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# Enterprise PeopleTools 8.1x to 8.48 Upgrade

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**July 2006**

Enterprise PeopleTools 8.1x to 8.48  
Upgrade  
SKU utools848\_063006\_upt81xto848  
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# About This Documentation

This preface discusses:

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

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## Understanding This Documentation

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

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

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## Prerequisites

You *must* complete the tasks in the document *Getting Started on Your PeopleSoft Upgrade* before beginning a PeopleSoft upgrade. If you have not yet completed these tasks, do so now.

See PeopleSoft Customer Connection (Implement Optimize + Upgrade, Upgrade Guide, Upgrade Documentation and Software).

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## Audience

This documentation assumes 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 experience. PeopleSoft recommends that you complete training before performing this upgrade.

See PeopleSoft Customer Connection (Oracle University).

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. Familiarity with navigating around the system and adding, updating, and deleting information using PeopleSoft windows, menus, and pages is necessary. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

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## Organization

This documentation is divided into chapters, each containing tasks that represent major milestones in the upgrade process:

- Prepare Your Database
- Apply PeopleTools Changes
- Complete Database Changes
- Apply Changes to Production Database

This documentation may also contain appendices. The appendices contain information you may need for your upgrade. When a task requires you to review additional information, you will be directed to the appropriate appendix.

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## Related Information

You can review related information that may help with your PeopleSoft upgrade. You can find the following information on PeopleSoft Customer Connection. We post updates and other items on PeopleSoft Customer Connection as well.

- Release Notes. Read the 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.
- Upgrades Database. The Upgrade Documentation database in PeopleSoft Customer Connection will have other information posted after shipment of this release that may not be included in these instructions. This information may include Updates & Fixes required at upgrade. Always check the Upgrade Documentation database for the most current documentation and information.

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**Important!** Before upgrading, check the Upgrade Documentation database on PeopleSoft Customer Connection for updates to the upgrade instructions. We continually post updates as we refine the upgrade process.

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See PeopleSoft Customer Connection (Implement Optimize + Upgrade, Upgrade Guide, Upgrade Documentation and Software).

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## 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, PeopleBooks, and other PeopleSoft reference and training materials. Please send your suggestions to:

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# CHAPTER 1

## Prepare Your Database

This chapter discusses:

- Understanding Database Preparation
- Updating Statistics
- Running Initial Audit Reports
- Preparing Your Database
- Reporting Row Count for Tables

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### Understanding Database Preparation

You must make a copy of your production database before you start preparations for the technical portion of the upgrade. Unless otherwise noted, run these tasks on your Copy of Production database (not the Demo database). These tasks do not use the new PeopleSoft release. You should use your current codeline and current PeopleTools release to perform these tasks unless instructed otherwise.

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**Important!** You must read the documentation *Getting Started on Your PeopleSoft Upgrade* before you continue with your upgrade. This documentation will not make sense, nor will you be able to upgrade, without completing the tasks outlined in that documentation.

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### Task 1-1: Updating Statistics

Run this task to improve 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: “Performance Tips and Techniques.”

#### Properties

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

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## Task 1-2: Running Initial Audit Reports

This section discusses:

- Understanding Running Initial Audit Reports
- Run the Initial DDDAUDIT Report
- Run the Initial SYSAUDIT Report
- Run the Initial Alter Audit
- Review the Initial Audits

### Understanding Running Initial Audit Reports

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

#### Task 1-2-1: Run the Initial DDDAUDIT Report

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

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

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

See Review the Initial Audits.

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

#### Properties

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

#### Task 1-2-2: Run the Initial SYSAUDIT Report

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

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

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

See Review the Initial Audits.

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

## Properties

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

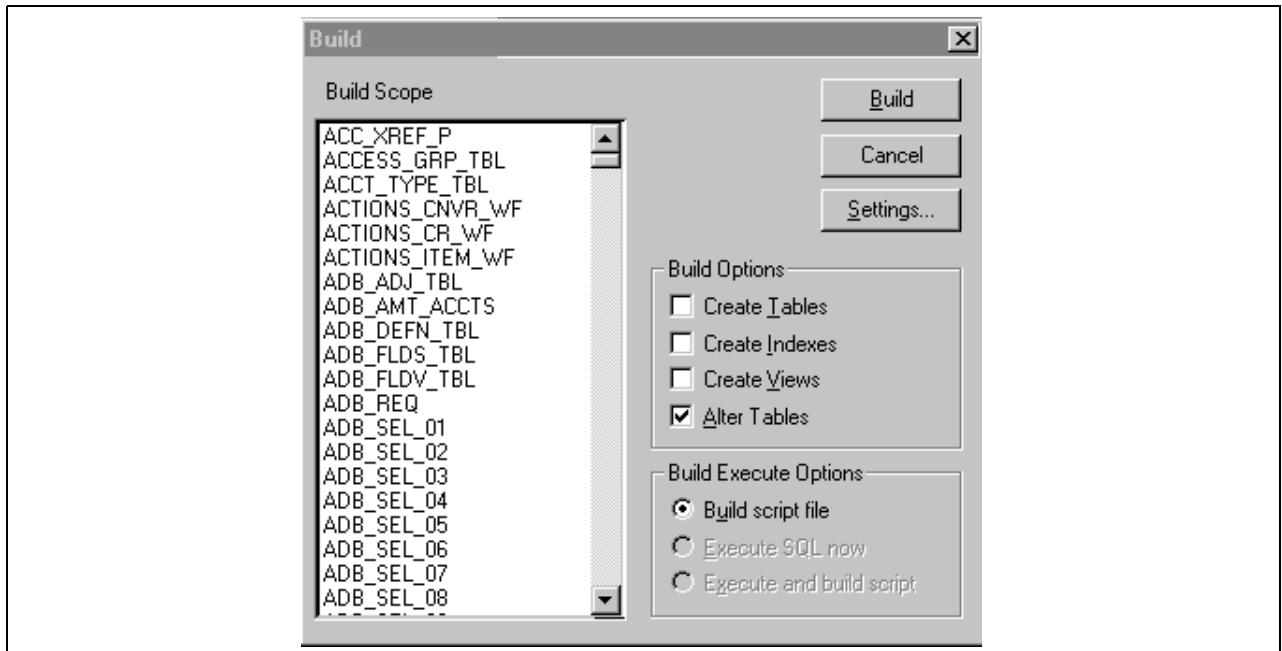
## Task 1-2-3: Run the Initial Alter Audit

To verify that the PeopleTools definitions are synchronized with the underlying SQL data tables in your database, run the 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 PeopleTools definitions to identify inconsistencies. Alter Audit then creates SQL scripts with the data definition language (DDL) changes that are required to synchronize your database with the PeopleTools definitions.

To run Alter Audit:

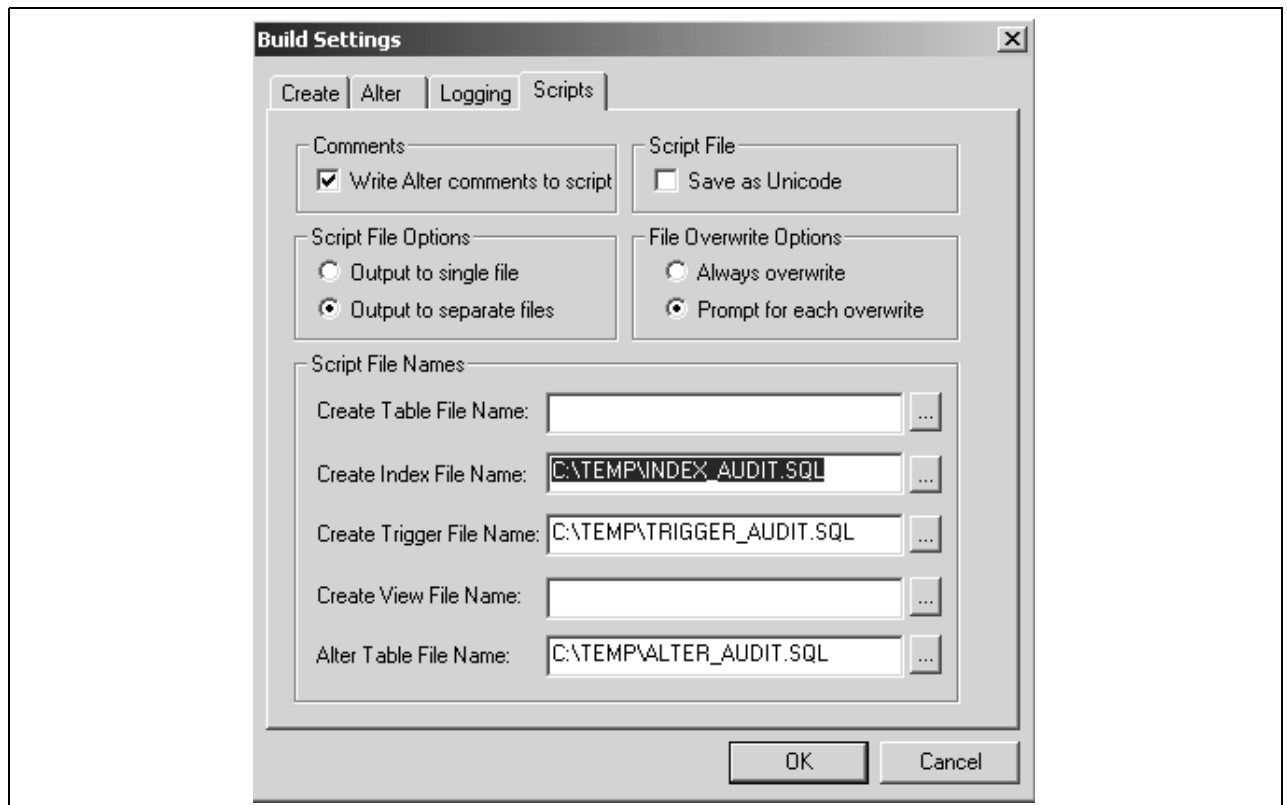
1. Launch PeopleTools and sign on to the Copy of Production database.
2. From Application Designer, select File, New...
3. Select Project, and then click OK.
4. Select Insert, Objects into Project...
5. Select Records from the Object Type drop-down list box.
6. Select Table from the Type drop-down list 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:



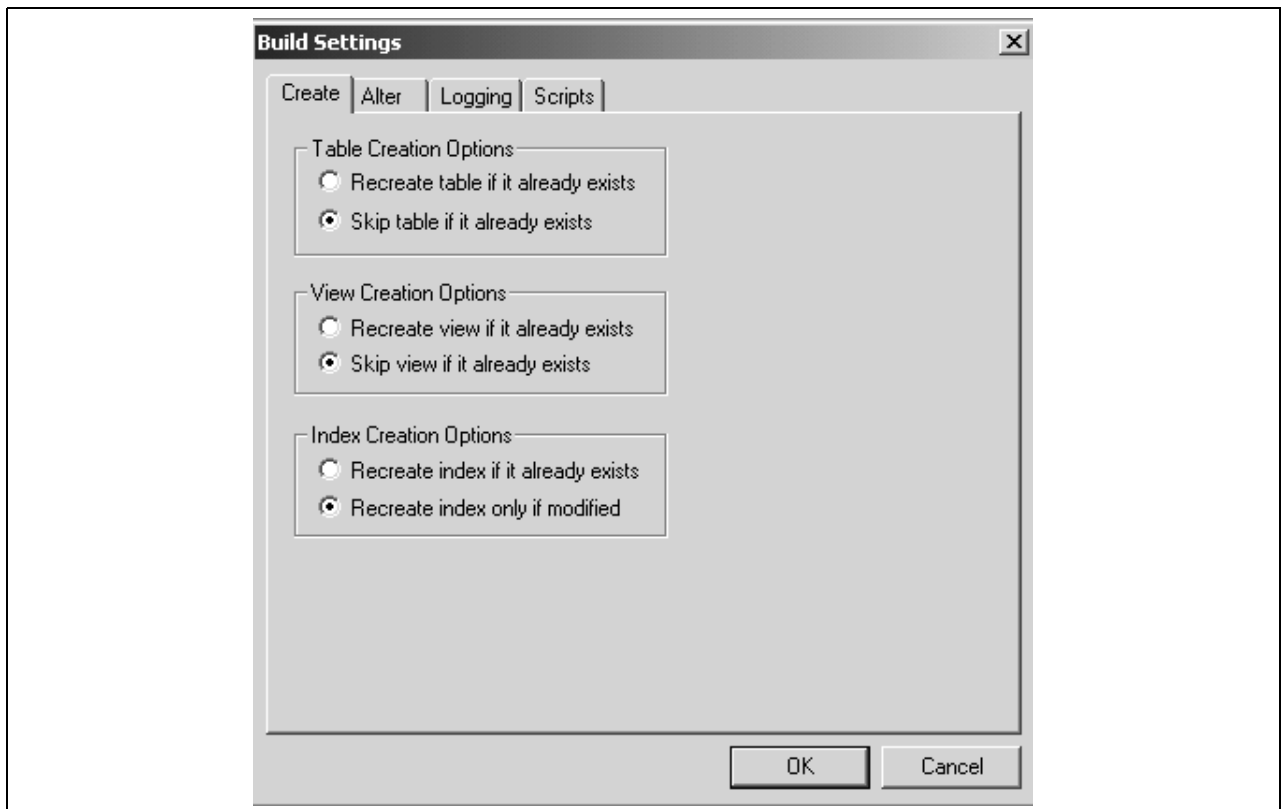
Build dialog box

13. Under Build Options, select Alter Tables.  
Create Indexes is 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.



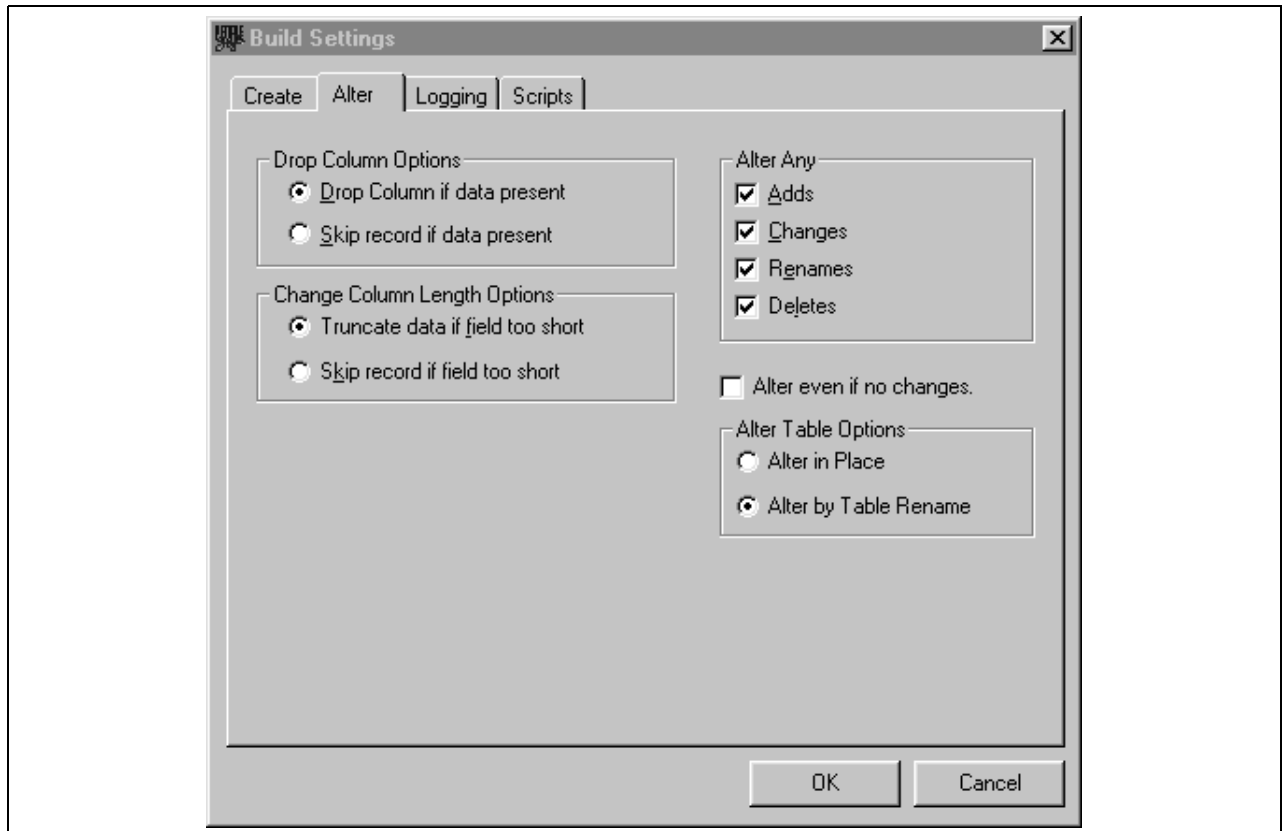
Build Settings dialog box: Scripts tab

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 1-2-4: Review the Initial Audits

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

Review the output from the SYSAUDIT and DDDAUDIT reports and correct any discrepancies. When application tables are deleted from the Application Designer, they are not automatically deleted from the system tables. PeopleSoft 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 PeopleSoft. 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 PeopleTools Record definitions and the database system catalog table definitions. Review the Alter Audit output and correct any discrepancies.

