

ORACLE®

PEOPLESOFT

PeopleTools 8.53 Upgrade

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ORACLE®

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Upgrade
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About This Documentation

This preface discusses:

- Understanding This Documentation
- 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.

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.
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.

Convention	Description
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

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

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 Online Help (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 Upgrade

This chapter discusses:

- Understanding the Planning Process
- Organizing Your PeopleTools Upgrade
- Verifying the Supported Upgrade Path
- Reviewing Upgrade Step Properties

Understanding the Planning Process

In this chapter, you will plan your upgrade and review step properties for the upgrade process.

Task 1-1: Organizing Your PeopleTools Upgrade

In this task, you gather documentation that you will need for your PeopleSoft PeopleTools upgrade.

Important! You should apply this upgrade to your Demo database before applying it to other environments. This ensures that your Demo database is up-to-date with the current PeopleSoft PeopleTools release and provides an environment for additional testing.

Before you begin, review the following information to organize your upgrade process:

- Review the PeopleSoft PeopleTools release.
Make sure to download the most recent version of the PeopleSoft PeopleTools upgrade documentation. Go to My Oracle Support and search for the PeopleSoft PeopleTools upgrade documentation for your release.
- Have your PeopleSoft PeopleTools Installation guide for your relational database management system (RDBMS) nearby.
The installation guide contains useful information that can help you with your upgrade process. Go to My Oracle Support and search for the PeopleSoft PeopleTools Installation guide for your new release.
- Review the PeopleSoft PeopleTools Release Notes.

Read the PeopleSoft PeopleTools Release Notes prior to starting your upgrade 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 any other portions of your system, such as your RDBMS software or batch files. Make sure that you have the most current version of the release notes. Oracle strongly encourages you to read the entire document before beginning the upgrade process. It is important to be aware of any new support policies as well as any new features. Go to My Oracle Support and search for the PeopleSoft PeopleTools Release Notes for your release.

Note. If you skipped any PeopleSoft PeopleTools maintenance releases, download and read the Release Notes corresponding to the release(s) that you skipped, in addition to the Release Notes for this PeopleSoft PeopleTools release.

- Review supported platform information.

To find supported platform information, go to My Oracle Support, Certifications, and search for certifications information for your PeopleSoft PeopleTools release.

Make sure that your entire environment is still supported by Oracle. Check all categories that apply to your workstations, servers, third-party software, and language preferences. Oracle’s support policies evolve to incorporate the newest releases of database software and third-party software. In some cases, when we move to support the most recent version of a particular product, we drop support for a previous version. Always make sure that you are on a supported environment prior to beginning an upgrade.

- Download required for upgrade fixes.

Before you start applying this upgrade, check the list of required fixes. It is very important that you download all Required for Upgrade fixes for PeopleSoft PeopleTools. Go to My Oracle Support, Patches & Updates, PeopleSoft, and search for the PeopleSoft PeopleTools Required for Upgrade fixes for your new release.

- Freeze development.

Freeze development on your production database during this upgrade.

- Ensure that your workstation meets the minimum requirements.

For the upgrade workstation, the suggested minimum RAM is 256 MB.

Important! You will need to use a Microsoft Windows client workstation that is supported for your new PeopleSoft PeopleTools release in order to upgrade.

- Review performance recommendations.

Plan for performance issues before beginning your upgrade.

See Appendix: “Improving Performance.”

Properties

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

Task 1-2: Verifying the Supported Upgrade Path

Be aware that not all application releases are certified and supported to run on all PeopleSoft PeopleTools releases. Please check the PeopleSoft policy information in the article *Lifetime Support Summary for PeopleSoft Releases* (Doc ID 1348959.1) on My Oracle Support for further details on the support policy for your particular application. If you are planning to do a PeopleSoft PeopleTools-only upgrade, do not continue until you have verified that your application is supported on the target PeopleSoft PeopleTools release.

Properties

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

Task 1-3: Reviewing Upgrade Step Properties

When you open the upgrade template using PeopleSoft Change Assistant, there will be a set of properties for each step. Oracle includes a subset of those properties in this upgrade documentation. At the end of each upgrade step, there will be a Properties table that lists the properties values that apply to that step. The following graphic provides an example of the information that will be in the upgrade documentation:

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

Example of properties information

There are three possible values for Database Orientation: *Source*, *Target*, or *Copy of Current Demo*.

- *Source* indicates that the step runs on the Source database. This is not applicable for PeopleSoft PeopleTools-only upgrades.
- *Target* indicates that the step runs on the Target database. This is your upgrade database.
- *Copy of Current Demo* indicates that the step runs on the Copy of Current Demo database. This is not applicable for PeopleSoft PeopleTools-only upgrades.

There are three possible values for Initial or MTP: *Initial* (Upgrade), *MTP* (Move to Production), or *Both*.

- *Initial* indicates that this step runs in the initial pass of the upgrade only. This is not applicable for PeopleSoft PeopleTools-only upgrades.
- *MTP* indicates that this step runs only in Move to Production upgrade passes. The step is not applicable to the initial pass. This is not applicable for PeopleSoft PeopleTools-only upgrades.
- *Both* indicates that this step runs in both the initial and Move to Production upgrade passes.

There are two possible values for Products: *All* or specific product names.

- *All* indicates that you run the step regardless of which products you are upgrading.

- Specific product names indicate that you run the step only if you are upgrading the products specified. You will specify which products you are upgrading when you set up your PeopleSoft Change Assistant job configuration.

There are two possible values for Platform: *All* or specific platform names.

- *All* indicates that you run the step regardless of which platform your database uses.
- Specific platform names indicate that you run the step only if your database uses one of the specified platforms. You specified which platform you are using when you set up your PeopleSoft Change Assistant job configuration. The possible platform names are:
 - DB2 z/OS
 - DB2 UNIX/NT
 - Informix
 - MS SQL Server
 - Oracle
 - Sybase

Note. For the sake of brevity, this documentation sometimes refers to DB2 UDB for UNIX, Linux, and Windows as DB2 UNIX/NT. In addition, DB2 UDB for z/OS is abbreviated as DB2 z/OS.

There are two possible values for Languages: *All* or specific language names.

- *All* indicates that you will run this step regardless of which language your database uses.
- Specific language names indicate that you will run this step only if your database uses the languages specified. You specified which languages are installed on your database when you set up your PeopleSoft Change Assistant job configuration.

For more information about properties, refer to the PeopleTools PeopleBook documentation.

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

CHAPTER 2

Preparing Your Database for Upgrade

This chapter discusses:

- Understanding Database Preparation
- Updating Statistics
- Running Initial Audit Reports
- Reviewing Table Row Counts
- Verifying the Upgrade User
- Preparing Your Database

Understanding Database Preparation

In this chapter, you start preparations for the technical portion of the upgrade. Preparation tasks include updating statistics, cleaning audits, and running and reviewing pre-upgrade reports. These tasks do not use the new installed PeopleSoft version. Use your current codeline and PeopleSoft PeopleTools version to perform these tasks.

Task 2-1: 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 Appendix: “Improving Performance.”

Properties

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

Task 2-2: 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
- 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), SWPAUDIT, and Alter Audit reports. Running these reports ensures that your database is as clean as possible for the remainder of the upgrade.

Task 2-2-1: 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.

Using SQR from your current (old) PeopleSoft release, run the DDDAUDIT against the Target database to ensure that you are starting with a clean database. You can find this SQR script in the *PS_HOME\SQR* directory. For instructions on how to run DDDAUDIT, refer to the reference below.

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

See Reviewing the Initial Audits.

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

Properties

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

Task 2-2-2: 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.

Using SQR from your current (old) PeopleSoft release, run SYSAUDIT against the Target database to ensure that you are starting with a clean database. You can find this SQR script in the *PS_HOME\SQR* directory. For instructions on how to run SYSAUDIT, refer to the reference below.

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

See *Reviewing the Initial Audits*.

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

Properties

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

Task 2-2-3: 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.

