEXP.DMS and MVPRDIMP.DMS scripts in the “Applying PeopleTools Changes” chapter.

Task A-6: Applying Fixes in Move to Production

Once you have started a Test Move to Production, do not apply any fixes until just before data conversion. Apply any fixes using the previous step, “Applying Fixes After Copying Project.” In those instructions you apply the fix to your New Release Demo database and compare it to your Copy of Production. Instead of using the original Copy of Production as the Target, you must now use your New Copy of Production, the one defined as the Target in your Move to Production PeopleSoft Change Assistant job. Be sure to do the database comparison to verify that the fix does not wipe out any customizations that you made to Application Engine programs during your initial upgrade pass. If you have made customizations, merge your customizations into the new Application Engine code on the New Release Demo database, then copy the project to your New Copy of Production.

APPENDIX B

Preserving Queries and Tree Objects

This appendix discusses:

- Understanding Preserving Queries and Trees
- Preparing the Database
- Creating a New Project
- Comparing the New Project
- Copying the Project
- Testing the Project
- Re-Exporting the PeopleTools Tables

Understanding Preserving Queries and Trees

This appendix contains information for preserving queries, trees, and tree structures. At the beginning of your upgrade, you should have informed your end-users and development team that your PeopleSoft system was frozen, meaning that no changes should have been made to any PeopleSoft PeopleTools tables or objects including queries, trees, and tree structures. The freeze on PeopleSoft PeopleTools changes is important because you will lose any changes to these objects made during an upgrade to PeopleSoft PeopleTools tables. Occasionally, however, end-users may have to make critical changes to trees, tree structures, and PS/Query objects. If this has happened in your system, you can perform a process to preserve those additions and changes to trees, tree structures, and queries. You will have to work with your end-users and developers to obtain a list of queries, trees, and tree structures that you need to preserve.

You will run through the test Move to Production (MTP) steps several times for practice and testing purposes. Please note that you have the option to perform the preserving queries and trees procedure during each of your test Move to Production runs, but you must perform it during the last run of the test Move to Production. If you do not perform this procedure during your last run to preserve the trees, tree structures, and queries that have been changed since the beginning of your upgrade, they will be lost.

Note. The process outlined in this appendix to preserve trees and queries should be performed prior to data conversion so that any additional conversion would be taken care of by the appropriate data conversion programs.

This appendix includes instructions to prepare your database and create a project on which to preserve your queries, trees, and tree structure changes.

Task B-1: Preparing the Database

In this step, you create a new copy of your current production database, perform steps on the new copy, and run scripts against the new copy to update the release level.

To prepare the database:

1. At the beginning of the test Move to Production, you should make a new copy of your current production database. To preserve queries and trees, you need to make not only that Copy of Production but also an additional copy of your current production database. For clarity, Oracle refers to this additional copy of your production database as the Tree/Query Copy of Production database. So now you should have a Copy of Production database and a Tree/Query Copy of Production database.
2. Perform the test Move to Production on your Copy of Production database.
3. To obtain the queries and trees that you want to preserve, the Tree/Query Copy of Production database needs to be at the same PeopleSoft PeopleTools release level as the Copy of Production database on which you just completed the test Move to Production. Go to My Oracle Support and search for the PeopleSoft PeopleTools upgrade homepage for your new PeopleSoft PeopleTools release. Follow those instructions to upgrade your Tree/Query Copy of Production database to the new PeopleSoft PeopleTools release.

Task B-2: Creating a New Project

Now that your Tree/Query Copy of Production is at the same release as your Copy of Production database, you create a project in the Tree/Query Copy of Production that contains all of the queries and trees that you wish to preserve.

To create a new project:

1. Sign in to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch PeopleSoft Application Designer.
2. Select File, New...
3. Select *Project* for Object Type.
4. Select File, Save Project and enter a project name; for example, *PRESERVED*.
5. Select the Upgrade tab in PeopleSoft Application Designer.

Note. Queries and trees do not appear in projects under the Development tab in PeopleSoft Application Designer. To see the queries and trees that you will insert into the PRESERVED project in the next step, you must make sure that you are using the Upgrade view of PeopleSoft Application Designer.

6. Select Insert, Definitions into Project...
7. Select Queries from the Definition Type drop-down list box and click Insert.
8. Using your list of identified queries that need to be preserved, highlight each one of those queries from the PeopleSoft Application Designer list.

You can highlight more than one by holding down the Control (CTRL) key while you click the name of the query.

9. After you have highlighted all of the queries that you want to preserve, click Insert, then click Close.

Under the PRESERVED project name in the Upgrade view of PeopleSoft Application Designer, you will see Queries as an object type in the project.

10. Double-click on queries under the PRESERVED project to see a listing of all of the queries to preserve in the right-hand window of PeopleSoft Application Designer.
11. Select File, Save Project.
12. Repeat steps 6 through 11 for trees and tree structures.

Now your PRESERVED project should contain all of the queries, trees, and tree structures that you want to preserve.

Task B-3: Comparing the New Project

In this step, you compare the queries, trees, and tree structures that are in your PRESERVED project against your Copy of Production database. Because the tree objects in your PRESERVED project are not comparable objects in PeopleSoft Application Designer, you must manually compare the tree objects that you want to preserve. During the query and tree structure compare process, the Application Upgrade utility sets the project flags. These flags determine whether the following actions will occur:

- Changes will be performed on the Copy of Production (Target) database when you perform the export and copy.
- Changes will be tagged as *Copy* or *Delete* operations.
- The project flags will be set to automatically take these actions or not.

These settings are determined based on whether or not the objects in the project currently exist on the Copy of Production (Target) database.

To compare the new project:

1. Sign in to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch PeopleSoft Application Designer.
2. Select File, Open...
3. For Definition, select Project and click Open to display the list of projects.
4. Select the PRESERVED project and click Open.
5. Select Tools, Compare and Report.
6. Sign in to your Copy of Production.
7. From the Object Type box, select *Queries and Tree Structures*.
8. Click Options...
9. Select *PeopleSoft Vanilla* for the Target Orientation.
10. Select *Project* for the Compare Type.
11. Verify that the Compare Report output directory is set to the correct location.
12. Select the Report Filter tab and set the report filter check boxes appropriately for your compare.
13. Click OK.
14. Select Compare.

15. Review the compare reports for queries and tree structures. In addition, perform a manual compare of the trees that you want to preserve. Based on the results of this review, set the Action and Upgrade check box appropriately in the PRESERVED project.

Task B-4: Copying the Project

In the following steps, you copy the PRESERVED project to the Target database. This is the Copy of Production database on which you ran the test Move to Production.

To copy the project:

1. Sign in to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch PeopleSoft Application Designer.
2. Select File, Open...
3. For Definition, select *Project* and click Open to display the list of projects.
4. Select the PRESERVED project and click Open.
5. Select Tools, Upgrade, Copy.
6. Sign in to your Copy of Production database.
7. Make sure that the Reset Done Flags and Copy Project check boxes are selected.
8. Click Select All.
9. Click Copy.
10. Using the Upgrade view of the PRESERVED project in PeopleSoft Application Designer, review the Done flags in the project to make sure that all of the objects that you wanted to preserve were copied to the Target database.

Task B-5: Testing the Project

Now that the queries, trees, and tree structures that you wanted to preserve are in the Copy of Production database, you must test and re-test and make any necessary changes if the test results are not what you expected.

Task B-6: Re-Exporting the PeopleTools Tables

Once you are satisfied with the test results, you must re-export the PeopleSoft PeopleTools tables to actually preserve the queries, trees, and tree structures. During your test Move to Production, you ran MVPRDEXP.DMS to export the PeopleSoft PeopleTools tables. You will use the output files created from running this job as input files during your Move to Production. Because these files were created before copying the queries, trees, and tree structures that you wanted to preserve, the files do not contain the preserved objects, so you must run the MVPRDEXP.DMS script again. Running the MVPRDEXP.DMS script again ensures that you have the most current PeopleSoft PeopleTools tables.

To re-export the PeopleTools tables:

1. As a PeopleSoft user, launch PeopleSoft Data Mover against your Copy of Production database and run the following script:

```
\PS_HOME\SCRIPTS\MVPRDEXP.DMS
```

2. Use the output files created during your final Move to Production.

APPENDIX C

Using Data Conversion Utilities

This appendix discusses:

- Understanding Data Conversion Utilities
- Using the UPGDATA CONV Process
- Using the EO Upgrade Framework Process
- Using the Upgrade Driver Program
- Using the Upgrade Drivers Page

Understanding Data Conversion Utilities

The Upgrade Data Conversion Application Engine Programs are organized into a series of Drivers or Groups that guide the flow and order of execution at runtime for a particular upgrade path. This appendix contains information regarding the Application Engine program UPG_DATA CONV and the PS_UPG_DATA CONV table.

This appendix also contains information regarding the EO Upgrade Framework. The EOUP process consists of two Application Engine programs and is intended to optimize the data conversion process by analyzing Source and Target tables, column usage, state records, and bind variables to determine actual dependencies between Application Engine sections. This allows you to run your data conversion process during your PeopleSoft application upgrade with optimal performance.