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**Note.** You will rerun the DDDAUDIT and SYSAUDIT SQR scripts later in the upgrade. If you wish to preserve the log files generated by Change Assistant from this run, you will need to manually rename the files after completing this task.

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

## Properties

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

---

## Task 1-3: Preparing Your Database

This section discusses:

- Understanding Database Preparation
- Verify Database Integrity
- Clean the PSOBJCHNG Table
- Shrink Images
- Purge Message Queues

## Understanding Database Preparation

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



## Task 1-3-1: Verify Database Integrity

The DBCC CHECKDB command is run to perform a database consistency check on your Copy of Production database. A database consistency check ensures that your database platform environment is clean and minimizes any potential upgrade errors due to possible database corruption.

### Properties

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

## Task 1-3-2: Clean the PSOBJCHNG Table

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

```
DELETE FROM PSOBJCHNG
```

See “Apply PeopleTools Changes,” Renaming PeopleTools Records.

### Properties

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

## Task 1-3-3: Shrink Images

If you have customized images stored in your database, you may need to shrink these images before updating 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:

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 radio button Convert and Shrink Images to Platform Limit.
5. Click OK.

---

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

---

6. Launch 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.

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

### Properties

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

## Task 1-3-4: Purge Message Queues

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

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

```
APPMSPGPURGEALL.DMS
```

---

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

---

### Properties

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

## Task 1-4: Reporting Row Count for Tables

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 your C:\TEMP directory.

If you use PeopleTools 8.13 or earlier, use SQR from your current (old) release of PeopleSoft to run the following script against your Copy of Production:

```
\PS_HOME\SQR\UPGCOUNT.SQR
```

In PeopleTools 8.14, UPGCOUNT was converted to an Application Engine program. If your Copy of Production is using PeopleTools 8.14 or later, run UPGCOUNT as an Application Engine program. Using your current (old) release of PeopleSoft, run the 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	Initial	All	All	All



## CHAPTER 2

# Apply PeopleTools Changes

This chapter discusses:

- Understanding PeopleTools Changes
- Verifying Upgrade User
- Performing Script Modifications
- Updating PeopleTools System Tables
- Turning Off Change Control
- Loading Model Definition Data
- Loading Message Data
- Renaming PeopleTools Records
- Comparing PeopleTools Objects
- Exporting and Copying Projects
- Updating Database Overrides
- Building the PeopleTools Project
- Migrating Records to New Tablespaces
- Loading Base Data
- Loading Language Data
- Loading PeopleTools Data
- Creating All Views
- Converting PeopleTools Objects
- Converting Integration Broker
- Verifying NonBase Language Pages
- Finalizing the Database Structure
- Clearing Process and Report Tables
- Setting Object Version Numbers
- Backing Up After PeopleTools Upgrade

## Understanding PeopleTools Changes

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

**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 2-1: Verifying 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 on after the upgrade.

**Warning!** You must perform this step now using your old version of 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 Go menu, select PeopleTools, Maintain Security.
2. Select Use, User Profiles, Administrator, Update/Display.
3. Select the user ID for your upgrade user.
4. Select the Is User System Administrator? check box on the User Profile if it is cleared.
5. Save the User Profile.
6. From Maintain Security, select Use, Permission Lists, General, Update/Display.
7. Select the Primary Permission List for your upgrade user.
8. Select the Can Start Application Server? check box if it is cleared.
9. Save the Permission List.

See Enterprise PeopleTools PeopleBook: Security Administration for your new release.

#### Properties

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

---

## Task 2-2: Performing Script Modifications

This section discusses:

- Understanding Script Modifications
- Copy the PTDDLUPG Script
- Edit the PTDDLUPG Script
- Run a DBTSFIX Report
- Edit the DBTSFIX Output Scripts
- Edit the GRANT Script
- Edit the RELGA Script
- Edit the PSLANG Script
- Edit the PSLANGUAGES Script
- Edit the TLSUPGNONCOMP Script
- Edit the PTxxxTLS Scripts
- Edit the DB2 Scripts
- Edit Move to Production Import Scripts
- Edit Move to Production Password
- Edit the DDLDB2 Script
- Edit the DDLDBX Script
- Edit the DDLORA Script
- Edit the DDLIFX Script
- Edit the MSGTLSUPG Script
- Edit the Integration Broker Script
- Edit Multilingual Step Properties
- Edit the Message Nodes Script

### Understanding Script Modifications

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

---

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

---

## Task 2-2-1: Copy the PTDDLUPG Script

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

### Properties

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

## Task 2-2-2: Edit the PTDDLUPG Script

In this step, you edit PS\_HOME\SCRIPTS\PTDDLUPG.SQL to add site-specific tablespace names, database names, and STOGROUPs. PeopleTools delivers new tablespaces in the new PeopleSoft release to accommodate trees, application engine, temp tables, and tables that require row-level locking. Follow the instructions in the script for your platform. Since this script builds new tablespaces as part of the upgrade to the new PeopleSoft release, remove any tablespaces from the script that already exist in your database.

---

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

---



---

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

---

See Updating PeopleTools System Tables.

See Create Tablespaces.

---

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

---

See Create Tablespaces for Informix.

### Properties

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



## Task 2-2-3: Run 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 RELxxxDBTSFIX.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 RELxxxDBTSFIX.SQL script in which xxx represents a release number (for example, 800, 810, 811, 812, and so on) associated with your particular path.

---

**Note.** Before running this step, verify that the PS\_HOME values are set correctly in the Change Assistant environment for your upgrade job. Change Assistant uses the PS\_HOME information to determine which scripts need to be generated.

---



---

**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 2-2-4: Edit the DBTSFIX Output Scripts

Edit the generated RELxxxDBTSFIX 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 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.** For DB2 z/OS customers only: When upgrading 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 and PSIMGR use 32-KB buffer pools in PeopleSoft-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 or PSIMGR in the upgrade scripts are the exception to this approach. Note that PeopleSoft has reassigned some tables to PSIMAGE or PSIMGR 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 or PSIMGR with an appropriate tablespace name in your implementation that utilizes a 32-KB buffer pool. The database name must also be replaced with the value corresponding to the tablespace 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 2-2-5: Edit 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 2-2-6: Edit the RELGA Script

Edit `PS_HOME\SCRIPTS\RELGA.DMS` and make the necessary OWNERID and synonym modifications as documented in the script.

The Update\_Oprdefn command in this script performs the following functions:

- Decrypts passwords in PSOPRDEFN, using old Data Encryption Standard (DES) algorithms, and re-encrypts using Secure Hashing Algorithm 1 (SHA-1) hashing.
- Decrypts passwords in PSACCESSPRFL using old keys and re-encrypts using new keys.
- Updates PSAUTHITEM to remove high-order bits from the Authorized Actions table.
- Updates permissions from Security Administrator to Maintain Security.

## Properties

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

## Task 2-2-7: Edit the PSLANG Script

Edit `PS_HOME\SCRIPTS\PSLANG.DMS` and make the necessary modifications as documented in the script.

## Properties

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

## Task 2-2-8: Edit the PSLANGUAGES Script

Edit PS\_HOME\SCRIPTS\PSLANGUAGES.DMS and make the necessary modifications as documented in the script.

## Properties

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

## Task 2-2-9: Edit the TLSUPGNONCOMP Script

Edit PS\_HOME\SCRIPTS\TLSUPGNONCOMP.DMS and make the necessary modifications as documented in the script.

## Properties

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

## Task 2-2-10: Edit 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 the scripts in the PS\_HOME\SCRIPTS directory on the file server that conform to this file naming convention:

```
PTxxxTLS.DMS
PTxxxTLSyty.DMS
```

The xxx represents a PeopleTools release greater than your current 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 2-2-11: Edit 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 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 you need to edit:

DB2TMPIDXCREATE.SQL

## Properties

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

## Task 2-2-12: Edit Move to Production Import Scripts

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

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

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

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

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

MVPRDIMP.DMS

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

See Enterprise PeopleTools PeopleBook: Data Management for your new release.

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

### Properties

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

## Task 2-2-13: Edit Move to Production Password

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

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

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

### Properties

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

## Task 2-2-14: Edit the DDLDB2 Script

Edit `PS_HOME\SCRIPTS\DDLDB2.DMS`. At the bottom of this script, you will see 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 by PeopleSoft in this script.

### Properties

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

## Task 2-2-15: Edit the DDLDBX Script

Edit `PS_HOME\SCRIPTS\DDLDBX.DMS`. At the bottom of this script, you will see 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 by PeopleSoft in this script.

### Properties

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

## Task 2-2-16: Edit the DDLORA Script

Edit `PS_HOME\SCRIPTS\DDLORA.DMS`. At the bottom of this script, you will see 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 by PeopleSoft in this script.

### Properties

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

## Task 2-2-17: Edit the DDLIFX Script

Edit `PS_HOME\SCRIPTS\DDLIFX.DMS`. At the bottom of this script, you will see 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 by PeopleSoft in this script.

### Properties

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

## Task 2-2-18: Edit the MSGTLSUPG Script

Edit `PS_HOME\SCRIPTS\MSGTLSUPG.DMS` and make the necessary modifications as documented in the script.

## Properties

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

## Task 2-2-19: Edit the Integration Broker Script

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 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.

---

**Note.** If you are upgrading from PeopleTools 8.48 or later, this step and all of the steps in the task “Converting Integration Broker” do not need to be run since the Integration Broker conversion has already been performed. You may mark all of these steps as “Complete” in your upgrade job. If you don’t mark these steps as complete, the upgrade will try to unnecessarily reconvert your objects.

---

## Properties

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

## Task 2-2-20: Edit Multilingual Step Properties

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

To edit multilingual step properties:

1. In Change Assistant, select the step “Export and Copy PPLTLSML Project.”
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 Change Assistant.

See Export and Copy PPLTLSML Project.

## Properties

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

## Task 2-2-21: Edit the Message Nodes Script

You need to run the PORTALNODES.DMS script before the PeopleTools upgrade UPG84PORTAL process.

In this step, you edit the PORTALNODES.DMS script. If you are using the Informix platform, edit the PORTALNODES.SQL script instead.

To edit the message nodes script:

1. Run the following SQL to determine your default local node value:

```
SELECT MSGNODENAME FROM PMSGNODEDEFN WHERE LOCALNODE = 1
```

2. Replace *all* instances of *PSFT\_PE* with the default local node name returned from the previous SQL.

---

**Note.** The values updated in this script must reflect the values for your Copy of Production database because that is the database being upgraded. This means that the database web server *hostname* and *pshome* values are the values that will exist for your upgraded web server for the upgraded database.

---

3. Replace *all* instances of *localhost* with the host name of the web server. Include the port number and network domain name as needed. Unicode databases will need to add a *G* or *N* in front of the localhost name.

Example: `http://myserver/psc/pshome/`

Example: `http://myserver:8080/psc/pshome/`

Example: `http://myserver.mydomain.com:8080/psc/pshome/`

4. Replace *all* instances of *pshome* with the name of the directory where you installed the PeopleSoft web server files.

`http://myserver/psc/PA840DMO/`

---

**Note.** The 8.x content provider message nodes are: BP, CRM, EPM, ERP, HRMS, and SA.

---

5. Adjust the node type for the 8.x content provider message nodes. In the 8.4 composite REL script, all content provider nodes have a node type of ICT to allow for the use of the 8.1x URL format. If a particular node name corresponds to a production application database that is being upgraded to PeopleTools 8.4, the message node type must be changed from ICT to PIA. (If the node type is not changed to PIA, the portal content references using that node will *not* be converted to the 8.4 simple URL format.)

If a particular node name corresponds to a production application database that will remain on PeopleTools 8.1x, then keep the node type as ICT. (If the node type is not left as ICT, the portal content references using that node will *not* be able to access the 8.1x application database.)

6. Replace *all* instances of *EMPLOYEE* with the default portal registry name if you need a different portal registry as the default; for example, *CUSTOMER* or *SUPPLIER*.



## Properties

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

---

## Task 2-3: Updating PeopleTools System Tables

This section discusses:

- Understanding Updating PeopleTools System Tables
- Clean Up Message Data
- Create Tablespaces
- Create Tablespaces for Informix
- Update System Catalog Views
- Update PeopleTools System Tables
- Grant Privileges to the CONNECT ID
- Run the RELGA Script
- Populate Languages for Login
- Update the Product License Code
- Update PeopleTools Patch Information
- Create Temporary Performance Indexes
- Export PeopleTools System Tables
- Import PeopleTools System Tables
- Rerun Update Statistics for DB2 zOS
- Rerun RUNSTATS Report for DB2 UNIX NT
- Rerun Update Statistics for DB2 UNIX NT
- Rerun Update Statistics for Informix
- Rerun Update Statistics for Oracle

## Understanding Updating PeopleTools System Tables

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

---

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

---

## Task 2-3-1: Clean Up Message Data

If you are upgrading from PeopleTools 8.47 or earlier, perform this step to clean out obsolete message data. Message functionality and structure changed as of PeopleTools 8.48 and the old data is obsolete. Edit PS\_HOME\SCRIPTS\PTUPGIBDEL.SQL to delete data from the tables that only exist in the old PeopleTools release. Open the script and make the following modifications:

1. Search for the string “--- End of PT8.1x/8.2x ---”.
2. Delete the entire portion of the script below this string.
3. Save the script as PS\_HOME\SCRIPTS\PTUPGIBDEL81X.SQL.

