



# **PEOPLETOOLS 8.42 INSTALLATION FOR ORACLE**

PeopleTools 8.42 Installation for Oracle

**Contributors:** Teams from PeopleSoft Product Documentation and Development.

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# ABOUT THIS BOOK

This book is designed to direct you through a basic PeopleSoft installation. It is not a substitute for the database administration manuals provided by your RDBMS vendor, the network administration manuals provided by your network vendor, or the installation and configuration manuals for third-party products used with PeopleSoft.

**Note!** *Installation Notes are no longer produced.* Required updates to this Installation documentation will be provided in the form of “Required at Install” incidents. In addition, ***application-specific installation steps are provided in a separate document specific to the application.*** For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, go to Customer Connection. Under the Site Index, find the Category “Installation Guides and Notes,” and then look under the subcategory for your particular application.

**Note!** Before proceeding with your installation, check PeopleSoft’s Customer Connection site to ensure that you have the latest version of this installation guide.

## Audience

This book is written for the individuals responsible for installing and administering the PeopleSoft environment. We assume that you are familiar with your operating environment and RDBMS and that you have the necessary skills to support that environment. You should also have a working knowledge of SQL.

We recommend that you have completed at least one PeopleSoft introductory training course (particularly the Configuration and Administration course) and have a basic understanding of the PeopleSoft System.

Probably the most important component in the installation and maintenance of your PeopleSoft system is your onsite expertise. Only qualified and experienced individuals should attempt to install PeopleSoft. If you have any doubts as to whether your onsite staff is capable of successfully completing an installation, contact your PeopleSoft representative.

## Related Publications

To install third-party products for use with PeopleSoft, including those products that are packaged with your PeopleSoft shipment, you should refer to the documentation provided with those products as well as this documentation.

For reference information on PeopleTools, you may wish to consult the following books:

- *PeopleSoft Server Tools Administration*. For more information on configuring the PeopleSoft application server and supported web servers, data integrity tools, database level auditing, and PeopleTools utilities.
- *PeopleTools Security*. For more information on setting up and modifying user access to your PeopleSoft applications.
- *PeopleSoft Administration Tools*. For more information on PeopleSoft administrative utilities, such as Configuration Manager, Data Mover, Data Archive Manager, and so on.
- *PeopleCode Reference*. For reference information on the PeopleCode language, such as built-in functions, classes, meta-SQL, system variables, and so on.
- *PeopleCode Developer's Guide*. For general information about the PeopleCode editor, the Component Processor, the data buffers, and how to use specific functions and classes.
- *Reporting and Analysis Tools*. For information on PeopleSoft's reporting and analysis tools, see the PeopleBooks on Crystal Reports for PeopleSoft, PS/nVision, PeopleSoft Query, PeopleSoft Tree Manager, PeopleSoft Process Scheduler, and PeopleSoft Cube Manager.
- *PeopleSoft Application Designer*. For information about the main tool for developing PeopleTools applications.
- *PeopleTools Global Technology*. For information on the role of PeopleTools in the globalization of PeopleSoft applications.
- *PeopleSoft Application Engine*. For information on the PeopleSoft proprietary batch programming tool.

For reference information on your particular application (for example, HRMS), refer to the documentation for your application.

## We Welcome Your Comments

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

PeopleTools Product Documentation Manager  
PeopleSoft, Inc.  
4460 Hacienda Drive  
Pleasanton, CA 94588-8618

Or email comments to the authors of the PeopleSoft documentation at:

**doc@peoplesoft.com**

While we can't guarantee to answer every email message, you can be sure we'll pay careful attention to your comments and suggestions; we're always looking for ways to improve our product communications for you.





# PREPARING FOR INSTALLATION

This chapter provides guidelines to help you plan and prepare for a basic PeopleSoft installation. Before you begin your installation, please note:

- If you will be upgrading your current release after you perform this installation, you also need to install the Upgrade Assistant. For installation instructions, see the *PeopleSoft Upgrade Assistant* PeopleBook.
- For critical issues related to the installation process, see PeopleSoft’s Customer Connection web site. Be sure to read the “Required for Installation or Upgrade” incidents for the PeopleTools version you are installing.
- This Installation Guide may refer you to PeopleBooks for more information or instructions. If you install PeopleBooks to your web server, you can easily refer to the documentation during your installation process; see the appendix “Installing PeopleBooks” for details. (The chapter “Installing Third-Party Products” includes information on installing your web server.)

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 1-1	Assemble Related Documentation
Task 1-2	Verify Hardware and Software Requirements
Task 1-3	Plan Initial Configuration
Task 1-4	Plan Database Creation
Task 1-5	Plan Multilingual Strategy
Task 1-6	Review Updates and Fixes Required at Installation
Task 1-7	Install Supporting Applications
Task 1-8	Install Database Engine
Task 1-9	Install NET8i/NET9i on Server
Task 1-10	Install NET8i/NET9i on Workstation

Task 1-11	Test NET8i/NET9i Connectivity
Task 1-12	Perform Backups

## Task 1-1: Assemble Related Documentation

Before you begin your installation, we suggest that you have the following documentation ready for reference:

- **Locate the supplemental installation documentation for any PeopleSoft Applications you plan to install.** Be sure to use both the PeopleTools Installation Guide for your database platform *and* the supplemental application installation instructions. The application installation instructions are available on Customer Connection.
- **Locate the database administration manuals provided by your RDBMS vendor,** the network administration manuals provided by your network vendor, and/or the installation and configuration manuals for third-party products used with PeopleSoft.

**Note.** For tuning and administration information, please refer to the Tuning and Administration document posted on the same Customer Connection page as this PeopleTools Installation Guide.

## Task 1-2: Verify Hardware and Software Requirements

Before you install PeopleSoft you must verify that you have the correct hardware and software in place to support a successful installation.

**Warning!** If you are unable to meet any of the criteria outlined in the *PeopleTools Hardware and Software Requirements* documentation and the PeopleSoft Platforms Database (available on Customer Connection at [www.PeopleSoft.com](http://www.PeopleSoft.com)), contact PeopleSoft before going forward with the installation. Attempting to complete an installation on an unsupported configuration can be a *very* costly decision. Furthermore, PeopleSoft will not provide support for such installations.

### Source of Information

Use the following sources of information on currently supported hardware and software.

- The *PeopleTools Hardware and Software Requirements* book—available on Customer Connection—provides an overview of PeopleSoft architecture, as well as general information on the hardware and software required for a successful installation. This book is a snapshot of supported configurations at the time of printing; it does not provide up-to-the-minute information on supported maintenance releases or required patches. Refer to the *Hardware and Software Requirements* for general information about configuration requirements, but be sure to check the online sources to verify time-sensitive information, such as supported versions of third-party products.

- Before you begin your installation, go to Customer Connection. From the site index link at the bottom of the page, choose "platforms supported", then "platform communications (by topic)" from the menu on the right side of the page. Read the document "Operating System, RDBMS & Third Party Patches Required for Installation."
- For the most current support information on hardware platforms, RDBMS versions, client connectivity versions, required compiler versions, and third-party software versions, check the PeopleSoft Platforms Database (on Customer Connection). The information in this database supplements and supercedes any information printed in the *Hardware and Software Requirements* book.

## Task 1-3: Plan Initial Configuration

This section provides a general overview of the major components you need to install PeopleSoft. Use this section to plan the number and type of servers and PeopleTools Development Environment you will need for your initial installation configuration.

**Note.** For more detailed information on PeopleSoft architecture and configuration options, refer to the *Hardware and Software Requirements* guide and the *PeopleTools Internet Technology* PeopleBook. To find out how to check support for a specific hardware or software component, see the task, "Verify Hardware and Software Requirements."

**Note.** If you plan to implement LDAP authentication within your PeopleSoft security configuration, refer to the *PeopleTools Security* PeopleBook.

## Workstations

PeopleSoft supports a variety of workstation configurations. However, for purposes of planning your workstation requirements, there are only two fundamental types of PeopleSoft workstations to consider:

- Your PeopleTools equipped with supported web browsers
- Windows-based clients, which are now called the PeopleTools Development Environment

**Note!** With the PeopleSoft Internet Architecture, Windows-based clients are primarily used as a development environment. End users can use any machine equipped with a supported web browser.

### Windows-Based Clients: The PeopleTools Development Environment

**Note.** You need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools Development Environment, refer to the chapter "PeopleSoft Configuration Manager" in the *PeopleSoft Administration Tools* PeopleBook.

Windows-based clients—which run on Windows NT 4.0, Windows 2000, and Windows XP—can connect to the PeopleSoft database directly using client connectivity software (a two-tier connection), or through a PeopleSoft application server (a three-tier connection).

Three-tier connectivity offers great performance advantages over two-tier, especially over a WAN, reduces network traffic, and generally does not require that you install database connectivity on the client. However, any Windows-

based clients that will be running Data Mover scripts against the database, or running COBOL or SQR batch processes on the client, must have database connectivity installed.

For installation purposes, you will need to set up at least one Windows-based client for sign-on using a two-tier connection to the database, so that it can create and populate the PeopleSoft database. We'll refer to this client as the *install workstation*. Depending on your installation plan, you may wish to set up more than one install workstation so that you can perform asynchronous installation tasks in parallel.

**Note!** The machine you use to perform your PeopleTools installation must be running in 256-color mode or higher when running the CD install, Internet install, and Database configuration in Windows. This is not necessary for UNIX or console mode.

### Workstations Running a Web Browser

To run the PeopleSoft Internet Architecture, the client workstation only needs a web browser that is HTML 4.0 compliant. (Check the *Hardware and Software Requirements* documentation to verify that the browser you are using is supported. You can also refer to the Platforms Database on Customer Connection for further information.) You may need an additional workstation for demonstration and testing purposes if you plan to use a browser running on a platform other than Windows—such as Macintosh or UNIX. For more information on PeopleSoft's Internet Architecture, consult the architecture chapter in the *PeopleTools Internet Technology PeopleBook*.

## File Server

The file server is the environment (or file) repository for the PeopleTools Development Environment and for the files necessary to perform an upgrade. This includes the Upgrade Assistant and all of the executables and scripts that are necessary to perform an upgrade. In addition, the file server is a source repository for COBOL and SQR (you will apply patches and updates from Customer Connection directly to the file server and then copy the updated files to your other servers).

**Note.** A COBOL compiler is not needed for PeopleTools unless your application contains COBOL programs. If your application requires COBOL and you're running on NT, we require that you maintain a central repository of your COBOL source code on the NT file server. See the *Hardware and Software Requirements* guide and your application-specific documentation to verify whether your application requires COBOL. See the task "Install Supporting Applications" later in this chapter for details on where you should install your COBOL compiler.

If you follow the default procedures recommended in this installation documentation, the install workstations, Windows batch servers, and Windows report servers will access the PeopleSoft files on the file server by pointing to a directory conventionally referred to as <PS\_HOME> on a shared network drive. You can install SQR and Crystal Reports on the file server, or install them locally on Windows NT batch servers and on Windows-based clients that will be running these processes locally.

## Database Server

The database server houses your PeopleSoft databases. It needs sufficient disk space to accommodate all the PeopleSoft databases that you intend to create and maintain, as well as their log files. These databases will include

your own PeopleSoft database prototypes as well as any system and demonstration databases delivered directly from PeopleSoft on the Installation CDs. For more information on system and demonstration PeopleSoft databases, see the task, “Plan Database Creation.”

Database sizes vary depending on the applications you install. The size of your prototype PeopleSoft database will also depend on the amount of data to be converted from your legacy system. A good rule of thumb for estimating the size of your prototype PeopleSoft database is to estimate the amount of disk space needed for the data to be converted from your legacy system, add to this the size required for the PeopleSoft System database, and then add an additional 50 percent of this combined figure to allow for growth.

## Application Server

The application server is the centerpiece of PeopleSoft’s Internet Architecture. It connects to the PeopleSoft database and handles almost all SQL-intensive interactions with the database server required during online transaction processing. Windows-based clients, in three-tier, communicate with the application server using Tuxedo messages. In the PeopleSoft Internet Architecture, the application server interacts with user workstations via a web server.

The application server also provides functionality required for application messaging and for implementing the PeopleSoft Internet Architecture. An application server is required in all PeopleSoft installations.

If you are installing on an Oracle for UNIX RDBMS, you can install the application server on the same machine as the database server, a configuration called *logical three-tier*. You can also install application servers on one or more separate UNIX or Windows NT machines. This configuration is called *physical three-tier*.

If you are installing on an Oracle for Windows NT RDBMS, you must use a Windows NT application server. This application server can be installed on the same machine as the Oracle database server, but for Windows NT installations you will most likely get better results by installing one or more dedicated application servers (that is, a physical three-tier configuration).

All application servers require database connectivity to the database server. Before beginning your installation, make sure that you can connect from the application server to the database server using a SQL client tool. This topic will be addressed later in this chapter.

**Note.** For detailed information on the Application Server and PeopleSoft’s Internet Architecture, see the *PeopleTools Internet Technology PeopleBook*.

## Batch Server

The term “batch server” is equivalent to the term “Process Scheduler server.” PeopleSoft batch processes, such as COBOL and SQR, are scheduled and invoked by a Process Scheduler server. In almost all configurations, batch server SQR and COBOL files are located and executed on the same computer as the database server.

**Note.** COBOL is no longer needed for PeopleTools because the Process Scheduler was re-written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. See the *Hardware and Software Requirements* guide and your application-specific documentation to verify whether your application requires COBOL.

In the case of an Oracle NT database, a Process Scheduler server running on the batch server may point to and invoke files that are physically located on the file server. With an Oracle UNIX database, the SQR and COBOL files must be transferred from the file server to the batch server; and COBOL source files must be compiled.

PeopleSoft also supports setting up the batch environment on an application server, or even on a dedicated server. However, keep in mind that batch performance is almost invariably best when the processes are executed on the database server.

If you are running Oracle on UNIX, for Windows-specific batch processes—such as Crystal Reports, nVision reports, Microsoft Word, or Cube Manager—you need to set up on a Windows batch environment on a Windows NT application server or a dedicated Windows NT workstation. These Windows-specific batch processes cannot be executed by the Process Scheduler on UNIX.

Any computer operating as a batch server must have database connectivity installed so that it can make a two-tier connection to the PeopleSoft database.

## Report Server

A report server is, generally speaking, a Windows NT batch server that is dedicated to running Windows-specific processes. See the chapter “Setting up the Process Scheduler” for more information on report servers.

## Web Server

A web server is required to run the PeopleSoft Internet Architecture. The PeopleSoft Internet Architecture works with any web server that supports Java servlet execution. Here are the *recommended and supported* web servers.

- WebLogic with IIS, iPlanet proxy servers
- WebSphere with IIS, IHS (IBM Http Server) proxy servers

WebLogic and WebSphere web servers will be supported across the following operating systems:

- NT4
- Windows 2000
- HP-UX
- AIX
- Solaris
- Linux
- Tru64 (*only* WebLogic is supported)

WebLogic, WebSphere, and the above proxy servers will provide out-of-the-box SSL support across all supported operating systems.

If needed, you can use a reverse proxy server with our supported web servers. For information on reverse proxy servers, see the Supported Platforms database on Customer Connection at [www.peoplesoft.com](http://www.peoplesoft.com).

**Note.** For more detailed information on supported servers and operating systems, consult the *Hardware and Software Requirements* book and the Platforms Database on Customer Connection.

## Laser Printer

Along with the printer you will need a Windows printer driver to print the online reports that produce 180-character-wide reports using the HP LinePrinter font. Your printer must be configured with sufficient memory (typically 1.5Mb) to produce graphics images for page printouts.

## Task 1-4: Plan Database Creation

When performing a PeopleSoft installation, you will create these types of PeopleSoft databases:

- System (also called SYS) databases, which contain the PeopleTools and product-specific metadata required for development of a production database.
- Demo (DMO) databases, which are populated with sample data for study, demonstration, or training purposes.

It's important to note the distinction between an Oracle database and a PeopleSoft database, which is a set of SQL objects that reside within a single Oracle database and share the same owner ID. PeopleSoft recommends that you install only one PeopleSoft database per Oracle instance. For details, see the section "Oracle Databases Versus PeopleSoft Databases" later in this task.

## Determine Databases and Database Names

Before you begin the installation process, you should determine how many PeopleSoft databases (System or Demo) of which type you need and how you intend to use them. You should also determine the names of the databases at this point, using database names that:

- Are limited to eight characters, all UPPERCASE.
- Capture information about the PeopleSoft product line and the type of database. For example, you may want to create two databases with the following names, using the two characters HR (for "Human Resources") to indicate the product line:

PSHRDMO

PSHRSYS

## Oracle Databases Versus PeopleSoft Databases

This guide mentions both Oracle databases and PeopleSoft databases. It's important to understand the difference between the two.

## Oracle Database

An “Oracle database” is a set of SQL objects defined by one system catalog in the SYSTEM tablespace and one SID (system identifier), using one “instance” of the Oracle server executables and associated files. Within Oracle shops, the Oracle database is commonly referred to as the “Oracle SID.”

## PeopleSoft Database

A “PeopleSoft database” is a set of SQL objects defined as having the same owner ID. These tables are always contained within a single Oracle database. A PeopleSoft database includes the PeopleSoft objects and application data for one or more products in a PeopleSoft product line.

This owner ID (an Oracle user ID) may also be referred to as an Oracle schema or Oracle logical database. Each PeopleSoft database needs its own owner. We refer to this as the “PeopleSoft owner ID,” which is also the PeopleSoft access ID.

## One PeopleSoft Database per Oracle Instance

We recommend that you install no more than one PeopleSoft database per Oracle instance. When each PeopleSoft database has its own instance, the system is more robust for the following reasons:

- Your developers can bring down their instance of the Oracle server executables, but the others will remain running.
- You have added security with one PeopleSoft database per Oracle instance.
- It’s more efficient to tune each instance to the requirements of its corresponding PeopleSoft database.

## Multiple PeopleSoft Databases per Oracle Instance

If you are unable to run extra Oracle database instances because of resource limitations, such as memory and system semaphores, you can install multiple PeopleSoft databases in the same Oracle instance. Keep the following points in mind if installing multiple PeopleSoft databases within one Oracle database instance:

- When supporting multiple databases in one Oracle instance, increase maxdatafiles from the default of 32 when you create the database. Check the limits of maxdatafiles for your operating system and increase the value accordingly.
- You need to increase the size of the tablespaces if you use the same ones for each PeopleSoft database schema. Sharing tablespaces is not recommended.
- Each PeopleSoft database should have different operator IDs to avoid problems with passwords.
- Each PeopleSoft database needs its own PeopleSoft database name. This is the database name users enter during the PeopleSoft logon process. It appears in the following locations.

Location	Reference
PeopleSoft logon screen	Database Name
TNSNAMES.ORA	The service name defined in TNSNAMES.ORA must be the same as that in PS.PSDBOWNER.
PS.PSDBOWNER table	DBNAME column



Here's an example of four PeopleSoft databases in one Oracle database.

Database Use	PeopleSoft Database Name	Owner ID and Access ID (Oracle Schema)	Owner/Access Password	SID
Testing	HRTST	sysadm	sysadm	hrdm
Development	HRDVLP	sysadm2	sysadm2	hrdm
Training	HRTRAIN1	sysadm3	sysadm3	hrdm
Training	HRTRAIN2	sysadm4	sysadm4	hrdm

## Task 1-5: Plan Multilingual Strategy

Before beginning your installation, you should determine which languages you need to support, whether your users will need to access the PeopleSoft system in multiple languages, and, if so, which of the languages will be used most often. These decisions will affect tasks at various stages of the installation, including file server setup, database creation, and whether you swap the base language of the PeopleSoft database after it is created. Even if you don't plan on running your system in more than one language, you should decide the following information before completing this task:

- Database base language
- Additional languages (if any)
- Database character set (or Unicode, if applicable)

The current languages provided by PeopleSoft and their language codes are listed below. These are the languages for which PeopleSoft provides pre-translated products. After installation, you also have the option of performing your own translations. If you plan to provide users access to your applications in these languages, PeopleSoft recommends that you install the translations during your initial installation. This approach will keep you from having to perform an upgrade if you decide to add the PeopleSoft-provided translations at a later date. For more information, see the *PeopleTools Global Technology PeopleBook*.

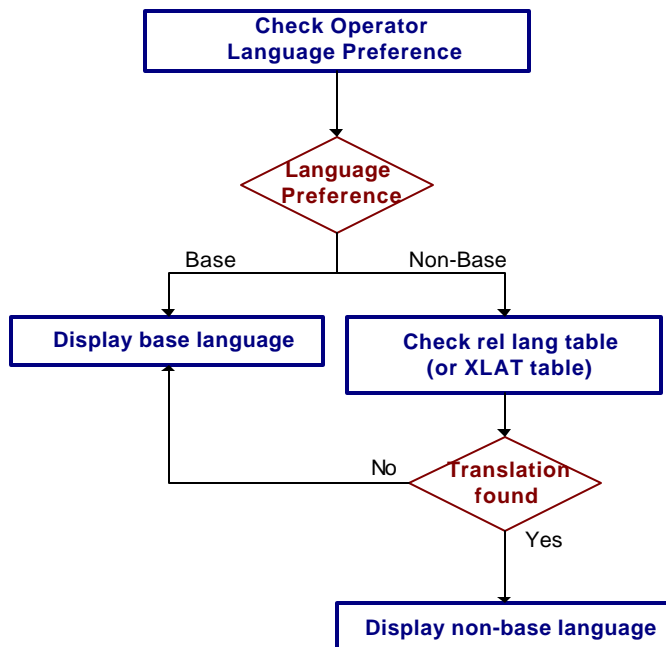
Code	Language
ENG	US English
CFR	Canadian French
DUT	Dutch
ESP	Spanish
FRA	French
GER	German
ITA	Italian
JPN	Japanese
POR	Portuguese
SVE	Swedish

ZHS	Simplified Chinese
ZHT	Traditional Chinese

## Choosing a Base Language

Each PeopleSoft database can have only one base language. PeopleSoft databases ship with English as the default base language. Typically, the base language of your database should match the language most commonly used by your organization, as it affects the performance of PeopleSoft applications.

When PeopleTools attempts to open language-sensitive objects (such as pages and menus), it first compares the operator's preferred language to the base language of the database. If the preferred language matches the base language, PeopleTools immediately loads the required definition from the base language PeopleTools tables. However, if the user's preferred language differs from the database's base language, PeopleTools must first query the related language tables for the object. Should a translation of the object not be found in the operator's preferred language, a query is then performed on the base language tables. The following flowchart shows this logic:



While these queries typically occur very quickly, they still take up valuable processing time. To optimize performance you should set the base language of your database to the language that is used most often by your users. If you choose to change the base language from the default (English), consult the *PeopleTools Global Technology* PeopleBook, under “Global Configuration Considerations.”

## Selecting Additional Languages

Because more than one language can co-exist in a single PeopleSoft database, you should decide which languages to install. PeopleSoft provides translations of all end-user objects on the “Global Multi-Language” CD. It is much easier to install additional languages upon initial database creation than to add them later in your implementation

process, so we recommend you choose which additional languages may be required now. There is no limit to the number of languages that can co-exist in a single PeopleSoft database; however, remember that each language will require additional storage space, primarily for PeopleTools objects.

## Selecting Database Character Set

Depending on the languages you've selected for installation, you need to determine which character set can represent these languages. There are two main steps in selecting your character set. First, if your database supports Unicode, you should decide whether to use it. Second, if you choose not to or cannot yet use Unicode, you should decide which legacy character set is appropriate for the language combination you've selected.

### Unicode Databases

In addition to supporting several legacy character sets, PeopleSoft supports creating Oracle databases using Unicode. Unicode enables you to maintain data in virtually any modern language in a single database. Prior to Unicode, many languages could not co-exist in one database, as they did not share a common encoding scheme.

To create an Oracle Unicode database, you must specify the character set UTF8 in the CREATE DATABASE statement. PeopleSoft triples column sizes when running against a Unicode Oracle database, as all Oracle 8i column sizes are measured in bytes, and PeopleSoft uses character-based column sizes. This tripling in size represents the worst-case 1-to-3 ratio of characters-to-byte for Basic Multilingual Plane Unicode characters when represented in UTF8.

Unicode databases are particularly important if the languages you selected do not share the same *character set*. Typically, a single character set can encode all languages written in a single *script*. For example, English, French and Spanish all share the same script (Latin), so they can co-exist in a non-Unicode database. However, Japanese does not share the same script as French, so if you need to have Japanese and French co-exist in a single system, you need a Unicode database.

**Note!** The characters required for the English language exist in all Unicode and non-Unicode character sets, so you can safely disregard English when determining whether to use Unicode for your database. For example, Japanese and English can co-exist in a single Unicode or non-Unicode database.

If you plan on installing or supporting a combination of languages that do not share the same character set, you should use a Unicode database. On Oracle, Unicode characters require between 1 and 3 bytes of storage each. As characters needed to write English are represented with one byte in UTF8, you should see no additional space requirements for a UTF8 database when using primarily English characters.

If you decide to use Unicode for your database, you *do not* need to select a character set as described below.

### Non-Unicode Databases

If you plan on running only one language in your system, or if your selected languages share the same character set, you can safely create a non-Unicode database. In this case, you need to decide in which character set your database should be created.

On Oracle, PeopleSoft supports the following Oracle character sets. Should one or more languages you are planning on using not appear in this list, you need to create a Unicode database, as this is the complete list of Oracle non-Unicode character sets supported by PeopleSoft.

Character Set / Codepage	Description	Languages Supported
WE8ISO8859P1	ISO 8859-1 West European	All Western European (English, French, Spanish, Portuguese, German, Dutch etc.)
WE8ISO8859P15	ISO 8859-15 West European	All Western European (English, French, Spanish, Portuguese, German, Dutch etc.), and includes the Euro symbol
WE8MSWIN1252	MS Windows Code Page 1252 8-bit European	All Western European (English, French, Spanish, Portuguese, German, Dutch etc.), and includes the Euro symbol
US7ASCII	ASCII 7-bit American	English
JA16SJIS	Shift-JIS 16-bit Japanese	Japanese, English

## Task 1-6: Review Updates and Fixes Required at Installation

Before beginning the installation, check the Updates and Fixes database on Customer Connection to identify any updates and fixes required at installation that you will need to apply, based on the products, product version, and PeopleTools version you are installing. Specific instructions for applying the updates and fixes are included in each listed incident.

Make note of all the updates and fixes, and plan to apply them at appropriate stages during the installation procedure. For example, a replacement for a PeopleTools executable would be applied after installing the CDs to the appropriate server, and so on.

The following procedure describes how to access the Updates and Fixes database. Contact PeopleSoft if you don't have a user ID and password for Customer Connection.

### To review updates and fixes required at installation

1. Go to the PeopleSoft Internet Home Page at [www.peoplesoft.com](http://www.peoplesoft.com) and then go to Customer Connection.

**Note.** Be sure to log in, or you will not see all of the menu options.

2. Select **Patches + Fixes, Updates and Fixes**.

3. Select **PeopleTools Updates and Fixes, Required for Installation or Upgrade**. Note any updates and fixes that apply to your installation.
4. Return to the **Updates and Fixes** page, then select **Application Updates and Fixes, Required for Installation or Upgrade**. Note any updates and fixes that apply to your installation.

## Task 1-7: Install Supporting Applications

PeopleSoft requires that a number of supporting applications be installed on batch servers and on any Windows-based client on which batch processes will be run locally. (Throughout the rest of this section we'll refer to these Windows-based clients as *two-tier clients*.) Be sure to check the PeopleSoft Platforms Database to ensure that you are installing software versions that are certified by PeopleSoft.

- If your application requires it, install the appropriate version of Micro Focus COBOL on the server where you will compile:

**Note.** Remember, COBOL is no longer needed for PeopleTools or for applications that do not contain COBOL programs. See the *Hardware and Software Requirements* guide and your application-specific documentation to verify whether your application requires COBOL. See the Platforms Database on Customer Connection for the certified version of COBOL.

- If all your servers are on NT, we recommend that you install a COBOL compiler on the file server. You can install PeopleTools plus any patches on the file server, compile your COBOL there, and then copy the COBOL binaries to your application and/or batch servers.
- If your application and/or batch servers are on UNIX, we recommend that you designate a single server as the compile server, so that you can compile COBOL from this central location and then distribute it to the rest of your application and batch servers. If you use this approach, you only need to copy patches or customizations over to the compile server. Note that this server must have the same operating system as any destination application or batch servers. For example, if your compile server is an HP-UX machine, you can only copy COBOL compiled there to other HP-UX application and batch servers. PeopleSoft recommends this approach: It will help you keep your COBOL source code in synch and only requires that you install COBOL in a single location.
- If you prefer, you can copy patches or customizations to all of your UNIX application and batch servers and compile the COBOL on each machine. However, PeopleSoft doesn't recommend this approach. It requires that you install multiple versions of the COBOL compiler, and makes it more likely that your COBOL source code will get out of synch.

**Note.** Before PeopleTools 8.4, PeopleSoft delivered both source and compiled COBOL for NT users; on UNIX COBOL had to be compiled. From 8.4 onwards, we deliver source only on both NT and UNIX. If your application requires COBOL, you will need to compile it.

**Note.** If your application requires COBOL and you're running UNIX, you need to install the COBOL runtime on every application and batch server. This is not necessary for NT.

- You must install SQR on any non-Windows batch server.
- On Windows NT batch servers and Windows two-tier clients, you have the option of installing SQR locally, or mapping to a copy installed on the file server. Because SQR does not require any local registry settings, you can execute SQR from any Windows batch server or two-tier client once SQR been installed to a shared directory. Installing SQR locally will result in improved performance; over a slow network connection the improvement will be significant.
- Optionally install Crystal Reports on Windows NT batch servers and Windows two-tier clients. As with SQR, you have the option of installing Crystal locally, or mapping to a copy installed on the file server. Because Crystal does not require any local registry settings, you can execute Crystal from any Windows batch server or two-tier client once Crystal has been installed to a shared directory. Installing Crystal locally will result in improved performance; over a slow network connection the improvement will be significant.

Crystal Reports requires that you install the PeopleSoft ODBC driver on the workstation where Crystal processes are executed. For details, see the Chapter “Setting Up Process Scheduler.”

- Install Microsoft Office (Excel and Word) on any Windows NT batch server or two-tier client that will be running nVision or Microsoft Word batch processes. Microsoft Office must be installed locally, because it requires registry settings.

## Task 1-8: Install Database Engine

If you have not already done so, install the Oracle database engine on your database server.

When installing the Oracle RDBMS, installation option(s) selection influences the resulting generated Oracle Shared Library. The PeopleSoft product calls the Oracle Shared library when making calls to the Oracle RDBMS.

**Note.** On UNIX, certain Oracle installation options are incompatible with the PeopleSoft product.

For **Oracle 8i** these are specifically: Advanced Security Options (ASO), the SPX/IPX protocol adapter, and the NIS naming adapter.

For **Oracle 9i** these are specifically: Advanced Security Options (ASO).

If you have these options installed, you need to uninstall them and rebuild the Oracle Shared Library. When installing the Oracle RDBMS on your database server, perform a “custom” install and do not select these unsupported options. If you have them installed, you will need to uninstall them and rebuild the Oracle Shared Library.

### Create Seed Database

Create the seed database during the installation of your Oracle database engine. This will not be your PeopleSoft database, so keep it small and give it a name that is not related to your application. After successfully installing your Oracle database engine, use the seed database to test NET8i/NET9i connectivity.

## Task 1-9: Install NET8i/NET9i on Server

You need to carry out this step for the database server and application server if you plan to use the third tier—that is, the application server. You need to load the NET8i/NET9i listener and the communication protocol adapter you are using, such as TCP/IP, IPX, or NetBIOS.

**Note.** If you are on a UNIX platform, do not load DEC\*Net or any other non-UNIX listeners.

You should configure the listener to start automatically upon booting. Refer to your Oracle documentation for details on setting up the listener.

You can verify that NET8i/NET9i is loaded on the database server by connecting to a database using SQL\*PLUS. Issue the complete connect string including the TCP/IP address or some other node identifier. For example, if you are on TCP/IP, your logon might resemble the following example:

```
oracl ei d/password@TNS: servi ce_name
```

**Note.** If you have someone outside your company install NET8i/NET9i, make sure that they install the workstation end as well. Also, make sure they demonstrate connectivity between the workstations and the database server.

## Task 1-10: Install NET8i/NET9i on Workstation

You must install NET8i/NET9i on each workstation that will connect to the PeopleSoft database server in a two-tier connection. Workstations making a three-tier connection normally do not need connectivity software. However, bear in mind that batch processes (such as Cobol and SQR) that are executed on the client workstation require that database connectivity software be installed on the client workstation. This is necessary because these batch processes must maintain their own SQL connection to the database server.

NET8i/NET9i works with many communication protocols, so ensure that the listener on your database server is using the same protocol as the workstation. Also, keep in mind that the client workstations need simultaneous access to the database server (through NET8i/NET9i) and to the PeopleTools software on the file server.

### *NET8i/NET9i Configuration Notes*

You must use the same version of NET8i/NET9i (version 8.1.7 or 9.x.x) on both your workstations and database server. PeopleTools 8.4 requires at a minimum the NET8i (version 8.1.7) functionality. Note as well that you must install the necessary protocol driver for your environment, such as the Oracle TCP/IP Adapter.

**Notes.** Please ensure that NET8i/NET9i client connectivity is installed prior to performing a PeopleSoft workstation installation. Failure to do so will result in problems with the Crystal Reports product. Always check the most recent version of the PeopleSoft Platforms Database on Customer Connection for the currently supported NET8i/NET9i versions.

## Task 1-11: Test NET8i/NET9i Connectivity

Once you have installed NET8i/NET9i on the database server, application server, or workstation, test that the connection works using the SQL\*PLUS utility provided with NET8i/NET9i.

Connect to a database on your database server as the SYSTEM user, and issue the following SQL statement:

```
SQL> select * from all_users;
```

**Note.** Pinging or using Telnet does not test the NET8i/NET9i connection.

Oracle, or your Oracle vendor, is best equipped to assist you if you have any problems installing any Oracle products or connecting to your Oracle database.

## Task 1-12: Perform Backups

Before proceeding, you should back up all servers and workstations that are set up for installation so you can recover to this point if necessary. Do the following:

- Back up any changes you made to the database server in setting up your PeopleSoft system.
- Back up any changes you made to your file server while setting aside space for your PeopleSoft system and setting up access privileges.
- Once you set up your install workstation(s) to access the file server and database server simultaneously, back up the workstation(s).







# INSTALLING THIRD-PARTY PRODUCTS

Before you carry out your PeopleSoft installation, you need to install any required third-party products. This chapter describes how to install:

- The WebLogic and WebSphere web servers. (PeopleSoft delivers, supports, and certifies BEA's WebLogic Server and IBM's WebSphere. Always refer to the PeopleSoft Platforms Database on Customer Connection for the most current web server information.)
- BEA Tuxedo and Jolt
- Crystal Reports

**Note.** You also have an option of using a reverse proxy server to your web server. For the details and supported reverse proxy servers, consult the PeopleSoft Platforms Database on Customer Connection.

**Note.** If you intend to build a multiple web server configuration for your PeopleSoft Internet Architecture that uses a load balancing hardware device instead of PeopleSoft certified reverse proxy, you must use a device that supports: 1) a compatible session persistence mechanism, 2) SSL persistence (sticky sessions), 3) HTTP session persistence (sticky sessions). For more information, consult the Red Paper "Clustering and High Availability for PeopleSoft 8" posted on PeopleSoft's Customer Connection in the Technology Resource Library.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 2-1	Installing BEA WebLogic Server on Windows NT/2000
Task 2-2	Installing WebLogic Server 6.1 Service Pack on Windows
Task 2-3	Installing BEA WebLogic Server 6.1 on UNIX

Task 2-4	Installing WebLogic Server 6.1 Service Pack on UNIX
Task 2-5	Installing WebSphere on Windows NT/2000
Task 2-6	Installing WebSphere on UNIX
Task 2-7	Installing Tuxedo and Jolt on Windows NT/2000
Task 2-8	Installing Tuxedo and Jolt on UNIX
Task 2-9	Installing Crystal Reports

## Task 2-1: Installing BEA WebLogic Server on Windows NT/2000

PeopleSoft ships a licensed edition of BEA WebLogic Server 6.1. The Windows NT distribution of BEA WebLogic is located on the WebLogic CD-ROM provided by PeopleSoft.

**Note.** Always refer to the *PeopleTools Hardware and Software Requirements* guide and the PeopleSoft Platforms database for the most current support information and information about any required WebLogic Service packs based on OS platform and/or PeopleTools versions. Note that WebLogic Server Service pack are cumulative, and you must uninstall any previous service packs before upgrading (or downgrading).

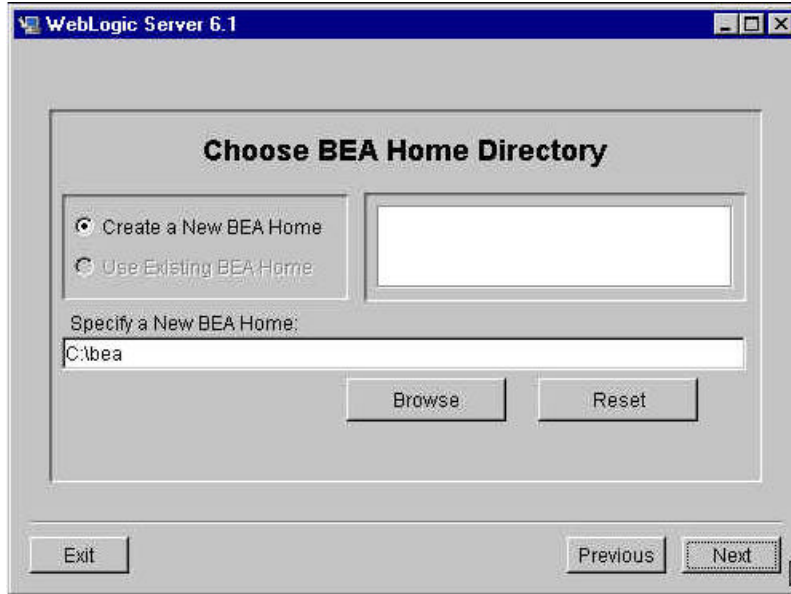
**Note.** Go to <http://e-docs.bea.com/wls/docs61/install/index.html> if you want to review BEA's official installation instructions.

The following steps assume that you have the PeopleTools WebLogic CD in the D drive.

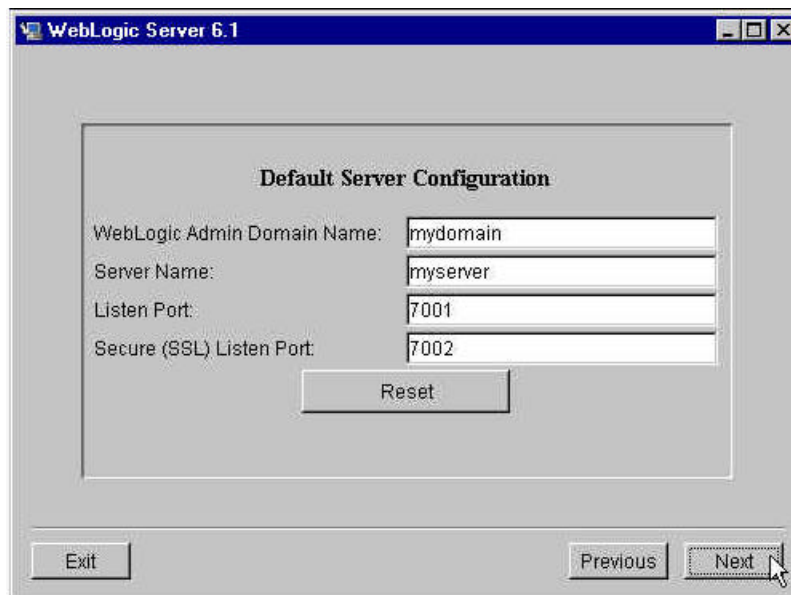
### To install the WebLogic Server 6.1 on Windows NT/2000

**Note.** If you already have WebLogic 6.1 installed, skip this task and proceed to the next one, "Installing WebLogic Server 6.1 Service Pack."

1. Start the BEA WebLogic installer from the BEA WebLogic CD. Using a command prompt window or Windows Explorer, navigate to your CD-ROM drive and execute `weblogic610_win.exe`.
2. Select a language and click **OK**.
3. Click **Next** in the Welcome screen.
4. Review and accept the License agreement.
5. Choose whether to install with or without examples, and click **Next**.
6. Choose a home directory, and click **Next**. The remainder of these steps assumes that you installed WebLogic 6.1 to `c:\bea`.



7. Specify the product installation directory and click **Next**. We assume that you use the default of C:\bea\wlserver6.1.
8. Click **Next** to accept the Default Server configuration.



**Note.** The “Default Server Configuration” defined here—the WebLogic domain name, server name, listen port, and SSL listen port—is not used by PeopleSoft Internet Architecture but is used by the following WebLogic Server installation steps. Changing the WebLogic domain name may result in installation errors.

9. Specify **No** when asked whether to install WebLogic as a Windows service and click **Next**. (See the chapter “Setting Up the PeopleSoft Internet Architecture” for the details on installing PIA’s configured WebLogic Server as an NT service.)
10. PeopleSoft Internet Architecture does *not* use the system account password defined here. Specify 'password' as the system account password and click **Install** to begin the installation.



11. Once the installation process is finished, click **Done** in the Install Complete screen.
12. Install the PeopleSoft provided license for WebLogic Server. Open a command prompt window and issue the following commands:

```
D:
CD \license
Copy * c:\bea
C:
Cd\bea
InstallPSLicense.cmd c:\bea
```

Choose “Yes” if you are prompted to overwrite the license.bea.

**Note.** When you install WebLogic Server, a JRE, and at least a partial JDK is installed. PeopleSoft’s JRE/JDK certification for WebLogic Server is based on extending BEA’s JRE/JDK certification of WebLogic Server. For PeopleTools 8.4, the currently certified JRE/JDK is 1.3.

## Task 2-2: Installing WebLogic Server 6.1 Service Pack on Windows

If you have previously installed a WebLogic Server service pack, you must uninstall that service pack before upgrading to a higher service pack level. For example, service pack 2 will not install over service pack 1. Instead you must uninstall service pack 1 before installing service pack 2. The following steps describe how to uninstall an existing service pack and install a new one.

### To install WebLogic 6.1 Service Pack on Windows

1. Shut down any instance of WebLogic Server that is running.
2. If you currently have a service pack installed, execute the following command to uninstall it.

```
c: \bea\wlserver6.1\uninstaller_servicepack\uninstall.exe
```

3. Install the WebLogic Server service pack. Open a command prompt window and issue the following commands in a single DOS window.

```
C:
CD c: \bea\wlserver6.1\config\mydomain
setenv.cmd
D: \wls61sp2_upgrade_win.exe
```

4. Accept all of the defaults and specify the directory where WebLogic Server 6.1 is installed (for example, c:\bea).
5. Install Service pack updates.

The service pack you are installing may require additional updates. If so, those updates will be provided in a wls61sp#-p#.zip file on your WebLogic 6.1 CD—the first # indicates the service pack this update should be applied to and the second # is an incremental patch number. The directory containing this file will include the service pack number that it should be applied to. These updates are specific to a service pack level and should only be applied to the intended service pack. To apply the service pack updates perform the following steps, substituting the directory you have installed WebLogic Server to for c:\bea.

- a) Copy wls61sp2-p2.zip to c:\bea.
- b) Change directories to c:\bea.
- c) Create a backup of <bea\_home>\wlserver6.1\bin\wlntio.dll and beasvc.exe.
- d) Create a backup of <bea\_home>\wlserver6.1\lib\ps\_patch.jar (if exists).
- e) Unzip wls61sp2-p2.zip INTO c:\bea. (Files under <bea\_home>\wlserver6.1 will be updated.)

## Task 2-3: Installing BEA WebLogic Server 6.1 on UNIX

PeopleSoft ships a licensed edition of BEA WebLogic Server 6.1. The UNIX distribution of BEA WebLogic is located on the WebLogic CD-ROM provided by PeopleSoft.

**Note.** Always refer to the *PeopleTools Hardware and Software Requirements* guide and the PeopleSoft Platforms database for the most current support information and information about any required WebLogic Service packs based on OS platform and/or PeopleTools versions. Note that WebLogic Server Service pack are cumulative, and you must uninstall any previous service packs before upgrading (or downgrading).

**Note.** Go to <http://e-docs.bea.com/wls/docs61/install/index.html> if you want to review BEA's official installation instructions.

By default, the WebLogic installation program requires 200 MB of disk space in the temporary directory /tmp. If you have insufficient space, you may receive one of the following messages:

**Preparing to install...**

**The included VM could not be unarchived (tar). Please try to download the installer again and make sure that you download using 'binary' mode. Please do not attempt to install this currently downloaded copy.**

or

**"Preparing to install...**

**The included VM could not be uncompressed. Please try to download the install again and make sure that you download using 'binary' mode. Please do not attempt to install the currently downloaded copy. "**

or

**WARNING! The amount of /tmp disk space required to perform this installation is greater than what is available.**

In all cases, free up at least 200 MB in /tmp and rerun the installation.

You can also designate an alternate temporary directory for the installation by setting the IATEMPDIR environment variable to a directory on a disk partition with enough free disk space. To set the variable, enter the following commands at the UNIX command line prompt (for Bourne shell (sh), ksh, bash and zsh) before rerunning this installer:

```
IATEMPDIR=/your/free/space/di rectory
export IATEMPDIR
```

### To install the WebLogic server on UNIX

1. The following files are located on your WebLogic Server CD. Be certain to the use WebLogic version that is certified with your PeopleTools release.



Platform	WebLogic Server Installer
Solaris	weblogic610_sol.bin
HP-UX	weblogic610_hp.bin
AIX	weblogic610_aix.bin
RedHat Linux	weblogic610_tru64_redhat.zip
Tru64	weblogic610_tru64_redhat.zip

2. Mount the WebLogic CD onto your UNIX server.

**Note.** Refer to the chapter “Using the PeopleSoft Installer” for UNIX mounting and unmounting commands.

3. Invoke the console-mode installation procedure as follows:

- If the install file for your platform ends with “.bin,” invoke the console-mode installation procedure by entering this command:

```
sh <WebLogic CD mount point>/filename.bin -i console
```

- If the install file for your platform ends with “.zip”, perform the following steps:

```
PATH=full_path_to_jdk/bin: $PATH
export PATH
java -cp <WebLogic CD mount point>/filename.zip install -i console
```

If you do not have a JRE installed on your system, download and install a JRE/JDK (JRE 1.3.1 is recommended) from your JRE vendor. In the case of RedHat Linux, the JRE vendor is Sun.

**Note.** If you receive an exception in thread "main" using the above steps, copy the weblogic installer to your UNIX machine and launch the installation from there.

**Note.** During the installation process, respond to the prompts by entering the number associated with your choice or by pressing ENTER to accept the default. To exit the installation process, enter 'quit' in response to any prompt. To review or change your selection, enter 'back' at the prompt.

4. Enter the number associated with the language you want displayed during the installation.

```
Choose Locale . . .
  1- Deutsch
  ->2- English
  3- Español
  4- Français
```

**CHOOSE LOCALE BY NUMBER:**

and press ENTER to continue the installation.

5. Read the license agreement, and press Y for Yes to accept it.
6. Enter **1** to install the program files and the example files, or **2** to install just the program files. We recommend that you choose 1.

#### Choose Install Set

-----

Please Choose the Install Set to be installed by this installer.

- >1- Server and Examples
- 2- Server Only

ENTER THE NUMBER FOR THE INSTALL SET, OR <ENTER> TO ACCEPT THE DEFAULT:

7. Enter **1** to create a new BEA home directory or enter **2** to select an existing BEA home directory. Be sure to use the full path name when specifying a new BEA home directory; the WebLogic Server installer program creates the directory automatically.

#### Choose BEA Home Directory

-----

- 1- Create a New BEA Home
- 2- Use Existing BEA Home

Enter a number: **1**

Specify a New BEA Home: /apps/bea

8. Specify where to install the WebLogic Server software. Enter **1** to select an alternate directory, or **2** to accept the default (the default is the product directory under the BEA home directory you just specified). If you choose to create a new directory, the WebLogic Server installer creates it automatically. We recommend that you choose 2.

#### Choose Product Directory

-----

- 1- Modify Current Selection (/apps/bea/wlserver6.1)
- 2- Use Current Selection (/apps/bea/wlserver6.1)

Enter a number:

9. Enter **5** to accept the default server configuration.

#### Default Server Configuration

-----

- 1- Modify WebLogic Admin Domain Name (mydomain)
- 2- Modify Server Name (myserver)
- 3- Modify Listen Port (7001)
- 4- Modify Secure (SSL) Listen Port (7002)
- 5- Done Configuration

Enter a number:

**Note.** The “Default Server Configuration” defined here—the WebLogic domain name, server name, listen port, and SSL listen port—is not used by PeopleSoft Internet Architecture but is used by the following WebLogic Server installation steps. Changing the WebLogic domain name may result in installation errors.

10. PeopleSoft Internet Architecture does not use the system account password defined here. Specify 'password' as the system account password and continue the installation.
11. At this point, you'll see the prompt “Installing...” while the installation program installs WebLogic in the specified directory.
12. Press ENTER to exit the installation program.
13. Install the PeopleSoft provided license for WebLogic Server by issuing the following commands: (Choose “Yes” if you are prompted to overwrite the license.bea.)

```
cd /<cdrom>/license
cp * /apps/bea
cd /apps/bea
chmod u+x InstallPSLicense.sh
./InstallPSLicense.sh /apps/bea
```

**Note.** If you intend to FTP the WebLogic license files to your WebLogic Server, isv.jar needs to be transferred in binary mode, and the remaining license files need to be transferred in ASCII mode.

14. **Operating system updates:** Additional updates are provided for certain operating systems. These updates are provided on the WebLogic Server CD and are stored in a directory named for the operating system. If updates are provided for the operating system on which you are running WebLogic, perform the following steps. Copy the updates from your WebLogic CD to your BEA home directory and extract their contents. If there are multiple updates for a single platform, the order in which they are applied doesn't matter, unless otherwise noted.

```
cd /<cdrom>/OS_platform
cp * /apps/bea
cd /apps/bea
uncompress file.tar.Z
tar xvf file.tar
```

**Note.** When you install WebLogic Server, a JRE, and at least a partial JDK is installed. PeopleSoft's JRE/JDK certification for WebLogic Server is based on extending BEA's JRE/JDK certification of WebLogic Server. For PeopleTools 8.4, the currently certified JRE/JDK is 1.3.

## Task 2-4: Installing WebLogic Server 6.1 Service Pack on UNIX

If you have previously installed a WebLogic Server service pack, you must uninstall that service pack before upgrading to a higher service pack level. For example, service pack 2 will not install over service pack 1. Instead

you must uninstall service pack 1 before installing service pack 2. The following steps describe how to uninstall an existing service pack and install a new one.

### To install WebLogic 6.1 Service Pack on UNIX

1. Shut down any instance of WebLogic Server that is running.
2. If you currently have a service pack installed, uninstall it as follows. (Substitute your BEA home directory, if it is other than /apps/bea.)

```
cd /apps/bea/wlserver6.1/config/mydomain
. ./setEnv.sh
cd /apps/wlserver6.1/uninstaller_servicepack
./uninstall -i console
```

3. Install the WebLogic Server service pack. Invoke the console-mode installation procedure by entering the following commands:

```
cd /apps/bea/wlserver6.1/config/mydomain
. ./setEnv.sh
java -cp <WebLogic CD>/wls61sp2_upgrade_unix.zip install -i console
```

Respond to the prompts in each section by entering the number associated with your choice or by pressing ENTER to accept the default. To exit the installation process, enter 'quit' in response to any prompt. To review or change your selection, enter 'back' at the prompt.

**Note.** If you receive an exception in thread "main" using the steps above, copy wls61sp2\_upgrade\_unix.zip into your BEA home directory (i.e /apps/bea) and launch the installation using the command:

```
"java -cp /apps/bea/wls61sp2_upgrade_unix.zip install -i console"
```

**Note.** The service pack installation may appear to pause at the end of the installation and may take up to 10 minutes to complete. This is more common, but not unique to NFS mounted resources.

4. Install service pack updates.

The service pack you are installing may require additional updates. If so, those updates will be provided in a wls61sp#-p#.zip file on your WebLogic 6.1 CD—the first # indicates the service pack this update should be applied to and the second # is an incremental patch number. The directory containing this file will include the service pack number that it should be applied to. These updates are specific to a service pack level and should only be applied to the intended service pack. To apply the service pack updates perform the following steps, substituting the directory you have installed WebLogic Server to for /apps/bea/.

- a) FTP wls61sp2-p2.tar in binary mode to /apps/bea.
- b) cd to /apps/bea.
- c) Create a backup of <bea\_home>/wlserver6.1/lib/<platform>/libmuxer.\*
- d) Create a backup of <bea\_home>/wlserver6.1/lib/ps\_patch.jar (if exists).

- e) Expand wls61sp2-p2.tar by issuing the command

```
tar -xvf wls61sp2-p2.tar
```

Files under <bea\_home>/wlserver6.1 will be updated.

## Task 2-5: Installing WebSphere on Windows NT/2000

Complete the following steps to install WebSphere Application Server Advanced Single Server Edition. This installation is for a single node using the following:

- IBM Developer Kit, Java TM 2 Technology Edition, 1.3.1
- IBM HTTP Server 1.3.19

**Note!** PeopleTools 8.42 supports native Http Server within WebSphere at port 9080 and 9443, for http and https, respectively. Use of IBM Http Server, which listens at port 80 or 443 for http or https, is required to set up PeopleBooks. Alternatively, you can use another supported Http Server such as iPlanet or IIS.

**Note!** Before you begin the installation, review the PeopleSoft Platforms Database to make sure you are installing WebSphere into a supported environment.

**Note.** In PeopleTools 8.42, WebSphere 4.0.3 has embedded JRE 1.3.1 support.

**Note !** Using IBM Http Server as a proxy with WebSphere is required if you plan to use PeopleBooks. The other option is to use iPlanet or IIS.

### Order of Installation

- Install any proxies you plan to use with WebSphere before you install WebSphere. Supported proxies include IBM Http Server, IIS, and iPlanet.
- If you plan to install a proxy server other than IBM Http Server (that is, IIS or iPlanet), install it now.
  - Install IIS and stop the IIS Server, or,
  - Install iPlanet, turn off the Servlet Engine through iPlanet Administration console, save the configuration, and then stop the iPlanet Admin Server and iPlanet Enterprise Server.
- The WebSphere installation includes an option for installing IBM Http Server and it will configure the plugin for selected proxies (IIS, IBM Http Server, and iPlanet). WebSphere has an internal Http Server that listens at port 9080.

**Note!** Using IBM Http Server as a proxy with WebSphere is required if you plan to use PeopleBooks. The other option is to use iPlanet or IIS.

## Preparing the User Account (IBM Http Server Only)

### To prepare the user account

1. Open Windows User Manager.
  - On Windows NT, select **Start, Programs, Administrative Tools (Common), User Manager**.
  - On the Windows 2000 desktop, right-click on **My Computer**, select **Manage**, select **Local Users and Group** and then select **Users**.
2. In User Manager, add your user ID and then add it to the Administrators group if it is not there already. The new user ID added should be same as the domain user ID that you use to log into the machine.
3. Check that the following is also in the Administrators group: <your domain name>\user ID and the user ID you added in the previous step.
4. Make sure your Windows user ID has the following set of basic and advanced user rights:
  - Can log on locally
  - Act as part of the operating system
  - Create a token object
  - Increase quotas
  - Replace a process level token
  - Log on as a service
5. After you have set the appropriate user ID rights, restart the machine.

## Installing WebSphere

Installing WebSphere 4.0.3 is a two-part process: First you install the base WebSphere Aes 4.0.1 from CD#1, and then you install WebSphere fixPack3 from CD#2.

### To install WebSphere

1. Uninstall any previously installed WebSphere and IBM Http Server on your system.
2. Stop any HTTP Server (IBM Http Server, IIS, or iPlanet) running on the system.

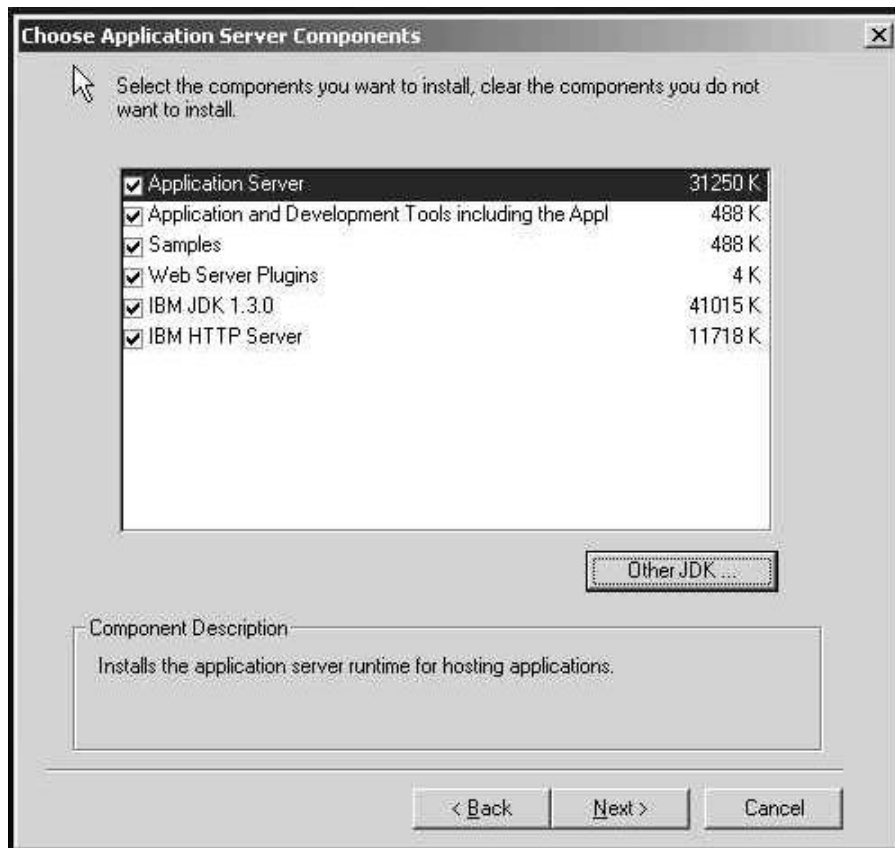
**Note.** See the later procedure “To verify the WebSphere installation” for details on starting and stopping WebSphere and Http Server.

3. Insert the WebSphere CD #1 into your CD-ROM drive.

4. Navigate to the CD-ROM drive. You will see IBMWEBAS\_AES\_NT.ZIP file. Extract the ZIP file into a folder. From that folder, double-click the setup.exe file.
5. Select the appropriate language, and click **OK**.
6. Click **Next** at the introductory page.
7. In the Installation Options dialog, select **Custom Installation**; then click **Next**.

PeopleSoft recommends the Custom Installation option because it lets you choose a supported web server and configure WebSphere Application Server specifically for that server.

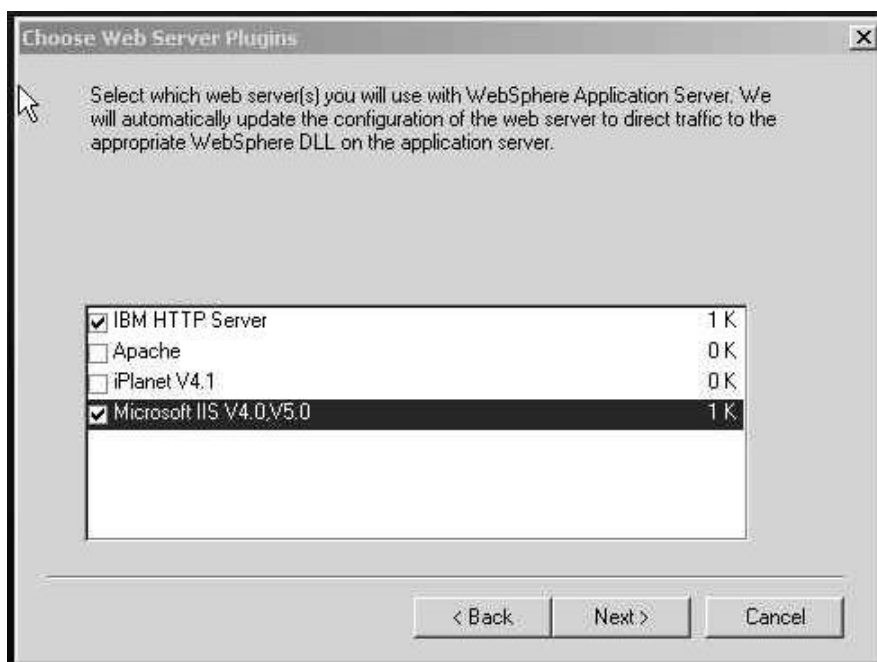
**Note.** You must select the Application Server/Application and Development Tools/Samples/Web Server Plugins/IBM JDK 1.3.0 options to install WebSphere. If you would like to install IBM Http Server as Proxy or reverse proxy with WebSphere, select IBM HTTP Server check box. This will install IBM Http Server on your machine, which listens at port 80 and 443 for HTTP and HTTPS respectively.



8. Click **Next** to confirm your selections.

**Note.** Shut down all web servers you plan to run with WebSphere.

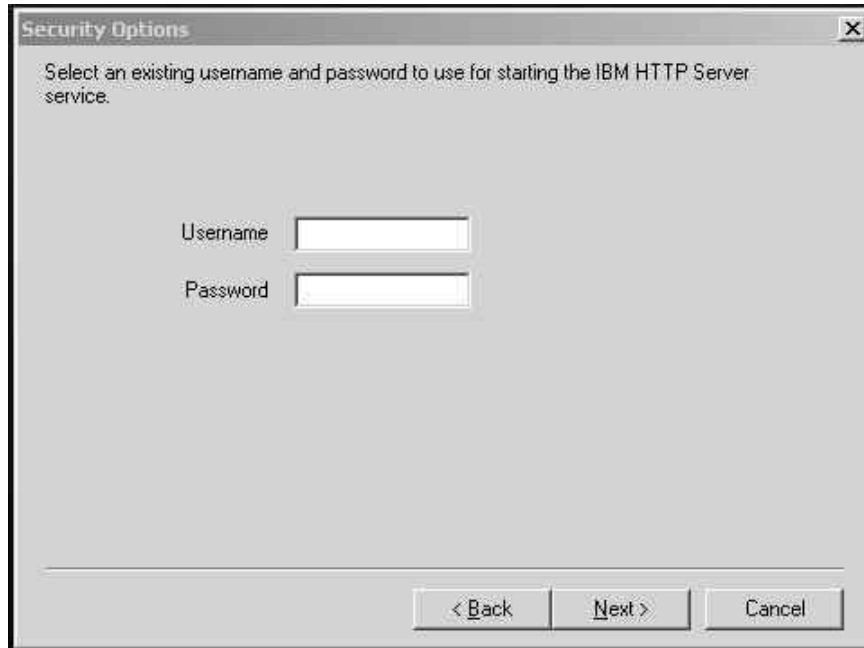
9. In the Choose Web Server Plugins dialog, select the web server plug-in you plan to use with WebSphere and click **Next**. (Please read the points below before making your selection.)
- If you selected IBM HTTP Server in the Choose Application Server Components dialog box, select **IBM HTTP Server** in the Choose Web Server Plugins dialog. This will set up IBM Http Server with WebSphere, and will enable the Http Server to send servlet (dynamic) requests to WebSphere.
  - If you already installed IIS and intend to use it with WebSphere, select **Microsoft IIS v4.0,V5.0** from the Choose Web Server Plugins dialog. This will enable the Http Server to send servlet (dynamic) requests to WebSphere.
  - If you have already installed iPlanet Enterprise Server and intend to use it with WebSphere, **do not** select iPlanet from the Choose Web Server Plugins dialog box. After installing WebSphere you will install WebSphere fixPack3, which will help you set up iPlanet with WebSphere.
  - Select **IBM Http Server** even if you don't intend to set up any Http Server (IIS, iPlanet, or IBM Http Server) with WebSphere.



**Note.** The options you see here depend on what web server is installed the machine. For example, if iPlanet is not installed, it will not show up in the plug-in window.

10. If you selected IBM HTTP Server from the Choose Web Server Plugins dialog, you are asked for the username and password to access the IBM Http Administrator console. (If you did not select IBM HTTP Server, you won't see this prompt.) Enter the username and password and click **Next**. (Refer to the section "Preparing the User Account" earlier in this chapter for details on setting up the username and password.)





11. Specify the destination directories and click **Next** (the default is \WebSphere\AppServer).
12. Select a program folder and click **Next**.
13. Click **Next** again to begin the installation.
14. When the install programs completes, click **Finish**.
15. Reboot the server machine on Windows platforms.

### To install the eFixes and fixPack

1. Stop any HTTP Server, HTTP Admin Server, and Java processes. Stop WebSphere if it is running.

**Note.** See the later procedure “To verify the WebSphere installation” for details on starting and stopping WebSphere and Http Server.

2. Insert the WebSphere CD #2 into your CD-ROM drive.
3. Navigate to the CD-ROM drive.
4. Extract the /Win32/ws403w32.zip file from the WebSphere installation CD #2 into the folder c:\websphere\fixPack3.
5. If you’re using IBM Http Server with WebSphere, you need to apply eFix PQ62369. Extract the PQ62369.zip file from the folder /Win32/eFixes/PQ62369. Consult the readme.txt for instructions on applying the eFix manually.

6. To install the WebSphere FixPack, extract the /Win32/ws403w32.zip file into the folder c:\websphere\fixPack3, navigate to c:\websphere\fixPack3 and run fpInstall.bat, which guides you through the fixPack installation in interactive mode.
  - a) Accept the license agreement.
  - b) Enter the WebSphere Home directory.
  - c) Update the WebSphere Application Server and Java.
  - d) If you are using IBM Http Server or if you would like to set up IBM http Server as proxy with WebSphere, upgrade the IBM Http Server.
  - e) If you are using iPlanet Enterprise Server or would like to use iPlanet Enterprise Server as proxy with WebSphere, upgrade the iPlanet Enterprise Server. Enter the version number 4 for version 4.x.x or 6 for version 6.x.x.
  - f) Complete the fixPack installation.
  - g) At the end of the installation, you will get a return code. If the return code is Zero, the fixPack install succeeded.

### To verify the WebSphere installation

1. To Start WebSphere, go to \websphere\appserver\bin and enter startServer.bat.

**Note.** Before running startServer.bat, add the following two bold lines to the file:

```
@REM Disable certain JIT options that cause problems
SET JITC_COMPILEOPT=NBCOPT{iaik/pkcs/pkcs12/a}{a}
@REM The server root ('server.root') provides the base
@REM for finding the default configuration.
```

The above setting is required to overcome a known issue in the Just In Time compiler optimization module of the IBM JDK used with AEs 4.0.3 and did not contribute to significant degradation in performance in our tests.

2. To Stop WebSphere, go to \websphere\appserver\bin and enter stopServer.bat.
3. Start IBM Http Server either through the command line
 

```
{IBM Http Server Home}>apache -k start
```

 or by starting the IBM Http Server service through the Control Panel.
4. Stop IBM Http Server either through command line
 

```
{IBM Http Server Home}>apache -k stop
```

or by stopping the IBM Http Server service through the Control Panel.

5. Start WebSphere. Invoke URL `http://localhost:9080/servlet/snoop`. You will get Snoop page, which verifies that the installation was successful.

### To verify the WebSphere Administration Console

1. Invoke the URL `http://localhost:9090/admin`. Use any user ID to enter the Administration console.

### To verify the WebSphere Plugin

1. If you have configured HTTP Server (IBM Http Server, iPlanet, or IIS ), this step will help you verify that the Http Server uses the WebSphere plugin to connect with WebSphere. To test the Proxy with WebSphere, start the Proxy (IIS, iPlanet, or IBM Http Server) and invoke the URL `http://localhost/servlet/snoop`. You will get the Snoop page, which verifies that the installation was successful.

## Task 2-6: Installing WebSphere on UNIX

Complete the following steps to install WebSphere Application Server Advanced Single Server Edition. This installation is for a single node using the following:

- HP-UX 11.0 or 11i, Solaris 7 or 8, AIX 4.3.3 or 5.1, RedHat Linux 7.1 or 7.2.
- Java 2™ Software Development Kit (SDK) 1.3.1 (version supplied with WebSphere Application Server).
- IBM HTTP Server 1.3.19.2.
- A single node. (Multiple nodes are supported for HP-UX only).

**Note!** PeopleTools 8.42 supports native Http Server within WebSphere at port 9080 and 9443, for http and https, respectively. Use of IBM Http Server, which listens at port 80 or 443 for http or https, is optional.

**Note.** IBM Http Server 1.3.19.2 is only supported as Proxy on WebSphere AEs 4.0.3 on AIX 5.1. iPlanet and IIS are not supported on WebSphere AEs 4.0.3 on AIX 5.1.

**Note.** When you install WebSphere, IBM's JRE 1.3.1 is installed automatically.

**Note!** Using IBM Http Server as a proxy with WebSphere is required if you plan to use PeopleBooks. The other option is to use iPlanet or IIS. Alternatively, you can use another supported Http Server such as iPlanet or IIS.

### Order of Installation

- Install any proxies you plan to use with WebSphere before you install WebSphere. Supported proxies include IBM Http Server and iPlanet.
  - If you plan to install the proxy server iPlanet, turn off the Servlet Engine through iPlanet Administration console, save the configuration, and then stop the iPlanet Admin Server and iPlanet Enterprise Server.

- The WebSphere installation includes an option for installing IBM Http Server that it will configure the plugin for selected proxies (IBM Http Server, iPlanet). WebSphere has an internal Http Server that listens at port 9080.

**Note!** Using IBM Http Server as a proxy with WebSphere is optional.

### Patches Required for WebSphere AES 4.0.3

Deploy the following patches before you continue with the WebSphere AES 4.0.3 installation.

**Note.** WebSphere Application Server has been tested with the following patches. If you already have any of these patches installed on your system, you needn't reinstall them. In addition, if the manufacturer replaces any of these patches with a newer version, you should use the newer version.

Operating System	List of Patches	Patch Download Site
AIX 4.3.3 4330-07 Maintenance Level	APAR IY19277	<a href="http://techsupport.services.ibm.com/rs6k/fixdb.html">Http://techsupport.services.ibm.com/rs6k/fixdb.html</a>
AIX 5.1c	APAR IY27685	
HP-UX Operating Environment 11.0	PHCO_23792	The patches are available at the following URL:
	PHCO_23963	<a href="http://www.hp.com/products1/unix/java/infolibrary/patches.html">http://www.hp.com/products1/unix/java/infolibrary/patches.html</a>
	PHCO_25707	Install the following patches in the order shown. This list does not show dependency patches. On the Web page from which you download the patch, click the dependency link and make sure you install dependency patches as well.
	PHCO_25342	
	PHKL_18543	
	PHKL_22677	
	PHKL_23226	
	PHKL_23409	
	PHKL_25475	
	PHKL_25906	
	PHNE_21731	
	PHNE_25423	
	PHNE_24909	
	PHSS_24303	
HP-UX Operating Environment 11i	PHCO_24777	The patches are available at the following URL:
	PHCO_25452	<a href="http://www.hp.com/products1/unix/java/infolibrary/patches.html">http://www.hp.com/products1/unix/java/infolibrary/patches.html</a>
	PHKL_24255	Install the following patches in the order shown. This list does not show dependency patches. On the Web page from which you download the patch, click the "dependency" link and make sure you install dependency patches as well.
	PHKL_24569	
	PHKL_24751	
	PHKL_25389	

	PHKL_25729	
	PHKL_25840	
	PHNE_24035	
	PHSS_25092	
	PHKL_25368	
Solaris 7	Patch cluster 2/4/2002	Http://sunsolve.Sun.COM/pub-cgi/show.pl?target=patches/patch-access
Solaris 8	Patch cluster 2/4/2002	http://sunsolve.Sun.COM/pub-cgi/show.pl?target=patches/patch-access

## Before You Get Started

Before you begin the installation, review the PeopleSoft Platforms Database to make sure you are installing WebSphere into a supported environment. Also, review the WebSphere Application Server Supported Hardware, Software, and APIs.

By default, the install program installs files to the following location:

- **Solaris and HP-UX.** /opt/WebSphere/AppServer
- **AIX.** /usr/WebSphere/AppServer

These installation instructions assume the following:

- You do not have a previous version of WebSphere Application Server and IBM Http Server installed on the current server.
- If you plan to use another supported web server (iPlanet) with WebSphere, install it now. Note that IBM HTTP Server is provided with WebSphere Application Server (on CD #1), but if you want to use a different, supported web server, you must install it separately.
- HP-UX customers should ensure that the swagentd daemon is running by entering the following command:

```
# ps -ef | grep swagentd
```

If the swagentd daemon is running, you'll see output similar to the following:

```
root  10431  10128  0  10: 43: 33 pts/0  0: 00  grep swagentd
root   1391     1  0   May 9  ?      0: 00  /usr/sbin/swagentd -r
```

If the swagentd daemon is not running, start it by entering the following command:

```
# swagentd -r &
```

- AIX customers should make sure that their DISPLAY and TERM environment variables are set properly.
- If you plan to use IBM HTTP Server, you will select it for installation during the WebSphere Application Server installation process documented here.

**Note!** If you plan to install IBM HTTP Server 1.3.19 but have an earlier version of IBM HTTP Server on your system, you need to uninstall it now. If it is not uninstalled properly, IBM Http Server will not be installed if you choose to install it during the WebSphere installation.

## Uninstalling Previous Versions of Http Server

WebSphere AEs 4.0.3 installation installs new version of IBM Http Server 1.3.19.2. The following procedure will uninstall any previous versions of IBM Http Server. The WebSphere uninstall will not uninstall IBM http Server.

### To uninstall IBM Http Server 1.3.19 / Apache 1.3.20 on AIX

1. Uninstall any previous versions of IBM Http Server:
  - a) Log on as root.
  - b) Stop the server by changing to /usr/HTTPServer/bin.
  - c) Type **./apachectl stop**
  - d) Type **smit install**
  - e) Select **Software Installation and Maintenance**.
  - f) Select **Software Maintenance and Utilities**.
  - g) Select **Remove Installed Software**.
  - h) Click **List** under Software Name.
  - i) Select the packages from the following list, if you currently have IHS 1.3.12 installed (xx\_xx specifies a language: Ja\_JP, Zh\_CN, Zh\_TW, de\_DE, en\_US, es\_ES, fr\_FR, it\_IT, ko\_KR, pt\_BR):
    - http\_server.admin (HTTP Server Administration)
    - http\_server.frca (HTTP Server Fast Response Cache)
    - http\_server.html.xx\_xx (HTTP Server Documentation)
    - http\_server.man.en\_US (HTTP Server Manual Pages (U.S. English))
    - http\_server.modules.fcgi (HTTP Server Fast-CGI)
    - http\_server.modules.snmp (HTTP Server SNMP Module)
    - http\_server.modules.ldap (HTTP Server LDAP Module (Export SSL))
    - http\_server.modules.ldap.128 (HTTP Server LDAP Module (Domestic SSL))

- http\_server.msg.xx\_xx.admin (HTTP Server Admin Messages)
- http\_server.msg.xx\_xx.ssl.core (HTTP Server SSL Messages)
- http\_server.ssl.128 (HTTP Server SSL Module (128-bit Encryption))
- http\_server.ssl.core (HTTP Server SSL Module Common)
- http\_server.base.source (HTTP Server Source Code)
- http\_server.base.rte (HTTP Server Base Run-Time)
- gskit.rte (GSKit) Only remove if not required by another package

Select the following packages from the following list, if you currently have IHS 1.3.6.x installed (xx\_xx specifies a language: JA\_JP, Zh\_CN, Zh\_TW, de\_DE, en\_US, Es\_ES, Fr\_FR, it\_IT, KO\_KR, pt\_BR):

- http\_server.html.xx\_xx (HTTP Server Documentation)
- http\_server.base.rte (HTTP Server Base Run-time)
- http\_server.base.source (HTTP Server Source Code)
- http\_server.modules.ldap (HTTP Server LDAP Module (Export SSL))
- http\_server.modules.snmp (HTTP Server SNMP Module)
- http\_server.frca (HTTP Server Fast Response Cache Accelerator)
- http\_server.modules.ldap.128 (HTTP Server LDAP Module (Domestic SSL))
- http\_server.msg.xx\_xx.admin (HTTP Server Admin Messages)
- http\_server.msg.xx\_xx.ssl.core (HTTP Server SSL Messages)
- http\_server.ssl.128 (HTTP Server SSL Module (128-bit encryption))
- http\_server.sslcore (HTTP Server SSL Module Common)
- gskru301 (gskru301 for AIX) Only remove if not required by another package
- gskrf301 (gskrf301 for AIX) Only remove if not required by another package

2. After the software is successfully installed, remove the /usr/HTTPServer directory contents as follows:

```
# cd /usr
# rm -rf /usr/HTTPServer
```

**To uninstall IBM Http Server 1.3.19 / Apache 1.3.20 on HP**

1. Back up your web server configuration files in the /opt/HTTPServer/conf directory and back up the web site created under the htdocs directory.
2. Uninstall any previous versions of the server:
  - a) Log on as root.
  - b) Go to the command prompt and type **swremove**.
  - c) Select the software package to remove.
  - d) Click **Actions** and select **Mark for Remove**. Verify that a "Yes" is marked by the packages selected for installation.
  - e) Select **Remove (analysis)**.
  - f) Click **OK** once the analysis is complete.