Task C-1: Using the UPGDATA CONV Process

This section discusses:

- Understanding the UPGDATA CONV Process
- Reviewing the Data Conversion Report

Understanding the UPGDATA CONV Process

To run all PRE and POST data conversions, Oracle has provided the Application Engine program UPG_DATA CONV. This program runs the Application Engine sections defined in the table PS_UPG_DATA CONV.

Task C-1-1: Reviewing the Data Conversion Report

Each of the upgrade data conversion sections contains comments that describe the processing performed by the section. Oracle delivered an SQR to list all of these comments by the group and sequence numbers that determine how they run. The name of this report is UDATAACNV.

To run UDATAACNV:

1. Using SQRW, run SQR UDATAACNV on your Copy of Production database.
2. When prompted for upgrade path, enter:

PA90
3. When prompted for group number, enter the two-digit group number to report on, or enter 0 to see the comments for all groups.

Task C-2: Using the EO Upgrade Framework Process

This section discusses:

- Understanding the EO Upgrade Framework Process
- Reviewing EO Upgrade Framework Initial Analysis
- Reviewing Dependency Analysis
- Reviewing Runtime for EOUPDATAACNV
- Reviewing EO Upgrade Framework Reporting

Task C-2-1: Understanding the EO Upgrade Framework Process

With the PeopleSoft 9.1 application release, EOUP was introduced as the new Upgrade Data Conversion Framework. This new framework allows the Application Engine (AE) data conversion to run out of the box on a number of threads instead of the previous single threaded approach.

The EOUP process uses many pieces of the previous style data conversion delivered in PeopleSoft 9.0 applications and lower. For example, the EOUP process uses the AE section grouping and sequencing in the PS_UPG_DATAACNV table for its dependency modeling. With the introduction of EOUP, we have also introduced new terminology – *root or top section*. A *root or top section* is an AE section defined in PS_UPG_DATAACNV. We use *root or top section* to distinguish between sections being called from the data conversion program as opposed to sections being called from an AE call section step.

The EOUP process includes analyzing the insert, update, and delete SQL steps in your data conversion to determine the Source and Target tables, column usage, stat records, and bind variables that are used. This includes analyzing dynamic SQL, App Classes, SQLExec's, and platform-specific code.

The AE program gathers a list of AE sections required for data conversion from a given upgrade path. These sections are analyzed and SQL statements are extracted and stored in the AE Analyzer repository. Each SQL statement is analyzed to derive a list of tables that are manipulated or queried during the execution of that SQL. Once all the SQL is analyzed, the information is used to derive section dependency information, which is then saved in the AE Analyzer repository.

There are two types of analysis for EOUP: initial and dependency. This section will describe both analysis types in detail.

Task C-2-2: Reviewing EO Upgrade Framework Initial Analysis

This section discusses:

- Understanding Initial Analysis
- Reviewing Data Conversion Query Parsing
- Reviewing Custom Data Conversion Code
- Reviewing Table Usage Information
- Reviewing Invalid SQL
- Reviewing the Data Conversion Repositories

Understanding Initial Analysis

The first part of the new EOUP process is the EOUPANALYSIS Application Engine, also known as the AE Analyzer. EOUPANALYSIS accepts one parameter for the upgrade path, and then queries PS_UPG_DATACONV to retrieve all the groups and sections for that upgrade path, ordering by group and sequence. Starting with the first group and first sequence, EOUPANALYSIS parses each AE section definition following the flow from step to step and through any nested call sections. As it follows the flow, it inserts rows into the PS_EOUP_ANALYSIS table for each AE Section, Step, and Action it comes across. EOUPANALYSIS maintains a counter as it goes and increments the counter as it writes each Action to the PS_EOUP_ANALYSIS table. By the end of this first task, the PS_EOUP_ANALYSIS table will describe the entire upgrade from top to bottom, from the first AE section in the first Upgrade Group to the last section in the last Upgrade Group. By querying the PS_EOUP_ANALYSIS table and ordering by EOUP_AESTMTSEQ, the whole will be described, including any nested call sections.

It is important to note that the PS_EOUP_ANALYSIS table contains every actual Step in the chosen upgrade path. During the data conversion runtime phase, it is likely that not all these steps will be executed because specific data composition and various application options will prevent some sections or steps from running. With the new EOUP process, data composition can affect the data conversion runtime flow, which makes it impossible to predetermine the exact runtime flow the conversion will follow.

The EOUPANALYSIS AE reads the data conversion code for your defined upgrade path (where the path is defined in the UPGDATACONV table with UPG_CONV_TYPE= "MAIN").

The AE Analyzer program leverages two PeopleCode functions included with PeopleSoft PeopleTools 8.50 or higher. The two PeopleCode functions are:

- GetProgText: A function that retrieves a PeopleCode program as text.
- ResolveMetaSQL: A function that returns a string of SQL text that has had its metasql resolved.

Reviewing Data Conversion Query Parsing

After EOUPANALYSIS determines the upgrade path flow, it traverses the flow again looking at all the different Step Actions to determine which SQL is being executed by that Step. Most action types are straightforward; SQL, Do Select. PeopleCode is the most complicated action type. A Java program parses the PeopleCode and pulls all the SQL executed in the PeopleCode. The results of the action type analysis end up in a table called PS_EOUP_DTLIDSQLS, which stores a reference to PS_EOUP_ANALYSIS, along with the SQL statements associated with each Step Action. In the case of PeopleCode, there may be many rows in the PS_EOUP_DTLIDSQLS table for each PeopleCode reference in PS_EOUP_ANALYSIS. In addition, a second shadow table, called PS_EOUP_DTLIDSQLSR, is also populated during action type analysis. The only difference between PS_EOUP_DTLIDSQLS and PS_EOUP_DTLIDSQLSR is that PS_EOUP_DTLIDSQLSR contains the fully resolved SQL statements. For example, if the original SQL in a Step was:

```
UPDATE PS_BEN_DEFN_COST SET RATE_TBL_ID =
```

```
%Substring(%Sql(UPG_HC_221,RATE_TBL_ID),1,4) %Concat '-2'
WHERE RATE_TYPE='2' AND RATE_TBL_ID IN ( SELECT RATE_TBL_ID FROM
PS_UPG_BN_RATES WHERE RATE_TYPE='2' )
```

Then this would be resolved to platform-specific SQL. In the case of SQLServer it would be:

```
UPDATE PS_BEN_DEFN_COST SET RATE_TBL_ID =
SUBSTRING(RTRIM(RATE_TBL_ID),1,4) + '-2' WHERE RATE_TYPE='2' AND
RATE_TBL_ID IN ( SELECT RATE_TBL_ID FROM PS_UPG_BN_RATES
WHERE RATE_TYPE='2' )
```

Each of these SQL statements is further parsed to determine the tables that participate in the query. The results are stored in the PS_EOUF_DTLIDTBLS table. A query can have zero or one target tables. If the query is an INSERT, UPDATE, DELETE, etc, then there will be one target. If the query is a select statement, then there will be no target table. For the previously stated query, you would expect to see 2 rows in the PS_EOUF_DTLIDTBLS table. The first row would be for the PS_BEN_DEFN_COST table with an EOUF_TABLEUSAGE value of *T* because it is the target table of the query. The second row would be for the PS_UPG_BN_RATES table with an EOUF_TABLEUSAGE value of *S* because it is a source table in the query.

At this point we have gathered all the information we need about the specific upgrade path to build a dependency model. The dependency model is solely based on which tables are affected by which steps and follows some very simple rules. Most of these rules are inherent in the Upgrade Group model of the old PS_UPG_DATACONV process.

Reviewing Custom Data Conversion Code

You can include custom data conversion code in the Initial Analysis and subsequent steps in the EOUF process by adding a row (or rows) to the PS_UPG_DATACONV table for each custom AE section that is to be executed, where a row is defined as UPG_PATH, UPG_GROUP_SEQ_NUM, SEQ_NUM, AE_APPLID, AE_SECTION, ACTIVE_FLAG, UPG_CONV_TYPE.

Reviewing Table Usage Information

The data conversion analysis process attempts not only to identify the tables that are used in a given Application Engine step, but also how the tables are being used in the context of each step.

This information is stored in the analysis tables and documented in the Table Usage and Action columns of delivered EOUF reports, such as EOUF0001.SQR.

Valid values for the Table Usage column are:

- *S* for Data Source
- *T* for Data Target
- *X* for Unknown

Note. An *X* value in the Table Usage column for the PS_EOUF_DUAL, PS_EOUF_COMMON_AET, PS_EOUF_DUMMY, or PS_EOUF_NORECNAME tables is expected and does not impact the subsequent Dependency Analysis Process.

See Reviewing Dependency Analysis.

Valid values for the Action column are:

- CREATE
- DELETE

- DROP
- INSERT
- SELECT
- TRUNCATE
- UPDATE
- UPDSTATS
- UNKNOWN
- OTHER

A valid value for the action “Unknown” is only applicable to PeopleCode steps and only occurs in instances when the parser encounters syntax such as `getrecord`, `getrowset`, `createrecord`, or `createrowset`, and cannot determine which actions were being done against the variable.