---

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

---

Follow this procedure to edit your template so the script can run automatically:

1. Select this step and open the Step Properties dialog box.
2. Change the Type from ManualStop to SQLScript, and click OK.
3. In your upgrade job, mark the step as Run.

### Properties

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

## Task 2-3-2: Create Tablespaces

This step runs the PTDDLUPG script, which builds new tablespaces as part of the upgrade to the new PeopleSoft release. PeopleTools delivers new tablespaces in this PeopleSoft release to accommodate trees, the application engine, temp tables, and tables that require row-level locking.

---

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

---

See Edit the PTDDLUPG Script.

### Properties

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

## Task 2-3-3: Create Tablespaces for Informix

FTP the PTDDLUPG.SH script file to the server. Log on 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. Tablespace changes have been made in order to group temp tables, take advantage of row-level locking, and group tables with similar attributes.

See Edit the PTDDLUPG Script.

### Properties

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

## Task 2-3-4: Update System Catalog Views

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

### Properties

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

## Task 2-3-5: Update 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 PeopleTools release. They are located in the PS\_HOME/SCRIPTS directory. Release scripts can be identified by their common naming standard, RELxxx.SQL, in which xxx designates a PeopleTools release number.

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

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

Any customizations made to records in the REL scripts will be overwritten when these scripts are run. You must run these scripts as delivered in order for the new release of PeopleTools to function properly. You must re-evaluate your customizations after the upgrade is complete and reapply the changes in a way that does not affect any delivered PeopleTools object.

---

**Note.** Before running this step, verify that the PS\_HOME values are set correctly in the 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 Enterprise PeopleTools PeopleBook: PeopleSoft Software Updates for your new release.

## Properties

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

## Task 2-3-6: Grant 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 on.

## Properties

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

## Task 2-3-7: Run the RELGA Script

This step runs the RELGA.DMS script using bootstrap mode. All users will be captured in the log file. However, if a user ID has not been logged into the database before the upgrade, that user ID will be flagged in the log file. The message will state that the user's password cannot be decrypted and the password will be reset to the user's ID. This message occurs if the password column is null or blank. It will also occur if you have PSLOCK.SECURITY\_OPTION set to Y. In this case, after RELGA.DMS runs, all of your users' passwords (OPERPSWD) in PSOPRDEFN will be set to the user ID.

The Update\_Oprdefn command in Data Mover performs the following functions:

- Decrypts passwords in PSOPRDEFN using old DES algorithms and re-encrypts using SHA-1 hashing.
- Decrypts passwords in PSACCESSPRFL using old keys and re-encrypts using new keys.
- Updates PSAUTHITEM to remove high-order bits from the Authorized Actions table.
- Updates permissions from Security Administrator to Maintain Security.

## Properties

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

## Task 2-3-8: Populate Languages for Login

This step runs the PSLANG.DMS script, which populates the PSLANGUAGES table.

## Properties

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

## Task 2-3-9: Update the Product License Code

This section discusses:

- Understanding the Product License Code
- Updating the Product License Code

### Understanding the Product License Code

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

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

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

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

*DBname* is the name of the Demo database you installed and *DBplatform* represents the database platform using the following chart:

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

### Updating the Product License Code

Follow the steps below to update your product license code.

To update the product license code:

1. From the Data Mover script that was created for your new PeopleSoft database installation, copy out the update to PSOPTIONS.

The statement should look similar to this:

```
update PSOPTIONS set LICENSE_CODE = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx', LICENSE_=>
GROUP = 'xx';
```

where 'xx' equals your license code and 'xx' equals your license group.

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

Your database is now updated with the appropriate license code. You can now access the pages and Application Engine programs that you licensed.

### Properties

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

## Task 2-3-10: Update PeopleTools Patch Information

In this step, you update your database with the version of the PeopleTools patch being applied.

---

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

---

Log on to Data Mover in user mode and run the %PS\_HOME\SCRIPTS\PTPATCH.DMS script.

Review the PeopleTools patch instructions and perform any additional database upgrade instructions that may be listed prior to the copy of the patch project. The patch project will be copied later during the upgrade.

### Properties

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

## Task 2-3-11: Create Temporary Performance Indexes

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

### Properties

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

## Task 2-3-12: Export PeopleTools System Tables

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

The script name for your upgrade path is:

MVPRDEXP.DMS

### Properties

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

## Task 2-3-13: Import PeopleTools System Tables

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

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

- Exporting and Copying Projects
- Converting PeopleTools Objects
- Renaming Records and Fields
- Running Upgrade Compare Reports
- Running Project Compare Reports
- Running the Upgrade Copy

If your relational database management system (RDBMS) uses tablespaces, edit this script for the proper DDL information.

The script name for your upgrade path is:

MVPRDIMP.DMS

### Properties

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

## Task 2-3-14: Rerun 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 2-3-15: Rerun 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 2-3-16: Rerun 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 2-3-17: Rerun 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 2-3-18: Rerun 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 2-4: 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.

---

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

---

See “Complete Database Changes,” Reviewing Change Control.

## Properties

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

---

## Task 2-5: Loading Model Definition Data

This section discusses:

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

## Understanding Model Definition Data Load Process

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 2-5-1: Load 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 2-5-2: Load 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 2-5-3: Load 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 2-5-4: Load 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 2-5-5: Load 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 2-5-6: Load 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 2-6: Loading Message Data

This step loads system messages in the message catalog.

### Properties

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

---

## Task 2-7: Renaming PeopleTools Records

This process renames language-sensitive PeopleTools tables to coordinate with PeopleSoft standards for related language models. If you reference these tables in your customized PeopleCode, COBOL, SQR, Crystal, or queries, you need to evaluate and possibly change these references to the new record names. The name of the script for your upgrade path is:

`TLSRENAME.DMS`

The PeopleTools tables will be renamed as follows:

Previous Release	Current Release
XLATTABLE	PSXLATITEM
XLATTABLEDEL	PSXLATDEFNDEL

Previous Release	Current Release
PS_MESSAGE_SET_TBL	PSMSGSETDEFN
PS_MESSAGE_CATALOG	PSMSGCATDEFN

## Properties

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

## Task 2-8: Comparing PeopleTools Objects

This section discusses:

- Understanding the Database Compare
- Modify Compare Options
- Clone the PPLTOOLS Project
- Compare the PeopleTools Project
- Review the Compare Reports

## Understanding the Database Compare

In this task, you will perform a project compare to identify any PeopleTools objects you may have changed. Then you will review your compare reports. The compare reports can be quite large, depending on the report filters you select. Make sure the directory to which the reports will be written has sufficient space. How much is sufficient? Of course that varies, but make sure you have a few Gigabytes of space.

The new PeopleSoft release no longer requires you to swap the base language to upgrade copy and compare objects between two databases with different base languages. The upgrade tools for the new PeopleSoft release can copy language attributes across databases with different base languages. If you have a Copy of Production database with a base language other than English and a Demo database with English, there is no need to swap the base language on the Demo database to be the same as your Copy of Production.

---

**Note.** For detailed information regarding the compare process, see the appendix, “Understanding the Comparison Process.”

---



---

**Note.** For Sybase customers only: 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 the value accordingly.

---

## Task 2-8-1: Modify Compare Options

The Change Assistant templates are delivered with the default report filters turned on. This is done to limit the size of the reports and keep them manageable. Before you start the compare, you will need to review the compare options in the Change Assistant template step properties and modify them based on your requirements.

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

For example, if you want the report to contain customized objects present in your Copy of Production database, but absent from the Demo database, modify the compare options. Alternatively, you can review these objects online, through Application Designer, after the compare is completed.

To modify upgrade compare options:

1. Highlight the Compare the PeopleTools Project step and right-click.
2. Select Step Properties.

The Step Properties dialog box appears.

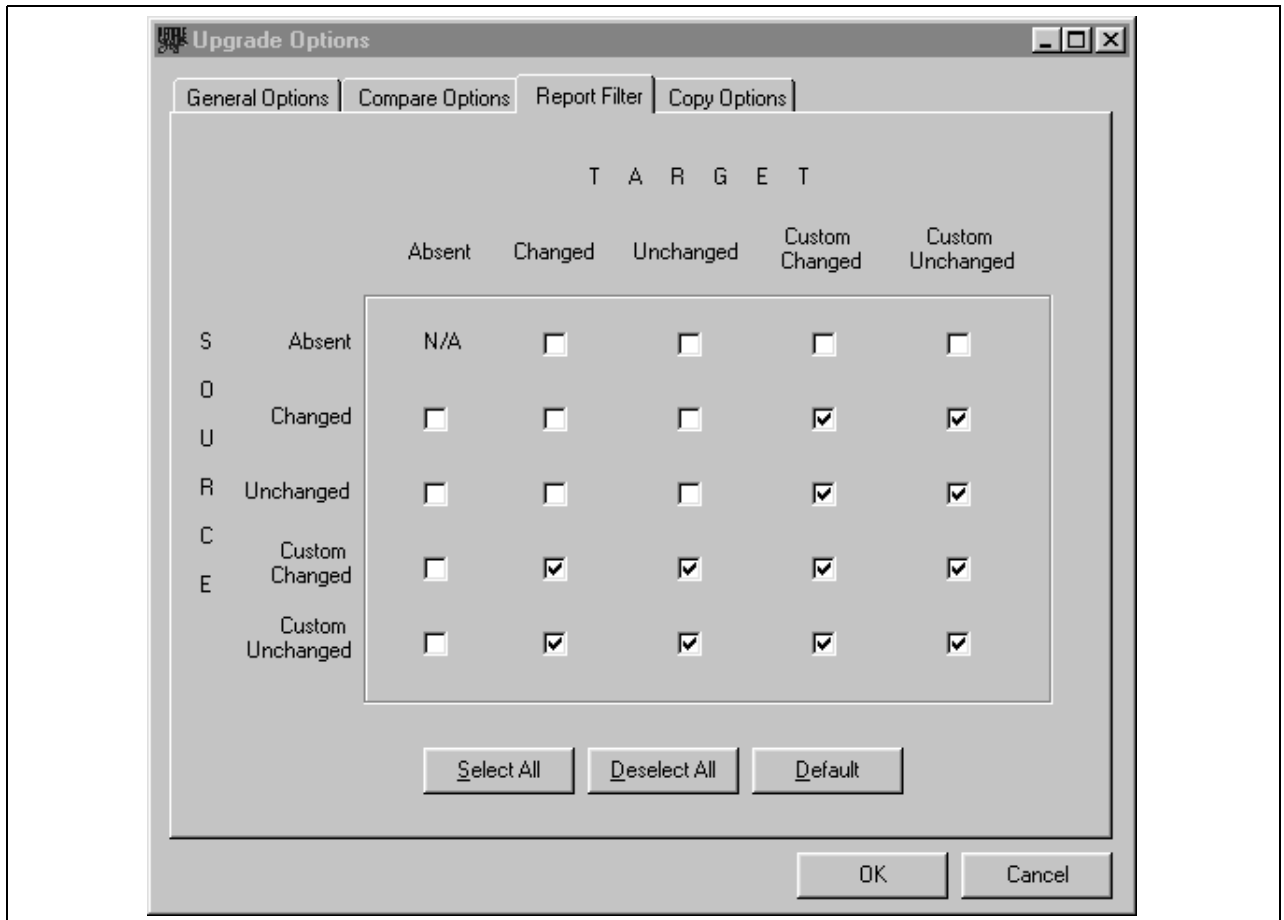
3. Select Upgrade

The Compare and Report dialog box appears.

4. Select Options.
5. Click on the Report Filter tab.

The default options will include your custom changes on the reports.

6. Change the default options if you wish.



Upgrade Options dialog box: Report Filter tab

## Properties

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

## Task 2-8-2: Clone the PPLTOOLS Project

In this step you will create a clone of the PPLTOOLS project: COMPARE\_PPLTOOLS. The compare needs to be run with the cloned project in order to preserve the status, upgradeaction, and takeaction flags within the original project.

To create the COMPARE\_PPLTOOLS project:

1. Sign on to the Demo database using the new PeopleTools release.
2. From the Go menu, select Application Designer.
3. Select File, Open....
4. From the Definition drop-down list box, select Project and click Open to display a list of all projects
5. Select the PPLTOOLS project and click Open again.

6. Select File, Save Project As...
7. Enter COMPARE\_PPLTOOLS and click OK.

### Properties

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

## Task 2-8-3: Compare the PeopleTools Project

The objects that PeopleTools delivers should not be modified in any way. Doing so may result in system instability or crashes in your PeopleSoft application. However, even under the most careful environments, it is possible that a PeopleTools object could become modified from its delivered state. It is also possible that PeopleTools delivered a new object that could conflict with an object you may have added to your PeopleSoft system. If you modified any object delivered in the PPLTOOLS project, you will need to identify those objects by running the database compare.

The PPLTOOLS project that you will copy in the next step contains changes to all the PeopleTools objects. You must take the PeopleSoft-delivered object definition by copying this project in its entirety for the system to work properly. If you have used any of the objects in this project in any of your modifications, these changes may negatively impact your data. To verify that this won't happen, you need to compare the delivered PeopleTools objects to your Copy of Production.

---

**Important!** In order for PeopleTools to operate correctly, any customizations to PeopleTools objects must not be retained during the copy process.

---

### Properties

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

## Task 2-8-4: Review the Compare Reports

In this task, you will review your upgrade projects to evaluate how they will affect your customizations.

- **COMPARE\_PPLTOOLS:** This project contains all of the differences between the Demo database and your Copy of Production database for the objects in the project. This project will not include object definitions that are on your Copy of Production database and are not on the Demo database. The database compare produces compare reports that can be viewed by opening the project in Application Designer. You must review the compare reports to determine if you have customized any PeopleTools objects
- **TLSUPGNONCOMP Project:** This project is delivered in your Demo database. It contains noncomparable object definitions. These object definitions are required for your upgraded database to function correctly. You will need to review this project to see if you have customized any of the noncomparable objects and reapply those customizations later in the upgrade. Review the following noncomparable objects types in the TLSUPGNONCOMP project:

ACCESS GROUPS

ROLES

TREES

- **PPLDELETE Project:** This project is delivered in your Demo database. It contains both comparable and noncomparable object definitions. These object definitions are obsolete in the latest release of PeopleTools. You will need to review this project to see if you have customized any of these objects. To ensure the integrity and functionality of the system, you should delete obsolete PeopleSoft objects. If you have made a customization to an obsolete object, refer to the PeopleTools Release Notes to access the functionality of the customization and determine where to reapply it in the new release.

When you review these projects, you will be looking for the customizations you have applied to your database. Object definitions that you have changed will have \*Changed or \*Unchanged in the Target column of the compare report (the \* means the change was not made by PeopleSoft). Review these objects carefully. For objects delivered by PeopleSoft, the Source column of the report reads Changed. You should note the changes you made to the object and after the upgrade is complete and you are testing the system, decide whether you still need the customization. You can reapply the customization at that time.

For detailed information regarding compare reports, refer to the appendix.

See Appendix: “Understanding the Comparison Process.”