Using SQR from your current (old) PeopleSoft release, run SYSAUD01 against the Target database to ensure that you are starting with a clean database. You can find this SQR script in the *PS_HOME\SQR* directory. For instructions on how to run SYSAUD01, refer to the reference below.

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

See *Reviewing the Initial Audits*.

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

Properties

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

Task 2-2-4: 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 PeopleSoft 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.

Using SQR from your current (old) PeopleSoft release, run the SWPAUDIT against the Target database. You can find this SQR script in the *PS_HOME\SQR* directory.

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

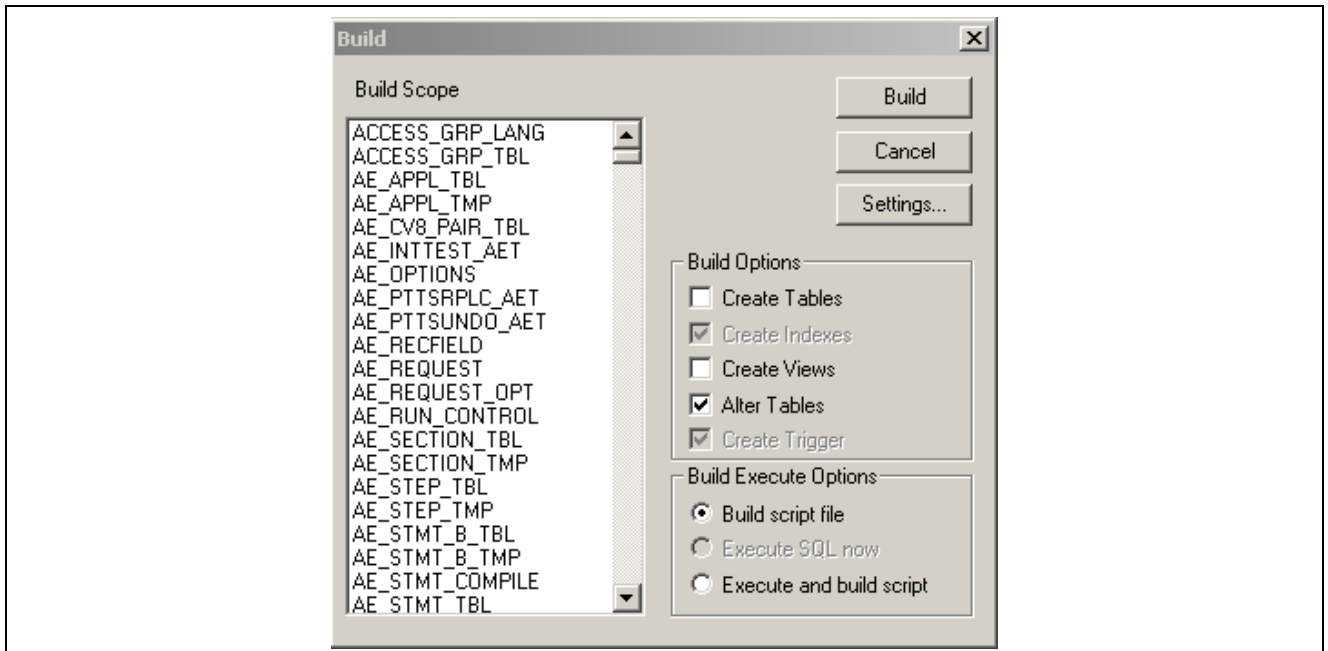
Task 2-2-5: Running the Initial Alter Audit

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.

To run Alter Audit:

1. Launch PeopleSoft PeopleTools and sign in to the Target database.
2. From PeopleSoft Application Designer, select File, New...
3. Select Project, and then click OK.
4. Select Insert, Definitions into Project...
5. Select Records from the Definition Type drop-down list box.
6. Select Table from the Type drop-down list box.
7. Click Insert, and then click Select All.
8. Click Insert, and then click Close.
9. Select File, Save All.
10. Enter a project name of your choice.
11. Click OK.
12. Select Build, Project...

The Build dialog box appears:



Build dialog box

13. Under Build Options, select Alter Tables.

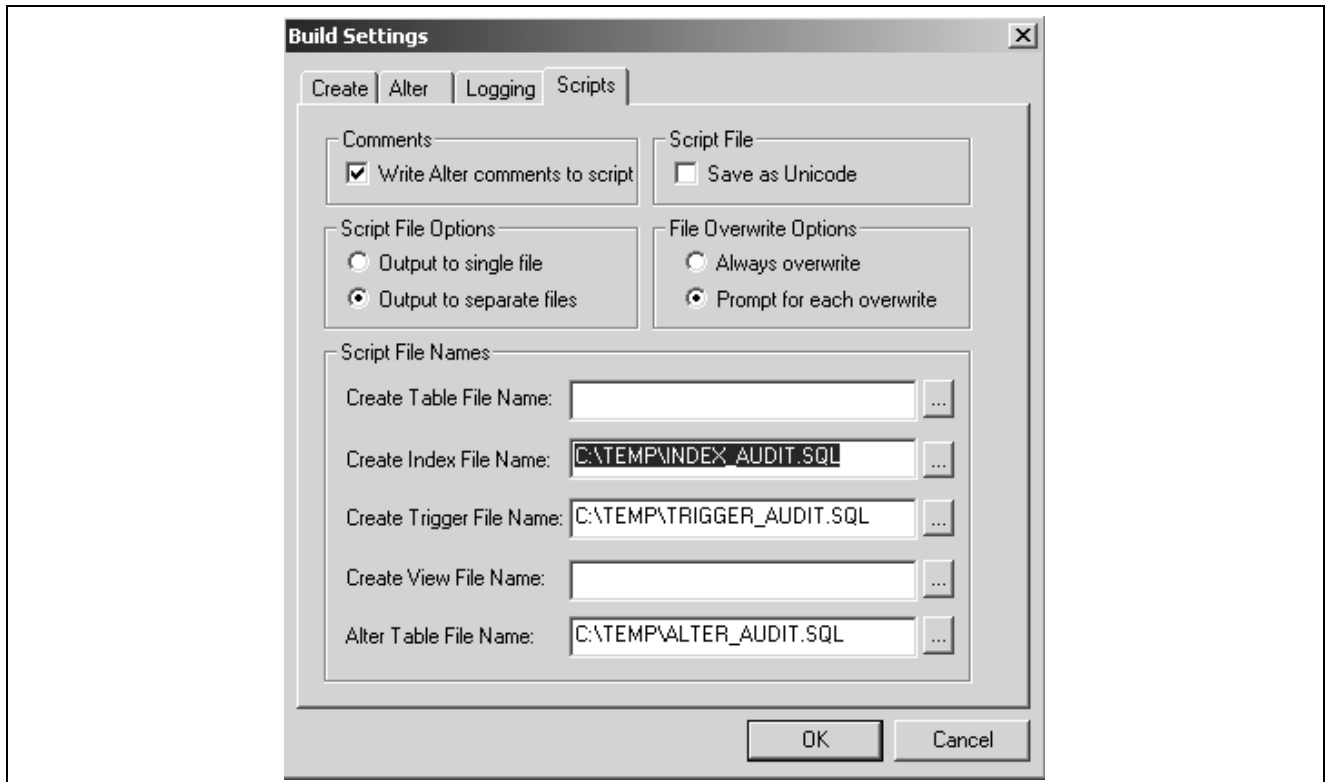
Create Indexes and Create Trigger are automatically selected.