A valid value for the action “Other” occurs in instances when the parser encounters syntax such as the “Invalid SQL Override” or other non-SQL statements such as application function calls.

See [Reviewing Invalid SQL](#)

Reviewing Invalid SQL

The data conversion analysis process may mark certain SQL statements as invalid. This designation refers to SQL statements that the AE Analysis process could not correctly process. When a SQL statement is marked invalid, there are three options that you can use:

- Modify the SQL so that the AE Analyzer can process the statement. The following table compares sample invalid and valid SQL statements:

| Invalid SQL | Valid SQL |
|--|--|
| UPDATE
%Table(%BIND(RECNAME))
SET RELATIONSHIP = 'C'
WHERE RELATIONSHIP IN ('S', 'D') | <ul style="list-style-type: none"> • UPDATE %TABLE(BN_834_MEMBER) SET RELATIONSHIP = 'C' WHERE RELATIONSHIP IN ('S', 'D') • UPDATE %TABLE(DEP_BEN_EFF) SET RELATIONSHIP = 'C' WHERE RELATIONSHIP IN ('S', 'D') • UPDATE %Table(EMERGENCY_CNTCT) SET RELATIONSHIP = 'C' WHERE RELATIONSHIP IN ('S', 'D') |

- For invalid SQL statements in PeopleCode, add an override line directly above the invalid SQL to manually document the Source and Target tables that are in use.

Note. There is no override option for Application Engine SQL steps that are marked as invalid.

Note. Entering inaccurate or incomplete information in the override statement may result in data conversion sections being run in the incorrect dependent order, which can produce incorrect conversion results, such as data errors.

Note. Tables defined in the override statement require the *PS_* prefix.

Correct = PS_JOB

Incorrect = JOB

The following table gives sample override lines for various situations:

| Syntax | Sample Override Lines |
|---|---|
| When Source and Target tables are explicitly known and static | For example: <ul style="list-style-type: none">• REM SQLANALYSIS:T:<Tgt Table>,<Tgt Table>:S:<SRC Table>,<SRC Table>;• REM SQLANALYSIS:T::S:<SRC Table>,<SRC Table>;• REM SQLANALYSIS:T:<Tgt Table>,<Tgt Table>:S;; |

| Syntax | Sample Override Lines |
|--|--|
| When Source and/or Target Tables are determined based on a query | <p>For example:</p> <ul style="list-style-type: none"> • REM SQLANALYSIS:T:%SQL(SQLid [, paramlist]):S:[table name]; • REM SQLANALYSIS:T:<Tgt Table>,<Tgt Table>:S: %SQL(SQLid [, paramlist]); • REM SQLANALYSIS:T:%SQL(SQLid [, paramlist]):S: %SQL(SQLid [, paramlist]); • REM SQLANALYSIS:T::S: %SQL(SQLid [, paramlist]); • REM SQLANALYSIS:T:%SQL(SQLid [, paramlist]):S;; <p>Where:</p> <p><i>SQLid</i>: Specify the name of an existing SQL definition.</p> <p><i>paramlist</i>: Specify a list of arguments for dynamic substitutions at runtime. The first argument replaces all occurrences of %P(1) in the referenced SQL definition, the second argument replaces %P(2), and so forth.</p> <p>Note. The paramlist arguments must be static values. Variable values in the paramlist are not permitted.</p> <p>Note. The Query is resolved at the time the Data Conversion Analysis is executed. It is NOT resolved during the Data Conversion Runtime.</p> <p>Note. The Query must return one or more valid RECNAME values. No other return results are permitted.</p> |
| Where there is no Source or Target table to be defined an/or the invalid SQL is to be excluded from the table and dependency analysis. | <p>REM SQLANALYSIS:T::S:PS_EOUF_NORECNAME;</p> <p>Note. The “REM SQLANALYSIS:T::S;” syntax is not a valid override and will be marked as “Invalid” by the EOUFANALYSIS Program.</p> |

- Leave the SQL as it is. This results in the invalid SQL being marked as “dependent” on all steps that exist prior to it, and all steps subsequent to the invalid SQL become dependent on it.

Note. This will likely result in slowing the runtime of data conversion and is *not* recommended.

Reviewing the Data Conversion Repositories

The tables in the Data Conversion Analysis repository hold the following data:

- Step actions stored in execution order.
- SQL clauses extracted from step actions.
- Tables featured in SQL clause.
- Bind variables used in SQL.

Analysis information is stored in the following tables:

- PS_UPG_DATACONV
- PS_EOUF_ANALYSIS
- PS_EOUF_DATACONV
- PS_EOUF_DTLIDSQLS
- PS_EOUF_DTLIDSQLSR
- PS_EOUF_DTLIDTBLS
- PS_EOUF_RUNDEPEND
- PS_EOUF_SECDEPEND
- PS_EOUF_SECLISTTMP
- PS_EOUF_STEPDEPEND

The following Analysis tables make up the EO Upgrade Framework:

- PS_EOUF_DATACONV

The PS_EOUF_DATACONV table is based on the table definition for PS_UPG_DATACONV. It stores the upgrade AE sections for the chosen upgrade path.

| COLUMN | DESCRIPTION |
|-------------------|--|
| UPG_PATH | Upgrade Path Copied from PS_UPG_DATACONV |
| UPG_GROUP_SEQ_NUM | Upgrade Group Copied from PS_UPG_DATACONV |
| SEQ_NUM | Upgrade Sequence Copied from PS_UPG_DATACONV |
| AE_APPLID | Upgrade Application Engine Copied from PS_UPG_DATACONV |
| AE_SECTION | Upgrade Application Engine Section Copied from PS_UPG_DATACONV |
| ACTIVE_FLAG | Active Flag Copied from PS_UPG_DATACONV |
| EOUF_RUNDURATION | Elapsed time for this section to run during data conversion |
| RUN_STATUS_FLAG | Run Status Flag (Y-complete, N-not run yet, R-Running, F-Failed) |
| EOUF_GUID | GUID generated by the Data Conversion runtime engine |

- PS_EOUF_ANALYSIS

This is the main analysis table. The AE Analyzer (EOUFANALYSIS) writes a row to this table for every Action in each Root Section of the specified upgrade path.

| COLUMN | DESCRIPTION |
|-------------------|--|
| UPG_PATH | Upgrade Path Copied from PS_UPG_DATACONV |
| UPG_GROUP_SEQ_NUM | Upgrade Group Copied from PS_UPG_DATACONV |
| SEQ_NUM | Upgrade Sequence Copied from PS_UPG_DATACONV |
| EOUF_TOPAEAPPLID | Upgrade Application Engine Copied from PS_UPG_DATACONV |

| COLUMN | DESCRIPTION |
|-------------------|---|
| EOUF_TOPAESECTN | Upgrade Application Engine Section Copied from PS_UPG_DATACONV |
| EOUF_TOPAESTEP | Upgrade Section Step |
| EOUF_TOPAESEQNUM | Upgrade Section Sequence Number |
| EOUF_AELEVEL | Nesting level for Call Section |
| AE_APPLID | Actual AE Program (same as EOUF_TOPAEAPPLID if EOUF_AELEVEL is 1) |
| AE_SECTION | Actual Section (same as EOUF_TOPAESECTN if EOUF_AELEVEL is 1) |
| AE_STEP | Actual Step (same as EOUF_TOPAESTEP if EOUF_AELEVEL is 1) |
| AE_SEQ_NUM | Actual Seq Num (same as EOUF_TOPAESEQNUM if EOUF_AELEVEL is 1) |
| MARKET | Market |
| DBTYPE | DBType |
| AE_DO_SECTION | If Step Action is Call Section, then this is the section to be called |
| AE_DO_APPL_ID | If Step Action is Call Section, then this is the program to be called |
| AE_DYNAMIC_DO | Indicates the Call Section is a dynamic call section |
| STEP_DESCR | Step Description |
| AE_STMT_TYPE | Action Type e.g. S-SQL, P-PeopleCode, D-DoSelect, H-DoWhen etc |
| EOUF_STMTTYPENUM | Numeric identified for AE_STMT_TYPE (used for ordering step actions) |
| EOUF_AESTMTSEQ | Sequence used to order the steps actions for the whole upgrade |
| AE_REUSE_STMT | Standard AE Reuse Statement flag |
| AE_DO_SELECT_TYPE | Standard AE Do Select Type |
| DETAIL_ID | Section.Step.Action identifier used as a key to most EOUF tables |
| EOUF_INFO1 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO2 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO3 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO4 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO5 | Extra Information mostly related to FUNCLIB calls |
| SQLID | For SQL step, the SQLID of the SQL this step action executes |
| EOUF_CHUNKSEQ | Statement Chunk Sequence |
| EOUF_STMTDESCR | Description copied from AE Step Description |
| EOUF_HASPARENTS | This Step has dependencies on other one or more other Steps |
| EOUF_HASCHILDREN | One or more other Steps have a dependency on this step |

| COLUMN | DESCRIPTION |
|----------------|--|
| EOUF_HASWHERE | The SQL has a where clause – Mostly used by PeopleSoft Development |
| EOUF_TEXTCHUNK | Statement executed by this Step. |