**To uninstall IBM Http Server 1.3.19 / Apache 1.3.20 on Linux**

**Note.** These instructions apply to both Linux and Linux for S/390, except where noted.

1. Back up your web server configuration files in the /opt/IBMHTTPServer/conf directory and back up the web site created under the htdocs directory.
2. Uninstall any previous versions of the server:
  - a) Log on as root.
  - b) Stop the server by changing to /opt/IBMHTTPServer/bin.
  - c) Type **./apachectl stop**.
  - d) If uninstalling IBM HTTP Server 1.3.12.2, use the uninstall script to uninstall the IBM HTTP Server. (It is located in /opt/IBMHTTPServer.) If uninstalling IBM HTTP Server 1.3.6.X(Intel only), uninstall the following packages with rpm -e:
    - IBM\_HTTP\_Server
    - IBM\_ADMIN\_Server
    - IBM\_ADMIN\_Forms
    - IBM\_Apache\_Source
    - IBM\_Machine\_Translation
    - IBM\_SNMP



- IBM\_SSL\_128
- IBM\_SSL\_56
- IBM\_SSL\_Base
- gsk4bas (if not required by another package)

### To uninstall IBM Http Server 1.3.19 / Apache 1.3.20 on Solaris

1. Back up your web server configuration files in the /opt/IBMHTTPD/ directory and back up the web site created under the `htdocs` directory.
2. Uninstall any previous versions of the server:
  - a) Log on as root.
  - b) Stop the server by changing to /opt/IBMHTTPD/bin.
  - c) Type `./apachectl/stop`.
  - d) Type `admintool` at the command prompt.
  - e) Select **<Browse>Software**.
  - f) Select:
    - IBMHAENU - HTTP Admin Server Messages
    - IBMHL128 - HTTP Server LDAP Module
    - IBMHMENU - HTTP Server Manual pages
    - IBMHS128 - HTTP Server SSL Module (128-bit encryption)
    - IBMHSENU - HTTP Server Documentation
    - IBMHSLDP - HTTP Server Ldap Module
    - IBMHSMT - HTTP Server MT Module
    - IBMHSSNM - HTTP Server SNMP Module
    - IBMHSSRC - HTTP Server Source Code
    - IBMHSSSB - HTTP Server SSL Common Module
    - IBMHTTPA - HTTP Server Administration (run-time)
    - IBMHTTPD - HTTP Server Base Run-time

- gskre301 - global security kit (If no other applications use this package)
  - gskrf301 - global security kit (If no other applications use this package)
  - gskru301 - global security kit (If no other applications use this package)
- g) Select **Edit, Delete**.
- h) Answer "Yes" to the confirmation messages.

## Setting Kernel Parameters (HP-UX only)

### To set kernel parameters

You can change particular operating system kernel parameters on an HP machine to make WebSphere Application Server run effectively.

**Note!** You must perform these steps before installing WebSphere Aes 4.0.3

1. Ensure that you are logged into the host machine with superuser (root) privileges.
2. Determine the machine's physical memory:
  - a) Start the HP-UX System Administration Manager (SAM) utility.
  - b) Select **Performance Monitors, System Properties**.
  - c) Click the **Memory** tab and note the value for Physical Memory.
  - d) Click **OK** and exit from the SAM utility.
3. Before you can set the maxfiles and maxfiles\_lim parameters to at least 4096, you must edit the file /usr/conf/master.d/core-hpux to allow values greater than 2048 to be set by using the SAM utility:
  - a) Open the file /usr/conf/master.d/core-hpux in a text editor.
  - b) Change the line
 

```
*range maxfiles<=2048
```

 to
 

```
*range maxfiles<=60000
```
  - c) Change the line
 

```
*range maxfiles_lim<=2048
```

 to
 

```
*range maxfiles_lim<=4096
```

```
*range maxfiles_lim=60000
```

- d) Save these changes and close the file.

The old values for these parameters might still be stored in the file /var/sam/boot.config. To force the SAM utility to create a new boot.config file, move the existing version of the boot.config file from the directory /var/sam to another location (the /tmp directory, for instance), start the SAM utility, select Kernel Configuration, and then select Configurable Parameters. When the Kernel Configuration window opens, a new boot.config file exists. Alternatively, you can enter the following command to rebuild the boot.config file:

```
# /usr/sam/sbin/getkinfo -b
```

4. Set the parameters listed in the table below by doing the following:
  - a) Start the SAM utility.
  - b) Select **Kernel Configuration, Configurable Parameters**.
  - c) Highlight a parameter that you want to change, select **Actions**, and then select **Modify Configurable Parameter**.
  - d) Type the new value for the parameter in the Formula/Value field and click **OK**.
  - e) Repeat these steps for each of the parameters listed in the table below.
  - f) After you have set all of the parameters, select **Actions, Process New Kernel**.
  - g) An information window opens, confirming your decision to restart the machine. Click **Yes**.

If other information windows open, requesting information particular to your installation, follow the on-screen instructions to restart your machine and to enable the new settings to take effect.

**Note.** Alternatively, use the HPjconfig configuration utility available from the Java products for HP-UX Web site at [www.hp.com/go/java](http://www.hp.com/go/java). This pure Java application provides kernel parameter recommendations tailored to your specific Java enterprise services and HP-UX hardware platform. It supports only selected machine types, however. Refer to the information on this web site to verify that your machine is supported and for instructions on downloading and installing the utility.

Parameter	Value
Maxfiles	4096
Maxfiles_lim	4096
max_thread_proc	1024
Maxuprc	512
Nproc	1024
Nflocks	8192

Ninode	2048
Nfile	4 * ninode value
Msgseg	32767 (or less)
Msgmnb	65 535
Msgmax	65 535
Msgtql	1024
Msgmap	258
Msgmni	256
Msgssz	16
Semmni	512
Semmap	514
Semmns	1024
Semmnu	1020 (nproc value minus 4)
Shmmax	483 183 821 (Ensure that this parameter is set to 483 183 821 or 90% of the physical memory (in bytes), whichever is higher. For example, if you have 512 MB of physical memory in your system, set shmmax to 483 183 821 (512 * 0.9 * 1024 * 1024).
Shmseg	16
Shmmni	300

5. If you plan to redirect displays to non-HP machines, do the following before running applications that have a graphical user interface, such as the WebSphere Application Server applications that are started with the scripts `install.sh` or `adminclient.sh`:

- a) Enter the following command to obtain information on all public locales accessible to your application:

```
# locale -a
```

- b) Choose a value for your system from the output that is displayed and set the LANG environment variable to this value. Here is an example command that sets the value of LANG to `en_US.iso88591`:

```
# export LANG=en_US.i so88591
```

## Installing WebSphere

Installing WebSphere 4.0.3 is a two-part process: First you install the base WebSphere AEs 4.0.1 from CD#1, and then you install WebSphere fixPack3 from CD#2.

## To install WebSphere

**Note!** You need to be in the X Window System (that is, the Linux GUI) to install or uninstall WebSphere Application Server.

1. Check that you are logged onto the host machine with super user (root) privileges. **Install WebSphere only with root.**
2. **Uninstall any previous versions of WebSphere and IBM Http Server.**
  - a) Shut down the WebSphere Server
 

```
# cd /products/WebSphere/AppServer/bin
# ./stopServer.sh
```
  - b) Navigate to the root installation directory /products/WebSphere/AppServer and execute the uninstall.sh script as follows:
 

```
# ./uninstall.sh
```

Check the status at the end of install for SUCCESS.
  - c) In the Uninstall dialog box, click **Uninstall** to remove WebSphere Application Server from the machine.
  - d) Use the `rm -r` command to remove the WebSphere directory structure so subsequent installations of WebSphere Application Server do not conflict with files left on the machine from a previous installation. Use caution when executing this command to prevent the unintentional removal of portions of the file system:
 

```
# cd /products/WebSphere/AppServer
# rm -rf /products/WebSphere/AppServer/*
```
3. Open a terminal so that you can access the command line.
4. Enter the following command to ensure that your DISPLAY environment variable is set properly:
 

Set the Variable TERM and DISPLAY to the following:

```
#export TERM=vt100
#export DISPLAY=[X- windows system name]: 0. 0
```

for example:

```
#export DISPLAY=t1- sun56: 0. 0 (My sun workstation)
#export DISPLAY={ IP Address }: 0. 0
```

If any web server or Http Server on your system is running, stop the server.
5. Insert WebSphere CD#1 into the CD-ROM drive.

6. Mount the CD-ROM using the appropriate process for your operating system.

The following steps assume that the CD-ROM drive is mounted at /cdrom.

- For AIX, enter the following command to mount the CD-ROM:

```
# mount -o ro -v cdrfs /dev/cdnumber /cdrom
```

Where *number* is the CD-ROM number for your system, usually 0 (zero).

**Note.** For AIX, you may need to use the `mkdir` command to create the mount point for the CD-ROM, as in `# mkdir /cdrom`.

- For Solaris, the `vold` daemon should mount the CD-ROM automatically.
- For HP-UX, follow these steps to mount a CD-ROM as the user root:
  - a) Determine the device address for the CD-ROM by entering the following command:

```
# ioscan -C disk -f -n
```

The output should resemble the following.

Class	I	H/W Path	Driver	S/W State	H/W Type	Description
disk	0	8/0/19/0.6.0	sdisk	CLAIMED	DEVICE	IBM DDRS-39130WS
			/dev/dsk/c0t6d0		/dev/rdisk/c0t6d0	
disk	0	8/16/5.2.0	sdisk	CLAIMED	DEVICE	TOSHIBA CD-ROM XM-6201TA
			/dev/dsk/c1t2d0		/dev/rdisk/c1t2d0	

Thus the mount command is:

```
/usr/sbin/pfs_mount /dev/dsk/c1t2d0 /cdrom
```

If this command does not work, which is possible on some HP-UX machines, try the mount command:

```
mount -F cdrfs -o ro,cdcase /dev/dsk/c3t2d0 /cdrom
```

- b) Create a new directory called /cdrom at the root of the file system. This directory becomes the CD-ROM mount point; all CD-ROM files appear under this directory.
- c) Determine whether the `pfs` daemon is running by entering the following command:

```
# ps -ef | grep pfs
```

If the `pfs` daemon is running, you'll see output similar to the following:

```
root 1681 1651 0 11:39:20 pts/ta 0:00 /usr/sbin/pfs_mountd
root 1682 1681 0 11:39:20 pts/ta 0:00 pfs_mountd.rpc
```

If the **pfs** daemon is running, go to step f. If not, complete steps d and e before going on to step f.

- d) Edit the file `/etc/pfs_fstab` by adding a line similar to the following to indicate the hardware path for the CD-ROM:

```
/dev/dsk/c0t6d0 /cdrom pfs-rrip xlat=unix 0 0
```

- e) Enter the following commands. You must re-enter these commands any time you restart your system.

```
# nohup /usr/sbin/pfs_mountd &
# nohup /usr/sbin/pfsd &
```

- f) To physically mount the CD-ROM, place the CD-ROM in the machine and enter the following command:

```
# /usr/sbin/pfs_mount /cdrom
```

7. List the contents of the CD-ROM, which contains compressed TAR files for all platforms.

**Note.** On UNIX platforms, you need the `gZip` or `GunZip` utility to extract the GZ files. The `readme.html` file in `CD#1` includes instructions for installing `gZip` or `GunZip`, if necessary.

#### HP-UX:

- Start the `<pfs_mountd>` daemon, if it is not already started—for example:

```
$ /usr/sbin/pfs_mountd &
```

- Start the `<pfsd>` daemon, if it is not already started—for example:

```
$ /usr/sbin/pfsd 4 &
```

- Mount the CD with file system type as `<iso9660>`, if it does not mount automatically—for example:

```
$ /usr/sbin/pfs_mount -t iso9660 /dev/dsk/c0t0d0 /cdrom
```

- Copy the HP install archive to the hard disk:

```
$ cp /mnt/ibmwebas_aes_hpux.tar.gz .
```

- Unzip the compressed TAR using the command:

```
$ gunzip ibmwebas_aes_hpux.tar.gz
```

- Untar the TAR archive. Use the `<-i>` switch to ignore the checksum errors, which occur because of the possible TAR version mismatch.

```
$ tar xvif ibmwebas_aes_hpux.tar
```

- Invoke the WAS v4.0.1 installation shell script:

```
$ ./install.sh
```

#### **AIX:**

- Use the command below to mount the CD:

```
$ mount -rpfv cdrfs /dev/cd0 /mnt
```

- Copy the AIX install archive to the hard disk:

```
$ cp /mnt/ibmwebas_aes_aix.tar.gz .
```

- Unzip the compressed TAR using the command:

```
$ gunzip ibmwebas_aes_aix.tar.gz
```

- Untar the TAR archive:

```
$ tar xvf ibmwebas_aes_aix.tar
```

- Invoke the WAS v4.0.1 installation shell script:

```
$ ./install.sh
```

#### **Solaris:**

- Mount the CD, if not mounted automatically.

- Copy the SUN install archive to the hard disk:

```
$ cp /mnt/ibmwebas_aes_sun.tar.gz .
```

- Unzip the compressed TAR using the command:

```
$ gunzip ibmwebas_aes_sun.tar.gz
```

- Untar the TAR archive. Use the `-i` switch to ignore the checksum errors, which occur because of the possible TAR version mismatch.

```
$ tar xvif ibmwebas_aes_sun.tar
```

- Invoke the WAS v4.0.1 installation shell script:

```
$ ./install.sh
```

#### **Linux:**

- Mount the CD, if not mounted automatically.



- Copy the Linux install archive to the hard disk:

```
$ cp /mnt/ibmwebas_aes_linux.tar.gz .
```

- Unzip the compressed TAR using the command:

```
$ gunzip ibmwebas_aes_linux.tar.gz
```

- Untar the TAR archive:

```
$ tar xvf ibmwebas_aes_linux.tar
```

- Invoke the WAS v4.0.1 installation shell script:

```
$ ./install.sh
```

**Note.** If you don't have zip utilities, copy the file to a machine that has the zip utilities, tar the file, and copy it back to the machine on which you wish to install WebSphere.

8. For **Solaris** only, ensure that the usr/ucb directory exists in the PATH environment variable for the root login.

If usr/ucb does not appear in the PATH, edit the install.sh script as follows:

- a) Copy the **install.sh** script from the /cdrom/cdrom0/sun directory to the /tmp directory on the machine on which you will install WebSphere Application Server.
- b) Open install.sh in a text editor and find the line USERNAME=`/usr/ucb/whoami`.
- c) Add the following line *before* the line USERNAME=`/usr/ucb/whoami`:
- d) export PATH = \$PATH:/usr/ucb
- e) Save the edited **install.sh** script.

9. Invoke the install program (# ./install.sh).

```
# /usr/products/install.sh
```

10. On the IBM WebSphere Application Server Setup dialog box, click **Next** to pass the introductory page.

**Note.** If your operating system is not supported, you'll receive an error message at this point. Check the *PeopleTools Hardware and Software Requirements* guide or the PeopleSoft Platforms Database for information about which operating systems are supported.

11. If you get a warning message regarding missing and/or obsolete patches or the installation won't continue, **but you know you have patches installed which supersede the ones in the warning**, do the following:

- a) Update the prereq.properties file before installing WebSphere Application Server. Download the latest version of prereq.properties from the WebSphere Server Tools Web site

([www.ibm.com/software/webservers/appserv/tools.html](http://www.ibm.com/software/webservers/appserv/tools.html)) into the local /tmp directory. Then start the WebSphere Application Server installation program by using the install.sh command as follows:

```
# ./install.sh -prereqfile /tmp/prereq.properties
```

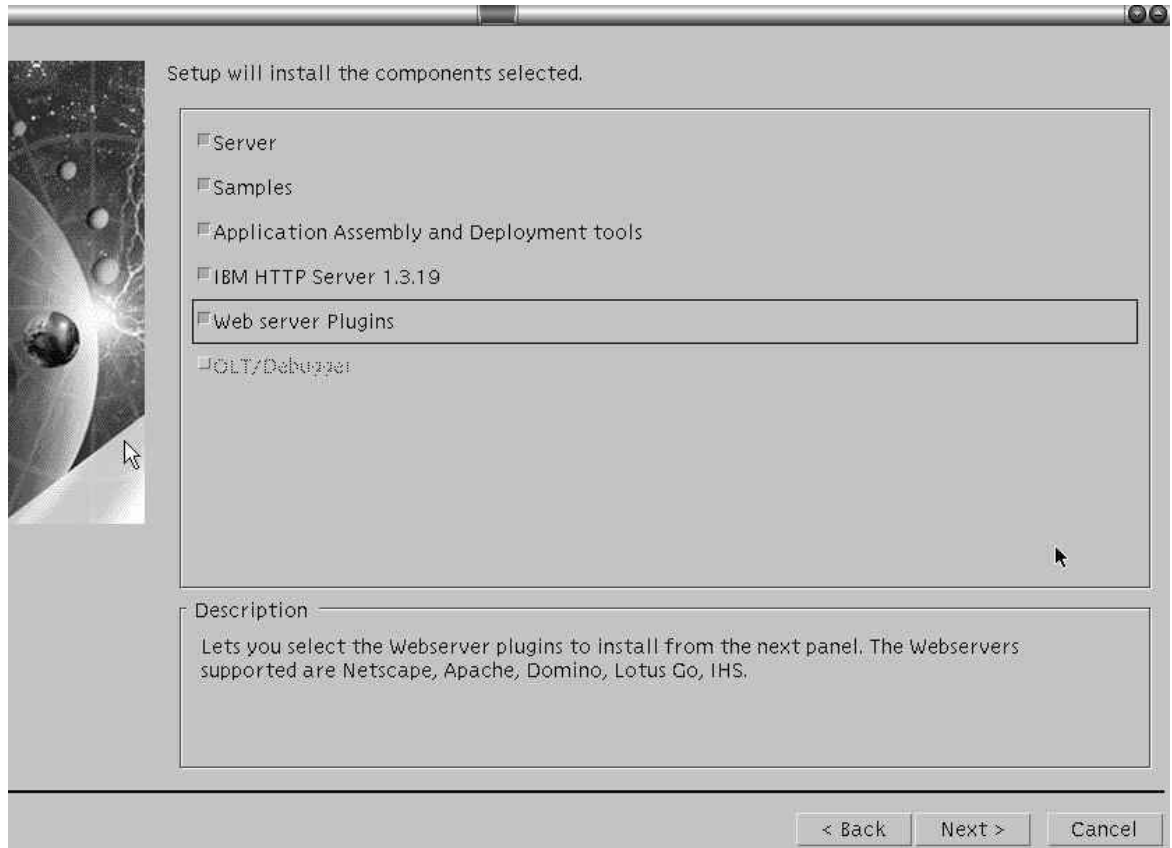
- b) If you still receive a warning message regarding patches, disable the prerequisite checking functionality as follows:
- i. Copy the prereq.properties file from the /cdrom directory to the /tmp directory on the machine on which you plan to install WebSphere Application Server.
  - ii. Open the prereq.properties file in a text editor and disable prerequisite checking for an individual component by changing the value of the specific key from 1 to 0 . [ prereq\_checker\_unix=0 ]
  - iii. Save the edited prereq.properties file.
  - iv. Start the WebSphere Application Server installation program by using the install.sh command as follows:

```
# ./install.sh -prereqfile /tmp/prereq.properties
```

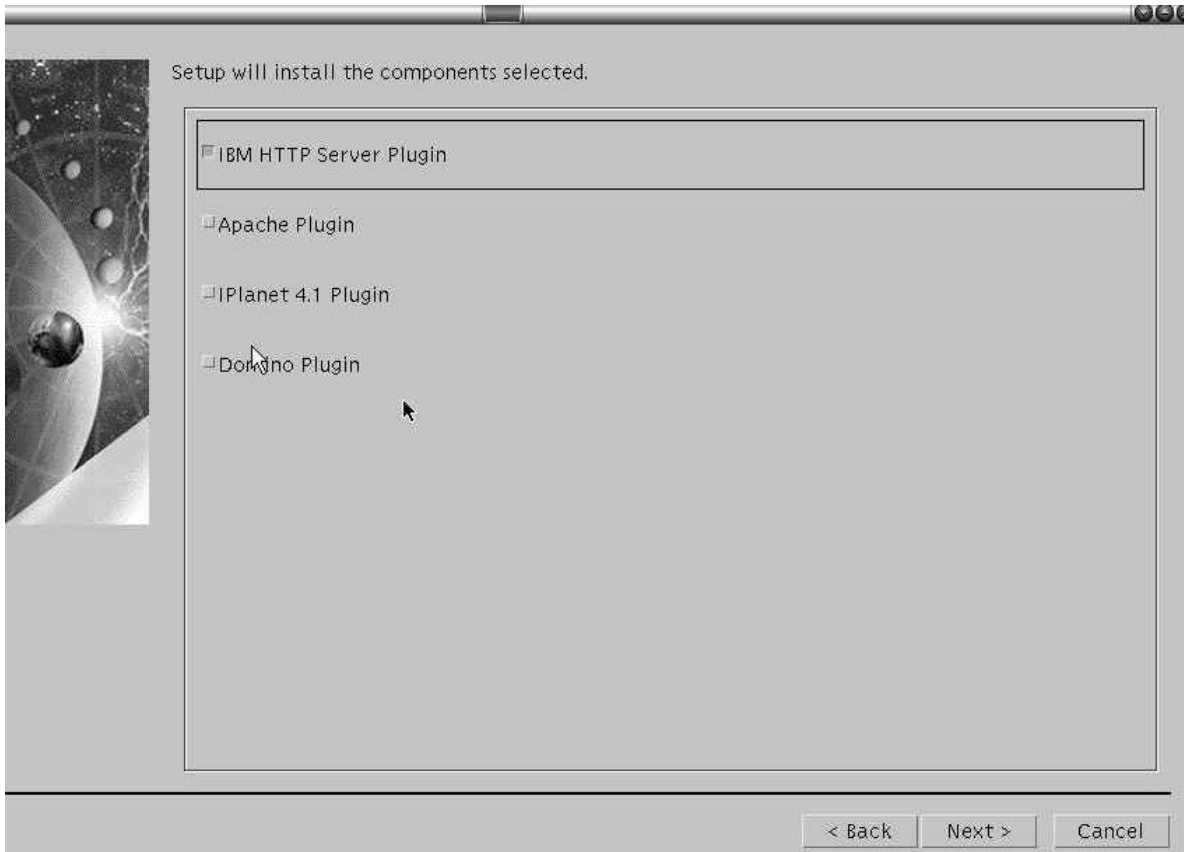
12. In the Installation Options dialog box, select **Custom Installation** and then click **Next**.

PeopleSoft recommends the Custom Installation option because it lets you choose a supported web server and configure WebSphere Application Server specifically for that server. In other words , this step will help you set up Http Server (iPlanet or IBM http Server) with WebSphere.

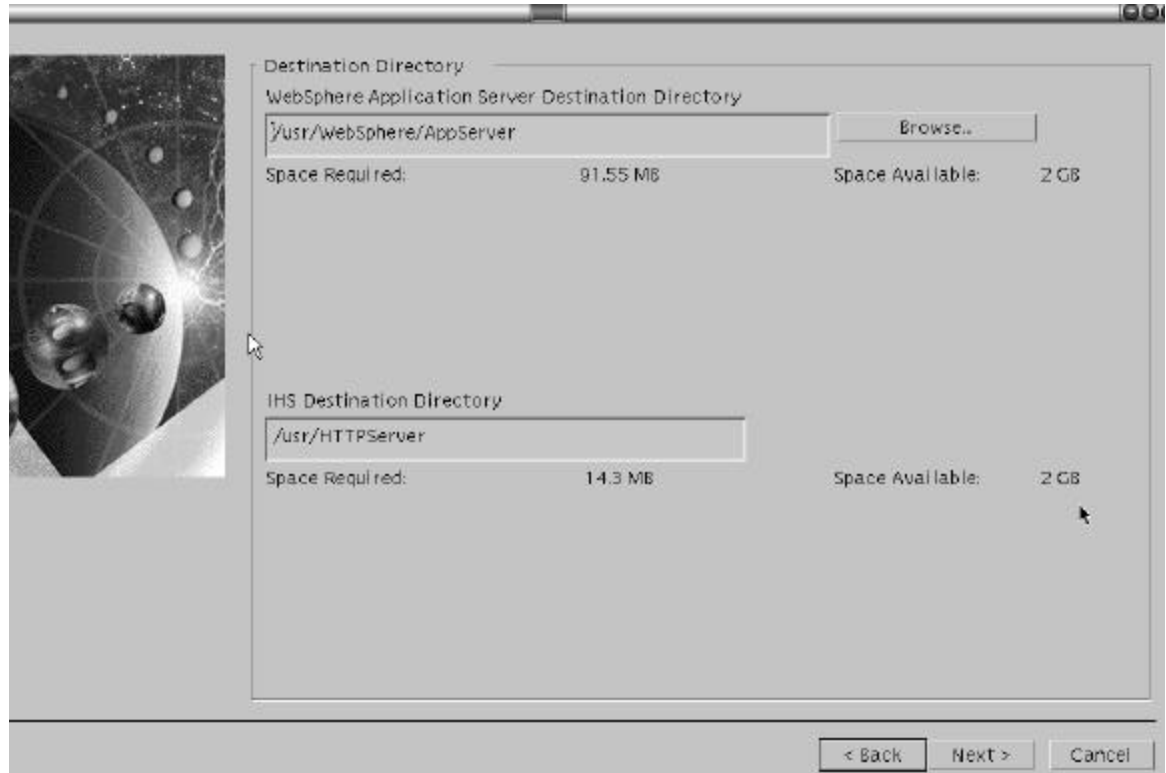
13. WebSphere installer will display “Choose Application Server Components” window. Read following options carefully and click **Next** after making your selection.
- You must select the Application Server/Application and Development Tools/Samples/Web Server Plugins/IBM JDK 1.3.0 options to install WebSphere.
  - If you want to install IBM Http Server as Proxy or reverse proxy with WebSphere, then select the IBM Http Server check box. This will install IBM Http Server on your machine, which listens at port 80 and 443 for HTTP and HTTPS, respectively. Use of IBM Http Server as proxy with WebSphere is optional. If you want to use PeopleBooks, IBM Http server or iPlanet is required.
  - If you have already installed IIS or iPlanet to be set up as proxy or reverse proxy with WebSphere, do not select the IBM Http Server check box. This selection will install IBM Http Server on your machine.
  - If you do not intend to install or set up IBM Http Server or any other Http Servers as proxy or reverse proxy with WebSphere on your system, do not select the IBM Http Server check box.



14. The Choose Web Server Plugins dialog helps you set up either IBM Http Server, IIS, or iPlanet as proxy or reverse proxy with WebSphere. Read the following options carefully before you make a selection and click **Next**.
- If you selected the IBM Http Server check box previously, select IBM Http Server in the Choose Web Server Plugins dialog shown below. This will set up IBM Http Server with WebSphere, enabling the Http Server to send servlet (dynamic) requests to WebSphere.
  - If you have already installed iPlanet Enterprise Server and intend to use it with WebSphere, **do not** select iPlanet from the Choose Web Server Plugins dialog box. After installing WebSphere you will install WebSphere fixPack3, which will help you set up iPlanet with WebSphere.
  - Select IBM Http Server Plugin even if you don't intend to set up Http Server with WebSphere.



15. Select WebSphere Location and check the memory requirements for software installation and click **Next**.



16. If you have selected IBM Http Server as Proxy with WebSphere, then installer will ask you the location of the httpd.conf file. Please enter the location of httpd.conf File. This file can be found at IBM Http Server home\conf\httpd.conf. Click **Next**.



17. In the Install Options Selected screen, verify that you have selected all of the appropriate options, and click **Install** to begin the installation.
18. When the installation program completes, on the Setup Complete dialog view the README file, and click **Finish**.

### To install the eFixes and fixPack

1. Stop any HTTP Server, HTTP Admin Server, and Java processes. Stop WebSphere if it is running.

**Note.** See the later procedure “To verify the WebSphere installation” for details on starting and stopping WebSphere and Http Server.

2. Insert the WebSphere CD #2 into your CD-ROM drive.
3. Navigate to the CD-ROM drive.
4. If you’re using IBM Http Server with WebSphere, you need to apply eFix PQ62369. Extract the PQ62369.tar file from the folder /<operating system>/eFixes/PQ62369. Consult the readme.txt for instructions on applying the eFix manually.
5. To apply the fixPack, extract the TAR file for your OS into any folder—for example, \websphere\fixPack3.

**Sun:** /sun/ws403sun.tar  
**AIX:** /aix/ws403aix.tar  
**HP-UX:** /hpux/ws403hp.tar  
**Linux:** /linux/ws403lnx.tar

6. Change directory to \websphere\fixpack3.
7. Untar (tar xvf) the fixPack File.
8. Run the fpInstall.sh, (fixPack install), which guides you through the fixPack installation in interactive mode.
  - Accept the license agreement.
  - Enter the WebSphere Home directory.
  - Update the WebSphere Application Server and Java.
  - If you are using IBM Http Server or would like to set up IBM http Server as proxy with WebSphere, upgrade the IBM Http Server.
  - If you are using iPlanet Enterprise Server or would like to use iPlanet Enterprise Server as proxy with WebSphere, upgrade the iPlanet Enterprise Server. Enter iPlanet version number 4 for version 4.x.x or 6 for version 6.x.x.
  - Complete the fixPack installation.
  - At the end of the installation, you will get a return code. If the return code is Zero, the fixpack install succeeded.

### To verify the WebSphere installation

1. To Start WebSphere, go to \WebSphere\AppServer\bin and enter startServer.sh.

**Note.** Before running startServer.sh, add the following bold lines to the file:

```
JITC_COMPILEOPT=NBCOPT{iaik/pkcs/pkcs12/a}{a}  
export JITC_COMPILEOPT  
# Setup initial java invocation;
```

The above setting is required to overcome a known issue in the Just In Time compiler optimization module of the IBM JDK used with AEs 4.0.3 and did not contribute to significant degradation in performance in our tests.

2. To Stop WebSphere, go to \WebSphere\AppServer\bin and enter stopServer.sh.
3. **Linux Only:** Follow these instructions to start and stop WebSphere.

Update the startServer.sh and stopServer.sh under folder /WebSphere/AppServer/bin and export the following variable. Example : - startServer.sh Script -> Update like the following. Update the stopServer.sh script to export the following variable.

```
pt-1nx01.peoplesoft.com # head startServer.sh
#!/bin/sh
```

```
LD_ASSUME_KERNEL=2.2.5
export LD_ASSUME_KERNEL
```

```
# Copyright IBM Corp. 2001
# Configuration Based Server Launcher
```

4. # Launch Arguments:
5. Follow a similar approach for stopServer.sh

If you are using WebSphere Java on Linux, export the above variable and use WebSphere's java.

6. To start IBM Http Server:

```
{IBM Http Server Home}\bin >. /apachectl start
```

7. To stop IBM Http Server:

```
{IBM Http Server Home}\ bin >. /apachectl stop
```

8. Start WebSphere. Invoke the URL <http://localhost:9080/servlet/snoop>. You will get Snoop page, which verifies that the installation was successful.

### To verify the WebSphere Administration Console

1. Invoke the WebSphere Administration Console by going to the URL <http://localhost:9090/admin>. Use any user ID to enter the Administration console.

### To verify the WebSphere Plugin

1. If you have configured HTTP Server (IBM Http Server or iPlanet), this step will help you verify the Http Server that uses WebSphere plugin to connect with WebSphere. To test the Proxy with WebSphere, start the Proxy (iPlanet or IBM Http Server) and invoke the URL <http://localhost/servlet/snoop>. You will get the Snoop page.

### To unmount your CD-ROM

1. Unmount the CD-ROM and remove it from the CD-ROM drive.

**HP-UX:**

```
# /usr/sbin/pfs_umount /cdrom
```



**AIX and Linux:**

```
# umount /cdrom
```

**Solaris:**

```
# umount cdrom/cdrom0  
# eject cdrom
```

## Task 2-7: Installing Tuxedo and Jolt on Windows NT/2000

The PeopleSoft application server uses BEA's middleware product, Tuxedo, to perform transaction management, messaging, and administration. This task guides you through the installation of Tuxedo on your server. It is essential that you install PeopleSoft Edition - BEA Tuxedo version 6.5/Jolt 1.2, which you receive with your PeopleSoft shipment as part of the CD-ROM Library. You need to install Tuxedo before you go any further in setting up your application server and your PeopleSoft Internet Architecture. After you perform the installation described here, you will configure the application server environment to incorporate Tuxedo and Jolt with the PeopleSoft components.

- Note.** PeopleSoft ships Tuxedo 6.5 with PeopleTools 8.4. If you have a previous version of Tuxedo installed, you need to uninstall it, install the new version of Tuxedo, and reconfigure your application server domains. (You must reconfigure your domains using PSADMIN; you cannot migrate existing domains.) Tuxedo 6.5 is supported for PeopleTools 7.05 and above, 7.55 and above, and 8.1x/8.4x—reducing the administration involved with upgrades.
- Note.** Only one version of Tuxedo 6.5 can be installed on an NT machine at any given time, due to system-wide registry settings.

### *PeopleSoft Edition - BEA/Tuxedo 6.5/Jolt 1.2 CD-ROM*

The BEA/Tuxedo 6.5 CD-ROM shipped with PeopleSoft contains the following products:

- BEA Tuxedo 6.5 and Jolt 1.2
- BEA Tuxedo Administrative Web Server
- BEA Tuxedo WebGUI Administrator
- Tuxedo and Jolt Documentation
- Jolt Relay

The installation process uses a single installation script (install.sh on UNIX and setup.exe on Windows NT/2000) to automatically install all of these products except for Jolt Relay, which you must install separately. For the details on how to install and configure Jolt Relay, consult the *PeopleTools Internet Technology PeopleBook*.

**Note!** It's critical that you use the PeopleSoft Edition - BEA/Tuxedo 6.5/Jolt 1.2 delivered with PeopleSoft; the version of Tuxedo that you receive with your PeopleSoft shipment is the only version of Tuxedo that PeopleSoft supports with this version of PeopleTools. You cannot use any other version of Tuxedo with PeopleSoft applications. For example, if you obtain BEA/Tuxedo 6.5 directly from BEA, it will not support all functions required due to patch-level differences and packaging changes.

## Encryption

All customers receive the 128-bit version of the CD-ROM, which allows users to enable either 40-bit or 128-bit encryption.

## Licensing Issues

The PeopleSoft Edition - BEA/Tuxedo CD-ROM installs serial and license information transparently to the user; there are no numbers to obtain. If you encounter a serial or licensing error on installation, you probably have an old version of Tuxedo installed.

PeopleSoft Edition - BEA/Tuxedo CD-ROM licenses users to use Tuxedo's runtime/administration environment for the purposes of installing, monitoring, and tuning their Tuxedo-based PeopleSoft application servers. Users *are not* licensed to directly use the Tuxedo development environment. Users will be able to use any higher level API or tools that PeopleTools developers build with Tuxedo and will be able to run applications that are processed with our Tuxedo enhanced tools. If you wish to extend the PeopleSoft application's functionality by directly using the Tuxedo development API, you need to acquire a full-use license for Tuxedo from BEA Systems.

## BEA Tuxedo and Jolt Disk Space Requirements

- BEA Tuxedo and Jolt—approximately 50 MB
- Full Documentation—approximately 100 MB
- BEA Tuxedo WebGUI Administrator documentation—approximately 10 MB

## Before You Begin

Before you begin to install Tuxedo, make sure that you have the following resources in place:

- PeopleSoft Edition - BEA/Tuxedo System 6.5 Installation for NT and UNIX CD-ROM
- TCP/IP connectivity (required for PeopleSoft 8.4) between the client machine and the application server
- Approximately 135 MB of free disk space on the application server
- A CD-ROM drive or access—locally or through the network—for the machine on which you plan to install Tuxedo

## Uninstalling Tuxedo from Windows NT/2000 (Recommended)

PeopleTools 8.4 requires Tuxedo 6.5, which is also supported for PeopleTools 7.05 and later and for 7.55 and later—reducing the administration involved with upgrades. If you have previous version of BEA/Tuxedo installed

and your PeopleSoft version supports Tuxedo 6.5, you must either uninstall the old version or use another machine. Only one version of Tuxedo 6.5 can exist on a Windows NT/2000 box since the Tuxedo IPC Helper is a machine-level service capable of searching a single registry tree.

You may have to uninstall Tuxedo for these reasons:

- You are having problems starting Tuxedo and decide to reinstall.
- You no longer need Tuxedo on a machine.
- You are installing a newer release of Tuxedo.

### To uninstall Tuxedo from Windows NT/2000

1. Using PSADMIN, shut down any application server domains that may be running on the machine.
2. Stop the processes for the Tuxedo Monitor and the Tuxedo Administrative Web Server (wlisten and tuxwsvr), if applicable. (Right-click on the **taskbar**, click on **Task Manager**, click on **wlisten**, and click on the **End Task** button. Then click on **tuxwsvr** and click on the **End Task** button. Exit Task Manager.)
3. Stop and set to 'manual' the TListen service, if applicable. (Choose **Start, Settings, Control Panel**, and double-click on the **Services** icon. Then select **TListen** and click the **Stop** button. Choose the **Startup Type** and set to **Manual**.)
4. Stop and set to 'manual' the Tuxedo IPC Helper. (Choose **Start, Settings, Control Panel**, and double-click on the **Services** icon. Then select **Tuxedo IPC Helper** and click the **Stop** button. Choose the **Startup Type** and set to **Manual**.)
5. Reboot your machine.
6. Uninstall Tuxedo. (Choose **Settings, Control Panel, Add/Remove Programs**, highlight the entry for Tuxedo—which may appear as **PeopleSoft Edition of BEA/Tuxedo**, **BEA Tuxedo**, or **Tuxedo**—and click on **Add/Remove**.) Close the Control Panel before clicking on **Uninstall**.
7. Go to the **Control Panel**, double-click on the **System** icon, and then perform the following:
  - a) Make sure <TUXDIR>\bin is deleted from PATH.
  - b) Delete the environment variable TUXDIR.
  - c) Make sure you click on **Apply** and **OK** to save your changes.
8. Using Explorer, delete the Tuxedo home directory, such as c:\tuxedo.

If you're unable to delete any files, reboot your machine and retry.

### *Designate an Application Server Administrator*

First you need to designate an existing user—or create a new user such as TUXADM or some other account—to be the Application Server Administrator.

**Note.** The designated user must be a local Windows NT administrator and must have full system privileges. The Tuxedo install program creates a new service for WINNT called “Tuxedo IPC Helper,” for which you need administrator privileges. This service was developed to port BEA/Tuxedo from UNIX to NT. Administrator rights are required since system registry settings are updated. Once this new service is created, you must reboot to start it.

**Note.** The Application Server Administrator, not the Windows NT Administrator, will install Tuxedo.

### To designate the Application Server Administrator

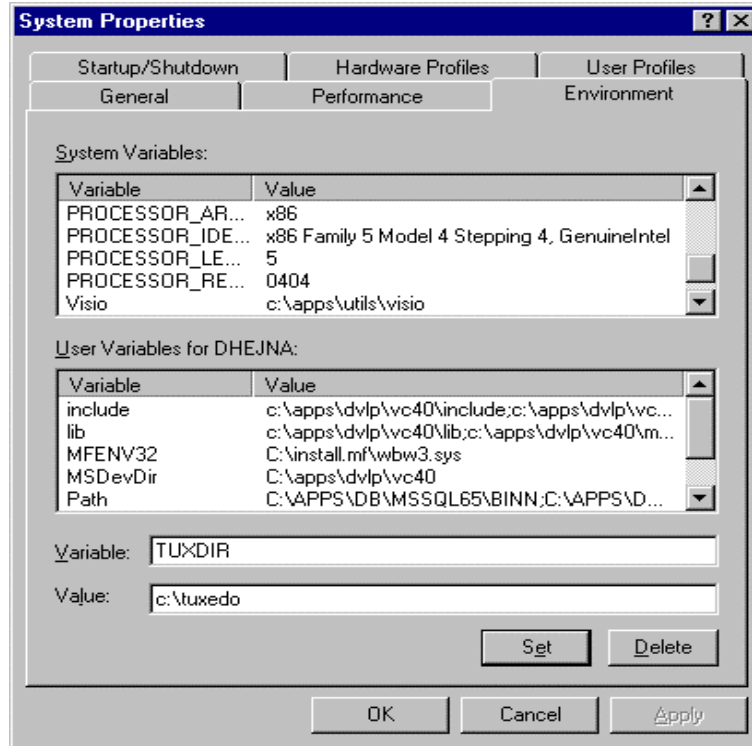
- To add the user, add the user ID by choosing **Start, Programs, Administrative Tools, User Manager**.  
  
Keep in mind that you can also use an existing account if you don't care to create a new one. You can set this to the system account or an account that is a domain administrator (if there is a need to access files on the domain).
- If the ID does not yet exist, click on **Administrators** (in the bottom panel), and choose **User, New User**. You can then specify the information for this new account. Make sure to deselect the **User Must Change Password at Next Logon** check box.
- Click the **Groups** button to grant administrator authority to this user. If this user is not listed as a member of the Administrators group, select **Administrators** in the **Not member of** list box and click the **Add** button.
- Click **OK** in both dialog boxes to accept the changes. You can confirm that TUXADM has been added to the Administrators groups by double-clicking **Administrators** in the lower portion of the main User Manager window. You should see TUXADM listed among the other IDs.

### Set the TUXDIR Environment Variable

Before running the Tuxedo setup program, you need to set the TUXDIR environment variable to point to the top-level directory for Tuxedo.

### To set the TUXDIR environment variable

- Choose **Start, Settings, Control Panel** and double-click on the **System** icon.
- Click the **Environment** tab.
- Click in the **System Variables** box. If there is already a TUXDIR variable in the **System Variables** section, select it to confirm or change its settings. If not, select an existing value in the System Variables section, type TUXDIR in the **Variable** field and, in the **Value** field, type the directory in which you plan to install Tuxedo. Then click **Set** and **Apply**. The suggested value for TUXDIR is c:\tuxedo.



4. If there's a TUXDIR variable in the **User Variables** box, delete it.
5. Click on the **Set** button and click **Apply** to apply the changes.

### *Install Tuxedo on Windows NT/2000*

Here is how to properly install both the Tuxedo and Jolt components of your application server.

#### **To Install Tuxedo on Windows NT/2000**

1. Insert the PeopleSoft Tuxedo CD-ROM into the CD-ROM drive.

Using Explorer, navigate to the directory:

**D: \WINNT\SERVER\setup.exe**

(This assumes that your CD-ROM drive is your D drive.)

2. Double-click SETUP.EXE to begin the installation process.
3. When the Welcome dialog box appears, click **Next**.
4. When the License Agreement screen appears, accept the license agreement.
5. Enter your name and company in the Software User Registration dialog box.

6. In the Choose Destination Location dialog box, click the **Browse** button and set the destination folder to be the same as the TUXDIR variable set previously. Confirm the creation of a new directory if this does not exist.
7. If you want to install the documentation, respond accordingly when you see the prompt  
**Do you wish to install the online documentation?**
8. If this is the first time you've installed Tuxedo 6.5 on this machine, you have no performance data to save, so click **No** when the install program prompts you to back up your performance data. Click **OK** when you see the confirmation message.
9. In the BEA Tuxedo Tlisten Password dialog box, specify *password* and confirm. This is used for the login for the Tuxedo Web Monitoring facility.

**Note.** If you intend to use the Tuxedo Web monitor for domain administration, PeopleSoft recommends that the tlisten password be hard to guess and securely protected, since the Web monitor can start and stop production application server domains.

10. Click **Finish** to complete the installation.

## Changing the Service Account

Now you need to ensure that the NT services are properly configured. PeopleSoft recommends installing the application server binaries *locally*, on your C drive, for best performance, and using the **System Account** radio button (see below) to start the TUXEDO IPC Helper, with these exceptions:

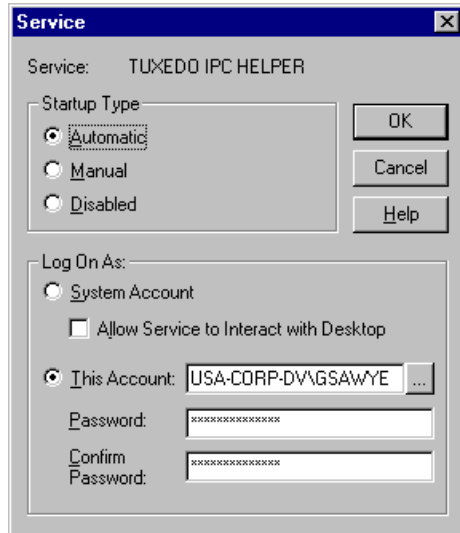
- If the PeopleSoft application server binaries (as in, PSAPPSRV.EXE and so on) are located on a remote file server, you must use the **This Account** radio button. If you intend to use this NT service to start Process Scheduler, you must *always* use the **This Account** radio button. Enter the name of your Domain/Windows NT username—not the machine name—and your password. Then click **OK**.
- If the PeopleSoft application server binaries are *local*, that is, they exist on your local hard drive, you can use either the **System Account** or **This Account** radio button.

**Note.** When using Tuxedo with Process Scheduler, you must use the Windows NT username that starts the Process Scheduler server agent. This is necessary because the installation of the PeopleSoft ODBC driver sets up the registry settings to be accessible only by this username. If you do not use the correct Windows NT username, processes that require the ODBC registry information (such as Crystal Reports) will fail.

### To set the Tuxedo services

1. Log on again as the Application Server Administrator, TUXADM, or a designated user ID.
2. Open the Control Panel and double-click on the **Services** icon. In the Services dialog box, scroll down to find the service labeled *TUXEDO IPC Helper*. This service is automatically installed when you install Tuxedo.

3. If the Stop button is enabled, click on it to stop the current TUXEDO IPC Helper process. A message will inform you of the status change. Click on Yes to proceed. Then, click on TUXEDO IPC Helper and click on Startup to modify its settings. The following dialog box appears.



**Note.** For Microsoft SQL Server, DB2 for OS/390 and z/OS, and DB2 UDB for UNIX/NT: The radio button used—System Account or This Account—must be consistent with your ODBC catalog definition, due to registry operations. For example, if you use the System Account radio button, you must also catalog your ODBC data source using System DSN.

4. Choose either **System Account** or **This Account**.

**Note.** When you configure your application server domain (as outlined in the chapter “Configuring the Application Server”), the user ID designated to be the Application Server Administrator must have read/write permissions to the PeopleSoft file directory and read permission to the %TUXDIR% directory, such as c:\tuxedo.

5. Make sure that **Startup Type** is set to **Automatic**, and click **OK**.
6. Click on **Start**. A message in the Services dialog box will indicate the “Started” status. Click on **Close** to return to Control Panel.

## Check Your Environment Variables

Now you need to double-check that your environment variables have been set correctly.

### To check your environment variables

1. On the application server, choose **Start, Settings, Control Panel, System** (on Windows/2000, choose the **Advanced** tab and click on **Environment Variables**).

Make sure that the following variables are set:

System Environment Variable	Sample Value	Comments
TUXDIR	c:\tuxedo	BEA/Tuxedo automatically sets this environment variable to match the directory indicated at installation.
PATH	c:\tuxedo\bin	BEA/Tuxedo automatically appends this directory to your PATH. Doublecheck the PATH to make sure it exists and that an older tuxedo\bin does not precede it in the PATH.
NLSPATH	c:\tuxedo\locale\c	NLSPATH does not need to be explicitly set since BEA/Tuxedo sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, BEA/Tuxedo, on the Environment tab. However, the installation of certain products, such as IBM DB2 connectivity (DB2/MVS and DB2/Unix), sets NLSPATH to a value that causes Tuxedo to fail. The solution is either to set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let Tuxedo pick up the value from its registry tree.

**Note.** These environment variables settings need to reflect the location where you installed Tuxedo and the tuxedo \BIN directory.

## Verify the Server Installation

At this point, you should verify that the server installation was successful.

### To verify the server installation

1. Go to the udataobj directory under <TUXDIR>.
2. Open the file lic.txt.
3. Search for the string “PeopleSoft Edition - Built on BEA – October 10, 2000.” If this string exists, you have installed the correct version of BEA/Tuxedo.

If this string does not exist:

- Verify that you installed using the BEA/Tuxedo 6.5 CD-ROM that arrived with your current PeopleSoft shipment.
- Verify that you have sufficient disk space on the directory or file system used for <TUXDIR>.
- Reinstall BEA/Tuxedo 6.5.



## Task 2-8: Installing Tuxedo and Jolt on UNIX

The PeopleSoft application server uses BEA's middleware product, Tuxedo, to perform transaction management, messaging, and administration. This chapter guides you through the installation of Tuxedo on your server. It is essential that you install PeopleSoft Edition - BEA Tuxedo version 6.5/Jolt 1.2, which you receive with your PeopleSoft shipment as part of the CD-ROM Library. You need to install Tuxedo before you go any further in setting up your application server and your PeopleSoft Internet Architecture. After you perform the installation described here, you will configure the application server environment to incorporate Tuxedo and Jolt with the PeopleSoft components.

**Note.** PeopleSoft ships Tuxedo 6.5 with PeopleTools 8.4. If you have a previous version of Tuxedo installed, you need to uninstall it, install the new version of Tuxedo, and reconfigure your application server domains. (You must reconfigure your domains using PSADMIN; you cannot migrate existing domains.) Tuxedo 6.5 is supported for PeopleTools 7.05 and above, 7.55 and above, and 8.1x/8.4x—reducing the administration involved with upgrades.

**Note.** Tuxedo should only be installed once for each release on a machine, regardless of the number of PeopleSoft applications or databases the server supports. For example, if you are a PeopleSoft 7 customer and have Tuxedo 6.3 installed, or you are a PeopleSoft 8 customer and have Tuxedo 6.5 installed, you may install Tuxedo 6.3 and 6.5 on the same machine in separate directories (for example, /prod/tuxedo/6.3 and /prod/tuxedo/6.5).

### *PeopleSoft Edition - BEA/Tuxedo 6.5/Jolt 1.2 CD-ROM*

The BEA/Tuxedo 6.5 CD-ROM shipped with PeopleSoft contains the following products:

- BEA Tuxedo 6.5 and Jolt 1.2
- BEA Tuxedo Administrative Web Server
- BEA Tuxedo WebGUI Administrator
- Tuxedo and Jolt Documentation
- Jolt Relay

The installation process uses a single installation script (on UNIX: install.sh and on Windows NT/2000: setup.exe) to automatically install all of these products except for Jolt Relay, which you must install separately. For the details on how to install and configure Jolt Relay, consult the *PeopleTools Internet Technology* PeopleBook.

**Note!** It's critical that you use the PeopleSoft Edition - BEA/Tuxedo 6.5/Jolt 1.2 delivered with PeopleSoft; the version of Tuxedo that you receive with your PeopleSoft shipment is the only version of Tuxedo that PeopleSoft supports with this version of PeopleTools. You cannot use any other version of Tuxedo with PeopleSoft applications. For example, if you obtain BEA/Tuxedo 6.5 directly from BEA, it will not support all functions required due to patch-level differences and packaging changes.

### *Encryption*

All customers receive the 128-bit version of the CD-ROM, which allows users to enable either 40-bit or 128-bit encryption.

## Licensing Issues

The PeopleSoft Edition - BEA/Tuxedo CD-ROM installs serial and license information transparently to the user; there are no numbers to obtain. If you encounter a serial or licensing error on installation, you probably have an old version of Tuxedo installed.

PeopleSoft Edition - BEA/Tuxedo CD-ROM licenses users to use Tuxedo's runtime/administration environment for the purposes of installing, monitoring, and tuning their Tuxedo-based PeopleSoft application servers. Users *are not* licensed to directly use the Tuxedo development environment. Users will be able to use any higher level API or tools that PeopleTools developers build with Tuxedo and will be able to run applications that are processed with our Tuxedo enhanced tools. If you wish to extend the PeopleSoft application's functionality by directly using the Tuxedo development API, you need to acquire a full-use license for Tuxedo from BEA Systems.

## BEA Tuxedo and Jolt Disk Space Requirements

- BEA Tuxedo and Jolt—approximately 50 MB
- Full Documentation—approximately 100 MB
- BEA Tuxedo WebGUI Administrator documentation—approximately 10 MB

## Before You Begin

Before you begin to install Tuxedo, make sure that you have the following resources in place:

- PeopleSoft Edition - BEA/Tuxedo System 6.5 Installation for NT and UNIX CD-ROM
- TCP/IP connectivity (required for PeopleSoft 8.4) between the client machine and the application server
- Approximately 135 MB of free disk space on the application server
- A CD-ROM drive or access—locally or through the network—for the machine on which you plan to install Tuxedo

**Note.** If CD-ROM access is unavailable, you'll need to FTP files from the BEA/Tuxedo CD to UNIX, using the instructions provided below.

- At least 25 MB of free disk space in the /var/tmp directory
- Root access on the UNIX machine

### To FTP the BEA installation files to UNIX

1. Obtain BEA/Tuxedo CD-ROM.
2. From the \$PS\_HOME/setup directory of your UNIX system, ftp pstuxftp.txt (ASCII mode) to your C: drive for editing:
3. Insert BEA/Tuxedo's CD into the Windows NT CD-ROM drive.

Use Explorer to examine the CD-ROM's directory structure. Write down the first two directory levels of the UNIX system you use—for example, IBM, AIX42.

**Note.** The Tux binaries for AIX 4.3 are certified to run under AIX 5.1. If you are using AIX 5.1, select AIX 4.3 (or the most recent version of the platform).

4. Edit pstuxftp.txt:
  - a) Replace the tuxadmin and password entries with an appropriate user name and password to install the Tuxedo binaries on the destination machine. This user name and password should correspond to the correct set of privileges to install and administer Tuxedo on the UNIX machine.
  - b) In lowercase, replace *vendor* with the vendor name, such as *ibm*, and *release* with the OS release, as in *aix42*. These are the details that you noted in the previous step.
  - c) Edit the mkdir commands (first few lines) to the directory names you wish to use as your high-level, virtual CD directory, such as */cdromtux*. */home* has been provided as an example high level directory. Repeat this change throughout the script.

**Note.** Don't forget about case sensitivity. NT file names are case insensitive; it doesn't matter what case you enter them in. UNIX directory names must be UPPERCASE.

- d) Note that the word *Copyright* is missing the "t." This is not a mistake; BEA ships file names with a maximum of eight characters.
  - e) You may also need to replace all *d:\* entries if your cd drive is not installed as the d drive.
5. Run the pstuxftp.txt script to transfer files to UNIX. This script should be run using ftp from a DOS command prompt. This script should be run as follows:

```
ftp -n -s: pstuxftp.txt uni_x_machi_nename
```

6. On UNIX, chmod the install.sh file to make it executable. For example

```
chmod +x install.sh
```

7. Continue to step 5 in the following section, "Install Tuxedo on UNIX".

### Complete the Pre-Installation Check List

We recommend that you complete the pre-installation checklist *before* you begin the Tuxedo installation. Specify your values in the Real Value column. Completing this information first should save you time during your installation.

Item	Description	Example Value	Real Value
TUXDIR	The directory where Tuxedo system software will be installed.	[/prod/tuxedo/6.5]	

Username	The UNIX user name of the Application Server Administrator (Tuxedo owner).	[tuxedo]
Groupname	Specify the UNIX group name of the Tuxedo owner.	[tuxedo]

**Note.** You can select any user name and group name you want; however, you might want to use the “tuxedo” convention for simplicity.

## Designate the Tuxedo Owner

First, designate an existing user (or create a new user) to be the Tuxedo owner.

### To designate the Tuxedo owner

1. Log in as *root*.
2. Create the UNIX group and the user name of the individual who will be the owner of Tuxedo.

Using the values from the pre-installation checklist, create the group and specify the group name. Then create the user who will be the Tuxedo owner, specifying the user name, group name, and home directory, denoted by TUXDIR from the check list.

**Note.** Depending on your operating system, the utility you use to create the user and group is different. For example, HP-UX uses the "sam" utility, AIX uses the "smit" utility, and so on. For the exact utility, refer to your operating system documentation.

## Install Tuxedo on UNIX

The following procedure describes how to properly install Tuxedo on your UNIX server.

### To install Tuxedo on your UNIX server

1. Insert the CD-ROM into the CD-ROM drive, and mount the CD-ROM from the root login.

For mounting instructions, consult the operating system manufacturer’s documentation or the UNIX manual page on mounting (man mount).

2. List the root directory on the CD-ROM.
3. Log in as the Tuxedo administrator.

You should no longer be logged on as *root*.

4. Change to the root directory on the CD-ROM.

- Execute the shell script, `install.sh`.

```
./sh install.sh
```

You need to "source" the install script. That is why you prepend the "sh" to `install.sh`.

- Follow the selected prompts as indicated in the following table:

Prompt	Standard PeopleSoft Response
Install which platform's files?	Specify the number associated with the desired operating system platform you wish to install.
This directory contains the BEA Tuxedo Core System for <specified platform>. Is this correct?	Type <code>y</code> to indicate Yes.
Directory where files are to be installed:	Enter the Tuxedo home directory, specified on the checklist. For example:  <code>/home/tuxedo/prod/6.5</code>
Please enter the tlisten password:	Enter <code>password</code> . You will need to enter this password again if you use the BEA WebGUI Monitor.

### Common Errors

You may occasionally encounter errors during the installation. This section describes the most common errors.

#### *"Not enough temporary space"*

Depending on the platform, the installation process may use a temporary directory named `/var/tmp` by default. If there is not enough temporary space in that directory, a message reading "Not enough temporary space" will appear. Along with this error message, you will see the amount of temporary space required for a successful install.

If you encounter this error message, exit the install process using `CTRL+C`. Then, set environment variable, `TMPDIR`, to a directory with enough temporary space, and export `TMPDIR`, as shown.

```
$ mkdir /temp
$ TMPDIR=/temp ; export TMPDIR
```

Once you have enough temporary space, run the install again beginning with `install.sh`.

## Verify the Server Installation

At this point, you should verify that the server installation was successful.

### To verify the server installation

- Go to the `udataobj` directory under `<TUXDIR>`.
- Open the file `lic.txt`.

3. Search for the string “PeopleSoft Edition - Built on BEA – March 21, 2000.” If this string exists, you have installed the correct version of BEA/Tuxedo.

If this string does not exist:

- Verify that you installed using the BEA/Tuxedo 6.5 CD-ROM that arrived with your current PeopleSoft shipment.
- Verify that you have sufficient disk space on the directory or file system used for <TUXDIR>.
- Reinstall BEA/Tuxedo 6.5.

## Task 2-9: Installing Crystal Reports

Crystal Reports is packaged with PeopleSoft. The Crystal Reports installation is required for Windows-based workstations (also referred to as the PeopleTools Development Environment) where reports will be designed. Workstations that will only run existing reports via Process Scheduler do not need Crystal Reports. The functionality for running these reports on the client is provided in DLLs that are installed when you run Client Setup in Configuration Manager.

**Note.** Depending upon the languages you licensed from PeopleSoft, you may receive more than one Crystal Reports CD-ROM. You should repeat the following installation instructions for each language of Crystal Reports that you plan to use in the PeopleTools Development Environment.

**Note.** Although Crystal supplies a web server application, it is not tested, certified, or supported by PeopleSoft.

You can install Crystal Reports locally on a workstation where reports will be designed or on a Windows NT batch server where Crystal Reports will be executed by Process Scheduler. You can also install Crystal Reports to a network file server; typically it would be installed to a subdirectory of the <PS\_HOME> directory. If you install Crystal Reports to a network file server, you need to run a Crystal Reports setup on each Windows-based workstation or batch server where Crystal Reports will be run. To do so, make sure to select the Custom installation when running the CD setup program.

**Note.** When installing Crystal Reports to a Netware file server, the ideal solution is to use Windows NT/2000 as the installation workstation environment. If, however, you are installing Crystal under Windows 95 to a Novell file server, install Crystal on a local drive and then copy the Crystal directory to the Novell server from an MS-DOS command prompt.

### To install Crystal Reports

1. Insert the Crystal CD into your CD-ROM drive and run the setup program from the root of the drive.

**Note.** If you are installing to a network, you must run setup.exe from the command prompt with the /a option, as in <path>setup.exe /a.

The install program will search for any previous version of Crystal and then present a Welcome message.

2. Click **Next**. You'll see a license dialogue box.
3. Check the **I accept the License Agreement** radio button and click **Next**. Select the desired installation type.
4. Select the **Complete** radio button. If necessary, use the **Browse** button to set your destination folder.
5. Click **Next**. You will be prompted to start the installation or go back to modify any of the information added.
6. Select **Next** to begin the installation; you will see a progress screen.
7. Select **Finish** to complete the installation.

**Note.** For additional instructions on installing the Crystal Reports CD-ROM, see the Crystal installation documentation, which is delivered in the \DOCS directory of the Crystal Reports CD as install.rtf.

**Note.** To install Crystal on a local machine but run it from the network, consult the Crystal documentation.





# USING THE PEOPLESOFT INSTALLER

This chapter describes how to use the PeopleSoft Installer, a Java-based tool that delivers software to your servers.

The PeopleSoft Installer enables you to transfer files directly to various PeopleSoft servers—including application servers, batch servers, web servers, and database servers—without first copying all files to a file server.

**Note.** You must install your third-party products as described in the previous chapter before you run the PeopleSoft Installer.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 3-1	Mounting and Unmounting Your CDs (UNIX Only)
Task 3-2	Running the PeopleSoft Installer with a Single CD (Optional)
Task 3-3	Running the PeopleSoft Installer Without Swapping CDs (Optional)
Task 3-4	Running the PeopleSoft Installer

## Before You Begin

You will run the installer from your PeopleTools CD to install the necessary products on your target machine(s). Which files are installed depends on which products you are licensed for, the operating system on the target machine, the database platform, and the selected server option. The PeopleSoft Installer installs files directly to Windows, UNIX, and Linux machines. PeopleTools and PeopleSoft Applications use the same PeopleSoft Install template.

**Note.** Because the PeopleSoft Installer allows you to install files directly to the designated server, you no longer need to transfer the contents of your PeopleSoft CDs to a file server, and use the PeopleSoft Server Transfer program to transfer files from your file server to the desired server.

All licensed components of the PeopleSoft Architecture must be installed on each server. Ideally, you should install the NT file server component first and then take your PeopleSoft CD's to a CD Jukebox connected to your UNIX systems. If you have multiple servers but no Jukebox for your UNIX environment, you may need to use the CD for each server.

You can install multiple "logical" servers to the same machine. For example, you can have the application server and the batch server on the same machine. But, if you want to install different servers to different machines, you have to run the PeopleSoft Installer once for each server.

## JVM

The PeopleSoft Installer Requires JVM. JVM is bundled for all OS platforms. The PeopleSoft Installer searches for the Java executable in the directories listed in the table that follows (as recommended by the hardware/software vendors). If the search fails, the bundled JVM will be used.

OS Platform	JRE search path
AIX	/usr/java130
	/usr/java_dev2/jre
HP	No searches
Linux	/usr/jre1.3
	/usr/local/jre1.3
	/opt/jre1.3
	/opt/j2re1.3.1
Solaris	/usr/jre1.3.1
	/usr/java1.3.1
	/usr/jdk1.3.1
	/opt/jre1.3.1
	/opt/java1.3.1
	/opt/jdk1.3.1
	/usr/jre1.3.0_02
	/usr/java1.3.0_02
	/usr/jdk1.3.0_02
	/opt/jre1.3.0_02
/opt/java1.3.0_02	
/opt/jdk1.3.0_02	

	/usr/jre1.3.0_01
	/usr/java1.3.0_01
	/usr/jdk1.3.0_01
	/opt/jre1.3.0_01
	/opt/java1.3.0_01
	/opt/jdk1.3.0_01
	/usr/jre1.3
	/usr/java1.3
	/usr/jdk1.3
	/opt/jre1.3
	/opt/java1.3
	/opt/jdk1.3
	/usr/java
	/usr/jdk
	/opt/java
	/opt/jdk
Tru64	/usr/jre
	/usr/jre130
	/usr/java
	/usr/java130
	/usr/jdk
	/usr/jdk130
	/opt/jre
	/opt/jre130
	/opt/java
	/opt/java130
	/opt/jdk
	/opt/jdk130
	/usr/opt/jre
	/usr/opt/jre130
	/usr/opt/java
	/usr/opt/java130
	/usr/opt/jdk
	/usr/opt/jdk130
	/usr/jre
	/usr/jre122
	/usr/java12
	/usr/java
	/usr/java122

```
/usr/jdk
/usr/jdk12
/usr/jdk122
/opt/jre
/opt/jre122
/opt/java
/opt/java12
/opt/java122
/opt/jdk
/opt/jdk12
/opt/jdk122
/usr/opt/jre
/usr/opt/jre122
/usr/opt/java
/usr/opt/java12
/usr/opt/java122
/usr/opt/jdk
/usr/opt/jdk12
/usr/opt/jdk122

/usr/jre
/usr/jre131
/usr/java
/usr/java131
/usr/jdk
/usr/jdk131
/opt/jre
/opt/jre131
/opt/java
/opt/java131
/opt/jdk
/opt/jdk131
/usr/opt/jre
/usr/opt/jre131
```

	/usr/opt/java
	/usr/opt/java131
	/usr/opt/jdk
	/usr/opt/jdk131
Windows	\Program Files\JavaSoftJRE\1.3.1 JavaSoftJRE\1.3.1 JavaJRE\1.3.1 \Program Files\JavaSoftJRE\1.3.0_02 JavaSoftJRE\1.3.0_02 JavaJRE\1.3.0_02 \Program Files\JavaSoftJRE\1.3.0_01 JavaSoftJRE\1.3.0_01 JavaJRE\1.3.0_01 \Program Files\JavaSoftJRE\1.3.0 JavaSoftJRE\1.3.0 JavaJRE\1.3.0 \Program Files\JavaSoftJRE\1.3 JavaSoftJRE\1.3 JavaJRE\1.3

**Note.** If your installation is different than the vendor defined JRE Search Path, specify where you installed the Java home directory like this:

`-is:javahome <<specify the java home directory (for example c:\myjdk1.3.1)>>`

## PeopleSoft Servers

You can install the whole range of PeopleSoft servers (file server, application server, etc.) with the PeopleSoft Installer. You may install PeopleSoft server software separately or together. Keep in mind which PeopleTools functionality resides in each server:

- **File Server:** all Client executables (PSIDE...), Nvision, Upgrade Assistant, files/directories necessary to perform upgrade, and Client SQR.
- **Application Server:** PSADMIN, COBOL for remote call, Verity.
- **Web Server:** Windows PIA install, UNIX web files and shell scripts, Portal Search data files.
- **Process Scheduler Server:** PSADMIN, COBOL, SQR.
- **Database Server:** Scripts and data directories, files necessary to run Data Mover.

## Supported Server Combinations

The following table lists the supported PeopleSoft servers for your database platform. Be sure to refer to the *PeopleTools Hardware and Software Requirements* book for specific version numbers.

Database Type	OS Platform	App Server	Batch Server	DB Server	File Server	Web Server
Oracle	HP-UX	Supported	Supported	Supported	<i>Not Supported</i>	Supported
Oracle	Linux	<i>Not Supported</i>	<i>Not Supported</i>	<i>Not Supported</i>	<i>Not Supported</i>	Supported
Oracle	Solaris	Supported	Supported	Supported	<i>Not Supported</i>	Supported
Oracle	Tru64	Supported	Supported	Supported	<i>Not Supported</i>	Supported
Oracle	Windows	Supported	Supported	Supported	Supported	Supported
Oracle	IBM-AIX	Supported	Supported	Supported	<i>Not Supported</i>	Supported

### Task 3-1: Mounting and Unmounting Your CDs (UNIX Only)

The information that follows includes sample commands to mount and unmount CDs for various UNIX platforms. We do not support automounting of CDs; automounting sometimes puts the volume label as part of the mount point, in which case the PeopleSoft Installer will not recognize the second PeopleTools CD.

**Note.** Most, if not all, of these platforms require root access to mount and unmount CDs. You cannot be in the mount point or any of the subdirectories when unmounting the CD. Your devices and your mount point might be different than the examples below.

UNIX Platform	mounting a CD to /mnt/cdrom	unmounting the CD
AIX	mount -o ro -v cdrfs /dev/cd0 /mnt/cdrom	umount /mnt/cdrom
HP-UX	mount -r /dev/dsk/c2t1d2 /mnt/cdrom	umount /mnt/cdrom
Linux	mount -t iso9660 -r /dev/cdrom /mnt/cdrom	umount /mnt/cdrom
Solaris	mount -F hfs -o ro /dev/dsk/c0t6d0s2 /mnt/cdrom	umount /mnt/cdrom
Tru64	mount -r /dev/disk/cdrom0c /mnt/cdrom	umount /mnt/cdrom

#### To mount a CD-ROM on HP-UX

The following procedure will help you to correctly mount a CD-ROM on HP-UX.

1. Logon as root.
2. Determine the device address for the CD-ROM by entering the following command:

```
# ioscan -C disk -f -n
```

Output similar to the following will be displayed. This output example indicates that the CD-ROM device file is /dev/dsk/c1t2d0:

Class	I	H/W Path	Driver	S/W State	H/W Type	Description
disk	0	8/0/19/0.6.0	sdisk	CLAIMED	DEVICE	IBM DDRS-39130WS
					/dev/dsk/c0t6d0	/dev/rdisk/c0t6d0
disk	1	8/16/5.2.0	sdisk	CLAIMED	DEVICE	TOSHIBA CD-ROM XM-6201TA
					/dev/dsk/c1t2d0	/dev/rdisk/c1t2d0

3. Create a new directory called /cdrom at the root of the file system. This directory becomes the CD-ROM mount point; all CD-ROM files appear under this directory.
4. Determine whether the pfs daemon is running by entering the following command:

```
# ps -ef | grep pfs
```

If the pfs daemon is running, output similar to the following is displayed:

```
root 1681 1651 0 11:39:20 pts/ta 0:00 /usr/sbin/pfs_mountd
root 1682 1681 0 11:39:20 pts/ta 0:00 pfs_mountd.rpc
```

If the pfs daemon is running proceed to step 5. If the pfs daemon is not running:

- a) Edit the file /etc/pfs\_fstab by adding a line similar to the one below to indicate the hardware path for the CD-ROM:

```
/dev/dsk/c0t6d0 /cdrom pfs-rrip xlat=unix 0 0
```

- b) Enter the following commands:

```
# nohup /usr/sbin/pfs_mountd &
# nohup /usr/sbin/pfsd &
```

You must reenter these commands every time you restart your system.

5. To physically mount the CD-ROM, place the CD-ROM in the machine and enter the following command:

```
# /usr/sbin/pfs_mount /cdrom
```

**To unmount a CD-ROM**

1. After you finish using the CD-ROM, enter the following command:

```
# /usr/sbin/pfs_umount /cdrom
```

2. Eject the CD-ROM.

**Task 3-2: Running the PeopleSoft Installer with a Single CD (Optional)**

The following information is provided for mounting PeopleTools 8.4x CD's for a single CD-ROM drive or mounting multiple CD's for easier access.

**To run the PeopleSoft Installer on a machine with a single CD**

1. Open two telnet sessions (such as telnet1 and telnet2).
2. In telnet1, mount the first PeopleTools CD to a directory (for example, /cdrom).
3. In telnet2, go to any directory EXCEPT /cdrom (for example, /tmp).

Run the PeopleSoft Installer, pointing the executable in /cdrom. For example: /cdrom/setup.aix -is:javaconsole -console -is:tempdir \$HOME/tmp

4. Go through the install prompts in telnet2.
5. When prompted in telnet2 to swap media (to change to media 2), go back to telnet1.

Unmount and eject the CD, then mount the second PeopleTools CD as /cdrom.

6. In telnet2, press Enter to continue the install.

**Note.** A common problem is that one of the telnet sessions is cd'ed in /cdrom (or any of its subdirectories). As a result, the OS will not allow you to unmount and eject the CD.

**Task 3-3: Running the PeopleSoft Installer Without Swapping CDs (Optional)**

To avoid swapping CDs, you can either copy the contents of both CDs to a network share, or mount the two CD's as <anydirectory>/disk1 and <any directory>/disk2. You can mount the PeopleTools CD through a CD shared machine, a Jukebox or an NFS server. For example, on machine A (a CD drive with PeopleTools 8.4x disk one share):

```
share /cdrom/pt84cd1r0
```



On machine B (a CD drive with PeopleTools 8.4x disk two share):

```
share /cdrom/pt84cd2r0
```

On machine C (the machine where you want to install PeopleTools 8.4x):

```
mkdi r -p /pt84/di sk1
mkdi r -p /pt84/di sk2
mount A: /cdrom/pt84cd1r0 /pt84/di sk1
mount B: /cdrom/pt84cd2r0 /pt84/di sk2
```

## Task 3-4: Running the PeopleSoft Installer

The PeopleSoft Installer guides you through the process of installing files to your various servers. You must run the PeopleSoft Installer on each PeopleSoft server.

**Note.** You need 250 MB of free space in order to perform your installation.

You can run the installer in GUI mode or in console (text) mode. Running the installer on UNIX in GUI mode requires an X-Windows interface.

**Note.** The machine you use to perform your PeopleTools installation must be running in **256-color mode** or higher when running the CD install, Internet install, and Database configuration in Windows.

This is not necessary for UNIX or console mode.

To start the PeopleSoft Installer in GUI mode, type:

```
[path]setup.xxx [additional flags]
```

To start the PeopleSoft Installer in console mode, type:

```
[path]setup.xxx [additional flags] -is:javaconsole -console
```

The following table lists the native launchers and the platforms to run them:

Platform	Native Launcher to Use
HP-UX	setup.hp
Linux	setup.linux
Solaris	setup.solaris
Tru64	setup.tru64

Windows	setup.exe
IBM-AIX	setup.aix

Additional flags are:

**-is:tempdir** <<specify the temp dir>>

**Note.** Use the example above to specify the temporary directory to extract temporary files and the bundled JRE if Java is not found. This is needed if you have less than 200 MB of free disk space in your temp directory.

**-is:log** <<specify the log file>>

**Note.** Use the example above to create a log file if you encountered problems with the native launcher.

**-is:javahome** <<specify the java home directory (for example c:\myjdk1.3.1)>>

**Note.** Use the example above to specify where you installed the Java home directory, if your installation is different than the vendor defined JRE Search Path.

Finally, note that the PeopleTools installation spans two CD's. During the installation process, if you are running the installer with a single CD-ROM drive, you will be prompted to swap to the second CD before you can proceed. To avoid swapping CDs during the installation process, you need copy the contents of both CDs to a network share (in a very specific way) before launching the PeopleSoft Installer. For example, copy the contents of the first CD to n:\ps\tools\disk1 and the contents of the second CD to n:\ps\tools\disk2. Then launch the setup.xxx that is located at n:\ps\tools\disk1. You can use the same concept to avoid mounting and unmounting CDs on UNIX boxes during the install.

If you mounted your CDs in a way described in the task "Running the PeopleSoft Installer Without Swapping CDs", you will not be prompted for swap CDs during the installation.

### To run the PeopleSoft Installer in GUI mode

1. Launch the installer. Click **Next** when you see the welcome screen.
2. Click the radio button to accept the license agreement and click **Next**.
3. Enter your license code and click **Next**.
4. Choose a Unicode or non-Unicode database and click **Next**.

**Note.** You will probably choose to create a **non-Unicode** database. Unicode character set databases are beneficial if you intend to deploy your applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases. See the *PeopleTools Global Technology PeopleBook* for more information about Unicode versus non-Unicode databases.

5. Select the servers you want to install and click **Next**.

**Note.** You can install multiple servers at the same time, but they will all be installed on the same machine. If you want to install servers on separate machines, you need to run the PeopleSoft Installer on each server machine.

**Note.** You *must* install the PeopleSoft software on your database server in order to run the PeopleSoft Database Configuration Wizard, as described in the chapter “Creating a Database.”

6. Specify the directory where you want to install PeopleTools and click **Next**.

**Note.** Please substitute your network drive and the directory name of your choice for the default selection of n:\PT8.4. Note that directory names containing periods may not work with some third-party software products.

**Note.** If you are installing on UNIX, do not use Symbolic Links. Use the actual directory.

7. If you are installing on UNIX and you’ve checked Application Server, Batch Server, or Database Server, you’ll be prompted to enter the TUXEDO directory.