14. Under Build Execute Options, select Build script file.

15. Click Settings...

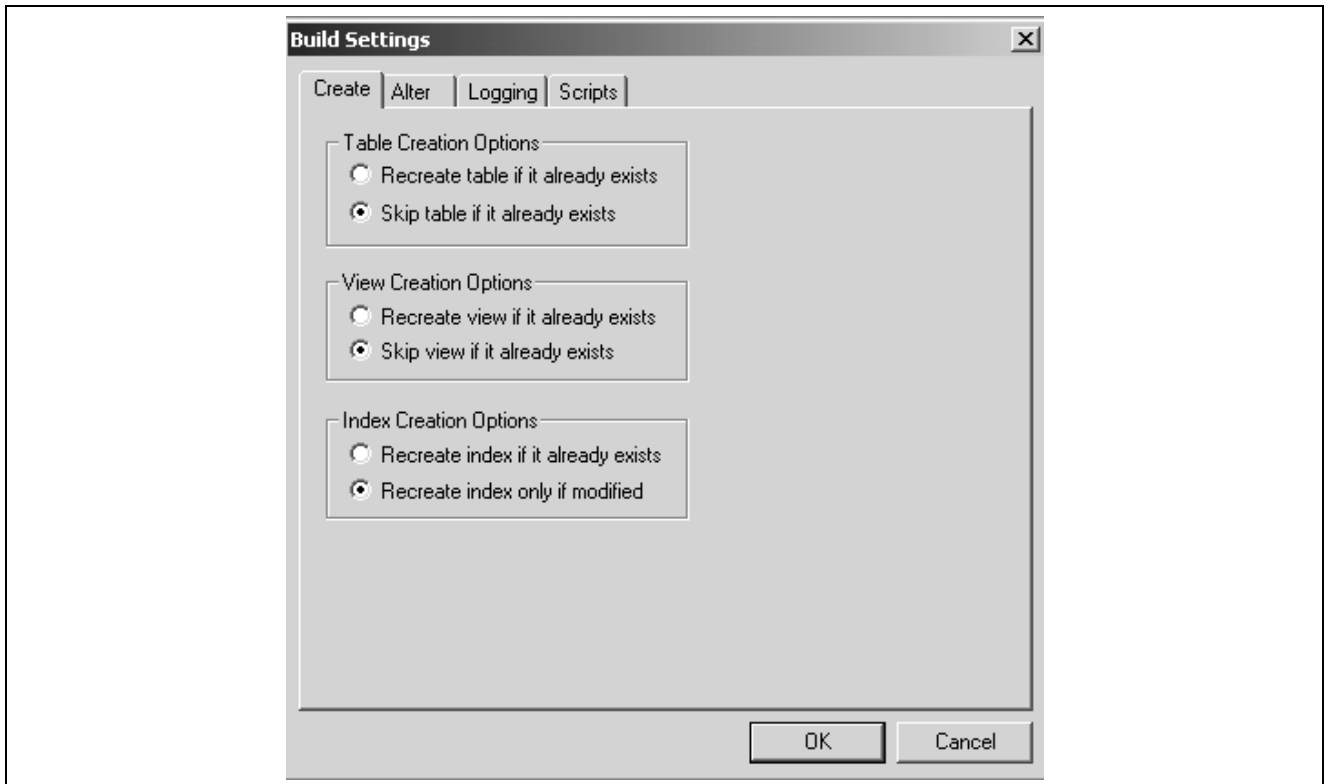
The Build Settings dialog box appears.

16. Select the Scripts tab.



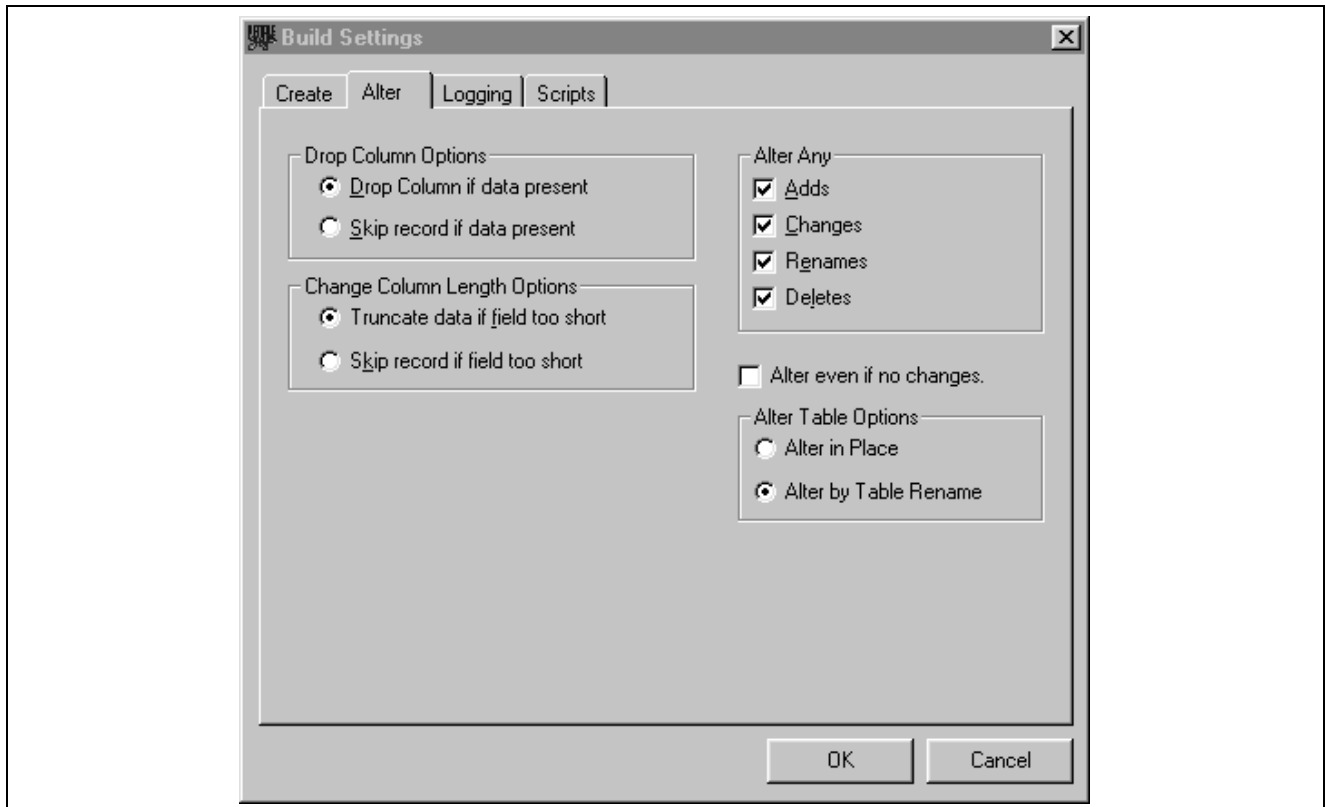
Build Settings dialog box: Scripts tab

17. Under Comments, select Write Alter comments to script.
18. Under Script File Options, select Output to separate files and enter script names.
19. Select the Create tab.



Build Settings dialog box: Create tab

20. Under Index Creation Options, select Recreate index only if modified.
21. Select the Alter tab.



Build Settings dialog box: Alter tab

22. Ensure that the following fields are set correctly:

- Under the Alter Any option section, the Adds, Changes, Renames, and Deletes check boxes should be selected.
- Drop Column Options should be set to Drop Column if data present.
- Change Column Length Options should be set to Truncate data if field too short.

23. Click OK.

The Build dialog box reappears.

24. Click Build on the Build Dialog.

25. Click Close when complete.

Properties

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

Task 2-2-6: 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 your named scripts from the previous step. 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.

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

Properties

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

Task 2-3: 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.

Using your current (old) PeopleSoft release, run the PeopleSoft Application Engine program UPGCOUNT from the command line on your client workstation against the Target database. The command line command is as follows:

```
\PS_HOME\bin\client\winx86\psae -CT dbtype -CS server -CD dbname -CO oprid -CP =>
oprpswd -R UPG -AI UPGCOUNT
```

Note. The -CS option applies to Informix and Sybase installations only.

Properties

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

Task 2-4: 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.

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 2-5: Preparing Your Database

This section discusses:

- Understanding Database Preparation
- Verifying Database Integrity
- Purging Message Queues

- Dropping PeopleTools Tables
- Cleaning Up PeopleTools Data
- Dropping Temporary Tablespaces
- Shrinking Images
- Deleting Pagelet Wizard Data

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	db2dart
Informix	oncheck
Microsoft SQL Server	DBCC CHECKDB
Oracle	dbv
Sybase	DBCC CHECKDB

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: 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.