- PS_EOUF_DTLIDSQLS

This table holds a reference to every SQL in the conversion code for the specified upgrade path.

| COLUMN | DESCRIPTION |
|------------------|---|
| DETAIL_ID | Section.Step.Action identifier used as a key to most EOUF tables |
| EOUF_SQLNUM | SQL Number, for peoplecode there may be many SQL statements |
| EOUF_AESTMTLEN | Length of the text of the SQL statement |
| EOUF_OBJ_TYPE | S-SQL or P-PeopleCode |
| EOUF_CHUNKSEQ | Statement Chunk Sequence |
| TABLE_NAME | Main Table in the SQL Statement, Blank if SQL is SELECT with many tables |
| EOUF_DMLACTION | INSERT, UPDATE, DELETE, SELECT etc |
| EOUF_LINENUM | Refers to the PeopleCode line number where the SQL is defined |
| EOUF_VALIDSQL | Internal Identifier to indicate a piece of SQL than can or cannot be parsed |
| DESCR254 | Description Column |
| EOUF_PARAMCLAUSE | Bind variable used in the SQL |
| EOUF_INFO1 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO2 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO3 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO4 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO5 | Extra Information mostly related to FUNCLIB calls |
| EOUF_TEXTCHUNK | Statement executed by this Step |

- PS_EOUF_DTLIDSQLSR

This table differs slightly from the PS_EOUF_DTLIDSQLS table in that the SQL statement has been fully resolved into platform-specific SQL. This makes it much easier to see what is happening in the SQL

| COLUMN | DESCRIPTION |
|----------------|--|
| DETAIL_ID | Section.Step.Action identifier used as a key to most EOUF tables |
| EOUF_SQLNUM | SQL Number, for PeopleCode there may be many SQL statements |
| EOUF_CHUNKSEQ | Statement Chunk Sequence |
| EOUF_TEXTCHUNK | Statement executed by this Step |

- PS_EOUF_DTLIDTBLS

This table holds a reference to every SQL in the conversion code for the specified upgrade path and which Tables or Records are in use for each piece of SQL.

| COLUMN | DESCRIPTION |
|-----------------|--|
| DETAIL_ID | Section.Step.Action identifier used as a key to most EOUF tables |
| EOUF_SQLNUM | SQL Number, for peoplecode there may be many SQL statements |
| RECNAME | Record Name |
| TABLE_NAME | Associated Table Name |
| EOUF_TABLEUSAGE | T-Target, S-Source |
| EOUF_TABLETYPE | R-Record, S-State Record, U-Upgrade Table, V-View, T-TempTable |
| EOUF_INFO1 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO2 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO3 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO4 | Extra Information mostly related to FUNCLIB calls |
| EOUF_INFO5 | Extra Information mostly related to FUNCLIB calls |

- PS_EOUF_STEPDEPEND

By querying PS_EOUF_DTLIDTBLS and PS_EOUF_ANALYSIS, it is possible to determine which steps have dependencies and what those dependencies are.

| COLUMN | DESCRIPTION |
|--------------------|--|
| EOUF_P_GRPSEQNUM | Parent Data Conversion Group Number |
| EOUF_P_SEQNUM | Parent AE Section Sequence Number |
| EOUF_P_TOPAEAPPLID | Parent Data Conversion AE Program |
| EOUF_P_TOPAESECTN | Parent Data Conversion AE Section |
| EOUF_P_TOPAESTEP | Parent Data Conversion AE Step |
| EOUF_P_TOPAESEQNUM | Parent Data Conversion AE Step Sequence |
| EOUF_P_AEAPPLID | Parent AE Program |
| EOUF_P_AESECTION | Parent AE Section |
| EOUF_P_AESTEP | Parent AE Step |
| EOUF_P_AESEQNUM | Parent AE Step Sequence within the Section |
| EOUF_P_AESTMTSEQ | Parent AE Step Sequence across whole upgrade |
| EOUF_P_DETAILID | Parent AE Step Detail ID |
| EOUF_P_SQLNUM | Parent AE Detail ID SQL Sequence |
| EOUF_C_GRPSEQNUM | Child Data Conversion Group Number |
| EOUF_C_SEQNUM | Child AE Section Sequence Number |
| EOUF_C_TOPAEAPPLID | Child Data Conversion AE Program |
| EOUF_C_TOPAESECTN | Child Data Conversion AE Section |
| EOUF_C_TOPAESTEP | Child Data Conversion AE Step |

| COLUMN | DESCRIPTION |
|--------------------|--|
| EOUF_C_TOPAESEQNUM | Child Data Conversion AE Step Sequence |
| EOUF_C_AEAPPLID | Child AE Program |
| EOUF_C_AESECTION | Child AE Section |
| EOUF_C_AESTEP | Child AE Step |
| EOUF_C_AESEQNUM | Child AE Step Sequence within the Section |
| EOUF_C_AESTMTSEQ | Child AE Step Sequence across whole upgrade |
| EOUF_C_DETAILID | Child AE Step Detail ID |
| EOUF_C_SQLNUM | Child AE Detail ID SQL Sequence |
| EOUF_TABLENAME | Common table referenced by the parent and child step |
| EOUF_P_TABLEUSAGE | Parent table usage T-Target, S-Source |
| EOUF_C_TABLEUSAGE | Child table usage T-Target, S-Source |

- PS_EOUF_SECDEPEND

This table is an aggregation of PS_EOUF_STEPDEPEND to the Section level.

| COLUMN | DESCRIPTION |
|--------------------|--|
| EOUF_P_GRPSEQNUM | Parent Data Conversion Group Number |
| EOUF_P_TOPSEQNUM | Parent AE Section Sequence Number |
| EOUF_P_TOPAEAPPLID | Parent Data Conversion AE Program |
| EOUF_P_TOPAESECTN | Parent Data Conversion AE Section |
| EOUF_P_AESTMTSEQ | Parent AE Step Sequence across whole upgrade |
| EOUF_C_GRPSEQNUM | Child Data Conversion Group Number |
| EOUF_C_TOPSEQNUM | Child AE Section Sequence Number |
| EOUF_C_TOPAEAPPLID | Child Data Conversion AE Program |
| EOUF_C_TOPAESECTN | Child Data Conversion AE Section |
| EOUF_C_AESTMTSEQ | Child AE Step Sequence across whole upgrade |
| EOUF_DEPENDSOURCE | Dependency Rule |
| EOUF_DEPENDRULE | DEPENDENT or INDEPENDENT |

- PS_EOUF_RUNDEPEND

This table represents the section dependency model. You can query this table for any given data conversion AE Section to determine what it depends on and what depends on it. The runtime data conversion Application Engine (EOUFDATACONV) uses this table to determine which sections are eligible to run.

| COLUMN | DESCRIPTION |
|--------------------|-------------------------------------|
| EOUF_P_GRPSEQNUM | Parent Data Conversion Group Number |
| EOUF_P_TOPSEQNUM | Parent AE Section Sequence Number |
| EOUF_P_TOPAEAPPLID | Parent Data Conversion AE Program |
| EOUF_P_TOPAESECTN | Parent Data Conversion AE Section |
| EOUF_C_GRPSEQNUM | Child Data Conversion Group Number |
| EOUF_C_TOPSEQNUM | Child AE Section Sequence Number |
| EOUF_C_TOPAEAPPLID | Child Data Conversion AE Program |

| COLUMN | DESCRIPTION |
|-------------------|----------------------------------|
| EOUF_C_TOPAESECTN | Child Data Conversion AE Section |
| EOUF_DEPTH | Dependency Nesting |

Task C-2-3: Reviewing Dependency Analysis

This section discusses:

- Understanding Dependency Analysis
- Reviewing Data Conversion Runtime Rules
- Reviewing Dependency Modeling

Understanding Dependency Analysis

The table usage information identified in the Initial Analysis is subsequently used to determine the dependencies between AE Steps. The Step Dependency Information is then aggregated to the “Root Section” level where a Root Section is defined as a row in the PS_UPG_DATACONV table (UPG_PATH, UPG_GROUP_SEQ_NUM, SEQ_NUM, AE_APPLID, AE_SECTION, ACTIVE_FLAG, UPG_CONV_TYPE).

Reviewing Data Conversion Runtime Rules

The runtime rules of the old UPG_DATACONV Application Engine process are rolled forward into the new EOUF Framework.

The following rules were the previous data conversion runtime rules:

- All Upgrade Groups are dependent on Upgrade Group 1 having been successfully completed.
- Application Engine Sections within an Upgrade Group run sequentially according to Sequence Number.
- After the successful completion of Upgrade Group 1, all other Upgrade Groups could run in parallel depending on the customer setup.
- A failure of a Section with an Upgrade Group prevents subsequent Sections from running until the failure is fixed.