8. Specify the location of your Connectivity Program Directory and click **Next**.

**Note.** This panel is only for Windows installations.

The default location for the connectivity software for your platform (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Platform Name	Location of Database Connectivity Libraries
Oracle	C:\oracle\ora81\bin Or C:\oracle\ora91\bin

9. Depending on the PeopleSoft servers you’ve selected, choose whether to install the PeopleTools icons and click **Next**. (This is for Windows only).
10. If you elected to install PeopleTools icons, choose a valid group folder in which to create them and click **Next**.
11. The next screen lists the PeopleTools components for which you are licensed. Accept the defaults for the PeopleTools features and click **Next**.
  - Select **PeopleTools** to install PeopleTools and the PeopleSoft Internet Architecture. This component contains the core PeopleTools files and is required for the proper operation of your PeopleSoft system and your PeopleSoft Internet Architecture.

- Select **PeopleTools System Database** to allow your developers to create custom PeopleTools applications outside of the delivered PeopleSoft Application. You must have a PeopleTools Enterprise License agreement to use this feature.
- The **PeopleTools Language Pack** and **PeopleTools Language Development Kit** contain the translated PeopleTools DLLs and the resource files and headers needed to build them.

Select **PeopleTools Language Pack** if you plan on running the Windows components of your installation in languages other than English. This component contains the compiled PeopleSoft translations for the Windows client. If you are not using multiple languages throughout your implementation, you don't need this component.

Select **PeopleTools Language Development Kit** if you plan on modifying or creating your own new translations for the PeopleTools Windows client components. It contains the source and header files required to modify and compile new versions of these translations. Again, you don't need this component if you are not using multiple languages.

12. You will see an installation confirmation window. If the information is correct, choose **Next**. If you need to change any of the information, choose the **Back** button and make your changes.
13. If prompted, change your CD during the installation process.
14. After the files have been installed, click **Finish** to complete the setup.

### To run the PeopleSoft Installer in console mode

**Note.** When using UNIX/console mode for the installation process, enter your information carefully. You cannot go back and make changes; if you need to reenter information, you must restart the process.

1. Launch the PeopleSoft Installer. At the Welcome screen, press ENTER to continue.

**Note.** For HP-UX, if the CDs are mounted on Jukebox, it is recommended that you launch the installer from an existing directory on the box (and not the directory that links to the CD).

**Note.** If you are running the installer with a single CD-ROM drive, you should always follow the instruction in task "Running the PeopleSoft Installer with a Single CD".

**Note.** If you mounted your CDs (as described in the task "Running the PeopleSoft Installer Without Swapping CDs"), we recommend that you launch the installer from an existing directory on the box, and not the directory that links to the CD, in the following two cases:

- 1) For HP-UX, if the CDs are mounted on Jukebox;
- 2) For TRU64, if the CDs are mounted on a NFS server.

2. For Windows only, accept the license agreement by selecting 1. Select 0 when you are finished.
3. Enter your license code, and press ENTER to continue.
4. Choose a non-Unicode or Unicode database by selecting the appropriate number, and then 0 to continue.

**Note.** You will probably choose to create a **non-Unicode** database. Unicode character set databases are beneficial if you intend to deploy your applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases. See the *PeopleTools Global Technology PeopleBook* for more information about Unicode versus non-Unicode databases.

5. Select the PeopleSoft server(s) you want to install.

By default, all of the servers supported for your database platform will be checked.

**Note.** If you are installing on UNIX, do not use Symbolic Links. Use the actual directory.

After your selection, press ENTER; you will be prompted for the destination (for example, PS\_HOME). Specify the directory and press ENTER to continue.

**Note.** In console mode, the browse option for specifying a different install directory is unavailable.

6. If you are installing on UNIX and you've checked Application Server, Batch Server, or Database Server, you'll be prompted to enter the Tuxedo directory.
7. Specify the database connectivity directory (Windows installations only).

The default location for the connectivity software for your platform (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Platform Name	Location of Database Connectivity Libraries
Oracle	C:\oracle\ora81\bin Or C:\oracle\ora91\bin

8. Indicate whether you want icons to be created (Windows installations only).
9. Enter 1 if you wish to see what products are being installed:
  1. Toggle install status of PeopleTools 8.4
  2. Visit children of PeopleTools 8.4
  3. Select a different item

Enter command [1]
10. Enter 2 again to see the list of products.

**PeopleTools 8.4**

1.  PeopleTools
2.  PeopleTools System Database
3.  PeopleTools Language Pack
4.  PeopleTools Language Development Kit

To visit an item's children or to toggle its install status, enter the item number.

Enter -1 to visit the parent or 0 to continue installing. [0]

11. At this point, you can toggle the install status of each product. Press 0 and then ENTER to continue and the PeopleSoft Installer will give you a summary of your selection:

**PeopleTools 8.42 will be installed in the following location:**

c:\temp\ptest

with the following features:

PeopleTools

PeopleTools System Database

PeopleTools Language Pack

PeopleTools Language Development Kit

The following PeopleSoft Servers were selected by you:

PeopleSoft Application Server

PeopleSoft Batch Server

PeopleSoft Database Server

PeopleSoft File Server

PeopleSoft Web Server

Database Type:

Please press Enter to Continue

12. Press ENTER to start the installation. You may be prompted to insert the next CD.
13. The PeopleSoft Installer will create a text-based progress bar to indicate the progress of the install.
14. Please press ENTER to Exit

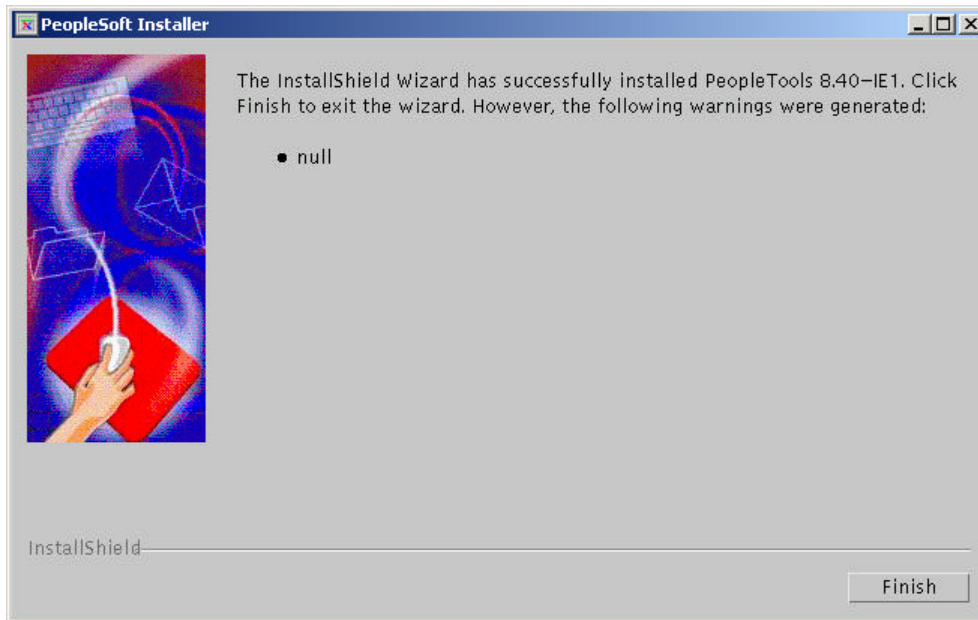
**Note.** For UNIX platforms, and if you've chosen PeopleSoft servers that require a JRE, you'll see the "Unpacking JRE" message after the progress bar.

## Known Issues

The following are known issues with the PeopleSoft Installer.

### AIX

If you are using the PeopleSoft Installer as a non-root user, after the installation process you will see a message similar to this one.

**GUI mode message:****Console mode message:**

**The InstallShield Wizard has successfully installed PeopleTools 8.42. Click Finish to exit the wizard. However, the following warnings were generated:**

**- null**

This is an informational message that only occurs when installing on AIX in non-root mode. It does not affect the installation.





# SETTING UP THE FILE SERVER

This chapter describes how to set up your file server for use with PeopleTools.

## Task Overview

The following table summarizes this chapter's tasks.

Task No.	Task Name
Task 4-1	Map Drive on Install Workstation
Task 4-2	Install the PeopleTools CD-ROM to the File Server
Task 4-3	Install the Application CD-ROM
Task 4-4	Load the Multilanguage CD
Task 4-5	Editing PSSQR.INI (Chinese and Korean Installations Only)

The file server is the environment (or file) repository for the PeopleTools Development environment and for the files necessary to perform an upgrade. This includes the Upgrade Assistant and all of the executables and scripts which are necessary to perform an upgrade. In addition, the file server is a source repository for COBOL and SQR. You will apply patches and updates from Customer Connection directly to the file server and then copy the updated files to your other servers.

**Note!** Because the PeopleSoft Installer lets you install files to the designated server—whether it's an application server, batch server, database server, web server, etc.—the file server is no longer used to transfer the entire contents of your PeopleSoft CDs to a file server, and you will not need to use the PeopleSoft Server Transfer program to transfer files from your file server to the desired server.

In some cases you may choose to set up local copies of the PeopleSoft executables on the PeopleTools Development Environment and Windows NT batch servers, rather than mapping to a shared directory on the file server. You can use the instructions in this chapter to perform such local installations.

## COBOL

Refer to the task “Install Supporting Applications” in Chapter 1 for more details on where to install your COBOL compiler if your application requires COBOL.

**Important!** The PeopleSoft Installer installs COBOL source code from the CD to your NT file server and to all UNIX servers, but not to the rest of your NT servers.

### NT

**If your application requires COBOL, we require that you maintain a central repository of your COBOL source code on the file server.** If you apply a patch or make customizations, apply them to file server first, and then disseminate them across your servers as described here. If you have NT file, application, and batch servers, you should compile the COBOL on the file server and copy the cblbina/u/e directory (depending on whether you have an ASCII, Unicode or EBCDIC database) to all the application and batch servers. The COBOL compiler itself does not have to be on the file server—as long as the workstation on which it is installed has full access to the shared drives.

### UNIX

For every flavor of UNIX, we recommend that you designate a single server (either application or batch) as the compile server, so that you can compile COBOL from a central location and then distribute the cblbin directory to the rest of your application and batch servers. If you use this approach, you need only copy patches or customizations from the file server to the compile server. In this case, you would install COBOL compiler on the master (or compile) server and either the COBOL compiler or runtime on the rest. If you prefer, you can copy patches or customizations from the file server to all of your UNIX servers and compile the COBOL on each machine.

**Note.** If you want to copy compiled COBOL programs from one UNIX server to another, they must be on the same OS that the compile took place on. For example, if you compile on Solaris 8 for the application server and the Process Scheduler is on AIX, you cannot copy the compiled program (you will also need to compile on the AIX box).

**Note.** The format of COBOL source file names of patches or customizations on the file server should always be UPPERCASE.cbl. to ensure compatibility with your UNIX servers.

## Task 4-1: Map Drive on Install Workstation

Once the directory is created on the file server, map a drive letter to the PeopleSoft (\PSOFT) directory from the install workstation.

**Note.** If you install the CDs directly from the file server’s CD-ROM drive, you can skip this task. (This strategy is preferable for installation.) If you use this approach you do not need a drive to be mapped; it also provides faster performance, as there is no need for a network connection between the workstation and the server.

### To create a logical drive

1. From a networked workstation with write permission on the file server, create a logical drive that points to the <PS\_HOME> directory.

On a Windows NT network, use Windows Explorer to map to the drive on the file server to which you are installing; or use the NET USE command, for example:

```
NET USE N: \\SERVER1\PSOFT
```

On a Novell network, use the MAP command:

```
MAP ROOT N: =SERVER1/SYS: PSOFT
```

In this example, *SERVER1* is the name of the file server, and PSOFT refers to the high-level PeopleSoft directory. You will install the PeopleSoft CD-ROMs to application-specific subdirectories of N:\. For example: N:\HR840 is <PS\_HOME> for an HRMS file server installation.

## Task 4-2: Install the PeopleTools CD-ROM to the File Server

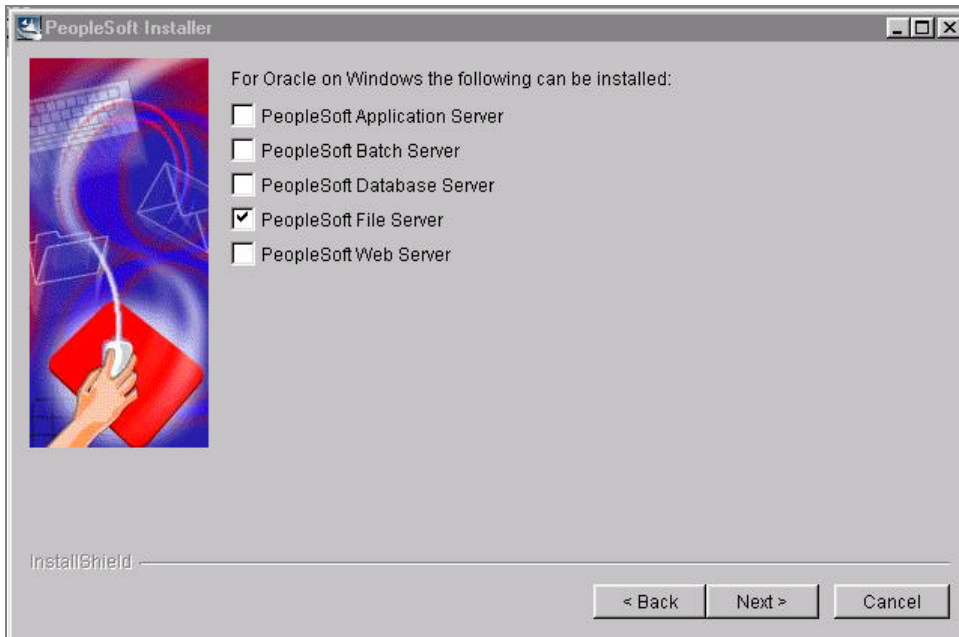
The following procedure describes how to install the PeopleTools CD-ROM to the file server.

### To install the PeopleTools CD-ROM to the file server

1. Insert the PeopleTools CD-ROM into the CD-ROM drive and run the Setup application from the root directory of the CD. You'll see a Welcome screen.
2. Click **Next**. You'll see the licensing agreement.
3. Click **Yes** and enter your 31-digit license code from the license code sheet.
4. Click **Next** and choose whether to use a Unicode or a non-Unicode database, according to what you determined in Chapter 1, in the task "Plan Multilanguage Strategy."

**Note.** Most customers will choose to create **non-Unicode** databases. Unicode character set databases are beneficial to customers who intend to deploy their applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases. See the *PeopleTools Global Technology* PeopleBook for more information about Unicode versus non-Unicode databases.

5. Select **PeopleSoft File Server** in the PeopleSoft Installer dialog.



6. A component select window appears. This screen lists the PeopleTools components for which you are licensed. Select the products to install from the **Components** list.

**Note.** The components PeopleTools Language Pack and PeopleTools Language Development Kit contain the translated PeopleTools DLLs and the resource files and headers needed to build them. If you do not need translated files, you may choose to not install these two components.

- Select **PeopleTools** to install PeopleTools Development Environment and the Upgrade Environment This component contains the core PeopleTools files and is required for the proper operation of your PeopleSoft Development and Upgrade environment.
  - Select **PeopleTools Language Pack** if you plan on running the Windows components of your installation in languages other than English. This component contains the compiled PeopleSoft translations for the Windows client. If you are not using multiple languages throughout your implementation, you don't need this component.
  - Select **PeopleTools Language Development Kit** if you plan on modifying or creating your own new translations for the PeopleTools Windows client components. It contains the source and header files required to modify and compile new versions of these translations. Again, you don't need this component if you are not using multiple languages.
  - Select **PeopleTools System Database** to allow your developers to create custom PeopleTools applications outside of the delivered PeopleSoft Application. You must be licensed for the PeopleTools Enterprise License agreement to utilize this capability.
7. Click the **Browse** button, choose the path of the <PS\_HOME> directory on the file server, and click **OK**.
8. Click **Next**. You should see the Confirm Products dialog box.

9. Click **Next** to verify that you want to install to the specified directory. You'll see a progress indicator so you can monitor the progress of your installation.
10. The default location for the connectivity software for your platform (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Platform Name	Location of Database Connectivity Libraries
Oracle	C:\oracle\ora81\bin Or C:\oracle\ora91\bin

11. In the next dialog box, choose **Yes** to install an Installation icon group on the install workstation.
12. Then specify the desired program folder (the default is PeopleTools 8.4 Installation) and click **Next**. (A program folder name cannot contain any of the following characters: \ / : \* ? " < > |). This step creates an icon group on the installing machine that supplies shortcuts to every program needed throughout the installation process.
13. When the setup program successfully completes the installation of PeopleTools, click **Finish** to exit the installation program.

### Task 4-3: Install the Application CD-ROM

After installing the PeopleTools CD-ROM, install the application CD-ROM to the same <PS\_HOME> directory on the file server. The screens may look slightly different depending upon which application you install.

**To install the application CD-ROM to the file server**

1. Insert the application CD-ROM into the CD-ROM drive and run the Setup application from the root directory of the CD.
2. After reading the Welcome information, click **Next**.
3. Click **Yes** to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click **Next**.

**Note.** All modules for the product line you are installing exist on the PeopleSoft Application and Database CDs regardless of the modules purchased. Your unique license code will “unlock” the combination of modules you purchased. A master license key no longer exists.

5. Choose a **Unicode** or a **non-Unicode** database and click **Next**.
6. A Component Selection screen appears. (What you see depends on what product you are installing.) Select the applications that you wish to install and click **Next**. If necessary, click the **Browse** button to choose the destination folder for the components.
7. In the confirmation dialog box, click **Next** to begin the installation. You'll see a progress bar that indicates the progress of the installation.
8. Click **Finish** to exit the PeopleSoft installation program.
9. Repeat this process until all application CDs have been loaded.

## Task 4-4: Load the Multilanguage CD

If you have licensed and selected to install languages other than English, you need to load the application-specific PeopleSoft Multilanguage CD-ROM. Each application CD has a corresponding Multilanguage CD that contains all the non-English translations.

**Important!** The release numbers for the application CD and the multilanguage CD must be in sync. For example, if you are installing HRMS 8.3, the only multilanguage CD that can be used is HRMS 8.3 ML (not HRMS 8 SP1).

### To load the Multilanguage CD

1. Insert the Multilanguage CD-ROM into the CD-ROM drive and run the Setup application from the root directory of the CD.
2. After reading the Welcome message, click **Next**.
3. Click **Yes** to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click **Next**.
5. Choose to create a **Unicode** or a **non-Unicode** database and click **Next**.
6. You will be asked to select the components you want to install. (What you see depends upon what product you are installing). Select the applications you want to install and click **Next**.
7. On the confirmation dialog box, click **Next** to begin the installation. You'll see a progress bar indicating the progress of the installation.
8. Click **Finish** to exit the PeopleSoft installation program.

## Task 4-5: Editing PSSQR.INI (Chinese and Korean Installations Only)

Before running SQR for the first time, you must edit the PSSQR.INI file to ensure that the appropriate character set is specified. This file is located on your file server in <PS\_HOME>\SQR. If you plan on running a UNIX batch server, you should make the same modifications to the UNIX version of this file, PSSQR.UNX, located in the same directory.

### To configure your PSSQR.INI file

1. Open <PS\_HOME>\SQR\PSSQR.ini in any editor
2. Under the [PDF Fonts] section, place a semicolon (;) in front of all of the entries under default – Latin/Japanese:
  - ; default - Latin/Japanese
  - ;3=Courier,HeiseiKakuGo -W5
  - ;300=Courier-Bold,HeiseiKakuGo -W 5
  - ;4=Helvetica,HeiseiKakuGo -W5
  - ;400=Helvetica-Bold,HeiseiKakuGo -W5
  - ;5=Times-Roman,HeiseiMin -W 3
  - ;500=Times-Bold,HeiseiMin -W3
  - ;11=Symbol
  - ;12=ZapfDingbats
  - ;30=Courier-Oblique,HeiseiKakuGo -W5
  - ;3000=Courier-BoldOblique,HeiseiKakuGo -W5
  - ;31=Helvetica-Oblique,HeiseiKakuGo -W5
  - ;3100=Helvetica-BoldOblique,HeiseiKakuGo -W 5
  - ;32=Times-Italic,HeiseiMin -W3
  - ;3200=Times-BoldItalic,HeiseiMin -W3
  - ;28825=Courier,HeiseiKakuGo -W 5
3. Remove the semicolon from the entries under your preferred language, Traditional Chinese, Simplified Chinese or Korean:
  - ; Traditional Chinese
  - 3=Courier,MHei-Medium
  - 300=Courier-Bold,MHei-Medium
  - 4=Helvetica,MHei-Medium
  - 400=Helvetica-Bold,MHei-Medium
  - 5=Times-Roman,MSung-Light
  - 500=Times-Bold,MSung-Light
  - 11=Symbol
  - 12=ZapfDingbats
  - 30=Courier-Oblique,MHei-Medium
  - 3000=Courier-BoldOblique,MHei-Medium
  - 31=Helvetica-Oblique,MHei-Medium
  - 3100=Helvetica-BoldOblique,MHei-Medium
  - 32=Times-Italic,MSung-Light
  - 3200=Times-BoldItalic,MSung-Light
  - 28825=Courier,MHei-Medium

4. Repeat steps 1 through 3, editing the file PSSQR.UNX if you plan on running a UNIX batch server.

**Note.** For more information on PSSQR.INI, see the Global Reporting and Analysis section of the *PeopleTools Global Technology PeopleBook*.



# CREATING A DATABASE ON WINDOWS NT/2000

With PeopleTools 8.4, PeopleSoft introduces the Database Configuration Wizard, a tool designed to simplify your PeopleSoft database installation.

This chapter documents the PeopleSoft Database Configuration Wizard for Oracle/NT.

**Note.** You can still use the manual process for creating a PeopleSoft database instead of using the Database Configuration Wizard. See the appendix “Creating a Database Manually” for the details on how to manually create a PeopleSoft Database.

**Note!** Don’t forget that *application-specific installation steps are provided in a separate document specific to the application*. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, go to Customer Connection. Under the Site Index, find the Category “Installation Guides and Notes,” and then look under the subcategory for your particular application.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 5A-1	PeopleSoft Database Configuration Wizard Prerequisites
Task 5A-2	Running the Database Configuration Wizard
Task 5A-3	Checking the Log Files and Troubleshooting
Task 5A-4	Update Database to Latest PeopleTools Release
Task 5A-5	Run Additional Data Mover Scripts

Task 5A-6	Installing a Multilingual PeopleTools System Database
Task 5A-7	Run VERSION Application Engine Program
Task 5A-8	Prepare to Run SQR
Task 5A-9	Check Database
Task 5A-10	Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog
Task 5A-11	Initialize Online Rollback Segments

## Task 5A-1: PeopleSoft Database Configuration Wizard Prerequisites

### *Install the PeopleSoft Database Server Components on the Database Server*

*To run the PeopleSoft Database Configuration Wizard, you must have installed the PeopleSoft software on your database server by running the PeopleSoft Installer and chosen the Database Server option, as described in Chapter 3. In addition, you need to have installed your application CD to your database server before you can run the Database Configuration Wizard.*

**Note.** Remember, you need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools development environment, refer to the chapter “PeopleSoft Configuration Manager” in the PeopleBook *PeopleSoft Administration Tools*.

**Note.** The Database Configuration Wizard must be run at the database server.

### *Obtain Windows NT/2000 Administrator Authority*

To run the Database Configuration Wizard, you must be an NT administrator of the target server. This is necessary because the Database Configuration Wizard executes the Oracle 'ORADIM' command to add an NT service. On UNIX, an Oracle SID is comprised of many different processes. On Windows NT/2000, an Oracle SID is run as a single Windows NT/2000 service and you need to be an administrator to create that service.

#### Meet the Minimum Memory Requirements

When the Database Configuration Wizard is invoked, you are running Oracle, Java, the installer engine, and Data Mover in addition to all other running processes, which tends to eat up a lot of virtual memory.

You need a minimum of 384 MB of virtual memory on Windows NT/2000 server machines to execute the Database Configuration Wizard successfully.

To set these options on Windows NT/2000 machines, choose **Start, Settings, Control Panel, System**. Double-click on **System**, select the Performance tab and, on the virtual memory block, enter 384 MB or more for both initial and maximum paging size.

Assuming you've started with a clean environment (NT Service and old files deleted), you may encounter the following Oracle errors if insufficient memory is available:

- Value not allowed
- Insufficient privileges
- Oracle not available.
- Shared realm memory already exists
- Internal error code arguments

## Install the Oracle RDBMS Software

The Oracle RDBMS software must be installed before you run the Database Configuration Wizard. During the execution of the Wizard, references are made to an existing Oracle RDBMS installation:

\$ORACLE\_HOME and \$ORACLE\_HOME\bin

**Note.** PeopleSoft's Database Configuration Wizard supports either Oracle8i or Oracle9i.

## Create an INIT<SID>.ORA File

You must create an init.ora with the naming convention of init<SID>.ora in the ORACLE\_HOME\database directory of your Oracle installation.

Please add or modify the following init.ora parameters:

```
DB_NAME = <SID>
DB_FILES = specify max allowed per your OS, typically 1021
OPEN_CURSORS = 255 <This is a minimum value. You may choose to set this higher>
db_block_size = 8192
```

**Note.** For installs on Oracle9i add the parameter UNDO\_MANAGEMENT to the init.ora file. Setting UNDO\_MANAGEMENT=MANUAL will allow the use of rollback segments for undo management.

**Note.** The default DB\_BLOCK\_SIZE in the init.ora file is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases (for example, CHARACTER\_SET UTF8), a DB\_BLOCK\_SIZE value of 8K is required.

**Note.** See the document "Operating System, RDBMS & Third Party Product Patches Required for Installation" on Customer Connection for more parameters that may be required for the INIT<SID>.ora file. From Customer Connection, choose **Patches + Fixes, Supported Platforms**. Then from the Platforms Database, choose **Platform Communications by Topic, Platforms**.

The Database Configuration Wizard will prompt you for a SID name. This init<SID>.ora will be referenced in the CREATEDB.SQL script, which is executed by the Database Configuration Wizard.

**Note.** The init<SID>.ora will reference 'target' directories to write control files, log files, and system file(s), as well as target locations for Oracle Logs, User Trace Files, and so on. These 'target' directory paths must exist or the Database Configuration Wizard will fail. See the following section for details.

## Create Target Directory Paths

As mentioned, you must create the directory path structure for the target directories referenced in the scripts executed by the Database Configuration Wizard. The Database Configuration Wizard will not create directories on the fly; it expects the directories to exist.

The <SID> variable for which the Database Configuration Wizard prompts you is automatically prepended to the directory path structure referenced in the various database creation scripts executed by the Database Configuration Wizard.

**Note.** If you wish to use something other than the delivered directory paths, you need to modify the CREATEDB.SQL, UTLSPACE.SQL, and xxDDL.SQL scripts in the <PS\_HOME>\scripts directory, replacing the delivered paths with paths appropriate for your site installation.

You are also asked for several mount points. On Windows NT/2000 you just specify the drive. An example is C. Note that no other notation is necessary; you *do not* need to specify C: or C:\.

### Examples:

The delivered CREATEDB.SQL script makes the following directory path structure references:

**Note.** Portions of the script have been omitted for clarity.

```
startup nomount pfile=%ORACLE_HOME%\database\init<SID>.ora
```

DATAFILE	' <drive>: \oradata\<SID>\system01.dbf'	SIZE	400M
LOGFILE	' <drive>: \oradata\<SID>\log01.dbf'	SIZE	70M
	' <drive>: \oradata\<SID>\log02.dbf'	SIZE	70M

The init<SID>.ora parameter file that is referenced in the CREATEDB.SQL script makes the following directory path structure references:

**Note.** Portions of the init<SID>.ora parameter file have been omitted for clarity. These paths are hardcoded by the user creating the init<SID>.ora parameter file. The Data Configuration Wizard will not make any substitutions for mount point, target directory path, or <SID> in the init<SID>.ora file.

### Control file references:

```
control_files = ("c:\apps\db\oracle8i\oradata\ORC1\control01.ctl",
"c:\apps\db\oracle8i\oradata\ORC1\control02.ctl", "c:\apps\db\oracle8i\oradata\ORC1\control03.ctl")
```

**Trace and Alert Log file references:**

background\_dump\_dest = c:\apps\db\oracle8i\admin\ORC1\bdump

core\_dump\_dest = c:\apps\db\oracle8i\admin\ORC1\cdump

user\_dump\_dest = c:\apps\db\oracle8i\admin\ORC1\udump

The delivered UTLSPACE.SQL script makes the following directory path structure references:

**Note.** Portions of the script have been omitted for clarity.

```
CREATE TABLESPACE      PSRBS
DATAFILE                ' <drive>: \oradata\<SID>\psrbs01. dbf'      SIZE 300M
DEFAULT STORAGE (      INITIAL      4M
NEXT                    4M
PCTINCREASE 0 );
```

```
CREATE TABLESPACE      PSTEMP
DATAFILE                ' <drive>: \oradata\<SID>\pstemp01. dbf'    SIZE 60M
DEFAULT STORAGE (      INITIAL      100K
NEXT                    100K
PCTINCREASE 0 );
```

The delivered XXDDL.SQL script(s) make the following directory path structure references:

**Note.** This is a sample of the first several Create Tablespace SQL statements in the xxDDL.SQL script. The rest of the script has been omitted here for clarity.

```
CREATE TABLESPACE PSIMAGE DATAFILE ' <drive>: \oradata\<SID>\psimage. dbf' SIZE 8M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
CREATE TABLESPACE PSINDEX DATAFILE ' <drive>: \oradata\<SID>\psindex. dbf' SIZE 64M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
CREATE TABLESPACE PTAPP DATAFILE ' <drive>: \oradata\<SID>\ptapp. dbf' SIZE 4M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
```

## Set Up Target Database Connectivity

You must add a TNS entry to \$ORACLE\_HOME\network\admin\tnsnames.ora, because during the Data Mover Load phase, the Database Configuration Wizard will try to connect to the newly created SID via a remote connection string—for example:

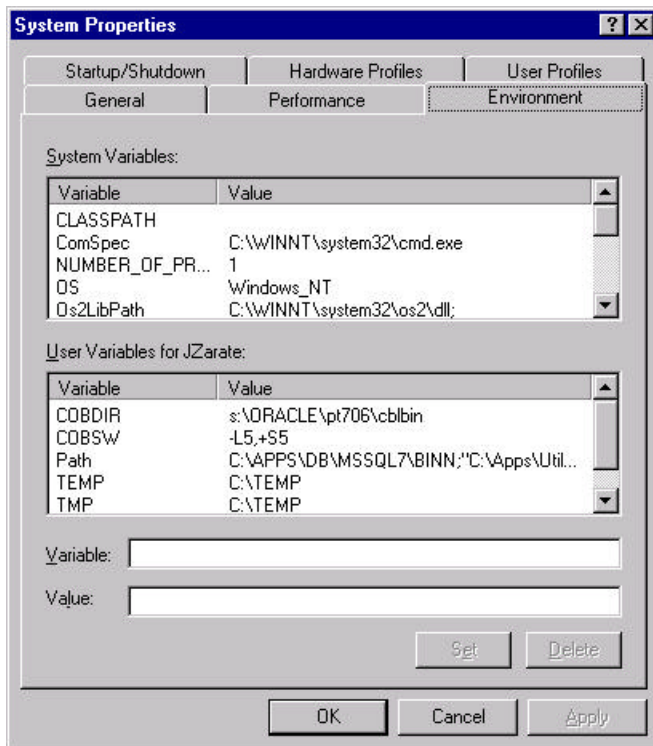
ACCESSID/ACCESSPWD@TNS\_ALIAS

Update the connection information in TNSNAMES.ORA on your server to reflect your Database Name, Oracle SID, and Server Name.

**Note.** Make sure you stop and start (or reload) the NET8i/NET9i listener.

### Unset the ORACLE\_SID Environment Variable

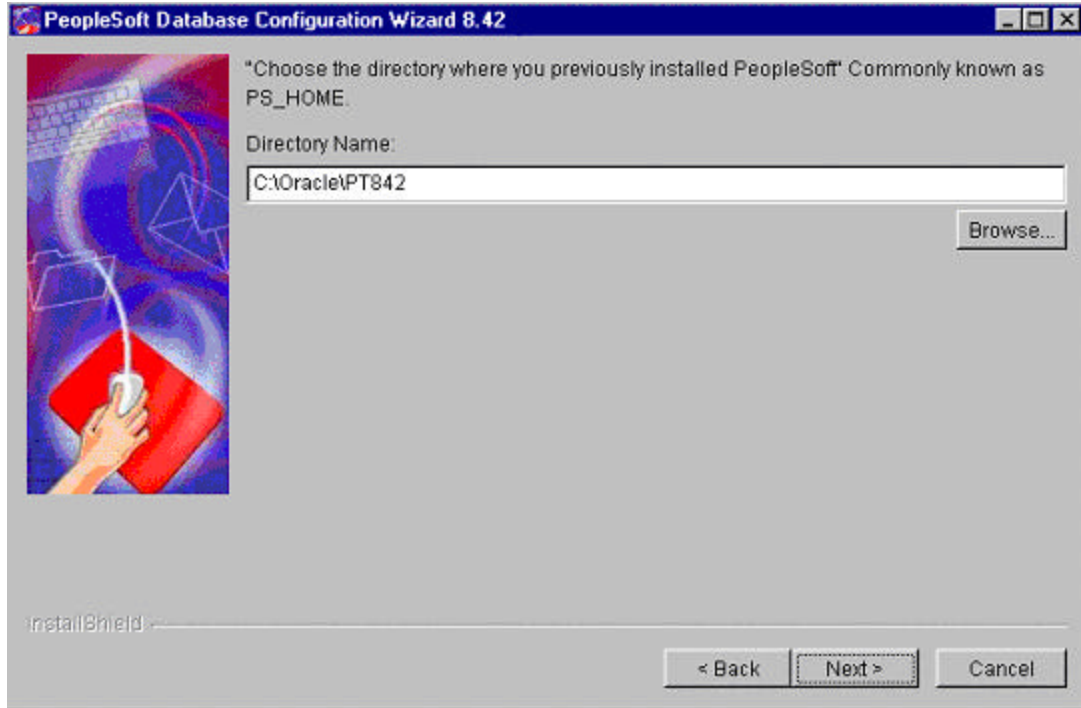
Make sure that you *do not* have the ORACLE\_SID parameter set in your user or system environment variables. The ORACLE\_SID is set by the Database Configuration Wizard during execution.



## Task 5A-2: Running the Database Configuration Wizard

### To run the Database Configuration Wizard

1. From the directory <PS\_HOME>\setup\DatabaseInstall, double click on setup.exe
2. In the Welcome screen, click **Next** to continue.
3. When prompted for the location of PS\_HOME, modify the Directory Name to reflect your PS\_HOME installation (the high level directory where the PeopleSoft Software is installed) and click **Next** to continue.



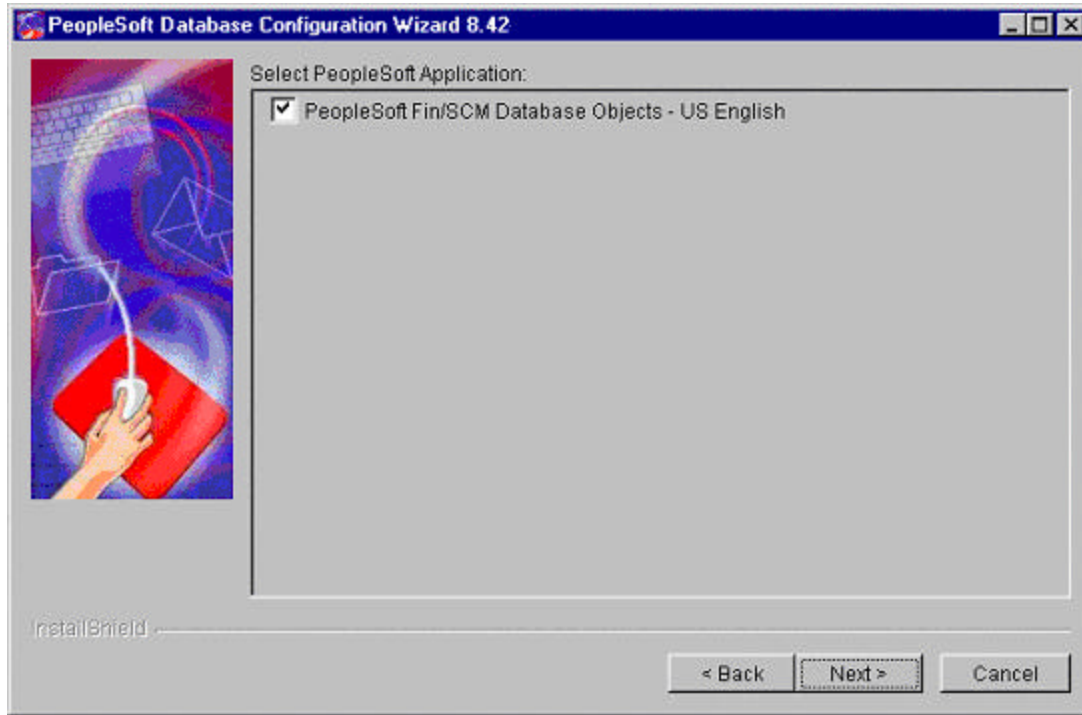
4. Choose Unicode or Non-Unicode, based upon the language strategy you defined in Chapter 1, under “Plan Multilingual Strategy.”
5. If you chose Non-Unicode, select the appropriate character set and database type. If you chose Unicode, just select the database type. Click **Next**.

**Note.** The Wizard detects which database files are available for loading based on your specific installation; you will only see the database types that are valid based on the PeopleSoft Application Modules you’ve installed.

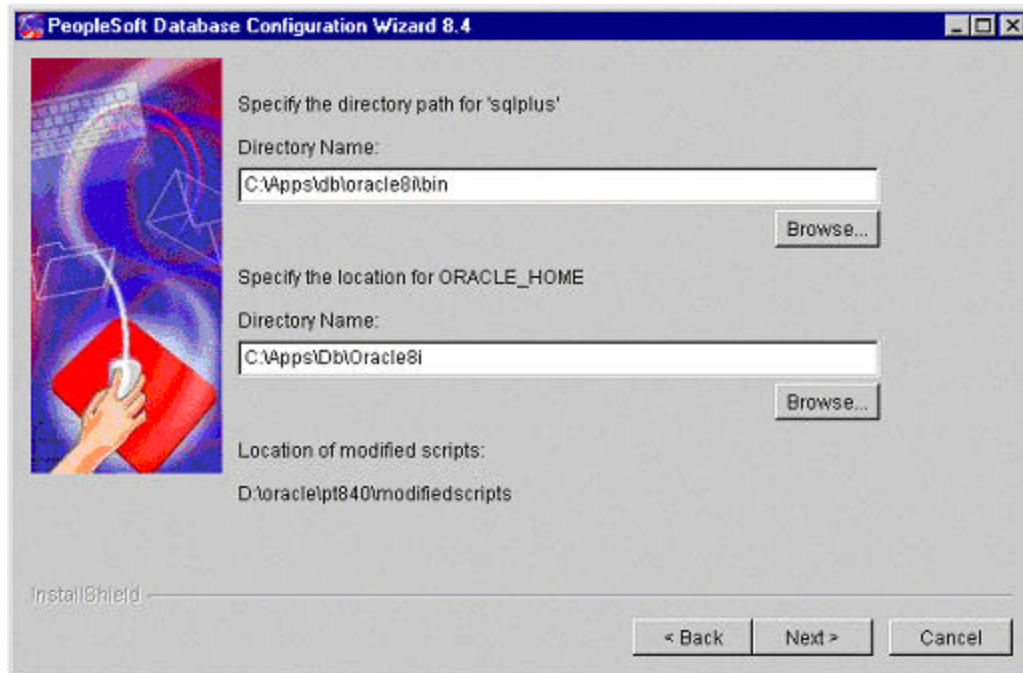
This Character Set selection is substituted and used in the CREATEDB.SQL script.

6. Select which PeopleSoft application database to load and click **Next**. (The available selections will depend upon which application CDs you have licensed and installed.)

All PeopleSoft applications are shipped with English as the database's base language. Therefore when selecting components for your database, you must select the English components in addition to any other languages you have licensed.



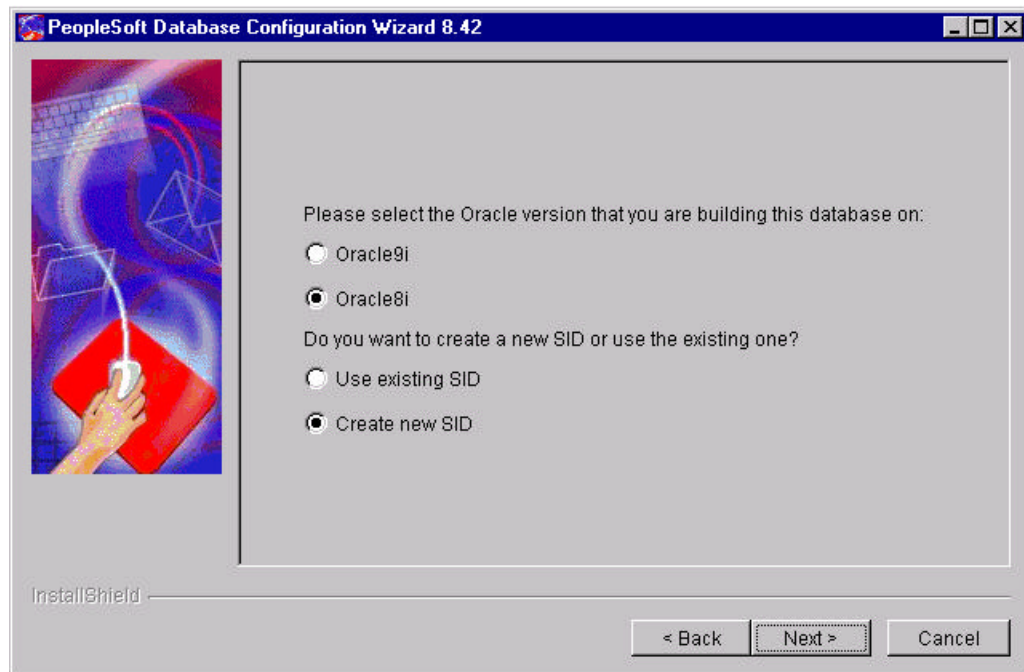
7. When prompted for the location of \$ORACLE\_HOME\bin and \$ORACLE\_HOME, modify the locations as necessary and click **Next**.



8. With PeopleTools 8.42, the PeopleSoft Database Configuration Wizard supports Oracle 8i or Oracle9i. Select the appropriate Oracle version. Then either create an Oracle SID and load a PeopleSoft database or



use an existing Oracle SID to load the PeopleSoft database. These instructions assume you use an existing SID. Click **Next** to Continue.



9. Enter the appropriate server information for your database, clicking **Next** when you're done.

Make sure you scroll down to all parameters if needed. Whichever option you choose, the following prompts will remain the same. The Database Configuration Wizard will use just the information it needs to complete the tasks necessary based on whether you chose to create a new SID or use an existing one.

PeopleSoft Database Configuration Wizard 8.42

Please enter oracle server information

Oracle SID  
FSDMO

Database Name  
FSDMO

Mount Point 1 ( for SYSTEM and REDO LOGS file in createdb.sql, ex: NT 'C' , UNIX 'u01')  
c

Mount Point 2 ( for PSRBS file in utlspace.sql, ex: NT 'C' , UNIX 'u01')  
c

Mount Point 3 ( for PSTEMP file in utlspace.sql, ex: NT 'C' , UNIX 'u01')  
c

Mount Point 4 ( for all files in xxddl.sql, ex: NT 'C' , UNIX 'u01')

installShield

< Back   Next >   Cancel

10. Again enter the appropriate values. Scroll down to make sure you review all parameters. Click **Next** to continue.

PeopleSoft Database Configuration Wizard 8.42

Please enter oracle server information

Peoplesoft owner ID (ex: 'SYSADM')  
FSDMO

Peoplesoft owner password (ex: 'SYSADM')  
\*\*\*\*\*

Peoplesoft connect ID  
people

Peoplesoft connect password  
\*\*\*\*\*

Peoplesoft default tablespace (ex: 'PSTEMP')  
PSDEFAULT

Oracle Internal password

installShield

< Back   Next >   Cancel

**Note.** **Oracle 8i:** The PSADMIN.SQL script is run by the Database Configuration Wizard for every PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSTEMP if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

**Oracle 9i:** The PSADMIN.SQL script is run by the Database Configuration Wizard for every PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

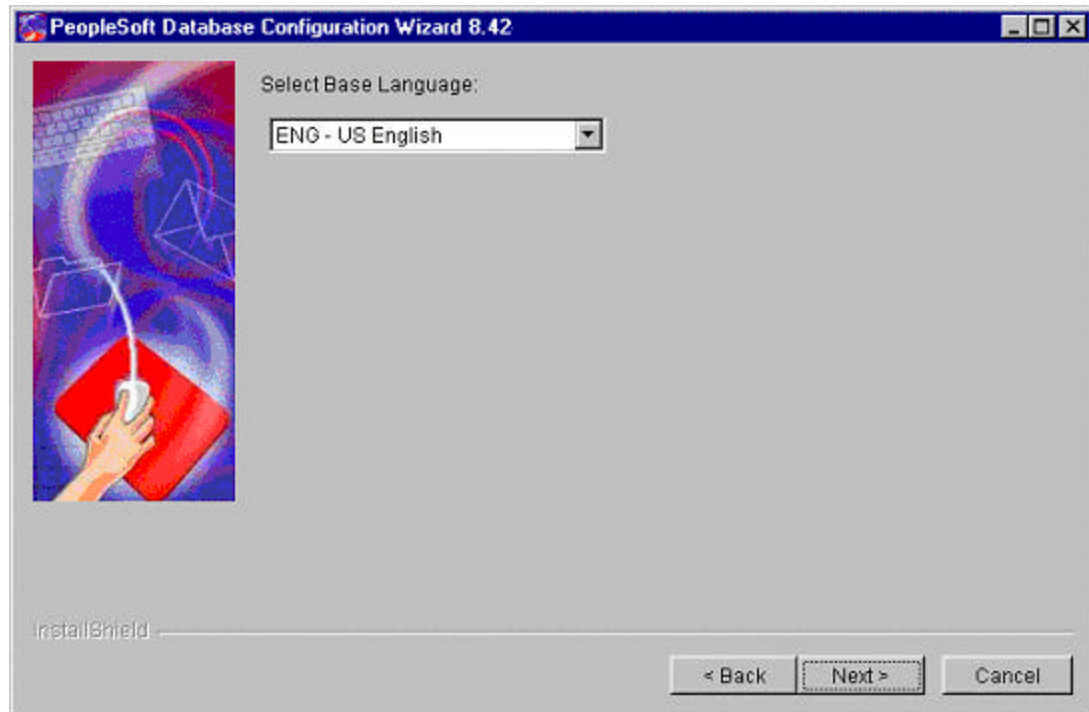
**Note.** The path in the preceding prompt for init<SID>.ora must match the path of the init<SID>.ora file you created under the task “Database Configuration Wizard Prerequisites” earlier in this chapter.

11. Select the base language (the default is US English) and click **Next**.

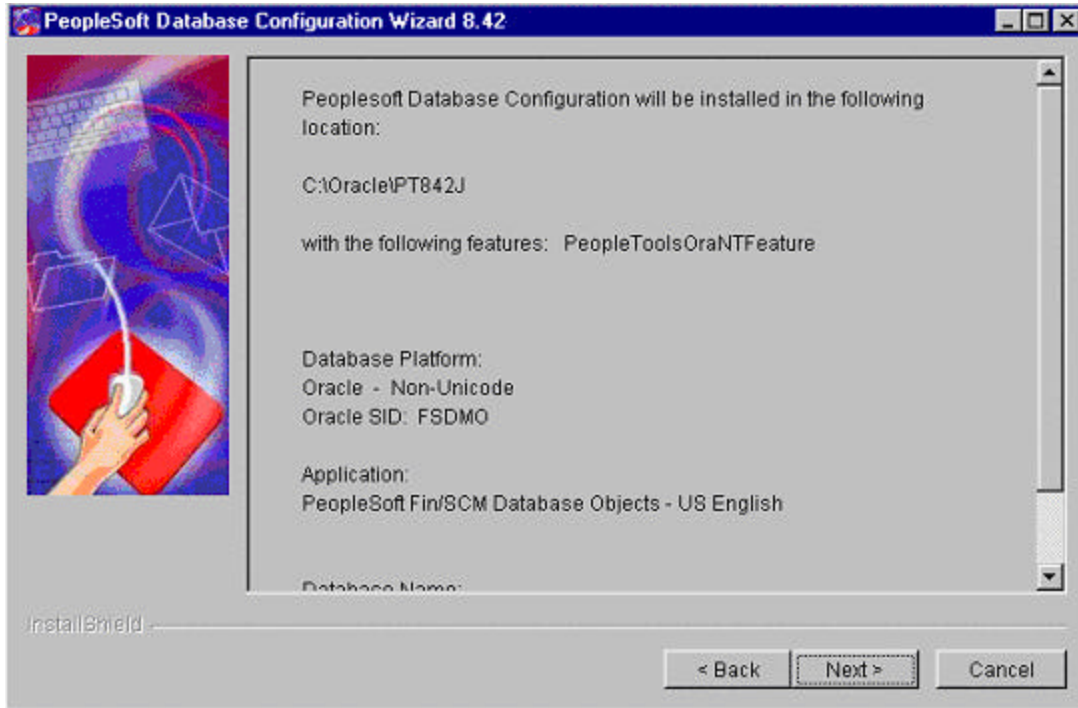
The Select base language selection is used to determine what primary base language the customer wants to run their PeopleSoft application on. If you choose a language other than English, the base language will be swapped during the database creation script. If you have not already done so, review the task “Plan Multilingual Strategy” in Chapter 1, and determine whether you should change your base language. (That task includes a list of currently delivered languages.)

This step applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. This step gives a performance boost to the language you designate as the base language, but would require more administrative overhead than leaving English as the base language does.

The steps for swapping your base language in are described in detail in the *PeopleTools Global Technology PeopleBook*, under “Global Configuration Considerations.”

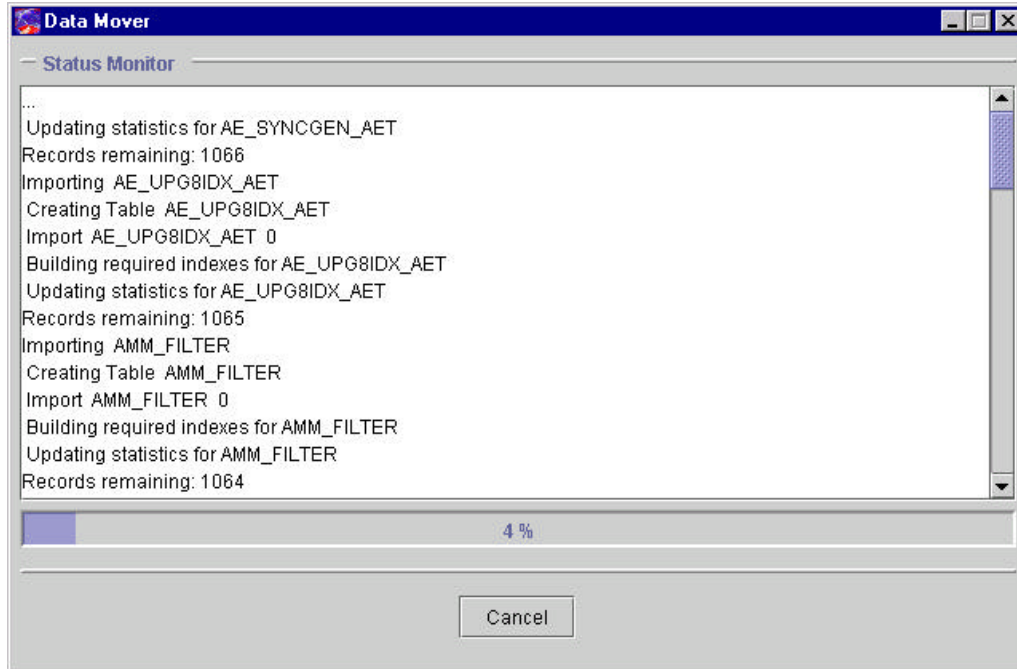


12. At the confirmation dialog box, check the database configuration you've selected, and, if it looks correct, click **Next**. (You can also click **Back** and change any needed settings.)



13. You'll see various messages indicating that the Database Configuration Wizard is creating the uninstaller, executing psadmin.sql for Oracle, and executing dbsetup.dms for Oracle. When DataMover is invoked you'll get a new message dialog indicating the status of the Data Mover run.

**Note.** It's always a good idea to let the installation run through even if you encounter a problem. If for any reason you manually abort the installation, you will need to delete the file vpd.properties in order for the Database Configuration Wizard to successfully update SID when you run the Wizard again. The file vpd.properties is located under the WINNT directory.



14. When you see a message that the PeopleSoft Database Configuration has been successfully installed, click **Finish**.

When you run the Database Configuration Wizard, Data Mover typically does the following:

- **IMPORT \***  
Create all the PeopleTools and application tables with their indexes.
- **ENCRYPT\_PASSWORD \***  
Encrypt security information for the database.
- **CREATE\_TRIGGER \***  
Create application required triggers.
- **REPLACE\_VIEW \***  
Create PeopleSoft views.
- **CREATE\_TEMP\_TABLE \***  
Create PeopleSoft temporary tables.

If Data Mover fails at any of the above steps, it will complete the rest of the step, but will not start the next step—instead the Wizard aborts and tells the user what file to review for the detailed error message. If Data Mover fails at step 1 or 2, it is fatal. If Data Mover fails at step 3 or 4, it is not necessarily fatal. You may continue the next step(s) manually.

**Note!** EPM Customers must restore the Informatica repository at this point. For the details, see the EPM installation documentation.

## Task 5A-3: Checking the Log Files and Troubleshooting

After the Database Configuration Wizard finishes executing, look for all log output in the <PS\_HOME>\LOG directory. Open all the log files. **None should contain error messages.**

**Note.** If the Database Configuration Wizard did not complete successfully, please see below for troubleshooting information.

### Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the Data Mover script generated automatically by the Database Configuration Wizard and restart Data Mover.

#### To edit and restart the DMS script

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

**Note.** When building a DMO database or a multilingual database, adding the 'SET START' statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the 'SET START' statement before the first 'IMPORT \*;' statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding 'IMPORT \*;' statements and add the 'SET START' statement before the 'IMPORT\*;' statement of the section in which the failure occurred. **This is very important.** If you see any 'unique index constraint' error messages in the 'Create Indexes' step (later in the chapter), your IMPORT script failed during a subsequent IMPORT but the 'SET START' statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement 'IMPORT \*;' to 'REPLACE\_DATA \*;'. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Invoke Data Mover outside of the Database Configuration Wizard by selecting **Start, Programs, PeopleTools 8.4 Installation, Data Mover** (or going to <PS\_HOME>\bin\client\winx86 and running psdmt.exe). The PeopleSoft Logon window appears.
3. Log on using the Access ID you specified when you created your Data Mover scripts with the Database Setup program. This will start Data Mover in *bootstrap mode*.
4. Browse to the directory where you created the script (the default is <PS\_HOME>\scripts). The \scripts directory will contain one or more DMS scripts that need to be run.

These scripts conform to the following naming convention:

XXXXYORA.dms

where

- XX is a two-character code representing either the PeopleSoft product line (for example, PF for Enterprise Performance Management or EP for Financials and Supply Chain Management).
  - YYY is either SYS or DMO.
5. Select **File, Open** and choose the appropriate DMS script from Data Mover.
  6. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

**Note.** It's a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

**Example:**

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
3000
```

First drop the partially inserted table (e.g., record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleTools 8.4, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

**Example:**

```
Before:
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
```

```

SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;

```

After:

```

REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;

```

For the DROP Statement, for records with a non leading PS rename, add PS\_ to the beginning of the rename; otherwise the table will not be found.

7. Re-start the script (**File, Run Script**).

## *Tips for Performance*

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover from the fastest workstation available.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.
- Copy the database file over to the workstation so Data Mover can access it locally instead of over the network.
- Run Data Mover on the database server with the .db or .dat file located locally.

If you're comfortable changing the options available for an Oracle instance, you might consider "tuning" the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Increase the shared\_pool.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the redo log files when you create the database.



- Use asynchronous read and write.
- Use multiple db\_writers.

## Task 5A-4: Update Database to Latest PeopleTools Release

Your PeopleSoft application database may be on a PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleTools versions for your database and your file server must match. The following steps ensure that your PeopleSoft database is in synch with the PeopleTools version that you are running.

Here is a list of applications for which this task must be run because the version of the database that was shipped is different than the version of PeopleTools that you are running.

Application Release	Application Database Version	Requires Update to 8.42?
Fin/SCM 8.4	8.40	Yes
Portal 8.4	8.40	Yes
CRM 8.4	8.40	Yes
Staffing Front Office 8.4	8.41	Yes
CRM 8.8	8.42	No
EPM 8.8	8.42	No
HRMS 8.8	8.42	No
ELM 8.8	8.42	No

**Note.** If you are installing a PeopleTools System Database or if your database is delivered on PeopleTools 8.42, you can skip this task since the delivered database already contains the updated PeopleTools objects.

### Update PeopleTools System Tables

**To update the PeopleTools system tables**

1. Run SQL scripts to update your PeopleTools system tables to the latest PeopleTools release (currently 8.42).

Using a query tool, such as Query SQL\*Plus, run the following SQL script(s) while in the PeopleSoft database.

If your application database is at 8.40 you need to run the REL841 and REL842 scripts. If your application database is at 8.41 you need to run the REL842 script. If your application database is already at 8.42, you do not need to run any scripts.

```
<PS_HOME>\SCRIPTS\REL841.SQL
<PS_HOME>\SCRIPTS\REL842.SQL
```

If you are installing a Unicode database, run these scripts:

<PS\_HOME>\SCRIPTS\REL841U.SQL

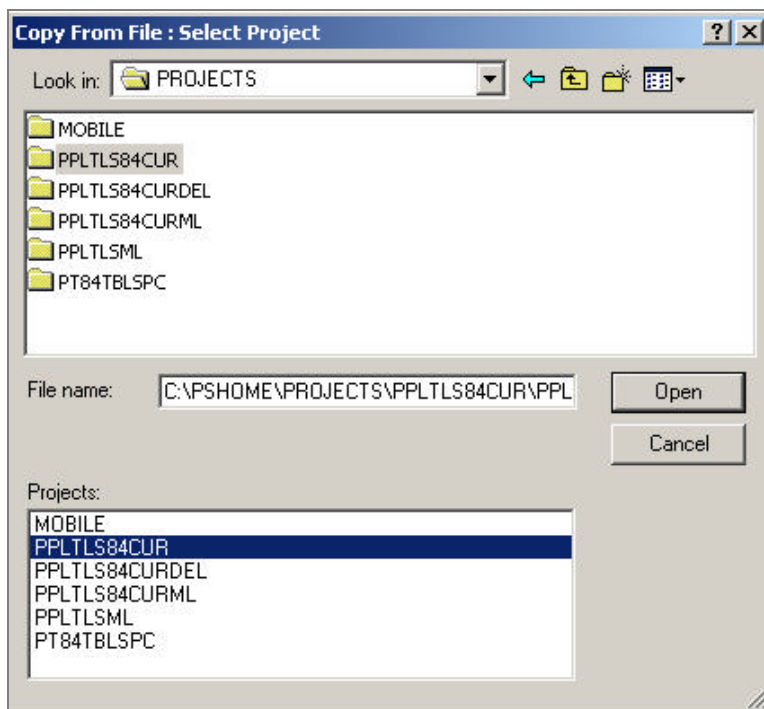
<PS\_HOME>\SCRIPTS\REL842U.SQL

## Update PeopleTools Database Objects

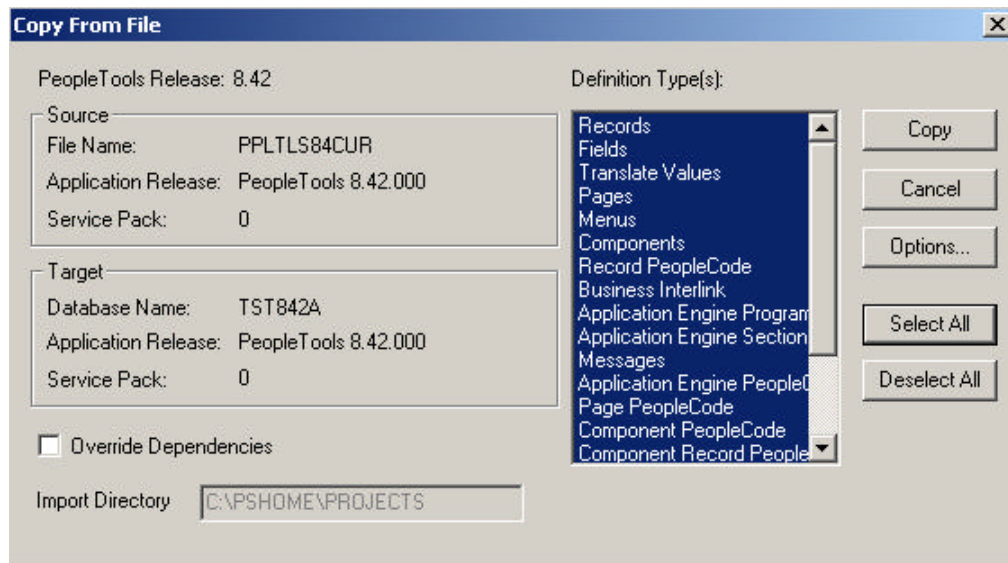
To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file. You must perform this step to bring the database objects in synch with the PeopleTools release. Failure to run this step will introduce problems to your environment.

### To update your PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CUR from the list of projects and click on the **Open** button.



4. You'll see the Copy dialog. Select all object types and then click on the **Copy** button. When the progress dialog disappears, the project has been copied.

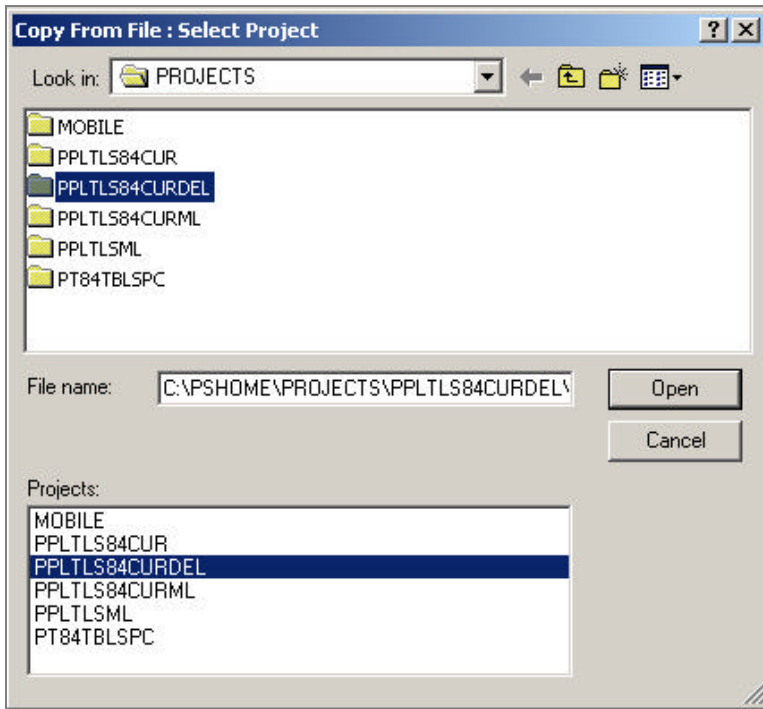


Don't worry if you see these types of messages in the output window; they are acceptable because the fieldlabel properties were copied with the field definition:

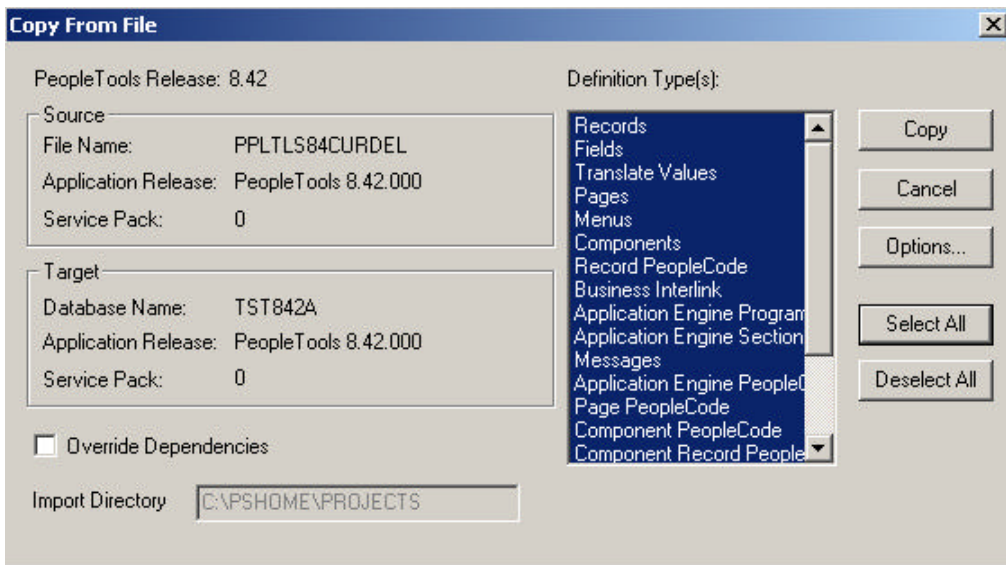
- Object Name: OPERPSWD OPERPSWD not copied, entire object already copied (62,32)
- Object Name: OPRID NEW not copied, entire object already copied (62,32)

### To delete obsolete PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CURDEL from the list of projects and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Copy** button. When the progress dialog disappears, the project has been copied.



**Note!** If you are applying a required for install patch **and if a DB project is included**, apply the DB project(s) now. Make sure to read the patch release notes to find out if DB changes are in the patch.

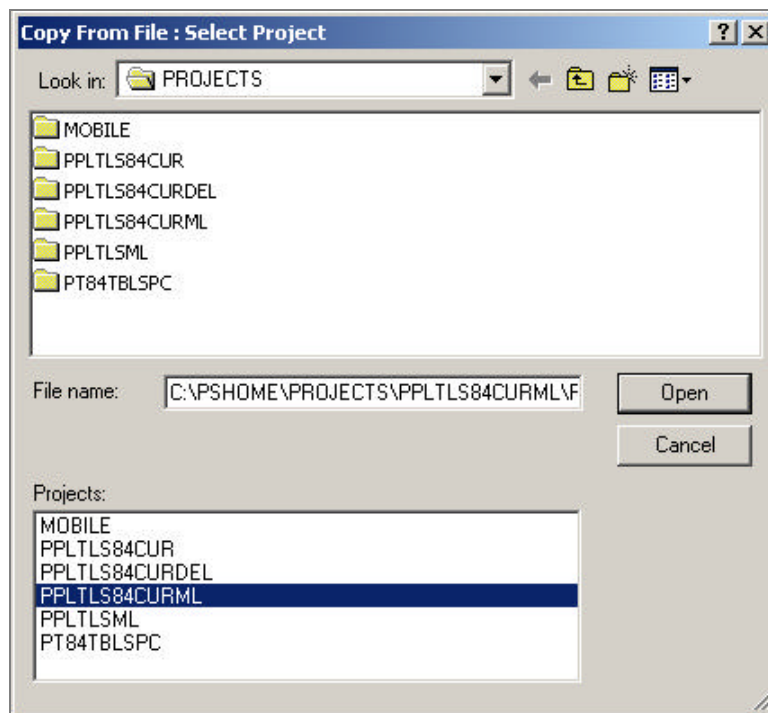
## Updating PeopleTools Multilingual Objects

If you are currently installing a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleTools Objects. You can follow the same instructions above for copying the translated objects into your database.

To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file.

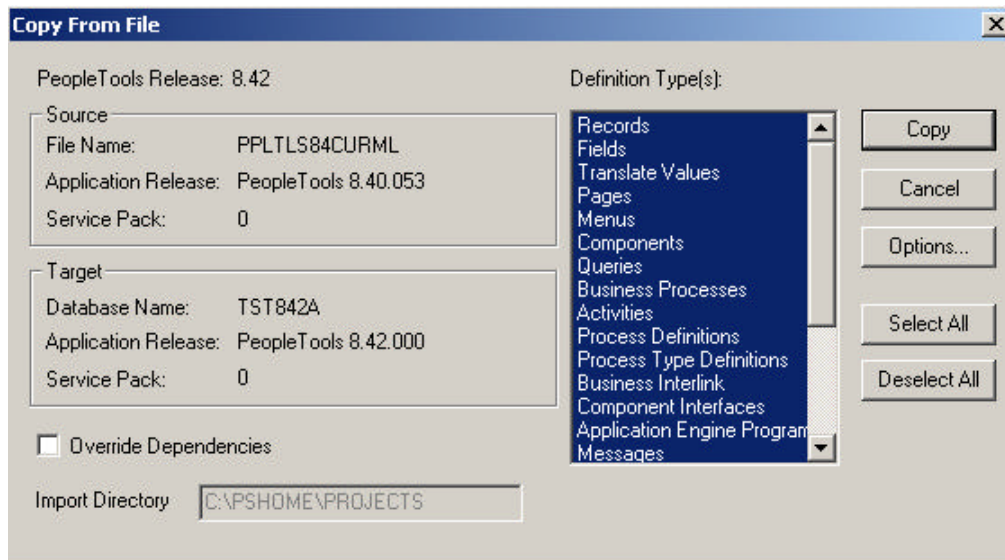
### To apply the translation project for PeopleTools 8.42

1. Bring up the Configuration Manager and click on the Display tab. In here, ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer.
3. Choose **Tools, Copy Project, From File**.
4. In the resulting dialog, change the import directory to <PS\_HOME>\projects.



5. Select PPLTLS84CURML from the list of projects and click on the **Open** button.
6. You'll see the Upgrade Copy dialog. Make sure that all object types are selected.
7. Click on the **Options** button, Select the **Copy Options** tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should *not be selected*.

8. Choose the languages that you are currently installing from the Copy Options dialog.
9. Click the **Copy** button.



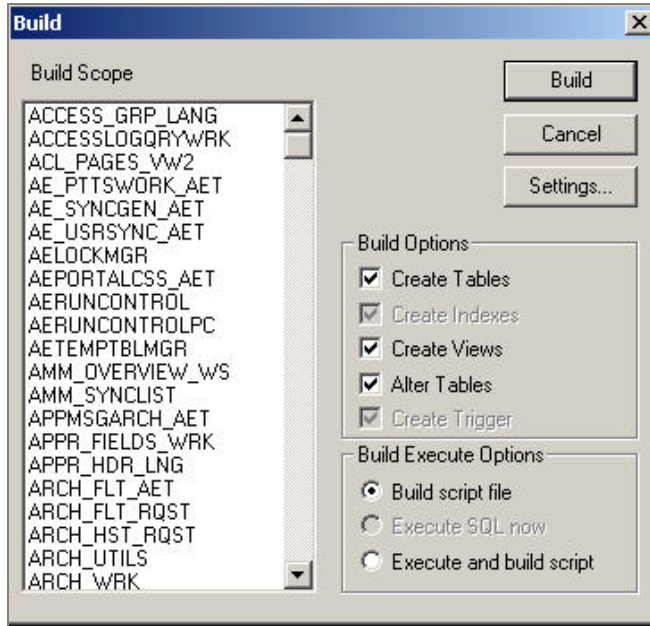
When the progress dialog disappears, the project has been copied.

## Alter Tools Tables

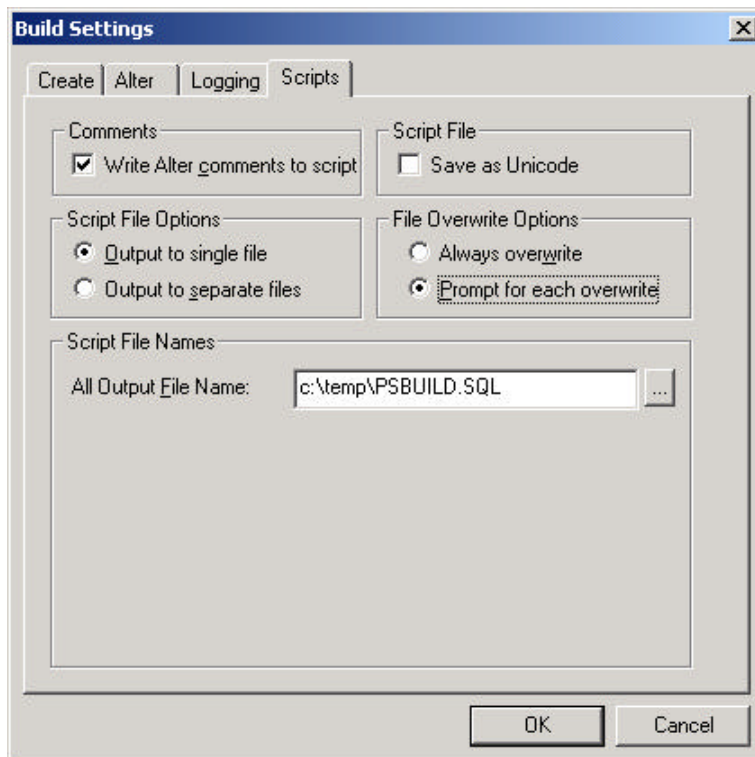
ALTER AUDIT is an online utility used to check whether the PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleTools tables to uncover inconsistencies. ALTER AUDIT then reports its findings. In this release, we expect to see differences between the database structure and the tools tables.

### To run Alter Tools tables

1. Launch PeopleTools and sign on to the Installed database.
2. From the Application Designer select **File, Open**.
3. Select **Project**, type PPLTLS84CUR in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears.

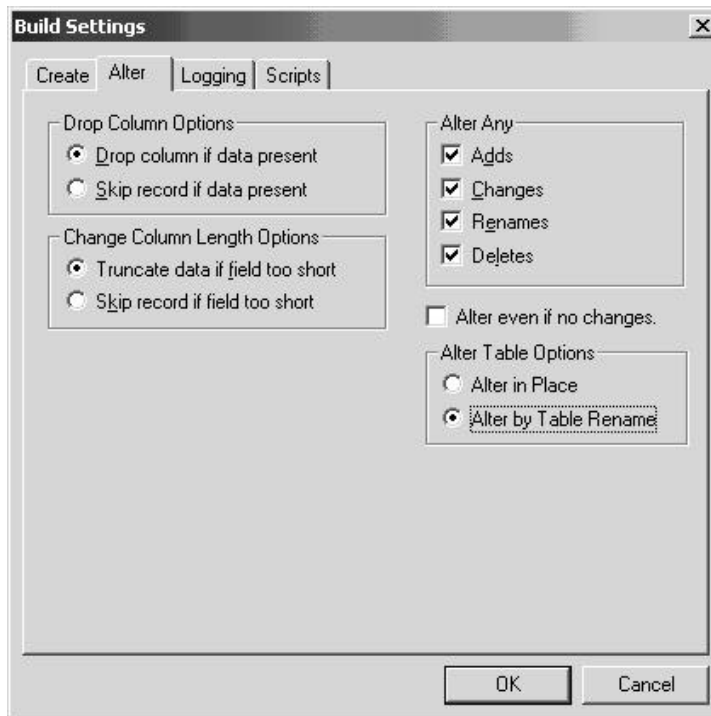


5. Select **Create Tables**, **Create Views**, and **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears.



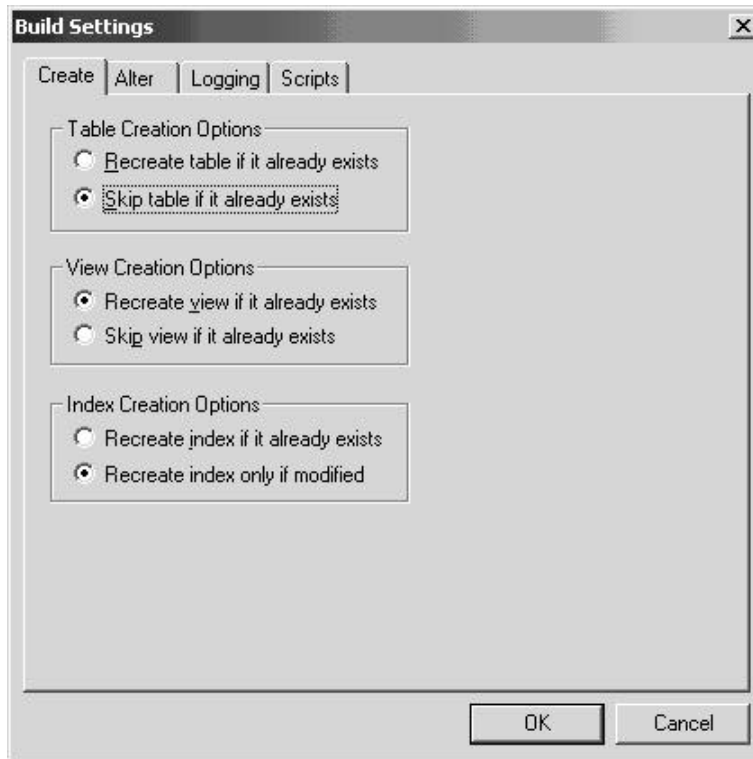
8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**.

Make sure the alter table options is set to **Alter by Table Rename**.



11. Click on the **Create** tab and ensure that the radio buttons **Skip table if it already exists**, **Recreate view if it already exists**, and **Recreate index only if modified** are selected.





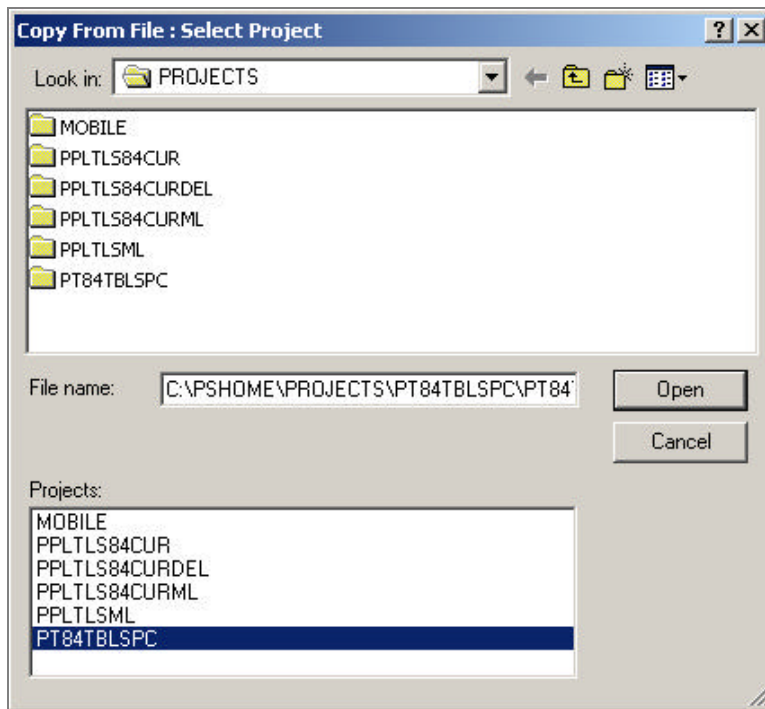
12. Click **OK**. The Build dialog box reappears.
13. Click **Build**.
14. Click **Close** when the process is completed.
15. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
16. Run the generated SQL script in your platform specific query tool to bring your database structure in synch with the PeopleTools tables.

### *Migrate Records to New Tablespaces*

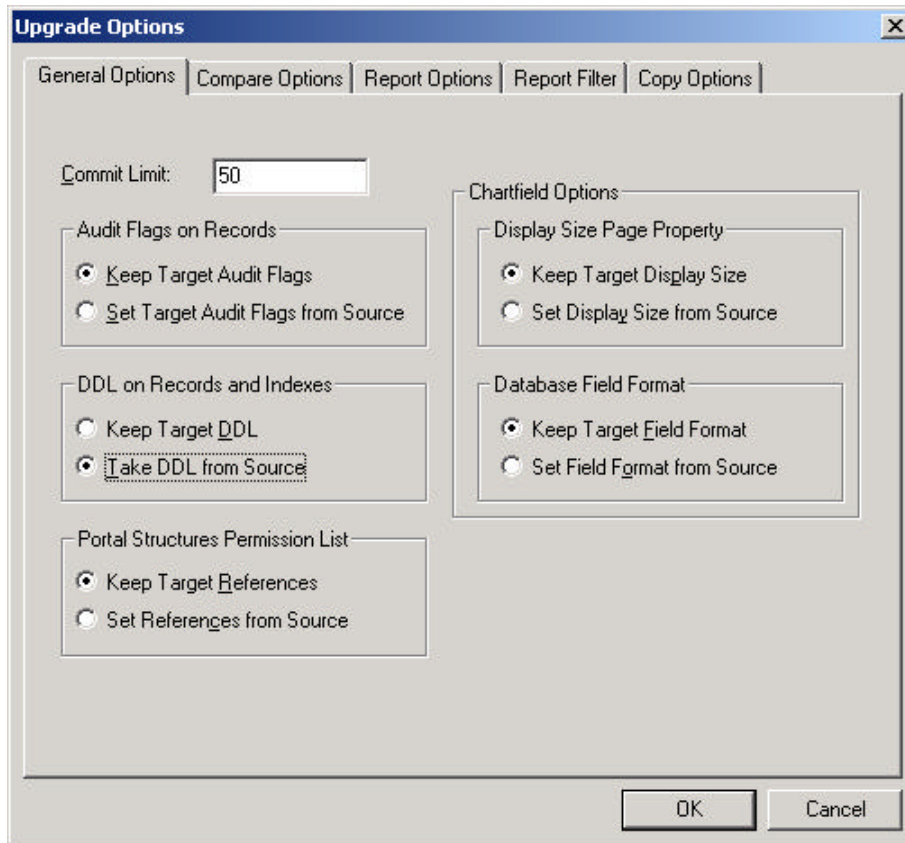
PeopleSoft has moved some delivered tables to different tablespaces in 8.42. You must run this step to move the tables.

#### **To copy Tablespace Record project**

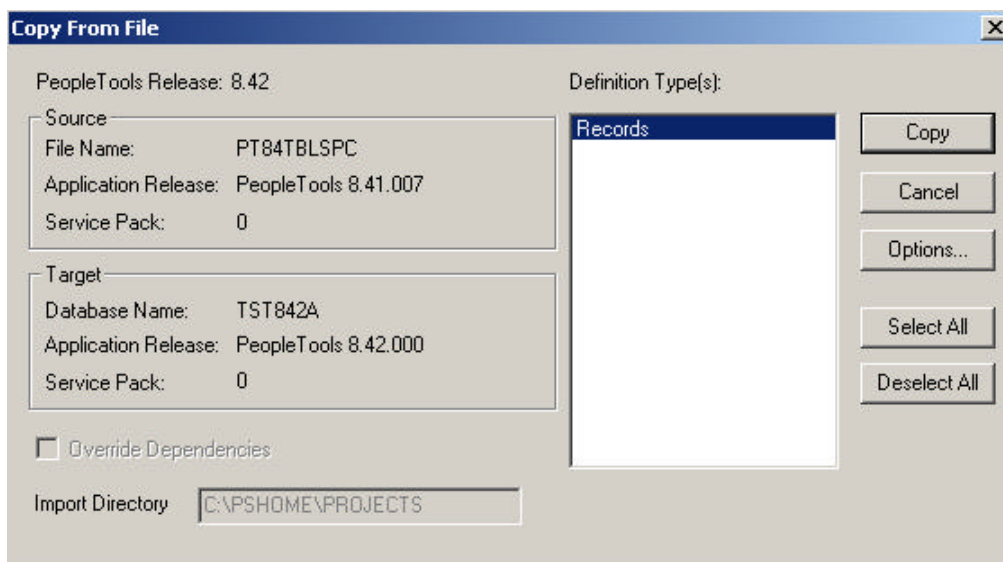
1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PT84TBLSPC from the list of projects, and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Options** button. Navigate to General Options and make sure that the **Take DDL from Source** radio button is set. Click **OK**.

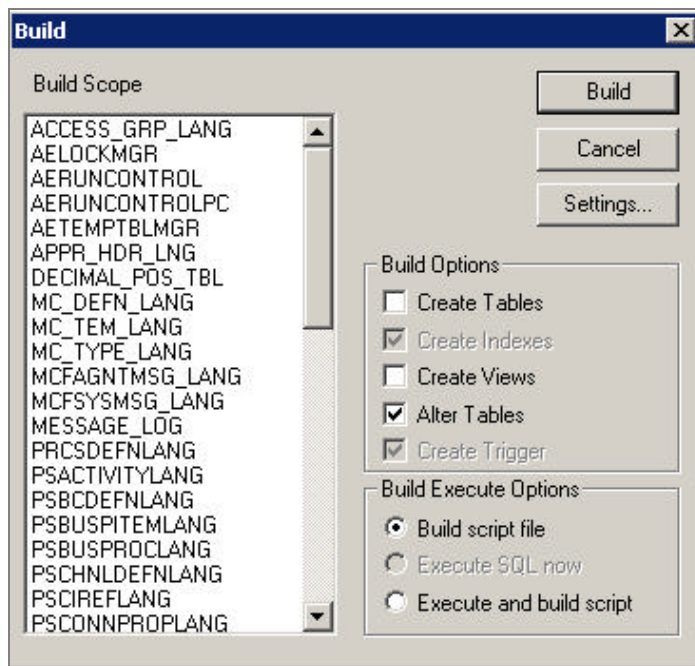


5. Click the **Copy** button. When the progress dialog disappears, the project has been copied.

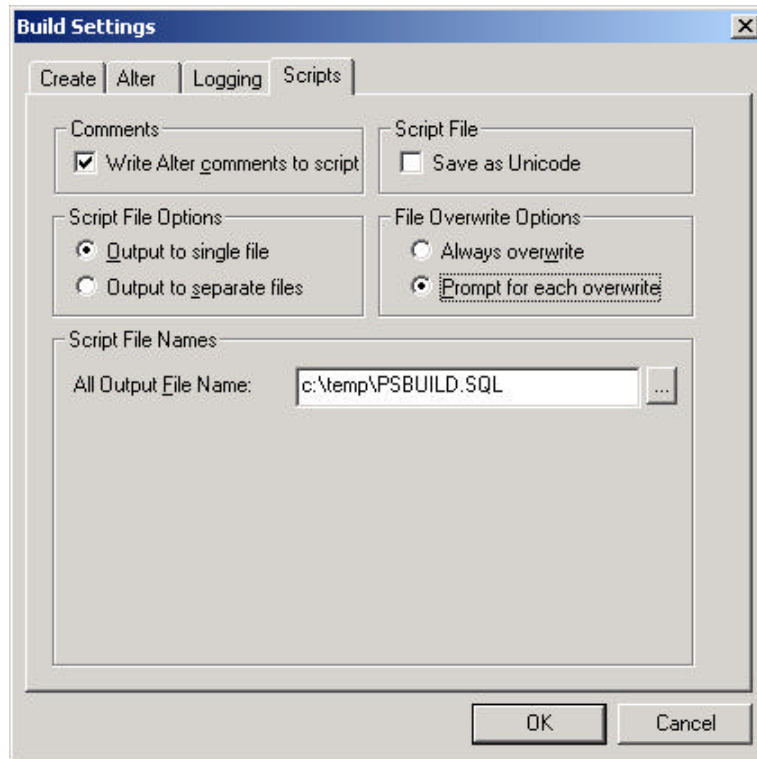


## To run Alter Tools tables

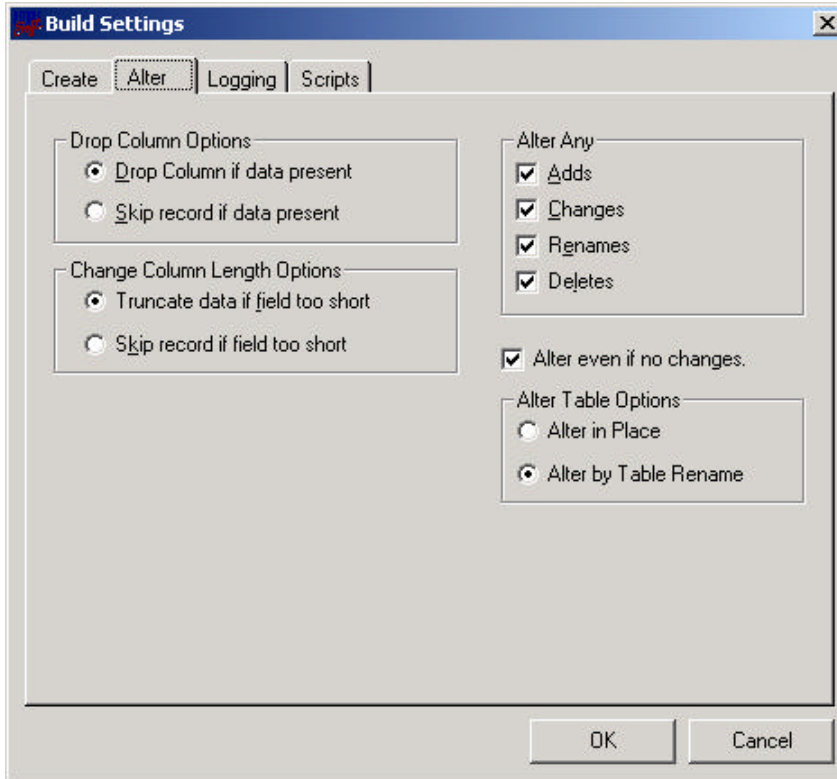
1. Launch PeopleTools and sign on to Installed databases.
2. From the Application Designer, select **File, Open**.
3. Select **Project**, type PT84TBLSPC in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears:



5. Select **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears.



8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**, and the **Alter even if no changes** check box has been checked. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**.



11. Click **OK**. The Build dialog box reappears.
12. Click **Build**.
13. Click **Close** when the process is completed.
14. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
15. Run the generated SQL script in your platform specific query tool move the tables to the correct tablespaces.

### *Update PeopleTools System Data*

Data Mover scripts that update PeopleTools system data are run to enable new features and load new messages for the PeopleTools 8.42 release.

#### **To update the PeopleTools system data**

1. Open Data Mover using bootstrap mode.
2. Run the PT841TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT841TLS.DMS script if your application database was already at the 8.41 release prior to starting this step. (See table above.)

3. Run the PT842TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT842TLS.DMS script if your application database was already at the 8.42 release prior to starting this step. (See table above.)

4. Run the PSLANGUAGES.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.
5. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
6. Run the MSGTLENG.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. If you are a multilingual customer you must also run the appropriate MSGTLxxx.DMS, where xxx is the language code, for the languages that you have loaded in your databases.
7. Run the STOREDDL.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. This will update your platform-specific DDL model statements.
8. Run the STOREPT.DMS Data Mover Script in the <PS\_HOME>\src\cbl\base directory. This will update your PeopleTools COBOL Stored statements.

## Task 5A-5: Run Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover (DMS) scripts. These DMS script files are located in the <PS\_HOME>\SCRIPTS directory of your file server, and need to be run from the file server via Windows Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

**Note.** If you have installed a language other than English, you should run the PT84xTLS.xxx.DMS script in user mode for all of your installed languages. (84x is the PeopleTools version number you are using, and xxx is the relevant language code, such as FRA for French; see the task “Plan Multilingual Strategy” in Chapter 1 for a list of language codes.) This script will import PTUSEROPTNLANG.DAT, PTWFTEMPLATE\_LANG.DAT, and PTSTRxxx.DAT which contain the records PSUSEROPTNLANG, PS\_WL\_TEMPLATE\_GLN / PS\_WL\_TEMPL\_GNTKLN, and PS\_STRINGS\_LNG\_TBL respectively.

**Note.** For detailed information about Data Mover, see the *PeopleSoft Administration Tools* PeopleBook.

In PeopleTools 8.42, a dat file ensures that the correct data will be loaded regardless of the base language of the database. The instructions to load this table are as follows.

### To load the correct data

1. Run Data Mover as a user (that is, **not in bootstrap mode**).

2. For each language that you have loaded, run PT84xTLSxxx.DMS, where xxx is the language code.

## Task 5A-6: Installing a Multilingual PeopleTools System Database

**Note!** This task *only* applies if you are installing a multilingual PeopleTools System database. If not, skip this task and go on to the next one.

If you are installing a PeopleTools System Database and you want it to be Multilingual you need to perform the following steps after the database has been loaded with Data Mover.

### To apply the multilingual database project that contains translations of the PeopleTools objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects.
4. Select PPLTLSML from the list of projects and click on the **Open** button.
5. In the Upgrade Copy dialog, make sure that all object types are selected.
6. Click on the **Options** button, select the Copy Options tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should *not be selected*.
7. Choose the languages that you are currently installing from the Copy Options dialog.
8. Click on the **Copy** button. (The Reset Done Flags check box will be checked; accept this default.)

### To run the PT84TLSML.DMS script using Data Mover to populate translated system data

1. Launch Data Mover.
2. Open the PT84TLSML.DMS script using **File, Open**.
3. Select **File, Run**.

## Task 5A-7: Run VERSION Application Engine Program

Run the VERSION Application Engine program on your database. (It's found in <PS\_HOME>\bin\client\win x86.) From the DOS command line, the syntax is:

```
psae -CD <dbname> -CT ORACLE -CO <opri d> -CP <pswd> -R INSTALL -AI VERSION
```

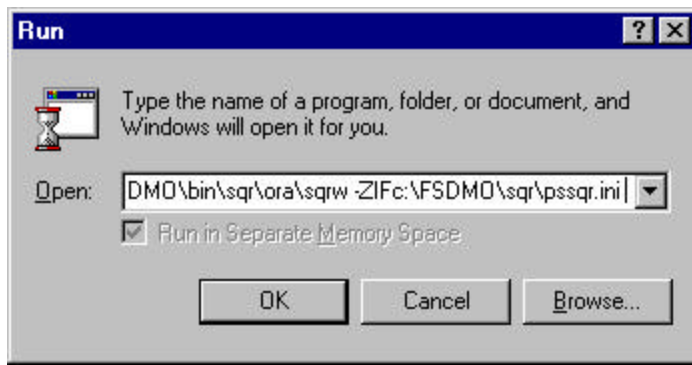


## Task 5A-8: Prepare to Run SQR

The following instructions describe how to run SQR reports from the client workstation. You can use these instructions to run SQRs required in the upcoming task “Check Database.”

### To run an SQR report on the client workstation

1. Choose **Start, Run**, click **Browse**, and navigate to <PS\_HOME>\bin\sqr\DBPlatform\binw. Select SQRW.EXE and click **Open**.
2. Add the -ZIF flag as an argument after the command line before clicking **OK**. The -ZIF flag should point to your <PS\_HOME>\sqr\pssqr.ini file.

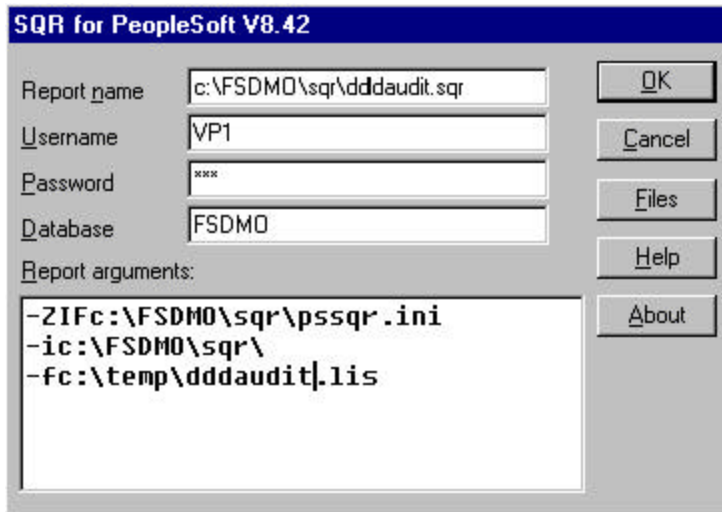


3. Click **OK**.
4. Add the remaining required SQR flags to the Report Arguments section in the SQR for PeopleSoft command window.

The following table summarizes the SQR report arguments used by PeopleSoft. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog.)

Flag	Description
-l	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent.
-ZIF	Sets the full path and name of the SQR initialization file. It should point to the PSSQR.ini file in the PeopleTools SQR directory.

After editing the dialog should look something like this:



5. Enter the following values:

- Enter the Report Name. You must specify the full path.
- Set Username to the Access ID.
- Set Password to the Access Password.
- Enter the Database name.

6. Click **OK** to run the SQR report.

**Note.** In the Properties dialog box for your SQR icon make sure that the Start in path points to your Oracle connectivity on the Shortcut tab. If you take the default, you may see a misleading error message about TNS packet writer failure.

### To save the report arguments

1. To save the report arguments so you don't have to enter them again each time you run SQR, right-click on the Windows **Start** button.
2. Choose **Open All Users** or **Explore All Users**.
3. Navigate to the SQR program group created when you installed SQR.
4. Right-click on the **SQR** icon and choose **Properties**.
5. Select the **Shortcut** tab.
6. In the **Target** field, append or edit the report arguments.

7. Click **OK**.

## Task 5A-9: Check Database

Run and examine two SQR reports to verify that your database is complete.

Use the instructions provided in the earlier task "Prepare to Run SQR."

### To verify that the database is complete

1. Run the following SQRs from the <PS\_HOME>\SQR directory:
  - DDDAUDIT.SQR

**Note.** You can greatly improve the performance and run time of SYSAUDIT.SQR run by making the following configuration changes:

In the Oracle init.ora for your SID:

```
db_file_multiblock_read_count = 16
db_block_buffers = 2000 or greater
log_checkpoint_interval = 9999999
log_buffer = 102400
```

Increase the size of the RBSBIG rollback segment to 500MB.

Alter all other rollback segments but RBSBIG offline.

- SYSAUDIT.SQR.

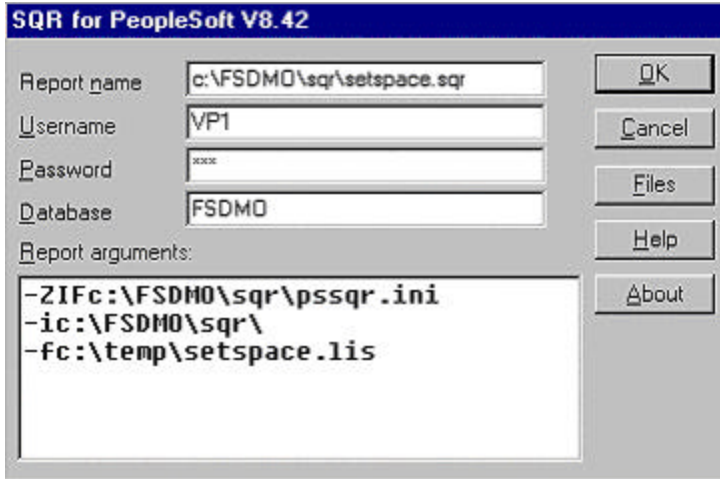
**Note.** If tables show up on the TABLE-3 section of DDDAUDIT and are contained within the PPLTLS84CURDEL project, you may safely drop these tables using your SQL query tool for your platform.

**Note.** For information on how to interpret these reports, see the *PeopleSoft Server Tools Administration* PeopleBook.

## Task 5A-10: Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog

### To run SETSPACE.SQR

1. Using the instructions provided in the earlier task "Prepare to Run SQR," run SETSPACE.SQR from the <PS\_HOME>\SQR directory.



2. Click **OK**.

You'll get the following prompt:

```
Replace tablespace with default tablespace if table not found in database catalogs
Y/(N)?: y
```

3. As SETSPACE.SQR runs you'll get a dialog similar to the following indicating progress.

Set Table Space Name in PSRECTBLSPC

```
Table PSRECTBLSPC column DDLSpaceName have been updated
with the tablespace found in the system catalog table.
The total number of records updated appears at the bottom of this report.
```

Rename	New DDLSpaceName	Old DDLSpaceName
-----	-----	-----

```
This phase of SETSPACE will sync up the PSRECTBLSPC and
PSTBLSPCCAT tables
```

```
PSRECTBLSPC Records Updated:      0
```

```
PSTBLSPCCAT Records Inserted:    0
```

```
Ending SQR.
```

## Task 5A-11: Initialize Online Rollback Segments

This task will initialize the smaller rollback segments geared towards online processing.

**To initialize online rollback segments**

1. Change directory to \$ORACLE\_HOME\database.
2. Edit the initialization parameter file, \$ORACLE\_HOME\database\init<SID>.ora. Add the following line:  
  
**ROLLBACK\_SEGMENTS = (r01, r02, r03, r04)**
3. Recycle the database by shutting it down and restarting it.



# CREATING A DATABASE ON UNIX

With PeopleTools 8.4, PeopleSoft introduces the Database Configuration Wizard, a tool designed to simplify your PeopleSoft database installation.

This chapter documents the PeopleSoft Database Configuration Wizard for Oracle/UNIX.

**Note.** You can still use the manual process for creating a PeopleSoft database instead of using the Database Configuration Wizard. See the appendix “Creating a Database Manually” for the details on how to manually create a PeopleSoft Database.

**Note!** Don’t forget that *application-specific installation steps are provided in a separate document specific to the application*. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, go to Customer Connection. Under the Site Index, find the Category “Installation Guides and Notes,” and then look under the subcategory for your particular application.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 5B-1	PeopleSoft Database Configuration Wizard Prerequisites
Task 5B-2	Running the Database Configuration Wizard
Task 5B-3	Checking the Log Files and Troubleshooting
Task 5B-4	Update Database to Latest PeopleTools Release
Task 5B-5	Run Additional Data Mover Scripts
Task 5B-6	Installing a Multilingual PeopleTools System Database
Task 5B-7	Run VERSION Application Engine Program

Task 5B-8	Prepare to Run SQR
Task 5B-9	Check Database
Task 5B-10	Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog
Task 5B-11	Initialize Online Rollback Segments

## Task 5B-1: PeopleSoft Database Configuration Wizard Prerequisites

### *Install the PeopleSoft Database Server Components on the Database Server*

*To run the PeopleSoft Database Configuration Wizard, you must have installed the PeopleSoft software on your database server by running the PeopleSoft Installer and chosen the Database Server option, as described in Chapter 3. In addition, you need to have installed your application CD to your database server before you can run the Database Configuration Wizard.*

Be sure the UNIX login ID executing the Database Configuration Wizard has sufficient read and write permissions on this server. Ideally the the UNIX login ID executing the Database Configuration Wizard is part of the same UNIX group that the Oracle owner is part of, usually the DBA group.

**Note.** Remember, you need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools development environment, refer to the chapter “PeopleSoft Configuration Manager” in the PeopleBook *PeopleSoft Administration Tools*.

**Note.** The Database Configuration Wizard must be run at the database server.

### *Install BEA Tuxedo Software*

The BEA Tuxedo software must be installed before you run the Database Configuration Wizard. The Database Configuration Wizard will invoke the PeopleSoft Data Mover utility. Data Mover on the UNIX platform has a dependency on the BEA Tuxedo software.

### *Install the Oracle RDBMS Software*

The Oracle RDBMS software must be installed before you run the Database Configuration Wizard. During the execution of the Wizard, references are made to an existing Oracle RDBMS installation:

\$ORACLE\_HOME and \$ORACLE\_HOME/bin

**Note.** PeopleSoft’s Database Configuration Wizard supports either Oracle8i or Oracle9i.

When installing the Oracle RDBMS, installation option(s) selection influences the resulting generated Oracle Shared Library. The PeopleSoft product calls the Oracle Shared library when making calls to the Oracle RDBMS.



**Note.** On UNIX, certain Oracle installation options are incompatible with the PeopleSoft product.

For **Oracle 8i** these are specifically: Advanced Security Options (ASO), the SPX/IPX protocol adapter, and the NIS naming adapter.

For **Oracle 9i** these are specifically: Advanced Security Options (ASO).

If you have these options installed, you need to uninstall them and rebuild the Oracle Shared Library. When installing the Oracle RDBMS on your database server, perform a “custom” install and do not select these unsupported options. If you have them installed, you will need to uninstall them and rebuild the Oracle Shared Library.

### Create an INIT<SID>.ORA File

You must create an init.ora with the naming convention of init<SID>.ora in the ORACLE\_HOME/dbs directory of your Oracle installation.

Please add or modify the following init.ora parameters:

```
DB_NAME = <SID>
DB_FILES = specify max allowed per your OS, typically 1021
CONTROL_FILES = (/filesystem1/cntrl1<SID>, /filesystem2/cntrl2<SID>)
OPEN_CURSORS = 255 <This is a minimum value. You may choose to set this higher>
db_block_size = 8192
```

**Note.** For installs on Oracle9i add the parameter UNDO\_MANAGEMENT to the init.ora file. Setting UNDO\_MANAGEMENT=MANUAL will allow the use of rollback segments for undo management.

**Note.** For UNIX the default DB\_BLOCK\_SIZE in the int.ora file is operating system dependent. On most operating systems the default is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases (for example, CHARACTER\_SET UTF8), A DB\_BLOCK\_SIZE value of 8K is required.

**Note.** See the document “Operating System, RDBMS & Third Party Product Patches Required for Installation” on Customer Connection for more parameters that may be required for the INIT<SID>.ora file. From Customer Connection, choose **Patches + Fixes, Supported Platforms**. Then from the Platforms Database, choose **Platform Communications by Topic, Platforms**.

The Database Configuration Wizard will prompt you for a SID name. This init<SID>.ora will be referenced in the CREATEDB.SQL script, which is executed by the Database Configuration Wizard.

**Note.** The init<SID>.ora will reference 'target' directories to write control files, log files, and system file(s), as well as target locations for Oracle Logs, User Trace Files, and so on. These 'target' directory paths must exist or the Database Configuration Wizard will fail. See the following section for details.

## Create Target Directory Paths

As mentioned, you must create the directory path structure for the target directories referenced in the scripts executed by the Database Configuration Wizard. The Database Configuration Wizard will not create directories on the fly; it expects the directories to exist.

The <SID> variable for which the Database Configuration Wizard prompts you is automatically prepended to the directory path structure referenced in the various database creation scripts executed by the Database Configuration Wizard.

**Note.** If you wish to use something other than the delivered directory paths, you need to modify the CREATEDB.SQL, UTLSPACE.SQL, and xxDDL.SQL scripts in the <PS\_HOME>/scripts directory, replacing the delivered paths with paths appropriate for your site installation.

You are also asked for several mount points. On UNIX you just specify the File System mount point. An example is data1. (Note that no preceding slash is required.)

### Examples:

The delivered CREATEDB.SQL script makes the following directory path structure references:

**Note.** Portions of the script have been omitted for clarity.

```
startup nomount pfile=$ORACLE_HOME/dbs/init<SID>.ora

datafile
  '/u01/oradata/<SID>/system01.dbf'      size 400M
logfile
  '/u01/oradata/<SID>/log01.dbf'        size 70M
  '/u01/oradata/<SID>/log02.dbf'        size 70M
  '/u01/oradata/<SID>/log03.dbf'        size 70M
```

The init<SID>.ora parameter file that is referenced in the CREATEDB.SQL script makes the following directory path structure references:

**Note.** Portions of the init<SID>.ora parameter file have been omitted for clarity. These paths are hardcoded by the user creating the init<SID>.ora parameter file. The Data Configuration Wizard will not make any substitutions for mount point, target directory path, or <SID> in the init<SID>.ora file.

### Control file references:

```
control_files = ('/u01/oradata/test817/control01.ctl', '/u01/oradata/test817/control02.ctl',
'/u01/oradata/test817/control03.ctl')
```

### Trace and Alert Log file references:

```
# define directories to store trace and alert files
```

```
background_dump_dest = /products/oracle/admin/test817/bdump
```

```
core_dump_dest = /products/oracle/admin/test817/cdump
```

```
user_dump_dest = /products/oracle/admin/test817/udump
```

The delivered UTLSPACE.SQL script makes the following directory path structure references:

**Note.** Portions of the script have been omitted for clarity.

```
create tablespace PSRBS datafile
      '/u02/oradata/<SID>/psrbs01.dbf' size 300M
default storage (
      initial          4M
      next             4M
      pctincrease      0
);
create tablespace PSTEMP datafile
      '/u03/oradata/<SID>/pstemp01.dbf' size 60M
default storage (
      initial          200k
      next             200k
      pctincrease      0
);
```

The delivered XXDDL.SQL script(s) make the following directory path structure references:

**Note.** This is a sample of the first several Create Tablespace SQL statements in the xxDDL.SQL script. The rest of the script has been omitted here for clarity.

```
CREATE TABLESPACE PSIMAGE DATAFILE '/u01/oradata/<SID>/psimage.dbf' SIZE 8M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
CREATE TABLESPACE PSINDEX DATAFILE '/u01/oradata/<SID>/psindex.dbf' SIZE 64M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
CREATE TABLESPACE PTAPP DATAFILE '/u01/oradata/<SID>/ptapp.dbf' SIZE 4M
DEFAULT STORAGE (INITIAL 64K NEXT 128K MAXEXTENTS 110 PCTINCREASE 0)
/
```

## Set Up Target Database Connectivity

You must add a TNS entry to \$ORACLE\_HOME/network/admin/tnsnames.ora, because during the Data Mover Load phase, the Database Configuration Wizard will try to connect to the newly created SID via a remote connection string—for example:

ACCESSID/ACCESSPWD@TNS\_ALIAS

Update the connection information in TNSNAMES.ORA on your server to reflect your Database Name, Oracle SID, and Server Name.

**Note.** Make sure you stop and start (or reload) the NET8i/NET9i listener.

### Run the Shell Script *psconfig.sh*

The shell script *psconfig.sh* sets up the environment for Data Mover to run. The PeopleSoft Data Mover utility is used to load the database.

#### To run *psconfig.sh*

1. Change directory to <PS\_HOME>.
2. Run *psconfig.sh* (. /*psconfig.sh*)

**Note.** The PeopleSoft UNIX userid executing the Database Configuration Wizard has to be part of the Oracle DBA group or the PeopleSoft UNIX Userid must grant the UNIX Oracle Administration ID write permission to the following directories: \$PS\_HOME/ (log, modifiedscripts, scripts ).

### Set the *ORACLE\_SID* Environment Variable

For Oracle on Tru64, you must set the \$ORACLE\_SID environment variable to the SID you are going to use/create before you run Database Configuration Wizard.

## Task 5B-2: Running the Database Configuration Wizard

**Note.** During UNIX console-mode installs, you can't "go back" while running the Wizard. Instead you need to start the process over again.

**Note.** Remember, for Oracle on Tru64, you must set the \$ORACLE\_SID environment variable to the SID you are going to use/create before you run the Database Configuration Wizard.

#### To run the Database Configuration Wizard

1. Go to <PS\_HOME>/setup/databaseinstall.
2. Launch the installation using the following command:

```
setup.xxx -is:javaconsole -console
```

where *xxx* is the operating system platform. See Chapter 3 for additional flags, or for details about running in GUI mode.

**Note.** PeopleSoft delivers OS native launchers designed to work with your specific OS. For details see Chapter 3: “Running the PeopleSoft Installer.”

3. You’ll see this initial screen:

**Welcome to the PeopleSoft Database Configuration Wizard This Wizard will assist you in configuring and loading a PeopleSoft database. To continue, click Next.**

**Please press Enter to Continue**

4. Press ENTER to continue.

5. Specify the location of <PS\_HOME>—the high level directory where the PeopleSoft Software is installed—and press ENTER.

**"Choose the directory where you previously installed PeopleSoft" commonly known as PS\_HOME.**

**Please specify a directory name or press Enter [/opt] /ds1/certora/pt842**

**Please press Enter to Continue**

6. Press ENTER to continue

7. Select whether you want to create a Unicode or Non-Unicode database:

**For a database platform of Oracle, are you installing:**

**Database Create Type:**

1 - Uni code  
 2 - Non- Uni code

**To select a choice enter its number, or 0 when you are finished [0]: 0**

**Please press Enter to Continue**

8. Select the desired character set and press ENTER.

This Character Set selection is substituted and used in the CREATEDB.SQL script.

**Oracle - NON- UNICODE**

**Select Character Set:**

1 - Western European ISO 8859-1

- 2 - Western European ISO 8859-15 (with Euro sign)
- 3 - Microsoft Windows Latin-1 CP1252
- 4 - US 7-bit ASCII
- 5 - Japanese Shift-JIS

To select a choice enter its number, or 0 when you are finished [0]: 0

9. The Database Configuration Wizard detects what database files are available for loading. Select the appropriate PeopleSoft database type to load and press ENTER to continue. You will only see the database types that are valid based on the PeopleSoft Application Modules that you have installed.

**Database Create Type:**

- 1 - Demo
- 2 - System
- 3 - PeopleTools System

To select a choice enter its number, or 0 when you are finished [0]: 0

Please press Enter to Continue

**Note.** See the manual database creation appendix for further details about PeopleSoft database types.

10. Select the PeopleSoft application database you want to load, pressing ENTER when you are done. (The available selections will depend upon which application CDs you have installed.)

**Select PeopleSoft Application:**

- 1 - PeopleSoft Fin/SCM Database Objects - US English

To select a choice enter its number, or 0 when you are finished [0]: 0

Please press Enter to Continue

11. When prompted for the location of \$ORACLE\_HOME/bin and \$ORACLE\_HOME, modify the locations as necessary.

**Specify the directory path for 'sqlplus'**

Please specify a directory name or press Enter

[/products/oracle/8.1.7-32bit/bin] /products/oracle/8.1.7-32bit/bin

**Specify the location for ORACLE\_HOME**

Please specify a directory name or press Enter

[/products/oracle/8.1.7-32bit] /products/oracle/8.1.7-32bit

12. You'll see the following informational prompt:

**Location of modified scripts:**

`/ds1/certora/PT842/modifiedscripts`

**Please press Enter to Continue**

13. At this point, indicate your Oracle version. In addition, choose to either create an Oracle SID and load a PeopleSoft database, or use an existing Oracle SID to load the PeopleSoft database.

**Please select the Oracle version that you are building this database on?**

1 - Oracle 9i

2 - Oracle 8i

**To select a choice enter its number, or 0 when you are finished [0]: 1**

**Please press Enter to Continue**

**Do you want to create a new SID or use the existing one?**

1 - Use existing SID

2 - Create new SID

**To select a choice enter its number, or 0 when you are finished [0]: 1**

**Please press Enter to Continue**

14. The following dialog requests Oracle SID/server information. Whichever option you chose in the previous step, the following prompts will remain the same. The Database Configuration Wizard will use just the information it needs to complete the tasks necessary based on whether you chose to create a new SID or use an existing one.

**Please enter oracle server information**

**Oracle SID [PTSYS] test817**

**Database Name [PTSYS] PT842**

**Mount Point 1( for SYSTEM and REDO LOGS file in createdb.sql, ex: NT 'C', UNIX 'u01') [c] ds1**

**Mount Point 2 ( for PSRBS file in utlspace.sql, ex: NT 'C' , UNIX 'u01') [c] ds2**

**Mount Point 3 ( for PSTEMP file in utlspace.sql, ex: NT 'C' , UNIX 'u01') [c] ds1**

**Mount Point 4 ( for all files in xxddl.sql, ex: NT 'C' , UNIX 'u01') [c] ds2**

**Note.** No preceding slash is required.

Enable AutoExtend for Peoplesoft Tablespaces?

1 - Yes

2 - No

To select a choice enter its number, or 0 when you are finished [0]: 0

Please press Enter to Continue

15. Next you are asked for for additional Oracle server information.

Please enter oracle server information

Peoplesoft owner ID (ex: 'sysadm')

[sysadm] PT842

Peoplesoft owner password (ex: 'sysadm')

[] PT842

Peoplesoft connect ID

[people]

Peoplesoft connect password

[] people

Peoplesoft default tablespace (ex: 'PSTEMP')

[PSTEMP]

**Note.** **Oracle 8i:** The PSADMIN.SQL script is run by the Database Configuration Wizard for every PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSTEMP if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

**Oracle 9i:** The PSADMIN.SQL script is run by the Database Configuration Wizard for every PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

Oracle Internal password

[password] password

init.ora file complete path



Please specify a directory name or press Enter  
 [/ds29/products2/oracle/8.1.7/dbs/inittest817.ora] /products/oracle/8.1.7-  
 32bit/dbs/inittest817.ora

Please press Enter to Continue

**Note.** The path in the preceding prompt for init<SID>.ora must match the path of the init<SID>.ora file you created under the task “Database Configuration Wizard Prerequisites” earlier in this chapter.

16. Select the base language (the default is US English) and press ENTER.

Select Base Language:

[X] 1 - ENG - US English

To select a choice enter its number, or 0 when you are finished [0]: 0

Please press Enter to Continue

**Note.** The base languages available will depend on which languages you have installed. See Chapter 1, the task “Plan Multilingual Strategy” for a list of currently supported languages.

The Select base language selection is used to determine what primary base language the customer wants to run their PeopleSoft application on. If you choose a language other than English, the base language will be swapped during the database creation script. If you have not already done so, review the task “Plan Multilanguage Strategy” in Chapter 1, and determine whether you should change your base language. (That task includes a list of currently supported languages.)

This step applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. This step gives a performance boost to the language you designate as the base language, but would require more administrative overhead than leaving English as the base language does.

The steps for swapping your base language in are described in detail in the *PeopleTools Global Technology PeopleBook*, under “Global Configuration Considerations.”

17. You’ll see a confirmation dialog indicating the selected database configuration.

Peoplesoft Database Configuration will be installed in the following location:

/ds1/certora/pt842

with the following features:

PeopleToolsoraUnixFeature

Database Platform:

Oracle - Non-Unicode

Oracle SID: test817

**Application:****PeopleTools System Database - US English****Database Name:****PT842****Please press Enter to Continue**

18. Press ENTER. You'll see a number of messages indicating the progress of the processes being run under the covers.

**Installing Peoplesoft Database Configuration... Please wait.****The ORACLE\_SID Environment Variable has been updated to 'test817'****Up to this point the message(s) indicating progress will be identical.****Beyond this point they will differ based on which option you chose above, Create a New Sid or Use an Existing SID.**

**Note.** It's always a good idea to let the installation run through even if you encounter a problem. If for any reason you manually abort the installation, you will need to delete the file vpd.properties in order for the Database Configuration Wizard to successfully update SID when you run the Wizard again. The file vpd.properties is located under your home directory.

19. If you chose to use an existing SID, you'll see Database Configuration Wizard messages like this:

**Note.** The messages are displayed on the console to indicate realtime progress of the Database Configuration Wizard. All messages are also written to log files contained in the <PS\_HOME>/log directory.

**Installing Peoplesoft Database Configuration... Please wait.****The ORACLE\_SID Environment Variable has been updated to 'test817'**

**Note.** You'll see a message for every SQL script the Wizard executes, regardless of which option you've chosen.

**Executing psadmin.sql for oracle(UNIX)...****Executing connect.sql for oracle(UNIX).....**

**Note.** At this step, DBSetup is invoked via Data Mover to generate the 'input' Data Mover script. This script can be found in the <PS\_HOME>/scripts directory.

**Initializing Data Mover ... please wait****PeopleTools 8.42 - Data Mover****Copyright (c) 2002 PeopleSoft, Inc.****All Rights Reserved**

**Started:** Thu Jan 3 19:39:02 2002  
**Data Mover Release:** 8.42  
**Database:** PT842  
**Creating Database setup script** /PT842/scripts/PT842.dms  
**Ended:** Thu Jan 3 19:39:02 2002  
**Successful completion**

Initializing Data Mover ... please wait

**Note.** At this step, Data Mover is invoked to execute the 'input' Data Mover script.

**PeopleTools 8.42 - Data Mover**  
**Copyright (c) 2002 PeopleSoft, Inc.**  
**All Rights Reserved**  
**Started:** Thu Jan 3 19:39:40 2002  
**Data Mover Release:** 8.42  
**Database:** PT842  
**Importing ACCESS\_GRP\_LANG**  
**Creating Table ACCESS\_GRP\_LANG**  
**Import ACCESS\_GRP\_LANG 0**  
**Building required indexes for ACCESS\_GRP\_LANG**  
**Updating statistics for ACCESS\_GRP\_LANG**  
**Records remaining: 1098**  
**Importing ACCESS\_GRP\_TBL**  
**Creating Table ACCESS\_GRP\_TBL**  
**Import ACCESS\_GRP\_TBL 47**  
**Building required indexes for ACCESS\_GRP\_TBL**  
**Updating statistics for ACCESS\_GRP\_TBL**  
**Records remaining: 1097**

**Note.** A portion of the messages generated at this step have been omitted for clarity

**Importing XMLSERVICEINFO**  
**Creating Table XMLSERVICEINFO**  
**Import XMLSERVICEINFO 0**  
**Building required indexes for XMLSERVICEINFO**  
**Updating statistics for XMLSERVICEINFO**  
**Records remaining: 1**  
**Importing PSSTATUS**  
**Creating Table PSSTATUS**  
**Import PSSTATUS 1**  
**Building required indexes for PSSTATUS**  
**Updating statistics for PSSTATUS**  
**SQL Spaces: 0 Tables: 1099 Triggers: 0 Indexes: 1399 Views: 0**  
**SQL Successful - INSERT INTO PS.PSDBOWNER VALUES('PT842', 'PT842')**  
**SQL Successful - UPDATE PSSTATUS SET OWNERID = 'PT842'**

```

SQL Successful - UPDATE PSOPRDEFN SET SYMBOLICID = 'test817', OPERPSWD = OPRID,
ENCRYPTED = 0
SQL Successful - UPDATE PSACCESSPRFL SET ACCESSID = 'PT842', SYMBOLICID = 'test817',
ACCESSPSWD = 'PT842', VERSION = 0, ENCRYPTED = 0
SQL Successful - UPDATE PSOPTIONS SET LICENSE_CODE = 'fffffffffffffffffffffffffffff2',
LICENSE_GROUP = '06'
SQL Successful - GRANT SELECT ON PSSTATUS TO people
SQL Successful - GRANT SELECT ON PSOPRDEFN TO people
SQL Successful - GRANT SELECT ON PSACCESSPRFL TO people
SQL Successful - CREATE VIEW SYSKEYS (IXCREATOR, IXNAME, COLNAME, COLNO, COLSEQ,
ORDERING, FUNCTION) AS SELECT A.OWNERID, B.INDEX_
NAME, B.COLUMN_NAME, B.COLUMN_POSITION, B.COLUMN_POSITION, 'a', ' ' FROM PSSTATUS A,
USER_IND_COLUMNS B
SQL Successful - CREATE VIEW SYSINDEXES (TBCREATOR, NAME, TBNAME, CREATOR, UNIQUERULE,
COLCOUNT, IXTYPE, CLUSTERRULE, IXSIZE, PERC
ENTFREE) AS SELECT TABLE_OWNER, INDEX_NAME, TABLE_NAME, TABLE_OWNER,
SUBSTR(UNIQUENESS, 1, 1), 1, 'b', 'n', 1, PCT_FREE FROM USER_INDE
XES
Ended: Thu Jan 3 20:00:32 2002
Successful completion

```

**Note.** At this step, The Data Mover import is complete and additional Data Mover commands and scripts are being executed. The first of these commands is ENCRYPT PASSWORD\*.

```

Started: Thu Jan 3 20:00:32 2002
Data Mover Release: 8.42
Database: PT842
Password encrypted for APPENV
Password encrypted for PSADMIN
Password encrypted for PT8
Password encrypted for PTADMIN
Password encrypted for PTAE
Password encrypted for PTAPPMMSG
Password encrypted for PTDM
Password encrypted for PTEMPL
Password encrypted for PTEND
Password encrypted for PTGBL
Password encrypted for PTHVAP
Password encrypted for PTIDE
Password encrypted for PTOLAP
Password encrypted for PTOPT
Password encrypted for PTPORTAL
Password encrypted for PTRPRD
Password encrypted for PTQETST
Password encrypted for PTRPT
Password encrypted for PTSECADM
Password encrypted for PTSVR
Password encrypted for PTTTOOLS

```

Password encrypted for PTUPG  
 Password encrypted for PTWEB  
 Access Profiles successfully encrypted.  
 Ended: Thu Jan 3 20:00:35 2002  
 Successful completion

**Note.** At this step, Data Mover is executing the CREATE\_TRIGGER \* command.

Started: Thu Jan 3 20:00:35 2002  
 Data Mover Release: 8.42  
 Database: PT842  
 Creating Trigger for CURRENCY\_CD\_TBL  
 Records remaining: 2  
 Creating Trigger for PSMPTREF  
 Records remaining: 1  
 Creating Trigger for PSWORKLIST  
 SQL Triggers: 3  
 Ended: Thu Jan 3 20:00:41 2002  
 Successful completion

**Note.** At this step, Data Mover is executing the REPLACE\_VIEW command.

Started: Thu Jan 3 20:00:41 2002  
 Data Mover Release: 8.42  
 Database: PT842  
 View PRCSOUTTYPE\_VW  
 Views remaining: 666  
 View PRCSSRVROPSLANG  
 Views remaining: 665  
 View PRCSSRVROPSYS  
 Views remaining: 664

**Note.** A portion of the messages generated at this step have been omitted for clarity.

View PSTREEFLDDTLVW  
 Views remaining: 3  
 View PSTREEFLDNODVW  
 Views remaining: 2  
 View PSTREESTRICTDFVW  
 Views remaining: 1  
 View PSTREESTRICTNFVW  
 SQL Views: 667  
 Ended: Thu Jan 3 20:02:52 2002  
 Successful completion

**Note.** At this step, Data Mover is executing the CREATE\_TEMP\_TABLE \* command.

```

Started: Thu Jan 3 20:02:52 2002
Data Mover Release: 8.42
Database: PT842
Creating Table MENU_LANG_TMP
Building required indexes for MENU_LANG_TMP
SQL Tables: 1 Indexes: 1
Ended: Thu Jan 3 20:02:57 2002
Successful completion

```

**Note.** At this step, Data Mover is complete and the Database Configuration Wizard is checking the log file for errors.

Checking Data Mover log ... please wait

```

Checking ... /ds1/home/certora/PT842/log/ptengs.log      OK
Checking ... /ds1/home/certora/PT842/log/encrypt.log    OK
Checking ... /ds1/home/certora/PT842/log/triggers.log    OK
Checking ... /ds1/home/certora/PT842/log/views.log      OK
Checking ... /ds1/home/certora/PT842/log/temptbls.log   OK

```

**Note.** If the Wizard executed successfully, you'll get the message below.

The InstallShield Wizard has successfully installed Peoplesoft Database Configuration. Click Finish to exit the wizard.

Please press Enter to Exit

**Note.** If the Wizard detected an error, you'll get a message similar to the one below, depending on the error encountered:

Checking Data Mover log ... please wait

```

Checking ... ptengs.log      Error

```

Information

The installation failed to load PeopleSoft data with the following error: Error in ptengs.log Please look into the log file(s) located under log directory for details.

Click next to exit the installation.

Please press Enter to Exit

20. If you chose to create a new SID, you'll see Database Configuration Wizard messages like this:

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to 'prod817'
```

**Note.** You'll see a message for every SQL script the Wizard executes, regardless of which option you've chosen.

```
Executing Createdb.sql for Oracle(UNIX).....
Executing utlspace.sql for Oracle(UNIX).....
Executing rollback.sql for Oracle(UNIX).....
Executing ptddl.sql for Oracle(UNIX).....
Executing dbowner.sql for Oracle(UNIX).....
Executing psroles.sql for Oracle(UNIX).....
Executing psadmin.sql for Oracle(UNIX).....
Executing connect.sql for Oracle(UNIX).....
```

**Note.** At this step, DBSetup is invoked via Data Mover to generate the 'input' datamover script. This script can be found in the <PS\_HOME>/scripts directory.

```
Initializing Data Mover ... please wait
```

```
PeopleTools 8.42 - Data Mover
Copyright (c) 2002 PeopleSoft, Inc.
All Rights Reserved
Started: Fri Jan 4 06:24:55 2002
Data Mover Release: 8.42
Database: PT842
Creating Database setup script /ds1/home/certora/PT842/scripts/PT842ora.dms
Ended: Fri Jan 4 06:24:55 2002
Successful completion
```

**Note.** At this step, Data Mover is invoked to execute the 'input' datamover script.

```
Initializing Data Mover ... please wait
```

```
Started: Fri Jan 4 06:25:27 2002
Data Mover Release: 8.42
Database: PT842
```

```

Importing ACCESS_GRP_LANG
Creating Table ACCESS_GRP_LANG
Import ACCESS_GRP_LANG 0
Building required indexes for ACCESS_GRP_LANG
Updating statistics for ACCESS_GRP_LANG
Records remaining: 1098
Importing ACCESS_GRP_TBL

```

**Note.** A portion of the messages generated at this step have been omitted for clarity.

```

Records remaining: 2
Importing XMLSERVICEINFO
Creating Table XMLSERVICEINFO
Import XMLSERVICEINFO 0
Building required indexes for XMLSERVICEINFO
Updating statistics for XMLSERVICEINFO
Records remaining: 1
Importing PSSTATUS
Creating Table PSSTATUS
Import PSSTATUS 1
Building required indexes for PSSTATUS
Updating statistics for PSSTATUS
SQL Spaces: 0 Tables: 1099 Triggers: 0 Indexes: 1399 Views: 0
SQL Successful - INSERT INTO PS.PSDBOWNER VALUES('PT842', 'PT842')
SQL Successful - UPDATE PSSTATUS SET OWNERID = 'PT842'
SQL Successful - UPDATE PSOPRDEFN SET SYMBOLICID = 'prod817', OPERPSWD = OPRI0
SQL Successful - UPDATE PSACCESSPRFL SET ACCESSID = 'PT842', SYMBOLICID = 0
SQL Successful - UPDATE PSOPTIONS SET LICENSE_CODE = 'ffffffffffffffffffffffff'
SQL Successful - GRANT SELECT ON PSSTATUS TO people
SQL Successful - GRANT SELECT ON PSOPRDEFN TO people
SQL Successful - GRANT SELECT ON PSACCESSPRFL TO people
SQL Successful - CREATE VIEW SYSKEYS (IXCREATOR, IXNAME, COLNAME, COLNO, COLSB
SQL Successful - CREATE VIEW SYSINDEXES (TBCREATOR, NAME, TBNAME, CREATOR, UNS
Ended: Fri Jan 4 06:38:10 2002
Successful completion

```

**Note.** At this step, The Data Mover import is complete and additional Data Mover commands and scripts are being executed. The first of these commands is ENCRYPT PASSWORD\*.

```

Started: Fri Jan 4 06:38:11 2002
Data Mover Release: 8.42
Database: PT842
Password encrypted for APPENV
Password encrypted for PSADMIN
Password encrypted for PT8
Password encrypted for PTADMIN
Password encrypted for PTAE

```



Password encrypted for PTAPMSG  
 Password encrypted for PTDMO  
 Password encrypted for PTEMPL  
 Password encrypted for PTEND  
 Password encrypted for PTGBL  
 Password encrypted for PTHVAP  
 Password encrypted for PTIDE  
 Password encrypted for PTOLAP  
 Password encrypted for PTOPT  
 Password encrypted for PTPORTAL  
 Password encrypted for PTRPD  
 Password encrypted for PTQETST  
 Password encrypted for PTRPT  
 Password encrypted for PTSECADM  
 Password encrypted for PTSVR  
 Password encrypted for PTT0OLS  
 Password encrypted for PTUPG  
 Password encrypted for PTWEB  
 Access Profiles successfully encrypted.  
 Ended: Fri Jan 4 06:38:13 2002  
 Successful completion

**Note.** At this step, Data Mover is executing the CREATE\_TRIGGER \* command.

Started: Fri Jan 4 06:38:13 2002  
 Data Mover Release: 8.42  
 Database: PT842  
 Creating Trigger for CURRENCY\_CD\_TBL  
 Records remaining: 2  
 Creating Trigger for PSMPTPREF  
 Records remaining: 1  
 Creating Trigger for PSWORKLIST  
 SQL Triggers: 3  
 Ended: Fri Jan 4 06:38:18 2002  
 Successful completion

**Note.** At this step, Data Mover is executing the CREATE\_VIEWS \* command.

Started: Fri Jan 4 06:38:18 2002  
 Data Mover Release: 8.42  
 Database: PT842  
 View PRCSOUTTYPE\_VW  
 Views remaining: 666  
 View PRCSSRVROPSLANG  
 Views remaining: 665  
 View PRCSSRVROPSYS

**Note.** A portion of the messages generated at this step have been omitted for clarity.

```
Views remaining: 3
View PSTREEFLDNODVW
Views remaining: 2
View PSTREESTRICTDFVW
Views remaining: 1
View PSTREESTRICTNFVW
SQL Views: 667
Ended: Fri Jan 4 06:40:19 2002
Successful completion
```

**Note.** At this step, Data Mover is executing the CREATE\_TEMP\_TABLE \* command.

```
Started: Fri Jan 4 06:40:19 2002
Data Mover Release: 8.42
Database: PT842
Creating Table MENU_LANG_TMP
Building required indexes for MENU_LANG_TMP
SQL Tables: 1 Indexes: 1
Ended: Fri Jan 4 06:40:20 2002
Successful completion
```

**Note.** At this step, Data Mover is complete and the Wizard is checking the log file for errors.

Checking Data Mover log ... please wait

```
Checking ... /ds1/home/certora/PT842/log/ptengs.log      OK
Checking ... /ds1/home/certora/PT842/log/encrypt.log    OK
Checking ... /ds1/home/certora/PT842/log/triggers.log   OK
Checking ... /ds1/home/certora/PT842/log/views.log      OK
Checking ... /ds1/home/certora/PT842/log/temptbls.log  OK
```

21. If the Wizard executed successfully, you'll see the following message, and you can press ENTER to exit the Database Configuration Wizard.

The InstallShield Wizard has successfully installed Peoplesoft Database Configuration. Click Finish to exit the wizard.

Please press Enter to Exit

22. If the Wizard detected an error, you'll get a message similar to the one below, depending on the error encountered:

Checking Data Mover log ... please wait

Checking ... /ds1/home/certora/pt842/log/ptengs.log Error

### Information

The installation failed to load PeopleSoft data with the following error: Error in /ds1/home/certora/pt842/log/ptengs.log Please look into the log file(s) located under log directory for details.

Execute a Unix tail command on the log will show you the last record you were processing when the error occurred.

### Example:

```
pt-sun20: $ tail ptengs.log
  Updating statistics for CURRCO_TBL_LANG
Records remaining: 982
Importing CURRENCY_CD_TBL
  Creating Table CURRENCY_CD_TBL
SQL Error. Error Position: 230 Return: 1722 - ORA-01722: invalid number
INSERT INTO PS_CURRENCY_CD_TBL (CURRENCY_CD, EFFDT, EFF_STATUS, DESCR, DESCRSH)
Error: SQL execute error for CURRENCY_CD_TBL
  SQL Spaces: 0 Tables: 118 Triggers: 0 Indexes: 122 Views: 0
Ended: Mon Jan 28 15:59:43 2002
Unsuccessful completion
```

When you run the Database Configuration Wizard, Data Mover typically does the following:

- **IMPORT \***  
Create all the PeopleTools and application tables with their indexes.
- **ENCRYPT\_PASSWORD \***  
Encrypt security information for the database.
- **CREATE\_TRIGGER \***  
Create application-required triggers.
- **REPLACE\_VIEW \***  
Create PeopleSoft views.
- **CREATE\_TEMP\_TABLE \***  
Create PeopleSoft temporary tables.

If Data Mover fails at any of the above steps, it will complete the rest of the steps but will not start the next step—instead the Wizard aborts and tells the user what file to review for the detailed error message. If Data Mover fails at step 1 or 2, it is fatal. If Data Mover fails at step 3 or 4, it is not necessarily fatal. You may continue the next step(s) manually

**Note!** EPM Customers must restore the Informatica repository at this point. For the details, see the EPM installation documentation.

## Task 5B-3: Checking the Log Files and Troubleshooting

After the Database Configuration Wizard finishes executing, look for all log output in the <PS\_HOME>\LOG directory. Open all the log files. **None should contain error messages.**

**Note.** If the Database Configuration Wizard did not complete successfully, please see below for troubleshooting information.

### Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the Data Mover script generated automatically by the Database Configuration Wizard and restart Data Mover.

The generated Data Mover import script is saved in the <PS\_HOME>/scripts directory. The script conforms to the following naming convention:

*dbname.xxx.dms*

where *dbname* is the name, in lowercase, of the database to be created, and xxx is a three-letter abbreviation for the of the database name—ora for Oracle, dbx for DB2 UNIX/NT, syb for Sybase, and inf for Informix.

#### To edit and restart the DMS script

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

**Note.** When building a DMO database or a multilingual database, adding the 'SET START' statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the 'SET START' statement before the first 'IMPORT \*;' statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding 'IMPORT \*;' statements and add the 'SET START' statement before the 'IMPORT\*;' statement of the section in which the failure occurred. **This is very important.** If you see any 'unique index constraint' error messages in the 'Create Indexes' step (later in the chapter), your IMPORT script failed during a subsequent IMPORT but the 'SET START' statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement 'IMPORT \*;' to 'REPLACE\_DATA \*;'. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

**Note.** It's a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

**Example:**

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
3000
```

First drop the partially inserted table (e.g., record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleTools 8.4, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

**Example:**

Before:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

After:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
```

```

SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;

```

For the DROP Statement, for records with a non leading PS rename, add PS\_ to the beginning of the rename; otherwise the table will not be found.

3. Re-start the script, executing Data Mover in command line mode:

```
CD to $PS_HOME/bin
```

4. Obtain Help for the command line version of Data Mover PSDMTX by executing the following command:

```

pt-sun20: $ psdmtx /help
Usage:  psdmtx  [-CT DB2|DB2ODBC|DB2UNIX|INFORMIX|MICROSFT|ORACLE|SYBASE]
          [-CS server name]
          [-CD database name]
          [-CO user id]
          [-CP user pswd]
          [-CI connect id]
          [-CW connect id pswd]
          [-I process instance]
          [-FP filename]
          or
          psdmtx [parmfile]

```

UNIX command line:

```
psdmtx <Command line arguments >
```

Use

To execute PSDMTX at the command line, the user needs to type 'psdmtx' plus the command line arguments as indicated below and/or pipe ( > ) the standard output to a file. If there is not pipe ( > ) to a file then the console will write display status information as in PSDMT output view. Command line arguments

- CT Database type The type of database to connect to. The valid values are:  
SQLBASE, ORACLE, INFORMIX, SYBASE, MICROSFT, DB2, DB2ODBC, DB2MDI, DB2400, DB2UNIX, APPSRV (Note the spelling of MICROSFT. The APPSRV allows you to start tools in 3-tier.)
- CS Server name The name of the database server for the database you're connecting to.  
(This setting is not required for the Oracle RDBMS)
- CD Database name The name of the database to connect to, as you would enter it into the PeopleSoft Login dialog
- CO Operator ID The PeopleSoft Operator ID to use to login.
- CP Password The password for the specified Operator ID.
- CI Connect ID The ID used to connect to the database server.

(This setting is not required for the Oracle RDBMS)

- CW Connect ID password The password for the specified Connect ID.
- FP DMS filename The name of the Data Mover script to run.

5. To set up Data Mover to rerun the Data Mover import script, do the following:

- CD to <PS\_HOME>/setup
- copy parmfile to parm<DBNAME>

Example: parmpt84x

- edit parm<DBNAME>

The file will look like the following:

```
- CT <DB type> - CD <DBNAME> - CO <ACCESSID> - CP <ACCESSPWD> - CI <CONN ID> - CW <CONN PSWD> -
FP <filename>
```

Change

- CT <DB type> to ORACLE
- CD <DBNAME> to your selected Database Name
- CO <ACCESSID> The <ACCESSID> and <ACCESSPWD> values need to be replaced with the DBNAME access Id and accessid PW
- CP <ACCESSPWD>
- CI <CONN ID> Replace with select connection id and connection pw
- CW <CONN PSWD>
- FP <filename> to the generated datamover import script created in step (n)

Example:

```
- CT ORACLE - CD PT842 - CO PT842 - CP PT842 - CI people - CW people - FP
SPS_HOME/scripts/pt842ora.dbs
```

6. To launch Data Mover to rerun the Data Mover import script, do the following:

- CD to <PS\_HOME>/bin
- Execute the file parmfile created earlier

```
pt- sun20: $ psdmtx ../setup/parmPT84x
```

7. At this point you'll be looking at Data Mover log messages Data Mover's progress.

## Tips for Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover from the fastest workstation available.
- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.
- Copy the database file over to the workstation so Data Mover can access it locally instead of over the network.
- Run Data Mover on the database server with the .db or .dat file located locally.

If you're comfortable changing the options available for an Oracle instance, you might consider "tuning" the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Increase the shared\_pool.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the redo log files when you create the database.
- Use asynchronous read and write.
- Use multiple db\_writers.

## Task 5B-4: Update Database to Latest PeopleTools Release

Your PeopleSoft application database may be on a PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleTools versions for your database and your file server must match. The following steps ensure that your PeopleSoft database is in synch with the PeopleTools version that you are running.

Here is a list of applications for which this task must be run because the version of the database that was shipped is different than the version of PeopleTools that you are running.

Application Release	Application Database Version	Requires Update to 8.42?
Fin/SCM 8.4	8.40	Yes
Portal 8.4	8.40	Yes
CRM 8.4	8.40	Yes



Staffing Front Office 8.4	8.41	Yes
CRM 8.8	8.42	No
EPM 8.8	8.42	No
HRMS 8.8	8.42	No
ELM 8.8	8.42	No

**Note.** If you are installing a PeopleTools System Database or if your database is delivered on PeopleTools 8.42, you can skip this task since the delivered database already contains the updated PeopleTools objects.

## Update PeopleTools System Tables

### To update the PeopleTools system tables

1. Run SQL scripts to update your PeopleTools system tables to the latest PeopleTools release (currently 8.42).

Using a query tool, such as Query SQL\*Plus, run the following SQL script(s) while in the PeopleSoft database.

If your application database is at 8.40 you need to run the REL841 and REL842 scripts. If your application database is at 8.41 you need to run the REL842 script. If your application database is already at 8.42, you do not need to run any scripts.

<PS\_HOME>\SCRIPTS\REL841.SQL

<PS\_HOME>\SCRIPTS\REL842.SQL

If you are installing a Unicode database, run these scripts:

<PS\_HOME>\SCRIPTS\REL841U.SQL

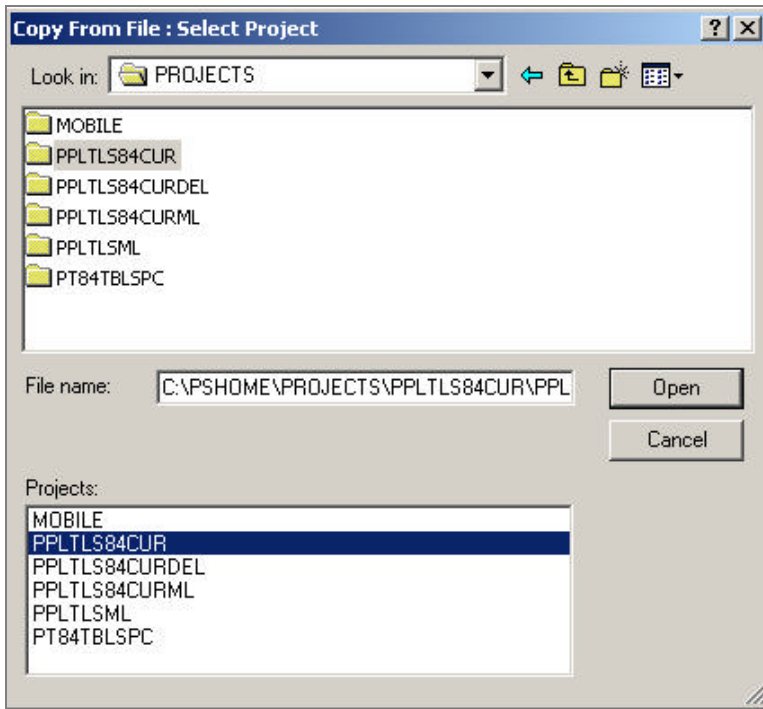
<PS\_HOME>\SCRIPTS\REL842U.SQL

## Update PeopleTools Database Objects

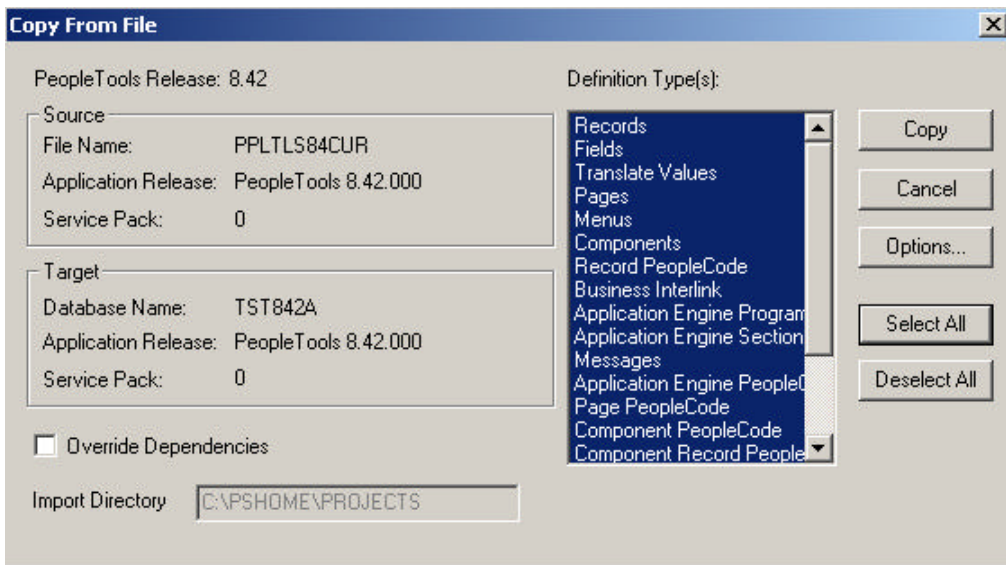
To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file. You must perform this step to bring the database objects in synch with the PeopleTools release. Failure to run this step will introduce problems to your environment.

### To update your PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CUR from the list of projects and click on the **Open** button.



4. You'll see the Copy dialog. Select all object types and then click on the **Copy** button. When the progress dialog disappears, the project has been copied.

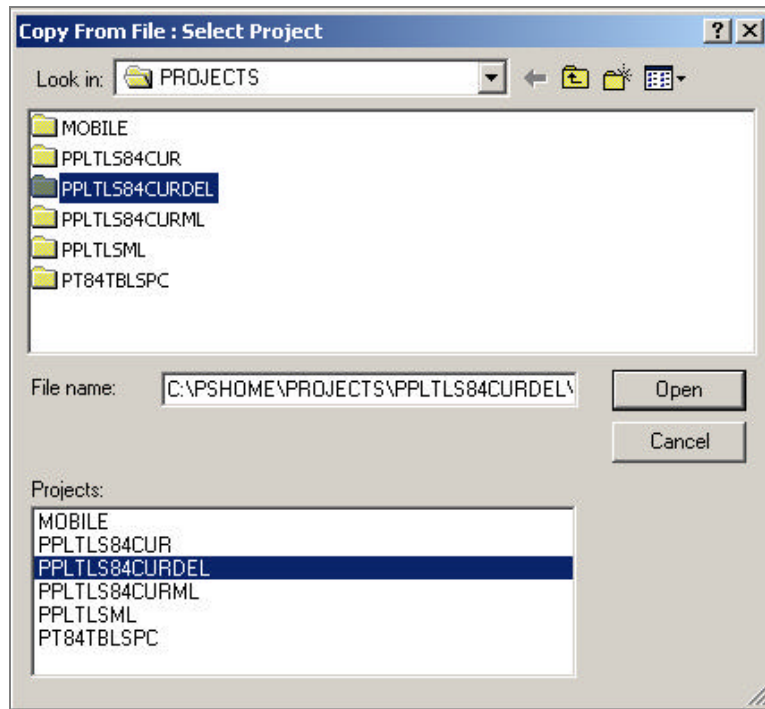


Don't worry if you see these types of messages in the output window; they are acceptable because the fieldlabel properties were copied with the field definition:

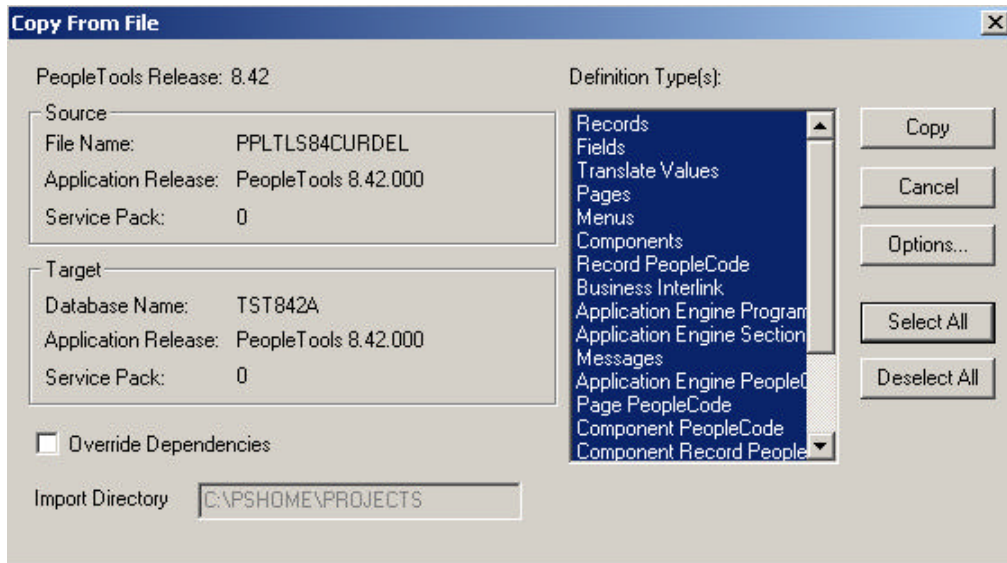
- Object Name: OPERPSWD OPERPSWD not copied, entire object already copied (62,32)
- Object Name: OPRID NEW not copied, entire object already copied (62,32)

## To delete obsolete PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CURDEL from the list of projects and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Copy** button. When the progress dialog disappears, the project has been copied.



**Note!** If you are applying a required for install patch **and if a DB project is included**, apply the DB project(s) now. Make sure to read the patch release notes to find out if DB changes are in the patch.

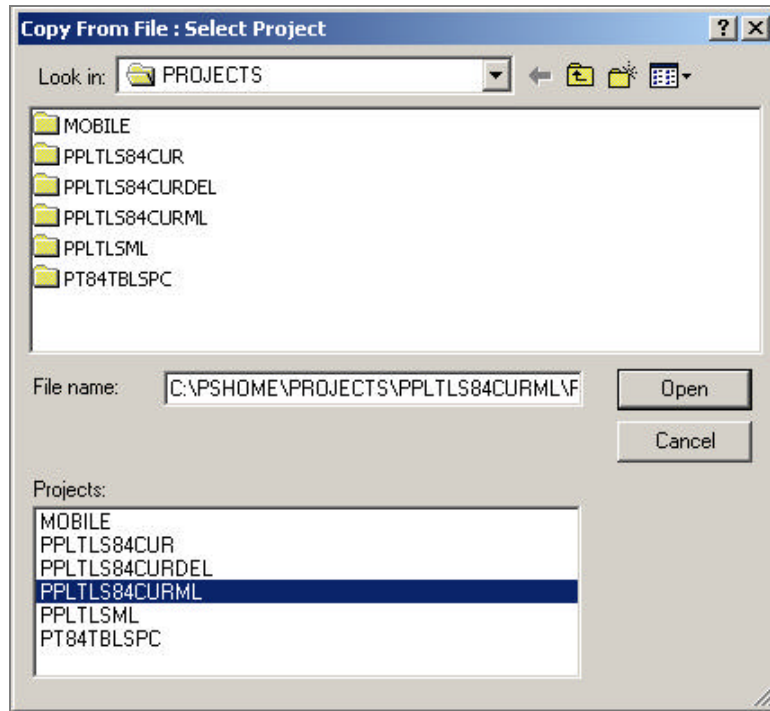
### Updating PeopleTools Multilingual Objects

If you are currently installing a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleTools Objects. You can follow the same instructions above for copying the translated objects into your database.

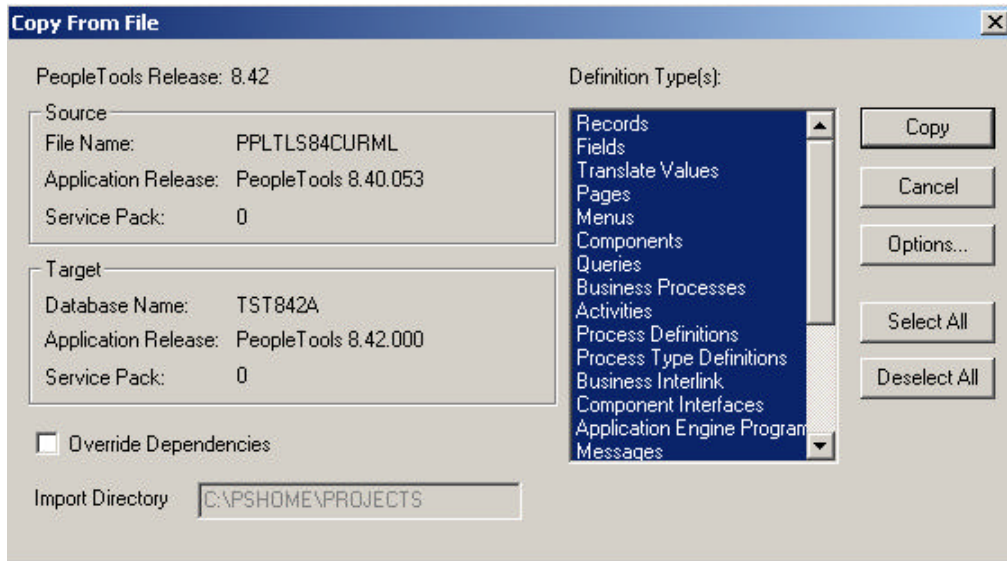
To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file.