### Properties

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

---

## Task 2-9: Exporting and Copying Projects

This section discusses:

- Understanding Exporting and Copying Projects
- Export and Copy PTPORTALDEL Project
- Export and Copy PPLTOOLS Project
- Export and Copy PPLTLSML Project
- Export and Copy PPLDELETE Project
- Export and Copy PATCH84X Project
- Export and Copy PATCH84XML Project

### Understanding Exporting and Copying Projects

In this task, you export and copy projects.



PeopleSoft recommends that you verify the results of all copied projects. After a project has been copied, each object is identified with a checkmark in the Done column. You can view these results from the Upgrade tab in Application Designer. It is also recommended that you copy the 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 Enterprise PeopleTools PeopleBook: PeopleSoft Application Designer for your new release.

## Task 2-9-1: Export and Copy PTPORTALDEL Project

This step deletes obsolete or changed Portal registry structures. These obsolete or changed structures must be deleted before the new Portal registry structures are copied, when you export and copy the PPLTOOLS project.

See Export and Copy PPLTOOLS Project.

### Properties

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

## Task 2-9-2: Export and Copy PPLTOOLS Project

This process copies specified tools objects to your database that are necessary for the proper operation of PeopleTools.

Before the fields are copied, the upgrade process detects whether the object definition exists or not. PeopleSoft delivers the PPLTOOLS project 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 you 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 PeopleTools project contains fields along with their field label. This is necessary so the software does not overwrite any customized field labels on PeopleSoft field objects.

PeopleSoft deletes objects that existed in earlier PeopleTools releases. Therefore, you will see warnings when copying the PPLTOOLS project from your source database that you upgraded to the new PeopleSoft release. This project may contain objects that are orphaned because their parent objects were removed. You can ignore these warnings and continue with your upgrade. For example:

```
Definition Name: object_name not copied, not found on source database.
Definition Name: object_name not copied, parent definition does not exist in⇒
target database.
```

You may see the following error during the copy of Portal Registry Structures:

```
Duplicate Key. Portal: portalname, Obj name: objectname, CP: nodename, URL (1st 50⇒
char): URL
```

This error occurs when copying a Portal Registry Structure that has a different `PORTAL_OBJNAME` but the same `PORTAL_URLTEXT` as an existing registry object. If you get this error, you should take the PeopleSoft-delivered version of this object, but you need to evaluate whether you want to keep the conflicting object. Delete or modify the old object to remove the conflict and recopy this object to bring in the PeopleSoft-delivered version of this object.

### Properties

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

## Task 2-9-3: Export and Copy PPLTLSML Project

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

Before copying records and fields, the upgrade process detects whether the object definition exists or not. PeopleSoft delivers the PPLTLSML project 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 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 PeopleTools project contains fields along with their field label. This was done so PeopleSoft does not overwrite any customized field labels on PeopleSoft field objects.

### Properties

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

## Task 2-9-4: Export and Copy PPLDELETE Project

This process deletes PeopleTools objects that are no longer required for the new PeopleTools release. The fields in the PPLDELETE project are considered PeopleTools fields, but they are sometimes used in application tables. You will receive some errors at this time, similar to the following example:

This process deletes PeopleTools objects that are no longer required for the new PeopleTools release. The fields in the PPLDELETE project are considered PeopleTools fields, but they might be used in custom tables. You may receive some errors at this time, similar to the following example:

```
Error: Field Fieldname is in use in at least one record.
```

These errors may be ignored since they may refer to fields that PeopleTools no longer uses in the new release but are fields that are still in use by PeopleSoft Applications. If these fields are not used in customizations, they will be deleted during the application compare and copy process. The following fields may be affected:

If you receive these errors, you should modify the object so it no longer uses these deleted PeopleTools fields.

## Properties

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

## Task 2-9-5: Export and Copy PATCH84X Project

This process copies specified objects to the database that are necessary for the proper operation of PeopleTools.

---

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

---

Use Application Designer to perform the following steps.

To export and copy the project:

1. Log on to your Target database as a valid user.
2. Select Tools, Copy Project, From File...
3. In the Import Directory field, enter *PS\_HOME\PROJECTS*.
4. Select the PATCH84X project from the list, where 84X corresponds to the PeopleTools release of the patch project. This should correspond with the PeopleTools release to which you are upgrading.
5. Click Copy.

## Properties

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

## Task 2-9-6: Export and Copy PATCH84XML Project

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

---

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

---

Use Application Designer to perform the following steps.

To export and copy the project:

1. Log on to your Target database as a valid user.
2. Select Tools, Copy Project, From File...
3. In the Import Directory field, enter *PS\_HOME\PROJECTS*.
4. Select the PATCH84XML project from the list, where 84X represents the PeopleTools release of the patch project. This should correspond to the PeopleTools release to which you are upgrading.

- Click Options, and then select the Copy Options tab and verify that only the non-English languages that are installed are selected.

---

**Note.** The languages English and Common should not be selected.

---

- Click OK.
- Click Copy.

### Properties

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

---

## Task 2-10: Updating Database Overrides

This section discusses:

- Understanding Database Overrides
- Set Index Parameters After Copy
- Set Tablespace Names After Copy
- Set Record Parameters After Copy
- Update Tablespace Names

### Understanding Database Overrides

In this task, you update PeopleTools tables with DDL information from your physical database DDL. You may have overwritten information about where tables exist in your database during the copy project steps of this upgrade. The following steps synchronize your PeopleTools table definitions with your database again.

#### Task 2-10-1: Set Index Parameters After Copy

This step updates index overrides stored in the PSIDXDDLPARM table. The values stored in the PARMVALUE field are updated with current values found in the system catalog. The name of the process is:

SETINDEX.SQR

### Properties

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

## Task 2-10-2: Set Tablespace Names After Copy

This step updates tablespace names stored in the PSRECTBLSPC table. In addition, the values stored in the DDLSPACENAME field are updated with current values found in the system catalog. If you modified tablespace names from the PeopleSoft-delivered names, this process makes those same changes in the PeopleSoft record definition. It also corrects any tablespace names that were reset with values from the Demo database during the copy project step. The process then lists any tablespaces defined in the PeopleTools tables that are not currently on your database. The name of the process is:

SETSPACE.SQR

---

**Note.** This step updates both the database and tablespace names in the PSRECTBLSPC table for DB2 z/OS sites. The report produced by this process lists database/tablespace combinations that were not defined in the DB2 system catalog. The report may show your Demo database and tablespace names instead of your Copy of Production database and tablespace names.

---

See Update Tablespace Names.

### Properties

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

## Task 2-10-3: Set Record Parameters After Copy

This step updates table overrides stored in the PSRECDDLPRM table. The values stored in the PARMVALUE field are updated with the current values found in the system catalog. The name of the process is:

SETTABLE.SQR

### Properties

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

## Task 2-10-4: Update Tablespace Names

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

- Generate the alter/create scripts and globally edit the scripts, changing the Database/tablespace values to those of your Copy of Production.
- Directly update the table PSRECTBLSPC with your Target database names before generating the alter/create scripts. This will ensure that the Database name/tablespace combinations 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 PeopleSoft-delivered tablespaces, you may 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	All

---

## Task 2-11: Building the PeopleTools Project

This section discusses:

- Generate the PeopleTools Script
- Edit the PeopleTools Script
- Run the PeopleTools Script

### Task 2-11-1: Generate the PeopleTools Script

This step generates the PeopleTools Create and Alter script to create and alter records of the type Table that are delivered in the PPLTOOLS 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 also creates new indexes, re-creates modified indexes, and creates triggers. The script name is:

```
PTCREATEANDALTERTABLES.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 2-11-2: Edit the PeopleTools Script

In this step, you edit the script you generated in the previous task 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, have your database administrator review these scripts and modify the tablespace names appropriately.

### Properties

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

## Task 2-11-3: Run the PeopleTools Script

In this step, you run the script you generated in the previous step to create all records of the type Table. This step 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 2-12: Migrating Records to New Tablespaces

This section discusses:

- Understanding Migration of Records to New Tablespaces
- Export and Copy the PT84TBLSPC Project
- Build the Tablespace Alter Script

- Edit the Tablespace Alter Script
- Run the Tablespace Alter Script

## Understanding Migration of Records to New Tablespaces

In this task you migrate the tables delivered in the PT84TBLSPC project to the correct tablespaces.

### Task 2-12-1: Export and Copy the PT84TBLSPC Project

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

#### Properties

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

### Task 2-12-2: Build 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 PeopleTools. The script name is:

TABLESPACEALTERTABLES.SQL

---

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

---

#### Properties

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



## Task 2-12-3: Edit the Tablespace Alter Script

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

## Task 2-12-4: Run the Tablespace Alter Script

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

### Properties

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

---

## Task 2-13: Loading Base Data

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

## Properties

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

## Task 2-14: Loading Language Data

This section discusses:

- Populate Languages
- Load Language Data

### Task 2-14-1: Populate Languages

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

## Properties

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

### Task 2-14-2: Load 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	Initial	All	All	All Non-English

## Task 2-15: Loading PeopleTools Data

This section discusses:

- Load NonComparable Objects
- Load English Messages
- Load English String Data
- Load Stored Statements Data

### Task 2-15-1: Load NonComparable Objects

This step runs the TLSUPGNONCOMP.DMS script. This script loads the TLSUPGNONCOMP project and all 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 2-15-2: Load English Messages

This script loads English messages into your database.

#### Properties

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

### Task 2-15-3: Load English String Data

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

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

#### Properties

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

### Task 2-15-4: Load Stored Statements Data

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

This script loads the dynamic SQL used by the PeopleTools-delivered COBOL.

### Properties

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

---

## Task 2-16: Creating All Views

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

**Note.** After you have completed a successful test move to production, you may want to save time during the move to production by not regenerating the Create Views SQL script. If you decide not to regenerate the script, refer to the following:

See “Apply Changes to Production Database,” Testing the Move to Production.

### Properties

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

---

## Task 2-17: Converting PeopleTools Objects

This section discusses:

- Expand Fields on Records
- Alter Approval Rule Set Related Tables
- Update Message Nodes
- Update Message Nodes for Informix
- Convert Portal Objects
- Convert Query Prompt Headings
- Load Conversion Data
- Report Conversion Details
- Run Data Conversion

## Task 2-17-1: Expand Fields on Records

This step runs the Application Engine program, UPG84. This process clears the table PSRECFIELDDB. It then opens each record, expands the fields in subrecords, and writes the list of expanded fields into PSRECFIELDDB.

### Properties

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

## Task 2-17-2: Alter Approval Rule Set Related Tables

This step runs the Application Engine program VACONVERT2. It increases the size of the MAX\_DEBIT\_AMT and MAX\_CREDIT\_AMT columns in the PS\_APPR\_RULE\_AMT and PS\_APPR\_VA2\_WRK tables from DECIMAL (15, 2) to DECIMAL (26, 3). It also adds a column to the PSVAITEM table.

---

**Note.** When you modify tablespace and indexspace information, you also need to modify the VACONVERT2 program.

---

See Appendix: “Modifying the Approval Rule Set Program.”

### Properties

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

## Task 2-17-3: Update Message Nodes

This step runs the Data Mover script PORTALNODES.DMS. This script sets the default local node, the local default node’s Portal and Content URI Text, node types, and the default portal name.

---

**Note.** If you are running on Informix, perform the next step instead.

---

## Properties

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

## Task 2-17-4: Update Message Nodes for Informix

This step runs the script PORTALNODES.SQL. This script sets the default local node, the local default node's Portal and content URI text, node types, and the default portal name.

## Properties

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

## Task 2-17-5: Convert Portal Objects

This step runs the UPG84PORTAL Application Engine program.

The UPG84PORTAL Application Engine program updates PeopleSoft Portal objects to the new PeopleSoft format. You must have portal administration privileges when running this process.

The UPG84PORTAL process performs the following actions:

- Sets the node type to *EX* for message nodes whose URI doesn't contain *iclientservlet*.
- Sets the DEFAULT system tab dynamic categories.
- Converts registered portal content reference data to simple URL format if the node type for the cref is PIA or uses LOCAL\_NODE.
- Converts template content reference data, pagelet content reference EditURL data, and favorites data to simple URL format.
- Copies your home page personalization data and your favorites data to the default portal.
- Converts related links to simple URL format if the node type is set to Oracle's PeopleSoft Pure Internet Architecture..

You may see some errors or messages in your log. The following list contains some of the errors and what to do about them:

- Not authorized CRef: PT\_PORTAL\_HOMEPAGE\_GBL (95,5032).  
This means that you do not have proper privileges to run this conversion. Grant the Portal Administrator role to the upgrade user ID.
- Security synchronization failed for Portal Object: *Portal Object Name*.

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 the UPG84PORTAL process can be rerun.

- 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 the UPG84PORTAL process can be rerun.

- Favorite not saved. Target content reference URL: *URL*, not found. Favorite: *favorite name*, user: *user name*. (95,5068)

Message Set Number: 95

Message Number: 5068

Message Reason: Favorite not saved. Target content reference URL: *URL*, not found. Favorite: *favorite name*, user: *user name*. (95,5068)

The favorite referenced in the previous message will not be converted to simple URL format. After the final Move to Production upgrade pass, the end-user will have to reenter the favorite with a valid value on the upgraded production database.

- Error getting Favorite for label XXXX.(Where XXXX represents a favorite label.) (96,58)

Ignore this error. It will not cause any problems to occur.

- Access denied, source message node not defined. (94,24)

Message Set Number: 94

Message Number: 24

Message Reason: Access denied, source message node not defined. (94,24)

The favorite referenced in this message will not be converted to simple URL format. After the final Move to Production upgrade pass, the end-user will have to reenter the favorite with a valid value on the upgraded production database.

## Properties

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

## Task 2-17-6: Convert 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 9 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 9.

If you find a duplicate heading that exceeds the length of the field HEADING, you need to manually change the heading. 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 Enterprise PeopleTools PeopleBook: PeopleSoft Query for your new release.

### Properties

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

## Task 2-17-7: Load Conversion Data

This step imports 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 2-17-8: Report Conversion Details

This step runs the PTUCONV.SQL 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 2-17-9: Run Data Conversion

The Upgrade Driver Application Engine program, PTUPGCONVERT, runs additional 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. After running PTUPGCONVERT, review the output data generated in the previous step for more details.



## Properties

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

---

## Task 2-18: 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

If you are upgrading from PeopleTools 8.48 or later, this task does not need to be run since the Integration Broker conversion has already been performed. You may mark all of the steps in this task as “Complete” in your upgrade job. If you don’t mark these steps as complete, the upgrade will try to unnecessarily reconvert your objects.

### Task 2-18-1: Updating Integration Broker Defaults

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

## Properties

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

## Task 2-18-2: Creating Integration Broker Objects

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

### Properties

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

## Task 2-18-3: 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 since they will be deleted from the upgrade database.

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

### Properties

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

## Task 2-18-4: Exporting Node Transactions

This step runs PTUPG\_TRX\_EXPORT.DMS to save out the old pre-conversion node transaction data. The generated .dat file is written to the DataMover output directory defined in Configuration Manager, which should be your *PS\_HOME*\data directory.

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

### Properties

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

## Task 2-18-5: Preparing Integration Broker Deletes

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

**Properties**

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

**Task 2-18-6: 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 pre-conversion object definitions from the upgrade database.

**Properties**

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

**Task 2-18-7: Deleting Node Transactions**

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

**Properties**

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

---

**Task 2-19: Verifying NonBase Language Pages**

This section discusses:

- Understanding NonBase Language Pages
- Verify NonBase Language Pages
- Delete Unused Language Pages

**Understanding NonBase Language Pages**

In this task, you review nonbase language pages created by the upgrade process and, if applicable, run a script to delete any unneeded nonbase language pages.

## Task 2-19-1: Verify NonBase Language Pages

In the new PeopleTools release, PeopleSoft has changed the way that translations of pages are stored. Instead of storing a complete copy of the page's structure per language, only the elements of a page that are language-sensitive, such as field labels and field position, are stored. All other elements of a page's design, such as the use properties of a field, the existence of a field, and any associated PeopleCode, are shared across all languages of a page.

Therefore, as part of your upgrade to the new PeopleTools release, the upgrade process scanned your nonbase language pages to determine if their structure is similar to the base language version of the same page. If the nonbase language version of a page is sufficiently similar to the base language version, PeopleTools combined these pages into one, and stored the language-sensitive elements of the page using the new architecture. However, if the nonbase language page does not match the structure of its base language equivalent, PeopleTools made a copy of the nonbase language page so you can maintain these changes. If you made customizations to nonbase language pages, you should review the contents of the PSX\_PAGEACTION table to determine which new pages were created by the upgrade process in order to preserve your changes. You can either add these newly created pages to menus, or delete the newly created pages and reapply your changes to the base language equivalents for these pages, which will then take effect across all languages for that page.

The following attributes of a page were compared against the same attributes of each associated nonbase language page during execution of the REL script:

- Number of fields
- For each equivalent field on the base and nonbase pages, whether any of the following do not match:
  - Field Order
  - Panel Field Name (PNLFIELDNAME)
  - Record Name
  - Record Field Name
  - Occurs Level
  - Field Type (for example, checkbox, dropdown list, or edit box)
  - Field Use (for example, invisible or related display) except for Use Default Label

If any of these attributes differed between the base language page and its nonbase language equivalents, the nonbase language page was duplicated. If all these attributes matched, then the base and nonbase language pages differed only in user interface and were merged.

Follow the steps below to determine which action was taken against each of your pages and the appropriate response.

To verify nonbase language pages:

1. Examine the PSPNLDEFN with the following SQL statement. The results will be the original page name plus underscore language code (for example, TRANSLATION\_RECORDS\_FRA), and the name of the new page created to preserve the language-specific structural changes.