The following rules are the new data conversion runtime rules:

- Dependencies are derived from tables referenced in SQL or PeopleCode actions in Upgrade Sections.
- Dependencies follow the Upgrade Group sequencing. If Section ABC in Upgrade Group 1 updates a given table, then any Section assigned a higher sequence than ABC that updates or queries that same table cannot run until Section ABC is complete.
- Upgrade Groups 2 and higher have no dependency on each other. If Section QWE in Upgrade Group 2 updates table FFF and Section ASD in Upgrade Group 3 also updates table FFF, there is no dependency created.
- Upgrade Groups 2 and higher create dependencies on Sections in their own Upgrade Group and in Upgrade Group 1. If Section ABC in Upgrade Group 1 updates table FFF and Section QWE in Upgrade Group 2 also updates table FFF, then Section QWE becomes dependent on Section ABC.
- Tables as sources do not create dependencies. If Section ZXC in Upgrade Group 1 selects from table FFF, and then Section BNM in Upgrade Group 1 also selects from table FFF, no dependency is created.
- If a Section has a SQL statement that EOUFANALYSIS cannot understand, the SQL is flagged as invalid from the parser point of view (the Data Conversion will still run fine) and a hard dependency is created. This means for every Section with a query that cannot be parsed, it becomes dependent on every Section

sequentially above it in its Upgrade Group, and on every Section in Upgrade Group 1. Furthermore, every Section sequentially afterward becomes dependent on it.

- Usage of the PS_EOUF_DUAL, PS_EOUF_COMMON_AET, PS_EOUF_DUMMY, or PS_EOUF_NORECNAME tables never results in a dependency.

Reviewing Dependency Modeling

The following table shows how the dependency modeling works. From PS_UPG_DATACONV, we take a section to be run during HC 8.9 to 9.1 data conversion.

| UPG_PATH | UPG_GROUP_SEQ_NUM | SEQ_NUM | AE_APPLID | AE_SECTION |
|----------|-------------------|---------|-----------|------------|
| HC89 | 3 | 230 | UPG_BN89 | HCBNS06 |

This section is executed in Upgrade Group 3 and has a SEQ_NUM of 230. There are three steps in the section. Each step manipulates the PS_LIFE_ADD_TBL table.

| DETAIL_ID | SQL_STMT |
|-------------------|---|
| HCBNS06.Step010.S | UPDATE PS_LIFE_ADD_TBL SET ENROLLE_TYPE='2' WHERE PLAN_TYPE IN ('24','25') |
| HCBNS06.Step020.S | UPDATE PS_LIFE_ADD_TBL SET SUM_DEP_COVG='Y', COVERAGE_TYPE='2' WHERE LIFE_ADD_COVRG='5' |
| HCBNS06.Step030.S | UPDATE PS_LIFE_ADD_TBL SET COVERAGE_TYPE='2' WHERE LIFE_ADD_COVRG='3' |

The EOUFANALYSIS process will take this information and look for any sections in Upgrade Group 3 with a SEQ_NUM less than 230 or any section in Upgrade Group 1 that manipulates PS_LIFE_ADD_TBL. In this case there are no sections before this one that manipulate PS_LIFE_ADD_TBL. Next, look for sections in Upgrade Group 3 with a SEQ_NUM greater than 230 to see if any sections manipulate PS_LIFE_ADD_TBL. In this case there are a number of queries that reference this table.

| DETAIL_ID | ROOT_SECTION | SQL_STMT |
|------------------|--------------|---|
| HCBS10.Step010.D | HCBS10 | <pre>%Select(UPG_BN_AET.FACTOR_XSALARY , UPG_BN_AET.FLAT_AMOUNT ,UPG_BN_AET.CALC_ RULES_ID) SELECT DISTINCT L.FACTOR_XSALARY , L.FLAT_AMOUNT , C.CALC_RULES_ID FROM PS_LIFE_ADD_TBL L , PS_BEN_DEFN_OPTN O ,PS_BEN_DEFN_COST C WHERE L.LIFE_ADD_ COVRG IN ('1','2') AND O.PLAN_TYPE = L.PLAN_TYPE AND O.BENEFIT_PLAN = L.BENEFIT_PLAN AND C.BENEFIT_PROGRAM = O.BENEFIT_PROGRAM AND C.EFFDT = O.EFFDT AND C.PLAN_TYPE = O.PLAN_TYPE AND C.OPTION_ID = O.OPTION_ID AND C.CALC_RULES_ ID <> '' AND C.CALC_RULES_ID = (SELECT MIN(C1.CALC_RULES_ ID) FROM PS_LIFE_ADD_TBL L1 , PS_BEN_DEFN_OPTN O1 , PS_BEN_DEFN_COST C1 WHERE L1.PLAN_TYPE = L.PLAN_TYPE AND L1.BENEFIT_PLAN = L.BENEFIT_PLAN AND O1.PLAN_TYPE = L1.PLAN_TYPE AND O1.BENEFIT_PLAN = L1.BENEFIT_PLAN AND C1.BENEFIT_PROGRAM = O1.BENEFIT_PROGRAM AND C1.EFFDT = O1.EFFDT AND C1.PLAN_TYPE = O1.PLAN_TYPE AND C1.OPTION_ID = O1.OPTION_ID) ORDER BY L.FACTOR_XSALARY, L.FLAT_AMOUNT, C.CALC_RULES_ID</pre> |

| DETAIL_ID | ROOT_SECTION | SQL_STMT |
|------------------|--------------|---|
| HCBS10A.Step050. | HCBS10 | <pre>%Select(PLAN_TYPE,BENEFIT_PLAN,EFFDT) SELECT L.PLAN_TYPE ,L.BENEFIT_PLAN ,%DateOut(L.EFFDT) FROM PS_LIFE_ADD_TBL L , PS_BEN_DEFN_OPTN O , PS_BEN_DEFN_COST C WHERE O.PLAN_TYPE = L.PLAN_TYPE AND O.BENEFIT_PLAN = L.BENEFIT_PLAN AND C.BENEFIT_PROGRAM = O.BENEFIT_PROGRAM AND C.EFFDT = O.EFFDT AND C.PLAN_TYPE = O.PLAN_TYPE AND C.OPTION_ID = O.OPTION_ID AND C.CALC_RULES_ID = %Bind(CALC_RULES_ID) AND L.FACTOR_XSALARY = %Bind(FACTOR_XSALARY) AND L.FLAT_AMOUNT = %Bind(FLAT_AMOUNT) AND L.LIFE_ADD_COVRG IN ('1','2') AND L.BN_FORMULA_ID = ' ' AND C.CALC_RULES_ID = (SELECT MIN(C1.CALC_RULES_ID) FROM PS_LIFE_ADD_TBL L1 , PS_BEN_DEFN_OPTN O1 , PS_BEN_DEFN_COST C1 WHERE L1.PLAN_TYPE = L.PLAN_TYPE AND L1.BENEFIT_ PLAN = L.BENEFIT_PLAN AND O1.PLAN_TYPE = L1.PLAN_TYPE AND O1.BENEFIT_PLAN = L1.BENEFIT_PLAN AND C1.BENEFIT_PROGRAM = O1.BENEFIT_PROGRAM AND C1.EFFDT = O1.EFFDT AND C1.PLAN_TYPE = O1.PLAN_TYPE AND C1.OPTION_ID = O1.OPTION_ID)</pre> |

| DETAIL_ID | ROOT_SECTION | SQL_STMT |
|-------------------|--------------|--|
| HCBS10A.Step050.S | HCBS10 | UPDATE PS_LIFE_ADD_TBL SET BN_FORMULA_ID =
%Bind(BN_FORMULA_ID) WHERE PLAN_TYPE =
%Bind(PLAN_TYPE)
AND BENEFIT_PLAN = %Bind(BENEFIT_PLAN) AND
EFFDT =
%Bind(EFFDT) |
| HCBS20.Step010.D | HCBS20 | %Select(EMPLID, EMPL_RCD, PLAN_TYPE, EFFDT,
FLAT_AMOUNT,
FACTOR_XSALARY, BENEFITS_BASE, CALC_RULES_
ID) SELECT
L.EMPLID ,L.EMPL_RCD ,L.PLAN_TYPE
,%DateOut(L.EFFDT),
L.FLAT_AMOUNT ,L.FACTOR_XSALARY
,L.BENEFITS_BASE ,
C.CALC_RULES_ID FROM PS_LIFE_ADD_BEN L ,
PS_LIFE_ADD_TBL T ,
PS_BEN_PROG_PARTIC B , PS_BEN_DEFN_PGM PG ,
PS_BEN_DEFN_OPTN O , PS_BEN_DEFN_COST C
WHERE
L.COVERAGE_ELECT = 'E' AND L.FACTOR_
XSALARY <> 0 AND
T.PLAN_TYPE = L.PLAN_TYPE AND T.BENEFIT_PLAN
=
L.BENEFIT_PLAN AND T.LIFE_ADD_COVRG = '3' AND
T.EFFDT = (
SELECT MAX(X.EFFDT) FROM PS_LIFE_ADD_TBL X
WHERE
X.PLAN_TYPE = T.PLAN_TYPE AND X.BENEFIT_PLAN
=
T.BENEFIT_PLAN AND X.EFFDT <= L.EFFDT) AND
B.EMPLID = L.EMPLID
AND B.EMPL_RCD = L.EMPL_RCD AND B.EFFDT = (
SELECT
MAX(X.EFFDT) FROM PS_BEN_PROG_PARTIC X
WHERE X.EMPLID =
B.EMPLID AND X.EMPL_RCD = B.EMPL_RCD AND
X.EFFDT <= L.EFFDT)
AND PG.BENEFIT_PROGRAM = B.BENEFIT_
PROGRAM AND PG.EFFDT
= (SELECT MAX(X.EFFDT) FROM PS_BEN_DEFN_PGM
X WHERE
X.BENEFIT_PROGRAM = PG.BENEFIT_PROGRAM
AND X.EFFDT <=
L.EFFDT) AND O.BENEFIT_PROGRAM =
PG.BENEFIT_PROGRAM AND
O.EFFDT = PG.EFFDT AND O.PLAN_TYPE =
L.PLAN_TYPE AND
O.BENEFIT_PLAN = L.BENEFIT_PLAN AND
O.OPTION_TYPE = 'O' AND
C.BENEFIT_PROGRAM = O.BENEFIT_PROGRAM AND
C.EFFDT =
O.EFFDT AND C.PLAN_TYPE = O.PLAN_TYPE AND
C.OPTION_ID =
O.OPTION_ID AND C.COST_TYPE = 'P' ORDER BY
L.EMPLID,L.EMPL_RCD,L.PLAN_TYPE,L.EFFDT |