#### To apply the translation project for PeopleTools 8.42

1. Bring up the Configuration Manager and click on the Display tab. In here, ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer.
3. Choose **Tools, Copy Project, From File**.
4. In the resulting dialog, change the import directory to <PS\_HOME>\projects.



5. Select PPLTLS84CURML from the list of projects and click on the **Open** button.
6. You'll see the Upgrade Copy dialog. Make sure that all object types are selected.
7. Click on the **Options** button, Select the **Copy Options** tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should *not be selected*.
8. Choose the languages that you are currently installing from the Copy Options dialog.
9. Click the **Copy** button.



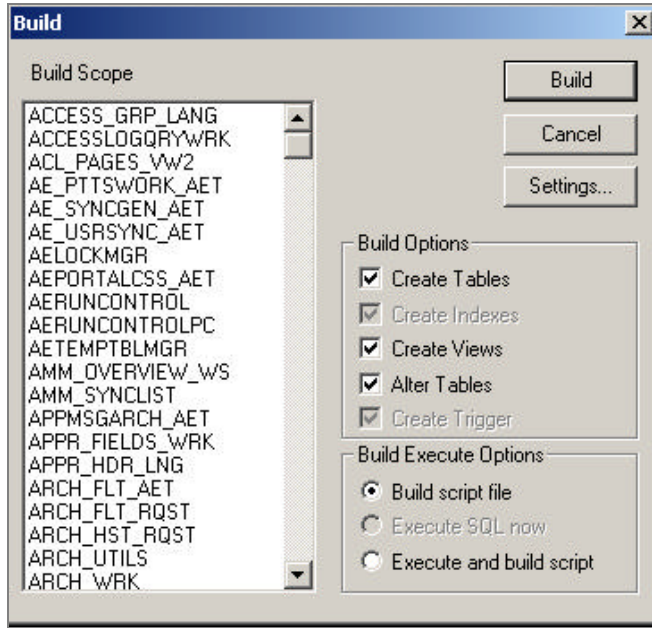
When the progress dialog disappears, the project has been copied.

## Alter Tools Tables

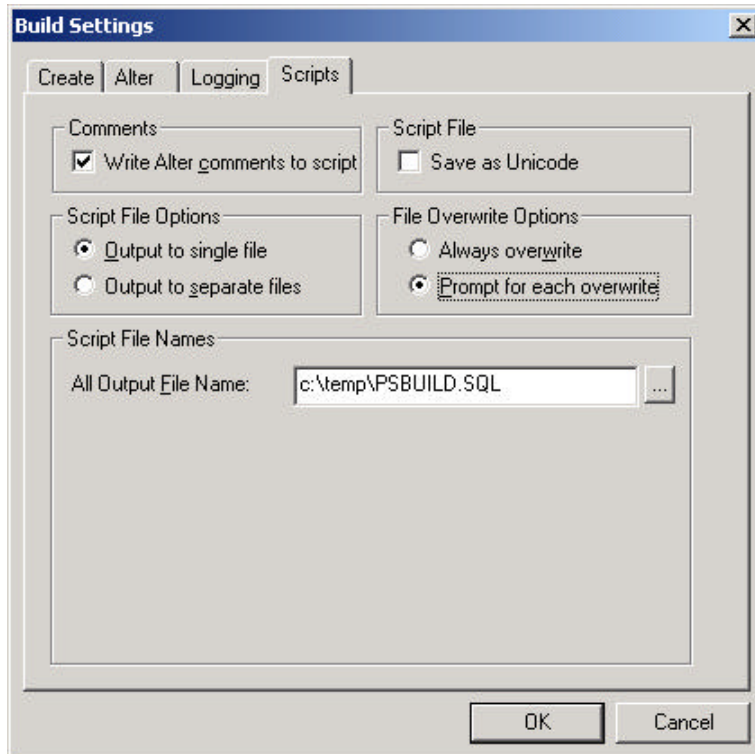
ALTER AUDIT is an online utility used to check whether the PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleTools tables to uncover inconsistencies. ALTER AUDIT then reports its findings. In this release, we expect to see differences between the database structure and the tools tables.

### To run Alter Tools tables

1. Launch PeopleTools and sign on to the Installed database.
2. From the Application Designer select **File, Open**.
3. Select **Project**, type PPLTLS84CUR in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears:



5. Select **Create Tables**, **Create Views**, and **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears:



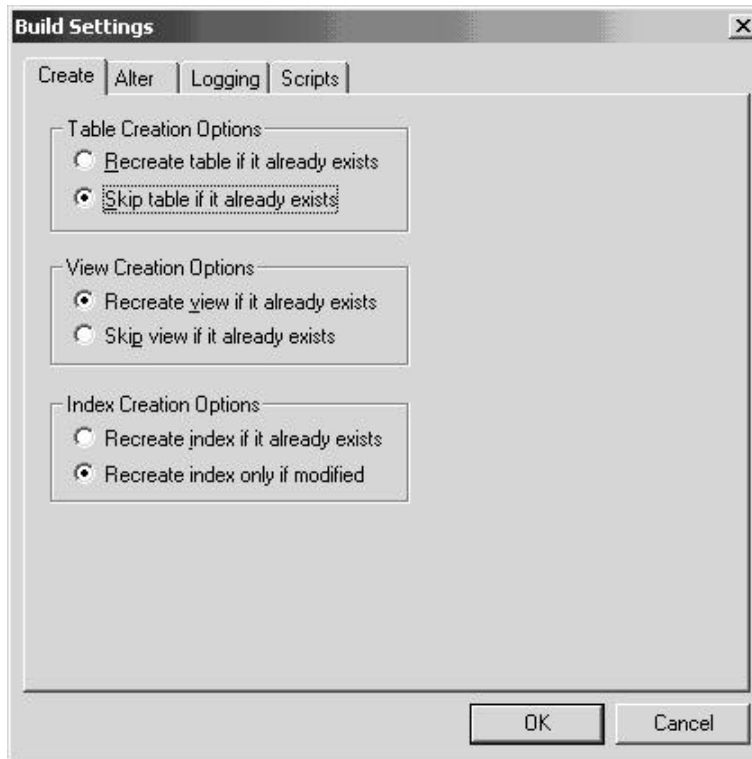
8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**.

Make sure the alter table options is set to **Alter by Table Rename**.



11. Click on the **Create** tab and ensure that the radio buttons **Skip table if it already exists**, **Recreate view if it already exists**, and **Recreate index only if modified** are selected.





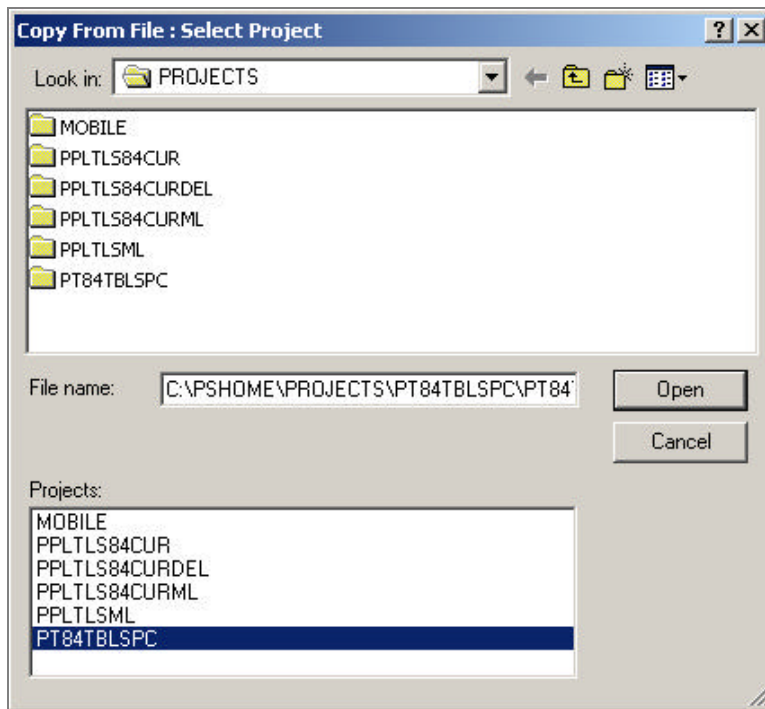
12. Click **OK**. The Build dialog box reappears.
13. Click **Build**.
14. Click **Close** when the process is completed.
15. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
16. Run the generated SQL script in your platform specific query tool to bring your database structure in synch with the PeopleTools tables.

### *Migrate Records to New Tablespaces*

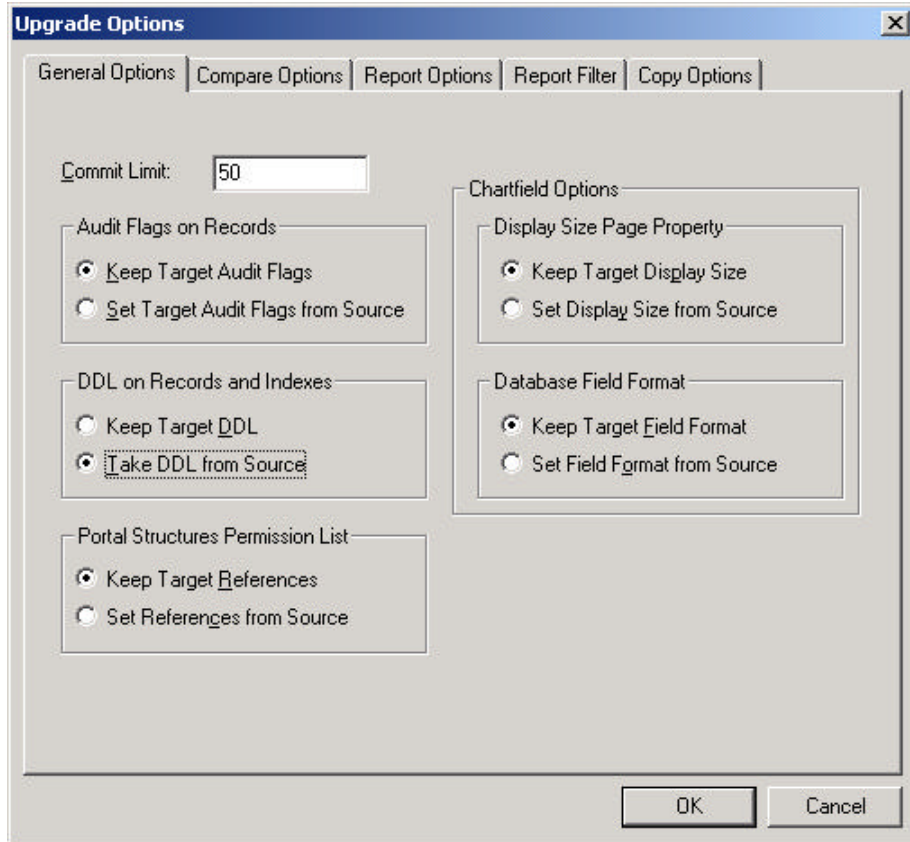
PeopleSoft has moved some delivered tables to different tablespaces in 8.42. You must run this step to move the tables.

#### **To copy Tablespace Record project**

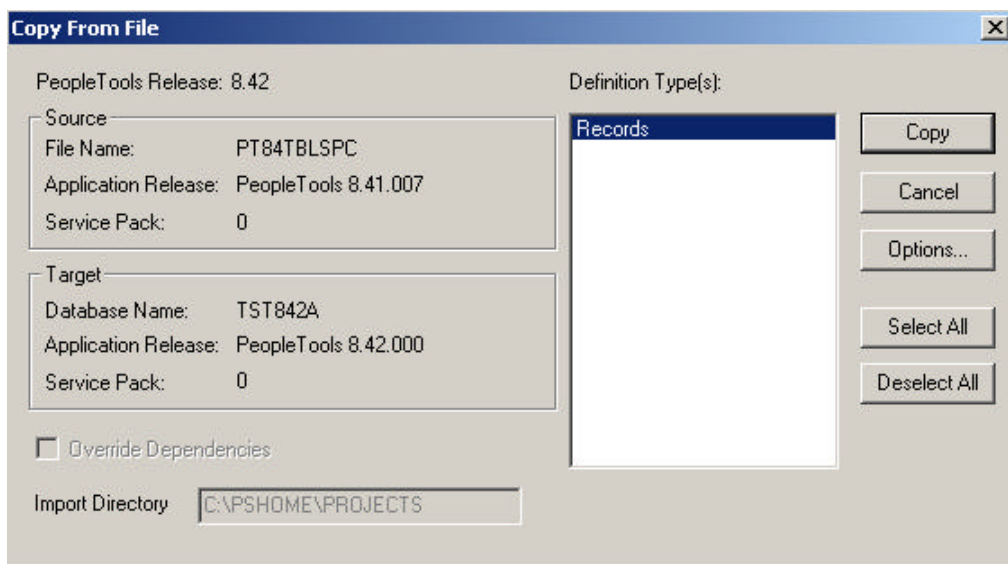
1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PT84TBLSPC from the list of projects, and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Options** button. Navigate to General Options and make sure that the **Take DDL from Source** radio button is set. Click **OK**.

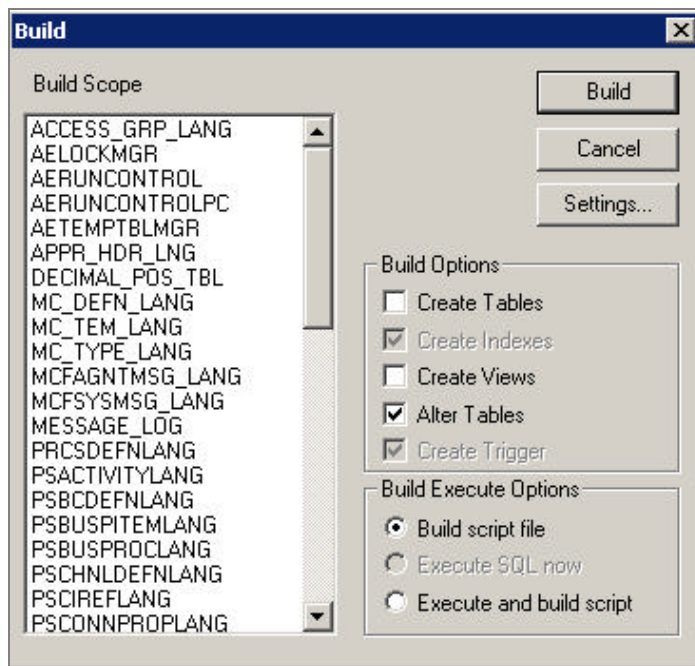


5. Click the **Copy** button. When the progress dialog disappears, the project has been copied.

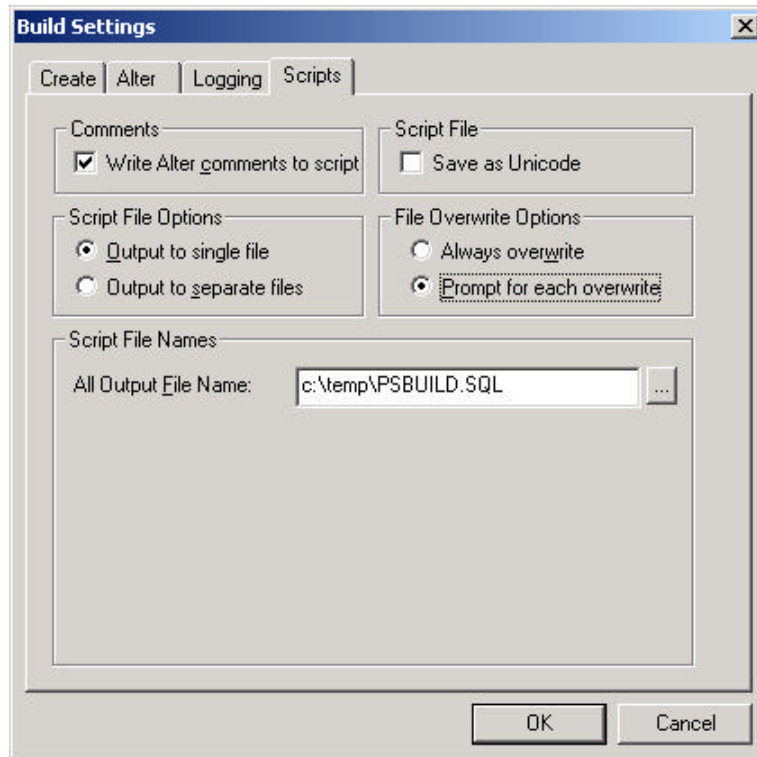


## To run Alter Tools tables

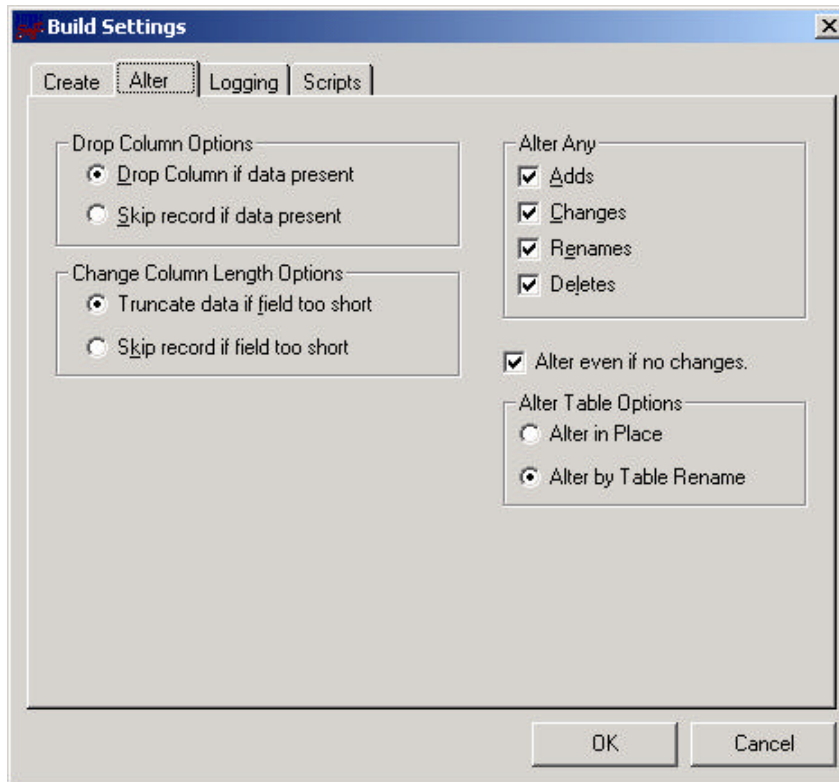
1. Launch PeopleTools and sign on to Installed database.
2. From the Application Designer, select **File, Open**.
3. Select **Project**, type PT84TBLSPC in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears:



5. Select **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears.



8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**, and the **Alter even if no changes** check box has been checked. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**.



11. Click **OK**. The Build dialog box reappears.
12. Click **Build**.
13. Click **Close** when the process is completed.
14. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
15. Run the generated SQL script in your platform specific query tool move the tables to the correct tablespaces.

### *Update PeopleTools System Data*

Data Mover scripts that update PeopleTools system data are run to enable new features and load new messages for the PeopleTools 8.42 release.

#### **To update the PeopleTools system data**

1. Open Data Mover using bootstrap mode.
2. Run the PT841TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT841TLS.DMS script if your application database was already at the 8.41 release prior to starting this step. (See table above.)

3. Run the PT842TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT842TLS.DMS script if your application database was already at the 8.42 release prior to starting this step. (See table above.)

4. Run the PSLANGUAGES.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.
5. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
6. Run the MSGTLENG.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. If you are a multilingual customer you must also run the appropriate MSGTLxxx.DMS, where xxx is the language code, for the languages that you have loaded in your databases.
7. Run the STOREDDL.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. This will update your platform-specific DDL model statements.
8. Run the STOREPT.DMS Data Mover Script in the <PS\_HOME>\src\cbl\base directory. This will update your PeopleTools COBOL Stored statements.

## Task 5B-5: Run Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover (DMS) scripts. These DMS script files are located in the <PS\_HOME>\SCRIPTS directory of your file server, and need to be run from the file server via Windows Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

**Note.** If you have installed a language other than English, you should run the PT84xTLS.xxx.DMS script in user mode for all of your installed languages. (84x is the PeopleTools version number you are using, and xxx is the relevant language code, such as FRA for French; see the task “Plan Multilingual Strategy” in Chapter 1 for a list of language codes.) This script will import PTUSEROPTNLANG.DAT, PTWFTEMPLATE\_LANG.DAT, and PTSTRxxx.DAT which contain the records PSUSEROPTNLANG, PS\_WL\_TEMPLATE\_GLN / PS\_WL\_TEMPL\_GNTKLN, and PS\_STRINGS\_LNG\_TBL respectively.

**Note.** For detailed information about Data Mover, see the *PeopleSoft Administration Tools* PeopleBook.

In PeopleTools 8.42, a dat file ensures that the correct data will be loaded regardless of the base language of the database. The instructions to load this table are as follows.

### To load the correct data

1. Run Data Mover as a user (that is, **not in bootstrap mode**).

2. For each language that you have loaded, run PT84xTLSxxx.DMS, where xxx is the language code.

## Task 5B-6: Installing a Multilingual PeopleTools System Database

**Note!** This task *only* applies if you are installing a multilingual PeopleTools System database. If not, skip this task and go on to the next one.

If you are installing a PeopleTools System Database and you want it to be Multilingual you need to perform the following steps after the database has been loaded with Data Mover.

### To apply the multilingual database project that contains translations of the PeopleTools objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects.
4. Select PPLTLSML from the list of projects and click on the **Open** button.
5. In the Upgrade Copy dialog, make sure that all object types are selected.
6. Click on the **Options** button, select the Copy Options tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should *not be selected*.
7. Choose the languages that you are currently installing from the Copy Options dialog.
8. Click on the **Copy** button. (The Reset Done Flags check box will be checked; accept this default.)

### To run the PT84TLSML.DMS script using Data Mover to populate translated system data

1. Launch Data Mover.
2. Open the PT84TLSML.DMS script using **File, Open**.
3. Select **File, Run**.

## Task 5B-7: Run VERSION Application Engine Program

Run the VERSION Application Engine program on your database. (It's found in <PS\_HOME>\bin\client\winx86.) From the DOS command line, the syntax is:

```
psae -CD <dbname> -CT ORACLE -CO <opri d> -CP <pswd> -R INSTALL -AI VERSION
```

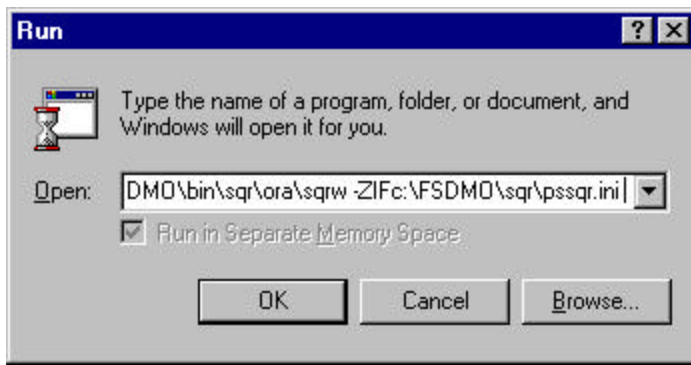


## Task 5B-8: Prepare to Run SQR

The following instructions describe how to run SQR reports from the client workstation. You can use these instructions to run SQRs required in the upcoming task “Check Database.”

### To run an SQR report on the client workstation

1. Choose **Start, Run**, click **Browse**, and navigate to <PS\_HOME>\bin\sqr\DBPlatform\binw. Select SQRW.EXE and click **Open**.
2. Add the -ZIF flag as an argument after the command line before clicking **OK**. The -ZIF flag should point to your <PS\_HOME>\sqr\pssqr.ini file.

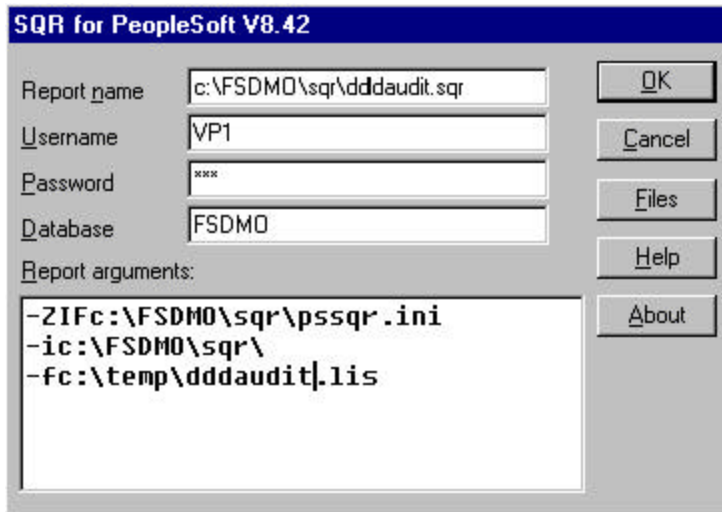


3. Click **OK**.
4. Add the remaining required SQR flags to the Report Arguments section in the SQR for PeopleSoft command window.

The following table summarizes the SQR report arguments used by PeopleSoft. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog.)

Flag	Description
-l	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent.
-ZIF	Sets the full path and name of the SQR initialization file. It should point to the PSSQR.ini file in the PeopleTools SQR directory.

After editing the dialog should look something like this:



5. Enter the following values:

- Enter the Report Name. You must specify the full path.
- Set Username to the Access ID.
- Set Password to the Access Password.
- Enter the Database name.

6. Click **OK** to run the SQR report.

**Note.** In the Properties dialog box for your SQR icon make sure that the Start in path points to your Oracle connectivity on the Shortcut tab. If you take the default, you may see a misleading error message about TNS packet writer failure.

### To save the report arguments

1. To save the report arguments so you don't have to enter them again each time you run SQR, right-click on the Windows **Start** button.
2. Choose **Open All Users** or **Explore All Users**.
3. Navigate to the SQR program group created when you installed SQR.
4. Right-click on the **SQR** icon and choose **Properties**.
5. Select the **Shortcut** tab.
6. In the **Target** field, append or edit the report arguments.

7. Click **OK**.

## Task 5B-9: Check Database

Run and examine two SQR reports to verify that your database is complete.

Use the instructions provided in the earlier task “Prepare to Run SQR.”

### To verify that the database is complete

1. Run the following SQRs from the <PS\_HOME>\SQR directory:
  - DDDAUDIT.SQR

**Note.** You can greatly improve the performance and run time of SYSAUDIT.SQR run by making the following configuration changes:

In the Oracle init.ora for your SID:

```
db_file_multiblock_read_count = 16
db_block_buffers = 2000 or greater
log_checkpoint_interval = 9999999
log_buffer = 102400
```

Increase the size of the RBSBIG rollback segment to 500MB.

- SYSAUDIT.SQR.

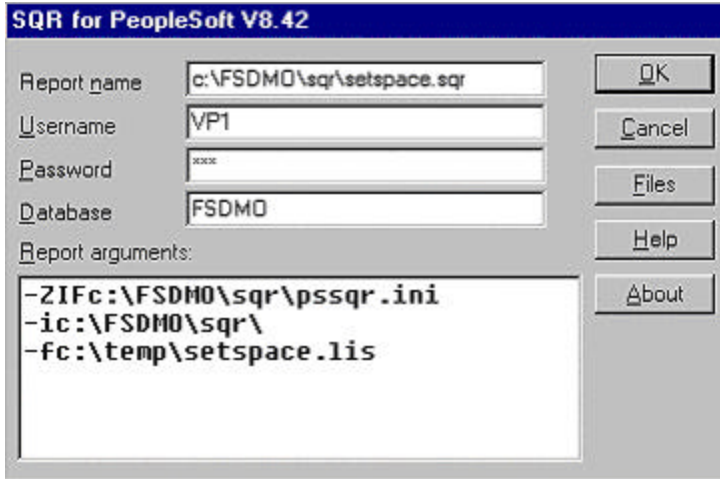
**Note.** If tables show up on the TABLE-3 section of DDDAUDIT and are contained within the PPLTLS84CURDEL project, you may safely drop these tables using your SQL query tool for your platform.

**Note.** For information on how to interpret these reports, see the *PeopleSoft Server Tools Administration* PeopleBook.

## Task 5B-10: Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog

### To run SETSPACE.SQR

1. Using the instructions provided in the earlier task “Prepare to Run SQR,” run SETSPACE.SQR from the <PS\_HOME>\SQR directory.



- 2. Click **OK**.

You'll get the following prompt:

```
Replace tablespace with default tablespace if table not found in database catalogs
Y/(N)?: y
```

- 3. As SETSPACE.SQR runs you'll get a dialog similar to the following indicating progress.

Set Table Space Name in PSRECTBLSPC

```
Table PSRECTBLSPC column DDLSpaceName have been updated
with the tablespace found in the system catalog table.
The total number of records updated appears at the bottom of this report.
```

Recname	New DDLSpaceName	Old DDLSpaceName
-----	-----	-----

```
This phase of SETSPACE will sync up the PSRECTBLSPC and
PSTBLSPCCAT tables
```

```
PSRECTBLSPC Records Updated:      0
```

```
PSTBLSPCCAT Records Inserted:    0
```

```
Ending SQR.
```

## Task 5B-11: Initialize Online Rollback Segments

This task will initialize the smaller rollback segments geared towards online processing.

**To initialize online rollback segments**

1. Change directory to \$ORACLE\_HOME/dbs.
2. Edit the initialization parameter file, \$ORACLE\_HOME/dbs/init<SID>.ora. Add the following line:  
  
**ROLLBACK\_SEGMENTS = (r01, r02, r03, r04)**
3. Recycle the database by shutting it down and restarting it.



# CONFIGURING THE APPLICATION SERVER ON WINDOWS NT/2000

At this point you should have installed the PeopleSoft Edition BEA/Tuxedo/Jolt CD-ROM (described in the chapter “Installing Third-Party Products”), and installed your application server (described in the chapter “Using the PeopleSoft Installer”). The information in this chapter is provided to help you configure your PeopleSoft application server.

For more information on configuring and using application server with your system, see the *PeopleSoft Server Tools Administration* PeopleBook.

**Note.** See the chapter “Using the PeopleSoft Installer,” the section “PeopleSoft Servers,” for a list of the files installed to the application server during the PeopleTools CD installation.

**Note.** COBOL is no longer needed for PeopleTools because the Process Scheduler has been re-written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. Check the *Hardware and Software Requirements* guide, the Platforms Database, and your application-specific documentation for the details on whether your application requires COBOL. See the chapter “Compiling COBOL” later in this book for details on compiling your COBOL on either Windows NT/2000 or UNIX.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task 6A-1	Setting up Application Servers
Task 6A-2	Set Environment and Path Variables
Task 6A-3	Setting Up COBOL for Remote Call
Task 6A-4	Create, Configure and Start an Initial Application Server Domain
Task 6A-5	Verify Database Connectivity

Task 6A-6	Shut Down the Application Server (Optional)
Task 6A-7	Extra Configuration Issues for Asian Languages

## Task 6A-1: Setting up Application Servers

PeopleSoft supports a Windows NT/2000 application server to use with any of our supported databases.

**Note.** See the Supported Platforms page on Customer Connection for the latest information on new releases of the operating systems certified by PeopleSoft.

You can install the application server using either a “logical” or “physical” three-tier configuration.

- Installing the application server on the same machine as the database server is known as a logical three-tier configuration. For your initial installation, PeopleSoft suggests that you install a logical configuration to simplify setup.

**Note.** You can start application servers as a Windows NT/2000 service, which means that administrators no longer need to manually start each application server that runs on a Windows NT/2000 machine. You can also start process scheduler as a Windows NT/2000 service. For detailed instructions on how to set up either process scheduler or an application server as a Windows NT/2000 service, see the chapter “Setting Up Process Scheduler on Windows NT,” under the task “Starting Process Scheduler as a Windows NT Service.”

**Note.** For information on using Configuration Manager to set up Windows workstations to connect to the application server, refer to the *PeopleSoft Administration Tools* PeopleBook. To test a three-tier connection, when signing on to PeopleSoft select Application Server as Connection Type, and for the Application Server Name enter <Machine name or IP Address>:<port number>. For example, 299.121.66.555:7000. (As another alternative, you can use the Configuration Manager Startup tab to insert signon defaults and use the Profiles, Database/Application Server tab to specify connect information regarding your application server.)

### Before You Begin

Before beginning this procedure, you should have completed the following tasks:

- Installed Tuxedo v6.5, Jolt 1.2.
- Granted authorization to a PeopleSoft user ID to start the application server. User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.

#### To check authorization

1. Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table.



```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID=' <OPRID>' )
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID=' <CLASSID>'
```

**Note.** Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

### Task 6A-2: Set Environment and Path Variables

On the application server, choose **Start, Settings, Control Panel, System** (on Windows/2000, choose the **Advanced** tab and click on **Environment Variables**). Make sure that the following variables are set:

SYSTEM ENVIRONMENT VARIABLE	SAMPLE VALUE	COMMENTS
TUXDIR	C:\tuxedo	BEA/TUXEDO does not set this environment variable by default. The user must set it as a System environment variable.
PATH	C:\tuxedo\bin	BEA/TUXEDO automatically appends this directory to your PATH. Double-check the PATH to make sure it exists and that an older Tuxedo\bin does not precede it in the PATH.
NLSPATH	C:\tuxedo\locale\c	NLSPATH does not need to be explicitly set since BEA/TUXEDO sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, BEA/TUXEDO, on the Environment tab. However, the installation of certain products, such as IBM DB2 connectivity (DB2 for OS/390 and z/OS, and DB2 for UNIX) sets NLSPATH to a value that causes TUXEDO to fail. The solution is to either set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let TUXEDO pick up the value from its registry tree. If you're running DB2 for UNIX, the solution instead is to append the c:\tuxedo\locale\c directory in the NLSPATH directory.

### Task 6A-3: Setting Up COBOL for Remote Call

**Note.** If your application does not contain COBOL programs, you do not need to purchase or compile COBOL. See the *Hardware and Software Requirements* guide and your application-specific documentation to verify whether your application requires COBOL.

If your application and batch servers are on the same machine you have probably carried out this task already, in which case you can skip to the next step.

Remote Call is a PeopleCode feature that launches a COBOL program from an application server and waits for it to complete execution before continuing with the rest of the online transaction. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler or the batch server. Therefore, a COBOL runtime environment and COBOL executables must be set up on the application server. Refer to the relevant (NT or UNIX) “Compiling COBOL” chapter for instructions on how to do this.

## Task 6A-4: Create, Configure and Start an Initial Application Server Domain

In this task, you will create, configure and start a PeopleSoft application server domain. To do so you use the PeopleSoft Server Administration interface, PSADMIN.

**Note.** Remember that you can start application servers and process scheduler as a Windows NT service. For detailed instructions on how to do so, see the chapter “Setting up Process Scheduler on Windows NT/2000,” under the task “Starting Process Scheduler as a Windows NT Service.”

### To create the application server domain

1. To run PSADMIN, enter the following command:

```
cd <PS_HOME>\appserv
psadmin
```

**Note.** Make sure you change the directory from the <PS\_HOME> on the file server to the <PS\_HOME>, or high-level directory, on the application server.

2. When the menu appears, specify **1** for Application Server and press ENTER.
3. Specify **2** to Create a domain and press ENTER.
4. Specify the domain name. For example:

**Please enter name of domain to create :HR840**

Domain names are case sensitive and must be eight characters or less. The domain name is used to create a directory name under the <PS\_HOME>\appserv directory.

5. Specify **4** for small if this is your initial domain installation, press ENTER

Consult the *PeopleSoft Server Tools Administration* PeopleBook for more details on configuration templates.

6. After the system creates the domain, you’ll see the prompt

Would you like to configure this domain now? (y/n) [y] :

When you choose y, the PeopleSoft Application Server Administration menu will appear. You'll see a Quick-configure menu similar to this:

```

Quick-configure menu -- domain: PF880
-----
Features
=====
1) Pub/Sub Servers      : No
2) Quick Servers       : No
3) Query Servers       : No
4) Jolt                 : Yes
5) Jolt Relay          : No
6) PC Debugger         : No

7) Opt Engines         : No
8) Event Notification  : No
9) MCF Servers         : No

Actions
=====
10) Load config as shown
11) Custom configuration
   h) Help for this menu
   q) Return to previous menu

Settings
=====
12) DBNAME              : [PF880]
13) DBTYPE              : [ ]
14) UserId              : [QEDMO]
15) UserPswd           : [QEDMO]
16) DomainID           : [PT81]
17) AddToPATH          : [ ]

18) ConnectID          : [people]
19) ConnectPswd       : [people]
20) ServerName        : [ ]
21) WSL Port          : [7000]
22) JSL Port          : [9000]
23) JRAD Port         : [9100]

HINT: Enter 12 to edit DBNAME, then 10 to load
Enter selection (1-23, h, or q):

```

**Note.** Create a REN server by selecting Event Notification. **The Report Distribution system as well as the MultiChannel Framework use REN servers.** You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Internet Architecture (PIA). Keep in mind that REN server configuration parameters are written to the psrenconfig.txt file in the application server directory. *Use PSADMIN to modify configuration parameters whenever possible.* If you edit the REN server configuration manually, edit psrenconfig.txt (not psappsrv.cfg), but be aware that this file is overwritten each time PSADMIN modifies other parameters. Refer to the PeopleSoft MultiChannel Framework PeopleBook for details on configuring your REN server.

**Note.** If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select Feature 9, MCF Servers. For more information, see "Configuring MCF Servers" in the PeopleSoft MultiChannel Framework PeopleBook.

7. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.
8. If you are *not* installing a REN server and you've updated the settings, you can load the configuration by choosing **10, Load config as shown** from the Quick-Configure menu.

**Important!** As a reminder, the Report Distribution system as well as the MultiChannel Framework use REN servers.

9. If you are installing a REN server, choose **11 for custom configuration** and do the following:

- a) Reply *y* to the question: Do you want to change any config values <y/n> [n]? Press ENTER.
- b) Reply *n* to the question: Do you want to change any values <y/n> [n]? for all sections until you see the PSRENSERV section, and then answer *y*.

Make the following changes:

Parameter	Value
js_client_domain	The fully qualified domain name of the application server. <b>Important!</b> This value should match the value of the web server's Authentication Token Domain.
js_server_domain	Enter <a href="http://&lt;hostname&gt;.&lt;js_client_domain&gt;:7180/ks">http://&lt;hostname&gt;.&lt;js_client_domain&gt;:7180/ks</a> <b>Note:</b> for a typical installation, you should not have to change this value. See the PeopleSoft MultiChannel Framework documentation for more information.
io_buffer_size	This is the TCP buffer size used when serving content. Do not exceed a value of 65536. If the REN server is running on Windows NT, change io_buffer_size to a minimum value of 56000.
cluster_members	If you are configuring a REN server cluster, specify the members here on a single line with no spaces, enclosed by double quotes. <b>Note:</b> for a typical installation, you should not have to change this value. See the PeopleSoft MultiChannel Framework documentation for more information.

- c) Accept the defaults for the remaining options except Do you want Event Notification coconfigured <PSRENSRV> <y/n> [n]? Enter *y*, and press ENTER.
  - d) Accept the defaults for the last few questions until the configuration loads automatically.
10. To start the application server (whether you installed a REN server or not), select **1, boot the domain**, from the PeopleSoft Domain administration menu.

**Note.** The messages you see and the number of processes started will depend on the options you chose during configuration.

### Reconfiguring an Application Server Domain

If you create and then immediately configure an application server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other

administrative tasks, this handy shortcut isn't available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you've already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using PSADMIN to specify parameter settings.

### To specify application server domain parameters

1. Start PSADMIN by entering:
 

```
cd <PS_HOME>\appserv
psadmin
```
2. Specify **1** for Application Server and press ENTER.
3. Specify **1** for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER
5. Specify **4** for Configure this domain and press ENTER

Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file pstuxcfg must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
  - Initiates an interactive dialog, prompting for configuration parameters.
  - Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmconfig executable to create binary file pstuxcfg used during the domain boot process.
6. Respond to the prompt "Do you want to change any config values (y/n):"
    - Specify **y** to start an interactive dialog to change or examine parameter values, as described in the next step. PeopleSoft recommends this option for less experienced users.
    - Specify **n** if you've already edited psappsrv.cfg and skip to step 7.
  7. Complete Interactive Dialog To Specify Configuration Parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

#### Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
```

ConnectId=  
 ConnectPswd=  
 ServerName=

Do you want to change any values (y/n)? [n]: y

**Note.** Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.

- Specify y to change any parameter value(s) for the current configuration section displayed. You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you do not wish to change any values, specify n and you will be prompted for the next configuration section.

**Note.** The WSL, JSL, and JRAD port numbers have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique.

**Note.** When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You'll need to use these same values when installing the PeopleSoft Internet Architecture.

**Note.** Consult the chapter "Understanding Application Server Domain Parameters" in the *PeopleSoft Server Tools Administration* PeopleBook for more information about the various configuration parameters.

## 8. Select Server Process Options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. Exception: If you wish to test your PeopleSoft Internet Architecture client, you must specify y for Jolt. You will see a message similar to this:

```
Setting Log Directory to the default... [PS_SERVDIR/LOGS]
Configuration file successfully created.
Loading new configuration...
```

Loading new configuration indicates that PSADMIN is generating a binary file named pstuxcfg, which is used to boot the application server. At this point, your application server should be properly configured.

## Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. Enter option 6 for **Edit configuration/log files menu**. The following information is a list of possible errors you may encounter.

- Use PSADMIN menu option 6 for Edit configuration/log files menu to check for errors in <PS\_HOME>\appsrv\<domain>\LOGS\appsrv.log and <PS\_HOME>\appsrv\<domain>\LOGS\TUXLOG.mmddyy.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId (revisit “Before You Start”), or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.
- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If JSL fails, verify that you are using the correct/certified version of Jolt.
- If you are unable to start the BBL, check that your TUXDIR is set appropriately and that the directory really exists.

**Note.** Consult the *PeopleSoft Server Tools Administration* PeopleBook for more details.

## Task 6A-5: Verify Database Connectivity

Before continuing, it is critical to verify connectivity to the database the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server. For Microsoft SQL Server use ISQL; for Oracle, use SQL\*Plus; for Informix, use Ilogin demo or dbaccess; for Sybase, use ISQL or another native SQL interpreter; for DB2 UDB for UNIX, use the Command Center.

## Task 6A-6: Shut Down the Application Server (Optional)

**Note.** Your PeopleSoft application server domain should be running until all testing is complete. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.

If you completed the last task correctly, your PeopleSoft application server domain is running. Follow these steps if you want to shut it down.

### To shut down the application server

1. To shut down the server from the **PeopleSoft Domain Administration** menu, enter **2** for **Domain shutdown menu**.
2. Then enter **1**, from the PeopleTools Domain Shutdown Menu.

**Note.** The option 2 in the PeopleTools Domain Shutdown Menu executes the Tuxedo command *tmshutdown -y*.

```
-----
PeopleTools Domain Shutdown Menu
-----
```

```
Domain Name: HR840
```

- ```
1) Normal shutdown
2) Forced shutdown
q) Quit
```

```
Command to execute (1-2, q) [q]: 1
```

The command prompt window will display messages something like these if all of the application server processes, or services, shut down correctly.

```
Shutting down all admin and server processes in ....
```

```
Shutting down server processes ...
```

```
Server Id = 250 Group Id = JREPGRP Machine = SITE1: shutdown succeeded
Server Id = 200 Group Id = JSLGRP Machine = SITE1: shutdown succeeded
Server Id = 20 Group Id = BASE Machine = SITE1: shutdown succeeded
```

```
Shutting down admin processes ...
```

```
Server Id = 0 Group Id = SITE1 Machine = SITE1: shutdown succeeded
14 processes stopped.
```

**Note.** The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

- To quit the PeopleSoft Domain Administration Menu, enter `q` for quit.

## Task 6A-7: Extra Configuration Issues for Asian Languages

Asian languages (such as Japanese, simplified Chinese, and traditional Chinese) require the installation of the appropriate platform vendor's font packs for each language. This applies only to graphics that are rendered by the application server (for example, charting). If characters are still missing or fail to display after installation, additional configuration may be needed.

To ensure that the application server's Java Virtual Machine locates the correct fonts, a mapping between font information at the database level and each application server instance is needed. This is defined through a properties file located within each application server's JVM (`<PSHOME>\JRE\lib\PSOFTFonts.properties`). Mappings are defined between a logical name (such as `psjvm.1`) and a system font (such as `HG Gothic`).

**Note.** "psjvm.1" is used by default.



The information that follows is an example of the Japanese entries on Windows:

```
ps. lang. 1=JPN
JPN. psjvm.1=MS Mincho
JPN. psjvm.2=MS Gothic
```

In the example above, 'psjvm.1' and 'psjvm.2' can be used in charting style classes. Extra fonts and languages can be added if needed.



# CONFIGURING THE APPLICATION SERVER ON UNIX

At this point you should have installed the PeopleSoft Edition BEA/Tuxedo/Jolt CD-ROM (described in the chapter “Installing Third-Party Products”), and installed your application server (described in the chapter “Using the PeopleSoft Installer”). The information in this chapter is provided to help you configure your PeopleSoft application server.

For more information on configuring and using application server with your system, see the *PeopleSoft Server Tools Administration* PeopleBook.

- Note.** See the chapter “Using the PeopleSoft Installer,” the section “PeopleSoft Servers,” for a list of the files installed to the application server during the PeopleTools CD installation.
- Note.** On all UNIX platforms the system appserver domain processes must be configured to have at least 1024 max file handles per process. If this is not done, domains will not boot properly.
- Note.** COBOL is no longer needed for PeopleTools because the Process Scheduler has been re-written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. Check the *Hardware and Software Requirements* guide, the Platforms Database, and your application-specific documentation for the details on whether your application requires COBOL. See the chapter “Compiling COBOL” later in this book for details on compiling your COBOL on either Windows NT/2000 or UNIX.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No.  | Task Name                                         |
|-----------|---------------------------------------------------|
| Task 6B-1 | Configure the Application Server Domain Processes |
| Task 6B-2 | Setting up Application Servers                    |
| Task 6B-3 | Start XVFB (Headless UNIX Systems Only)           |

|           |                                                                  |
|-----------|------------------------------------------------------------------|
| Task 6B-4 | Set Environment Variables                                        |
| Task 6B-5 | Setting Up COBOL for Remote Call                                 |
| Task 6B-6 | Create, Configure and Start an Initial Application Server Domain |
| Task 6B-7 | Verify Database Connectivity                                     |
| Task 6B-8 | Shut Down the Application Server (Optional)                      |
| Task 6B-9 | Extra Configuration Issues for Asian Languages                   |

## Task 6B-1: Configure the Application Server Domain Processes

On all UNIX platforms, the system appserver domain processes must be configured to have at least 1024 max file handles per process. If this is not done, domains will not boot properly. The following information is provided to help you verify your settings and change them, if necessary.

### AIX

On AIX, `ulimit -a` will query the system for your current setting. You can change the setting by running `ulimit`.

### SOLARIS

On Solaris, edit `/etc/system` and add the following lines:

```
set rlim_fd_cur=1024
```

```
set rlim_fd_max=1024
```

**Note.** `rlim_fd_cur` is the soft limit and `rlim_fd_max` is the hard limit. You can also set something bigger than 1024 for some specific reasons. The changes will be effective after system reboot.

You may also change the limit by using `ulimit`(for `sh/ksh`) or `limit`(`csh`) to set the file descriptor limit. For example, `#ulimit -n 12` will set both soft and hard file descriptor limit to 12. However, in this way, the effect will only be valid in the current terminal. For the soft limit, the default is 256. For the hard limit, the default is 1024.

### TRU64

For TRU64, the default is 4096 so no changes should be required.

To show the current value:

- To show the current session limit, use `ulimit -a` and look for `nofiles`
- To show the soft and hard limit, systemwide, use `sysconfig -q proc` and look for `open_max_soft` and `open_max_hard`

To change the value:

- To change the current session limit, use `ulimit -n 1024`
- To change the systemwide limit, as root edit the `/etc/sysconfigtab` file (use `sysconfigdb` or `dxkerneltuner`), and change the value of `open_max_soft`, up to a maximum of the value of `open_max_hard`.

**Note.** You can change the value of `open_max_hard` only up to 4096. (To increase it beyond that value requires changing it in a program, using `setsysinfo()`, as root or with the sticky bit set, in which case it can be increased to 65536.)

## Task 6B-2: Setting up Application Servers

PeopleSoft supports UNIX application servers on the following platforms:

- Hewlett-Packard HP-UX
- IBM AIX
- TRU64
- SUN Solaris

**Note.** See the Supported Platforms page on Customer Connection for the latest information on new releases of the operating systems certified by PeopleSoft.

You can install the application server using either a “logical” or “physical” three-tier configuration.

- Installing the application server on the same machine as the database server is known as a logical three-tier configuration. For your initial installation, PeopleSoft suggests that you install a logical configuration to simplify setup.
- Installing the application server on a machine separate from the database server machine is known as a physical three-tier configuration.

**Note.** For information on using Configuration Manager to set up Windows workstations to connect to the application server, refer to the *PeopleSoft Administration Tools* PeopleBook. To test a three-tier connection, when signing on to PeopleSoft select Application Server as Connection Type, and for the Application Server Name enter `<Machine name or IP Address>:<port number>`. For example, `299.121.66.555:7000`. (As another alternative, you can use the Configuration Manager Startup tab to insert signon defaults and use the Profiles, Database/Application Server tab to specify connect information regarding your application server.)

### Before You Begin

Before beginning this procedure, you should have completed the following tasks:

- Installed Tuxedo v6.5, Jolt 1.2.

- Granted authorization to a PeopleSoft user ID to start the application server. User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.

### To check authorization

1. Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID='<OPRID>')
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID='<CLASSID>'
```

**Note.** Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

## Task 6B-3: Start XVFB (Headless UNIX Systems Only)

Headless UNIX systems (systems that lack the hardware, such as a video adapter, to support a display) require X-Server Virtual Frame Buffer (XVFB) to generate charts. If XVFB is not running or the DISPLAY setting is not exported, the application server will display an error in place of the chart.

**Note.** In order for an application to render charts using the delivered PeopleTools charting functionality, the XVFB process *must* be running.

**Note.** For Solaris, XVFB is installed automatically when you run the PeopleSoft Installer. For all other UNIX platforms you will need to consult the vendor documentation for installation details.

### To start XVFB

1. Run the following commands to start XVFB:

#### Solaris

```
nohup <PSHOME>/bin/Xvfb -pn :n >/dev/null &
```

#### AIX

```
nohup /usr/bin/X11/X -force -vfb :n >/dev/null &
```

#### Tru64 UNIX

```
nohup /usr/bin/X11/Xvfb -pn : n >/dev/null &
```

### HP-UX

```
nohup /usr/bin/X11/X : n 1>/dev/null 2>&1 &
```

**Note.** *N* can be any number you choose (such as 10), as long as it is not in use by some other process. This is the X-Server display number that XVFB is to run on.

2. Configure the application server to use the same DISPLAY setting as XVFB (the value you chose for *n* in the previous step must also be passed to the application server).

For example, if *n* is 10, the DISPLAY setting would be localhost:10.0 (<machine name>.<X-server display number>.<screen number>). The DISPLAY environment setting the application server uses can be configured by editing the following entry in the PSTOOLS section of psappsrv.cfg:

```
;To set the DISPLAY environment variable on headless UNIX boxes running ;applications
with chart graphics. Xvfb must also be started and configured to use ;this value.
;For example, Display=localhost:10.0
;Display=
```

**Note.** If this value is left blank, the setting from the session the application server was launched in will be used instead.

## Task 6B-4: Set Environment Variables

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately. Alternatively you can make sure the following environment variables are set in the .profile file in the user's home directory:

**SORACLE\_HOME** must point to the correct Oracle installation for example:

```
ORACLE_HOME=/products/oracle/8.1.7; export ORACLE_HOME
```

**SORACLE\_HOME/bin** must be added to PATH; for example:

```
PATH=$PATH: $ORACLE_HOME/bin; export PATH
```

**SORACLE\_HOME/lib** must be appended to LD\_LIBRARY\_PATH, LIBPATH, or SHLIB\_PATH, whichever is appropriate for your platform

**SORACLE\_SID** must be set to the correct Oracle instance for example:

```
ORACLE_SID=hdmo; export ORACLE_SID
```

**SCOBDIR** must be set to the Server Express installation; for example:

```
COBDIR=/cobol/prod/svrexpr-2.0.11; export COBDIR
```

**SCOBDIR/lib** must be appended to **LD\_LIBRARY\_PATH**, **LIBPATH**, or **SHLIB\_PATH**, whichever is appropriate for your platform.

**SCOBDIR/bin** must be appended to the **PATH**; for example:

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:SCOBDIR/lib; export LD_LIBRARY_PATH
LIBPATH=$LIBPATH:SCOBDIR/lib; export LIBPATH
SHLIB_PATH=$SHLIB_PATH:SCOBDIR/lib; export SHLIB_PATH
PATH=$PATH:SCOBDIR/bin; export PATH
```

To set the required PeopleSoft environment variables, run `psconfig.sh`. Enter the following command:

```
cd <PS_HOME>
. ./psconfig.sh
```

Additional environment variables will be automatically set later by `pstuxenv.sh`, which is triggered by `psgenserver.sh` as part of the application server configuration process.

## Task 6B-5: Setting Up COBOL for Remote Call

**Note.** If your application does not contain COBOL programs, you do not need to purchase or compile COBOL. See the *Hardware and Software Requirements* guide and your application-specific documentation to verify whether your application requires COBOL.

If your application and batch servers are on the same machine you have probably carried out this task already, in which case you can skip to the next step.

Remote Call is a PeopleCode feature that launches a COBOL program from an application server and waits for it to complete execution before continuing with the rest of the online transaction. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler or the batch server. Therefore, a COBOL runtime environment and COBOL executables must be set up on the application server. Refer to the relevant (NT or UNIX) “Compiling COBOL” chapter for instructions on how to do this.

## Task 6B-6: Create, Configure and Start an Initial Application Server Domain

In this task, you will create, configure and start a PeopleSoft application server domain. To do so you use the PeopleSoft Server Administration interface, PSADMIN.



## To create the application server domain

1. To run PSADMIN, enter the following command:

```
cd <PS_HOME>/appserv
psadmin
```

**Note.** Make sure you change the directory from the <PS\_HOME> on the file server to the <PS\_HOME>, or high-level directory, on the application server.

2. When the menu appears, specify **1** for Application Server and press ENTER.
3. Specify **2** to Create a domain and press ENTER.
4. Specify the domain name. For example:

```
Please enter name of domain to create :HR840
```

Domain names are case sensitive and must be eight characters or less. The domain name is used to create a directory name under the <PS\_HOME>/appserv directory.

5. Specify **4** for small if this is your initial domain installation, press ENTER

Consult the *PeopleSoft Server Tools Administration* PeopleBook for more details on configuration templates.

6. After the system creates the domain, you'll see the prompt

```
Would you like to configure this domain now? (y/n) [y] :
```

When you choose **y**, the PeopleSoft Application Server Administration menu will appear. You'll see a Quick-configure menu similar to this:

```

Quick-configure menu -- domain: TESTING
-----
Features                               Settings
-----
1) Pub/Sub Servers      : No   12) DBNAME      : [TESTING]
2) Quick Servers       : No   13) DBTYPE      : [DB2UNIX]
3) Query Servers       : No   14) UserId      : [QEDMO]
4) Jolt                : Yes  15) UserPswd    : [QEDMO]
5) Jolt Relay          : No   16) DomainID    : [PT81]
6) PC Debugger         : No   17) AddToPATH   : [.]
7) Opt Engines         : No   18) ConnectID   : [people]
8) Event Notification  : No   19) ConnectPswd: [people]
9) MCF Servers         : No   20) ServerName  : []
                               21) WSL Port    : [7000]
                               22) JSL Port    : [9000]
                               23) JRAD Port   : [9100]

Actions
-----
10) Load config as shown
11) Custom configuration
h) Help for this menu
q) Return to previous menu

HINT: Enter 12 to edit DBNAME, then 10 to load

Enter selection (1-23, h, or q): █

```

**Note.** Create a REN server by selecting Event Notification. **The Report Distribuiton system as well as the MultiChannel Framework use REN servers.** You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Internet Architecture (PIA). Keep in mind that REN server configuration parameters are written to the psrenconfig.txt file in the application server directory. *Use PSADMIN to modify configuration parameters whenever possible.* If you edit the REN server configuration manually, edit psrenconfig.txt (not psappsrv.cfg), but be aware that this file is overwritten each time PSADMIN modifies other parameters. Refer to the PeopleSoft MultiChannel Framework PeopleBook for details on configuring your REN server.

**Note.** If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select Feature 9, MCF Servers. For more information, see "Configuring MCF Servers" in the PeopleSoft MultiChannel Framework PeopleBook.

7. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.

8. If you are *not* installing a REN server and you've updated the settings, you can load the configuration by choosing **10, Load config as shown** from the Quick-Configure menu.

**Important!** As a reminder, the Report Distribuiton system as well as the MultiChannel Framework use REN servers.

9. If you are installing a REN server, choose **11 for custom configuration** and do the following:

a) Reply *y* to the question: Do you want to change any config values <y/n> [n]? Press ENTER.

b) Reply *n* to the question: Do you want to change any values <y/n> [n]? for all sections until you see the PSRENSERV section, and then answer *y*.

Make the following changes:

| Parameter        | Value                                                                                                                                                                                                                                                                                                     |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| js_client_domain | The fully qualified domain name of the application server. <b>Important!</b> This value should match the value of the web server's Authentication Token Domain.                                                                                                                                           |
| js_server_domain | Enter <a href="http://&lt;hostname&gt;.&lt;js_client_domain&gt;:7180/kn">http://&lt;hostname&gt;.&lt;js_client_domain&gt;:7180/kn</a><br><b>Note:</b> for a typical installation, you should not have to change this value. See the PeopleSoft MultiChannel Framework documentation for more information. |
| io_buffer_size   | This is the TCP buffer size used when serving content. Do not exceed a value of 65536.<br><br>If the REN server is running on Windows NT, change io_buffer_size to a minimum value of 56000.                                                                                                              |
| cluster_members  | If you are configuring a REN server cluster, specify the members here on a single line with no spaces, enclosed by double quotes.<br><br><b>Note:</b> for a typical installation, you should not have to change this value. See the PeopleSoft MultiChannel Framework documentation for more information. |

- c) Accept the defaults for the remaining options except Do you want Event Notification coinfigured <PSRENSRV> <y/n> [n]? Enter y, and press ENTER.
  - d) Accept the defaults for the last few questions until the configuration loads automatically.
10. To start the application server (whether you installed a REN server or not), select **1, boot the domain**, from the PeopleSoft Domain administration menu.

**Note.** The messages you see and the number of processes started will depend on the options you chose during configuration.

## Reconfiguring an Application Server Domain

If you create and then immediately configure an application server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other administrative tasks, this handy shortcut isn't available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you've already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using PSADMIN to specify parameter settings.

## To specify application server domain parameters

1. Start PSADMIN by entering:

```
cd <PS_HOME>/appserv
psadmin
```

2. Specify **1** for Application Server and press ENTER.
3. Specify **1** for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER
5. Specify **4** for Configure this domain and press ENTER

Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file pstuxcfg must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
  - Initiates an interactive dialog, prompting for configuration parameters.
  - Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmconfig executable to create binary file pstuxcfg used during the domain boot process.
6. Respond to the prompt "Do you want to change any config values (y/n):"
    - Specify **y** to start an interactive dialog to change or examine parameter values, as described in the next step. PeopleSoft recommends this option for less experienced users.
    - Specify **n** if you've already edited psappsrv.cfg and skip to step 7.
  7. Complete Interactive Dialog To Specify Configuration Parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

### Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
```

Do you want to change any values (y/n)? [n]: y

**Note.** Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.

- Specify *y* to change any parameter value(s) for the current configuration section displayed. You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

**Note.** The WSL, JSL, and JRAD port numbers have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique.

**Note.** When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You'll need to use these same values when installing the PeopleSoft Internet Architecture.

**Note.** Consult the chapter "Understanding Application Server Domain Parameters" in the *PeopleSoft Server Tools Administration* PeopleBook for more information about the various configuration parameters.

## 8. Select Server Process Options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. Exception: If you wish to test your PeopleSoft Internet Architecture client, you must specify *y* for Jolt. You will see a message similar to this:

```
Setting Log Directory to the default... [PS_SERVDIR/LOGS]
Configuration file successfully created.
Loading new configuration...
```

Loading new configuration indicates that PSADMIN is generating a binary file named `pstuxcfg`, which is used to boot the application server. At this point, your application server should be properly configured.

## Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. Enter option **6** for **Edit configuration/log files menu**. The following information is a list of possible errors you may encounter.

- Use PSADMIN menu option 6 for Edit configuration/log files menu to check for errors in `<PS_HOME>/appserv/<domain>/LOGS/APPSRV_mmdd.LOG` and `<PS_HOME>/appserv/<domain>/LOGS/TUXLOG.mmddy`.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId (revisit "Before You Start"), or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.

- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If JSL fails, verify that you are using the correct/certified version of Jolt.
- If you are unable to start the BBL, check that your TUXDIR is set appropriately and that the directory really exists.

Also check that you do not have older Tuxedo releases (such as Tuxedo 6.4) prepended in your PATH or runtime library (LIBPATH, SHLIB\_PATH or LD\_LIBRARY\_PATH, depending on UNIX platform).

**Note.** Consult the *PeopleSoft Server Tools Administration* PeopleBook for more details.

## Task 6B-7: Verify Database Connectivity

Before continuing, it is critical to verify connectivity to the database the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server. For Microsoft SQL Server use ISQL; for Oracle, use SQL\*Plus; for Informix, use Ilogin demo or dbaccess; for Sybase, use ISQL or another native SQL interpreter; for DB2 UDB for UNIX, use the Command Center.

## Task 6B-8: Shut Down the Application Server (Optional)

**Note.** Your PeopleSoft application server domain should be running until all testing is complete. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.

If you completed the last task correctly, your PeopleSoft application server domain is running. Follow these steps if you want to shut it down.

### To shut down the application server

1. To shut down the server from the **PeopleSoft Domain Administration** menu, enter **2** for **Domain shutdown menu**.
2. Then enter **1**, from the PeopleTools Domain Shutdown Menu.

**Note.** The option 2 in the PeopleTools Domain Shutdown Menu executes the Tuxedo command *tmshutdown -y*.

-----  
**PeopleTools Domain Shutdown Menu**  
 -----

**Domain Name: HR840**

- 1) Normal shutdown
- 2) Forced shutdown
- q) Quit

**Command to execute (1-2, q) [q]: 1**

The command prompt window will display messages something like these if all of the application server processes, or services, shut down correctly.

**Shutting down all admin and server processes in ....**

**Shutting down server processes ...**

```
Server Id = 250 Group Id = JREPGRP Machine = SITE1: shutdown succeeded
Server Id = 200 Group Id = JSLGRP Machine = SITE1: shutdown succeeded
Server Id = 20 Group Id = BASE Machine = SITE1: shutdown succeeded
```

**Shutting down admin processes ...**

```
Server Id = 0 Group Id = SITE1 Machine = SITE1: shutdown succeeded
```

**14 processes stopped.**

**Note.** The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

3. To quit the PeopleSoft Domain Administration Menu, enter `q` for quit.

## Task 6B-9: Extra Configuration Issues for Asian Languages

Asian languages (such as Japanese, simplified Chinese, and traditional Chinese) require the installation of the appropriate platform vendor's font packs for each language. This applies only to graphics that are rendered by the application server (for example, charting). If characters are still missing or fail to display after installation, additional configuration may be needed.

**Note.** On UNIX, the X11 font packages must be installed.

To ensure that the application server's Java Virtual Machine locates the correct fonts, a mapping between font information at the database level and each application server instance is needed. This is defined through a properties file located within each application server's JVM (`<PSHOME>\JRE\lib\PSOFTFonts.properties`). Mappings are defined between a logical name (such as `psjvm.1`) and a system font (such as `HG Gothic`).

**Note.** "psjvm.1" is used by default.

The information that follows is an example of the Japanese entries on HP-UX:

```
ps. lang. 1=JPN
JPN. psjvm. 1=HGGothi cB
JPN. psjvm. 2=HGMinchoL
```

In the example above, 'psjvm.1' and 'psjvm.2' can be used in charting style classes. Extra fonts and languages can be added if needed.

**HP-UX Note.** The path to the fonts must be entered in the JVM's font.propertiesXXX file (where XXX is the locale that the machine is operating under). Each full path must be separated by colons under the setting hp.fontpath. This file is located in <PSHOME>\JRE\lib. Following is an example:  
hp.fontpath=/usr/lib/X11/fonts/ms.st/typefaces :/usr/lib/X11/fonts/TrueType/japanese.st/typefaces :



# SETTING UP THE PEOPLESOFT INTERNET ARCHITECTURE ON WINDOWS NT/2000

This chapter explains how to install and configure the components of the PeopleSoft Internet Architecture on Windows NT/2000.

**Note.** PeopleSoft only supports customer installations that use the version of the web servers packaged with PeopleTools. **You must install the web server before you install the PeopleSoft Internet Architecture.** (See the chapter “Installing Third-Party Products” for details.) Before you install the PeopleSoft Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The setup program for the PeopleTools Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option, as described in Chapter 3.

**Note.** The machine on which you run the PIA install must be running in **256 color mode**. This is not necessary for UNIX or console mode.

The PeopleSoft Internet Architecture installation includes the following products:

- PeopleSoft Internet Architecture. This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft Portal.
- PeopleSoft Report Repository. This product works in conjunction with Process Scheduler to allow report distribution over the web.
- PeopleSoft Integration Gateway. This product is the entry and exit point for all messages to and from the Integration Broker. Its Java based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.

- PeopleSoft CTI Console. This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

**Note.** For information about enabling PeopleSoft CTI support on your web server, see the *PeopleSoft MultiChannel Framework* PeopleBook.

- PeopleSoft Sync Server Gateway. The Sync Server is a specialized application server optimized for concurrent multi-user synchronization processing in support of PeopleSoft Mobile Agent. The web server-based Sync Gateway routes synchronization requests and messages to and from the appropriate Sync Server.

**Note.** For instructions on installing PeopleSoft Mobile Agent to a mobile device, see the *PeopleTools Mobile Agent* PeopleBook.

## Task Overview

The following table summarizes this chapter's tasks.

| Task No.  | Task Name                                                 |
|-----------|-----------------------------------------------------------|
| Task 7A-1 | Installing the PeopleSoft Internet Architecture           |
| Task 7A-2 | Testing the PeopleSoft Internet Architecture Installation |

## Task 7A-1: Installing the PeopleSoft Internet Architecture

This task includes instructions for installing the PeopleSoft files on WebLogic and WebSphere. Only complete the instructions for your web server.

**Note.** The initial Internet Architecture setup automatically creates the default PeopleSoft site named ps. In subsequent Internet Architecture setups, change the defaulted Site Name from 'ps' to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

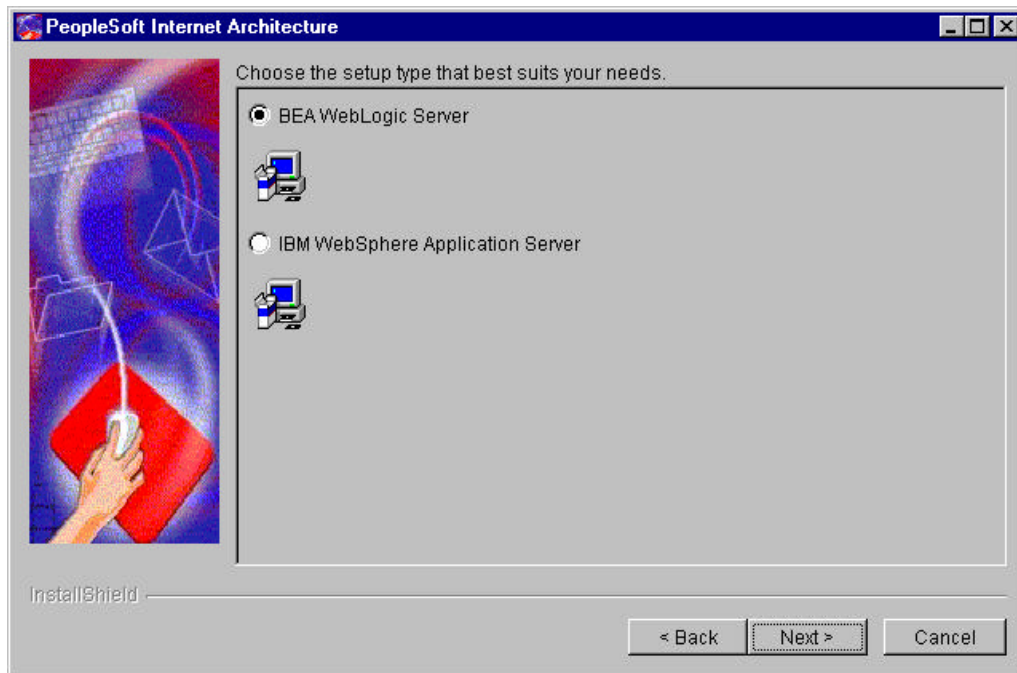
**Note.** If you want to connect between multiple application databases, you need to implement single signon. For the details, please consult the *PeopleTools Security* PeopleBook.

### To install the PeopleSoft Internet Architecture on WebLogic

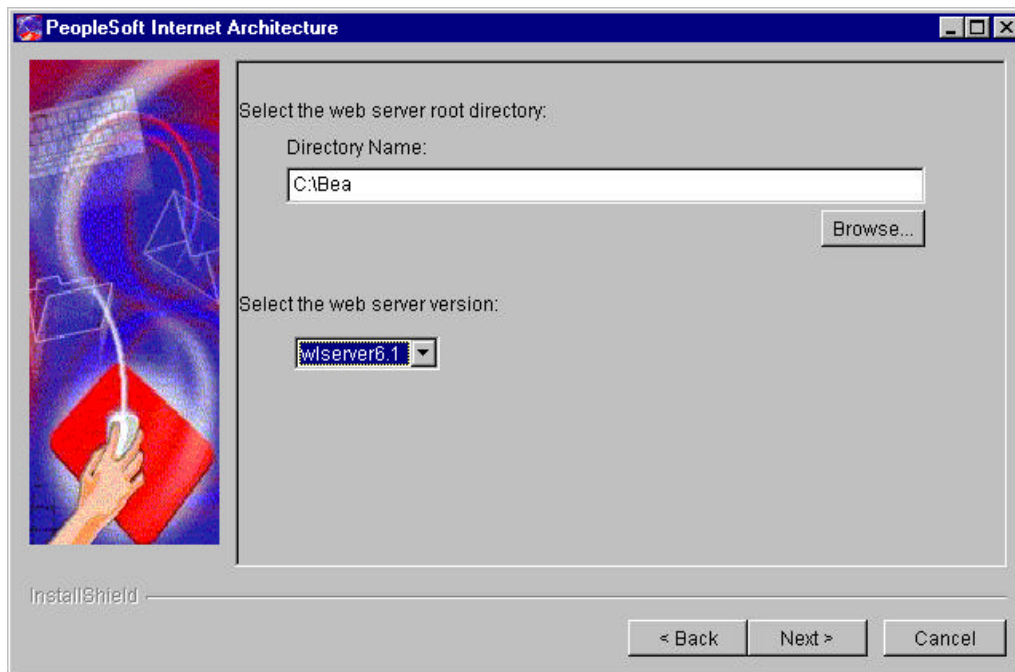
**Note.** The install will not proceed with an incorrect version of the WebLogic Server Service Pack. Make sure the correct service pack version 2 for WebLogic Server is properly installed prior to running this PeopleSoft Internet Architecture install.

1. Stop your web server, if necessary.
2. Go to <PS\_HOME>\setup\mpinternet.

3. Double-click on setup.exe.
4. Click **Next** in the Welcome screen.
5. Choose **BEA WebLogic Server** and click **Next**.



6. Specify the root directory where WebLogic is installed, select the web server version, and click **Next**.



7. You'll see the message "Have you shut down your Web Server?" Click **Yes** to continue.

**Note.** If you don't have the correct version of WebLogic and WebLogic Service Pack installed, you'll receive an error message stating that Weblogic is not at the appropriate release/service pack level. To resolve this error you must install the appropriate version and/or service pack referenced in the error message.

**Note.** If you've already installed at least one PeopleSoft domain under the WebLogic 6.1 server, you'll see some additional screens at this point. See the *PeopleSoft Server Tools* PeopleBook for details.

8. Specify the authentication token domain, your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, and click **Next**.

**Note.** For the AppServer name setting, enter the name of your application server, as determined in the chapter "Configuring the Application Server" earlier in this book. For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

**Note.** The value you enter for authentication token domain must match the value you specific when configuring your application server, as described earlier in this book.

**Note.** If you enter an Authentication Token domain, the URL to invoke PIA is `http://MachineName.myCompany.com/ps/signon.html`. If you do not enter an Authentication Token Domain, the URL to invoke PIA is `http://MachineName/ps/signon.html`.

**Note.** When an Authentication Token domain is specified during the PIA install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name doesn't imply that you must have a DNS, but you do need some type of naming service such as DNS, DHCP, or some managed `../etc/hosts` file that contains a list of the servers with their domain name.
- The `cookiedomain` value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).
- The `cookiedomain` value being set must contain at least 1 embedded dot (`.ps.com` is valid, `.corp.ps.com` is valid, `.com` is NOT valid).
- The `cookiedomain` value can only be a single domain name. It can not be a token separated list of domains.

**Note.** Specify an Authentication Token Domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework. See the *PeopleSoft MultiChannel Framework PeopleBook* for more information on REN Servers.

**Note.** By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.

**Note.** If the web server for the database is using an Authentication Token Domain, the localhost value must include the network domain name in the URL. If the web server for the database is using an http port other than the default port of 80, the localhost value must contain the port number in the URL. For example, if the URL address were `http://myserver/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com/pshome/signon.html`. If the URL address were `http://myserver:8080/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com:8080/pshome/signon.html`.

9. Specify the root directory for the Report Repository (`c:\psreports` by default), and click **Next**. You can install to any location.

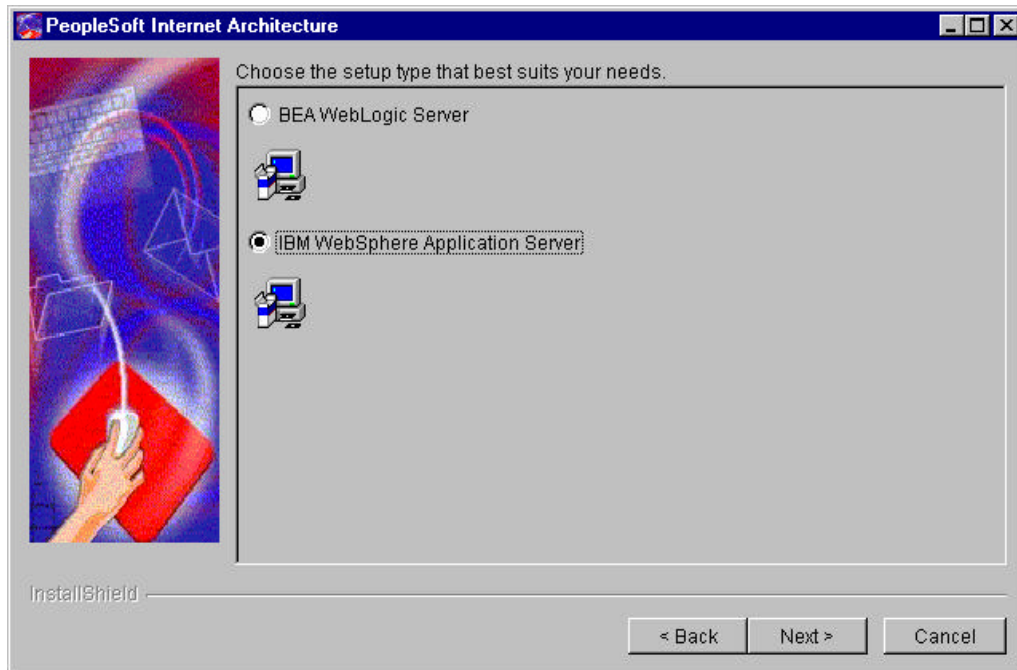
**Note.** For the Report Repository directory, specify the same directory that you specify as the Home Directory during the task “Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository” in the chapter “Setting Up Process Scheduler.” Make sure that this directory is shared.