```
SELECT DESCR, PNLNAME
FROM PSPNLDEFN
WHERE PNLNAME LIKE 'FIXPGNAME%'
```

2. Take one of the following actions on the pages from the output of the SQL select statement above:

- If you did not customize the pages, or if you no longer want to maintain the structural changes on the nonbase language page that differ from the base language page, you can safely delete the newly created pages using Application Designer, once you perform a backup after upgrading.

See Backing Up After PeopleTools Upgrade.

- If you do not want to preserve the language-specific structural changes to any of the pages in the result set from the SQL select statement above, follow the instructions in the next step to delete all corresponding duplicate pages.

See Delete Unused Language Pages.

## Properties

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

## Task 2-19-2: Delete Unused Language Pages

If you currently use only the base language of your database or do not want to preserve any of the customizations you made to nonbase language pages, you can delete all of the new pages created by the upgrade process (where nonbase languages did not match their base language equivalents). Run the following script manually in Data Mover user mode to maintain only the customizations on the base language pages and to delete customizations on nonbase language pages.

```
PT84RLPD.DMS
```

If you want to maintain customizations on any nonbase language pages and preserve any of the duplicate pages, do not run this script.

---

**Important!** The PSX\_PAGEACTION table will be deleted later in the upgrade. Complete this task and record the contents of PSX\_PAGEACTION before proceeding with your upgrade. The record PSX\_PAGEACTION contains the pages that have been renamed to *FIXPGNAME%*. For pages with a CONVERT\_ACTION of *X*, the structure of the pages matched, and were merged. No duplicate was created. You do not need to perform any action for these pages. For pages with a CONVERT\_ACTION of *D*, the nonbase language version of the page did not match the structure of the equivalent base language page and was duplicated (for example, *FIXPGNAME1*).

---

## Properties

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

## Task 2-20: Finalizing the Database Structure

This section discusses:

- Run the AE SYNCIDGEN Process

Now that Data Conversion is complete, this task will create Sync IDs.

## Task 2-20-1: Run the AE SYNCIDGEN Process

This step executes the AE\_SYNCIDGEN Application Engine program. Mobile applications use synchronization IDs in order to give each row a unique identifier. For any tables with the synchronization ID column set to the default value of zero, the AE\_SYNCIDGEN program will populate the column with the next valid synchronization ID value.

### Properties

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

---

## Task 2-21: Clearing Process and Report Tables

This section discusses:

- Understanding Process and Report Tables
- Purge Process Request Tables

### Understanding Process and Report Tables

In the new PeopleTools release, some new Process Request tables were introduced and are used when scheduling a request or job. After upgrading from a previous PeopleTools release, the content of these tables will be inconsistent with how the Process Scheduler modules use them. This will cause unexpected results when viewing the status of these requests from the Process Monitor page. You must clear the content of these tables before scheduling any requests.

### Task 2-21-1: Purge Process Request Tables

This step runs the PRCSCCLR.DMS script, which purges all entries found in the Process Request tables.

### Properties

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

---

## Task 2-22: Setting Object Version Numbers

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

---

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

---

### Properties

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

---

## Task 2-23: Backing Up After PeopleTools Upgrade

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

### Properties

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





## CHAPTER 3

# Complete Database Changes

This chapter discusses:

- Understanding the Database Preparation
- Configuring Your Environment
- Reviewing PeopleTools Functionality
- Setting Up Security
- Updating Language Data
- Updating Object Version Numbers
- Running the Final Audit Reports
- Stamping the Database
- Reviewing Change Control
- Backing Up Before Testing
- Testing Your Copy of Production

---

## Understanding the 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 version of PeopleSoft. Use your current codeline and PeopleTools version to perform these tasks.

---

## Task 3-1: Configuring Your Environment

This section discusses:

- Configure Scheduler and Server
- Configure Portal
- Reapply Customizations

---

**Note.** In this task, you will configure your upgraded database. You will then work with your customized objects to ensure that they are properly integrated into your upgraded database.

---

## Task 3-1-1: Configure Scheduler and Server

Configure and start your process scheduler server and application server.

Tips for configuring and starting the application server:

- Keep track of the port numbers each instance uses because you will probably start and stop the application server for multiple instances during the upgrade.
- Set a different JSL port for each database instance.

See the Enterprise PeopleTools installation guide for your database platform.

### Properties

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

## Task 3-1-2: Configure Portal

As of PeopleTools 8.4, most of PeopleSoft's applications require the use of Portal; in particular, *Maintain Security* which will be needed to grant users access to complete the upgrade process. You must install and configure Portal to complete the upgrade.

You also need to define a password in Node Definition for Single Signon to work properly. If a password is not defined, the signon page will appear when trying to access a report directly instead of the report itself. To avoid this issue, follow the directions below to assign a password.

To assign a password:

1. Select PeopleTools, Integration Broker, Integration Setup, Nodes.
2. Click Search.
3. Select the database's default local node.  
The default local node shows a 'Y' in the Default Local Node column.
4. On the Node Info tab, under Authentication Option, select *Password*.
5. Enter a password in the Password field.
6. Enter the password again in the Confirm Password field.
7. Save the Node Definition.
8. Reboot the database web server.

See the Enterprise PeopleTools installation guide for your database platform.

### Properties

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

## Task 3-1-3: Reapply Customizations

This section discusses:

- Performing Adjustments for Customized Objects
- Registering Components for Portal Navigation

### Performing Adjustments for Customized Objects

When you copied the PPLTOOLS project, you took the PeopleSoft-delivered version of the objects. You may need to do some customizations to get the blend of new standard features and your custom features. To prevent your customizations from being overridden in future upgrades, you should not modify a delivered PeopleTools object. In complex cases, this may take several iterations of custom development of new objects.

Once you have reapplied all of your customizations you will want to run the DDDAUDIT and SYSAUDIT reports to make sure that you have not introduced any problems into your system.

During Move to Production (MTP) passes you will not need to reapply these customizations. The changes you make now will be copied to any subsequent Copy of Production database using Data Mover scripts (DMSs).

### Registering Components for Portal Navigation

You must register your customized objects, such as menus and components, in order to access them in Portal. You can use the Registration Wizard or the Menu Import process to grant access to the appropriate components. Make sure you register your components for all of your portals (for example, Customer, Supplier, Employee, and so forth). Also, make sure that you pick the node name that matches the database (do not use the *LOCAL* node).

See Enterprise PeopleTools PeopleBook: PeopleSoft Application Designer for your current release.

See Enterprise PeopleTools PeopleBook: Internet Technology for your current release.

### Properties

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

---

## Task 3-2: Reviewing PeopleTools Functionality

The PeopleBooks detail the current PeopleTools functionality. There are many new features delivered in the new release that you may wish to use. You should now review the PeopleSoft Enterprise PeopleBooks and PeopleTools Installation Guide in order to configure your environment properly. This may include, but is not limited to, configuring and starting a process scheduler, report server, and reviewing portal settings.

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

See PeopleSoft Customer Connection (Implement Optimize + Upgrade, Upgrade Guide, Upgrade Documentation and Software, Release Notes).

- If you applied a 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 Change Assistant output directory if you do not know whether a script was already run during the upgrade process.

- PeopleTools uses Verity release 5.0 to implement free text search. Verity 5.0 is not compatible with the version of Verity that was used in previous PeopleTools releases. Check the necessary application patches that may be required in order to use the new version of Verity.

See PeopleSoft Customer Connection (Updates + Fixes, Required for Install or Upgrade).

- An upgrade may cause the web server domain name, port number, or servlet path required to access Web Server resources to change. As a result, performing PS/nVision drill-down operations on reports that were created prior to upgrade would fail. This is mainly because drill-down hyperlinks are by design hard coded into PS/nVision reports. A simple search and replace utility has been provided that can be used to replace old hyperlinks with new ones. This Microsoft Excel macro is located at %PS\_HOME%\EXCEL\UpdateNvsDrill.xls.
- Integration Broker was rewritten in PeopleTools 8.48. If you use Integration Broker, you will need to perform setup configuration and review the explanation of metadata mapping.

See Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Integration Broker.

## Properties

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

---

## Task 3-3: Setting Up Security

This section discusses:

- Understanding Security
- Synchronize 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 3-3-1: Synchronize CREF Permissions

This section discusses:

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

### Understanding Content Reference Permissions

As part of the PeopleTools 8.4x Portal architecture, Portal Registry Structures reference permission lists. At this point, however, the Portal Registry Structures copied from the Demo database do not reference any permission lists on the Copy of Production 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 Process Scheduler must be running in order to perform this task.

---

## Running the Portal Security Synchronization Process

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

To run the security synchronization process:

1. From your browser, sign on to your Target database.
2. Select PeopleTools, Portal, Portal Security Sync.
3. Select 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 repeat, in step 6 change the Portal Name field to one of the following: *EMPLOYEE*, *CUSTOMER*, *SUPPLIER*, *MOBILE*, and so on.
13. Review any messages received during the running of this process with your Portal Administrator.

See Enterprise PeopleTools PeopleBook: Internet 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	Initial	All	All	All

---

## Task 3-4: Updating Language Data

This section discusses:

- Understanding Updating Language Data
- Run the TSRECPOP Script

### Understanding Updating Language Data

In this task, you run scripts to modify data in PeopleTools related language tables.

---

**Note.** For DB2 z/OS customers, PeopleSoft recommends that you run RUNSTATS against the system catalog tables at this time.

---

#### Task 3-4-1: Run the TSRECPOP Script

In this step, the TSRECPOP script initializes and modifies the data in PeopleTools related language architecture tables.

##### Properties

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

---

## Task 3-5: Updating Object Version Numbers

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

---

**Note.** Do not update statistics after you complete this task.

---

##### Properties

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

---

## Task 3-6: Running the Final Audit Reports

This section discusses:

- Run the Final DDDAUDIT Report

- Run the Final SYSAUDIT Report
- Create the FNLALTAUD Project
- Run the Final Alter Audit
- Review the Final Audits

### Task 3-6-1: Run the Final DDDAUDIT Report

DDDAUDIT is an SQR that compares your production SQL data tables with the 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 3-6-2: Run 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 3-6-3: Create 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 and temp 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 3-6-4: Run the Final Alter Audit

Run the PeopleTools alter record process on all tables in your system to check whether the PeopleTools definitions are synchronized with the underlying SQL data tables in your database. PeopleSoft calls this process an Alter Audit. Alter Audit compares the data structures of your database tables with the PeopleTools definitions to uncover inconsistencies. Alter Audit then creates an SQL script with the DDL changes needed to synchronize your database with the 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 3-6-5: Review the Final Audits

The Alter Audit process creates SQL scripts that correct any discrepancies between your 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 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 and DDDAUDIT reports and correct any discrepancies.

Your DDDAUDIT listing shows some expected discrepancies. Tables and views deleted from the Application Designer are not automatically deleted from the system tables. PeopleSoft 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.

Your SYSAUDIT report may have some errors due to references to obsolete PeopleSoft-owned objects. For instance, if PeopleSoft deletes a Permission List, and you have a Role that still refers to that Permission, then it will appear on the SYSAUDIT report.

See Enterprise PeopleTools PeopleBook: Data Management for your new release.

### Properties

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



## Task 3-7: Stamping the Database

In this step, you set the database to the release level of the Demo database. The values you enter here appear whenever you view the Help, About PeopleTools dialog.

To stamp the database:

1. Launch Application Designer on your Copy of Production database using the new PeopleSoft release.
2. Select Tools, Upgrade, Stamp Database...
3. Fill in all three of the PeopleSoft Release fields with the appropriate value for your product line and release number:

PeopleTools, 8, 4x, 00, 000 where the x stands for the PeopleTools release you⇒ upgraded to.

4. In the Service Pack field, enter the service pack number to which you are upgrading. For example, if you are upgrading to SP2, enter the number 2. If you are upgrading to a release that is not at a service pack level, enter 0.
5. Click Stamp.
6. Close Application Designer.

### Properties

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

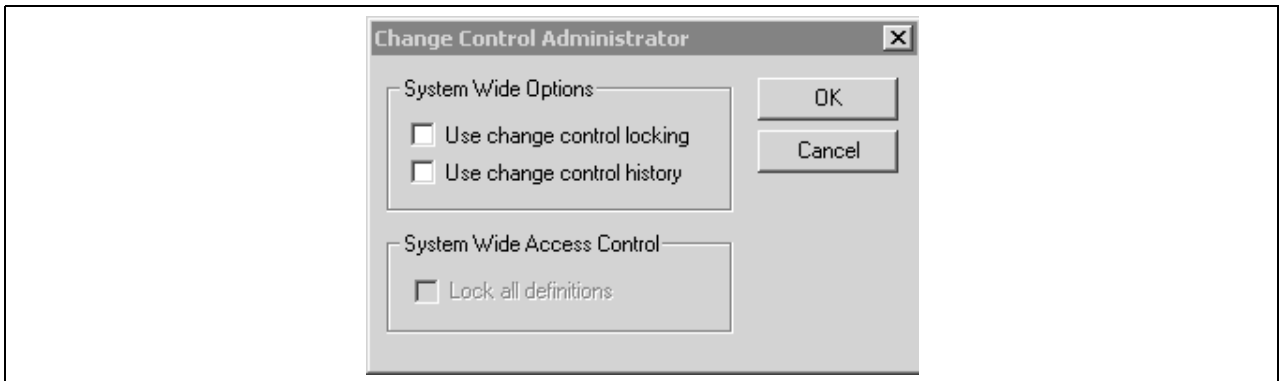
## Task 3-8: Reviewing Change Control

Earlier in the upgrade process, in the beginning of the chapter “Apply 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 on to the Target database using Application Designer.
2. Select Tools, Change Control, Administrator.

The following dialog box appears:



Change Control Administrator dialog box

- Set Use change control locking and Use change control history according to your site specifications.

**Note.** Move to Production: The Change Control feature slows down copy functions. The large copy projects are only executed during the initial pass, and the feature is only disabled during the initial pass. If you enable the feature at this point, it will remain enabled during future test Move to Production passes.

See “Apply PeopleTools Changes,” Turning Off Change Control.

### Properties

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

## Task 3-9: Backing Up Before Testing

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

### Properties

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

## Task 3-10: Testing Your Copy of Production

In this task, you test your Copy of Production. Testing your Copy of Production will ensure that you can still operate your day-to-day processes on your new release. After you have reviewed your DDDAUDIT and SYSAUDIT, verify that the system is working properly by reviewing the system online. After you are comfortable that the system is working properly, you can perform the Test Move to Production upgrade pass.

See Appendix: “Testing Techniques.”

### Properties

<b>Database Orientation</b>	<b>Initial or MTP</b>	<b>Products</b>	<b>Platforms</b>	<b>Languages</b>
Target	Both	All	All	All



## CHAPTER 4

# Apply Changes to Production Database

This chapter discusses:

- Understanding the Move to Production
- Testing the Move to Production
- Testing Once More
- Performing the Move to Production
- Completing the Upgrade Survey

---

## Understanding the Move to Production

Once you complete all of the necessary tasks to launch your system into production, you are ready to begin your Test Move to Production passes or to move your system into production.

---

## Task 4-1: Testing the Move to Production

This section discusses:

- Understand Move to Production
- Create a New Change Assistant Job

### Task 4-1-1: Understand Move to Production

The following text is a high level view of what you will be doing in the Move to Production test pass. The remaining steps in this task will prepare your test environment. Next you will create a new Change Assistant job, setting the Type of Upgrade to Move to Production. That will give you a job with steps filtered with only those steps that apply to the Move to Production (MTP) test pass. From that point forward, you will simply follow the steps as they exist in your new job.

One of those first steps will be to take a Copy of Production. This second Copy of Production is sometimes referred to as the “New Copy of Production.” The first Copy of Production, or “old” Copy of Production, will now be the source database (it was the target database in the initial test pass). The New Copy of Production is now the target database.

The steps executed in the MTP pass vary in several ways. Many of the tasks/steps in the initial test pass will be replaced in the MTP pass with Data Mover export and import scripts. In the initial pass, some steps required you to make functional decisions and take time to manually setup data. That data can be copied from the first database to the next, saving you setup time and eliminating the chance for manual error or typos.

Also, the MTP pass does not repeat the database compare/copy steps. You made the decisions once; there is no need to repeat these steps. Instead, a Data Mover script (DMS), MVPRDEXP, will export all the tables that contain the PeopleTools objects like records and PeopleCode from the first database. Another DMS, MVPRDIMP, will import those tables into the second database. Anything you have done to PeopleTools objects while executing or testing the first pass—copied objects from DMO, reapplied customizations, applied updates from the PeopleSoft Customer Connection web site—will be moved to the second Copy of Production with these scripts.

Another important difference with the MTP pass is the handling of SQL scripts that create and alter tables. In the initial pass, you generated the SQL scripts, sometimes edited the SQL scripts, and then executed the SQL scripts. In the MTP pass, you may be able to skip the generation steps and use the SQL you previously generated. This is another way to save time in your critical go-live window and is the ultimate goal, but it is an incremental process to get to that point.

In the first MTP pass, everyone must regenerate the SQL. There are small differences between the initial and MTP passes that require the SQL to be regenerated in at least one MTP pass. The Change Assistant Templates are delivered with the steps set this way.

In subsequent MTP passes, you may choose to “turn off” the generation steps if possible. If you have not changed any records at the end of one MTP pass, then you can reuse the SQL in your next pass. If you have done anything to change records, you should generate SQL again. This can include changes like making additional customizations to records.

If you choose to skip some of these steps, do one of the following: mark the step complete in your job, or change the step properties in the template, so the step will never show up in your MTP filtered job again. To change the step properties, go to the template view, Edit, Step Properties. Change Type of Upgrade to Initial Upgrade. In addition, copy the SQL scripts from the previous pass output directory to the new pass output directory. Change Assistant will look for the SQL scripts in the output directory set on the job’s Database Configuration, so make sure it will find them when it tries to run them.

The steps that are eligible for this treatment will contain Move To Production documentation notes indicating such.

---

**Note.** If you have made any changes to your trees, tree structures, or PS/Query objects since the upgrade began, you may want information on how to preserve those changes.

---

See Appendix: “Queries, Trees, and Tree Structures.”

## Properties

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

## Task 4-1-2: Create a New Change Assistant Job

You need to create a new Change Assistant Job for each test Move to Production pass.

To create a new Change Assistant job:

1. From Change Assistant, select File, New Environment and enter a name for the environment. Click OK.
2. Fill out and save the environment information for this upgrade pass.

Keep in mind that the previous pass Copy of Production database is now the source database and the New Copy of Production (that will be created in one of the first steps in this new job) is the target database. Other options like Database Language and SQL Query Executable will be the same as your previous environment.

3. Select File, New Job. Select the appropriate upgrade template and Click OK.
4. Select the environment that you just configured and Click OK.
5. Select the Type of Upgrade, Move to Production.
6. Click OK.
7. If you have been using documentation printed from the filtered view on the jobs, print the documentation again. The steps for Move to Production are different than the initial pass.

Now you are ready to run the job. The job will contain steps that were not in the initial upgrade pass and will exclude some steps that were in the initial upgrade based on the step properties.

### Properties

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

---

## Task 4-2: Testing Once More

As in any implementation project, you must consider planning, resources, development, and training. Testing also needs to be an integral part of your implementation project. Testing your database once more, after you have completed the upgrade, ensures that you can still operate your day-to-day processes on your new PeopleSoft release.

The level of testing in this task will focus primarily on the strategies to employ before moving into production.

See Appendix: “Testing Techniques.”

### Properties

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

---

## Task 4-3: Performing the Move to Production

When you are ready, you can move the system into production. Take your system out of production and perform all of the steps involved in testing the Move to Production against your production database. When you create your Move to Production Change Assistant job from the delivered templates there will be many manual tasks.

See Testing the Move to Production.

### Properties

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

---

## Task 4-4: Completing the Upgrade Survey

We are interested in feedback on your upgrade experience and any thoughts and/or suggestions you have on how we can improve the process in the future. Note that this survey should only be accessed once you have completed your upgrade and are in production on the new release.

### See Also

<http://www.peoplesoft.com/go/upgradesurvey>

### Properties

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



## CHAPTER 5

# Appendices

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### 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. PeopleSoft recommends that you read each appendix as it is referenced in the documentation.



## APPENDIX A

# Modifying the Approval Rule Set Program

This appendix discusses:

- Modify Approval Rule Set Related Tables

---

**Note.** This appendix contains instructions for reviewing and editing the Application Engine program that alters the approval rule sets.

---

## Task A-1: Modify Approval Rule Set Related Tables

This Application Engine program is used once during the upgrade process. The program alters some approval rule set-related tables.

To modify approval rule set-related tables:

1. Make sure the user running this program has security rights to create tables on the database.
2. Verify and modify, if necessary, the storage areas used in the Application Engine steps indicated below for tables and indexes.

- For DB2 z/OS platform users, the DDL selects the value for DBNAME from the following SQL:

```
SELECT PARMVALUE FROM PSDDLDEFPARMS WHERE PLATFORMID = 1 AND STATEMENT_TYPE =>
1 AND PARMNAME = 'OWNER'
```

- The DDL selects the PARAMVALUE from:

```
SELECT parmvalue FROM psddldefparms WHERE platformid = 1 AND statement_type =>
2 AND parmname = 'STOGROUP'
```

- If the value for DBNAME is not the same as the value for OWNERID, you will also need to replace %Bind(DBNAME ,NOQUOTES) with your database name for the Application Engine steps listed in the tables below.
3. These values are used in the %Bind specified in tables below. Modify this SQL if this is not the case for your database.

Tables Created	Indexes Created
PSYAPPR_RULE_AMT	PS_APPR_RULE_AMT
PSYAPPR_VA2_WRK	PS_PSVAITEM
PSYPSVAITEM	

Platform	SQL Section DDL statements	Table Creation Storage Area	Index Creation Storage Area
DB2 UNIX/NT	ANSI.Step01 UNICODE.Step01	IN PTTBL INDEX IN PTTBLIDX NOT LOGGED INITIALLY  IN PTWORK INDEX IN PTWORKIDX NOT LOGGED INITIALLY  IN PSIMAGE INDEX IN PSIMAGEIDX NOT LOGGED INITIALLY	No name specified
DB2 z/OS	ANSI.Step01 UNICODE.Step01	%Bind(DBNAME ,NOQUOTES).PTTBL	USING STOGROUP %Bind(PARMVALUE ,NOQUOTES) CLUSTER BUFFERPOOL BP3 CLOSE NO
Informix	ANSI.Step01 UNICODE.Step01	PTTBL	PSINDEX
Oracle	ANSI.Step01 to ANSI.Step14 UNICODE.Step01 to UNICODE.Step14	TABLESPACE PTTBL STORAGE (INITIAL 40000 NEXT 100000 MAXEXTENTS UNLIMITED PCTINCREASE 0) PCTFREE 10 PCTUSED 80  TABLESPACE PTWORK STORAGE (INITIAL 40000 NEXT 100000 MAXEXTENTS UNLIMITED PCTINCREASE 0) PCTFREE 10 PCTUSED 80  TABLESPACE PSIMAGE STORAGE (INITIAL 40000 NEXT 100000 MAXEXTENTS UNLIMITED PCTINCREASE 0) PCTFREE 10 PCTUSED 80	TABLESPACE PSINDEX STORAGE (INITIAL 10000 NEXT 100000 MAXEXTENTS UNLIMITED PCTINCREASE 0) PCTFREE 10
Sybase SQL Server	ANSI.Step01 UNICODE.Step01	No name specified	No name specified

## APPENDIX B

# Performance Tips and Techniques

This appendix discusses:

- Understanding Performance Tips and Techniques
- Plan Your Upgrade for Performance
- Improve Performance for Your Platform
- Consult the Global Support Center

---

## Understanding Performance Tips and Techniques

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 B-1: Plan 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 B-2: Improve Performance for Your Platform

This section discusses:

- Oracle

- DB2

## Task B-2-1: 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 B-2-2: DB2

Perform all recommended update statistics on the system catalog as well as the application tablespaces.

Review the DEFINE NO option for index creation. Warning messages are generated when creating indexes on empty tables if this option is set.

See Enterprise PeopleTools Installation Guide for DB2 UDB for z/OS, “Creating a Database,” Creating Indexes, for your new release.

---

## Task B-3: Consult the Global Support Center

If you do have a problem with your upgrade, contact the Global Support Center (GSC). PeopleSoft 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 Application Designer.
  - Mention any additional indexes that you custom-added; they could be getting in the way.
- Include the relational database management system (RDBMS)—Oracle, SQL Server, DB2, and so on—and the release (for example, Oracle 7.3, 8.16, and so on).
- If you are running on Oracle, specify whether you are you running in cost-based or rule-based mode.
- Include your PeopleTools upgrade path (for example, PeopleTools 8.40 to 8.41).
- Provide trace files: Tools trace and RDBMS-specific trace files, SQL Explains, and so on.

## APPENDIX C

# Queries Trees and Tree Structures

This appendix discusses:

- Understanding Preserve Queries and Trees
- Prepare the Database
- Create a New Project
- Compare the New Project
- Copy the Project
- Test the Project
- ReExport the PeopleTools Tables

---

## Understanding Preserve Queries and Trees

This appendix contains information for preserving queries, trees, and tree structures. At the beginning of your upgrade, you should have informed your end-users and development team that your PeopleSoft system was frozen, meaning that no changes should have been made to any PeopleTools tables or objects including queries, trees, and tree structures. The freeze on PeopleTools changes is important because you will lose any changes to these objects made during an upgrade to PeopleTools tables. Occasionally, however, end-users may have to make critical changes to trees, tree structures, and PS/Query objects. If this has happened in your system, you can perform a process to preserve those additions and changes to trees, tree structures, and queries. You will have to work with your end-users and developers to obtain a list of queries, trees, and tree structures that you need to preserve.

You will run through the test Move to Production (MTP) steps several times for practice and testing purposes. Please note that you have the option to perform the preserving queries and trees procedure during each of your test Move to Production runs, but you must perform it during the last run of the test Move to Production. If you do not perform this procedure during your last run in order to preserve the trees, tree structures, and queries that have been changed since the beginning of your upgrade, they will be lost.

---

**Note.** The process outlined in this appendix to preserve trees and queries should be performed prior to data conversion so that any additional conversion would be taken care of by the appropriate data conversion programs.

This appendix includes instructions to prepare your database and create a project on which to preserve your queries, trees, and tree structure changes.

---

---

## Task C-1: Prepare the Database

In this step, you create a new copy of your current production database, perform steps on the new copy, and run scripts against the new copy to update the release level.

To prepare the database:

1. At the beginning of the test Move to Production, you should make a new copy of your current production database. To preserve queries and trees, you need to make not only that Copy of Production but also an additional copy of your current production database. For clarity, PeopleSoft refers to this additional copy of your production database as the Tree/Query Copy of Production database. So now you should have a Copy of Production database and a Tree/Query Copy of Production database.
2. Perform the test Move to Production on your Copy of Production database.
3. To obtain the queries and trees that you want to preserve, the Tree/Query Copy of Production database needs to be at the same release level as the Copy of Production database on which you just completed the test Move to Production. To update your Tree/Query Copy of Production to the same release, you run release scripts against this database. PeopleSoft refers to this as “reling up” the database. Use the Custom Compare template to “rel up” your database. Select the Product Line *PEOPLETOOLS* when configuring your Change Assistant job.

---

## Task C-2: Create a New Project

Now that your Tree/Query Copy of Production is at the same release as your Copy of Production database, you create a project in the Tree/Query Copy of Production that contains all of the queries and trees that you wish to preserve.

To create a new project:

1. Using PeopleTools 8.4x, sign on to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch Application Designer.
2. Select File, New...
3. Select *Project* for Object Type.
4. Select File, Save Project and enter a project name; for example, *PRESERVED*.
5. Select the Upgrade tab in Application Designer.

---

**Note.** Queries and trees do not appear in projects under the Development tab in Application Designer. To see the queries and trees that you will insert into the *PRESERVED* project in the next step, you must make sure that you are using the Upgrade view of Application Designer.

---

6. Select Insert, Definitions into Project...
7. Select Queries from the Definition Type drop-down list box and click Insert.
8. Using your list of identified queries that need to be preserved, highlight each one of those queries from the Application Designer list.

You can highlight more than one by holding down the Control (CTRL) key while you click the name of the query.



9. After you have highlighted all of the queries that you want to preserve, click Insert, then click Close.  
Under the PRESERVED project name in the Upgrade view of Application Designer, you will see Queries as an object type in the project.
10. Double-click on queries under the PRESERVED project to see a listing of all of the queries to preserve in the right-hand window of Application Designer.
11. Select File, Save Project.
12. Repeat steps 6 through 11 for trees and tree structures.  
Now your PRESERVED project should contain all of the queries, trees, and tree structures that you want to preserve.

---

## Task C-3: Compare the New Project

In this step, you compare the queries, trees, and tree structures that are in your PRESERVED project against your Copy of Production database. Because the tree objects in your PRESERVED project are not comparable objects in Application Designer, you must manually compare the tree objects that you want to preserve. During the query and tree structure compare process, the Application Upgrade utility sets the project flags. These flags determine whether the following actions will occur:

- Changes will be performed on the Copy of Production (Target) database when you perform the export and copy.
- Changes will be tagged as *Copy* or *Delete* operations.
- The project flags will be set to automatically take these actions or not.

These settings are determined based on whether or not the objects in the project currently exist on the Copy of Production (Target) database.

To compare the new project:

1. Using PeopleTools 8.4x, sign on to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch Application Designer.
2. Select File, Open...
3. For Definition, select Project and click Open to display the list of projects.
4. Select the PRESERVED project and click Open.
5. Select Tools, Compare and Report.
6. Sign on to your Copy of Production.
7. From the Object Type box, select *Queries and Tree Structures*.
8. Click Options...
9. Select *PeopleSoft Vanilla* for the Target Orientation.
10. Select *Project* for the Compare Type.
11. Verify that the Compare Report output directory is set to the correct location.
12. Select the Report Filter tab and set the report filter check boxes appropriately for your compare.
13. Click OK.

14. Select Compare.
15. Review the compare reports for queries and tree structures. In addition, perform a manual compare of the trees that you want to preserve. Based on the results of this review, set the Action and Upgrade check box appropriately in the PRESERVED project.

---

## Task C-4: Copy the Project

In the following steps, you copy the PRESERVED project to the target database. This is the Copy of Production database on which you ran the test Move to Production.

To copy the project:

1. Using PeopleTools 8.4x, sign on to the Tree/Query Copy of Production using a valid PeopleSoft User ID and launch Application Designer.
2. Select File, Open...
3. For Definition, select *Project* and click Open to display the list of projects.
4. Select the PRESERVED project and click Open.
5. Select Tools, Upgrade, Copy.
6. Sign on to your Copy of Production database.
7. Make sure that the Reset Done Flags and Copy Project check boxes are selected.
8. Click Select All.
9. Click Copy.
10. Using the Upgrade view of the PRESERVED project in Application Designer, review the Done flags in the project to make sure that all of the objects that you wanted to preserve were copied to the Target database.

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## Task C-5: Test the Project

Now that the queries, trees, and tree structures that you wanted to preserve are in the Copy of Production database, you must test and re-test and make any necessary changes if the test results are not what you expected.

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## Task C-6: ReExport the PeopleTools Tables

Once you are satisfied with the test results, you must re-export the PeopleTools tables in order to actually preserve the queries, trees, and tree structures. During your test Move to Production, you ran MVPRDEXP.DMS in order to export the PeopleTools tables. You will use the output files created from running this job as input files during your Move to Production. Because these files were created before copying the queries, trees, and tree structures that you wanted to preserve, the files do not contain the preserved objects, so you must run the MVPRDEXP.DMS script again. Running the MVPRDEXP.DMS script again ensures that you have the most current PeopleTools tables.

To re-export the PeopleTools tables:

1. As a PeopleSoft user, launch Data Mover against your Copy of Production database and run the following script:

```
\PS_HOME\SCRIPTS\MVPRDEXP.DMS
```

2. Use the output files created during your final Move to Production.



## APPENDIX D

# Testing Techniques

This appendix discusses:

- Understanding Testing Techniques
- When to Test
- Evaluate Your Testing Requirements
- Define Your Testing Strategy
- Determine the Testing Conditions
- Develop Your Test Plan
- Develop Test Scripts
- Tips and Techniques

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## Understanding Testing Techniques

As with any project, testing is a critical part of your upgrade project. With proper testing, you can ensure that your upgrade will be successful and you are ready for your Move to Production.

Upgrades vary in complexity and scale from release to release and customer to customer, hence the testing periods and the activities required to perform testing vary from upgrade to upgrade. Because there is no way to anticipate how every organization uses the system to fit their own business practices, including customizations and data setup, PeopleSoft does not deliver upgrade test scripts. However, there are some general testing guidelines that you can follow to assist with your upgrade testing. In this section, you will find information that will help you plan your testing efforts.

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## Task D-1: When to Test

An effective testing strategy involves an understanding of the stages of a PeopleSoft Upgrade and where, within these stages, testing should be performed. There is more than one approach and method you can take for testing your upgrade.

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## Task D-2: Evaluate Your Testing Requirements

To evaluate your testing requirements, you will need the following information:

- The number of products and modules you currently have in your production database.
- The number of customizations you have in your production database.
- The functional design and business requirements addressed by each customization.
- Your online, batch and reporting business processes that you want to include in testing.

---

## Task D-3: Define Your Testing Strategy

This section discusses:

- Understanding Your Testing Strategy
- Evaluating Unit Testing
- Evaluating System Testing
- Evaluating Integration Testing
- Evaluating Parallel Testing
- Evaluating Performance Testing
- Evaluating User Acceptance Testing
- Evaluating Regression Testing

### Task D-3-1: Understanding Your Testing Strategy

Once you have evaluated your testing requirements, you will determine what types of testing you need. The tests to be performed for the project and the goals of each—including roles and responsibilities, test-case management, control points, and success criteria—should be identified. In addition, the scope of each type of testing should be defined and documented. Use the definitions below to determine the levels of testing required in your organization.

To ensure upgrade success, be sure to train upgrade members before the upgrade. It is critical to have educated testers to ensure adequate test coverage of new functionality.

### Task D-3-2: Evaluating Unit Testing

In this stage of testing, you have completed your upgrade tasks and your database is now at the new release level. However, you will want to unit test before you use the new system. Unit testing validates data, business rules and business process requirements. In addition, it will ensure that business processes work as designed and that your database is ready for full functionality testing. The processes for performing Unit testing are described below:

- Test individual online transactions and batch processes on the upgraded database.
- Validate data converted during the upgrade.
- Verify that you can access existing data and enter new data successfully.

- Test customizations reapplied to the upgraded database.
- Each customization is tested individually along with all related processes.
- Business processes are not tested.
- Test scripts are not required.
- Test – Document – Resolve issues – Retest.

### **Task D-3-3: Evaluating System Testing**

System testing ensures that all business functions and processes execute appropriately from the customer's view. Business processes are tested from beginning to end during system testing; this is sometimes referred to as end-to-end testing. The processes for performing system testing are described below:

- Create system test environment via a test Move to Production.
- Test inbound and outbound interfaces and related business processes.
- Test online business processes using relevant security (that is, user IDs, roles, permission lists).
- Test batch business processes.
- Test reporting processes (SQR, PS/Query, PS/nVision, Crystal).
- Test customizations to business processes.
- Perform using test scripts.
- Compare expected results to actual results.
- Test – Document – Resolve issues – Retest – Document – Sign off.

### **Task D-3-4: Evaluating Integration Testing**

After system testing, you will perform integration testing. In this stage, business processes and groups of related business processes within the application are tested to determine that they function as designed. In addition, you will ensure that any design flaws are resolved before user testing. The following list of activities describes integration testing:

- Create integration test environment via a test Move to Production.
- Test specific business processes.
- Test integration between modules and business processes.
- Perform using test scripts.
- Compare expected results to actual results.
- Test – Document – Resolve issues – Retest – Document – Sign off.

### **Task D-3-5: Evaluating Parallel Testing**

Parallel testing validates that the current production system and the upgraded database generate the expected results for specific business events. Parallel testing is optional, but is frequently used to ensure that the new release will generate the same results given the same testing scenarios. The processes for performing parallel testing are described below:

- Create a parallel test environment via a test Move to Production. The Copy of Production should be taken before the major business processes/events are executed so that the same processes can be run during the parallel test.
- Retain any output from production processes for later comparison.
- Run the same business processes/events in the upgraded database.
- Compare results generated in the production system with the results generated using the upgraded database.
- Perform using test scripts.
- Test – Document – Resolve issues – Retest – Document – Sign off.

## Task D-3-6: Evaluating Performance Testing

Performance testing is conducted to determine if the system can accomplish stated objectives within a specified time period. Performance of the current production system is often used as a baseline. The processes for performing performance testing are described below:

- Define performance objectives for each business process included in scope of the test.
- Perform business process.
- Monitor performance.
- Compare actual performance and acceptance criteria.
- Perform using test scripts.
- Test – Document – Resolve issues – Retest – Document – Sign off.

## Task D-3-7: Evaluating User Acceptance Testing

User acceptance testing determines if day-to-day users can complete daily work activities within the system with an acceptable level of effort. For example, run through business processes such as hiring, terminating, and paying an employee in Human Resources or creating, editing, and posting journals in Financials. The processes for performing user acceptance testing are described below:

- Functional resources should execute test scenarios (with their appropriate production security access to ensure they have access to all the components, pages, and processes used in their daily functions).
- Perform using test scripts.
- User testing should not be performed with developer or super user access.
- Test – Document – Resolve issues – Retest – Test – Document – Sign off.

## Task D-3-8: Evaluating Regression Testing

Regression, or re-testing, is done if problems were found and resolved or changes were made during any of the previous tests. This stage of testing validates the test Move to Production and Move to Production parts of the upgrade. When all the tests have received sign-off, the initial Copy of Production is used to upgrade the production database/environment. A test move into the production environment is then performed and customers confirm that the test move was successful. It is at this point that regression testing is conducted. The following tips will assist you with regression testing:

- Ensure that no new defects have been introduced during the move.
- Execute predefined set of scripts to confirm the test move.



- Performed by functional resources before *go live*.
- Rerun of scripts from previous testing.

---

## Task D-4: Determine the Testing Conditions

After you have identified the types of testing to include in your upgrade, you will then determine conditions for each stage of testing. Be sure to test the actual test Move to Production to iron out any technical issues in the upgrade process itself in addition to performing functional application testing. Perform the following actions for each testing type:

- Determine criteria for successful completion.
- Determine which tests can be run concurrently and which must be run serially.
- Set up test plans and test scripts you will need.
- Define the testing environment.
- Define issue resolution procedures.
- Define change control and migration procedures.
- Define which third-party tools must be installed and configured.
- Identify database maintenance procedures, for example, backup and refresh.
- Evaluate the need for a testing tool to aid in the testing process.

---

## Task D-5: Develop Your Test Plan

If you have test plans from your implementation or previous upgrades, consider modifying them for this upgrade project, ensuring that you incorporate features and functions delivered with the new release. Use existing test plans and scripts wherever possible. Identify modifications during the fit/gap analysis and complete script generation during the initial upgrade. Based on the objectives and scope defined in your test strategy, identify the following items for each type of testing:

- Test procedures.
- Assumptions.
- Timing.
- Deliverables.
- Acceptance criteria.
- Roles and responsibilities.
- Resource requirements.
- Training requirements.
- Test environment.
- Data requirements.
- Issue and change control tracking procedures.

- Testing tools.

---

## Task D-6: Develop Test Scripts

The process of developing test scripts can assist with detecting problems in the requirements or design of an application. It requires thinking through the entire operation of the application. For this reason, it is useful to start preparing test scripts early in the upgrade cycle and if possible, base them on existing test scripts from your implementation project or previous upgrade.

If you have test scripts from your original implementation, recycle them and modify them to accommodate new functionality. That way, you can be sure to cover your critical end-to-end business processes. You will also want to focus additional testing time on your customizations to verify that they have upgraded successfully.

If you do not have test scripts from your implementation, you can create them by documenting what you currently do within the system.

Create a test script for each business process to define the Action or Event, Input, and the expected result to determine if a feature of an application is working correctly. Functional people who are aware of current processes should write your test scripts. However, when writing test scripts, assume the person testing does not know how to use the system. Use the following procedure for developing test scripts:

- Test scripts should contain specifics, such as test identifier, test name, objective, test conditions and setup, input data requirements, steps, and expected results.
- Write as a step-by-step guide, stating what data should be entered, when and where.
- Organize by module, business process and process cycles.
- Create with full production security in mind.
- Create early in the upgrade process.

Make sure that your tests are consistent with the following tips:

- Action
  - Include script name, description and purpose.
  - Include navigation steps in PeopleSoft.
  - Include navigation steps outside of PeopleSoft.
- Input
  - Include security requirements: which user ID, role, and permission list should be used to perform the test.
  - Specify key data elements: entering new or accessing existing data.
- Results
  - Include the exact results.
  - Print screens to support the results and print the report output.

---

## Task D-7: Tips and Techniques

This section discusses:

- Reducing the Time of Upgrade Process
- Performing Testing on Up to Date Data
- Performing Test Move to Production
- Tracking Issues
- Reviewing Testing Tools
- Discussing Change Control
- Discussing Back Up Procedures
- Evaluating Unexpected Results
- Evaluating Reasons for Failure

### Task D-7-1: Reducing the Time of Upgrade Process

All testing can be performed at the end, including running the tests on the current system to obtain results for comparison. One way to reduce the overall time frame of an upgrade is to execute the tests on the current system while the upgrade is in progress. This way you will have the results ready when the upgraded database is to be tested. This can be achieved by taking two copies of the production database at the start of the upgrade. Only one copy is upgraded, while the other remains at current release. The testing time is now reduced to only performing the tests on one database.

After each test Move to Production, you may want to turn over the upgraded database to the testing team while the technical team begins a new iteration of the test Move to Production. Conducting the two efforts in parallel may decrease the overall time required to upgrade. Any issues that are found by the testing team can be incorporated into the newly upgraded database as soon as it is available.

One approach that may be used for the Move to Production is to run the production database and upgraded database in parallel to ensure that key business processes operate as expected. Although this may require dual maintenance of data during the parallel testing period, it may minimize the impact of the actual Move to Production. If you are interested in using this method, once you have performed a test Move to Production to your satisfaction, schedule the production cutover weekend. Then, perform the next test Move to Production during that weekend. Bring the existing production system back up and run the upgraded database concurrently. If, after comparing the outcome of your critical business processes, you are satisfied with the results, simply set the upgraded database to your production system. If you are not satisfied with the results, make the necessary adjustments and perform another test Move to Production.

### Task D-7-2: Performing Testing on Up to Date Data

The previous technique will mean that testing is performed on *old* data. The copies of production may have been taken some weeks or months in the past. It will confirm that the data you started with has upgraded successfully. However, it may be required to perform the tests on the most recent data set as follows:

- Take a copy of production and upgrade.
- Perform all phases of testing on the upgrade version up to unit testing.
- Determine that the database is ready for full functionality testing.

### **Task D-7-3: Performing Test Move to Production**

Performing a test Move to Production is a good technique for assuring database readiness as follows:

- Take two up to date copies of the production database.
- Perform the test Move to Production steps to upgrade one of the databases.
- Execute test scripts on the remaining database.
- Perform tests on the upgraded database and compare results.

### **Task D-7-4: Tracking Issues**

You should implement a method for tracking the tests and issues discovered during testing. Tracking issues and resolutions on a central document serves as a communication tool and minimizes duplication effort. The following tips should be considered while tracking issues:

- Categorize issues:  
Critical, Major, Minor, Cosmetic
- Use a central document repository or tracking tool

### **Task D-7-5: Reviewing Testing Tools**

SQA Robot:

- Records key strokes (like a macro recorder) into visual basic scripts.
- Useful for regression testing.
- SQA Manager can be used to simulate multiple users.

TestDirector by Mercury Interactive:

- Tool that manages test scripts – tracks execution and defects.
- Useful for regression testing.

### **Task D-7-6: Discussing Change Control**

Make sure that you have a procedure for implementing changes during the testing stage. You may have several databases, if server space permits. All changes should be made in a master database. If an issue is found during testing, the resolution should be applied to the master database and promoted via pre-defined migration procedures. Remember that a master database will also be required to perform the Move to Production.