You can deduce from the information in the preceding table that Sections HCBNS10 and HCBNS20 are dependent on HCBNS06.

Task C-2-4: Reviewing Runtime for EOUFDATACONV

This section discusses:

- Understanding Runtime for EOUFDATACONV
- Querying the EOUF Tables

Understanding Runtime for EOUFDATACONV

All runtime information for EOUFDATACONV is stored in the following tables:

- PS_EOUF_DATACONV
- PS_EOUF_RUNSTATUS
- PS_EOUF_RUNDETAIL
- PS_EOUF_RUNCOUNT

The EOUFDATACONV Application Engine is the driver for the new Upgrade Data Conversion Framework and will be used instead of UPG_DATACONV to run data conversion in upgrades to application 9.1.

The EOUFDATACONV Application Engine leverages the Dependency Analysis to optimize the runtime of the data conversion. The runtime of the data conversion is improved in the new PeopleSoft release by running multiple instances of EOUFDATACONV in parallel, executing against a single set of dependency information. The optimal number of instances to be initiated will vary.

EOUFDATACONV determines which “Root Sections” are able to run and executes them. A Root Section is able to run when all Root Sections that are dependent on it have completed successfully.

In the event that multiple root sections are able to run at the same time, steps that have the largest number of dependent Root Sections and/or Root Sections that have the longest runtime (in a previous run), are given priority.

In the event of failure, the instance of EOUFDATACONV that encountered the error will mark the step as “Failed” and stop. All other instances of EOUFDATACONV will continue to run. Steps that are dependent on a “Failed” step will be marked as “Blocked” and will not be executed as part of the current run. Upon restarting the process, the “Failed” section and any “Blocked” sections will be executed.

The following list describes the EOUFDATACONV program flow:

- The run is initialized.
This initial phase determines if this is a brand new run or if it is a restart of a previously failed run. If it is a new run, then EOUFDATACONV sets up a thread in PS_EOUF_RUNSTATUS.
- EOUFDATACONV performs a simple test to verify that there is work to do.
If there is work to do, then EOUFDATACONV runs Data Conversion Application Engine Sections that have not already run. This is a fairly simple Do While loop that counts eligible sections left to run. If there are no more sections left to run, processing stops. The work inside the loop consists of executing a process to check the status of any other thread that is running. If a thread dies, it cannot clean itself up, so one of the other threads has to perform the cleanup. The cleanup mostly consists of setting the status flag in PS_EOUF_DATACONV to “F” for the AE Section that failed.
- SQLs run to look for work to do.

The SQL object EOUF_FINDSECTIONTORUN finds the next eligible section to run. If the query returns nothing, we execute another SQL object called EOUF_COUNTSECTIONSNOTDONE to count how many Sections are left to run. If EOUF_FINDSECTIONTORUN returns no work to do and EOUF_COUNTSECTIONSNOTDONE returns Sections still need to be run, then there must be a Section already running that must complete before anything else can run. If there is no work to do, the loop issues a pause before the loop completes and executes the next loop.

- EOUFDATA CONV performs more housekeeping to reset statuses on successful completion of all Data Conversion Application Engine Sections.
- A completion message is written to the log file.

Querying the EOUF Tables

For example queries to retrieve detailed information from the data conversion analysis and runtime tables, and to validate the dependency model, refer to “Upgrade to PeopleSoft 9.1: Data Conversion Analysis and Runtime Data in the EOUF Tables,” on My Oracle Support (Doc ID 1367476.1).

Task C-2-5: Reviewing EO Upgrade Framework Reporting

This section discusses:

- Understanding EO Upgrade Framework Reporting
- Reviewing the Tables Referenced Report
- Reviewing the Customization Impacts Report
- Reviewing Execution Report by Section – Duration
- Reviewing Execution Report by Section – Start Time
- Reviewing the Execution Report by Step
- Reviewing the Execution by Thread Report
- Reviewing the Thread Duration Report
- Reviewing the Execution Comparison Report
- Reviewing the Table Analysis Report

Understanding EO Upgrade Framework Reporting

You can query all tables populated and leveraged by the EO Upgrade Framework (as identified previously) through the various platform specific query tools or psquery. You can gather information in the EOUF tables to identify the following:

- Tables referenced in the data conversion code.
- Steps impacted by customizations (prior to the initial data conversion run).
- Performance issues (after the initial data conversion run).
- Impact of changes (run to run timing comparisons).

Oracle has delivered a series of standard reports to address the most commonly accessed information in the EOUF repository.

Reviewing the Tables Referenced Report

EOUF0001.SQR lists all tables referenced within the Application Engine data conversion programs. For each table listed, the report displays the section and step in which it is used, whether it is a data source or data target table, and the type of SQL statement in which it is referenced. This report is sorted by table name. Data for this report comes from the PS_EOUF_ANALYSIS, PS_EOUF_DTLIDSQLS, and PS_EOUF_DTLIDTBLS tables. This report can be run anytime after the EOUFANALYSIS Application Engine program has run and populated the EOUF tables used by this SQR.

Reviewing the Customization Impacts Report

EOUF0002.SQR shows the section/steps within the Application Engine data conversion programs that referenced tables with custom added fields. This report is sourced from the PS_EOUF_ANALYSIS table and the PSPROJECTITEM table. This report must be run after the customizations project has been compared against the New Release Demo database.

Reviewing Execution Report by Section – Duration

EOUF0003.SQR shows the duration or execution time for each Application Engine section. Since this report is at a section level, the information is sourced from the PS_EOUF_RUNDETAIL table. The report is ordered by execution time with the poorest performing steps at the top. This report can be run anytime after the PS_EOUF_RUNDETAIL table has been populated for the data conversion run on which you want to report.

Reviewing Execution Report by Section – Start Time

EOUF0004.SQR shows the duration or execution time for each section. Since this report is at a section level, the information will be sourced from the PS_EOUF_RUNDETAIL table. The report would be ordered by start time so that you can see the order in which the sections were executed. This report can be run anytime after the PS_EOUF_RUNDETAIL table has been populated for the data conversion run on which you want to report.

Reviewing the Execution Report by Step

EOUF0005.SQR shows the execution time for each section and the associated steps that were run.

This report requires a trace of 16,384 or higher.

Since this report is at a step level, it assumes that a trace of 16,384 or higher has been run so that the step information could be obtained from the PS_EOUF_TIMINGS_DT table. If the appropriate trace has not been run, then a report is not created and output files will be produced. The report will be ordered by execution time with the poorest performing steps at the top.

Reviewing the Execution by Thread Report

EOUF0006.SQR shows the execution timing of each Application Engine section run as part of the data conversion process. This report is sorted so that you can see which sections were executed by each thread. This report is sourced from the PS_EOUF_RUNDETAIL table.

Reviewing the Thread Duration Report

EOUF0007.SQR shows the total duration time for each thread used during the data conversion process. This report is sourced from the PS_EOUF_RUNDETAIL table. It can be run anytime after the PS_EOUF_RUNDETAIL table has been populated from the data conversion run on which you want to report.

Reviewing the Execution Comparison Report

EOUF0008.SQR shows the execution duration from the current run of data conversion as compared to the execution duration from the previous run of data conversion. This report is sourced from the PS_EOUF_RUNDETAIL table. This report can be run anytime after the PS_EOUF_RUNDETAIL table has been populated for the data conversion runs on which you want to report.