10. Verify all of your selections (click Back if you need to make any changes), and click **Next** to kick off the installation. You’ll see a progress indicator showing the progress of your installation.
11. Click **Finish** to complete the installation.

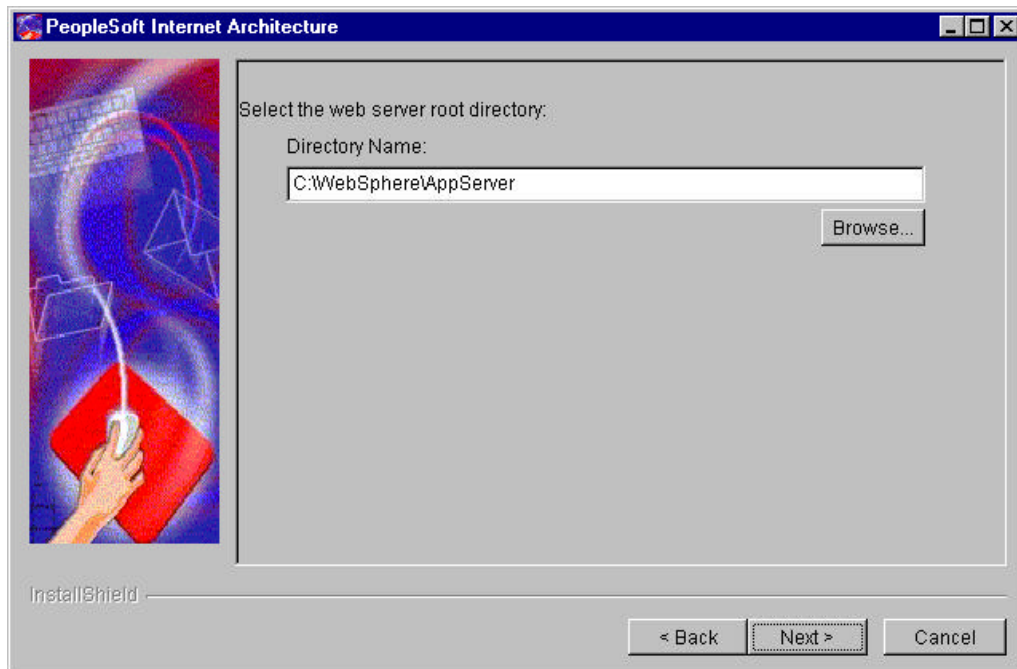
The default installation directory is `<bea_home>\wlserver6.1\config\peoplesoft\`. If this is a reinstallation of PeopleSoft Internet Architecture, and a ‘new’ WebLogic domain was specified during the installation, the directory structure is `<bea_home>\wlserver6.1\config\<domain>\`.

### To install PIA on WebSphere

1. Stop your web server.
2. Go to `<PS_HOME>\setup\mpinternet`.
3. Double-click on `setup.exe`.
4. Click **Next** in the Welcome screen.
5. Choose **IBM WebSphere Application Server** and click **Next**.



- Specify the root directory where WebSphere is installed on your machine (use the fully qualified path), and click **Next**.



**Note.** If you've already installed at least one PeopleSoft domain under WebSphere, you'll see some additional screens at this point. See the *PeopleSoft Server Tools* PeopleBook for details.

7. You'll see the message "Have you shut down your Web Server?" Make sure your web server is shut down. If it is, click **Yes** to continue.

**Note.** If you don't have the correct version of WebSphere installed, you'll receive an error message at this point stating that you are not at the correct version of WebSphere. To resolve this error you must install the appropriate WebSphere version referenced in the error message.

8. Specify the authentication token domain, your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, and click **Next**.

**Note.** For the AppServer name setting, enter the name of your application server, as determined in the chapter "Configuring the Application Server" earlier in this book. For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

**Note.** The value you enter for authentication token domain must match the value you specific when configuring your application server, as described earlier in this book.

**Note.** If you enter an Authentication Token domain, the URL to invoke PIA is <http://MachineName.myCompany.com/ps/signon.html>. If you do not enter an Authentication Token Domain, the URL to invoke PIA is <http://MachineName/ps/signon.html>.



- Note.** When an Authentication Token domain is specified during the PIA install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:
- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name doesn't imply that you must have a DNS, but you do need some type of naming service such as DNS, DHCP, or some managed `../etc/hosts` file that contains a list of the servers with their domain name.
  - The `cookiedomain` value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).
  - The `cookiedomain` value being set must contain at least 1 embedded dot (`.ps.com` is valid, `.corp.ps.com` is valid, `.com` is NOT valid).
  - The `cookiedomain` value can only be a single domain name. It can not be a token separated list of domains.
- Note.** Specify an Authentication Token Domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework. See the *PeopleSoft MultiChannel Framework* PeopleBook for more information on REN Servers.
- Note.** By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.
- Note.** If the web server for the database is using an Authentication Token Domain, the `localhost` value must include the network domain name in the URL. If the web server for the database is using an `http` port other than the default port of 80, the `localhost` value must contain the port number in the URL. For example, if the URL address were `http://myserver/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com/pshome/signon.html`. If the URL address were `http://myserver:8080/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com:8080/pshome/signon.html`.
- Note.** If you have Reverse Proxy Server (RPS) set up with WebSphere, enter the HTTP port of the RPS for HTTP Port (the default port is 80). If you are using WebSphere's internal HTTP Server, use its HTTP Port (the default port is 9080). If you have Reverse Proxy Server (RPS) set up with WebSphere, enter the HTTPS port of the RPS for HTTPS Port (the default port is 443). If you are using WebSphere's internal HTTP Server, use its HTTPS Port (the default port is 9443).

9. Specify the root directory for the Report Repository (`c:\psreports` by default), and click **Next**. You can install to any location.

**Note.** For the Report Repository directory, specify the same directory that you specify as the Home Directory during the task "Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository" in the chapter "Setting Up Process Scheduler." Make sure that this directory is shared.

10. Verify all of your selections (click **Back** if you need to make any changes), and click **Next** to initiate the installation. You'll see a progress indicator showing the progress of your installation.
11. Click **Finish** to complete the installation.

## Task 7A-2: Testing the PeopleSoft Internet Architecture Installation

After installing the PeopleSoft Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.)

### To start WebLogic

1. To start BEA WebLogic Server as a foreground process, execute the following command in your WebLogic domain directory:

```
startPIA.cmd
```

2. To define BEA WebLogic Server as an NT service, execute the following command in your WebLogic domain directory:

```
InstallNTservicePIA.cmd
```

The NT service name will be “*WebLogicDomain-WebLogicServer*” (for example, peoplesoft-PIA).

**Note.** To stop the server, enter the command `stopPia.cmd` from the command prompt.

### To start WebSphere

1. Change directories to the folder in which WebSphere is installed (<WebSphere Root>\bin).
2. Enter the command

```
startserver.bat
```

from the command prompt.

**Note.** To stop the server, enter the command `stopserver` from the command prompt.

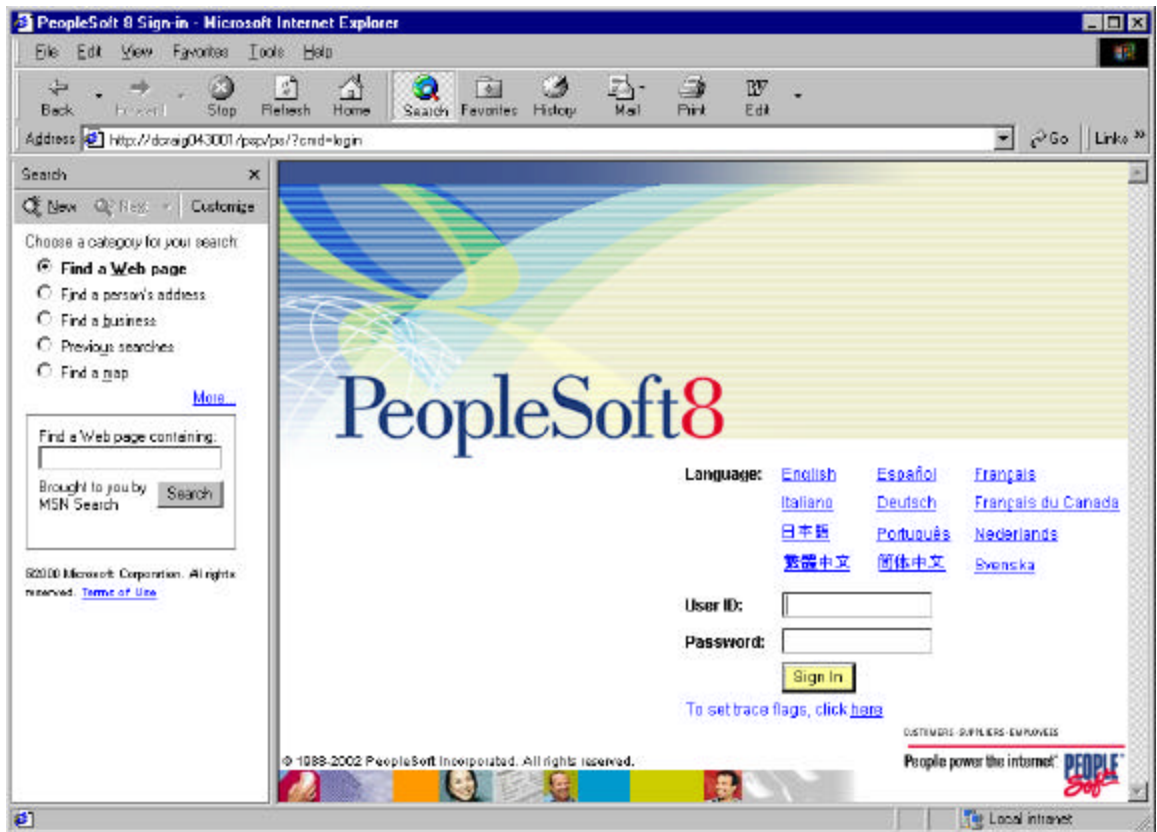
### To access the PeopleSoft signon

1. Open your web browser.
2. Enter the name of the site you want to access—for example

```
http://machinename:http_port/ps/signon.html
```

**Note.** Websphere listens at port 9080. If you want to login through WebSphere directly, invoke the URL `http://machinename:9080t/ps/signon.html` (if AuthTokenDomain is not used) or the URL `http://machinename.mycompanyname.com:9080/ps/signon.html` (where AuthTokenDomain is .mycompany.com). If you have set up a reverse proxy server (RPS)—such as IBM Http Server, IIS, or iPlanet—with WebSphere, invoke the URL `http://machinename/ps/signon.html` (if AuthTokenDomain is not used) or URL `http://machinename.mycompanyname.com/ps/signon.html` (where AuthTokenDomain is .mycompany.com). The assumption is that the RPS is listening on port 80.

This will take you to the signon screen.



**Note.** If you don't see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom/delivered user ID's that you should use for the demonstration environment.

**Note.** The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE.

# SETTING UP THE PEOPLESOFT INTERNET ARCHITECTURE ON UNIX

This chapter explains how to install and configure the components of the PeopleSoft Internet Architecture on UNIX.

**Note.** PeopleSoft only supports customer installations that use the version of the web servers packaged with PeopleTools. **You must install the web server before you install the PeopleSoft Internet Architecture.** (See the chapter “Installing Third-Party Products” for details.) Before you install the PeopleSoft Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The setup program for the PeopleTools Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option, as described in Chapter 3.

**Note.** The machine on which you run the PIA install must be running in **256 color mode**. This is not necessary for UNIX or console mode.

The PeopleSoft Internet Architecture installation includes the following products:

- PeopleSoft Internet Architecture. This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft Portal.
- PeopleSoft Report Repository. This product works in conjunction with Process Scheduler to allow report distribution over the web.
- PeopleSoft Integration Gateway. This product is the entry and exit point for all messages to and from the Integration Broker. Its Java based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.
- PeopleSoft CTI Console. This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

**Note.** For information about enabling PeopleSoft CTI support on your web server, see the *PeopleSoft MultiChannel Framework* PeopleBook.

- PeopleSoft Sync Server Gateway. The Sync Server is a specialized application server optimized for concurrent multi-user synchronization processing in support of PeopleSoft Mobile Agent. The web server-based Sync Gateway routes synchronization requests and messages to and from the appropriate Sync Server.

**Note.** For instructions on installing PeopleSoft Mobile Agent to a mobile device, see the *PeopleTools Mobile Agent* PeopleBook.

## Task Overview

The following table summarizes this chapter's tasks.

| Task No.  | Task Name                                                 |
|-----------|-----------------------------------------------------------|
| Task 7B-1 | Installing the PeopleSoft Internet Architecture           |
| Task 7B-2 | Testing the PeopleSoft Internet Architecture Installation |

## Task 7B-1: Installing the PeopleSoft Internet Architecture

This task includes instructions for installing the PeopleSoft files on WebLogic and WebSphere. Only complete the instructions for your web server.

**Note.** Before performing the following steps. Make sure that Sun's international version of JRE version 1.3 or higher is properly installed on the system and its path is in the system's environment variable PATH.

**Note.** The initial Internet Architecture setup automatically creates the default PeopleSoft site named ps. In subsequent Internet Architecture setups, change the defaulted Site Name from 'ps' to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

**Note.** If you want to connect between multiple application databases, you need to implement single signon. For the details, please consult the *PeopleTools Security* PeopleBook.

### To install the PeopleSoft Internet Architecture on WebLogic

1. Stop your web server if it is running.

**Note.** The install will not proceed with an incorrect version of the WebLogic Server Service Pack. Make sure the correct service pack version 2 for WebLogic Server is properly installed prior to running this PeopleSoft Internet Architecture install.

2. In your shell prompt under the <PS\_HOME>/setup/mpinternet directory, type

```
java -cp setup.jar run -console
```

or

```
setup. <OS>
```

to run under Xwindows

You will see the following:

```

Welcome to the InstallShield Wizard for PeopleSoft Internet Architecture The
InstallShield Wizard will install PeopleSoft Internet Architecture on your
computer. To continue, click Next.
Please press Enter to Continue

```

3. Press ENTER to continue.

4. At the prompt

1. BEA WebLogic Server
2. IBM WebSphere Application Server

```
[1]
```

Press ENTER to select the default selection, 1, which selects the BEA WebLogic Server.

5. At the prompt

Select the web server root directory:

Please specify a directory name or press Enter [/opt/boa] /data4/syb/boa

Enter the directory where WebLogic is installed.

6. At the prompt

Select the web server version:

```
[X] 1 - wlserver6.1
```

To select a choice enter its number, or 0 when you are finished [0]:

Type 0 and press ENTER to continue.

Please press Enter to Continue

7. At the prompt

Have you shut down your Web Server [No]? Yes

Make sure your web server is shut down. If it is, type Yes and press ENTER to continue.

- Note.** If you don't have the correct version of WebLogic and WebLogic Service Pack installed, you'll receive an error message stating that Weblogic is not at the appropriate release/service pack level. To resolve this error you must install the appropriate version and/or service pack referenced in the error message.
- Note.** If a default PeopleSoft application is found in the WebLogic Application Server, you will need to carry out some additional steps. See the *PeopleSoft Server Tools* PeopleBook for details.

8. Press ENTER to continue.
9. At this prompt

**Authenti cation Token Domain:**

[ ]

Type in the authentication token domain and press ENTER.

- Note.** The value you enter for authentication token domain must match the value you specific when configuring your application server, as described earlier in this book.
- Note.** If you enter an Authentication Token domain, the URL to invoke PIA is <http://MachineName.myCompany.com/ps/signon.html>. If you do not enter an Authentication Token Domain, the URL to invoke PIA is <http://MachineName/ps/signon.html>.
- Note.** When an Auth Token domain is specified during the PIA install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:
- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name doesn't imply that you must have a DNS, but you do need some type of naming service such as DNS, DHCP, or some managed ../etc/hosts file that contains a list of the servers with their domain name.
  - The cookiedomain value being set must begin with a dot (.ps.com is valid, ps.com is NOT valid).
  - The cookiedomain value being set must contain at least 1 embedded dot (.ps.com is valid, .corp.ps.com is valid, .com is NOT valid).
  - The cookiedomain value can only be a single domain name. It can not be a token separated list of domains.
- Note.** To delete a default value in the Authentication Token Domain field, type a space and press ENTER at the Authentication Token Domain prompt. Then type in the desired new value.
- Note.** Specify an Authentication Token Domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework. See the *PeopleSoft MultiChannel Framework* PeopleBook for more information on REN Servers.



**Note.** If the web server for the database is using an Authentication Token Domain, the localhost value must include the network domain name in the URL. If the web server for the database is using an http port other than the default port of 80, the localhost value must contain the port number in the URL. For example, if the URL address were `http://myserver/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com/pshome/signon.html`. If the URL address were `http://myserver:8080/pshome/signon.html`, you would use the URL address `http://myserver.mydomain.com:8080/pshome/signon.html`.

10. At the following prompt

**AppServer name:**  
[pt-hp01.peoplesoft.com]

Type in the IP address or hostname of your application server and press ENTER.

**Note.** For the AppServer name setting, enter the name of your application server, as determined in the chapter “Configuring the Application Server” earlier in this book.

11. At this next prompt,

**JSL Port:**  
[9000]

Type in the Jolt Station Listener (JSL) port number of your application server and then press ENTER.

**Note.** For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

12. Type in the HTTP Port number of your web server. Then press ENTER.

**HTTP Port:**  
[80]

13. Type in the HTTPS Port number of your web server and press ENTER.

**HTTPS Port:**  
[443]

**Note.** To use ports below 1024 you must start WebLogic Server as root (superuser) access.

14. Press ENTER to continue. Then enter the path where the psreports directory can be created.

**Select the Report Repository location:**  
Please specify a directory name or press Enter [/opt/psreports]

**Note.** You must have write permissions to the directory in which you create the psreports directory.

15. You'll see a summary of your selections. Verify that the data is correct, and press ENTER to continue the file copy process. The progress bar will appear.

Installing PeopleSoft Internet Architecture... Please wait.

```
|-----|-----|-----|-----|
0%          25%          50%          75%          100%
|||||
```

Creating uninstaller...

The InstallShield Wizard has successfully installed PeopleSoft Internet Architecture. Click Finish to exit the wizard.

16. Press ENTER to exit the completed install process.

The default installation directory is <bea\_home>/wlserver6.1/config/peoplesoft/. If this is a reinstallation of PeopleSoft Internet Architecture, and a 'new' WebLogic domain was specified during the installation, the directory structure is <bea\_home>/wlserver6.1/config/<domain>/.

### To install the PeopleSoft Internet Architecture on WebSphere

1. Stop your web server if it is running.
2. In your shell prompt under the <PS\_HOME>/setup/mpinternet directory, type

```
java -cp setup.jar run -console
```

You will see the following:

```
Welcome to the InstallShield Wizard for PeopleSoft Internet Architecture
The InstallShield Wizard will install PeopleSoft Internet Architecture on your
computer. To continue, click Next.
Please press Enter to Continue
```

3. Press ENTER to continue.
  1. BEA WebLogic Server
  2. IBM WebSphere Application Server

```
[1] 2
```

4. Enter 2, to select the IBM WebSphere Application Server.

Select the web server root directory:

```
Please specify a directory name or press Enter [/opt/WebSphere/AppServer]
```

5. Enter the directory where WebSphere is installed.

Please press Enter to Continue

6. At the prompt

**Have you shut down your Web Server [No]? Yes**

Make sure your web server is shut down. If it is, type Yes and press ENTER to continue.

**Note.** If you don't have the correct version of WebSphere installed, you'll receive an error message stating that you are not at the correct version of Websphere. To resolve this error you must install the appropriate Websphere version referenced in the error message.

7. Press ENTER to continue.

**Authenti cation Token Domain:**

[ ]

**Note.** The value you enter for authentication token domain must match the value you specific when configuring your application server, as described earlier in this book.

**Note.** If you enter an Authentication Token domain, the URL to invoke PIA is `http://MachineName.myCompany.com/ps/signon.html`. If you do not enter an Authentication Token Domain, the URL to invoke PIA is `http://MachineName/ps/signon.html`.

**Note.** When an Auth Token domain is specified during the PIA install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name doesn't imply that you must have a DNS, but you do need some type of naming service such as DNS, DHCP, or some managed `../etc/hosts` file that contains a list of the servers with their domain name.
- The cookiedomain value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).
- The cookiedomain value being set must contain at least 1 embedded dot (`.ps.com` is valid, `.corp.ps.com` is valid, `.com` is NOT valid).
- The cookiedomain value can only be a single domain name. It can not be a token separated list of domains.

**Note.** To delete a default value in the Authentication Token Domain field, type a space and press ENTER at the Authentication Token Domain prompt. Then type in the desired new value.

**Note.** Specify an Authentication Token Domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework. See the *PeopleSoft MultiChannel Framework* PeopleBook for more information on REN Servers.

**Note.** If a default PeopleSoft application is found in the WebSphere Application Server, you will need to carry out some additional steps. See the *PeopleSoft Server Tools* PeopleBook for details.

**Note.** If the web server for the database is using an Authentication Token Domain, the localhost value must include the network domain name in the URL. If the web server for the database is using an http port other than the default port of 80, the localhost value must contain the port number in the URL. For example, if the URL address were http://myserver/pshome/signon.html, you would use the URL address http://myserver.mydomain.com/pshome/signon.html. If the URL address were http://myserver:8080/pshome/signon.html, you would use the URL address http://myserver.mydomain.com:8080/pshome/signon.html.

8. Type in the Authentication Token Domain. Then press ENTER .

**AppServer name:**

[pt-hp01.peoplesoft.com]

**Note.** For the AppServer name setting, enter the name of your application server, as determined in the chapter “Configuring the Application Server” earlier in this book.

9. Type in the IP address or hostname of your application server. Then press ENTER.

**JSL Port:**

[9000]

**Note.** For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

10. Type in the Jolt Station Listener (JSL) port number of your application server. Then press ENTER.

**HTTP Port:**

[80]

11. Type in the HTTP Port number of your web server. Then press ENTER.

**HTTPS Port:**

[443]

**Note.** If you have Reverse Proxy Server (RPS) set up with WebSphere, enter the HTTP port of the RPS for HTTP Port (the default port is 80). If you are using WebSphere’s internal HTTP Server, use its HTTP Port (the default port is 9080).

12. Type in the HTTPS Port number of your web server. Then press ENTER.

**Please press Enter to Continue**

**Note.** If you have Reverse Proxy Server (RPS) set up with WebSphere, enter the HTTPS port of the RPS for HTTPS Port (the default port is 443). If you are using WebSphere’s internal HTTP Server, use its HTTPS Port (the default port is 9443).

13. Press ENTER to continue. Then enter the path where the psreports directory can be created.

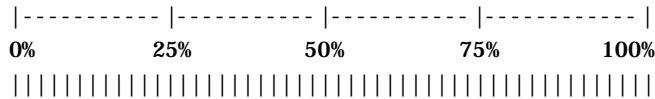
**Select the Report Repository location:**

Please specify a directory name or press Enter [/opt/psreports]

**Note.** You must have write permissions to the directory in which you create the psreports directory.

14. You'll a summary of your selections. Verify that the data is correct, and press ENTER to continue the file copy process. The process bar will appear.
15. Verify that the data is correct, and then press ENTER to continue the file copy process. The process bar will appear.

Installing PeopleSoft Internet Architecture... Please wait.



Creating uninstaller...

The InstallShield Wizard has successfully installed PeopleSoft Internet Architecture. Click Finish to exit the wizard.

16. Press ENTER to exit the completed install process.

## Task 7B-2: Testing the PeopleSoft Internet Architecture Installation

After installing the PeopleSoft Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.)

### To start WebLogic

1. To start BEA WebLogic Server as a foreground process, execute the following command in your WebLogic domain directory:

**startPIA.sh**

**Note.** To stop the server, enter the command stopPia.sh.

### To start WebSphere

1. Change directories to the folder in which WebSphere is installed (<WebSphere Root>\bin).
2. Enter the command

**./startServer.sh**

**Note.** To stop the server, enter the command `./stopServer.sh`.

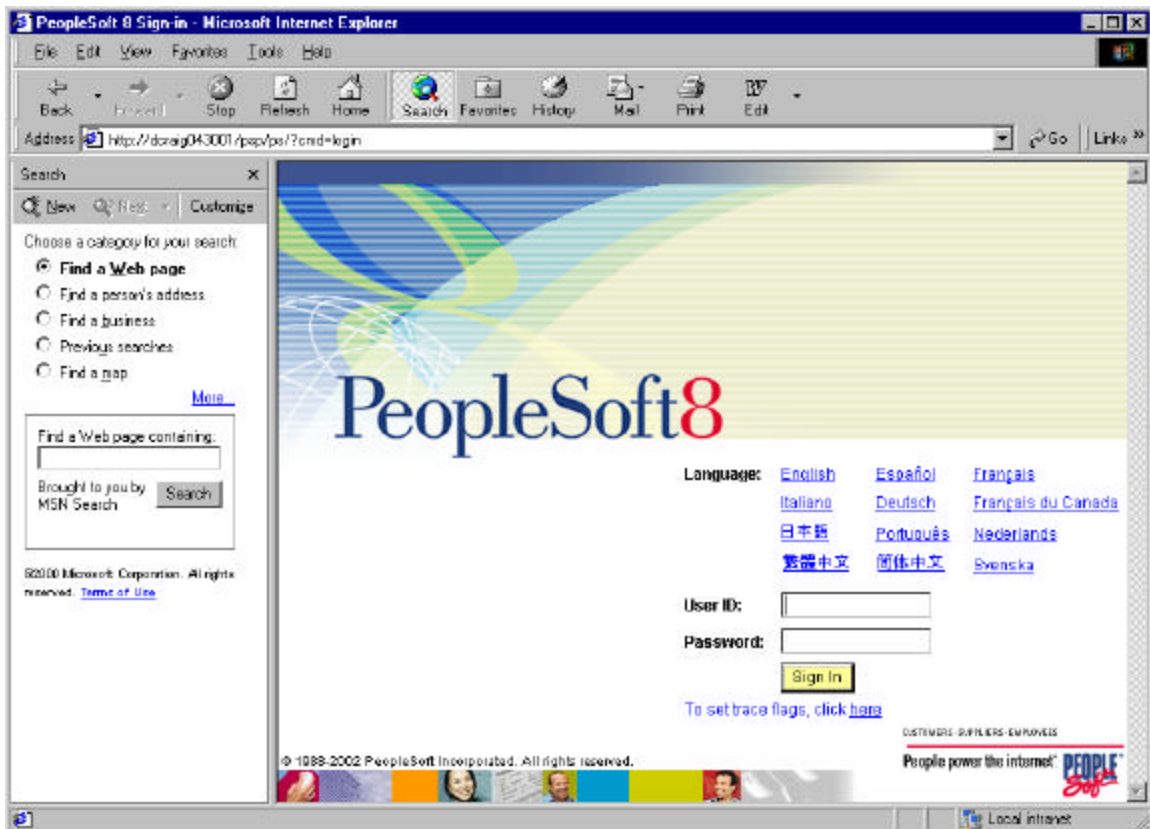
### To access the PeopleSoft signon

1. Open your web browser.
2. Enter the name of the site you want to access—for example

`http://machinename: http_port/ps/signon.html`

**Note.** Websphere listens at port 9080. If you want to login through WebSphere directly, invoke the URL `http://machinename:9080t/ps/signon.html` (if AuthTokenDomain is not used) or the URL `http://machinename.mycompanyname.com:9080/ps/signon.html` (where AuthTokenDomain is .mycompany.com). If you have set up a reverse proxy server (RPS)—such as IBM Http Server, IIS, or iPlanet—with WebSphere, invoke the URL `http://machinename/ps/signon.html` (if AuthTokenDomain is not used) or URL `http://machinename.mycompanyname.com/ps/signon.html` (where AuthTokenDomain is .mycompany.com). The assumption is that the RPS is listening on port 80.

This will take you to the signon screen.



**Note.** If you don't see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom/delivered user ID's that you should use for the demonstration environment.

**Note.** The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE.





# SETTING UP PROCESS SCHEDULER ON WINDOWS NT/2000

This chapter leads you through the installation of the Process Scheduler Server. For additional details on configuring and using Process Scheduler with your system, refer to your *PeopleSoft Process Scheduler PeopleBook*.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No.  | Task Name                                                                      |
|-----------|--------------------------------------------------------------------------------|
| Task 8A-1 | Set Up Process Scheduler Security                                              |
| Task 8A-2 | Set Up Process Scheduler to Transfer Reports and Logs to the Report Repository |
| Task 8A-3 | Set Environment and Path Variables                                             |
| Task 8A-4 | Set Up Process Scheduler Server Agent                                          |
| Task 8A-5 | Starting Process Scheduler as a Windows NT Service (Optional)                  |
| Task 8A-6 | Configuring the Process Scheduler for Word for Windows (Optional)              |
| Task 8A-7 | Verifying Crystal Functionality                                                |

## Before You Begin

Before beginning this procedure, you must:

- Install Tuxedo and Jolt, as described in the chapter “Installing Third-Party Products.”
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).

See Chapter 1 for the details on installing your connectivity software.

- Set up the web server with the PeopleSoft Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Check the *PeopleTools Hardware and Software Requirements* guide and your application-specific documentation for the details on whether your application requires COBOL.

**Note.** See the chapter “Compiling COBOL” later in this book for details on compiling your COBOL on either Windows NT/2000 or UNIX.

- Install the Microsoft Office products Microsoft Word and Microsoft Excel.
- Have both your application server and the PeopleSoft Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID’s profile be modified through the **User Security** component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Internet Architecture.

## Task 8A-1: Set Up Process Scheduler Security

This task guarantees that security is set up properly both in Windows and within your PeopleSoft database. You must carry out this task to start Process Scheduler successfully.

Here you will:

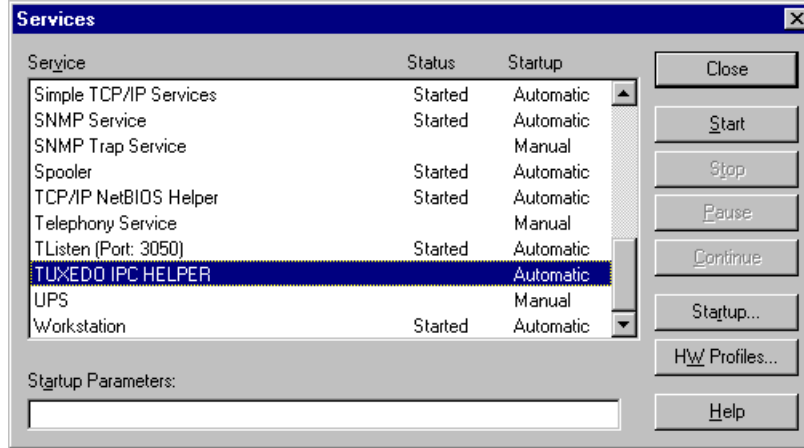
- Set up Tuxedo IPC Helper service with a network user ID.

When you install BEA Tuxedo, the Tuxedo IPC Helper NT service is set up by default to be started by local system account—a user account that does not have access to the Windows network. If the Process Scheduler server or processes initiated through Process Scheduler will be using a network printer, accessing files from a network drive, or using Windows utilities such as XCOPY that may access UNC paths, you need to change the user account used to start Tuxedo IPC Helper with a network user account.

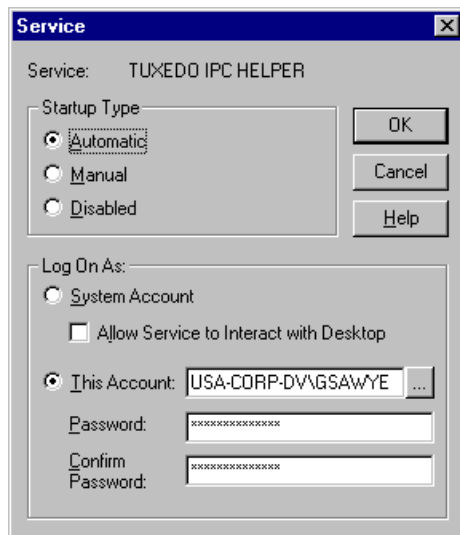
- Set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager.

### To change User Account to Start Tuxedo IPC Helper

1. Open the Control Panel and double-click on **Services**. In the Services dialog box, find the service labeled *TUXEDO IPC HELPER*. This service is installed automatically when you install Tuxedo.



2. If the **Stop** button is enabled, click on it to stop the current TUXEDO IPC HELPER process. Click **Yes** when a message informs you of the status change. Then, click **TUXEDO IPC HELPER** and click **Startup** to modify its settings. You'll see this Service dialog box.




3. Choose **This Account**.

**Note.** When you configure your Tuxedo server as outlined in the chapter, “Configuring the Application Server,” the user ID designated to be the Application Server Administrator must have read/write permissions to the PeopleSoft file directory and read permission to the %TUXDIR% directory, such as c:\tuxedo.





















4. Make sure that **Startup Type** is set to **Automatic**, and click **OK**.
5. Click **Start**. A message in the Services dialog box will indicate the “Started” status. Click **Close** to return to Control Panel.

## To grant Process Scheduler administrative rights

1. Log onto your PeopleSoft database through the PeopleSoft Internet Architecture.
2. Select **PeopleTools, Security, User Profiles**.
3. Select the **User Profiles** component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the **Roles** tab, click the  icon to insert a new row, and there enter the **ProcessSchedulerAdmin** role to grant the user ID with administrative rights in the Process Scheduler components.

General ID **Roles** Workflow Audit Links User ID Queries

User ID: VP1  
Description: VP of Corporate Planning

| Role Name             | Description                  | Dynamic                  | View Definition                                               |                                                                                       |                                                                                       |
|-----------------------|------------------------------|--------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Coordinator           | Coordinator                  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |    |    |
| PAPP_USER             | Enterprise Portal User       | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |    |    |
| Packaging             | Env. Mgmt. Packaging         | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |   |   |
| PeopleSoft Administra | PeopleSoft Admin Privileges  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| PeopleSoft User       | PeopleSoft User              | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| PeopleTools           | PeopleTools                  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| ProcessSchedulerAdmin | Process Scheduler Admin      | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| ReportDistAdmin       | Report Distribution Admin    | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| UPG_ALLPANLS          | ALLPANLS                     | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |
| UPG_APPSRVR           | Can start application server | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> |  |  |

5. Repeat the instructions in step 4 to add the role **ReportDistAdmin**. This will grant the user ID administrative rights to the Report Manager component.
6. Click **Save** to save your changes.
7. Click the **General** page and jot down the Permission List assigned to the **Process Profile** field.
8. From the Portal menu, choose **PeopleTools, Security, Permissions & Roles, Permission Lists**.
9. In the Search dialog, enter the Permission Lists you noted in step 7.
10. Click the **Can Start Application Server** check box.

11. Click **Save** to save your changes.

## Task 8A-2: Set Up Process Scheduler to Transfer Reports and Logs to the Report Repository

The PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

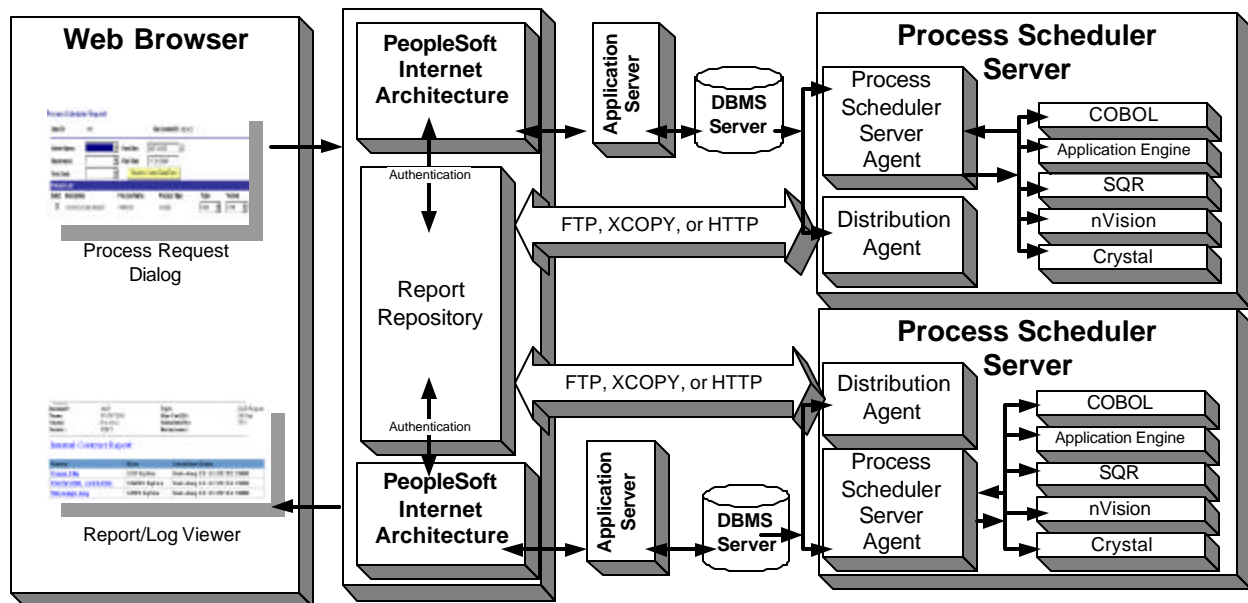
The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the **Server Definition** to transfer all log files to the Report Repository
- The process request output destination type is **Web**

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS\_CDM\_LIST). The server agent then updates the distribution status for a process request to **Generated** upon the completion of program associated with the process request. The distribution status of Generated signals the Distribution Status that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent polls the Report List (PS\_CDM\_LIST) table for any process requests that are ready for transferring. As the part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- **Transfer files to the Report Repository.** All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- **Delete the directory from the Process Scheduler Agent's Log/Output directory.** When the output destination type specified for a process request is Web, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture.



**Note.** The PeopleSoft Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

**Note.** Before users can view a report, they are authenticated against the PeopleSoft database.

**Note.** You should set up single signon if you don't want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, see the *PeopleTools Security PeopleBook*.

## Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to set up single signon to avoid getting prompt for second signon. Here are some considerations for setting up single signon to navigate from PIA to Report Repository:

If Report Repository resides on the same web server as the PeopleSoft Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Internet Architecture, do the following:

- Make sure your Local Message Node is setup to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/ps/signon.html` instead of `http://<machineName>/ps/signon.html`.

- Set up the AuthTokenDomain parameter in the configuration.properties file in the directory for the PIA web server:

`AuthTokenDomain=.peoplesoft.com`

**Note.** If you have set up multiple applications, you will have configuration.properties files for each application.

- Set up single signon with a password, like this:
  - Choose **PeopleTools, Integration Broker, Node Definitions**.
  - Click **Search** and then select the node marked as Default Local Node.
  - Select **Password** for the Authentication Option.
  - Enter a password of your choice.
  - Enter the password again in the **Confirm Password** field.
  - Save the Node Definition.
  - Sign off of PIA.
  - Reboot your application server.

**Note.** Refer to the *PeopleTools Security PeopleBook* for the details on setting up single signon.

## Determining the Transfer Protocol

Before transferring the files to the Report Repository, you need determine which transfer protocol to use. If you have an NT Process Scheduler and an NT web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have an NT Process Scheduler and a UNIX web server, you must use FTP or HTTP/HTTPS.

**Note.** If you're using FTP, the FTP service must be set up in your web server.

## Starting the Distribution Agent

The Distribution Agent is automatically started as another Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the **Server Definition** page, the Process Scheduler server will have a status in Process Monitor of '**Running with No Report Node**'. Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

## Enabling the Report Repository

You can enable/disable the Report Repository (as well as control some other options) using the following properties in the configuration.properties file on your web server. The properties are in the Report Repository section.

| Property                                                                                                                                                         | Description                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EnableReportRepository                                                                                                                                           | Not currently implemented. The Report Repository is always enabled—set to "true."                                                                                                                                    |
| CompressReportOutput                                                                                                                                             | Enter "true" to enable file compression and "false" to disable it. When this property is enabled, the Report Repository compresses files as it sends them to the browser. This reduces network traffic.              |
| <b>NT:</b> ReportRepositoryPath=c:/psreports<br><b>UNIX:</b> ReportRepositoryPath=/opt/psreports<br><b>Note.</b> OS/390 is not supported as a Report Repository. | Add the directory where you want the Report Repository to reside. Note that you must use a forward slash '/'.                                                                                                        |
| CompressReportOutputNetscape                                                                                                                                     | Used to indicate report file compression when using Netscape Browser. Some older versions of the Netscape browser cannot properly handle compressed files. "True" enables file compression, and "false" disables it. |

### To define the report node to use XCOPY

**Note.** If you use XCOPY the following parameters must be configured: URL, Operating System (must be NT Server), Network Path (must be DOS or UNC paths and should be a shared directory with write permissions for the account running the Process Scheduler). Both the Process Scheduler machine and the Report Repository machine must be NT for XCOPY to be used.

1. Select **PeopleTools, Process Scheduler, Report Nodes**.
2. Select **Add a New Value**, enter the Report node name, and click **Add**.



The Report Node Definition page appears.

3. Verify that the **FTP/XCopy** radio button is selected.
4. Enter the **URL** of the web server using this format:

**http://<machine name>:<port number>/psreports/<site name>**

Replace <machine name> with the name of your web server. If you are using an http port other than 80, you need to specify the port number. <site name> refers to the directory where you installed the PIA files.

**Note.** If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Under **Network Path** replace <machine name> with the name of your machine. Make sure that this directory is shared with the login or logins used to start Process Scheduler. Enter the UNC path that points to your Report Repository share.
6. Select NT as the operating system.
7. Click the **Save** button to save your entries.
8. To add additional report nodes, click the **Add** button to return to the Search page.

**To define the report node to use FTP**

**Note.** If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is an NT server, you may have to set up the FTP services.

**Note.** The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

- 1) JRE must be properly installed from the Process Scheduler server.
- 2) The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If either of these tasks are not done, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message “Unable to verify files posted.”

1. Select **PeopleTools, Process Scheduler, Report Nodes.**
2. Select **Add a New Value**, enter the Report node name, and click **Add**.

The Report Node Definition page appears.

3. Verify that the **FTP/XCopy** radio button is selected.
4. Enter the **URL** of the web server using this format:

**http://<machine name>:<port number>/psreports/<site name>**

Replace <machine name> with the name of your web server. If you are using an http port other than 80, you need to specify the port number. <site name> refers to the directory where you installed the PIA files.

**Note.** If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:

- **Home Directory.** Specify the directory specified during the installation of PeopleSoft Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties.

For NT, the directory will look something like psreports\. Make sure that you don't include any drive information—as in c:\psreports \—because you are using the FTP protocol to interpret this parameter.

- **Description.** Enter a description of the server (optional).
- **Operating System.** Select the web server operating system.
- **FTP Address.** Enter the machine name or the TCP/IP of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
- **Password.** Enter the password for the user ID specified in the FTP ID field.
- **FTP ID.** FTP user ID.
- **Confirm Password.** Enter the password a second time as a confirmation.

6. Click the **Save** button to save your entries.

7. To add additional report nodes, click the **Add** button to return to the Search page.

### To define the report node to use HTTP/HTTPS

1. Select **PeopleTools, Process Scheduler, Report Nodes**.

2. Select the **Add a New Value** link and enter the Report node name.

The Report Node Definition page appears.

3. Click on the **Http Information** radio button and then click on the **Http Information** page.

**Http Distribution Node**     **ETP/XCopy Distribution Node**

## Report Node Definition

**Node Name:** HTTP

**Ftp/XCopy**     **Http Information**

**Distribution Node Details**

**URL:**

**Description:**

**Operating System:**

**Connection Information**

**http**     **https**

**URI Host:**     **URI Port:**

**URI Resource:**

**Login ID:**

**Password:**     **Confirm Password:**

4. Verify that the **Http Information** radio button is selected.
5. Enter the **URL** of the Web server using the following format:

**http://<machine name>:<port number>/psreports/<site name>**

Replace <machine name> with the name of your machine. If you are using an http port other than 80, you need to specify the port number.

**Note.** If you have a UNIX web server, you may need to enter either the fully qualified name (for example, reportserver.peoplesoft.com), or the IP address.

- **Description.** Enter a description of the server (optional).
  - **Operating System.** Select the web server operating system.
6. Enter the following Connection Information:
    - **http/https.** Select the **http** radio button if you are *not* using SSL (default). Select the **https** radio button if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
    - **URI Host.** Enter the machine name for the report node.
    - **URI Port.** Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
    - **URI Resource.** Enter SchedulerTransfer/<site name>.

**Note.** For detailed instructions on setting up basic authentication on the web server where the Report Repository resides, refer to the appendix “Securing Report Repository for HTTP.” The setup of basic authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files.

- **Login ID.** Enter the Login ID. Not required, unless basic authentication has been set up on the web server by the Web Administrator.
- **Password.** Enter the password for the user ID specified in the Login ID field. Not required, unless basic authentication has been set up on the web server by the Web Administrator.
- **Confirm Password.** Enter the password a second time as a confirmation. Not required, unless basic authentication has been set up on the web server by the Web Administrator.

7. Click **Save** to save your entries.

8. To add additional report nodes, click the **Add** button to return to the Search page.

The following fields are shared between the Report Node page and the Http Information page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

**Note.** If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

### To set up the Distribution Settings for your Process Scheduler Server

1. Choose **PeopleTools, Process Scheduler, Servers**.
2. Enter the Server Name (for example, PSNT). The Server Definition page appears.
3. Select the **Distribution** page.

Server Definition **Distribution** Operation Notification Daemon

Server Name: PSNT

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt:  seconds

Transfer System Files to Report Repository

Save Return to Search Notify Add Update/Display

4. Click the **Lookup** button to display the Report Node Names and select the name of the required **report node**.
5. Enter a number for the **Maximum Transfer Retries**. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the **Interval for Transfer Attempt** field. This is the interval between attempts to send the report.
7. Select the check box **Transfer Log Files to the Report Repository** if you want to transfer all log and trace files from processes that don't generate reports.
8. Click **Save** to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

### To set up publish/subscription of report folders in the Report Manager

**Note.** To be able to view reports in the Report Manager Explorer and List pages, you need to add the application messages that are used to publish reports to the local node, as described here.

1. Select **PeopleTools, Integration Broker, Node Definitions**.
2. Click **Search**. Open the node identified as the default local node.

3. Select the **Transactions** page and add the following four messages as Inbound Asynchronous and again as Outbound Asynchronous:

**PSRF\_FOLDER\_CREATE**  
**PSRF\_REPORT\_CREATE**  
**PSRF\_REPORT\_DATE\_CHANGE**  
**PSRF\_REPORT\_DELETE**

4. Save the node.
5. Sign off of PIA
6. Shut down and bring up publish/subscribe services from the application server.

**Note.** Reports that have already run will not appear in the Report Manager Explorer and List pages.

### Task 8A-3: Set Environment and Path Variables

To set the Tuxedo environment and path variables, carry out these steps. (If you've already set these variables on the machine you're using as your Process Scheduler Server, you can skip this task.)

**Note.** Consult the chapter "Installing Third-Party Products," for the details on installing Tuxedo.

**To set the variables**

1. Choose **Start, Settings, Control Panel**.
2. Double-click the **System** icon. (In Windows 2000, choose the **Advanced** tab, and click on **Environment Variables**.)
3. Make sure that the following environment variables are set:

| <b>SYSTEM ENVIRONMENT VARIABLE</b> | <b>Sample Value</b> | <b>Comments</b>                                                                                                                                                                                                              |
|------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TUXDIR                             | C:\tuxedo           | BEA/Tuxedo does not set this environment variable by default. The user must set it as a System environment variable.                                                                                                         |
| PATH                               | C:\tuxedo\bin       | BEA/Tuxedo automatically appends this directory to your PATH. Double-check the PATH to make sure it exists and that an older Tuxedo\bin does not precede it in the PATH.                                                     |
| NLSPATH                            | C:\tuxedo\locale\c  | NLSPATH does not need to be explicitly set since BEA/Tuxedo sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, BEA/Tuxedo, on the Environment tab. However, the installation of certain |

products, such as IBM DB2 connectivity (DB2 for OS/390 and z/OS and DB2 for UNIX) sets NLSPATH to a value that causes Tuxedo to fail. The solution is to either set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let Tuxedo pick up the value from its registry tree. If you're running DB2 for UNIX, the solution instead is to append the c:\tuxedo\locale\c directory in the NLSPATH directory.

## Task 8A-4: Set Up Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

| Server Name | Operating System |
|-------------|------------------|
| PSNT        | NT/2000          |

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to your *PeopleSoft Process Scheduler* PeopleBook.

**Note.** When creating multiple Process Schedulers Servers for the same database, each server must have a unique server name. For example, two Process Schedulers Servers, both named PSNT, cannot run against the same database.

## Creating and Configuring a Process Scheduler Server

Here's how to create and configure a Process Scheduler server.

**Note.** You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file psprcs.cfg located in the <PS\_HOME>\appserv\prcs\database name directory. The following steps assume you are using PSADMIN to specify parameter settings.

### To create and configure a Process Scheduler Server

1. From <PS\_HOME>\appserv on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Administration menu.
2. Select **2** to access the Process Scheduler submenus.

#### PeopleSoft Server Administration

- 1) Application Server
- 2) Process Scheduler
- 3) Service Setup
- q) Quit

Command to execute (1-3 q): **2**



- 3. Select 4 from the PeopleSoft Process Scheduler Administration menu.

-----  
**PeopleSoft Process Scheduler Administration**  
 -----

- 1) Start a Process Scheduler Server
- 2) Stop a Process Scheduler Server
- 3) Configure a Process Scheduler Server
- 4) Create a Process Scheduler Server Configuration
- 5) Delete a Process Scheduler Server Configuration
- 6) Edit a Process Scheduler Configuration File
- 7) Show Status of a Process Scheduler Server
- 8) Kill a Process Scheduler Server
  
- q) Quit

Command to execute (1-8, q) : 4

- 4. When prompted for the name of the database that your server will access

Please enter name of Database that server will access :

enter the name of the database and press ENTER.

- 5. After the system creates the domain, you'll see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

-----  
**Quick-configure menu -- Scheduler for Database: HRDMO**  
 -----

| Features<br>=====          | Settings<br>=====                                        |
|----------------------------|----------------------------------------------------------|
| 1) Master Schdlr : No      | 6) DBNAME : [HRDMO]                                      |
| 2) App Eng Server : Yes    | 7) DBTYPE : [<database type>]                            |
| 3) Opt Eng Server : No     | 8) PrcsServer : [PSNT]                                   |
|                            | 9) UserId : [PS]                                         |
|                            | 10) UserPswd : [PS]                                      |
|                            | 11) ConnectID : [people]                                 |
|                            | 12) ConnectPswd: [people]                                |
|                            | 13) ServerName : []                                      |
|                            | 14) Log/Output Dir: [%PS_SERVDIR%\log_output]            |
|                            | 15) SQRBIN : [%PS_HOME%\bin\sqr\<database platform>\bin] |
|                            | 16) AddToPATH : [%WINDIR%;%WINDIR%\SYSTEM32]             |
|                            | 17) DBBIN : [C:\<connectivity directory>]                |
| <br>                       |                                                          |
| <b>Actions</b><br>=====    |                                                          |
| 4) Load config as shown    |                                                          |
| 5) Custom configuration    |                                                          |
| h) Help for this menu      |                                                          |
| q) Return to previous menu |                                                          |

**HINT: Enter 6 to edit DBNAME, then 4 to load**

**Enter selection (1-17, h, or q):**

**Note.** Cognos/Cube Manager Installs: Make sure to specify the proper path for Cognos in the *Add to Path* parameter. By default, that path is C:\Program Files\Cognos\cer2\bin;C:\ODI\OStore\bin. The Cognos and ODI are the important top level directories, and could change depending on the install.

6. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.

| Parameter            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master Schdlr        | <p>Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to disable the server.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Master Scheduler Server."</p>                                                                                                                               |
| App Eng Server       | <p>Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Application Engine Server."</p>                                                                                         |
| Opt Eng Server       | <p>Flag to enable Optimization Engine processing in this server. Default is to disable the server.</p> <p>Enable this flag if the application is packaged with Optimization Engine programs.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Application Engine Server To Run Optimization Engine."</p> |
| Load config as shown | Load the selections you've made in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Custom configuration | Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                   |
| DBNAME               | Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.                                                                                                                                                                                                                                                                                                                                                 |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DBTYPE         | Specify the database type: DB2UNIX, DB2ODBC (for DB2 OS/390) INFORMIX, MICROSOFT, ORACLE, or SYBASE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| PrCsServer     | Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Userld         | Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VP1</i> , and for Human Resources (HR) it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| UserPswd       | Enter the user password. For Enterprise Resource Planning, this is typically <i>VP1</i> , and for Human Resources it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ConnectID      | Enter the connect ID. This value is required for all platforms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ConnectPswd    | Enter the connect password. This value is required for all platforms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ServerName     | This value is required for Informix and Sybase users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Log/Output Dir | Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box.<br><br><b>Note.</b> The output directory has an extra slash attached at the end. |
| SQRBIN         | Enter the path to the SQR executables.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AddToPATH      | (Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DBBIN          | Enter the path to the database drivers; that is, your connectivity software.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**Note.** For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the *PeopleSoft Process Scheduler PeopleBook*. For a basic install, in most cases you can accept the defaults.

7. When you've updated the settings as needed, choose **4, Load config as shown**, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, *pstuxcfg*.
8. To start Process Scheduler, choose **1** and enter your database name.

**Note.** To stop Process Scheduler Server, choose **2, Stop a Process Scheduler Server**, from the PeopleSoft Process Scheduler Administration menu, and then enter the number corresponding to the name of the appropriate database.

**Note.** If you see the following message, the server is already down:

```
Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 1996 BEA Systems, Inc.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by BEA Systems, Inc.
Tuxedo is a registered trademark.
No bulletin board exists. Entering boot mode.

> TMADMIN_CAT:111: ERROR: No such command.
```

## Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other administrative tasks, this handy shortcut isn't available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you've already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

**Note.** If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

### Reconfiguring a Process Scheduler Server

1. Start PSADMIN by entering:
 

```
cd <PS_HOME>\appserv
psadmin
```
2. Select **2** for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select **3** for Configure a Process Scheduler.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt "Do you want to change any config values (y/n)? [n]:", specify **y** to start an interactive dialog that lets you examine or change parameter values.

6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

**Values for config section - Startup**

DBName=  
DBType=  
UserId=  
UserPswd=  
ConnectId=  
ConnectPswd=  
ServerName=

Do you want to change any values (y/n)? [n]:

- Specify *y* to change any parameter value(s) for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you don't want to change any values, specify *n* and you are prompted for the next configuration section.

**Note.** For descriptions of the Process Scheduler options in the PSADMIN, consult the *PeopleSoft Process Scheduler* PeopleBook. In most cases you can accept the defaults.

7. Once you've selected all your parameters, you'll see this message

**You will need to shut down and start up the server to read the new settings.**

## Verifying the Process Scheduler Server Status

At this stage you'll want to verify the Process Scheduler Server status.

### To verify the Process Scheduler Server status

1. From the PeopleSoft Process Scheduler Administration menu, select Option 7.

-----  
PeopleSoft Process Scheduler Administration  
-----

- 1) Start a Process Scheduler Server
- 2) Stop a Process Scheduler Server
- 3) Configure a Process Scheduler Server
- 4) Create a Process Scheduler Server Configuration
- 5) Delete a Process Scheduler Server Configuration
- 6) Edit a Process Scheduler Configuration File
- 7) Show Status of a Process Scheduler Server
- 8) Kill a Process Scheduler Server

q) Quit

Command to execute (1-8, q) : 7

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

Database list:

1) HRDMO

Select item number to start: 1

will verify the status of the Process Scheduler Server for the database HRDMO.

```

Loading command line administration utility ...
tmadmin - Copyright (c) 1996 BEA Systems, Inc.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by BEA Systems, Inc.
TUXEDO is a registered trademark.
    
```

| > Prog Name  | Queue Name  | Grp Name | ID  | RqDone | Load Done | Current  | Service |
|--------------|-------------|----------|-----|--------|-----------|----------|---------|
| BBL.exe      | 52698       | RALCANT+ | 0   | 0      | 0         | ( IDLE ) |         |
| PSPRCRV.exe  | SCHEDQ      | BASE     | 101 | 0      | 0         | ( IDLE ) |         |
| PSDSTSRV.exe | DSTQ        | BASE     | 103 | 0      | 0         | ( IDLE ) |         |
| PSAESRV.exe  | 00101.00110 | AESRV    | 110 | 0      | 0         | ( IDLE ) |         |
| PSAESRV.exe  | 00101.00111 | AESRV    | 111 | 0      | 0         | ( IDLE ) |         |
| PSAESRV.exe  | 00101.00112 | AESRV    | 112 | 0      | 0         | ( IDLE ) |         |

You can also verify status of the Process Scheduler Server Status from Process Monitor. To verify the Process Scheduler Server status from the Process Monitor page, launch PeopleTools, run the Process Request Monitor (**PeopleTools, Process Scheduler, Process Monitor**), and select **Server List**.

If the user has the process security rights to update the server status, the **Refresh** button can be used to refresh the screen, too. See the next task to set up Process Security.

| <a href="#">Process List</a> |                 | <a href="#">Server List</a>  |                  |               |                         |                         |
|------------------------------|-----------------|------------------------------|------------------|---------------|-------------------------|-------------------------|
|                              |                 |                              |                  |               |                         | <a href="#">Refresh</a> |
| <u>Server</u>                | <u>Hostname</u> | <u>Last Update Date/Time</u> | <u>Dist Node</u> | <u>Status</u> | <u>Details</u>          |                         |
| PSNT                         | INTERN84        | 01/17/2002 3:17:18PM         | FS840A2          | Running       | <a href="#">Details</a> |                         |
| PSOS390                      | SYSC            | 01/17/2002 3:17:22PM         | FS840A2          | Running       | <a href="#">Details</a> |                         |
| PSUNX                        | pt-ibm06        | 01/17/2002 10:15:41AM        | FS840A2          | Down          | <a href="#">Details</a> |                         |

### Task 8A-5: Starting Process Scheduler as a Windows NT Service (Optional)

You can start the Process Scheduler Server as a Windows NT service. This means that administrators don't need to manually boot each Process Scheduler Server that runs on a Windows NT machine. Instead, each time you boot the Windows NT server where the Process Scheduler Server resides, the Process Scheduler Server will boot automatically. You can also still manually boot Process Scheduler Servers on your Windows NT server.

**Note.** If you have set up TUXDIR and TEMP as new SYSTEM variables, you need to reboot your machine before any NT services will pick up the value of these environment variables.

**Note.** You can also set up application servers as a Windows NT service using the instructions provided here.

**Note.** The following directions assume that the Process Scheduler is already configured on the Windows NT server.

#### To set up the Windows NT Service for a Process Scheduler Server

1. Open the System utility within the Control Panel, and set the following variables in the System Variables section of the Environment tab (on Windows/2000, choose the **Advanced** tab and click on **Environment Variables**).

**Note!** Even if the following variables are in the User Variables section, they must also be in the System Variables section because the NT service will be started under the System Account.

| <u>Variable</u> | <u>Value</u>                                                                            |
|-----------------|-----------------------------------------------------------------------------------------|
| TEMP            | Specify the location of the TEMP directory on the Windows NT server, as in C:\TEMP.     |
| TUXDIR          | Specify the location of the Tuxedo directory on the Windows NT server, as in C:\tuxedo. |

2. Reboot the NT computer if any changes or additions were made for the system variables.
3. Run the PeopleSoft PSADMIN utility (PSADMIN.EXE in the <PS\_HOME>\appserv directory).

4. Select **3** from the PeopleSoft Server Administration menu.

```
-----
PeopleSoft Server Administration
-----
```

- 1) Application Server
- 2) Process Scheduler
- 3) Service Setup
- q) Quit

Command to execute (1-3, q): 3

5. Select **1** from the PeopleSoft Services Administration menu.

```
-----
PeopleSoft Services Administration
-----
```

- 1) Configure a Service
- 2) Install a Service
- 3) Delete a Service
- 4) Edit a Service Configuration File
- q) Quit

Command to execute (1-4, q) : 1

When asked if you want to change configuration values, , enter y.

6. Enter the name of the Process Scheduler databases that you intend to include as part of the Windows NT service.

Values for config section - NT Services

```
Service Start Delay=60
Application Server Domains=HR840
Process Scheduler Databases=HR840
```

Do you want to change any values (y/n)? [n]:

If you specify more than one Process Scheduler database, separate each entry with a comma.



**Note.** You can take advantage of a new setting when using PSADMIN to set up Process Scheduler Servers or application servers as a Windows NT service. PSNTRV.EXE is the Windows NT Service that automatically starts application servers and Process Scheduler Servers that reside on the same Windows NT machine. Occasionally, PSNTRV.EXE would attempt to initiate a connection between an application server or Process Scheduler Server and a database on the same machine that was not ready to receive requests. As a result the connection would fail. Now when you set up Process Scheduler or an application server as a Windows NT Service, the Service Start Delay setting lets you specify a delay, in seconds, that elapses before a service attempts to start any application server domains or Process Scheduler Servers. This allows the RDMBS to boot and become available to accept requests. The default setting for the Service Start Delay parameter is 60 seconds.

**Note.** The NT Services section of the PSADMIN modifies the PSNTRV.CFG file located in the <PS\_HOME>\appserv directory. You can edit this file manually by selecting **4, Edit a Service Configuration File** from the PeopleSoft Services Administration menu. If you edit it, you need to delete and then install the service again.

7. Select option **2** from the PeopleSoft Services Administration menu.

-----  
**PeopleSoft Services Administration**  
 -----

- 1) **Configure a Service**
- 2) **Install a Service**
- 3) **Delete a Service**
- 4) **Edit a Service Configuration File**
- q) **Quit**

**Command to execute (1-4, q) : 2**

8. Return to the Control Panel, choose **Administrative Tools**, and launch the **Services** utility.
9. On the Services dialog, scroll to find the entry that adheres to the following naming convention, and select it:

**PeopleSoft <PS\_HOME>**

**Note.** The default Startup mode is Manual.

10. Click **Startup**.
11. On the Service dialog in the Startup Type group, select **Automatic**, and in the **Log On As** group, select **System Account**. Then click **OK**.

**Note.** The **Log On As** setting needs to reflect that which you set for your Tuxedo IPC Helper and Tlisten processes. PeopleSoft recommends that you set these services to **System Account** when you install Tuxedo. The **Log On As** value only affects the application server because Process Scheduler runs independently from Tuxedo. See the chapter “Installing Third Party Products” for more information on installing Tuxedo, and refer to the chapter “Configuring the Application Server” for the details on configuring the application server.

12. On the Services dialog, make sure the PeopleSoft service is selected, and click **Start**.
13. Use the Process Monitor to verify that the Process Scheduler Server is running. You can also use Task Manager to verify that the executables involved with the service are running.

For the Process Scheduler, make sure that the PSPRC.SRV.EXE is running. If you've customized the name of PSPRC.SRV.EXE, make sure the appropriate executable is running.

## Task 8A-6: Configuring the Process Scheduler for Word for Windows (Optional)

Some applications process documents using Word for Windows. Here is how to configure Word to work with the Process Scheduler.

**Note.** Microsoft Word must already be installed on the server; it is not included with the PeopleTools install.

### To configure Process Scheduler for Winword

1. Edit the Process Scheduler configuration file. In the [Process Scheduler] section, edit the WINWORD entry so that it points to the directory where WINWORD.EXE is installed—for example, WINWORD=C:\Apps\Office2000\Office.

**Note.** The Process Scheduler configuration file psprcs.cfg is located in <PS\_HOME>\appserv\prcs\database name directory.

2. Change the Microsoft Word macro security to allow macros to be run. Start Microsoft Word and select **Tools, Macro, Security**. Select the **Low** security setting and click **OK**.

## Task 8A-7: Verifying Crystal Functionality

Once your Process Scheduler is installed, you can follow these steps to verify the Crystal Reports installation.

### To verify your Crystal installation

1. Click **PeopleTools**.
2. Click **Process Scheduler Manager**.

3. Click **System Process Requests**.
4. Enter **1** in the Run Control ID and click **Search**.
5. Click the **Run** button to save the panel and bring up the Process Scheduler Request dialog.
6. Select PSNT from the server name drop-down list.
7. In the Process List, click on the check box for the Cross Reference Listing (XRFWIN) Crystal process.
8. Ensure that the type is Web and the Format is PDF.
9. Click **OK** to execute the process.
10. Click on the Process Monitor link.

Depending on the “sleep time” interval of the Process Scheduler, the process may take a minute or two to initiate. If necessary, click the **Refresh** button.

11. A status of Success indicates that the process has finished.
12. Click on the Details link.
13. Click on the View Log/Trace link to view the report.



# SETTING UP PROCESS SCHEDULER ON UNIX

This chapter leads you through the installation of the Process Scheduler Server. For additional details on configuring and using Process Scheduler with your system, refer to your *PeopleSoft Process Scheduler PeopleBook*.

If your database runs on UNIX or OS/390 and z/OS, you need to set up a Windows batch environment on a Windows NT application server or on a dedicated Windows NT/2000 workstation for Windows-specific batch processes, such as Crystal Reports, nVision reports, Microsoft Word, or Cube Manager. These processes are Windows-specific applications that cannot be executed by the Process Scheduler on UNIX or OS/390 and z/OS. This dedicated environment is also referred to as a *Report Server*; for more information on Report Servers, consult the *PeopleTools Hardware and Software Requirements* book.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No.  | Task Name                                                                      |
|-----------|--------------------------------------------------------------------------------|
| Task 8B-1 | Set Up Process Scheduler Security                                              |
| Task 8B-2 | Set Up Process Scheduler to Transfer Reports and Logs to the Report Repository |
| Task 8B-3 | Set Up Process Scheduler Server Agent                                          |

## Before You Begin

Before beginning this procedure, you must:

- Install Tuxedo and Jolt, as described in the chapter “Installing Third-Party Products.”
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).

See Chapter 1 for the details on installing your connectivity software.

- Set up the web server with the PeopleSoft Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Check the *PeopleTools Hardware and Software Requirements* guide and your application-specific documentation for the details on whether your application requires COBOL.

**Note.** See the chapter “Compiling COBOL” later in this book for details on compiling your COBOL on either Windows NT/2000 or UNIX.

- Have both your application server and the PeopleSoft Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID’s profile be modified through the **User Security** component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Internet Architecture.


## Task 8B-1: Set Up Process Scheduler Security

This task guarantees that security is set up properly within your PeopleSoft database. You must carry out this task to start Process Scheduler successfully.

Here you will:

- Set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager.

### To grant Process Scheduler administrative rights

1. Log onto your PeopleSoft database through the PeopleSoft Internet Architecture.
2. Select **PeopleTools, Security, User Profiles**.
3. Select the **User Profiles** component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the **Roles** tab, click the  icon to insert a new row, and there enter the **ProcessSchedulerAdmin** role to grant the user ID with administrative rights in the Process Scheduler components.

General ID **Roles** Workflow Audit Links User ID Queries

User ID: VP1  
 Description: VP of Corporate Planning

| Role Name             | Description                  | Dynamic                  | View Definition                                                   |
|-----------------------|------------------------------|--------------------------|-------------------------------------------------------------------|
| Coordinator           | Coordinator                  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| PAPP_USER             | Enterprise Portal User       | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| Packaging             | Env. Mgmt. Packaging         | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| PeopleSoft Administra | PeopleSoft Admin Privileges  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| PeopleSoft User       | PeopleSoft User              | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| PeopleTools           | PeopleTools                  | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| ProcessSchedulerAdm   | Process Scheduler Admin      | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| ReportDistAdmin       | Report Distribution Admin    | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| UPG_ALLPANLS          | ALLPANLS                     | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |
| UPG_APPSRVR           | Can start application server | <input type="checkbox"/> | <a href="#">Route Control</a> <a href="#">View Definition</a> + - |

- Repeat the instructions in step 4 to add the role **ReportDistAdmin**. This will grant the user ID administrative rights to the Report Manager component.
- Click **Save** to save your changes.
- Click the **General** page and jot down the Permission List assigned to the **Process Profile** field.
- From the Portal menu, choose **PeopleTools, Security, Permissions & Roles, Permission Lists**.
- In the Search dialog, enter the Permission Lists you noted in step 7.
- Click the **Can Start Application Server** check box.
- Click **Save** to save your changes.

## Task 8B-2: Set Up Process Scheduler to Transfer Reports and Logs to the Report Repository

The PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

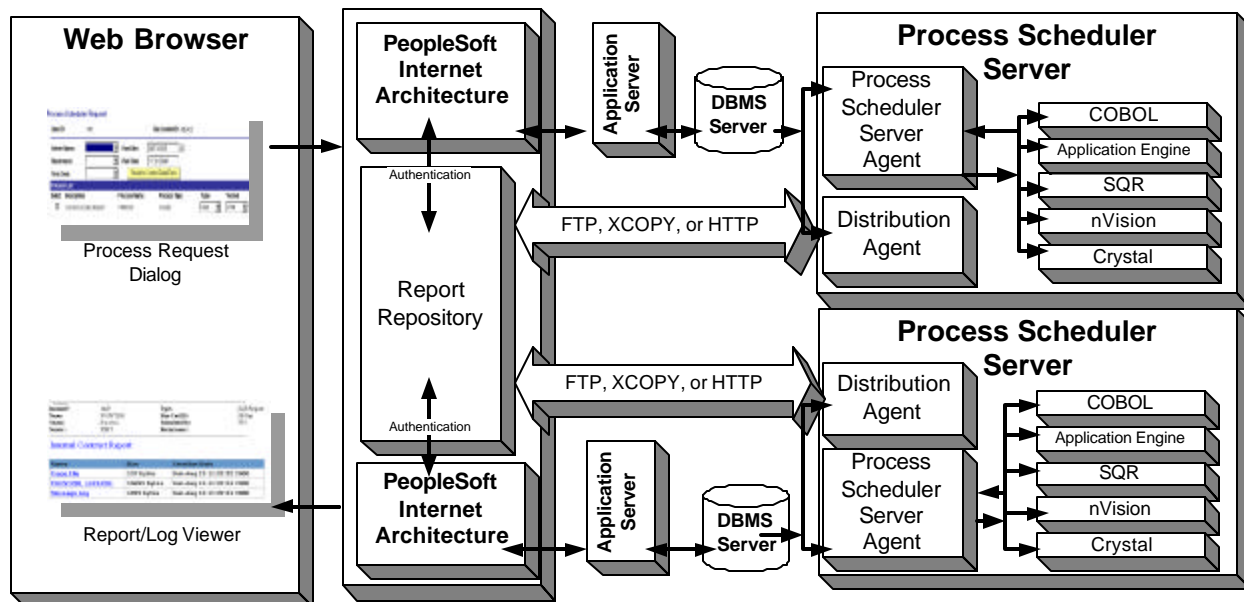
The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the **Server Definition** to transfer all log files to the Report Repository
- The process request output destination type is **Web**

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS\_CDM\_LIST). The server agent then updates the distribution status for a process request to **Generated** upon the completion of program associated with the process request. The distribution status of Generated signals the Distribution Status that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent polls the Report List (PS\_CDM\_LIST) table for any process requests that are ready for transferring. As the part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- **Transfer files to the Report Repository.** All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- **Delete the directory from the Process Scheduler Agent's Log/Output directory.** When the output destination type specified for a process request is Web, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture.





- Note.** The PeopleSoft Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.
- Note.** Before users can view a report, they are authenticated against the PeopleSoft database.
- Note.** You should set up single signon if you don't want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, see the *PeopleTools Security* PeopleBook.

## Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to set up single signon to avoid getting prompt for second signon. Here are some considerations for setting up single signon to navigate from PIA to Report Repository:

If Report Repository resides on the same web server as the PeopleSoft Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a “trusted” node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Internet Architecture, do the following:

- Make sure your Local Message Node is setup to be a “trusted” node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/ps/signon.html` instead of `http://<machineName>/ps/signon.html`.
- Set up the `AuthTokenDomain` parameter in the `configuration.properties` file in the directory for the PIA web server:

```
AuthTokenDomain=.peoplesoft.com
```

**Note.** If you have set up multiple applications, you will have `configuration.properties` files for each application.

- Set up single signon with a password, like this:
  - Choose **PeopleTools, Integration Broker, Node Definitions**.
  - Click **Search** and then select the node marked as Default Local Node.
  - Select **Password** for the Authentication Option.
  - Enter a password of your choice.
  - Enter the password again in the **Confirm Password** field.
  - Save the Node Definition.
  - Sign off of PIA.
  - Reboot your application server.

**Note.** Refer to the *PeopleTools Security PeopleBook* for the details on setting up single signon.

## Determining the Transfer Protocol

Before transferring the files to the Report Repository, you need determine which transfer protocol to use. If you have an NT Process Scheduler and an NT web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have an NT Process Scheduler and a UNIX web server, you must use FTP or HTTP/HTTPS.

**Note.** If you're using FTP, the FTP daemon must be set up in your web server.

## Starting the Distribution Agent

The Distribution Agent is automatically started as another Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the **Server Definition** page, the Process Scheduler server will have a status in Process Monitor of '**Running with No Report Node**'. Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

## Enabling the Report Repository

You can enable/disable the Report Repository (as well as control some other options) using the following properties in the configuration.properties file on your web server. The properties are in the Report Repository section.

| Property                                                                                                                                                         | Description                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EnableReportRepository                                                                                                                                           | Not currently implemented. The Report Repository is always enabled—set to "true."                                                                                                                                    |
| CompressReportOutput                                                                                                                                             | Enter "true" to enable file compression and "false" to disable it. When this property is enabled, the Report Repository compresses files as it sends them to the browser. This reduces network traffic.              |
| <b>NT:</b> ReportRepositoryPath=c:/psreports<br><b>UNIX:</b> ReportRepositoryPath=/opt/psreports<br><b>Note.</b> OS/390 is not supported as a Report Repository. | Add the directory where you want the Report Repository to reside. Note that you must use a forward slash '/'.                                                                                                        |
| CompressReportOutputNetscape                                                                                                                                     | Used to indicate report file compression when using Netscape Browser. Some older versions of the Netscape browser cannot properly handle compressed files. "True" enables file compression, and "false" disables it. |

**To define the report node to use FTP**

**Note.** If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is an NT server, you may have to set up the FTP services.

**Note.** The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

- 1) JRE must be properly installed from the Process Scheduler server.
- 2) The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If either of these tasks are not done, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message “Unable to verify files posted.”

1. Select **PeopleTools, Process Scheduler, Report Nodes**.
2. Select **Add a New Value**, enter the Report node name, and click **Add**.

The Report Node Definition page appears.

Http Distribution Node
FTP/XCopy Distribution Node

### Report Node Definition

**Node Name:** FTP

**Ftp/XCopy**
         
  **Http Information**

**Distribution Node Details**

**URL:**

**Home Directory:**

**Description:**

**Operating System:**

**Connection Information**

|                     |                                                   |                          |                                |
|---------------------|---------------------------------------------------|--------------------------|--------------------------------|
| <b>FTP Address:</b> | <input type="text" value="&lt;machine name&gt;"/> | <b>Password:</b>         | <input type="text" value="*"/> |
| <b>FTP ID:</b>      | <input type="text" value="&lt;user id&gt;"/>      | <b>Confirm Password:</b> | <input type="text" value="*"/> |

3. Verify that the **FTP/XCopy** radio button is selected.
4. Enter the **URL** of the web server using this format:

**http://<machine name>:<port number>/psreports/<site name>**

Replace <machine name> with the name of your web server. If you are using an http port other than 80, you need to specify the port number. <site name> refers to the directory where you installed the PIA files.

**Note.** If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:

- **Home Directory.** Specify the directory specified during the installation of PeopleSoft Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties.

For UNIX, the directory will look like \$PS\_HOME/psreports/.

- **Description.** Enter a description of the server (optional).
- **Operating System.** Select the web server operating system.
- **FTP Address.** Enter the machine name or the TCP/IP of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
- **Password.** Enter the password for the user ID specified in the FTP ID field.
- **FTP ID.** FTP user ID.
- **Confirm Password.** Enter the password a second time as a confirmation.

6. Click the **Save** button to save your entries.

7. To add additional report nodes, click the **Add** button to return to the Search page.

### To define the report node to use HTTP/HTTPS

1. Select **PeopleTools, Process Scheduler, Report Nodes**.

2. Select the **Add a New Value** link and enter the Report node name.

The Report Node Definition page appears.

3. Click on the **Http Information** radio button and then click on the **Http Information** page.

Http Distribution Node **ETP/XP Copy Distribution Node**

## Report Node Definition

**Node Name:** HTTP

Ftp/XP Copy  **Http Information**

**Distribution Node Details**

**URL:**

**Description:**

**Operating System:**

**Connection Information**

**http**  https

**URI Host:**  **URI Port:**

**URI Resource:**

**Login ID:**

**Password:**  **Confirm Password:**

4. Verify that the **Http Information** radio button is selected.
5. Enter the **URL** of the Web server using the following format:

**http://<machine name>:<port number>/psreports/<site name>**

Replace <machine name> with the name of your machine. If you are using an http port other than 80, you need to specify the port number.