Run the following PeopleSoft Data Mover script, found in the *PS_HOME\SCRIPTS* directory of your old release codeline, on your Target database to purge your message queues:

```
APPMSGPURGEALL.DMS
```

Properties

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

Task 2-5-3: 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:

- 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 2-5-4: 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 product documentation for PeopleTools: Portal Technology for more information about 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, rerun the above SQL to verify that no further duplicates exist.

- 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 for your current release, “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⇒
PSCUBRUNCNTL 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, rerun 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 2-5-5: Dropping Temporary Tablespaces

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 2-5-6: 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 2-5-7: Deleting Pagelet Wizard Data

This step is only applicable if you have already upgraded your production application to PeopleSoft PeopleTools 8.46 or later. PeopleSoft Change Assistant will display and run this step only if you are upgrading from PeopleSoft PeopleTools 8.46 or later.

In this step, you run a script to delete the common components Pagelet Wizard (PW) data to ensure that when the UPGPT846PP conversion program is run subsequently, the old existing common components PW data is not re-entered into the PeopleSoft PeopleTools PW tables. If you do not run the script, then items that were removed from the PeopleSoft PeopleTools version of PW, but still exist in the common components version of PW, will be copied back into the PeopleSoft PeopleTools version when the UPGPT846PP conversion program is run.

The script also updates the common component portal option tables with the existing values in the PeopleSoft PeopleTools portal options tables. If you do not run the script, then changes made to the current PeopleSoft PeopleTools options tables may be overwritten with values from the common components portal options when the UPGPT846PP conversion program is run. The affected values include the default registry prefix, default owner ID, and the default style sheet.

Run the script *only* if both of the following conditions are met:

- Your current production application release database is *already* on PeopleSoft PeopleTools 8.46 or later.
- The PS_EOPPB_LINKPATHS table exists on the Target database.

If *both* of the above conditions are met, then run the following script:

```
PTPPB_EOPPB.DMS
```

Properties

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

CHAPTER 3

Installing the Software

This chapter discusses:

- Understanding the Installation Files
- Installing the New Release
- Creating a Change Assistant Job

Understanding the Installation Files

In this task, you install the software required for this upgrade. Download the PeopleTools installation guide for your database platform on the new release from the My Oracle Support website. At this time, Oracle recommends that you download and apply all files and objects from the Upgrades page on the My Oracle Support website. This will bring you up-to-date with any changes made to the upgrade process.

At this time, you also must install PeopleSoft Change Assistant on any workstation that you plan to use during the remainder of the upgrade. The written documentation will not make sense from this point forward without the use of PeopleSoft Change Assistant. To properly use PeopleSoft Change Assistant, you also need to download the appropriate template for your upgrade from the My Oracle Support website.

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

Task 3-1: Installing the New Release

This section discusses:

- Understanding the New Release
- Shutting Down Servers
- Saving Customized Configuration Files
- Backing Up PeopleTools Directories
- Installing the PeopleTools Software
- Applying a PeopleTools Patch
- Setting Up the New PeopleTools Release

Understanding the New Release

Download the PeopleSoft PeopleTools installation guide. Go to My Oracle Support and search for the PeopleTools installation guide for your platform on your new release.

Using the My Oracle Support website is an essential part of a successful PeopleSoft application installation. The updates and fixes database (Updates and Fixes search page) on the My Oracle Support website contains an up-to-date record of any modifications and fixes that you will need to be aware of for the upgrade. If you find any items categorized as required for upgrade or install, you should detach any associated files and be ready to implement them at the appropriate time. Go to My Oracle Support, Patches & Updates, PeopleSoft, and search for updates and fixes for your product and release.

Task 3-1-1: Shutting Down Servers

Shut down any application servers, web servers, and process scheduler servers. Make sure that there are no lingering domain processes from any application server domains. Such threads can interfere with successfully installing new application server files. If there are any threads remaining after you shut down the domains, you need to manually remove them.

Note. AIX: Run the `slibclean` utility as the root user to remove unused shared libraries from memory.

Properties

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

Task 3-1-2: Saving Customized Configuration Files

If you have any customized configuration files (such as `psappsrv.cfg`, `psconfig.sh`, `pspt`, `pscbl.mak`, `psrun.mak`, and so on), copy them to another directory so that they are not overwritten during the upgrade process. This enables you to preserve any tuned variables.

Configuration files are typically overwritten when you install the new release using Oracle's PeopleSoft Installer.

Note. You may want to print the old configuration files, so that you can easily refer to them in subsequent steps.

Properties

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

Task 3-1-3: Backing Up PeopleTools Directories

Back up your existing PeopleSoft PeopleTools directories. Clone your existing directories and place them in a separate area on your application server, web server, batch server, and file server.

Properties

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

Task 3-1-4: Installing the PeopleTools Software

If you are installing into an existing PS_HOME or PS_CFG_HOME, review the PeopleSoft PeopleTools installation guide and perform the specified instructions in each chapter on removing obsolete files or uninstalling prior to installing the new PeopleSoft PeopleTools software.

Run the PeopleSoft Installer, and install the PeopleSoft PeopleTools software to your PeopleSoft file servers from the PeopleSoft PeopleTools CD-ROM. After installing to the file server, you may push the files out to other various servers (application server, batch server, etc.) as needed.

Note. If you customized your existing PeopleSoft PeopleTools files, the customizations are overwritten with the new PeopleSoft PeopleTools files when you install the software.

Windows-based Servers only: If you are installing PeopleSoft PeopleTools in languages other than English, select *PeopleTools Language Pack* and/or *PeopleTools Language Pack Development Kit* from the CD-ROM Installation.

Note. DB2 z/OS: To transfer files to the Batch Server, run Server Transfer (PSTRANS.EXE). This will transfer the files from the file server to the batch server, then recompile and relink COBOL.

See the PeopleSoft PeopleTools installation guide “Using the PeopleSoft Installer” for your database platform on your new release.

Properties

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

Task 3-1-5: Applying a PeopleTools Patch

As part of the PeopleSoft PeopleTools upgrade, you may incorporate the application of a PeopleSoft PeopleTools patch into the upgrade process. Apply the patch for the new PeopleSoft PeopleTools release that you are installing; do not apply a patch for a different PeopleSoft PeopleTools release. If you are applying a PeopleSoft PeopleTools patch, you need to apply the changes to all your servers at this time.

To find a patch, go to My Oracle Support, Patches & Updates, PeopleSoft PT PeopleTools, and search for the patch for the new PeopleSoft PeopleTools release. Review the documentation delivered with the patch to fully understand the fixes.

Run \PA85XXX\setup.XXX, provide the same license code that was used to install the PeopleSoft PeopleTools CD, and install the patched components to all of the appropriate PeopleSoft servers (application server, batch server, database server, file server, web server) on top of your existing high-level PeopleSoft directory.

Note. If the patch includes database changes, you will apply the database changes later in this upgrade.

Note. DB2 z/OS: To transfer files to the batch server, run Server Transfer (PSTRANS.EXE). This will transfer the files from the file server to the batch server, then recompile and relink COBOL.

See the PeopleSoft PeopleTools installation guide “Using the PeopleSoft Installer” for your database platform on your new release.

Properties

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

Task 3-1-6: Setting Up the New PeopleTools Release

Use your PeopleSoft PeopleTools installation guide for your platform to perform the chapter tasks as outlined below. You will complete the remaining installation tasks later in the upgrade.

- Application and Batch Servers

A PeopleSoft PeopleTools-only upgrade will contain revised application server and batch server templates with new parameters. You must re-create your application server and batch server domains. Use the appropriate PSADMIN template (small, medium, or large), and specify the values contained in your previous configuration files so that you can retain your tuned variables. If you have not tuned the domain, keep the defaults. Do not boot your application and batch servers at this time.