### **Task D-7-7: Discussing Back Up Procedures**

The following tips should be considered when backing up your data:

- Back up at baseline before testing (use a backup technique that will allow you to restore individual tables).
- Back up at key points for point in time testing.
- Implement refresh procedures to avoid duplicate data.

## **Task D-7-8: Evaluating Unexpected Results**

In the event you receive unexpected results and you cannot determine their cause, attempt to replicate any issues you encounter in your Copy of Production database on a delivered Demo database. If the issue does occur on Demo, it should be reported to the Global Support Center. Check PeopleSoft Customer Connection to see if a fix has been posted to resolve the issue.

See PeopleSoft Customer Connection (Updates + Fixes)

## **Task D-7-9: Evaluating Reasons for Failure**

The list below identifies reasons why your test plan might have failed:

- Testing strategy was poorly defined.
- Test plans were poorly defined.
- Test scripts were poorly defined.
- Lack of resources and resource commitment.
- Lack of understanding of the upgrade process.



## APPENDIX E

# Understanding the Comparison Process

This appendix discusses:

- How the Comparison Process Works
- Understanding Upgrade Compare Reports

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## Task E-1: How the Comparison Process Works

This section discusses:

- Source and Target Columns
- Action Column
- Upgrade Column
- Putting it All Together

During the upgrade, you run several compare processes and then review the resulting reports. The compare process first compares every property of an object definition on the Demo database to the properties of object definitions on the Copy of Production database. PeopleSoft tracks object changes using the contents of the PSRELEASE table, and the value of two fields, LASTUPDDTTM and LASTUPDOPRID, used in the PeopleTools tables.

- The PSRELEASE table maintains the Comparison Release Level. This table contains rows of data for every release level at which the database has ever existed. The first column in this table, RELEASEDTTM, contains a date/time stamp identifying when each release level was “stamped.” The second column, RELEASELABEL, identifies the release level. The format of a release label is *M XX.XX.XX.YYY*, where *M* is the market code, *XX* is an integer from 0 to 99, and *YYY* is an integer from 0 to 999. A release label has two parts: the PeopleSoft release number (*M XX.XX.XX*) and the customer release number (*YYY*). Each time you customize your production database, you can stamp it with a new customer release level to help you track your changes over time. You should not change any portion of the PeopleSoft release number unless specifically instructed to do so.
- The LASTUPDDTTM field in our *PSobjectDEFN* tables—such as PSRECDEFN, PSPNLDEFN, and so on—stores a date/time stamp of when each object was last modified.
- The LASTUPDOPRID field stores the operator ID of the user who made the modification. If PeopleSoft made the modification, the proprietary ID *PPLSOFT* is used.

---

**Note.** Maintain Security prevents you from creating an operator named PPLSOFT.

---

If an object definition is defined differently in the Demo database than in the Copy of Production, the compare process will check to see whether either object definition has changed since the comparison release. If the object’s LASTUPDDTTM value is greater than the RELEASEDTTM value

for the comparison release level (stored in PSRELEASE), the object has changed. If the object's LASTUPDDTTM value is equal to or less than RELEASEDTTM, the object has not changed (since the comparison release). Whether the compared object has changed or not, if it has *ever* been changed prior to the comparison release by someone other than PeopleSoft (LASTUPDOPRID  $\neq$  'PPLSOFT'), the object is identified as a customization.

After you run a compare report, you see the following information when you open an object type in the upgrade project from the Upgrade Tab of Application Designer. This is called the Application Designer Upgrade Definition window.

## Task E-1-1: Source and Target Columns

The status of each object is reported as it appears on the Demo database (Source) and the Copy of Production database (Target). The following table explains the various status types:

Status Type	Definition
Unknown	The object has not been compared. This is the default status for all objects inserted manually into a project and the permanent status of all non-comparison objects.
Absent	The object was found in the other database, but not in this one. When upgrading to a new PeopleSoft release, all of our new objects should have Absent status in the target database and all of your new objects should have Absent status in the source database.
Changed	The object has been compared, its LASTUPDOPRID value is <i>PPLSOFT</i> , and its LASTUPDTIME value is greater than the date/time stamp of the comparison release database. In other words, PeopleSoft modified the object since the comparison release.
Unchanged	The object has been compared, its LASTUPDOPRID value is <i>PPLSOFT</i> , and its LASTUPDTIME value is less than or equal to the date/time stamp of the comparison release database. In other words, PeopleSoft last modified the object prior to the comparison release.
*Changed	The object has been compared, its LASTUPDOPRID value is not <i>PPLSOFT</i> , and its LASTUPDTIME value is greater than the date/time stamp of the comparison release database. In this case, the customer has modified the object since the comparison release.



Status Type	Definition
*Unchanged	The object has been compared, its LASTUPDOPRID value is not <i>PPLSOFT</i> , and its LASTUPDTIME value is less than or equal to the date/time stamp of the comparison release database. In this case, the customer last modified the object prior to the comparison release.
Same	The object has been compared and is defined as the same in both databases. When an object in one database has this status, so will its counterpart in the other database. This status would never be seen when performing a database comparison because in that case, the project is only populated with objects defined differently. However, it can occur when performing a project comparison because in a project comparison, the project contents are static; the project is not repopulated based on the comparison results.

## Task E-1-2: Action Column

The default actions for each object that you compared are reported in the Action column. The compare sets the action column based on what you need to do to make the Copy of Production database consistent with the source. You should not change these actions. You can decide whether or not to accept each action by setting the Upgrade value. Action types include:

Action Type	Definition
Copy	Object will be added to the Copy of Production database.
Copy Prop (Records and Fields only)	Object Properties will be added to the Copy of Production database.
Delete	Object will be deleted from the Copy of Production database.
None	No action will be taken on this object.

PeopleSoft assigns one of these action types to every object in a comparison project and in the compare reports. However, these actions are not necessarily carried out during the copy process. The value of the Upgrade column for each object makes that determination.

## Task E-1-3: Upgrade Column

The Upgrade values for each object—*Yes* or *No*—determine whether the object action will be carried out during the copy process. The upgrade orientation you assign during the compare process determines these settings. You can orient the upgrade to keep PeopleSoft changes or to retain your changes in the Copy of Production. Whichever orientation you choose, you will still have the option to set each Upgrade value individually before copying your project into your target database.

You may find that after the compare process, your project contains objects that have a Source status of *Unchanged* and a Target Status of *Changed* and the Upgrade column is not checked. What this status combination means is that the PeopleSoft object on your Copy of Production was changed more recently than on the Demo database. In these instances, PeopleSoft recommends that you check the Upgrade column, setting the value to *Yes*, so that the object will be copied to your Copy of Production when you copy the project.

## Task E-1-4: Putting it All Together

The following chart summarizes every possible Status, Action, and Upgrade value that could be set by the compare process to a single object:

Source Status	Target Status	Action	PeopleSoft Vanilla	Keep Customizations
(Any)	Absent	COPY	YES	YES
Absent	Changed or Unchanged	DELETE	YES	YES
	Changed* or Unchanged*	DELETE	NO	NO
Changed	Changed or Unchanged	COPY	YES	YES
	Changed* or Unchanged*	COPY	YES	NO
Unchanged	Changed	COPY	NO	NO
	Unchanged	COPY	YES	YES
	Changed* or Unchanged*	COPY	YES	NO
Changed*	Changed or Unchanged	COPY	NO	YES
	Changed* or Unchanged*	COPY	YES	YES
Unchanged*	Changed or Unchanged	COPY	NO	YES
	Changed*	COPY	NO	NO
	Unchanged*	COPY	YES	YES

---

## Task E-2: Understanding Upgrade Compare Reports

This section discusses:

- Report Columns
- Using Reports
- Effect of Field Rename on Copy Overrides

When you run the compare process, it creates reports to help you understand what objects differ between the Source and Target databases, and how they differ. If you have documentation of your database modifications, you should retrieve it before reviewing these reports. This will help you understand how the Target objects have changed and enable you to better compare the Target version of the object with the Source version. If you are upgrading to a new PeopleSoft release, you should also review the Release Notes for your product. These notes will identify and explain object changes in the source database.

Upgrade reports can be a little intimidating at first glance, until you understand what data you are looking for and how best to use it. This section includes the following topics:

- Report Columns
- Using Reports
- Effect of Field Rename on Copy Overrides

## Task E-2-1: Report Columns

For the most part, the columns in upgrade reports correspond with the columns you see in Application Designer's upgrade definition window. Moving from left to right, you see the Name of the object, then other key columns that vary by object type, then the Source and Target status, the Action value and Upgrade flag (*Yes* or *No*).

After these columns are three more that are not included in Application Designer. The first is Attribute. This tells you the type of difference that was found between the two objects. For example, record field Attribute values include *Use/Edit*, which identifies key or audit differences, and Default Field Name (*Def. Fldnm*), which identifies differences in a default value. Lastly, there is a Source column and a Target column. These wide columns display the actual differences between the object definitions. For example, on a *Use/Edit* attribute recfield difference, the Source column might contain *Xlat Table Edit* while the Target column is empty. This means the Source record field has a translate table edit while the Target record field does not.

If you are unsure of the meaning of any value in the last three report columns, open the PeopleTool that edits the particular object. The values in these columns correspond directly to dialog options in the tool.

## Task E-2-2: Using Reports

PeopleSoft delivers several cross-reference reports that you can run to provide information about the inter-relationships between various objects. PeopleSoft delivers these reports in the form of SQRs (found in PS\_HOME\SQR), Crystal Reports (found in PS\_HOME\CRW\ENG), and Queries.

The cross-reference reports include:

Object Type(s)	Report Name	Report Description
Applications and Fields	XRFAPFL	Lists all application windows, such as General Tables, in alphabetical order, as well as the fields within each window. For each field, the report details the Field Name, Field Type, Length, and Format, as well as all the record and page definitions that contain the field (within the window).

<b>Object Type(s)</b>	<b>Report Name</b>	<b>Report Description</b>
Fields Referenced by PeopleCode Programs	XRFFLPC	Lists all PeopleCode programs in alphabetical order by associated record definition/field. The report includes type of field and lists all fields referenced in the PeopleCode program.
Fields and Pages	XRFFLPN	Lists all fields in alphabetical order. The report includes the names of all record and page definitions in which each field is used, as well as the Long Name of each field.
Records and Fields	XRFFLRC	Lists all fields in alphabetical order. The report details the Long Name, Field Type, Field Length, and Formatting specified for the field, and includes the names of all record definitions that contain the field.
Field Listing	XRFIELDS	Lists all fields in alphabetical order. The report includes Field Type, Length, Format, Long Name and Short Name.
Menu Listing	XRFMENU	Lists application windows in alphabetical order. The report details all menus within each window, and all page definitions within each menu. It also includes the associated search record definition name and detail page definition name.
Page Listing	XRFPANEL	Lists all page definitions in alphabetical order.
PeopleCode Programs and Field References	XRFPCL	Lists record definitions that contain fields with PeopleCode program attributes. The report includes the Field Name, as well as the associated record definitions and fields referenced in the PeopleCode program.
Pages with PeopleCode	XRFPNPC	Lists all pages that contain fields with PeopleCode attributes. For each page, the report includes the name of the record definition(s) that contain the field as well as the Field Name and Type.

Object Type(s)	Report Name	Report Description
Fields and Records	XRFRCL	Lists all fields in alphabetical order by associated record definition name. The report details the Long Name, Field Type, Field Length, and Formatting specified for the field.
Records and Pages	XRFRCPN	Lists all record definitions in alphabetical order. The report includes the menu and page definitions associated with each record definition.
Window Listing	XRFWIN	Lists all application windows in alphabetical order.

In addition to using our standard cross-reference reports, you can also generate ad hoc reports to extract the exact combination of information you need. Or, you can create permanent custom reports for information you extract on a regular basis.

PeopleSoft recommends that you mark your upgrade reports using a color-coding system to help you quickly identify what you need to do to certain objects.

If you have several people reviewing sections of the reports, a good documentation policy is to have everyone on your review cycle initial and date the action defaults and overrides they select.

You may also find it easier to change some objects manually after the upgrade, rather than copying the new versions from the source.

See Enterprise PeopleTools PeopleBook: Crystal Reports for PeopleSoft.

## Task E-2-3: Effect of Field Rename on Copy Overrides

Renaming fields has an impact on data conversion that you need to understand when performing these overrides. What changes you copy to your Target, how you alter the tables, and how the data conversion scripts are written, are very subtly linked. If done incorrectly, the delivered conversion scripts will not execute. You must take action to prevent these errors in this task.

Rename scripts change field names in all PeopleTools objects; for example, records, pages, PeopleCode, and so forth. The scripts do not rename the fields on the physical tables in the database. At this point, the physical tables still contain the old field name.

After running the field renames, you ran the compare reports that contained the details of the differences between the delivered PeopleSoft Demo database and your Copy of Production that now contains the new field names. There are two cases to consider:

- *Case 1:* The PeopleSoft record contains a field and your Copy of Production record contains the same field. No difference shows on the compare report.
- *Case 2:* Your Copy of Production record contains the newly renamed field, but the PeopleSoft record no longer contains the field. The compare report lists these fields, and you can expect them to be deleted.

Later in the upgrade, when the Renamed Tables script is run, Case 1 and Case 2 will be handled differently. For Case 1, because the field still exists in the Application Designer definition of the record, the program will alter the table to rename the field. If conversion programs reference these fields, they are written to select from the new field name. For Case 2, because the field no longer exists in the Application Designer definition of the record, the table is not altered to rename the field. If conversion programs reference these fields, they are written to select from the old field names.

If you do not delete a field that PeopleSoft expects to be deleted, or delete a record that PeopleSoft expects to be deleted, the table will be altered, renaming the field from the old name to the new name. The conversion program, however, will look for the old field name.

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