**Note.** If you have a UNIX web server, you may need to enter either the fully qualified name (for example, reportserver.peoplesoft.com), or the IP address.

- **Description.** Enter a description of the server (optional).
  - **Operating System.** Select the web server operating system.
6. Enter the following Connection Information:
    - **http/https.** Select the **http** radio button if you are *not* using SSL (default). Select the **https** radio button if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
    - **URI Host.** Enter the machine name for the report node.
    - **URI Port.** Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
    - **URI Resource.** Enter SchedulerTransfer/<site name>.

**Note.** For detailed instructions on setting up basic authentication on the web server where the Report Repository resides, refer to the appendix “Securing Report Repository for HTTP.” The setup of basic authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files.

- **Login ID.** Enter the Login ID. Not required, unless basic authentication has been set up on the web server by the Web Administrator.
- **Password.** Enter the password for the user ID specified in the Login ID field. Not required, unless basic authentication has been set up on the web server by the Web Administrator.
- **Confirm Password.** Enter the password a second time as a confirmation. Not required, unless basic authentication has been set up on the web server by the Web Administrator.

7. Click **Save** to save your entries.

8. To add additional report nodes, click the **Add** button to return to the Search page.

The following fields are shared between the Report Node page and the Http Information page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

**Note.** If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

### To set up the Distribution Settings for your Process Scheduler Server

1. Choose **PeopleTools, Process Scheduler, Servers**.
2. Enter the Server Name (for example, PSNT). The Server Definition page appears.
3. Select the **Distribution** page.

Server Definition **Distribution** Operation Notification Daemon

Server Name: PSNT

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt:  seconds

Transfer System Files to Report Repository

4. Click the **Lookup** button to display the Report Node Names and select the name of the required **report node**.
5. Enter a number for the **Maximum Transfer Retries**. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the **Interval for Transfer Attempt** field. This is the interval between attempts to send the report.
7. Select the check box **Transfer Log Files to the Report Repository** if you want to transfer all log and trace files from processes that don't generate reports.
8. Click **Save** to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

### To set up publish/subscription of report folders in the Report Manager

**Note.** To be able to view reports in the Report Manager Explorer and List pages, you need to add the application messages that are used to publish reports to the local node, as described here.

1. Select **PeopleTools, Integration Broker, Node Definitions**.
2. Click **Search**. Open the node identified as the default local node.

3. Select the **Transactions** page and add the following four messages as Inbound Asynchronous and again as Outbound Asynchronous:

PSRF\_FOLDER\_CREATE  
 PSRF\_REPORT\_CREATE  
 PSRF\_REPORT\_DATE\_CHANGE  
 PSRF\_REPORT\_DELETE

4. Save the node.
5. Sign off of PIA
6. Shut down and bring up publish/subscribe services from the application server.

**Note.** Reports that have already run will not appear in the Report Manager Explorer and List pages.

## Task 8B-3: Set Up Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

| Server Name | Operating System |
|-------------|------------------|
| PSUNIX      | UNIX             |

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to your *PeopleSoft Process Scheduler* PeopleBook.

**Note.** When creating multiple Process Schedulers Servers for the same database, each server must have a unique server name. For example, two Process Schedulers Servers, both named PSNT, cannot run against the same database.

### Changing the Default Operating System

By default, Process Scheduler is set up to run a process request from a Process Scheduler Server Agent started in a Windows NT/2000 server when the value of the *ServerName* field in the Process Request Dialog page is left blank. If you plan to run all processes other than Windows-based programs (that is, nVision or Crystal Reports) from UNIX or OS390, you must change the default operating system.

**Note.** If you do not change the default operating system from NT Server to UNIX or OS390 and you do not plan to set up a Process Scheduler Server Agent in Windows NT/2000, process requests that are created will be directed to an NT-based operating system and will remain in the 'Queued' status.



### To change the default operating system for process requests that weren't assigned a Process Scheduler Server Name

1. Launch PeopleTools. Choose **PeopleTools, Process Scheduler, System Settings**.
2. Under **Primary Operating System**, choose *UNIX* from the drop-down list.
3. Click on the **System Purge Options** tab. Enter the date for the next purge of process requests in the **Next Purge Date** field.
4. Enter the time for the next purge of process requests in the **Next Purge Time** field. The default time is 12:00:00AM.
5. Enter a **Recurrence** if you want to set a regular purging basis.
6. Choose **Save**.

## Set Up Environment

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately. Alternatively, make sure the following environment variables are set in the profile file in the user's home directory:

**Note.** Remember, you only need COBOL if your application requires COBOL. Consult the *PeopleTools Hardware and Software Requirements* guide for the details.

**SORACLE\_HOME** must point to the correct Oracle installation for example:

```
ORACLE_HOME=/products/oracle/8.1.7; export ORACLE_HOME
```

**SORACLE\_HOME/bin** must be added to **PATH**; for example:

```
PATH=$PATH:SORACLE_HOME/bin; export PATH
```

**SORACLE\_HOME/lib** must be appended to **LD\_LIBRARY\_PATH**, **LIBPATH**, or **SHLIB\_PATH**, whichever is appropriate for your platform

**SORACLE\_SID** must be set to the correct Oracle instance for example:

```
ORACLE_SID=hdm; export ORACLE_SID
```

**COBDIR** must be set to the Server Express installation; for example:

```
COBDIR=/cobol/prod/svrex-2.0.11; export COBDIR
```

**COBDIR/lib** must be appended to **LD\_LIBRARY\_PATH**, **LIBPATH**, or **SHLIB\_PATH**, whichever is appropriate for your platform

SCOBDIR/bin must be appended to the PATH; for example:

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:SCOBDIR/lib; export LD_LIBRARY_PATH
LIBPATH=$LIBPATH:SCOBDIR/lib; export LIBPATH
SHLIB_PATH=$SHLIB_PATH:SCOBDIR/lib; export SHLIB_PATH
PATH=$PATH:SCOBDIR/bin; export PATH
```

To set the required PeopleSoft environment variables, run psconfig.sh. Enter the following command:

```
cd <PS_HOME>
. ./psconfig.sh
```

## Creating and Configuring a Process Scheduler Server

Here's how to create and configure a Process Scheduler server.

**Note.** You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file psprcs.cfg located in the <PS\_HOME>/appserv/prcs/database name directory. The following steps assume you are using PSADMIN to specify parameter settings.

### To create and configure a Process Scheduler Server

1. From <PS\_HOME>/appserv on the batch server, type psadmin and press ENTER to access the PeopleSoft Server Administration menu.
2. Select **2** to access the Process Scheduler submenus.

```
-----
PeopleSoft Server Administration
-----
```

- 1) Application Server
- 2) Process Scheduler
- q) Quit

Command to execute (1-2 q): 2

3. Select **4** from the PeopleSoft Process Scheduler Administration menu.

```
-----
PeopleSoft Process Scheduler Administration
-----
```

- 1) Start a Process Scheduler Server
- 2) Stop a Process Scheduler Server
- 3) Configure a Process Scheduler Server
- 4) Create a Process Scheduler Server Configuration

- 5) Delete a Process Scheduler Server Configuration
- 6) Edit a Process Scheduler Configuration File
- 7) Show Status of a Process Scheduler Server
- 8) Kill a Process Scheduler Server

q) Quit

Command to execute (1-8, q) : 4

- 4. When prompted for the name of the database that your server will access

Please enter name of Database that server will access :

enter the name of the database and press ENTER.

- 5. After the system creates the domain, you'll see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

```
-----
Quick-configure menu -- Scheduler for Database: HRDMO
-----

          Features                      Settings
          =====                      =====
1) Master Schdlr : No      6) DBNAME      : [HRDMO]
2) App Eng Server : Yes   7) DBTYPE      : [<database type>]
3) Opt Eng Server : No    8) PrcsServer : [PSUNX]
                               9) UserId      : [QEDMO]
                               10) UserPswd   : [QEDMO]
                               11) ConnectID   : [people]
                               12) ConnectPswd: [people]
                               13) ServerName  : []
          Actions
          =====
4) Load config as shown  14) Log/Output Dir: [%PS_SERVDIR%/log_output]
5) Custom configuration  15) SQRBIN      : [%PS_HOME%/bin/sqr/%PS_DB%/bin]
h) Help for this menu    16) AddToPATH   : [%PS_HOME%/cbl bin]
q) Return to previous menu
```

HINT: Enter 6 to edit DBNAME, then 4 to load

Enter selection (1-16, h, or q):

- 6. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.

| Parameter            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master Schdlr        | <p>Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to disable the server.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Master Scheduler Server."</p>                                                                                                                               |
| App Eng Server       | <p>Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Application Engine Server."</p>                                                                                         |
| Opt Eng Server       | <p>Flag to enable Optimization Engine processing in this server. Default is to disable the server.</p> <p>Enable this flag if the application is packaged with Optimization Engine programs.</p> <p>For additional information about the Master Scheduler, please refer to the <i>PeopleSoft Process Scheduler</i> PeopleBook, the chapter "Managing PeopleSoft Process Scheduler," the section "Setting Parameters for the Application Engine Server To Run Optimization Engine."</p> |
| Load config as shown | Load the selections you've made in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Custom configuration | Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                   |
| DBNAME               | Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.                                                                                                                                                                                                                                                                                                                                                 |
| DBTYPE               | Specify the database type: DB2UNIX, DB2ODBC (for DB2 OS/390) INFORMIX, MICROSOFT, ORACLE, or SYBASE.                                                                                                                                                                                                                                                                                                                                                                                   |
| PrccServer           | Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> .                                                                                                                                                                                                                                                                                                                                                                |
| UserId               | Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VP1</i> , and for Human Resources (HR) it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                |
| UserPswd             | Enter the user password. For Enterprise Resource                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Planning, this is typically <i>VP1</i> , and for Human Resources it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ConnectID      | Enter the connect ID. This value is required for all platforms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ConnectPswd    | Enter the connect password. This value is required for all platforms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ServerName     | This value is required for Informix and Sybase users.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Log/Output Dir | Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box.<br><br><b>Note.</b> The output directory has an extra slash attached at the end. |
| SQRBIN         | Enter the path to the SQR executables.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AddToPATH      | (Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Note.** For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the *PeopleSoft Process Scheduler PeopleBook*. For a basic install, in most cases you can accept the defaults.

7. When you've updated the settings as needed, choose **4, Load config as shown**, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, `pstuxcfg`.
8. To start Process Scheduler, choose **1** and enter your database name.

**Note.** To stop Process Scheduler Server, choose **2, Stop a Process Scheduler Server**, from the PeopleSoft Process Scheduler Administration menu, and then enter the number corresponding to the name of the appropriate database.

**Note.** If you see the following message, the server is already down:

```
Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
  tadmin - Copyright (c) 1996 BEA Systems, Inc.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
```

```
Distributed under license by BEA Systems, Inc.
Tuxedo is a registered trademark.

No bulletin board exists. Entering boot mode.

> TMADMIN_CAT:111: ERROR: No such command.
```

## Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other administrative tasks, this handy shortcut isn't available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you've already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

**Note.** If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

### Reconfiguring a Process Scheduler Server

1. Start PSADMIN by entering:
 

```
cd <PS_HOME>/appserv
psadmin
```
2. Select **2** for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select **3** for Configure a Process Scheduler.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt
 

```
Do you want to change any config values (y/n)? [n]:
```

 Specify **y** to start an interactive dialog that lets you examine or change parameter values.
6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

#### Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
```

Do you want to change any values (y/n)? [n]:

- Specify *y* to change any parameter value(s) for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you don't want to change any values, specify *n* and you are prompted for the next configuration section.

**Note.** For descriptions of the Process Scheduler options in the PSADMIN, consult the *PeopleSoft Process Scheduler* PeopleBook. In most cases you can accept the defaults.

7. Once you've selected all your parameters, you'll see this message

You will need to shut down and start up the server to read the new settings.

## Verifying the Process Scheduler Server Status

At this stage you'll want to verify the Process Scheduler Server status.

### To verify the Process Scheduler Server status

1. From the PeopleSoft Process Scheduler Administration menu, select Option 7.

```
-----
PeopleSoft Process Scheduler Administration
-----
```

- 1) Start a Process Scheduler Server
  - 2) Stop a Process Scheduler Server
  - 3) Configure a Process Scheduler Server
  - 4) Create a Process Scheduler Server Configuration
  - 5) Delete a Process Scheduler Server Configuration
  - 6) Edit a Process Scheduler Configuration File
  - 7) Show Status of a Process Scheduler Server
  - 8) Kill a Process Scheduler Server
- q) Quit

Command to execute (1-8, q) : 7

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

**Database list:**

1) **HRDMO**

Select item number to start: 1

will verify the status of the Process Scheduler Server for the database HRDMO.

Loading command line administration utility ...

tmadmi n - Copyright (c) 1996 BEA Systems, Inc.

Portions \* Copyright 1986-1997 RSA Data Security, Inc.

All Rights Reserved.

Distributed under license by BEA Systems, Inc.

TUXEDO is a registered trademark.

| > Prog Name | Queue Name  | Grp Name | ID  | RqDone | Load Done  | Current Service |
|-------------|-------------|----------|-----|--------|------------|-----------------|
| BBL         | 39550       | pt-ibm06 | 0   | 0      | 0 ( IDLE ) |                 |
| PSPRCRV     | SCHEDQ      | BASE     | 101 | 0      | 0 ( IDLE ) |                 |
| PSDSTSRV    | DSTQ        | BASE     | 103 | 0      | 0 ( IDLE ) |                 |
| PSAESRV     | 00101.00110 | AESRV    | 110 | 0      | 0 ( IDLE ) |                 |
| PSAESRV     | 00101.00111 | AESRV    | 111 | 0      | 0 ( IDLE ) |                 |
| PSAESRV     | 00101.00112 | AESRV    | 112 | 0      | 0 ( IDLE ) |                 |

**Note.** You can also do this using the following command line argument:

```
psadmin -p status -d <DBNAME>
```

**Note.** You can also verify the Process Scheduler Status by selecting **Inquire, Process Requests, Server List** from within the Process Monitor.



# COMPILING COBOL ON WINDOWS NT/2000

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

**Note that COBOL is no longer needed for PeopleTools because the Process Scheduler has been re-written in C++. In addition, COBOL is not required for applications that contain no COBOL programs.** Check the *PeopleTools Hardware and Software Requirements* guide and your application-specific documentation for the details on whether your application requires COBOL. The *Hardware and Software Requirements* book and the Platforms Database also indicate which version of COBOL you need for your database environment. For more details about running COBOL in Unicode, consult the section “COBOL Globalization” in the *PeopleTools Global Technology* PeopleBook. See Chapter 1, the task “Install Supporting Applications” for details on how you should handle COBOL compiles.

Before you attempt to run COBOL from the command line you should do the following:

- For UNIX and NT systems, make sure to set PS\_SERVER\_CFG variable to point to a valid psprcs.cfg file.
- For NT systems, make sure %PS\_HOME%/bin/server/winx86 is in your path. It should appear before %PS\_HOME%/bin/client/.. if that also appears in the path.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No.  | Task Name                   |
|-----------|-----------------------------|
| Task 9A-1 | Compile COBOL Source Files  |
| Task 9A-2 | Distributing COBOL Binaries |

## Task 9A-1: Compile COBOL Source Files

With PeopleTools 8.4, your COBOL always needs to be compiled on Windows NT/2000. (This is a change from previous versions of PeopleTools, which delivered compiled COBOL for NT.) This chapter assumes that you are carrying out the compile from your file server. (The COBOL compiler itself doesn't need to be on the file server, as long as the user can write to the file server and can link to the src and bin directories.) PeopleSoft's recommended approach is to use CBLBLD.BAT to compile all your COBOL at once.

**Note.** Check the Updates and Fixes database on Customer Connection to see if you need to apply any late-breaking patches.

### To compile all your COBOL with CBLBLD.BAT

1. Set up two environment variables, PS\_HOME and COBROOT, on the machine from which you'll compile COBOL. (This should be either your file server or a machine that has access to your file server.) You can do this from a DOS command prompt window.

| Environment Variable | Purpose                                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| PS_HOME              | PeopleSoft home directory—that is, the drive letter and high-level PeopleSoft directory where you installed PeopleTools and the application. |
| COBROOT              | Drive letter and root directory of the COBOL compiler.                                                                                       |

For example, you could enter the following at the DOS command prompt:

```
set PS_HOME=C:\hr840
set COBROOT=c:\netexpress\base
```

2. Open a DOS command prompt window if you don't have one open already, and change directories to <PS\_HOME>\Setup.
3. Execute CBLBLD.BAT as follows

```
cblbld <compile drive> <compile directory>
```

where <compile drive> is the drive where the compile takes place, <compile directory> is the temp directory where the compile takes place

The CBLBLD.BAT file will create the compile directory for you if it doesn't already exist.

**Note!** *Make sure* to include a space between the <compile drive> and <compile directory> parameters; they are treated as two different parameters within the CBLBLD.BAT batch program. Also ensure that you have write permission to <compile drive> and <compile directory> as the compile process will take place over there.

For example, the following command will take the COBOL source from <PS\_HOME>\src\cbl and do the compile process under c:\temp\compile:

```
cbl bld c: \temp\compile
```

Make note of the information that is displayed on the screen while the process is running; it provides the locations of important files that you'll need to examine.

4. After you have successfully compiled your source code, all of the executables should have been placed in your <PS\_HOME>\CBLBINX directory (this directory will be named CBLBINA, CBLBINU, or CBLBINE, depending on whether you are using ANSI, Unicode or EBCDIC). Make sure that all of the files were copied correctly to this directory.
5. If the files were copied correctly, you can delete the entire temporary compile directory to free space on your disk drive.

**Note.** You may want to keep the files in the compile directory for testing purposes. Make sure that you have enough space on the drive where <compile directory> is located. Estimate about three times the amount in the <PS\_HOME>\CBLBINX directory.

**Note.** If you chose the Unicode option while running the PeopleSoft Installer, the file UNICODE.CFG was created in the setup directory. UNICODE.CFG automatically triggers the batch file CBL2UNI.BAT when you run CBLBLD.BAT. Another batch file, CBLRTCPY.BAT, copies four DLL's (CBLINTS.DLL, CBLRTSS.DLL, CBLVIOS.DLL, COB32API.DLL) from the Microfocus compiler directory (identified by %COBROOT% setting) into the appropriate CBLBIN directory (CBLBINA, CBLBINU, or CBLBINE) when you run CBLBLD. These files are needed for COBOL to run; they can reside anywhere as long as they are in the path. You can run either of these BAT files independently from the DOS command line (they reside in <PS\_HOME>\Setup). For CBLRTCPY.BAT you need to specify a target directory.

## Task 9A-2: Distributing COBOL Binaries

Once you've compiled your COBOL, you must transfer it to the needed locations. Copy the contents of <PS\_HOME>\CBLBINX (CBLBINA, CBLBINU, or CBLBINE) directory into <PS\_HOME>\CBLBINX (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.

## Compiling Selected Files with CBLMAKE.BAT

CBLBLD.BAT compiles all your COBOL at once, which can take a lot of time. CBLMAKE.BAT, in contrast, lets you employ one or more parameters to compile a specific COBOL file or a selected group of COBOL files. Unlike CBLBLD.BAT, however, CBLMAKE.BAT doesn't automatically trigger the batch file CBL2UNI.BAT or CBLRTCPY.BAT.

Here is the basic syntax for CBLMAKE.BAT:

```
CBLMAKE.BAT [ ] [ALL] [wildcard filename[ALL]] [wildcard filename | wildcard filename without
extension[INT | GNT | EXE]] [EBCDIC] [LIST]
```

**Note.** The switches are well documented in the CBLMAKE.BAT file in the form of comments.

**Note!** If the change in the COBOL source is a copy member, you must compile all of the COBOL programs using CBLBLD.BAT. You know it is a copy member when the third letter in the file name is a C, as in PTCSQLRT.CBL.

The following table describes the various options for CBLMAKE.BAT.

| Option                    | Purpose                                                     |
|---------------------------|-------------------------------------------------------------|
| Cblmake                   | Compiles all source                                         |
| Cblmake all               | Compiles all source                                         |
| Cblmake EBCDIC            | Compiles all source files for DB2 OS/390 and z/OS           |
| Cblmake PT*               | Compiles all source files that start with PT                |
| Cblmake PT* ALL           | Compiles all source files that start with PT                |
| Cblmake PT* INT           | Generates INT files for all source files that start with PT |
| Cblmake PT* GNT           | Generates GNT files for all source files that start with PT |
| Cblmake PT* EXE           | Generates EXE files for all source files that start with PT |
| Cblmake PTPDBTST INT      | Generates PTPDBTST.INT file                                 |
| Cblmake PTPDBTST INT LIST | Generates PTPDBTST.INT and source listing file              |
| Cblmake PTPDBTST GNT      | Generates PTPDBTST.GNT file                                 |
| Cblmake PTPDBTST EXE      | Generates PTPDBTST.EXE file                                 |

The LIST option creates a source listing file under <compile directory>\<filename>.lis. The LIST option is useful when the compile fails during the debugging phase. The source listing files show exactly where an error occurred. This option is not recommended when the program compiles successfully because the .LIS files can grow to be quite large.

**Note.** By default, when the program fails to compile, the system will generate a .LIS file.

### To compile with CBLMAKE.BAT

1. Verify that the PS\_HOME and COBROOT environment variables are set up correctly.
2. Open a DOS command prompt window.

3. Make sure the compile directory exists; it may already if you've run CBLBLD.BAT. If it does exist, remove any files residing there—just as a safeguard. If it doesn't exist, you need to create it.

**Note.** Make sure you have write permission to <compile directory> as the compile process will take place over there.

4. Change to the <PS\_HOME>\Setup directory.
5. If the installation is Unicode, run CBL2UNI (with no parameters).
6. Execute the following command to copy all the COBOL source files from the <PS\_HOME> directory to the compile directory:

```
cblsrc <source directory> <compile directory>
```

where <source directory> is the drive and directory where the source resides (it should be the same as <PS\_HOME>), and <compile directory> is the drive and directory to which the source files will be copied.

For example, the following command will take the COBOL source from <PS\_HOME> and copy all the necessary files to the location where the compile process will take place.

```
cblsrc <PS_HOME> c:\temp\compile
```

If the COBOL source that will be compiled is different from the one under <PS\_HOME>, copy that COBOL source to <compile directory>.

**Note.** The compile in the next step will generate a GNT file unless the exception file, CBLINT.XX already exists (the XX represents the Product ID). CBLINT.XX contains the list of files that need to be compiled to the INT file. Make sure the intended CBLINT.XX is located under <compile directory> before executing CBLMAKE.

7. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.
8. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate <PS\_HOME>\CBLBINX directory (CBLBINA, CBLBINU, or CBLBINE).

```
copy *.exe <PS_HOME>\cblbina
copy *.gnt <PS_HOME>\cblbina
copy *.int <PS_HOME>\cblbina
```

**Note.** You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they aren't copied automatically, as when you use CBLBLD.

## The GNT and INT files

By default, the compile generates a GNT file unless the exception file, CBLINT.XX already exists. CBLINT.XX contains the list of files that need to be compiled to the INT file.

**Note.** The INT exception file is sometimes needed to overcome MicroFocus execution error with GNT files.

For example, the exception file, CBLINT.PT, where *PT* represents PeopleTools, would contain the following information:

```
Call cblcrint <file name without file extension>
```

or:

```
Call cblcprint PTPDBTST
```

# COMPILING COBOL ON UNIX

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

**Note that COBOL is no longer needed for PeopleTools because the Process Scheduler has been re-written in C++.** In addition, COBOL is not required for applications that contain no COBOL programs. Check the *PeopleTools Hardware and Software Requirements* guide and your application-specific documentation for the details on whether your application requires COBOL. The *Hardware and Software Requirements* book and the Platforms Database also indicate which version of COBOL you need for your database environment. For more details about running COBOL in Unicode, consult the section “COBOL Globalization” in the *PeopleTools Global Technology* PeopleBook. See Chapter 1, the task “Install Supporting Applications” for details on how you should handle COBOL compiles.

Before you attempt to run COBOL from the command line you should do the following:

- For UNIX and NT systems, make sure to set PS\_SERVER\_CFG variable to point to a valid psprcs.cfg file.
- For NT systems, make sure %PS\_HOME%/bin/server/winx86 is in your path. It should appear before %PS\_HOME%/bin/client/.. if that also appears in the path.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No.  | Task Name                               |
|-----------|-----------------------------------------|
| Task 9B-1 | Set Up Your Environment                 |
| Task 9B-2 | Modify liblist (IBM AIX 4.3/HP-UX Only) |
| Task 9B-3 | Compile COBOL Programs                  |
| Task 9B-4 | Link COBOL                              |

## Task 9B-1: Set Up Your Environment

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately. Alternatively, make sure the following environment variables are set in the .profile file in the user's home directory

**SORACLE\_HOME** must point to the correct Oracle installation for example:

```
ORACLE_HOME=/products/oracle/8.1.7; export ORACLE_HOME
```

**SORACLE\_HOME/bin** must be added to **PATH**; for example:

```
PATH=$PATH: $ORACLE_HOME/bin; export PATH
```

**SORACLE\_HOME/lib** must be appended to **LD\_LIBRARY\_PATH**, **LIBPATH**, or **SHLIB\_PATH**, whichever is appropriate for your platform.

**SORACLE\_SID** must be set to the correct Oracle instance for example:

```
ORACLE_SID=hdm0; export ORACLE_SID
```

**SCOBDIR** must be set to the Server Express installation; for example:

```
COBDIR=/cobol/prod/svrexpr-2.0.11; export COBDIR
```

**SCOBDIR/lib** must be appended to **LD\_LIBRARY\_PATH**, **LIBPATH**, or **SHLIB\_PATH**, whichever is appropriate for your platform.

**SCOBDIR/bin** must be appended to the **PATH**; for example:

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH: $COBDIR/lib; export LD_LIBRARY_PATH
```

```
LIBPATH=$LIBPATH: $COBDIR/lib; export LIBPATH
```

```
SHLIB_PATH=$SHLIB_PATH: $COBDIR/lib; export SHLIB_PATH
```

```
PATH=$PATH: $COBDIR/bin; export PATH
```

To set the required PeopleSoft environment variables, run psconfig.sh. Enter the following command:

```
cd <PS_HOME>
. ./psconfig.sh
```

## Task 9B-2: Modify liblist (IBM AIX 4.3/HP-UX Only)

If you are compiling COBOL on AIX 4.3 or HP-UX, make the following changes to the liblist file.

**Note.** Also see the document "COBOL: Installation, versions, fixpacks, etc. PT8" on Customer Connection for additional information about modifications that need to be made in liblist ().



### To modify the liblist file for AIX 4.3

1. CD to \$COBDIR/lib/liblist.
2. Make the following changes to the liblist file:
  - Add line **x\*:s!t:-lC**
  - Add line **x\*:s!t:-lthreads**.
  - Comment line **x\*:s!t:-lthreads\_compat**

The following listing shows where to make the changes:

```
#      OS libraries, as per cc:
x*:s!t:-lC          <=== Add the C++ library
x*:s!t:-lc
x*:s!t:-L/usr/lib/threads
#      Required for non-portable pthread functions:
#x*:s!t:-lthreads_compat  <=== Comment this line
x*:s!t:-lthreads        <=== Add this line
```

### To modify the liblist file for HP-UX 11(i)

1. CD to \$COBDIR/lib/liblist.
2. Comment out the libcobccsupport specification as follows:

```
----- $COBDIR/lib/liblist file snippet as distributed -----
---
x*:a:-lcobcrtn
x*:!t:-lcobmi sc
x*:t:-lcobmi sc_t
x*:a:-lcobstat
x*:!C:-lcobccsupport

----- $COBDIR/lib/liblist file snippet after required modification -----
---
x*:a:-lcobcrtn
x*:!t:-lcobmi sc
x*:t:-lcobmi sc_t
x*:a:-lcobstat
####x*:!C:-lcobccsupport
```

## Task 9B-3: Compile COBOL Programs

Under UNIX, you always need to compile your COBOL at installation time. Once you've run the PeopleSoft Installer to set up your application and/or batch server, carry out the following steps.

- Note.** You have two options for compiling. You can treat one application or batch server as your compile server, compile all your COBOL there, and then distribute cblbin from there to all other relevant servers. In this case, only that one server would require a COBOL compiler, and you would copy any patches and/or customizations from your file server to this designated server before carrying out the compile. The second option is to compile on all servers. In this situation, all servers would need a COBOL compiler, and you would need to copy any patches and/or customizations from the file server to all of these servers before carrying out the compile.
- Note.** To copy a compiled COBOL program from one UNIX server to another, they must be on the same OS that the compile took place on. For example, if you compile on Solaris 8 for the Application Server and the Process Scheduler is on AIX you cannot copy the compiled program (you will also need to compile on the AIX box).

### To compile COBOL programs

1. If you haven't already done so, download all required patches to your file server, and from there to FTP the contents of src\cbl\base and src\cbl\unix over to src/cbl on the relevant application or batch server.

**Note.** When you bring patches up from the file server, the files need to have a lowercase cbl extension and an uppercase program name, as in PATCH.cbl.

2. Run pconfig.sh from PS\_HOME to set up environment variables correctly on your application or batch server.
3. Change to the <PS\_HOME>/setup directory:

```
cd $PS_HOME/setup
```

4. To compile the all COBOL source dynamically, issue the command:

```
./pscb1.mak
```

The dynamic compile creates INT, LST, and GNT files, which are copied to these locations:

| File | Location              |
|------|-----------------------|
| INT  | <PS_HOME>/src/cbl/int |
| LST  | <PS_HOME>/src/cbl/lst |
| GNT  | <PS_HOME>/cblbin      |

**Note.** For Server Express, PeopleSoft sets the COBOL directive INTLEVEL to 4. Setting this directive to this value enables you to raise the significant digits of numeric fields from 18 to 31. This is in accordance with the ISO 2000 COBOL standard. During the compilation of each program, the vendor of Server Express will display the following warning. This should not be considered a compilation error.

WARNING: Proposed ISO2000 COBOL features are enabled. Please refer to documentation for details, and do not rely on these features being supported in future products from Micro Focus due to changes in the proposed COBOL standard.

## Task 9B-4: Link COBOL

**Note.** PeopleSoft only supports dynamic linking of COBOL. Static linking is not an option.

PSRUN is the PeopleSoft procedure that connects the COBOL batch programs with the RDBMS API. It is compiled uniquely for each platform and consists of modules from PeopleSoft, the RDBMS vendor, and the operating system.

You need to create the PSRUN program in the following situations:

- You are installing PeopleSoft for the first time.
- Any COBOL programs have changed.
- The version of the RDBMS running PeopleSoft has changed.
- The COBOL compiler has changed.
- One of the C programs supplied by PeopleSoft has changed.

### To link PeopleSoft UNIX components

1. Change to the <PS\_HOME>/setup directory:

```
cd $PS_HOME/setup
```

2. For dynamic linking, run:

```
./psrun.mak
```

The PSRUN.MAK script should return the UNIX prompt when done. If the compile completes without errors, the file PSRUN will now exist in the <PS\_HOME>/bin directory. If you encounter errors, check <PS\_HOME>/setup/psrun.err.

## Recompiling COBOL on UNIX

You always need to compile at installation, so you will only need to recompile COBOL in the following situations:

- Any COBOL programs change
- The supported COBOL compiler changes
- You change the version of your RDBMS
- You change your version of your operating system
- You apply a patch or a fix

**Note.** Remember, you must always use your file server as the source repository for your COBOL. You should download any patches and apply any customizations to the file server, and disseminate them from there.

If you want to recompile all your COBOL, you can follow the procedure described earlier, under “Compile COBOL Programs.” However, you can also compile a *single* COBOL program dynamically by using this command syntax:

```
./pscbl.mak <PROGRAM NAME WITHOUT “cbl” EXTENSION>
```

For example,

```
./pscbl.mak PTPDBTST
```

compiles the lone file PTPDBTST.

The compile should run without errors until it completes. After the script is complete, check the destination directories for the newly created files in <PS\_HOME>/src/cbl/int, <PS\_HOME>/src/cbl/lst, and <PS\_HOME>/cblbin. They should have a length greater than zero as well as a current date and time stamp.

**Note.** You can also use pscbl.mak PTP or pscbl.mak PTP\* to compile all source files that start with PTP.

# ADDING NEW PRODUCT MODULES

This appendix explains how to add new application modules to an existing PeopleSoft installation. Follow this procedure if, for example, you already installed HRMS and now you need to install Time and Labor.

## To add new module(s) to PeopleSoft 8.4 installations

1. Back up the database, file server, and database server components of your current system.
2. Make sure you have the new license code that includes the new module(s). The new license code allows you to load the batch components for the new module(s).
3. Install the Application CD on the file server.
4. When prompted, enter the new license code for your applications. Initially, all installation options will be selected. You must deselect those programs you do not wish to install.
5. Launch Data Mover in bootstrap mode (sign in as the accessid and password). Data Mover is located in `<PS_HOME>\bin\client\winx86\psdmt.exe`.
6. Select **File, Database Setup** and choose your database type in the resulting dialog. Click **Next** and select add new product. Click **Finish** and a Data Mover script that updates the license code will be generated in Data Mover. Click **File, Run script** and your database updates are complete.
7. Install software to your batch server as described in the chapter “Setting Up Process Scheduler.”
8. Reapply all code customizations if needed.

**Note!** You must protect yourself from overlaying any customizations. For example, suppose you customize a report that PeopleSoft then redelivers. If you install the update into your current working directory, your customized report will be overwritten with the newly installed, updated report. PeopleSoft does not currently provide an automated way to identify which modules have been customized, which means that you need to maintain a backup of any customizations.

9. Compile and link COBOL as described in the “Compiling COBOL” chapter.

10. Verify that the appropriate Installation Records are selected. If they are not checked, check them and save the page. To open the page, select **Define Business Rules, Define General Options**, then **Setup, Installation Table**.
11. Run the DDDAUDIT and SYSAUDIT SQRs, as described in the chapter, “Creating a Database.”
12. Shut down all application servers.
13. Install software to your application server as described in the chapter “Configuring the Application Server” in this installation guide.
14. Restart all required application servers.

# INSTALLING PEOPLEBOOKS

PeopleBooks are the documentation delivered with PeopleTools and every PeopleSoft application. This appendix describes how to install and configure PeopleBooks so that you can deploy the PeopleSoft documentation at your site.

There are three options for configuring PeopleBooks. Most sites will want to take advantage of all three options.

- **Browse.** Browse the PeopleBooks from a file server or web server.
- **Full-text Search.** Requires installation of the Verity search engine and installing PeopleBooks on a web server.
- **Context-sensitive help.** Configure PeopleTools to call PeopleBooks as context-sensitive help from both internet applications and Windows-based programs. For instance, when a user clicks the Help button in a browser or clicks F1 in Windows, the appropriate documentation appears.

**Note.** The F1 button calls PeopleBooks Help only for the PeopleTools Development Environment (the Windows-based client). If you press F1 while using the portal, you invoke the help for your current browser. For context-sensitive help in the portal, end users need to click the Help link to call PeopleBooks Help.

## Task Overview

The following table summarizes the tasks in this chapter.

| Task No. | Task Name                                                |
|----------|----------------------------------------------------------|
| Task B-1 | Install PeopleBooks                                      |
| Task B-2 | Install Verity                                           |
| Task B-3 | Create a CGI Directory                                   |
| Task B-4 | Configure the Web Server                                 |
| Task B-5 | Configure the PeopleBooks Common Gateway Interface (CGI) |
| Task B-6 | Configure Context-Sensitive Help                         |

## Task Overview

Depending on how you plan to use PeopleBooks, you may not need to perform all of these tasks. The following table identifies which tasks must be performed to enable each type of functionality.

| Functionality                                          | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Task 6 | Comments                                                                                                                                                                                                                                  |
|--------------------------------------------------------|--------|--------|--------|--------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Browsing from a file server                            | ✓      |        |        |        |        |        | For simple browsing of PeopleBooks, you only need to install the files on a server.                                                                                                                                                       |
| Browsing from a web server                             | ✓      |        |        | ✓      |        |        | If you've installed PeopleBooks to a web server, you may need to configure the web server to point to the PeopleBooks location.                                                                                                           |
| Full-text searching                                    | ✓      | ✓      | ✓      | ✓      | ✓      |        | The Verity search engine provided with PeopleTools is not required for browsing, <i>but</i> to take advantage of full-text searching you must install and configure Verity. To use it, you <i>must</i> run PeopleBooks from a web server. |
| Context sensitivity – PeopleSoft Internet Architecture | ✓      |        |        | ✓      |        | ✓      | When you install PeopleBooks on a web server you can support context-sensitive help from both application browser pages and Windows-based programs.                                                                                       |
| Context sensitivity – Windows environment              | ✓      |        |        |        |        | ✓      | Developers without access to a web server can still use context-sensitive help for Application Designer, PeopleCode Editor, PepperTools, and other Windows-based programs.                                                                |



## Task B-1: Install PeopleBooks

Complete the following steps to install the PeopleBooks CD-ROM.

### *Before You Get Started*

Before you begin the installation, make sure you are installing to a supported web server and operating system platform.

#### Supported Web Servers

You can install PeopleBooks to your PeopleTools 8.4 dedicated web server machine or to a separate web server machine. Either way, the web server software must be installed before installing PeopleBooks. You can also install PeopleBooks on a file server, but you will not be able to search or to use PeopleBooks as context-sensitive help for the PeopleSoft Internet Client.

With one exception, PeopleBooks 8.4 is supported on the same web server platforms as the PeopleTools 8.42 Internet Architecture. For the latest information on supported web server versions, review the PeopleSoft Platforms Database, accessible through Customer Connection at <http://www.peoplesoft.com>.

- BEA WebLogic (delivered with PeopleTools 8.42)
- IBM Http Server (delivered with PeopleTools 8.42)
- Microsoft IIS (proxy server)
- Netscape iPlanet (proxy server)
- Apache (proxy server)

**Note.** PeopleBooks cannot be run on IBM WebSphere's internal http server because this web server does not have CGI capability.

See Chapter 2 for instructions on installing the BEA WebLogic or IBM Http Server web server software.

#### Supported Operating Systems

PeopleBooks 8.4 is supported on the same operating systems as the PeopleTools 8.42 Application Server. For the latest information on supported operating system versions, review the PeopleSoft Platforms Database to make sure you are installing PeopleBooks into a supported environment.

- Windows NT 4.0
- Windows 2000
- AIX
- HP-UX
- Solaris
- Tru64 (*only* WebLogic is supported)

**Note.** PeopleBooks 8.4 is *not* supported on LINUX.

For information on specific versions of supported web servers and operating systems, see the latest version of the "PeopleTools 8.4 Hardware and Software Requirements" document on Customer Connection (Support, Documentation, Documentation Updates, by Product Line, PeopleTools).

## To install the PeopleBooks CD

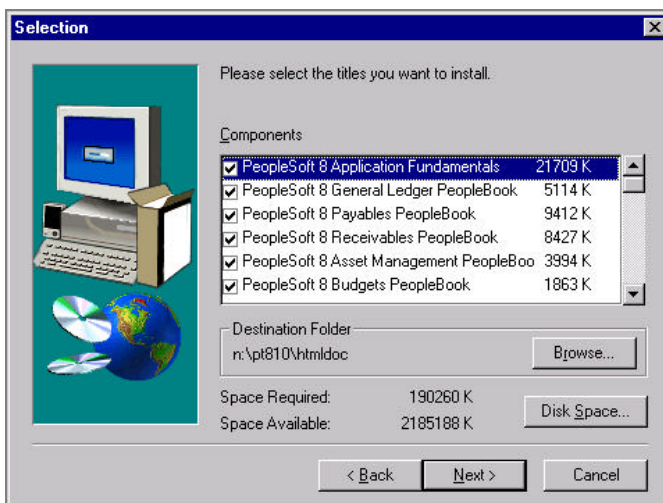
**Note.** To install the PeopleBooks CD-ROM to a UNIX web server, you first need to install the CD-ROM to a Windows NT/2000 machine and then FTP the files to the UNIX machine.

1. Insert the PeopleBooks CD into the CD-ROM drive.

The Welcome screen appears.

2. Enter your application license code.

The Selection dialog box lists the PeopleBooks that you are entitled to install. If you do not want to install a particular set, deselect the set in the Components list.



3. Under Destination Folder, specify the directory where you will install the documentation.

**Warning!** Never install new PeopleBooks over an existing PeopleBooks web site! Instead, PeopleSoft recommends moving the existing web site into a new directory and then installing into the old (empty) directory. This will minimize the amount of reconfiguration required to enable the new installation.

If you have existing PeopleBooks content that you want to move into the new installation (for example, translated PeopleBooks), refer to the "Managing the PeopleSoft Online Library and PeopleBooks" section in the *About These PeopleBooks* book on your PeopleBooks CD. The latest version this file can also be found on the PeopleSoft Customer Connection web site (click Support, Documentation, Documentation Updates by Category, PeopleSoft 8 PeopleBooks, All Product Lines, Managing the PeopleSoft Online Library and PeopleBooks).

If you are installing to a web server, PeopleSoft recommends installing to an \html doc subdirectory under the document root of the web server.

If you are installing PeopleBooks to the PeopleTools 8.4 PIA web server on Windows NT/2000, install as shown in the following examples:

- For BEA WebLogic:  
<bea\_home>\wlsrvr6.1\config\peoplesoft\applications\PSOL\html doc

**Note.** It is important to install PeopleBooks two directory levels below the "peoplesoft\applications" directory. After installing, you will configure a new WebLogic web application to host PeopleBooks. WebLogic web applications are represented by directories immediately below the "applications" directory and acts as document roots for the web server. Therefore, the root directory for PeopleBooks ("html doc") must be a subdirectory of the PSOL directory.

- For IBM WebSphere: install to the document root of your selected proxy server. (See below.)

**Note.** PeopleBooks cannot be run on IBM WebSphere's internal http server because this web server does not have CGI capability.

If you are installing to a Windows NT/2000 machine that is not hosting the PeopleTools Internet Architecture (PIA), or if you are using IBM WebSphere, install to the web (or proxy) server's docroot directory, as shown in the following examples:

- For BEA WebLogic:  
<bea\_home>\wlsrvr6.1\config\mydomain\applications\defaultwebapp\html doc
- For IBM HTTP Server or Apache:  
<webserver\_home>\htdocs\html doc
- For Microsoft IIS:  
<inetpub\_home>\wwwroot\html doc
- For Netscape iPlanet:  
<iplanet\_home>\docs\html doc

If you will ultimately be installing to UNIX, simply install to a directory of the same name that you will use on the UNIX machine: c:\htmldoc

**Note.** If you will ultimately be installing to a UNIX machine, you should install to a Windows directory with the same name that you will use in UNIX. The installation generates an FTP file with paths based on the Destination Folder name you specify.

### To install PeopleBooks on UNIX

1. On the Windows NT/2000 machine on which you installed the PeopleBooks, navigate to the `<htmldoc>\admin` directory.
2. Modify the **psdocxfr.ftp** script in the `\admin` directory in the following ways:
  - a) After "user" in the third line, enter a space and then enter your user ID.
  - b) Enter the UNIX logon password in the next blank line.
  - c) To FTP the web site to a directory other than your home directory, enter a change directory command after your password.
  - d) Remove the first two lines of instructions from the top of the file.
  - e) Here is an example of the first three lines of the FTP script after editing:

```
user userid
password
cd <web server_documentroot_path>
```

where `<web server_documentroot_path>` will resemble one of the following examples:

- For BEA WebLogic running PeopleTools 8.4 PIA:  
`/<bea_home>/wlservlet6.1/config/peoplesoft/applications/PSOL`
- For BEA WebLogic not running PeopleTools 8.4 PIA:  
`/<bea_home>/wlservlet6.1/config/mydomain/applications/DefaultWebApp`
- For IBM HTTP Server or Apache: `/<web server_home>/htdocs`
- For Netscape iPlanet: `/<iplanet_home>/docs`

**Note.** The Windows directory to which you originally installed the documentation is used as the root directory in the FTP file. If you want to use a different directory name, you can edit the FTP file as necessary.

**Warning!** Do not FTP a new PeopleBooks installation into an existing PeopleBooks installation! Instead, PeopleSoft recommends moving the existing web site into a new directory and then installing into the old (empty) directory. This will minimize the amount of reconfiguration required to enable the new installation.

If you have existing PeopleBooks content that you want to move into the new installation (for example, translated PeopleBooks), refer to the *Managing Your PeopleSoft Library.pdf* on your PeopleBooks CD. The latest version of this file can also be found on the PeopleSoft Customer Connection web site (click Support, Documentation, Documentation Updates by Category, PeopleSoft 8 PeopleBooks, All Product Lines, Managing the PeopleSoft Online Library and PeopleBooks).

3. From a DOS prompt, run the PSDOCXFR.FTP script to transfer the files from the NT/2000 machine to the UNIX machine.

For example :

```
c: \>ftp -n -i -s: c: \html doc\admin\psdocxfr. ftp hostname
```

## Task B-2: Install Verity

To enable full-text searching of PeopleBooks, you must have Verity installed on the same machine as PeopleBooks. If you installed PeopleBooks on the PeopleTools web server and that machine also hosts the PeopleTools application server, Verity is already installed; you can skip this task. However, if you installed PeopleBooks on a PeopleTools web server machine that does not also host the application server, or if you installed PeopleBooks on a separate machine, you should now install Verity on that machine.

### To install Verity on a separate PeopleBooks web server machine

1. Follow the instructions for installing the PeopleTools Application Server as describe in the chapter “Using the PeopleSoft Insatller” in this installation documentation.

Use the default installation settings except for the following:

- At the Server panel, select only **PeopleSoft Application Server**.
- At the Install Location panel, enter the directory where you want to install Verity.
- If prompted for the Connectivity Program Directory, enter the path to any existing directory on the server. For example: c:\temp or /tmp

**Note.** This is an informational prompt only. No files will be installed in this directory.

- At the Features panel, select only **PeopleTools**.
2. After installation, add the Verity directory to your system path for Windows NT/2000 and the library path for UNIX.

**On Windows NT:**

- a) Click on System icon from the Control Panel.
- b) On the Advanced tab, click the **Environment Variables** button.
- c) Select the Path System Variable and click **Edit**.
- d) In Edit System Variable dialog, place your cursor at the end of the string in the Variable Value field, type a semicolon, and then type the full path to the winx86 directory in the application server installation.
- e) For example: ;c:\pt840\bin\server\winx86
- f) Click **OK** to save your change.

**On Windows 2000:**

- a) Click on System icon from the Control Panel.
- b) On the Advanced tab, click the **Environment Variables** button.
- c) Select the Path System Variable and click **Edit**.
- d) In Edit System Variable dialog, place your cursor at the end of the string in the Variable Value field, type a semicolon, and then type the full path to the winx86 directory in the application server installation.  
  
For example: ;c:\pt840\bin\server\winx86
- e) Click **OK** to save your change.

**On UNIX:**

- a) Change the current directory to the directory where you installed the application server.  
  
For example: `cd /usr/pt840/`
- b) Run `psconfig.sh` by issuing the following command:  
  
`./psconfig.sh`

**Note.** You must run `psconfig.sh` each time you start the web server on the same shell. Or, you can have the `.profile` file in the user's home directory run this file upon login.

3. You can now delete non-essential PeopleTools application server directories to conserve disk space.

Below your installation directory, you will have multiple subdirectories, including `\bin`. You can delete all subdirectories except `\bin`. Do not delete any files in the installation directory, only subdirectories.

## Task B-3: Create a CGI Directory

PeopleBooks uses a CGI executable for full-text search functionality. Depending on where you installed PeopleBooks, you may need to create a directory in which to put the CGI-related files.

- For BEA WebLogic (with PIA installed): `<bea_home>/wlserver6.1/config/peoplesoft/applications/PSOL/cgi-bin`
- For BEA WebLogic (without PIA installed): `<bea_home>/wlserver6.1/config/mydomain/cgi-bin`
- If you are using IBM Http Server, Apache, Netscape iPlanet, or Microsoft IIS as your web server or proxy server, you probably already have a CGI directory you can use for the PeopleBooks CGI-related files. To verify, check for `<web_server_home>/cgi-bin` or, in the case of IIS, `inetpub/wwwroot/cgi-bin`. If a `cgi-bin` directory doesn't exist, create one.

## Task B-4: Configure the Web Server

To use PeopleBooks as a full online help system and to enable full-text searching, you may need to configure the web server to recognize the location of the installed documentation, define an alias, enable the `cgi-bin`, and so on. The following procedures describe how to configure PeopleBooks for BEA WebLogic Server, IBM Http Server, Apache, Microsoft IIS, and Netscape iPlanet software.

**Note.** IBM WebSphere cannot process CGI requests. To host PeopleBooks, WebSphere users must choose one of the proxy server options (IBM Http Server, Microsoft IIS, Netscape iPlanet, or Apache) to serve both HTML pages and CGI requests.

### To configure the BEA WebLogic web server

1. If you installed PeopleBooks to the "peoplesoft" domain on the PeopleTools web server, create a new web application to host them. Otherwise, skip this step.

**Note.** Hosting PeopleBooks in a separate web application will ensure that you don't have to reconfigure them each time you upgrade the PeopleTools Internet Architecture.

#### On Windows NT/2000:

- a) Open a DOS command window.
- b) Change the current directory to the peoplesoft domain directory.

For example: `C:\>cd bea\wlserver6.1\config\peoplesoft`

- c) Run the SETENV command.

For example: `C:\bea\wlserver6.1\config\peoplesoft>setenv`

- d) Run the WebLogic command to create the new web application.

The command has this syntax: `java weblogic.ant.taskdefs.war.DDInit webapp_dir`, where `webapp_dir` is the full path to the web application directory. For example:

```
java weblogic.ant.taskdefs.war.DDInit
c:\bea\wlsrver6.1\config\peoplesoft\applications\PSOL
```

**On UNIX:**

- a) Open a telnet window.
- b) Change the current directory to the peoplesoft domain directory.

For example: `/products/bea/wlsrver6.1/config/peoplesoft`

- c) Run the `setEnv.sh` command.

For example: `./setEnv.sh`

- d) Run the WebLogic command to create the new web application.

The command has this syntax: `java weblogic.ant.taskdefs.war.DDInit webapp_dir`, where `webapp_dir` is the full path to the web application directory. For example:

```
java weblogic.ant.taskdefs.war.DDInit
/products/bea/wlsrver6.1/config/peoplesoft/applications/PSOL
```

2. Log on to the WebLogic Server Administrative Console.

Access the WebLogic Server console at `http://<web server>/console` (e.g. `http://localhost/console`). When prompted for a User Name and Password, specify the WebLogic system ID and password you supplied during your WebLogic Server installation.

3. In the navigation pane on the left, drill down to and click on the [Web Applications](#) link.

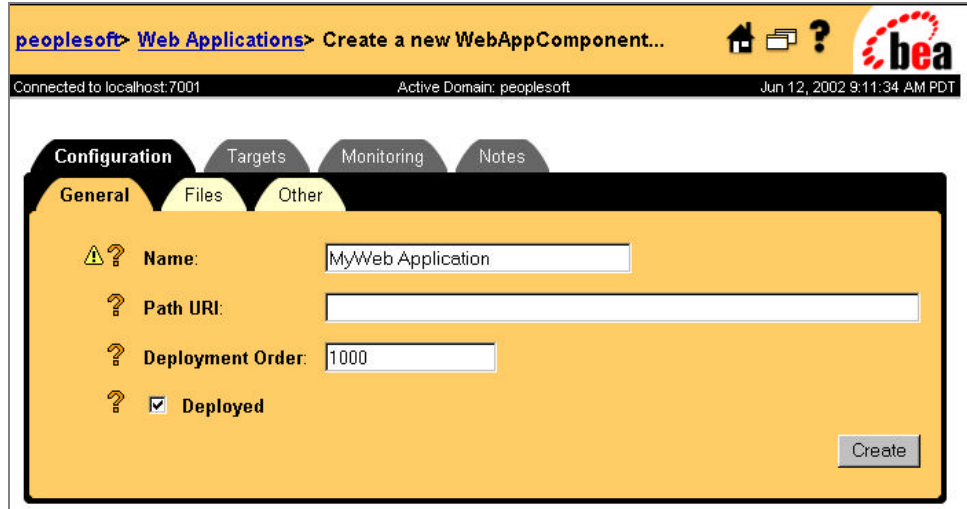
The navigation path is `peoplesoft > Deployments > Web Applications`.

4. If you created a new Web Application to host PeopleBooks, configure the Web Application. Otherwise, skip this step.

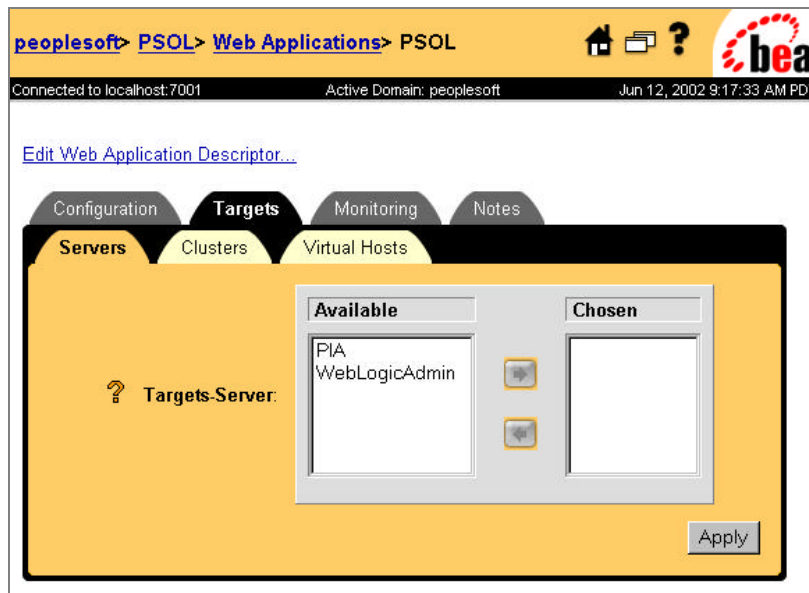
If you installed PeopleBooks to the PeopleTools web server, you created a new Web Application directory, PSOL. You must now configure the Web Application.

- a) In the right hand pane, click on the [Configure a new Web Application](#) link.





- b) Type a new **Name** : PSOL.
- c) For **Path URI**, enter the full path to the PSOL directory (using forward slashes).  
For example: c:/bea/wlserver6.1/config/peoplesoft/applications/PSOL.
- d) Click the **Create** button, then click the **Targets** tab.



- e) From the **Available** list, select *PIA* and click the right arrow to move it into the **Chosen** list. Then click **Apply**.
5. In the navigation pane on the left, click on your Web Application name.

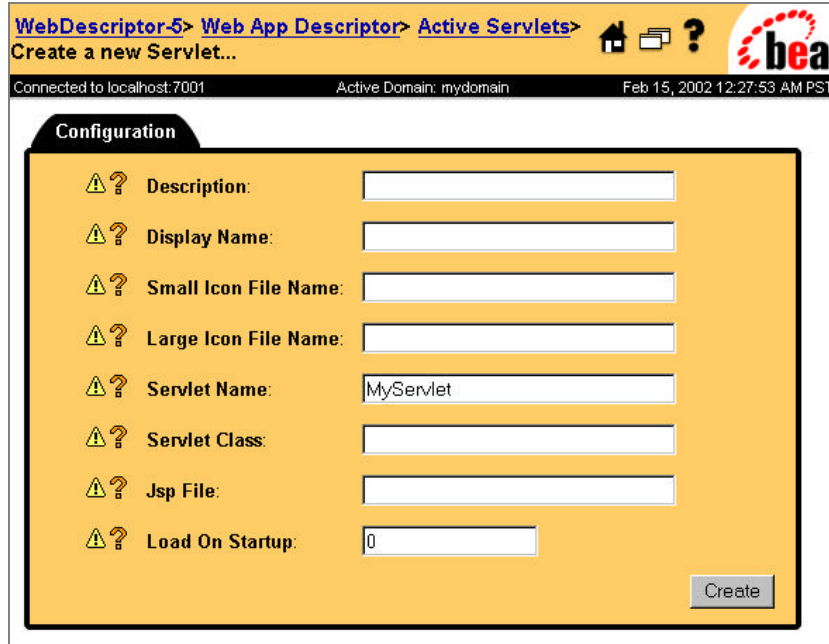
**Note.** On a PeopleTools web server, the Web Application is PSOL.

On an independent web server, with the default WebLogic installation, the Web Application is DefaultWebApp

6. In the right pane, click the [Edit Web Application Descriptor](#) link.
7. If this is the PSOL Web Application, configure the Descriptor. Otherwise, skip this step.
  - a) Click the **Web App Descriptor** icon in the left pane.

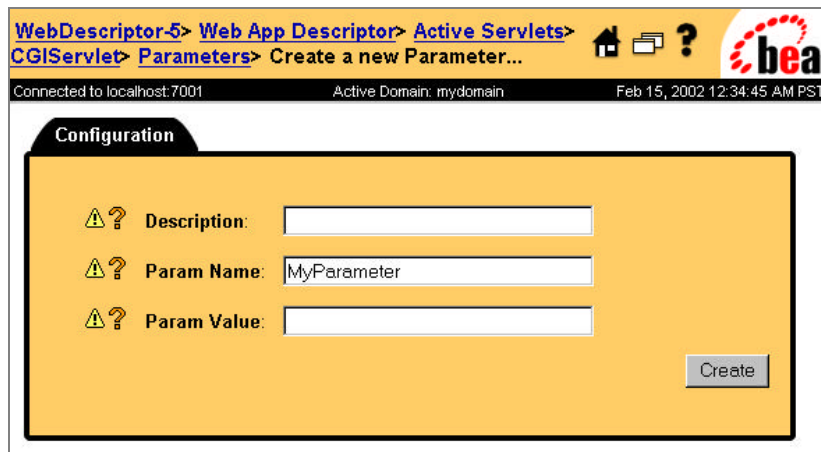
- b) Set **Display Name** to: PeopleSoft Online Library
  - c) Click **Apply**.
8. Create a new Servlet for CGI requests.

In the navigation pane on the left, click the Servlets icon. Then click the [Configure a new Servlet](#) link in the right pane. The Configuration page is displayed.



9. Define the CGI Servlet.
  - a) Set **Servlet Name** to CGIServlet.
  - b) In **Servlet Class** type: weblogic.servlet.CGIServlet.
  - c) Click **Create**.
  
10. Define the CGIServlet Parameters.
  - a) In the left pane, expand the **CGIServlet** icon and click the **Parameters** icon.
  - b) In the right pane, click the Configure a new Parameter link.

The Configuration page is displayed.



- c) Set **Param Name** to `cgiDir`.
- d) Set **Param Value** to `<system_path_to_cgidir>`.

This is the full path to the CGI directory you created in Task B-3. Use forward slashes. For example, if you installed PeopleBooks with PIA enabled:

`/bea/wlserver6.1/config/peoplesoft/applications/PS0L/cgi-bin`

If you installed PeopleBooks on a stand-alone web server:

`/bea/wlserver6.1/config/mydomain/cgi-bin`

- e) Click **Create**.

11. Define a Servlet Mapping for the CGIServlet.

- a) In the left pane, click the **Servlet Mappings** icon.
- b) In the right pane, click the Configure a new Servlet Mapping link.
- c) Set **Servlet** to `CGIServlet`.
- d) Set **URL Pattern** to `/cgi-bin/*`

12. Define index.htm as an application Welcome File.

In the left pane, click **Welcome Files**. In the Configuration page on the right, add a new line in the text box and type `index.htm`. Click **Create**.

If a **Welcome Files** icon doesn't appear in the left pane, click **Web App Descriptor** and then click Configure a new Welcome File list in the right pane. Then follow the instructions above to add `index.htm` as a welcome file.

13. If you installed PeopleBooks somewhere other than below the `bea/wlserver6.1/config/<domain>/applications/<app_name>` directory, you need to create an alias File Servlet. Otherwise, skip this step.

- a) Configure a new Servlet:
  - Set **Servlet Name**=`docAlias`
  - Set **Servlet Class**=`weblogic.servlet.FileServlet`
- b) Configure a new Parameter for this Servlet:
  - Set **Param Name**=`docHome`.
  - Set **Param Value**=`<system_path_to_PeopleBooks_install>`. Use forward slashes and do not include a drive letter. For example: `/htmldoc`
- c) Configure a Servlet Mapping for this Servlet:

Set **Servlet**=docAlias

Set **URL Pattern**=/*<alias\_name>*/\*. For example: /peoplebooks840/\*

14. Save all your changes.

In the left pane, click the **PeopleSoft Online Library web application descriptor** icon. In the right pane, click the **Persist** button. Restart the web server to load your changes. Once the message "Persistence was successful" displays, you may close that browser window and return to the WebLogic console browser window.

**For UNIX users:**

You must run psconfig.sh each time you start the web server on the same shell. Or, you can have the .profile file in the user's home directory run this file upon login.

If you have a problem with searching non-ASCII characters on WebLogic, try to set a UTF-8 compliant locale when you invoke startWeblogic.sh, so that non-ASCII characters can be handled correctly. If you don't have a UTF-8 compliant locale on your operating system, add the following line to PSDOCCGI.CFG in your cgi-bin directory:

```
[UNICODE_ENTITY ON]
```

### To configure IBM HTTP Server (IHS) or Apache

1. Edit the *<web\_server\_home>/conf/httpd.conf* file.
2. If you installed the PeopleBooks outside of the DocumentRoot (typically, /htdocs), make sure the web server knows where you installed PeopleBooks. Otherwise, you can skip this step.

- a) Add an alias for the virtual directory that you have created.

For example:

```
Alias /html doc/ "C:/peoplebooks_root/"
```

where html doc is the name of your virtual directory and C:/peoplebooks\_root/ is the navigational path to the PeopleBooks installation.

- b) Create a *<Directory>* section for your PeopleBooks root directory. It will resemble the following:

```
<Directory " C:/peoplebooks_root">
  Order allow, deny
  Allow from all
</Directory>
```

where peoplebooks\_root is the navigational path to the PeopleBooks installation.

3. Add index.htm to the DirectoryIndex directive.

- a) Locate the following line of code:  
`DirectoryIndex index.html`
  - b) Add `index.htm` to the end of this line, preceded by a space, as shown below.  
`DirectoryIndex index.html index.htm`
4. If you are using a UNIX machine, add the following lines to `httpd.conf`:

```
PassEnv LD_LIBRARY_PATH
PassEnv LIBPATH
PassEnv SHLIB_PATH
```

These lines are required so that CGI can load the shared library.

**Note.** You must run `psconfig.sh` each time you start the web server on the same shell. Or, you can have the `.profile` file in the user's home directory run this file upon login.

5. If you are using a UNIX machine, check the `DocumentRoot` setting.

Your default `DocumentRoot` may be defined as `/opt/IBMHTTPD/htdocs/en_US`. If so, we suggest you change this path to exclude the `/en_US` directory. You'll have to change the path in this line:

```
DocumentRoot "/opt/IBMHTTPD/htdocs/en_US"
```

and this line:

```
<Directory "/opt/IBMHTTPD/htdocs/en_US">
```

If you choose not to change `DocumentRoot`, keep this in mind when viewing the examples in the remainder of this chapter. Our examples assume a `DocumentRoot` of `/htdocs`.

6. Save your changes and restart the web server.

### To configure Microsoft IIS (as a Proxy Server)

1. Launch the Internet Service Manager.
2. Select the icon of the applicable web site.
3. If you installed PeopleBooks outside the IIS document root (typically, `inetpub\wwwroot`), create a new Virtual Directory for that location. Otherwise, skip this step.

a) From the menu bar, select **Action, New, Virtual Directory**.

b) Type the **Alias** name and click **Next**.

Surround the alias name with slashes. For example, `/htmldoc/` (or whatever directory name you'd like to appear in the browser address).

c) Type, or **Browse for**, the full directory path to the PeopleBooks root directory, then click **Next**.

For example: <weblogic\_home>\wlserver6.1\config\peoplesoft\applications\PSOL\htmldoc.

- d) Enable **Read Access** permissions for this directory, then click **Finish**.
4. Add index.htm as a default document for the PeopleBooks root directory.  
Find the directory in the Internet Service Manger tree structure, right-click on it and select **Properties**.
    - a) Click the Documents tab.
    - b) Make sure **Enable Default Document** is selected and Add 'index.htm' to the list of file names.

### To configure Netscape iPlanet (as a Proxy Server)

1. Launch the iPlanet Administration Server.
2. Select the **Server** you want and click **Manage**.
3. From the tabs at the top of the interface, select **Content Mgmt**.



4. Add *index.htm* as an index filename.
  - a) In the left-hand pane click the [Document Preferences](#) link.
  - b) In the right-hand pane, add *index.htm* to the **Index Filenames** (comma-separated) list.
  - c) Click **OK**, then click **Save and Apply** to save your changes.
5. If you installed PeopleBooks outside the default iPlanet Document Directory, create an Additional Document Directory for that location.

**Note.** The default document root is iPlanet/docs

- a) From the tabs at the top of the interface, select **Content Mgmt**.
- b) In the left-hand pane, click the [Additional Document Directories](#) link.
- c) In the right-hand pane, specify the **URL prefix** (alias) to represent this Document Directory.

Surround the alias name with slashes. For example, /htmldoc/ (or whatever directory name you'd like to appear in the browser address.

- d) In **Map to Directory**, type the full directory path to the PeopleBooks root directory.

For example: /iPlanet/other\_doc\_directory/htmldoc

- e) Click **OK**, then click **Save and Apply** to save your changes.
6. If a CGI Directory doesn't already exist in iPlanet, and you want iPlanet to handle PeopleBooks CGI requests, create one.

**Note.** If you are using iPlanet as a proxy server to WebSphere, iPlanet *must* handle the CGI requests. If you are using iPlanet as a proxy server to WebLogic, you have a choice of letting WebLogic or iPlanet handle CGI. If you want WebLogic to handle CGI, there's no need to create or configure a CGI directory in this step.

To check for an existing CGI Directory, select the **Programs** tab. If no CGI Directories exist, you will see "No CGI directories have been added." at the bottom of the page. If directories do exist, you can opt to use one of them for PeopleBooks CGI, or to create a new one.

- a) At the **Programs** page, specify a **URL prefix** (alias) of: /cgi-bin/
  - b) In **Map to Directory**, type the full directory path to the CGI directory.  
  
For example: /iPlanet/cgi-bin. If this directory doesn't exist yet, you will see a warning when you click OK. You can ignore this, as long as you remember to create the directory on your file system afterward.
  - c) Click **OK**, then click **Save and Apply** to save your changes.
7. Restart the web server.your changes and restart the web server.

## Task B-5: Configure the PeopleBooks Common Gateway Interface (CGI)

In order to perform full-text searches using Verity, you must copy a number of PeopleSoft files to the web server's CGI directory.

**Note.** These instructions use <ps\_home> to refer to the high-level directory in which your application server files are installed.

### To configure CGI for full-text search

1. Copy the correct platform-specific versions of the psdoccgi files to your web server's CGI directory. The files are found in the <cd\_root>\<os\_platform> directory on the PeopleBooks CD and in the PeopleSoft Application Server directory.

#### For Windows NT/2000:

- a) Open a DOS window.
- b) Navigate to the CGI directory of your PeopleBooks web server. For example:

**C:** \>cd bea\wlserver6.1\config\mydomain\peoplesoft\applications\PS01\cgi-bin



or:

```
C:\cd program files\IBMHTTPD\cgi-bin
```

- c) Substituting the appropriate paths, enter the following commands to copy files into the cgi bin.