Note. Oracle platforms do not need to regenerate the shared libraries with PeopleSoft PeopleTools-only upgrades.

- Web Server

Follow the instructions in the PeopleSoft PeopleTools installation guide for your platform to uninstall the old PeopleSoft Pure Internet Architecture.

- COBOL

If you have PeopleSoft application COBOL modules, you must recompile all COBOL. Ensure that the following COBOL runtime files in your client and server bin directories match those of your Micro Focus NetExpress installation: CBLINTS.DLL, CBLRTSS.DLL, CBLVIOS.DLL, and COB32API.DLL.

- Change Assistant

You need to install PeopleSoft Change Assistant for your new release on any workstation that you will use to perform portions of the upgrade. To install PeopleSoft Change Assistant, follow the instructions in the PeopleSoft PeopleTools installation guide for your new release, chapter “Installing PeopleSoft Change Assistant,” for your database platform. For information on how to navigate through PeopleSoft Change Assistant, how to set up your upgrade templates, and how to run your upgrade process, review the PeopleTools: Change Assistant PeopleBook for your new release.

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 3-2: Creating a Change Assistant Job

This section discusses:

- Setting Up Change Assistant
- Setting Configuration Manager Profile
- Finalizing the Documentation

On the My Oracle Support upgrade documentation page for the new release, you will find the PeopleSoft upgrade templates. Using PeopleSoft Change Assistant, you can open the appropriate template and create a job for your initial upgrade pass.

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

Task 3-2-1: Setting Up Change Assistant

To run an upgrade using PeopleSoft Change Assistant, configure PeopleSoft Change Assistant and create an upgrade job.

To set up PeopleSoft Change Assistant:

1. Launch PeopleSoft Change Assistant.
2. Configure PeopleSoft Change Assistant options:
 - a. Select Tools, Change Actions.
 - b. Select Upgrade PeopleTools and click Next.
 - c. On the General Options page, fill in the rest of the information and click Next.
 - d. On the Additional Options page, fill out any additional information and click Finish.

See the product documentation for PeopleTools: Change Assistant and Update Manager for your new release for more information about installing and configuring Change Assistant.

3. Import the upgrade template into PeopleSoft Change Assistant:
 - a. Select File, Import Template.
 - b. Enter or browse to the directory containing the upgrade template and select PeopleTools_Only_Upgrade.xml.
 - c. Click Import.
4. Define the upgrade environment information for the upgrade:
 - a. Select File, New Environment.
 - b. Name the environment for this upgrade pass.

- c. Click OK.
 - d. Then, fill in all the required information on each screen.
5. Create the upgrade job for the initial upgrade pass.

The upgrade job contains all steps specific to your upgrade environment.

See the product documentation for PeopleTools: Change Assistant and Update Manager for your new release for more information about configuring Change Assistant for upgrades.

6. Set the documentation directory in PeopleSoft Change Assistant:
 - a. Right-click the upgrade job title and select Set Documentation Directory.
 - b. Enter or browse to the directory containing the HTML documentation for this upgrade and click OK.
- PeopleSoft Change Assistant displays the HTML upgrade documentation in the documentation pane.

See the product documentation for PeopleTools: Change Assistant and Update Manager for your new release for more information about configuring Change Assistant for upgrades.

Properties

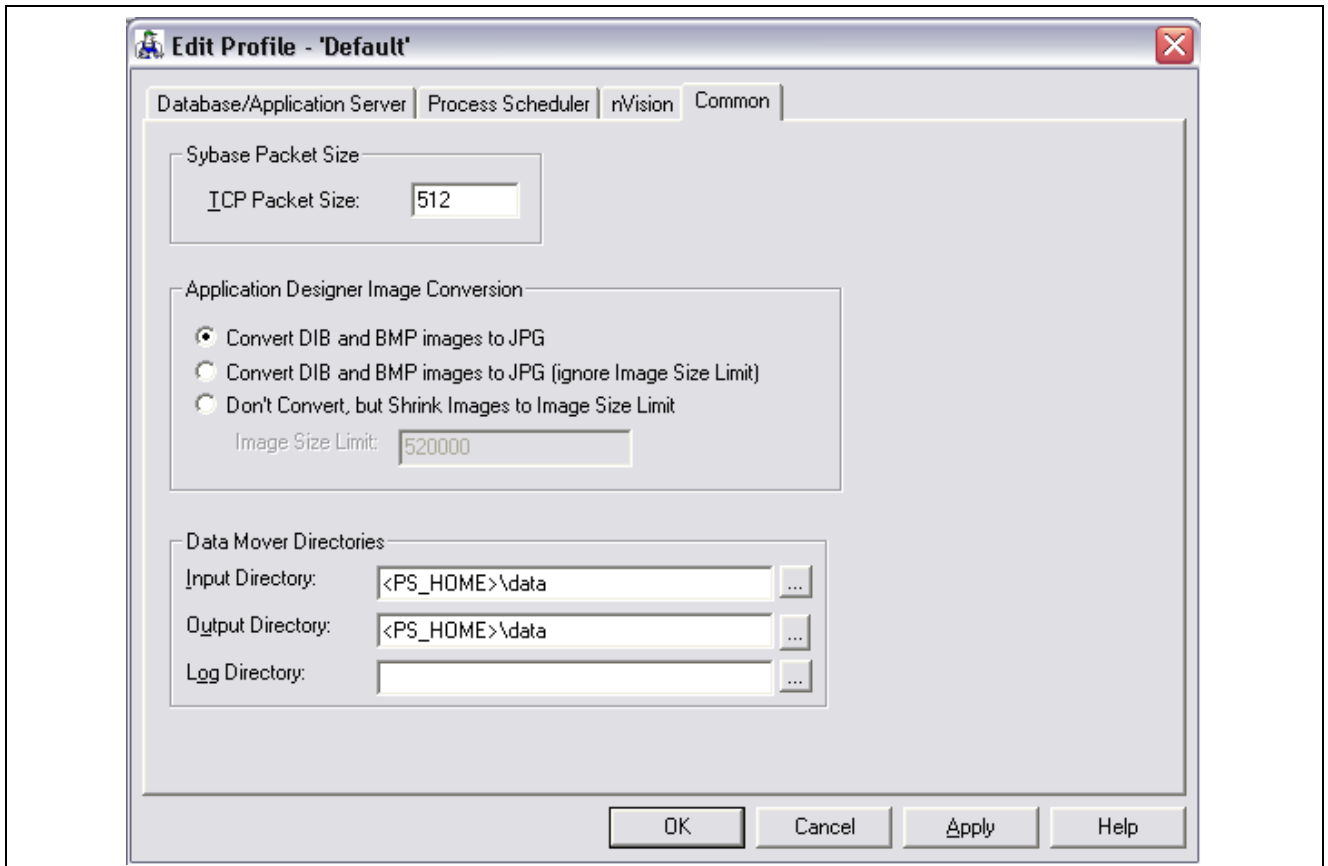
Database Orientation	Initial or MTP	Products	Platforms	Languages
Target	Both	All	All	All

Task 3-2-2: Setting Configuration Manager Profile

When you created your PeopleSoft Change Assistant job, some of the workstation Configuration Manager profiles were edited by PeopleSoft Change Assistant. Now you need to verify the other settings that are used during the upgrade. These are settings on the workstation, and you will need to do this for each workstation that you may use during the upgrade.

To set the profile:

1. Open Configuration Manager.
2. On the Profile tab, select the Default Profile and click Edit.
The Edit Profile - 'Default' dialog box appears.
3. In the Edit Profile - 'Default' dialog box, select the Common tab.



Edit Profile - Default: Common tab

4. Verify that the Input Directory field value is *PS_HOME\data*, substituting *PS_HOME* with your directory. The Output Directory field value must be the same.
5. Set the Log Directory field to the upgrade output directory for this PeopleSoft Change Assistant job.
6. 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 3-2-3: Finalizing the Documentation

Since PeopleSoft Change Assistant filters the steps of the upgrade to be specific to your environment, you will want to finalize the filtered documentation using PeopleSoft Change Assistant. If you try to follow the delivered nonfiltered version of the upgrade documentation, you will see steps interspersed that do not pertain to your specific upgrade environment.