Reviewing the Table Analysis Report

EOUF0009.SQR indicates how a particular application table is impacted by the create/alter scripts as well as the data conversion process during the PeopleSoft upgrade. This report is sourced from the PS_PTUALTRECDDATA, PS_PTUALTRECFLDDAT, PS_EOUF_ALTRECDDATA, PS_EOUF_ANALYSIS, and PS_EOUF_DTLIDTBLS tables. This report can be run after the Alter Analyzer and the AE Analyzer processes have successfully completed. This report is designed to be run against the initial pass database as the data stored in the tables during the Move to Production will differ.

Task C-3: Using the Upgrade Driver Program

The sequence of Application Engine sections that are run by an upgrade driver is maintained in the PS_UPG_DATACONV table. The Application Engine sections defined in the PS_UPG_DATACONV table are referred to as *root sections*.

There are three categories of Upgrade Groups:

- PRE – Data Conversion sections that must be executed in advance of all other sections.
- MAIN – Core Data Conversion
- POST – Data Conversion sections that must be executed after all other sections.

Note. Your specific upgrade may or may not contain pre-delivered PRE or POST groups.

Upgrade groups contain one or more Application Engine sections that are ordered within the group by sequence number. The Application Engine program UPG_DATACONV is used to execute PRE and POST data conversion groups. The Application Engine program EOUFDATACONV is used to execute the MAIN data conversion group.

When data conversion is executed using the UPG_DATACONV program, the sequence number is used to determine the “Absolute Run Order” of the upgrade group. When data conversion is executed using the EOUFDATACONV Application Program, the sequence number is used to determine the “Relative Run Order” of Application Engine sections that reference the same table or tables, but *not* the “Absolute Run Order” of the upgrade group(s).

Task C-4: Using the Upgrade Drivers Page

This section discusses:

- Understanding the Upgrade Drivers Page
- Accessing the Upgrade Drivers Page

- Adding the New Upgrade Drivers Section Page
- Inactivating the Upgrade Drivers Section

Understanding the Upgrade Drivers Page

Before you run data conversion, you may need to change what the Upgrade Driver program runs. You can add, remove, or deactivate Application Engine sections through the Upgrade Drivers page.

You do not have an active portal on your Copy of Production during data conversion, so you need to view and update the Data Conversion Definitions on your Demo database and then copy the updated data to your Copy of Production database.

Task C-4-1: Accessing the Upgrade Drivers Page

To access the Upgrade Drivers page:

1. From your browser, sign in to the Demo database.
2. Select Portal Administration, System Data, Data Upgrade Conversion.
3. Enter your upgrade path:
4. Click Search.

The Upgrade Drivers page appears, as shown in the example below.

| Upgrade Drivers | | | | | | | | | |
|---|---------------|----------|-----------------|----------|-----------|--------------|--------------------------------|----------|-----|
| Personalize Find View All First 1-8 of 8 Last | | | | | | | | | |
| *Upgrade Path | *Program Name | *Group # | Conversion Type | *Section | *Sequence | *Active Flag | Description | Comments | |
| PA90 | UPG_PP | 1 | Main-DC | PAPPL01 | 10 | Active | Install Options 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPY02 | 15 | Active | Workspace 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ01 | 20 | Active | RSS Pagelet Data 8.8, 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ02 | 30 | Active | Iframe Template 8.8, 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ03 | 40 | Active | Discussions 8.8, 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ04 | 50 | Active | Context Manager 8.8, 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ05 | 60 | Active | Site Manager 8.8, 8.9, 9.0 | Comments | + - |
| PA90 | UPG_PP | 1 | Main-DC | PAPPZ06 | 70 | Active | Search 8.8, 8.9, 9.0 | Comments | + - |

Upgrade Drivers page

Following are the descriptions for each section of the Upgrade Drivers page:

- Upgrade Path. This field contains the upgrade path on which the section will be run.
- Program Name. This is the Application Engine program that contains the section.
- Group #. This is the group number. All sections with the same group number will be run during the same run of the UPG_DATACONV Application Engine program.
- Section. This is the section that will be called from the UPG_DATACONV Application Engine program.
- Sequence. This is the order in which the sections will be called during the run of UPG_DATACONV for the group number.

- **Active Flag.** This field determines whether the section will be run. If the value of this field is *Active*, the section will be run. If the value is *Inactive*, it will not be run. If you need to remove a section, change the value in this field to *Inactive*.
- **Description.**
- **Comments.**

Task C-4-2: Adding the New Upgrade Drivers Section Page

Follow the instructions below to add a new section to the Upgrade Drivers page.

Note. To add a new section, the Application Engine program and section must exist on the Demo database.

To add a new section to the Upgrade Drivers page:

1. From your browser, sign in to the Demo database.
2. Select Portal Administration, Upgrade Data Conversion.
3. Select Add a New Value.
4. Click Add.
5. Enter values for Upgrade Path and Program Name.
6. Enter a value for Group #.

Note. Each group number corresponds to a data conversion step in the PeopleSoft Change Assistant template. If you select a group number that already exists in the PS_UPG_DATACONV table, your section will be executed when PeopleSoft Change Assistant runs the data conversion step that corresponds to the group number you selected. Alternatively, if you assign a group number to your new section that does not already exist in PS_UPG_DATACONV, you must add a new step to your PeopleSoft Change Assistant template. The new template step will have the same properties as the other data conversion steps, except for the group number specified in the step properties Parameters box.

7. Enter values for Section and Sequence.
The Description and Comments fields are optional.
8. Click Save.
9. When you have completed all changes, sign in to your Demo database using PeopleSoft Data Mover and run the following script to export the updated data conversion data:

```
DLUPX03E.DMS
```

10. Sign in to your Copy of Production database using PeopleSoft Data Mover and run the following script to load the updated data conversion data:

```
DLUPX03I.DMS
```

See the PeopleTools: Change Assistant PeopleBook for your new release, Appendix: “Using a Change Assistant Template.”

Task C-4-3: Inactivating the Upgrade Drivers Section

Follow the instructions below to deactivate a section on the Upgrade Drivers page. Once deactivated, the section will not run as part of data conversion.

To inactivate a section on the Upgrade Drivers page:

1. From your browser, sign in to the Demo database.
2. Select Portal Administration, System Data, Data Upgrade Conversion.
3. Enter your upgrade path:
4. Click Search.
5. Find the row with the Program Name and Section you want to remove and change the value of the Active Flag field to *Inactive*.
6. Click Save.
7. When you have completed all changes, sign in to your Demo database using PeopleSoft Data Mover and run the following script to export the updated data conversion data:

```
DLUPX03E.DMS
```

8. Sign in to your Copy of Production database using PeopleSoft Data Mover and run the following script to load the updated data conversion data:

```
DLUPX03I.DMS
```


APPENDIX D

Using the Comparison Process

This appendix discusses:

- Understanding the Comparison Process
- Understanding Upgrade Compare Reports

Task D-1: Understanding the Comparison Process

This section discusses:

- Reviewing the Source and Target Columns
- Reviewing the Action Column
- Reviewing the Upgrade Column
- Putting It All Together

During the upgrade you run a compare process and then review the resulting reports. The compare process first compares every property of an object definition on the Source database to the properties of object definitions on the Target database. The PeopleSoft system tracks object changes using the contents of the PSRELEASE table, and the value of two fields, LASTUPDDTTM, and LASTUPDOPRID, used in the PeopleSoft PeopleTools tables, as follows:

- The PSRELEASE table maintains the Comparison Release Level. This table contains rows of data for every release level at which the database has ever existed. The first column in this table, RELEASEDTTM, contains a date/time stamp identifying when each release level was “stamped.” The second column, RELEASELABEL, identifies the release level. The format of a release label is *M XX.XX.XX.YYY*, where *M* is the market code, *XX* is an integer from 0 to 99, and *YYY* is an integer from 0 to 999. A release label has two parts: the PeopleSoft release number (*M XX.XX.XX*) and the customer release number (*YYY*). Each time you customize your production database, you can stamp it with a new customer release level to help you track your changes over time. You should not change any portion of the PeopleSoft release number unless specifically instructed to do so.
- The LASTUPDDTTM field in our *PSobjectDEFN* tables—such as PSRECDEFN, PSPNLDEFN, and so on—stores a date/time stamp of when each object was last modified.
- The LASTUPDOPRID field stores the operator ID of the user who made the modification. If Oracle made the modification, the proprietary ID *PPLSOFT* is used.

Note. Maintain Security prevents you from creating an operator named PPLSOFT.

If an object definition is defined differently in the Source database than in the Target database, the compare process will check to see whether either object definition has changed since the comparison release. If the object's LASTUPDDTTM value is greater than the RELEASEDTTM value for the comparison release level (stored in PSRELEASE), the object has changed. If the object's LASTUPDDTTM value is equal to or less than RELEASEDTTM, the object has not changed (since the comparison release). Whether the compared object has changed or not, if it has *ever* been changed prior to the comparison release by someone other than Oracle (LASTUPDOPRID does not equal 'PPLSOFT'), the object is identified as a customization.