To save filtered documentation:

1. Select Edit, Finalize Documentation.

2. Click OK.

A dialog box appears indicating that finalizing is complete and displays the final document name.

3. PeopleSoft Change Assistant loads the documentation into the HTML browser that you previously specified in the Change Assistant Options Dialog box.

It saves the documentation file to the same folder that was set as your documentation directory.

Properties

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

CHAPTER 4

Applying PeopleTools Changes

This chapter discusses:

- Understanding PeopleTools Changes
- 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 All Views
- Converting Integration Broker
- Converting Integration Broker Objects
- Creating All Triggers
- Regenerating Sync IDs
- Clearing the Rowset Cache
- Synchronizing Database Objects
- Updating Object Version Numbers
- Converting Oracle Time Data Types

- Backing Up After the PeopleTools Upgrade

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 4-1: Performing Script Modifications

This section discusses:

- Understanding Script Modifications
- 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 the DDL Parameters
- Preparing for the Integration Broker Conversion
- Preparing for a PeopleTools Patch
- Editing Multilingual Step Properties

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.

Task 4-1-1: 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	Both	All	Oracle	All

Task 4-1-2: 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 database administrator 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. If you are a DB2 UNIX/NT Unicode customer, you 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. If you are a DB2 z/OS customer, you 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 Performing Updates to PeopleTools System Tables, Updating PeopleTools System Tables.

See Performing Updates to PeopleTools System Tables, Creating Tablespaces.

Note. If you are an Informix customer, you need to edit the *PS_HOME\SCRIPTS\UNIX\PTDDLUPG.SH* script.

See Performing Updates to PeopleTools System Tables, 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 4-1-3: 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 4-1-4: 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 4-1-5: 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 4-1-6: 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 4-1-7: 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:

```
MSGTLSUPG.DMS
PSLANGUAGES.DMS
TLSUPGNONCOMP.DMS
```

Properties

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

Task 4-1-8: 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 4-1-9: 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	Both	All	All	All

Task 4-1-10: 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., *PATCH852*).

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.

See "Installing the Software," Installing the New Release.

Properties

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

Task 4-1-11: 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	Both	All	All	All Non-English

Task 4-2: 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 4-2-1: 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 4-2-2: 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 4-2-3: 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 4-3: 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
- Updating the Database for Timestamp
- Updating PeopleTools Patch Information
- 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 unless otherwise indicated.

Task 4-3-1: 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 4-3-2: Creating Tablespaces

PeopleSoft Change Assistant will display and run 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. If you are a DB2 UNIX/NT or DB2 z/OS Unicode customer and 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 4-3-3: 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 4-3-4: 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 4-3-5: 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, REL $_{xxx}$.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 REL $_{xxx}$ scripts to run based on the PeopleSoft PeopleTools release of your upgrade database.

If you created REL $_{xxx}$ DBTSFIX (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 REL $_{xxx}$ DBTSFIX. If you did not run DBTSFIX, PeopleSoft Change Assistant will run REL $_{xxx}$.

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 4-3-6: 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 4-3-7: 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 4-3-8: 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 4-3-9: 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 4-3-10: 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.

Properties

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

Task 4-3-11: 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.

Properties

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

Task 4-3-12: 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.

Properties

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

Task 4-3-13: 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.

Properties

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

Task 4-3-14: 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.

Properties

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

Task 4-3-15: 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 4-3-16: 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 polices.

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 4-4: 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.

See "Completing Database Changes," Reviewing Change Control.

Properties

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

Task 4-5: 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 4-5-1: Loading Model Definitions for DB2 z/OS

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 4-5-2: 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 4-5-3: 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 4-5-4: 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 4-5-5: 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 4-5-6: 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 4-6: 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	Both	All	All	All

Task 4-7: 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.

Note. If you are applying this PeopleSoft PeopleTools-only upgrade to your Demo database, you do not need to run this task. You will need to run this task when you are applying this upgrade to other environments.

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 re-implementing your customizations after the upgrade.

Properties

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

Task 4-8: 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 4-8-1: 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	Both	All	All	All

Task 4-8-2: 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	Both	All	All	Canadian French Dutch German Italian Japanese Korean Portuguese Simplified Chinese Spanish Swedish Traditional Chinese Thai

Task 4-8-3: 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	Both	All	All	Arabic Bulgarian Croatian Czech Danish Finnish French Greek Hebrew Hungarian Malay Norwegian Polish Romanian Russian Serbian Slovak Slovenian Turkish UK English

Task 4-8-4: 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	Both	All	All	All

Task 4-8-5: 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.

See “Installing the Software,” Installing the New Release.

Properties

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

Task 4-8-6: 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.

See “Installing the Software,” Installing the New Release.

Properties

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

Task 4-9: Populating Tablespace Data

This section discusses:

- Populating Updated Tablespace Data
- Auditing DB2 Tablespace Assignments
- Updating Tablespace Names
- Updating DB2 Tablespace Assignments

Task 4-9-1: 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.

Properties

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

Task 4-9-2: 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 4-9-3: 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 Target database contain the database/tablespace values as delivered by Oracle. The 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 Oracle-delivered tablespace names instead of your 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 Target 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 4-9-4: 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 4-10: Building the Updated PeopleTools Project

This section discusses:

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

Task 4-10-1: 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 4-10-2: 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 Informix Oracle	All

Task 4-10-3: 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 4-11: 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 4-11-1: 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	Both	All	DB2 z/OS DB2 UNIX/NT Oracle Informix	All

Task 4-11-2: 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:

```
TABLESPACEALERTABLES.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 4-11-3: Editing the Tablespace Alter Script

In this step, you edit the TABLESPACEALERTABLES.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 4-11-4: Running the Tablespace Alter Script

This step runs the TABLESPACEALERTABLES.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 4-12: Converting DB2 Data Types

This section discusses:

- Understanding DB2 Data Type Conversion
- 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) $n > 0, n \leq 2000$	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) $n > 0, n \leq 4000$	LONG VARGRAPHIC	VARGRAPHIC(n)
Image	LONG VARCHAR FOR BIT DATA	BLOB
Attachment	LONG VARCHAR FOR BIT DATA	BLOB

Task 4-12-1: 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	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 4-12-2: 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	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 4-12-3: 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	Both	All	DB2 UNIX/NT DB2 z/OS	All

Task 4-12-4: 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
```

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.

Properties

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

Task 4-12-5: 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 4-12-6: 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 4-12-7: 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 DB2 z/OS	All

Task 4-12-8: 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 and LONG VARGRAPHIC to the new data types CLOB, DBCLOB, and BLOB. It also verifies whether any Long Character field in PSDBFIELD with a length less than the documented MAXLENGTH was converted to VARCHAR(n) or VARGRAPHIC(n).

This audit will go against the system catalog for every single record in PSRECDEFN of the type *Table* or *Temporary Table*. For each of these records, it will check whether 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 4-12-9: 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.

Properties

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

Task 4-12-10: 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 4-13: 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 PTxxxTLYyy.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 4-14: Loading Language Data

This section discusses:

- Populating the Language Table
- Loading the Language Data

Task 4-14-1: 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	Both	All	All	All

Task 4-14-2: Loading the Language Data

If your database has languages installed in addition to English, you must populate the PSLANGUAGES table.

To load language data:

1. From the DMS that was created for your PeopleSoft 8.x database installation, find the UPDATE to PSLANGUAGES.

The statement should look similar to the following:

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

2. Run the SQL command identified above using your SQL tool.

Your database is now updated with the language data.

Properties

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

Task 4-15: Loading PeopleTools Data

This section discusses:

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

Task 4-15-1: 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 4-15-2: 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	Both	All	All	All

Task 4-15-3: 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	Both	All	All	All

Task 4-15-4: 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 4-16: 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	Both	All	All	All

Task 4-17: 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
- Completing the PeopleTools Conversion

Task 4-17-1: 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 4-17-2: 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 4-17-3: 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: Portal Technology for your new release.

Properties

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

Task 4-17-4: 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	Both	All	All	All

Task 4-17-5: 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 4-17-6: 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 4-17-7: 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 4-17-8: 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 4-17-9: 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 4-18: Creating All Views

In this step, you will run the CREATEVW.DMS script to re-create all of your views.

Properties

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

Task 4-19: 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 4-19-1: 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	Both	All	All	All

Task 4-19-2: 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	Both	All	All	All

Task 4-19-3: 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	Both	All	All	All

Task 4-19-4: 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	Both	All	All	All

Task 4-19-5: 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	Both	All	All	All

Task 4-19-6: 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	Both	All	All	All

Task 4-19-7: 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	Both	All	All	All

Task 4-20: 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 4-21: Creating All Triggers

This task uses a DMS to create all triggers. Database triggers are database objects that are used to update tables with version information for PeopleSoft Mobile and Optimization functionality.

Properties

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

Task 4-22: Regenerating Sync IDs

This task executes the AE_SYNCIDGEN Application Engine program to regenerate synchronization IDs. PeopleSoft PeopleTools uses synchronization IDs to give each row a unique identifier.

Properties

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

Task 4-23: 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	Both	All	All	All

Task 4-24: Synchronizing Database Objects

This section discusses:

- Understanding Database Object Synchronization
- Setting Index Attributes
- Setting Temporary Table Attributes
- Setting Table Attributes

Understanding Database Object Synchronization

This task runs steps to update and populate table attributes.

Task 4-24-1: Setting Index Attributes

This step runs `SETINDEX.SQR`, which updates index overrides stored in the `PSIDXDDL` table. The values stored in the `PARMVALUE` field are updated with current values found in the system catalog.

Properties

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

Task 4-24-2: Setting Temporary Table Attributes

This step runs SETTMPIN.SQR, which 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.

Properties

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

Task 4-24-3: Setting Table Attributes

This step runs SETSPACE.SQR, which 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 from the delivered names, this step makes those same changes in the PeopleSoft record definition.

Properties

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

Task 4-25: 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.

Properties

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

Task 4-26: 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
- Creating the PTTSTEMPTABS Project
- Filtering the Timestamp Temporary Tables Project
- Building the Timestamp Temporary Tables Project
- Editing the Timestamp Temporary Tables Script
- Generating Timestamp Conversion Scripts
- Creating Timestamp Temporary Tables
- 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 4-26-1: 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 4-26-2: 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 4-26-3: 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 4-26-4: Creating the PTTSTEMPTABS Project

This step creates the PTTSTEMPTABS project and inserts all records of the type Temporary Table.

Properties

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

Task 4-26-5: Filtering the Timestamp Temporary Tables Project

This step run *PS_HOME*/scripts/pttstemptabs_filter.sql. This script removes any temporary tables from the PTTSTEMPTABS project that do not contain either a PSTIME or PSDATETIME field type.

Properties

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

Task 4-26-6: Building the Timestamp Temporary Tables Project

This step generates the PTTSTEMPTABS_CRTTBL.SQL script to drop and re-create the records of the type Temporary Table in the database that contain a PSTIME or PSDATETIME field type. Temporary tables are handled separately from records of the type Table.

Properties

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

Task 4-26-7: Editing the Timestamp Temporary Tables Script

In this step, you will edit the PTTSTEMPTABS_CRTTBL.SQL script for tablespace names and sizing. If you are not using the PeopleSoft tablespace names, have your database administrator review and modify the script above. 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	Oracle	All

Task 4-26-8: Generating Timestamp Conversion Scripts

This section discusses:

- Setting Parameters for the Database System Identifier
- Verifying Environment Variables
- Setting the Script Generation Parameters
- Executing the Script Generation Program

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 4-26-9: Creating Timestamp Temporary Tables

This step runs the *PTTSTEMPTABS_CRTTBL.SQL* script to re-create Temporary Tables using **PSTIME** or **PSDATETIME** fields.

Properties

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

Task 4-26-10: 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 4-26-11: 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 4-26-12: 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 4-26-13: 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 4-26-14: 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 4-26-15: 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 4-26-16: 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 4-26-17: 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 4-26-18: Running Alter Timestamps Script 1

This step runs ALTERNAMESTAMPS1.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 4-26-19: Running Alter Timestamps Script 2

This step runs ALTERNAMESTAMPS2.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 4-26-20: Running Alter Timestamps Script 3

This step runs ALTERNAMESTAMPS3.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 4-26-21: Running Alter Timestamps Script 4

This step runs ALTERNAMESTAMPS4.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 4-26-22: Running Alter Timestamps Script 5

This step runs ALTERNAMESTAMPS5.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 4-26-23: Running Alter Timestamps Script 6

This step runs ALTERNAMESTAMPS6.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 4-26-24: Running Alter Timestamps Script 7

This step runs ALTERNAMESTAMPS7.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 4-26-25: Running Alter Timestamps Script 8

This step runs ALTERNAMESTAMPS8.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 4-26-26: 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 4-26-27: 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 4-26-28: 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 4-26-29: 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 4-26-30: 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 4-26-31: 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 4-26-32: 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 4-26-33: 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 4-27: Backing Up After the PeopleTools Upgrade

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.

Properties

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

CHAPTER 5

Completing Database Changes

This chapter discusses:

- Understanding Database Changes
- Updating Language Data
- Booting Servers
- Setting Up Security
- Reviewing PeopleTools Functionality
- Enabling Oracle Transparent Data Encryption
- Enabling Oracle Fine Grained Auditing
- Running the Final Audit Reports
- Reviewing Change Control

Understanding Database Changes

You made various changes in the previous chapters, and now it is time to complete these changes and test your upgraded database. You will run reports to audit your database and then turn Change Control back on.

Task 5-1: 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 5-1-1: 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	Both	All	All	All

Task 5-2: Booting Servers

Clear your client workstation browser cache and boot your application servers, web servers, and process scheduler servers. At this point in the upgrade, complete any necessary remaining installation tasks.

See the PeopleTools installation guide for your database platform on your new release.

Note. After applying this release, the Help, About dialog box will show the version of PeopleSoft PeopleTools to which you upgraded.

Properties

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

Task 5-3: Setting Up Security

This section discusses:

- Understanding Security
- Synchronizing CREF Permissions

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 5-3-1: Synchronizing CREF Permissions

This section discusses:

- Understanding Content Reference Permissions
- Running the Portal Security Synchronization Process

Understanding Content Reference Permissions

As part of the PeopleSoft PeopleTools Portal architecture, Portal Registry Structures reference permission lists. At this point, however, the Portal Registry Structures copied from the PPLTLS84CUR project do not reference any permission lists on the Upgrade database. This synchronization program will match the existing permission lists to the appropriate Registry Structures and update it.

Note. The user ID that invokes this process must have the security role Portal Administrator. Otherwise, the process may terminate abnormally.

Note. Your PeopleSoft Process Scheduler must be running to perform this task.

Running the Portal Security Synchronization Process

Follow the steps below to run the PeopleSoft Portal security synchronization process.

To run the security synchronization process:

1. From your browser, sign in to your Target database.
2. Select PeopleTools, Portal, Portal Security Sync.
3. Click Add a New Value.
4. Enter the run control ID *UPG_PORTAL_SYNC_BOTH*.
5. Click Add.
6. Keep the default value for the default portal registry name in the Portal Name field (for example, *EMPLOYEE*, *CUSTOMER*, or *SUPPLIER*.)
7. Click Save.
8. Click Run.
9. In the Process Scheduler page, check that you set your parameters correctly.
10. Click OK.
11. Click the Process Monitor link to monitor the program's process.
12. Repeat steps 6 through 11 for each Portal name used in the database for your specific applications.
With each repetition, in step 6 change the Portal Name field to one of the following: *EMPLOYEE*, *CUSTOMER*, *SUPPLIER*, and so on.
13. Review any messages received during the running of this process with your Portal Administrator.