After you run a compare report, you see the following information when you open an object type in the upgrade project from the Upgrade Tab of PeopleSoft Application Designer. This is called the PeopleSoft Application Designer Upgrade Definition window.

Task D-1-1: Reviewing the Source and Target Columns

The status of each object is reported as it appears on the Source database and the Target database. The following table explains the various status types:

| Status Type | Definition |
|-------------|--|
| Unknown | The object has not been compared. This is the default status for all objects inserted manually into a project and the permanent status of all non-comparison objects. |
| Absent | The object was found in the other database, but not in this one. When upgrading to a new PeopleSoft release, all of our new objects should have Absent status in the Target database and all of your new objects should have Absent status in the Source database. |
| Changed | The object has been compared, its LASTUPDOPRID value is <i>PPLSOFT</i> , and its LASTUPDTIME value is greater than the date/time stamp of the comparison release database. In other words, Oracle modified the object since the comparison release. |
| Unchanged | The object has been compared, its LASTUPDOPRID value is <i>PPLSOFT</i> , and its LASTUPDTIME value is less than or equal to the date/time stamp of the comparison release database. In other words, Oracle last modified the object prior to the comparison release. |
| *Changed | The object has been compared, its LASTUPDOPRID value is not <i>PPLSOFT</i> , and its LASTUPDTIME value is greater than the date/time stamp of the comparison release database. In this case, the customer has modified the object since the comparison release. |

| Status Type | Definition |
|-------------|--|
| *Unchanged | The object has been compared, its LASTUPDOPRID value is not <i>PPLSOFT</i> , and its LASTUPDTIME value is less than or equal to the date/time stamp of the comparison release database. In this case, the customer last modified the object prior to the comparison release. |
| Same | The object has been compared and is defined as the same in both databases. When an object in one database has this status, so will its counterpart in the other database. This status would never be seen when performing a database comparison because in that case, the project is only populated with objects defined differently. However, it can occur when performing a project comparison because in a project comparison, the project contents are static; the project is not repopulated based on the comparison results. |

Task D-1-2: Reviewing the Action Column

The default actions for each object that you compared are reported in the Action column. The compare sets the action column based on what you need to do to make the Target database consistent with the Source database. You should not change these actions. You can decide whether or not to accept each action by setting the Upgrade value. The following table explains the various action types:

| Action Type | Definition |
|-------------------------------------|--|
| Copy | Object will be added to the Target database |
| Copy Prop (Records and Fields only) | Object will be added to the Target database |
| Delete | Object will be deleted from the Target database. |
| None | No action will be taken on this object. |

The PeopleSoft system assigns one of these action types to every object in a comparison project and in the compare reports. However, these actions are not necessarily carried out during the copy process. The value of the Upgrade column for each object makes that determination.

Task D-1-3: Reviewing the Upgrade Column

The Upgrade values for each object – YES or NO – determine whether the object action will be carried out during the copy process. The upgrade orientation you assign during the compare process determines these settings. You can orient the Upgrade to keep Oracle changes or to retain your changes in the Target database. Whichever orientation you choose, you will still have the option to set each Upgrade value individually before launching the copy process.

You may find that after the compare process, your project contains objects that show up as Unchanged on the Demo database and Changed on the Copy of Production and the Upgrade column is not checked. What this status combination means is that the PeopleSoft object on your Copy of Production was changed more recently than on the Demo database. In these instances, Oracle recommends that you accept the Demo database version of the object.

Task D-1-4: Putting It All Together

The following chart summarizes every possible Status, Action, and Upgrade value that could be set by the compare process to a single object:

| Source Status | Target Status | Action | Oracle-delivered | Keep Customizations |
|---------------|------------------------|--------|------------------|---------------------|
| (Any) | Absent | COPY | YES | YES |
| Absent | Changed or Unchanged | DELETE | YES | YES |
| Absent | Changed* or Unchanged* | DELETE | NO | NO |
| Changed | Changed or Unchanged | COPY | YES | YES |
| Changed | Changed* or Unchanged* | COPY | YES | NO |
| Unchanged | Changed | COPY | NO | NO |
| Unchanged | Unchanged | COPY | YES | YES |
| Unchanged | Changed* or Unchanged* | COPY | YES | NO |
| Changed* | Changed or Unchanged | COPY | NO | YES |
| Changed* | Changed* or Unchanged* | COPY | YES | YES |
| Unchanged* | Changed or Unchanged | COPY | NO | YES |
| Unchanged* | Changed* | COPY | NO | NO |
| Unchanged* | Unchanged* | COPY | YES | YES |

Task D-2: Understanding Upgrade Compare Reports

This section discusses:

- Reviewing Report Columns
- Using Reports

When you run the compare process, it creates reports to help you understand what objects differ between the Source and Target databases, and how they differ. If you have documentation of your database modifications, you should retrieve it before reviewing these reports. This will help you understand how the Target objects have changed and enable you to better compare the Target version of the object with the Source version. If you are upgrading to a new PeopleSoft release, you should also review the release notes for your product. These notes will identify and explain object changes in the New Release Demo database.

Upgrade reports can be a little intimidating at first glance, until you understand what data you are looking for and how best to use it. This section includes information to help you use the reports.

Task D-2-1: Reviewing Report Columns

For the most part, the columns in upgrade reports correspond with the columns you see in PeopleSoft Application Designer's upgrade definition window. Moving from left to right, you see the Name of the object, then other key columns that vary by object type, then the Source and Target status, the Action value and Upgrade flag (*Yes* or *No*).

After these columns are three more that are not included in PeopleSoft Application Designer. The first is Attribute. This tells you the type of difference that was found between the two objects. For example, record field attribute values include *Use/Edit*, which identifies key or audit differences, and Default Field Name (*Def. Fldnm*), which identifies differences in a default value. Lastly, there is a Source column and a Target column. These wide columns display the actual differences between the object definitions. For example, on a *Use/Edit* attribute recfield difference, the Source column might contain *Xlat Table Edit* while the Target column is empty. This means that the Source record field has a translate table edit while the Target record field does not.

If you are unsure of the meaning of any value in the last three report columns, open the PeopleSoft PeopleTools tool that edits the particular object. The values in these columns correspond directly to dialog options in the tool.

Task D-2-2: Using Reports

Oracle delivers several cross-reference reports that you can run to provide information about the inter-relationships between various objects. Oracle delivers these reports in the form of SQRs (found in *PS_HOME\SQR*), Crystal Reports (found in *PS_HOME\CRW\ENG*), and Queries.

The following table describes the various cross-reference reports:

| Object Type(s) | Report Name | Report Description |
|--|-------------|---|
| Applications and Fields | XRFAFPL | Lists all application windows, such as General Tables, in alphabetical order, as well as the fields within each window. For each field, the report details the Field Name, Field Type, Length, and Format, as well as all the record and page definitions that contain the field (within the window). |
| Fields Referenced by PeopleCode Programs | XRFFLPC | Lists all PeopleCode programs in alphabetical order by associated record definition/field. The report includes type of field and lists all fields referenced in the PeopleCode program. |
| Fields and Panels | XRFFLPN | Lists all fields in alphabetical order. The report includes the names of all record and page definitions in which each field is used, as well as the Long Name of each field. |
| Records and Fields | XRFFLRC | Lists all fields in alphabetical order. The report details the Long Name, Field Type, Field Length, and Formatting specified for the field, and includes the names of all record definitions that contain the field. |
| Field Listing | XRFIELDLS | Lists all fields in alphabetical order. The report includes Field Type, Length, Format, Long Name and Short Name. |

| Object Type(s) | Report Name | Report Description |
|--|-------------|---|
| Menu Listing | XRFMENU | Lists application windows in alphabetical order. The report details all menus within each window, and all page definitions within each menu. It also includes the associated search record definition name and detail page definition name. |
| Panel Listing | XRFPANEL | Lists all page definitions in alphabetical order. |
| PeopleCode Programs and Field References | XRFCFL | Lists record definitions that contain fields with PeopleCode program attributes. The report includes the Field Name, as well as the associated record definitions and fields referenced in the PeopleCode program. |
| Panels with PeopleCode | XRFNPC | Lists all pages that contain fields with PeopleCode attributes. For each page, the report includes the name of the record definition(s) that contain the field as well as the Field Name and Type. |
| Fields and Records | XRFRCFL | Lists all fields in alphabetical order by associated record definition name. The report details the Long Name, Field Type, Field Length, and Formatting specified for the field. |
| Records and Panels | XRFRCPN | Lists all record definitions in alphabetical order. The report includes the menu and page definitions associated with each record definition. |
| Window Listing | XRFWIN | Lists all application windows in alphabetical order. |

In addition to using our standard cross-reference reports, you can also generate ad hoc reports to extract the exact combination of information you need. Or, you can create permanent custom reports for information you extract on a regular basis.

Oracle recommends that you mark your upgrade reports using a color-coding system to help you quickly identify what you need to do to certain objects.

If you have several people reviewing sections of the reports, a good documentation policy is to have everyone on your review cycle initial and date the action defaults and overrides they select.

You may also find it easier to change some objects manually after the upgrade, rather than copying the new versions from the Source database.

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