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

Note. If the permission lists for your upgrade user do not allow you access to a component, you will encounter this error when running the security synchronization process for that page: `Security synchronization failed for Portal Object`. This error may indicate other problems with the component or folder, but you should check your security first.

Properties

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

Task 5-4: 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 Online Help (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 PeopleTools installation guide 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 shown in the following table:

Style Name	Style Default
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

Your style settings were retained during the upgrade.

See the product documentation for PeopleTools: PeopleSoft Application Designer Developer’s Guide, for your current 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 current release for more information about understanding migrated integration metadata.

- In PeopleSoft PeopleTools 8.50, if you are a Microsoft SQL Server customer, you need to use an access ID that is not a 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 current 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 current release for more information about understanding changes in portal configuration settings.

- As of PeopleSoft PeopleTools 8.51, if you are an Oracle database customer, you 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 current 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: Applications Portal’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.
- For PeopleSoft CRM customers, review *CRM Worklist trigger is removed after upgrading PeopleTools to 8.53* (doc ID 1511408.1) on My Oracle Support for any application changes that must be applied after upgrading to this PeopleSoft PeopleTools release.

Properties

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

Task 5-5: Enabling Oracle Transparent Data Encryption

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 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	Both	All	Oracle	All

Task 5-6: 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 5-7: 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

Task 5-7-1: 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 5-7-2: 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 5-7-3: 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 5-7-4: 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 5-7-5: 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 5-7-6: 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.

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 report 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 report.

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 5-8: Reviewing Change Control

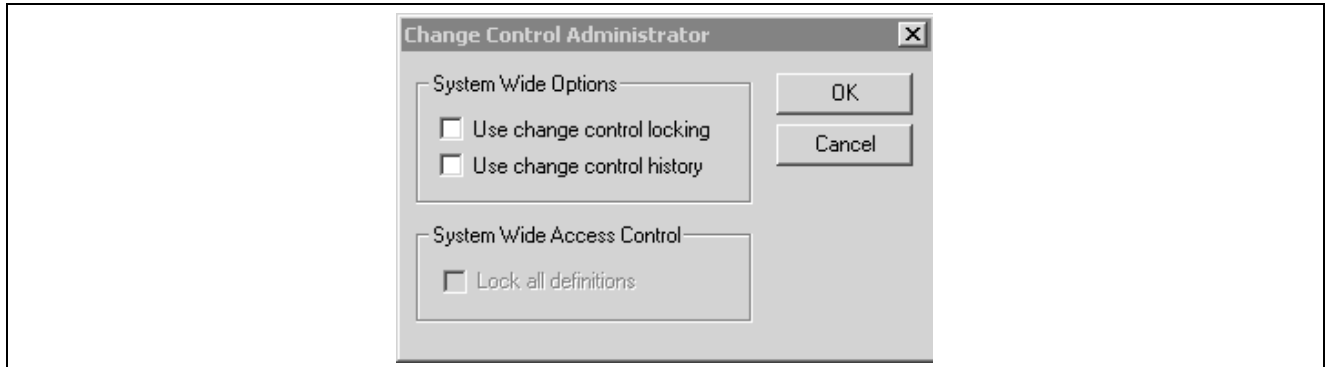
Earlier in the upgrade process, in the beginning of the chapter “Applying PeopleTools Changes,” the Change Control feature was disabled. In this step, you re-enable Change Control, if your site uses this functionality.

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

3. Set “Use change control locking” and “Use change control history” according to your site specifications. See “Applying PeopleTools Changes,” Turning Off Change Control.

Properties

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

CHAPTER 6

Appendices

Understanding Appendices

The appendices portion of this documentation contains information you may need for your upgrade. The appendices have been referenced throughout the upgrade documentation for further understanding of the upgrade you are performing. Oracle recommends that you read each appendix as it is referenced in the documentation.

APPENDIX A

Improving Performance

This appendix discusses:

- Understanding Performance Improvement
- Planning Your Upgrade for Performance
- Improving Performance for Your Platform
- Consulting Oracle Software Support

Understanding Performance Improvement

Performance is always a challenge when you are upgrading. Much of the data currently in your database will be affected. No other batch processing works quite like it. Upgrade performance is sensitive to your unique environment and data. These performance recommendations are designed to help you improve performance during your upgrade.

Task A-1: Planning Your Upgrade for Performance

Review the following guidelines to help plan for better upgrade performance:

- Provide as much hardware, memory, and disk space as you can.
- Run long processes on a dedicated server, not the client. Configure that server similarly to your production environment.
- Use a dedicated workstation, configured like the production environment.
- Provide an application server and process scheduler for the Target database on the new PeopleSoft release.
- Look for fragmented tables. Resize or reorganize the initial and next extends accordingly.
- Know which tables are your largest. This information will be valuable during the upgrade.

Task A-2: Improving Performance for Your Platform

This section discusses:

- Using Oracle

- Using DB2
- Using Informix

Task A-2-1: Using Oracle

You should use the cost-based optimizer during the upgrade. The application engine scripts use MetaSQL to run the update statistics command at various times during data conversion. If you are running the rule-based optimizer, you will not take advantage of these statements.

When running the alter scripts, remember the Oracle hint `/*APPEND*/`. This command will improve the performance of your alter script if you are doing an “Alter by Rename.” This hint performs like an Oracle Direct Load Insert and does not capture redo or recovery information. The syntax is as follows:

```
INSERT /*+ APPEND */ INTO TABLENAME (FIELD1, FIELD2, ...
```

Make sure your database administrator has turned autoextend on. Autoextend allows tablespaces to grow larger than their set maximum size and will be useful during the upgrade process since tablespaces grow several times larger than they would in production.

Alter the tablespace for PSIMAGE and increase it to 200 MB; autoextend on the next 10 MB; set the maxsize to *unlimited*.

Task A-2-2: Using DB2

To improve performance for your DB2 z/OS platform:

- Perform all recommended update statistics on the system catalog as well as the application tablespaces.
- Prior to creating any LOBs, you must properly configure DB2 ZPARMS as detailed in your installation guide in the step “Defining ZPARMS Associated with LOBs.”

See the information on defining ZPARMS associated with LOBs in the product documentation for PeopleTools 8.53 Installation for DB2 for z/OS, chapter “Preparing for Installation,” task “Defining DB2 for z/OS Subsystem Configuration.”

- Additionally, you must also apply all the required IBM patches listed in the document “Important PTFs for the PeopleSoft on DB2 for z/OS.”

See “Important PTFs for the PeopleSoft on DB2 for z/OS,” on My Oracle Support. (Search for the article name.)

Task A-2-3: Using Informix

As of PeopleSoft PeopleTools 8.51, the minimum Dbspace page size is 4 KB. Customers on AIX (default page size 4 KB) or those who already use a Dbspace of 4 KB page size or larger will not have any impact. However, those on Solaris/HP with a Dbspace of 2 KB page size need to export the data, re-create a Dbspace of 4 KB page size, and import the data back to Dbspaces prior to using the new release of PeopleSoft PeopleTools.

Task A-3: Consulting Oracle Software Support

If you do have a problem with your upgrade, contact Oracle Software Support (OSS). Oracle will be able to give you a solution to the problem faster if you supply the following information:

- Include details about the table row counts and indexes available on the tables involved in the processing:
 - Include indexes in your physical database, not those defined in PeopleSoft Application Designer.
 - Mention any additional indexes that you custom-added; they could be getting in the way.
- Include RDBMS (Oracle, SQL Server, or DB2, and so on) and RDBMS release (for example, Oracle 10.2.0.5 or 11.2.0.3).
- If you are running on Oracle, specify whether you are you running in cost-based or rule-based mode.
- Include your PeopleSoft PeopleTools upgrade path (for example, PeopleSoft PeopleTools 8.52 to 8.53).
- Provide trace files: PeopleSoft PeopleTools trace and RDBMS-specific trace files, SQL explains, and so on.

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