```
copy <cd_root>\winx86\psdoccgi.*
xcopy <ps_home>\bin\server\winx86\nls\*. * nls\
```

where *cd\_root* is the path to the PeopleBooks CD and *ps\_home* is the path to the PeopleTools application server (if on the same machine) or to the application server files you installed in Task B-2.

**Note.** If you have installed PeopleBooks to a machine other than the PeopleTools application server machine, you can move (rather than copy) the files from the application server location to conserve disk space.

#### For UNIX:

- a) Insert the PeopleBooks CD into the CD drive on the UNIX server and mount the CD as a local file system.

This can be a physical CD mount or an NFS mount of the CD on a remote machine. The following steps assume the CD is mounted on /mnt/cdrom, and the cgi-bin directory is /products/bea/wlserver6.1/config/mydomain/cgi-bin.

**Note.** You can also transfer the CD file (cgifiles.tar in the <cd\_root>/<os\_platform> directory) via FTP, making sure that the transfer mode is binary.

- b) Change the current directory to your cgi-bin. For example:
- ```
#cd /products/bea/wlserver6.1/config/peoplesoft/applications/PSOL/cgi-bin
```

or:

```
#cd /opt/IBMHTTPD/cgi-bin
```

- c) Copy and unzip the platform specific CGI files to the cgi-bin.

Find your UNIX platform below and run commands similar to the ones shown.

#### AIX:

```
#tar xf /mnt/cdrom/AIX/cgfiles.tar
```

```
#cp -p -r SPS_HOME/bin/nls .
```

#### HP-UX:

```
#tar xf /cdrom/hpux/cgfiles.tar
```

```
#cp -p -r $PS_HOME/bin/nls .
```

\* This example assumes that the CD-ROM is mounted with "-o cdcase" option.

### Solaris:

```
#tar xf /mnt/cdrom/SOLARIS/cfgfiles.tar
```

```
#cp -p -r $PS_HOME/bin/nls .
```

### Tru64:

```
#tar xf /mnt/cdrom/TRU64/cfgfiles.tar
```

```
#cp -p -r $PS_HOME/bin/nls .
```

2. Locate psdoccgi.cfg in your CGI directory and edit the file as follows:

- a) Edit the following line to reflect your PeopleBooks installation:

```
REPLACE=. ./|/html doc/
```

This path tells CGI the URL path from the web server host to the top of the PeopleBooks installation directory. If you created an alias, this path should reflect that alias. If you installed into the PSOL directory on WebLogic, you must include /PSOL/ in this path. For example:

```
REPLACE=. ./|/html doc/
```

or

```
REPLACE=. ./|/PSOL/html doc/
```

or

```
REPLACE=. ./|/subdi r/subdi r/html doc/
```

or

```
REPLACE=. ./|/myhtml docal i as/
```

- b) Edit the following line:

```
DOCR00T=c: \html doc
```

This path lets the CGI know the file system path to the PeopleBooks installation. For example:

### On Windows NT/2000:

WebLogic (PeopleTools machine example): **DOCR00T=c: \bea\wl server6. 1\confi g\peopl esoft \appl i cati ons\PSOL\html doc**

WebLogic (standalone machine example): `DOCR00T=c:\bea\wlserver6.1\config\mydomain\applications\DefaultWebApp\html doc`

IBM Http Server: `DOCR00T=c:\program files\IBM HTTP Server\htdocs\html doc`

**On UNIX:**

WebLogic (PeopleTools machine example): `DOCR00T=/products/bea/wlserver6.1/config/peoplesoft/applications/PSOL/html doc`

WebLogic (standalone machine example): `DOCR00T=/products/bea/wlserver6.1/config/mydomain/applications/DefaultWebApp/html doc`

IBM Http Server: `DOCR00T=/opt/IBMHTTPD/htdocs/html doc`

- c) Edit the following line:

`VDKHOME=c:\pt840\bin\server\winx86`

This path specifies the root path to Verity (see Task B-2, "Install Verity") in the local file system. This will be a path to a PeopleTools application server executables directory. For example:

**On Windows NT/2000:**

`VDKHOME=C:\pt840\bin\server\winx86`

**On UNIX:**

`VDKHOME=/pt840/bin`

3. Modify `srch.js` if necessary:

You must update `<html doc>/<lang>/js/srch.js` in your Peoplebooks website if any of these situations apply:

- PeopleBooks resides on a UNIX web server
- PeopleBooks resides inside the PSOL WebLogic directory
- Your CGI directory is not named "cgi-bin" below the document root

**On Windows NT/2000 with PSOL directory:**

Open `<html doc>/<lang>/js/srch.js` and change the following line

**From this:**

`var strpsdoccgi = "/cgi-bin/psdoccgi.exe";`

**To this:**

```
var strpsdoccgi = "/PSOL/cgi-bin/psdoccgi.exe";
```

**On Windows NT/2000 with non-standard "cgi-bin" directory name:**

Open `<html doc>/<lang>/js/srch.js` and change the following line

**From this:**

```
var strpsdoccgi = "/cgi-bin/psdoccgi.exe";
```

**To this:**

```
var strpsdoccgi = "<newcgi-binName>/psdoccgi.exe";
```

**On UNIX:**

First, remove the comment marks on the following line by removing the double slashes.

From this:

```
//var strpsdoccgi = "/cgi-bin/psdoccgi ";
```

**To this:**

```
var strpsdoccgi = "/cgi-bin/psdoccgi ";
```

If PeopleBooks resides on your PIA server and the PSOL folder exists, update `<html doc>/<lang>/js/srch.js` as follows:

```
var strpsdoccgi = "/PSOL/cgi-bin/psdoccgi ";
```

Then, a few lines above the UNIX reference to `psdoccgi`, comment out the reference to `psdoccgi.exe`, which is only applicable to Windows platforms. To mark the line as a comment, insert two slashes at the beginning of the line:

```
//var strpsdoccgi = "/cgi-bin/psdoccgi.exe";
```

Save and close `srch.js`.

## Task B-6: Configure Context-Sensitive Help

To set up context -sensitivity to engage the help link from browser pages and to set up F1 connectivity from Windows-based PeopleSoft pages, you need to configure PeopleTools and, if applicable, your PeopleSoft Supply Chain Planning applications.

### To enable the Help link from application pages

1. In a text editor, open the **configuration.properties** file on the web server you're using to access the PeopleSoft application.

The configuration.properties file is a text file that contains settings for the PeopleSoft Internet Architecture, which gets installed with the application. The file resides in a subdirectory on the machine running the web server.

2. Change the value for the setting helpUrl by replacing the "helpweb server" string with the domain name and port number of your web server. Also, if you installed to a directory other than "html doc", replace "html doc" accordingly. And, if you installed to the PSOL directory in WebLogic, be sure to insert /PSOL/ in the path.

#### *Examples:*

##### **On a PIA-enabled server:**

If your webserver is named "mywebserver" and listens to port 5080 and you installed PeopleBooks on a PIA enabled server following the directions above, you would modify the default helpUrl from:

```
hel pUrl =http: //hel pweb
server/html doc/f1search. htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%
```

to:

```
hel pUrl =http: //mywebserver: 5080/PSOL/html doc/f1search. htm?ContextID=%CONTEXT_ID%&LangCD=%
LANG_CD%
```

##### **On a stand-alone (non-PIA) web server:**

If your web server domain is named "mywebserver" and it listens to port 7001 and you installed PeopleBooks to a directory named "peoplebooks84" under the "mydomain" WebLogic directory, you would have to modify the default helpUrl setting

From this:

```
hel pUrl =http: //hel pweb
server/html doc/f1search. htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%
```

To this:

```
hel pUrl =http: //mywebserver: 7001/peoplebooks84/f1search. htm?ContextID=%CONTEXT_ID%&LangCD=
%LANG_CD%
```

**Note.** The system resolves %CONTEXT\_ID% to the page name from which you called help. The system resolves %LANG\_CD% to the signon language of the user.

3. Save and close the configuration.properties file.

Before testing help functionality, purge browser cache on the client and close all web browsers.

4. Test the help functionality.

You can easily test if you set up the helpUrl correctly. You don't need to have the application running or know a valid context ID.

Using the example above, in the browser address box enter:

`http://mywebserver:7001/PSOL/peoplebooks84/f1search.htm?ContextID=xxx&LangCD=ENG`

Since there is no context ID 'xxx' in PeopleBooks, f1search.htm will create an error message and provide you with a link to jump to the index page of PeopleBooks. Getting the error message from f1search.htm indicates that a help call from the application would have been passed correctly to f1search.htm and thus would have been resolved correctly.

5. Context-sensitive help will not be available through application "Help" links until you **shut down and restart the application server.**

After the restart, navigate through the menus until an actual application page opens (past all search dialogs), then click on Help.

### To enable F1 help for Application Designer, PeopleCode Editor, and other Windows-based PeopleSoft programs

1. Sign on to your PeopleSoft application using your browser.
2. Select **PeopleTools, Utilities, Admin, PeopleTools Options.**
3. Enter the same URL as in the previous procedure (where *web\_server/directory/* reflects your installation) into the F1 Help URL field:

`http://web_server/directory/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%`

4. Save the page.

# INSTALLING PEOPLETOLS MOBILE AGENT

This chapter describes how to install the PeopleTools Mobile Agent software to a laptop computer or personal digital assistant (PDA).

**Note.** The PeopleTools Mobile Agent is a product that is licensed separately from the PeopleTools product, and only those customers who have a license for PeopleTools Mobile Agent may install and use this product. Use of the Mobile Agent functionality described herein is subject to the licensing conditions for the PeopleTools Mobile Agent product. Please refer to the applicable contract to determine restrictions regarding this product.

This chapter discusses how to:

- Install on a laptop.
- Install on a PDA.
- Modify, repair, or remove PeopleTools Mobile Agent.
- Expedite the initialization of a PDA.
- Handle installation issues.

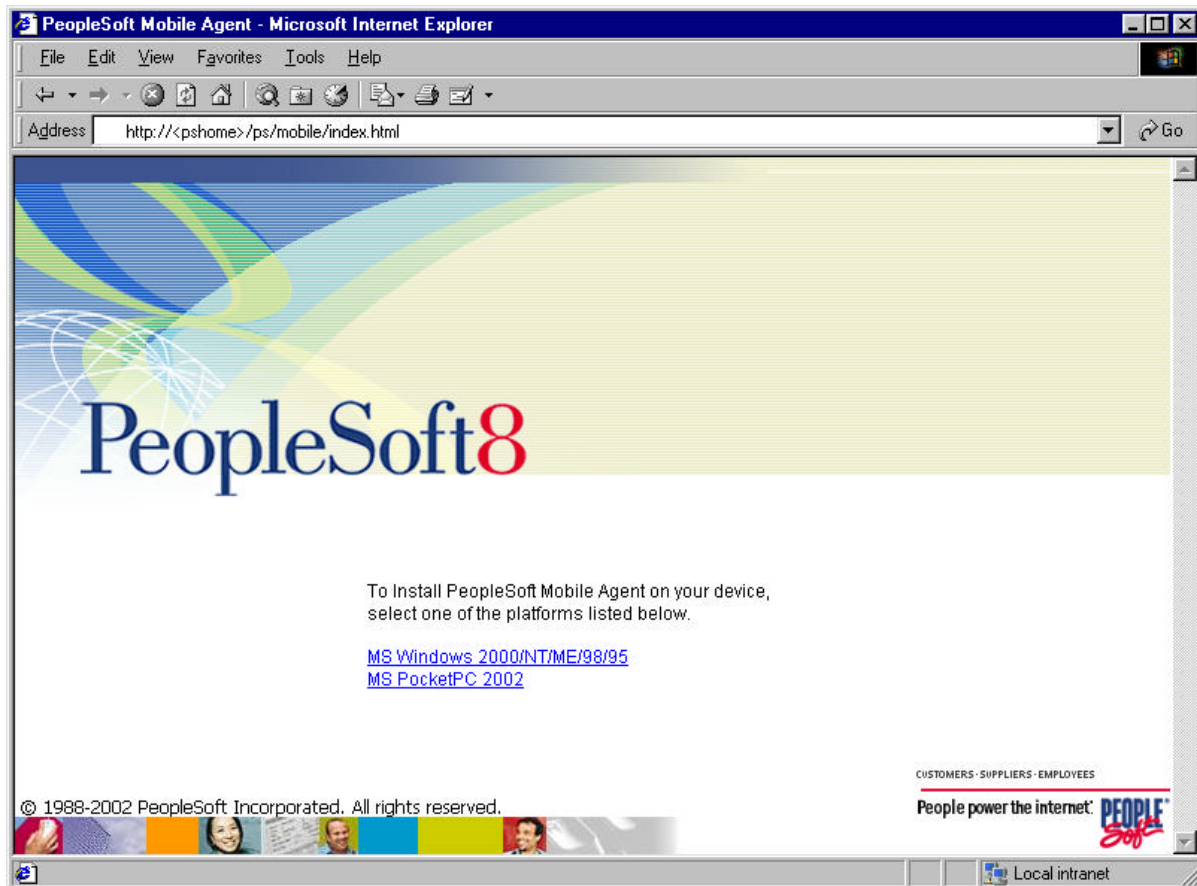
## Task C-1: Finding the Installation Program

The installation program for PeopleTools Mobile Agent can be delivered in several ways:

- From a Web site established by your administrator.
- From an FTP site established by your administrator.
- As an attachment to an email.
- As a link to a Web or FTP site in an email.
- In the mobile portal Web site directory of your web server:

- On a BEA WebLogic Web server this location is  
c:\bea\weblogic6.1\config\peoplesoft\application\portal\ps\mobile\
- On an IBM WebSphere Web server this location is  
c:\<WEBSPPHERE\_HOME>\installedApps\peoplesoft\portal\ps\mobile\

## Task C-2: Installing on a Laptop



### To install PeopleTools Mobile Agent on a laptop

1. Locate and run setup.exe:  
  
The PeopleTools Mobile Agent Setup window appears.
2. Click **Next**.
3. Specify the directory in which PeopleTools Mobile Agent will be installed, or accept the default.
4. Click **Next**.



5. Select whether to automatically start PeopleTools Mobile Agent on login.
6. Click **Next**.
7. Select the preferred language.

After installation, you cannot change this selection except by reinstalling PeopleTools Mobile Agent.

8. Click **Next**.
9. Enter the address of your Sync Server in the URL text box.

This address will usually be the same as that of your PIA web server. For example, if you access PeopleSoft applications at <http://mywebserver/ps/signon.html>, your Sync Server address is <http://mywebserver:80/SyncServer>. Contact your system administrator to confirm this information.

10. Click **Next**.  
A summary page appears, listing your installation selections.
11. Click **Back** to change a selection, or click **Next** to proceed with installation.
12. Click **Finish** when the installation completion window appears.

### Task C-3: Installing on a PDA

You can install PeopleTools Mobile Agent to a PDA.

Installation to a PDA requires:

- Installing the appropriate version of PeopleTools Mobile Agent to the computer that connects to your PDA.
- Installing PeopleTools Mobile Agent to your PDA.

**Note.** The following procedure assumes that you have already established connectivity between the computer and PDA, including applicable synchronization software.

#### To install PeopleTools Mobile Agent on a PDA

1. Locate and run `setup_<processor_type>.exe`:

The `<processor_type>` is the type of processor present in the PDA to which PeopleTools Mobile Agent is being installed.

The PeopleTools Mobile Agent Welcome window appears.

2. Click **Next**.

3. Specify the directory in which PeopleTools Mobile Agent will be installed on the computer, or accept the default.
4. Click **Next**.
5. Select the preferred language.

The only way you can change the preferred language on the PDA is by re installing PeopleTools Mobile Agent.

6. Click **Next**.
7. Enter the address of your Sync Server in the URL text box and click **Next**.

This address will usually be the same as that of your PIA web server. For example, if you access PeopleSoft applications at `http://my webserver/ps/signon.html`, your Sync Server address is `http://mywebserver:80/SyncServer`. Contact your system administrator to confirm this information.

8. Click **Next**.

A summary page appears, listing your installation selections.

9. Click **Back** to change a selection, or click **Next** to proceed with installation.

The ActiveSync Add/Remove Programs dialog box appears.

10. Confirm installation.

The installation proceeds. A completion message appears when installation to the PDA has finished.

11. Click **Finish** when the installation completion window appears.

## Task C-4: Modifying, Repairing, or Removing PeopleTools Mobile Agent

### To modify, repair, or remove PeopleTools Mobile Agent

1. Locate and run the appropriate program:

Installation	Program
Laptop	Setup.exe
PDA	Setup_<processor_type>.exe

The PeopleTools Mobile Agent Welcome window appears.

2. Select:

<b>Modify</b>	Specify another preferred language.
<b>Repair</b>	Reinstall all program components.
<b>Remove</b>	Remove all installed components.

You are asked to confirm any changes to the current installation.

## Task C-5: Expediting Initialization of a PDA

If PeopleTools Mobile Agent is installed to a PDA, you have the option of using the processing power of the connected computer to expedite initialization (bootstrap synchronization) or update applications synchronization.

### To expedite initialization (bootstrap) of a PDA

1. From the Start menu of the computer connected to your PDA, select **Programs , PeopleTools Mobile Agent, PS Sync PDA**.  
  
The PeopleTools Mobile Device Bootstrap page appears.
2. Enter your User ID and Password.  
  
Your User ID and its associated roles determine the application metadata and business data that will be installed to your mobile device.
3. Click **Synchronize**.  
  
The PeopleTools Mobile Synchronization Results page appears, showing the progress of your bootstrap synchronization.
4. After Update PDA Applications completes successfully, open the PeopleSoft program folder on the PDA.
5. Start PS Mobile Agent.
6. Start PS Mobile Application.
7. Select **Synchronization, Last Results** to view the synchronization results.

## Task C-6: Handling Installation Issues

This section describes options and issues that might require your attention after installing PeopleTools Mobile Agent.

This section discusses how to:

- Resolve port conflicts.
- Configure the PeopleTools Mobile Agent development environment.

## Resolving Port Conflicts

The default HTTP listening port for PeopleTools Mobile Agent is port 8080, which is specified in the psmobile.ini file. If possible, ensure that port 8080 is not used by another application. If PeopleTools Mobile Agent encounters a port conflict because another process is already using port 8080, it reports an error in the log file (\temp\psmobile.log), and stops processing.

You can resolve the conflict by editing the psmobile.ini file. For example, change Port=8080 to Port=80 or Port=8888.

- For a laptop installation, edit the Port setting in the psmobile.ini file.  
Find the file in C:\Windows or C:\WinNT.
- For a PDA installation, copy the psmobile.ini file to the laptop or desktop computer using ActiveSync, edit it there, and then copy it back.

After changing the port assignment in psmobile.ini, start PeopleTools Mobile Agent to determine whether the new setting is acceptable.

**Note.** If you change the port assignment in psmobile.ini, update any shortcuts, bookmarks, or favorites that reference the changed setting. For example, if you changed Port=8080 to Port=8888, change a browser favorite or bookmark from http://localhost:8080 to http://localhost:8888. If you use PS Sync PDA to expedite PDA synchronization, change the port number in any shortcuts to the port number specified in psmobile.ini + 1. For example, if you change psmobile.ini to Port=8888, change the PS Sync PDA shortcut to http://localhost:8889.

## Configuring the Web Server

Configure the web server to identify the application server (Sync Server gateway) used for synchronization.

To configure the web server, edit the file SyncServerGatewayConfig.xml. The location of this file depends on the web server.

Web Server	Directory Path
BEA WebLogic	C:\bea\wlserver6.1\config\peoplesoft\applications\PORTAL\WEB-INF\psftdocs\ps
IBM WebSphere	C:<WEBSHERE_HOME>\installedApps\peoplesoft\PORTAL\WEB-INF\psftdocs\ps

Edit the file to reflect your environment, where:

- **Domain #1 Name Here** is an optional name for the gateway.
- **Domain #1 Description Here** is an optional description for the gateway.
- **Domain #1 Application Server Connect String Here** is the machine name and port number for the gateway.

- APP\_SRVRS is the number of application servers configured for this gateway.

```
<?xml version='1.0'?>
<sync-gateway-config>
  <primary-domain>1</primary-domain>
  <domain-list>
    <domain id='1' version='1'>
      <name>Domain #1 Name Here</name>
      <description>Domain #1 Description Here</description>
      <connect>Domain #1 Application Server Connect String Here</connect>
      <thread-pool-size>APP_SRVRS</thread-pool-size>
    </domain>
  </domain-list>
</sync-gateway-config>
```



# CREATING A DATABASE MANUALLY ON WINDOWS NT/2000

This chapter describes the tasks required to create a PeopleSoft product database. During a standard PeopleSoft installation you will execute these tasks to create two distinct types of databases.

- **System.** The System database has no company specific data, and can be used to load your data and begin development of your production database.
- **Demo.** The Demo database contains data for a sample company, and can be used immediately for demonstration, for testing, and as a development reference.

The requirements for these databases vary, so not all of this chapter's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

**Note!** Don't forget that *application-specific installation steps are provided in a separate document specific to the application*. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, go to Customer Connection. Under the Site Index, find the Category "Installation Guides and Notes," and then look under the subcategory for your particular application.

**Note.** Remember, you need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools development environment, refer to the chapter "PeopleSoft Configuration Manager" in the *PeopleSoft Administration Tools* PeopleBook.

## Task Overview

The following table summarizes the tasks in this chapter.

<b>Task No.</b>	<b>Task Name</b>
Task D-1	Edit Database Scripts
Task D-2	Create an Oracle Instance
Task D-3	Set NLS_LANG in the Windows Registry
Task D-4	Create Catalog Views and Utility Tablespaces
Task D-5	Create Rollback Segments
Task D-6	Create PS.PSDBOWNER Table
Task D-7	Create Application-Specific Tablespaces
Task D-8	Create PeopleSoft Database Roles
Task D-9	Create PeopleSoft Database Owner ID
Task D-10	Create Connect ID
Task D-11	Update Connection Information
Task D-12	Create Data Mover Import Script
Task D-13	Run Data Mover Import Scripts
Task D-14	Update Database to Latest PeopleTools Release
Task D-15	Run Additional Data Mover Scripts
Task D-16	Run VERSION Application Engine Program
Task D-17	Change Base Language
Task D-18	Prepare to Run SQR
Task D-19	Check Database
Task D-20	Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog
Task D-21	Initialize Online Rollback Segments

## Task D-1: Edit Database Scripts

The scripts required for creating the database scripts reside in the <PS\_HOME>\scripts\nt directory on the file server. You need to edit a few of these scripts for your environment before you execute them and go on with the following procedures.

Typically, you need to modify the file system locations and the Oracle SID name.

### To edit required database scripts

1. Go to the <PS\_HOME>\scripts\nt directory on the file server.
2. Edit the scripts to conform to your environment.



The following list presents the necessary scripts:

- **CREATEDB.SQL**

Edit CREATEDB.SQL only if you intend to use this script, rather than the Database Assistant Tool, to create the Oracle Instance. The following task recommends using the Database Assistant Tool.

**Note.** When editing CREATEDB.SQL, if you are creating a Unicode database, ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to UTF8. See the PeopleSoft Hardware and Software Requirements Guide for a list of the Oracle character sets supported by PeopleSoft.

- **CONNECT.SQL** (Edit CONNECT.SQL only if you do not wish to use the default CONNECT\_ID.)
- **UTLSPACE.SQL**
- **XXDDL.SQL**, where *XX* is a two-letter code for your product line, as spelled out in the table below

Code	Product Line
CR	Customer Relationship Management
EP	Financials / Supply Chain Management
FO	Staffing Front Office
HC	HRMS
LM	Enterprise Learning Management
PA	Enterprise Portal
PF	Enterprise Performance Management
SA	Student Administration/ Contributor Relations

**Note.** This is a complete list of available product lines for PeopleTools 8.4x. Note that not all products go out on all PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Please see your application-specific installation documentation for details.

**Note.** For multilanguage installs, you need to increase the size of the PTTBL, PSIMAGE, and PSINDEX tablespaces. Refer to the comments in the DDL scripts for further details regarding the incremental increase for each additional language.

## Task D-2: Create an Oracle Instance

You do not need to run CREATEDB.SQL on Windows NT. Instead of running this script, you should create a new Oracle instance using the Oracle Database Configuration Assistant, as outlined in the following steps.

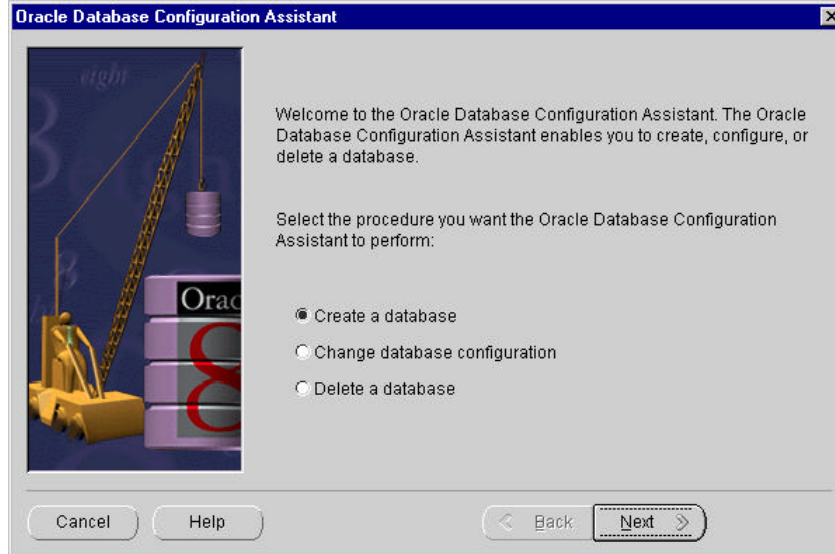
**Note.** PeopleSoft supports either Oracle8i or Oracle9i. The example below uses the Oracle 8i DBCA.

The procedure that follows makes the following assumptions:

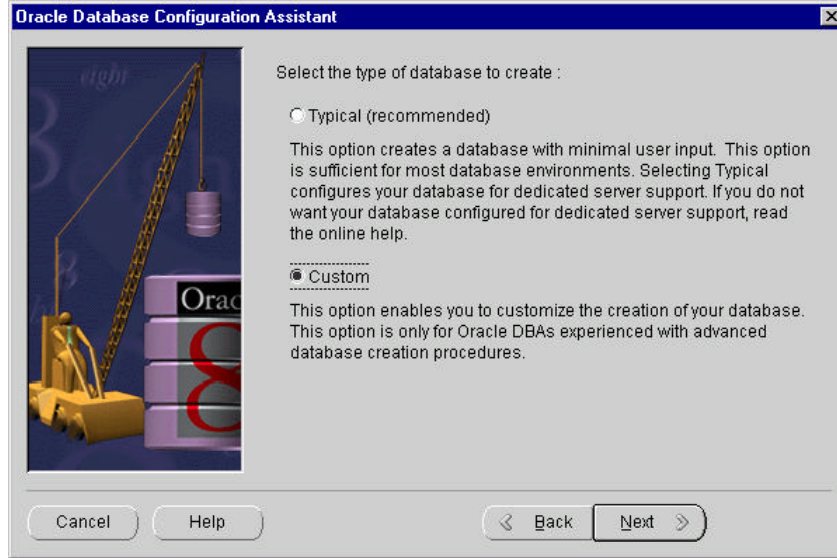
- Your new SID is named **DEV8**.
- Your password for the user INTERNAL is **manager**.
- You already have the ORCL Instance (starter database), which should have been created when you installed Oracle.
- You are using/have used the default installation directories.

### To create an Oracle instance

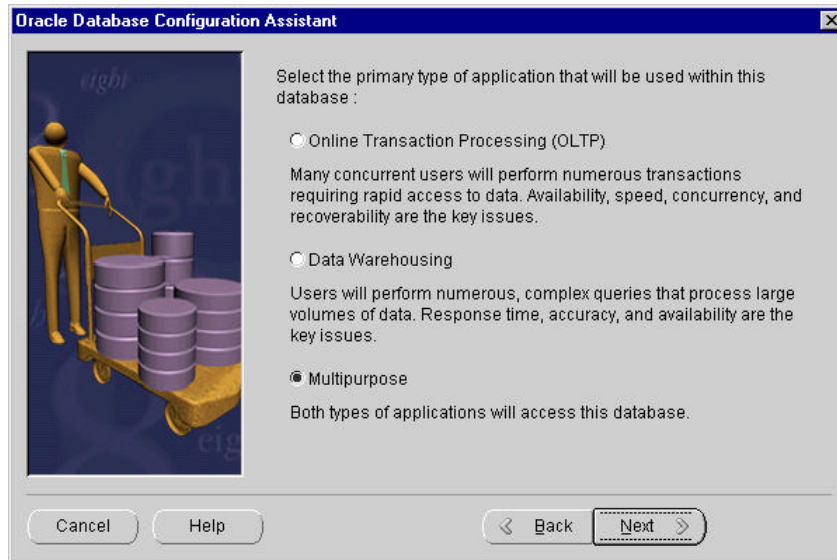
1. Select **Start, Programs, Oracle OraHome81, Database Administration, Database Configuration Assistant**. You'll get the following dialog:



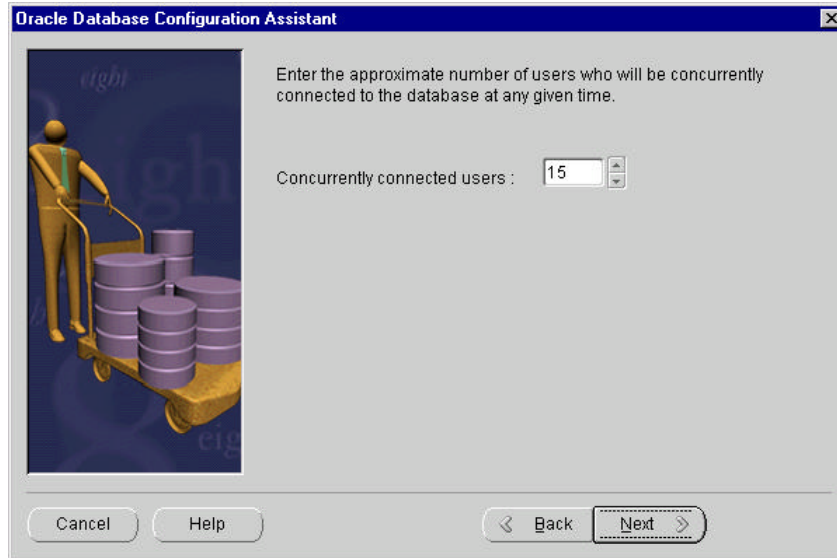
2. Select the **Create a database** radio button, and then click **Next**.



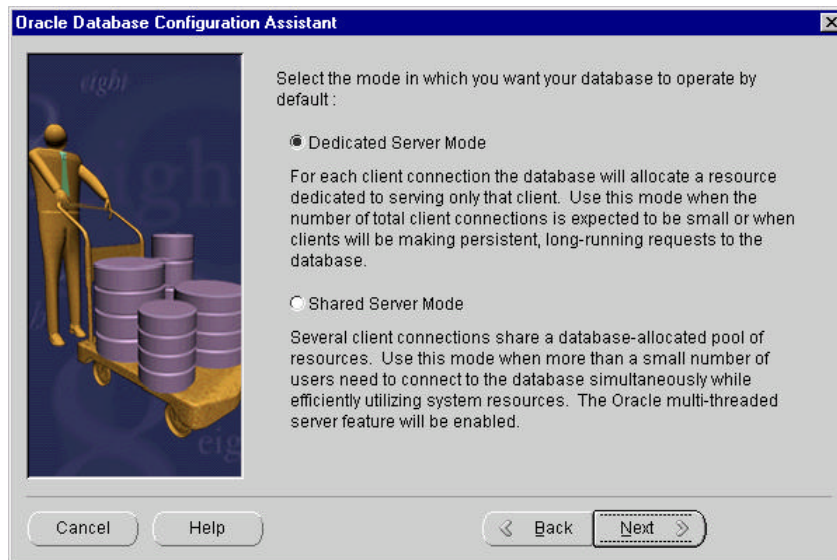
3. Choose **Custom**, and then click **Next**.



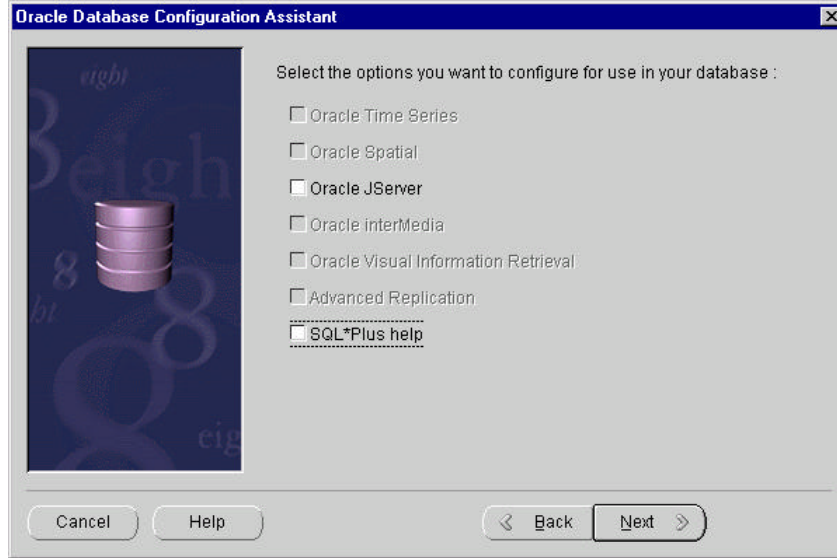
4. Choose **Multipurpose**, and then click **Next**.



5. Enter the number of projected concurrent users, and click **Next**.

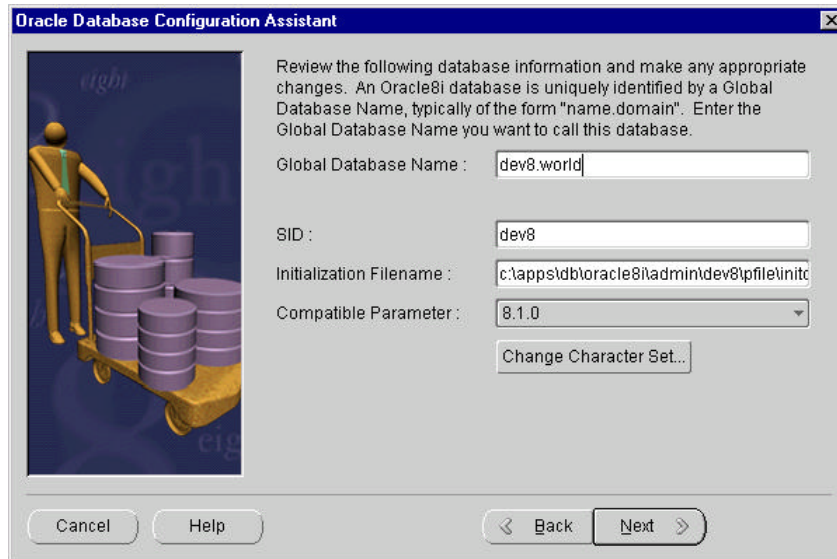


6. Select **Dedicated Server Mode**, and click **Next**.

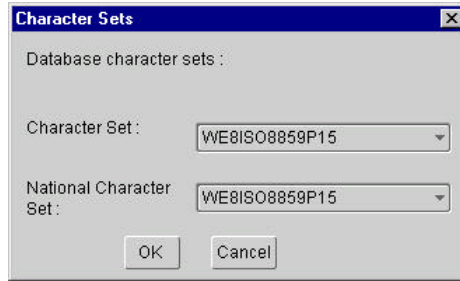


**Note.** By default, the **Oracle JServer** and **SQL\*Plus help** check boxes are selected. However, PeopleSoft does not require the Oracle JServer or SQL\*PLUS help.

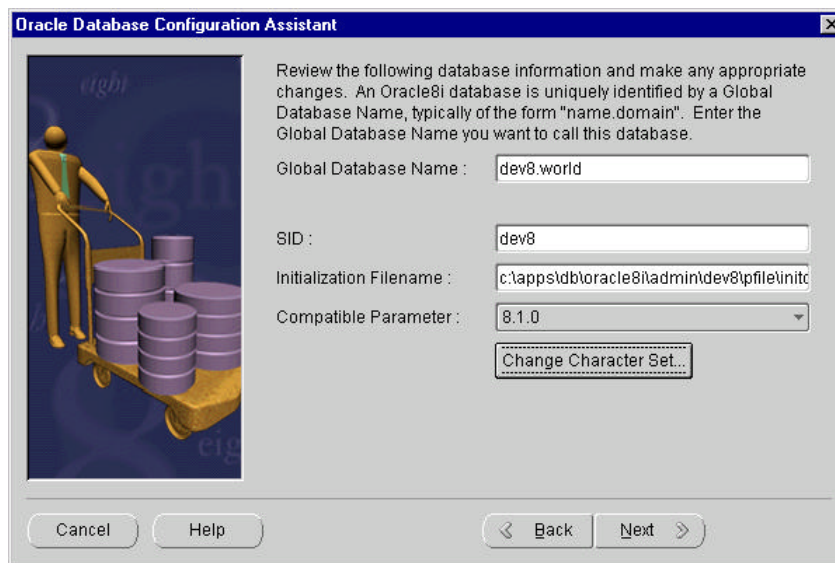
7. Deselect the **Oracle JServer** and **SQL\*Plus help** options.



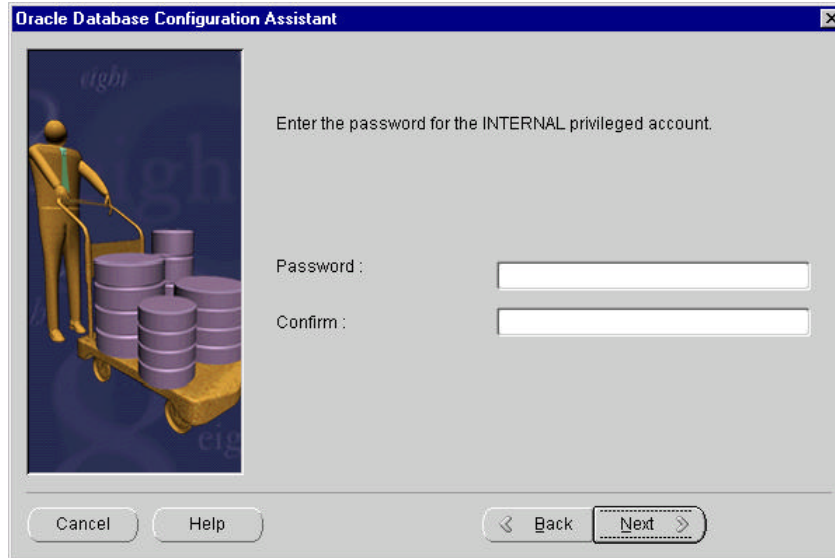
8. Enter Global Database Name and SID. For Oracle 8i, the compatible parameter must be set to 8.1.0. For Oracle 9i the compatible parameter must be set to 9.0.0 or higher. Click **Change Character Set**.



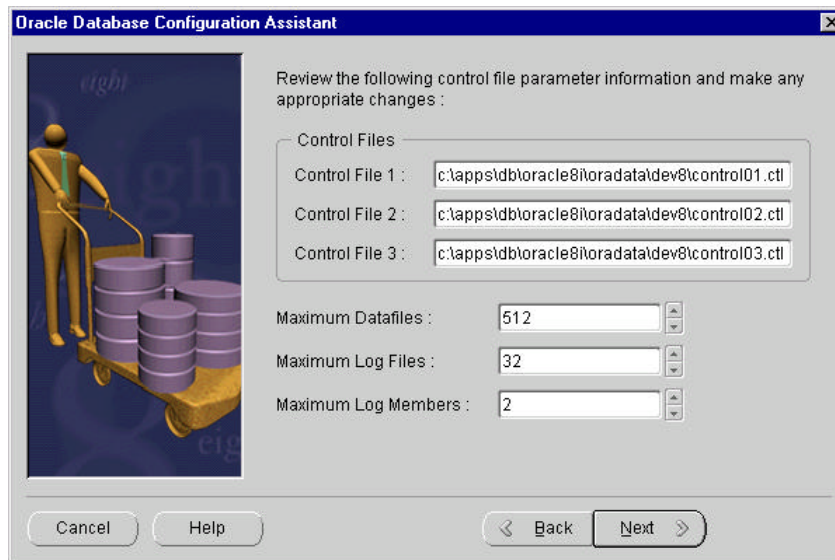
9. Choose the appropriate Character Set for your installation, and then click **OK**. If you are creating a Unicode database, the character set must be set to UTF8. See the PeopleSoft Hardware and Software Requirements Guide for a list of the Oracle character sets supported by PeopleSoft.



10. When you return to this dialog, click **Next**.



11. Change the internal password to **manager**, and then click **Next**.



12. Make the following modifications, and then click **Next**.
- If necessary modify the Control File parameters. \* This step is very important. If you do not change the CONTROL\_FILES parameter, the control files of other database(s) could be overwritten by the new instance rendering the other instance unusable.
  - Modify the Maximum Datafiles parameter to the maximum available for your OS, typically 512 for Windows NT.
13. Modify the following six tabs as appropriate to your installation, and Click **Next**.

**Oracle Database Configuration Assistant**

System | **Tools** | User | Rollback | Index | Temporary

Review the following SYSTEM tablespace information and make any appropriate changes :

Name : SYSTEM Size (MB): 58

File : c:\apps\db\oracle81\oradata\dev8\system01.dbf

Extents

Auto Extend: ON Next (KB): 640

Minimum Extent (KB): 64

Storage

% Increase: 50 Initial (KB): 64

Next (KB): 64 Min: 1

Max: 300  Unlimited

Cancel Help Back Next

**Oracle Database Configuration Assistant**

System | Tools | **User** | Rollback | Index | Temporary

Review the following Tools tablespace information and make any appropriate changes :

Name : TOOLS Size (MB): 12

File : c:\apps\db\oracle81\oradata\dev8\tools01.dbf

Extents

Auto Extend: ON Next (KB): 320

Minimum Extent (KB): 32

Storage

% Increase: 0 Initial (KB): 32

Next (KB): 32 Min: 1

Max: 4096  Unlimited

Cancel Help Back Next



**Oracle Database Configuration Assistant**

System Tools **User** Rollback Index Temporary

Review the following USER tablespace information and make any appropriate changes :

Name :  Size (MB):

File :

Extents

Auto Extend:  Next (KB):

Minimum Extent (KB):

Storage

% Increase:  Initial (KB):

Next (KB):  Min:

Max:   Unlimited

Cancel Help Back Next

**Oracle Database Configuration Assistant**

System Tools User **Rollback** Index Temporary

Review the following ROLLBACK tablespace information and make any appropriate changes :

Name :  Size (MB):

File :

Extents

Auto Extend:  Next (KB):

Minimum Extent (KB):

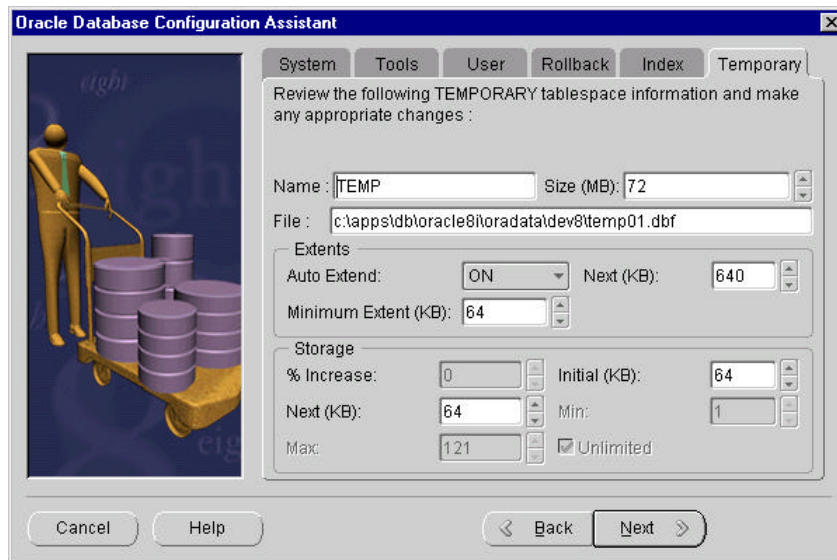
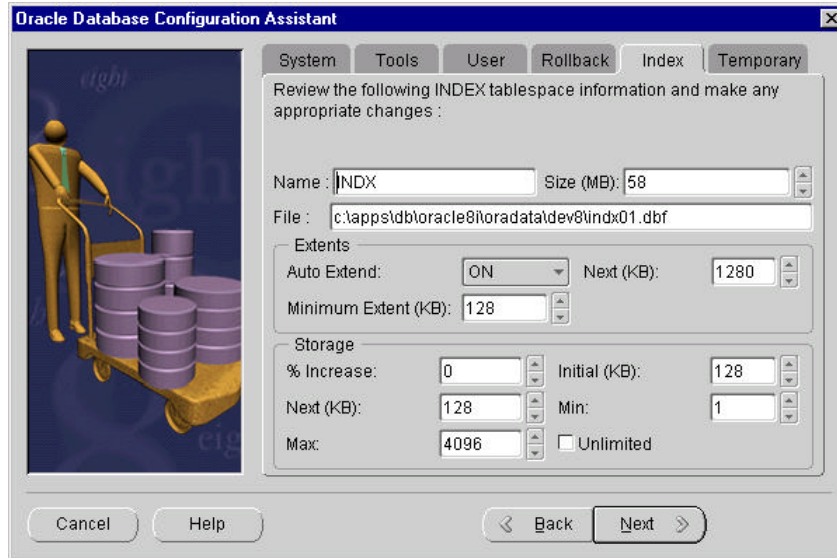
Storage

% Increase:  Initial (KB):

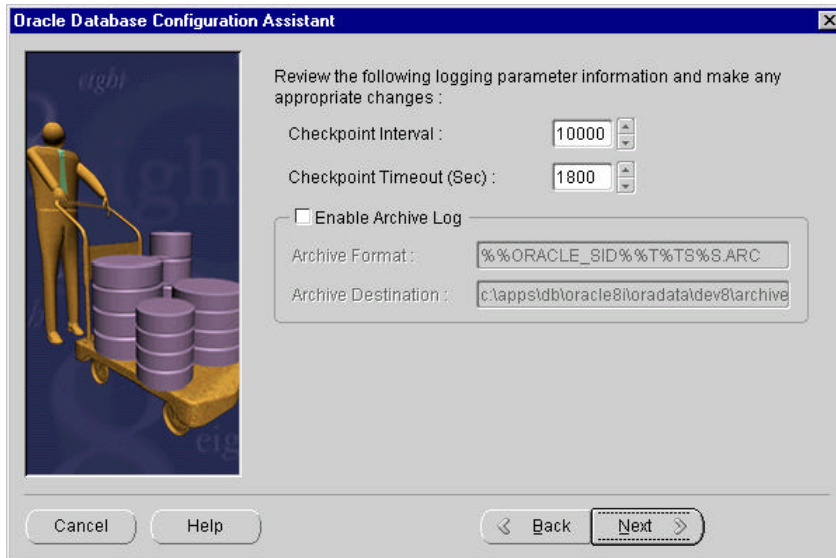
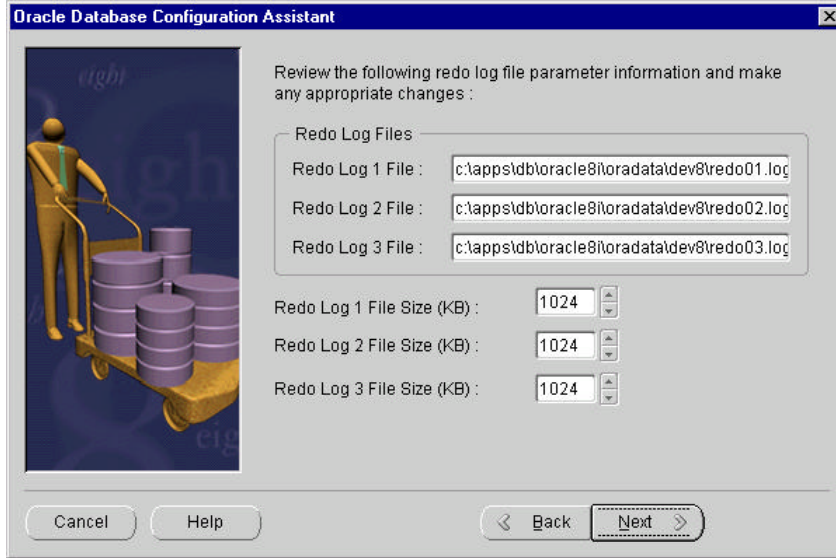
Next (KB):  Min:

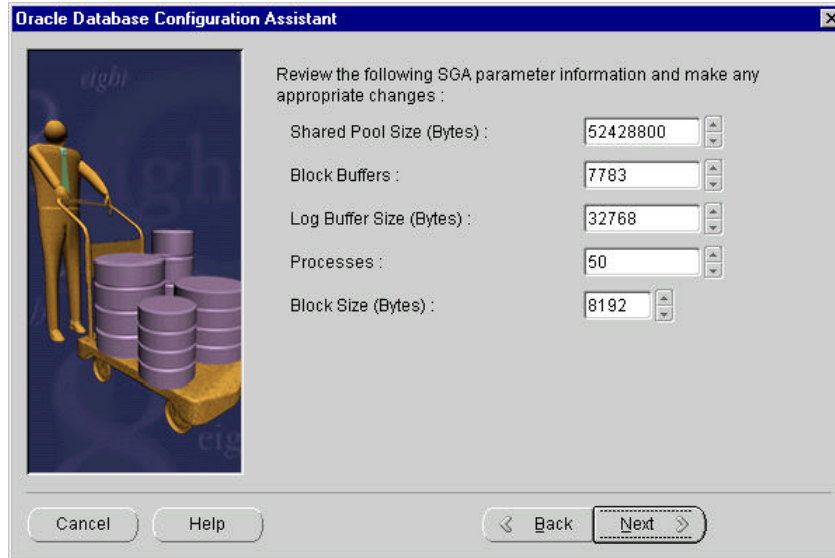
Max:   Unlimited

Cancel Help Back Next

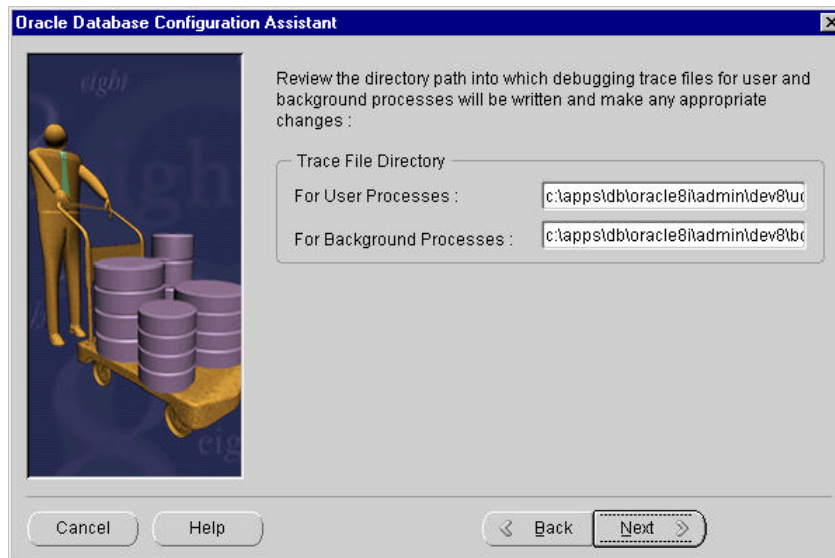


14. Modify as appropriate to your installation the following series of three screens, and then press **Next**.



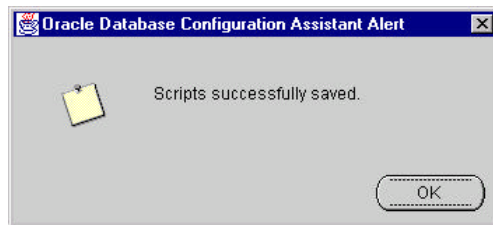
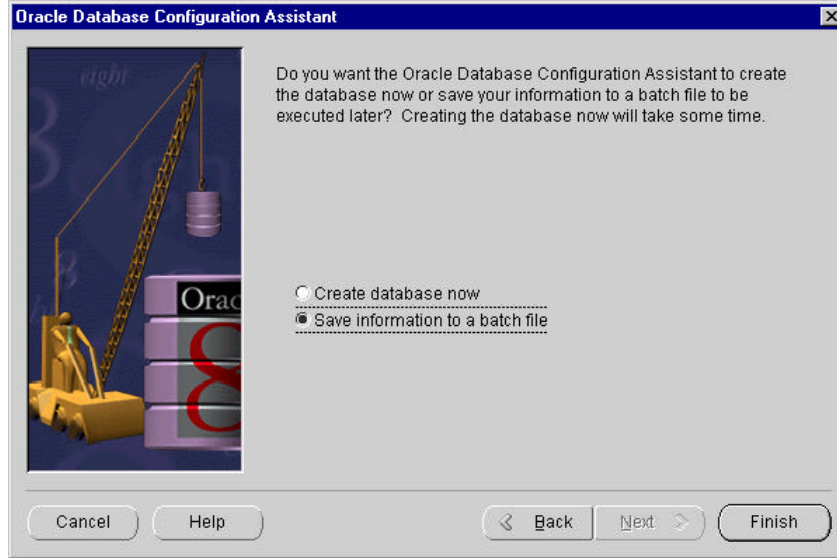


**Note.** The default `DB_BLOCK_SIZE` in the `init.ora` file is 8192 or 8k. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases, (eg. `CHARACTER_SET UTF8`), a `DB_BLOCK_SIZE` value of 8k is required.

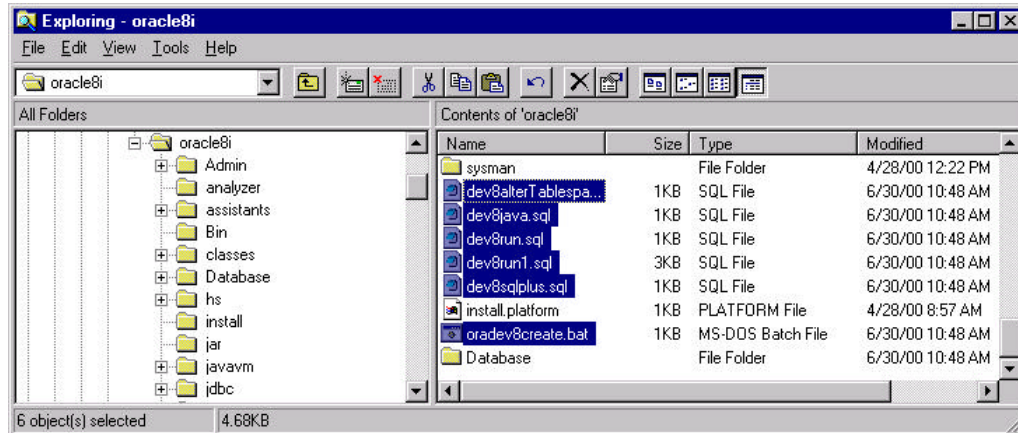


15. Click **Next**.
16. The next dialog gives you the option of creating the database immediately or generating scripts and script components to review and run afterwards.

The following example generates the installation batch files.



The following is a list of the batch file generated by these settings as well as the other script/sql files necessary for generating an Oracle Instance.



17. After the files are created, go to DOS and run

**set ORACLE\_SID=<SID>**

18. Edit the `init<SID>.ora` file and add the `open_cursors=255` statement.

**Note.** For installs on Oracle9i add the parameter `UNDO_MANAGEMENT` to the `init.ora` file. Setting `UNDO_MANAGEMENT=MANUAL` will allow the use of rollback segments for undo management.

**Note.** See the document “Operating System, RDBMS & Third Party Product Patches Required for Installation PT 8.4x” on Customer Connection for more parameters that may be required for the `INIT<SID>.ora` file.

19. Then execute the script that you just created. The name depends upon what the customer used.

**Note.** For more information on password file authentication, refer to your Oracle 8i Server Administration documentation.

## SQL Tools

When you execute PeopleSoft SQL scripts, use the appropriate tool included with your version of the RDBMS. You should use SQL\*Plus, which is available with each PeopleSoft supported version of the Oracle RDBMS.

**Note.** Before PeopleSoft 8, PeopleSoft-delivered SQL scripts were written to be executed from SVRMGRL. Oracle has eliminated SVRMGRL with Oracle release 9i. Beginning with Oracle release 8.1.6 all SVRMGRL functions are supported by SQL\*Plus. All PeopleSoft SQL scripts have been modified to run from SQL\*Plus.

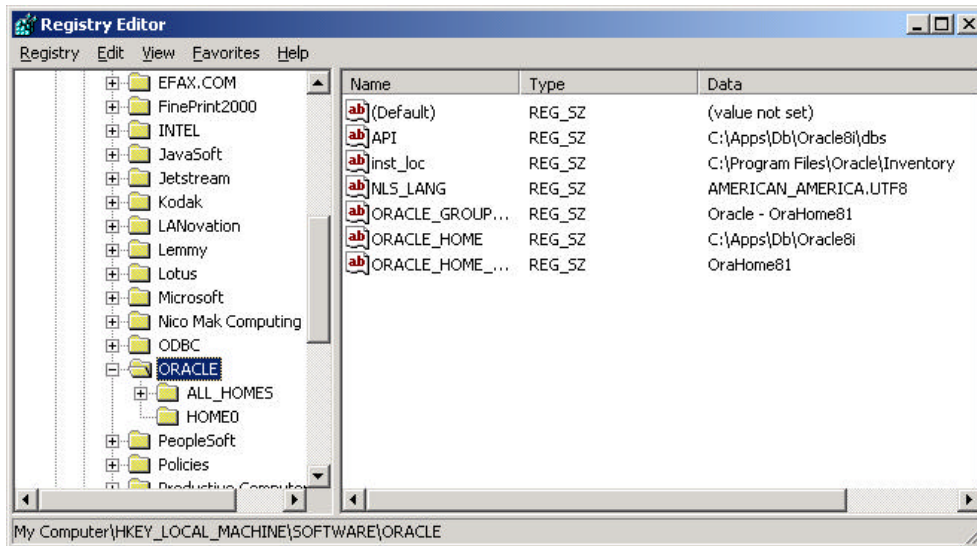
### Task D-3: Set NLS\_LANG in the Windows Registry

You must set the `NLS_LANG` Oracle registry key to indicate the Oracle language and character set. All PeopleSoft installations require the `NLS_LANG` character set component to be set to UTF8, as the PeopleSoft Internet Application Server and reporting tools all run in Unicode regardless of the database character set. `NLS_LANG` has three components, a language, a territory and a character set in the form `LANGUAGE_TERRITORY.CHARACTERSET`. For example, for American English, the correct `NLS_LANG` setting for PeopleSoft would be `AMERICAN_AMERICA.UTF8`. See the Oracle National Language Support guide for full details.

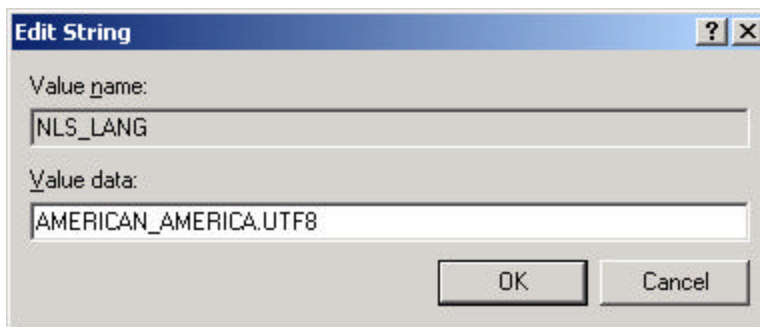
#### To set NLS\_LANG in the Windows registry

1. The `NLS_LANG` parameter should be set on each workstation you use to access PeopleSoft in two-tier mode, and on your application server machine.
2. Open the Windows Registry Editor by selecting **Run** from the Windows Start menu. Type `REGEDIT` in the Run dialog.

3. Navigate to the key HKEY\_LOCAL\_MACHINE\Software\Oracle.



4. Double-click on the NLS\_LANG key in the right hand side of the window.



5. Enter <language>\_<territory>.UTF8 in the “Value Data” field, substituting <language> and <territory> for your preferred language and territory settings. If unsure, use AMERICAN\_AMERICA.UTF8.
6. Click **OK** and close the Registry Editor.

## Task D-4: Create Catalog Views and Utility Tablespaces

Run the UTLSPACE.SQL script from SQL\*Plus to create catalog views and utility tablespaces.

**To create catalog views and utility tablespaces**

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>\scripts\nt\utl space. sql
```

**Task D-5: Create Rollback Segments**

Run the ROLLBACK.SQL script from SQL\*Plus to create your rollback segments. This script creates five rollback segments. The rollback segments r01, r02, r03, and r04 are suggested for use by online processes. The last rollback segment, rbsbig, should be used separately for enhanced installation performance, such as running Data Mover scripts, or for supporting large COBOL batch jobs.

**To create your rollback segments**

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the ROLLBACK.SQL script using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\rollback. sql
```

**Task D-6: Create PS.PSDBOWNER Table**

Run the DBOWNER.SQL script from SQL\*Plus to create the PS.PSDBOWNER table.

**To create the PS.PSDBOWNER Table**

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the DBOWNER.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\dbowner. sql
```

**Task D-7: Create Application-Specific Tablespaces**

To create tablespaces for the product you are installing, run the appropriate XXDDL.SQR scripts, logged on as the system user, where XX stands for your product line, as spelled out in the following table.



Code	Product Line
CR	Customer Relationship Management
EP	Financials / Supply Chain Management
FO	Staffing Front Office
HC	HRMS
LM	Enterprise Learning Management
PA	Enterprise Portal
PF	Enterprise Performance Management
SA	Student Administration/ Contributor Relations

**Note.** This is a complete list of available product lines for PeopleTools 8.4x. Note that not all products go out on all PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Please see your application-specific installation documentation for details.

### To create application specific tablespaces

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the appropriate DDL scripts.

For example:

```
sqlplus>@<PS_HOME>\scripts\nt\epddl.sql
```

## Task D-8: Create PeopleSoft Database Roles

Run the PSROLES.SQL script from SQL\*Plus to create the PeopleSoft database roles.

### To create the roles for your PeopleSoft database

1. Log on to SQL\*Plus to as the System user.
2. Run the PSROLES.SQL script:

```
SQLPLUS>@<PS_HOME>\scripts\nt\psroles.sql
```

## Task D-9: Create PeopleSoft Database Owner ID

This task creates the PeopleSoft database owner ID that will be referenced in future tasks. It grants the roles, created in the previous step, to this owner ID.

### To create the PeopleSoft database owner ID

1. Log on to SQL\*Plus as the System user.
2. Run the PSADMIN.SQL script.

```
SQLPLUS>@<PS_HOME>\scripts\nt\psadmin.sql
```

**Note.** **Oracle 8i:** You will have to run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSTEMP if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

**Oracle 9i:** You will have to run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

## Task D-10: Create Connect ID

With PeopleTools 8.4, you establish connections to a database simply by using the connect ID option, which allows you to associate multiple PeopleSoft operators to the same connect ID. The connect ID has the minimum privileges required to connect to the database—that is, it has only SELECT privileges on specific PeopleTools tables. After connection, PeopleSoft Security uses the operator ID to control access to objects in the database. The PeopleSoft sign-on process validates the connect ID on the server, rather than the operator ID. Connect ID simplifies database security maintenance. You don't have to maintain access for all PeopleSoft users, just for the connect ID.

The connect ID is granted access using the following script:

- **Connect.sql** Creates the connect ID and grants CREATE SESSION privilege to the connect ID. Access to the PeopleSoft database is then granted to the connect ID explicitly via the initial Data Mover load script generated by DBSETUP to include the following grants.

```
grant select on PSSTATUS to <CONNECT_ID>;
grant select on PSOPRDEFN to <CONNECT_ID>;
grant select on PSACCESSPRFL to <CONNECT_ID>;
```

In addition, the connect ID and connect password are added to the Configuration Manager settings, which must be in place on a workstation to allow a two-tier connection.

## How Does the Connect ID Work

When logging into a PeopleSoft database in two-tier mode, the user enters a Database Name, User ID, and Password in the PeopleSoft Signon dialog box.

The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/people/peop1e
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID = :1
Get the Access ID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPRFL WHERE SYMBOLICID = :1
Disconnect Connect ID	Disconnect
Login using the Access ID	Connect=PT84/ACCESSID/ACCESSPWD

At this point, access is governed by PeopleSoft security, which determines what applications a specific user ID has access to.

### To create Connect ID

1. Log on to SQL\*Plus as the System user.
2. Run the connect.sql script.  
  

```
SQLPLUS>@<PS_HOME>\scripts\nt\connect.sql
```
3. The script will then create the connect ID and grant it CREATE Session privileges only.

## Task D-11: Update Connection Information

Update connection information on both the client and the server.

### To update connection information on the client

1. Update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

**To update connection information on the server**

1. Add the new SID name and \$ORACLE\_HOME location to the LISTENER.ORA on the database server.
2. Stop and start (or reload) the NET8i/NET9i listener.

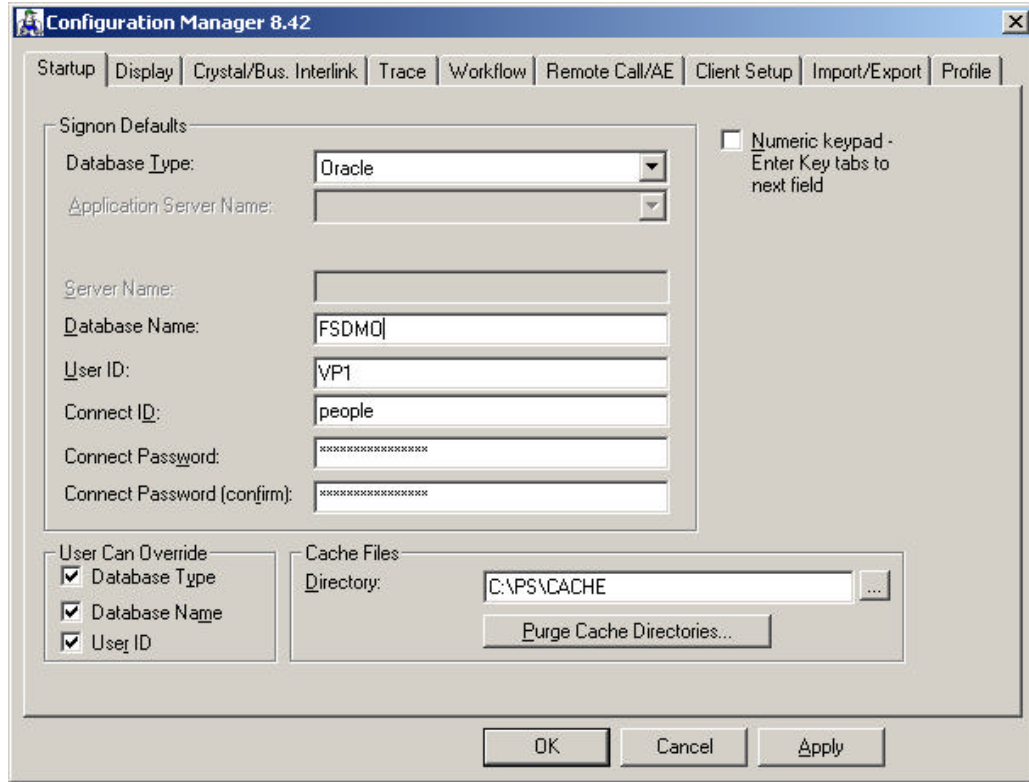
**Note.** For more information regarding optimum tnsnames.ora entry configuration for the DB server, see “NET8i/NET9i” in the Tuning and Administration documentation posted on the same Customer Connection page as the Installation Guides. Check your Oracle documentation for further information as well.

**Task D-12: Create Data Mover Import Script**

This task explains how to create the Data Mover Import script, which is used to populate the PeopleSoft database with data. The following procedure describes how to run Database Setup Wizard from Data Mover to generate the import scripts.

**Create Data Mover import script using Data Mover**

1. Verify that the same Connect ID was used in the connect.sql script, Database Setup, and Configuration Manager panel displayed below. If you accepted all defaults, the Connect ID/Password is: people/people (password has the number” 1”).



2. Run Data Mover in bootstrap mode using the Database Name, User ID, and Connect ID, and Connect Password defined in Chapter 1 under “Plan Database Creation.” This is the login you chose to create the database.
3. To invoke the Database Setup wizard, choose **File, Database Setup**.
4. Select your database platform.

**Note.** Choose the Database Type—Unicode or Non-Unicode—that you selected in Chapter 1, in the task “Plan Multilingual Strategy.” If you choose Non-Unicode, select the character set you decided upon in Chapter 1.

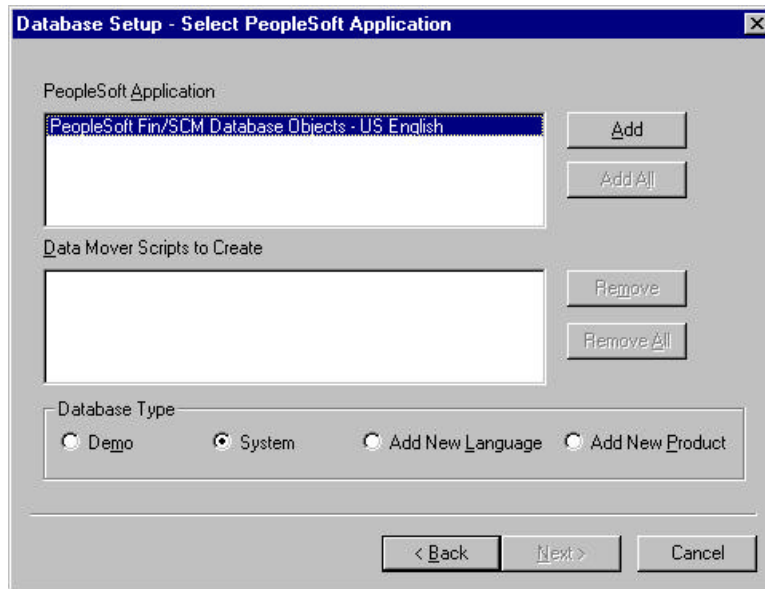
**Note.** The character set you select here must match the character set you used to create your database in the step “Create an Oracle Database.” If you choose to create a Unicode database, you must have created your instance using the UTF8 character set in the step “Create an Oracle Instance.”

5. Select your character set and click **Next**.

**Note.** DB Setup does not actually modify the character set of your database. That is done by your DBA during database creation. DB Setup will create customized scripts based on your selections.

**Note.** When you select a non-Unicode character set, only the characters within that character set can be stored in your database. If you require characters from multiple character sets or scripts to be stored in a single database, PeopleSoft recommends that you create your database using Unicode. Please consult the *PeopleTools Hardware and Software Requirements* book for more details.

6. Select your PeopleSoft Application and click **Next**.



Select the **Demo** or **System** radio button, depending on which type of PeopleSoft database you are installing.

Select the Product(s) for which you want to create a Data Mover script from the **PeopleSoft Application** list box. Only the Products and languages that you have licensed will be available. Move the item(s) you have selected into the **Data Mover Scripts to Create** list box by clicking on the **Add** or **Add All** button.

If you installed the Multilanguage CD, each application will be listed several times, once for each language. The format of these entries is *AA-LLL* where *AA* is the two-letter application abbreviation and *LLL* is the three-letter language abbreviation. See the task “Plan Multilingual Strategy” in Chapter 1 for a list of the PeopleSoft-provided languages and abbreviations. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

If you are installing an application in any language other than English, you must also select the English component of the application. For example, for HRMS if you select HR-French, you must also select HR-English. This ensures that you install the necessary base-language components.

**Note!** The PeopleTools System Database option is only available if you have separately licensed the capability to create custom applications outside of a PeopleSoft Application Database. This is also known as the “PeopleTools Enterprise License.”

7. Set the database parameters and click **Next**.

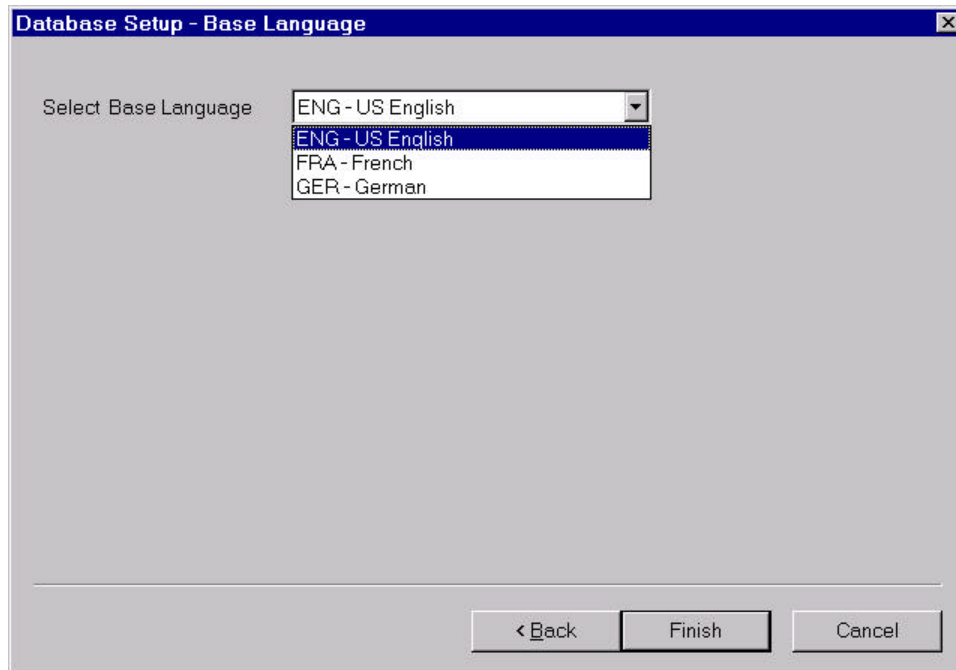
- **Database Name.** The database name that users will enter on the PeopleSoft signon screen. This corresponds to the owner ID. It can be up to eight characters long and must be entered in uppercase.
- **Symbolic ID.** This is used as the key to retrieve ACCESSID and ACCESSPSWD from PSACCESSPRFL. For initial installation set it equal to the Database Name. The Symbolic ID cannot be longer than eight characters.
- **Access ID.** This is the PeopleSoft Access ID defined in Chapter 1 under “Plan Database Creation.” This value is case sensitive. You will use it later in this chapter to sign on to Data Mover in “bootstrap mode.”
- **Access Password.** This is the PeopleSoft Access Password defined in Chapter 1 under “Plan Database Creation.” You will use this value later in this chapter to sign on to Data Mover in “bootstrap mode.”
- **Connect ID.** For Oracle, this is the Connect ID that can be used for the initial connection to Oracle. This ID is used for connecting to the database.

**Note.** The Connect ID was defined as a valid logon ID in the database security management software through the script connect.sql. The Connect ID only needs to be granted SELECT access on PSACCESSPRFL, PSOPERDEFN, and PSSTATUS. This ID should be granted no other database authorities.

8. Select your database’s base language and click **Finish**.

**Note.** This screen appears only if you selected a database for a language other than English. If you see this screen it's critical to select the correct base language. When you select a base language other than ENG, DBSETUP generates the Data Mover import script with the SWAP\_BASE\_LANGUAGE command to swap the base language.

At this point you are in Data Mover, with the DMS script you just created ready to run.



**Note.** If you haven't already done so, read the task "Plan Multilingual Strategy" in Chapter 1 before determining whether to install multiple languages and whether to change your base language.

**Note.** If you are creating a database and want to load PeopleSoft-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.

**Note.** If you are creating a non-Unicode database, you must ensure that the languages you select are all supported by the character set you used to create your database. See the task "Plan Multilingual Strategy" in Chapter 1 for more information.

**Note.** All PeopleSoft releases are shipped with English as the database's base language. Therefore when selecting components for the Data Mover Import script, you must select the English components in addition to any other languages you have licensed. During the Database Setup wizard, you need to select the database's base language that you plan to use most frequently. If your database's base language is different than the Database Setup wizard generate the SWAP\_BASE\_LANGUAGE command in the Data Mover Import script to swap the language



## Task D-13: Run Data Mover Import Scripts

Now you will run the Data Mover script(s) (DMS) that you created in the preceding task to import the data for your PeopleSoft database. The Data Mover script creates either a system (SYS) or a demo (DMO) database.

When you initially logged onto Data Mover to create the DMS scripts, you logged in using bootstrap mode. *Bootstrap mode* means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. You need to use bootstrap mode to run the Data Mover import script, because there are not yet any PeopleSoft security tables in the database.

When you start Data Mover in bootstrap mode, the word “BootStrap” appears in the Data Mover status bar.

**Note.** For more information about Data Mover and Data Mover command syntax, consult the Data Management PeopleBook.

### To populate tables in the PeopleSoft database

1. The DMS import script for your application will contain hard-coded file names for log files and data files. Modify the DMS script if you have moved any files from the delivered directories or want to write log files to another location than that specified in the script.
2. Select **File, Run** to execute the script.

When you run the script, Data Mover typically does the following:

- **IMPORT \***

Create all the PeopleTools and application tables with their indexes.

- **ENCRYPT\_PASSWORD \***

Encrypt security information for the database.

- **CREATE\_TRIGGER \***

Create application required triggers.

- **REPLACE\_VIEW \***

Create PeopleSoft views.

- **CREATE\_TEMP\_TABLE \***

Create PeopleSoft temporary tables.

### Validate Files

Each script will produce .LOG files. The log files are located in the directory you specified in the Data Mover Script.

Examine these files after each run to make sure that all the commands were executed successfully.

## Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the script and start again.

### To edit and restart the DMS script

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

**Note.** When building a DMO database or a multilingual database, adding the 'SET START' statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the 'SET START' statement before the first 'IMPORT \*;' statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding 'IMPORT \*;' statements and add the 'SET START' statement before the 'IMPORT\*;' statement of the section in which the failure occurred. This is very important. If you see any 'unique index constraint' error messages in the 'Create Indexes' step (found later in the chapter), your IMPORT script failed during a subsequent IMPORT but the 'SET START' statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement 'IMPORT \*;' to 'REPLACE\_DATA \*;'. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred)

```
Set start <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

**Note.** It's a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
3000
```

First drop the partially inserted table (eg. record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleTools 8.4, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred)

```
SET START <RECORD NAME>;
DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

Example:

Before:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

After:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP Statement, for records with a non leading PS rename, add PS\_ to the beginning of the rename otherwise the table will not be found.

Example:

```
PS_<RECNAME>
```

3. Re-start the script (**File, Run Script**).

## Tips for Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.
- Run Data Mover on the database server with the .db or .dat file located locally.

If you're comfortable changing the options available for an Oracle instance, you might consider "tuning" the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Increase the shared\_pool.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the redo log files when you create the database.
- Use asynchronous read and write.
- Use multiple db\_writers.

**Note!** EPM Customers must restore the Informatica repository at this point. For the details, see the EPM installation documentation.

## Task D-14: Update Database to Latest PeopleTools Release

Your PeopleSoft application database may be on a PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleTools versions for your database and your file server must match. The following steps ensure that your PeopleSoft database is in synch with the PeopleTools version that you are running.

Here is a list of applications for which this task must be run because the version of the database that was shipped is different than the version of PeopleTools that you are running.

Application Release	Application Database Version	Requires Update to 8.42?
Fin/SCM 8.4	8.40	Yes
Portal 8.4	8.40	Yes

CRM 8.4	8.40	Yes
Staffing Front Office 8.4	8.41	Yes
CRM 8.8	8.42	No
EPM 8.8	8.42	No
HRMS 8.8	8.42	No
ELM 8.8	8.42	No

**Note.** If you are installing a PeopleTools System Database or if your database is delivered on PeopleTools 8.42, you can skip this task since the delivered database already contains the updated PeopleTools objects.

## Update PeopleTools System Tables

### To update the PeopleTools system tables

1. Run SQL scripts to update your PeopleTools system tables to the latest PeopleTools release (currently 8.42).

Using a query tool, such as Query SQL\*Plus, run the following SQL script(s) while in the PeopleSoft database.

If your application database is at 8.40 you need to run the REL841 and REL842 scripts. If your application database is at 8.41 you need to run the REL842 script. If your application database is already at 8.42, you do not need to run any scripts.

```
<PS_HOME>\SCRIPTS\REL841.SQL
<PS_HOME>\SCRIPTS\REL842.SQL
```

If you are installing a Unicode database, run these scripts:

```
<PS_HOME>\SCRIPTS\REL841U.SQL
<PS_HOME>\SCRIPTS\REL842U.SQL
```

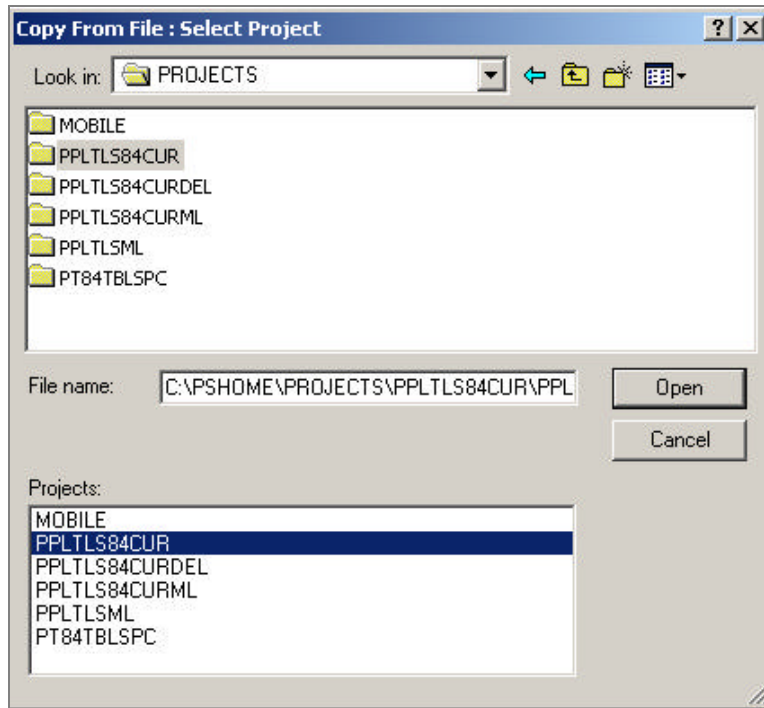
## Update PeopleTools Database Objects

To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file. You must perform this step to bring the database objects in synch with the PeopleTools release. Failure to run this step will introduce problems to your environment.

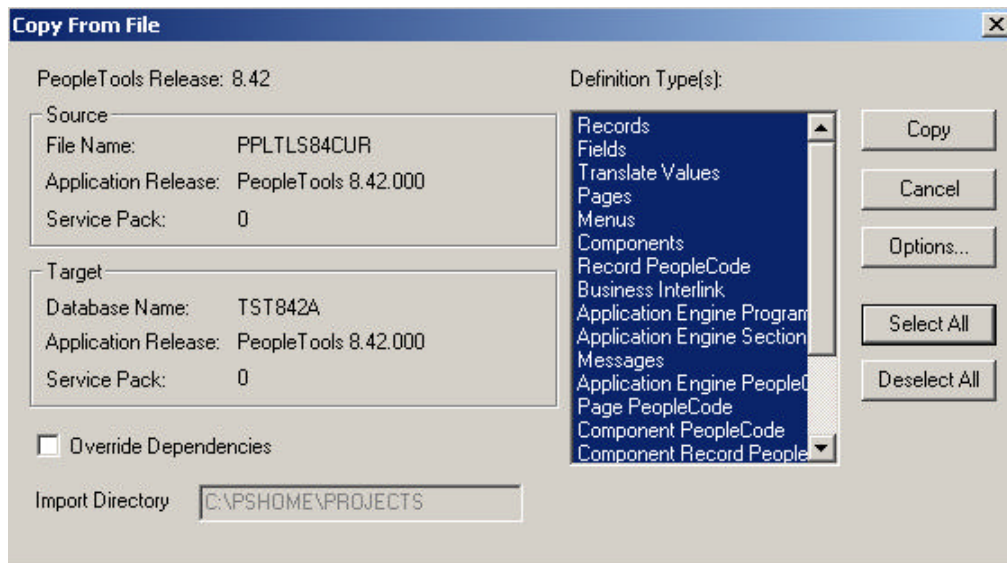
### To update your PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.

- In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CUR from the list of projects and click on the **Open** button.



- You'll see the Copy dialog. Select all object types and then click on the **Copy** button. When the progress dialog disappears, the project has been copied.

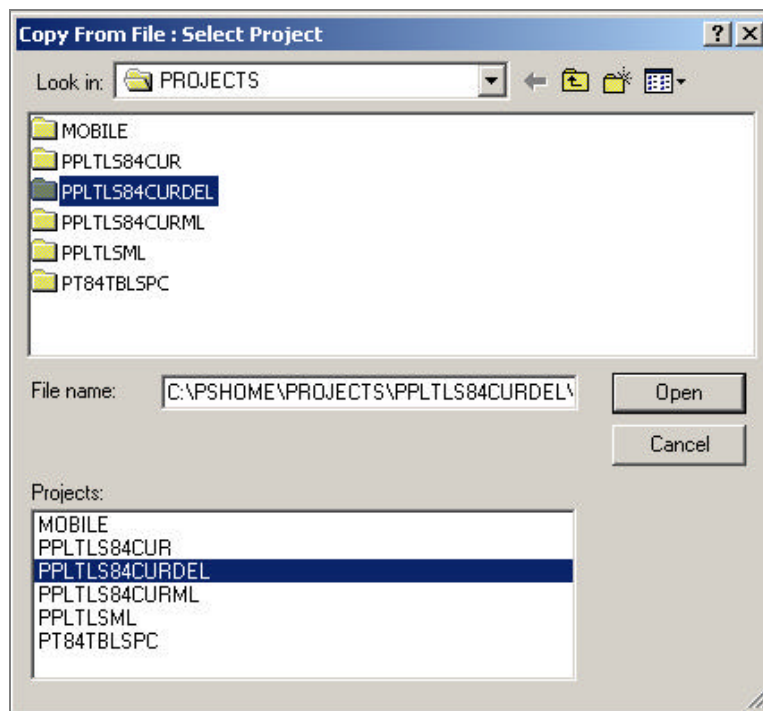


Don't worry if you see these types of messages in the output window; they are acceptable because the fieldlabel properties were copied with the file definition:

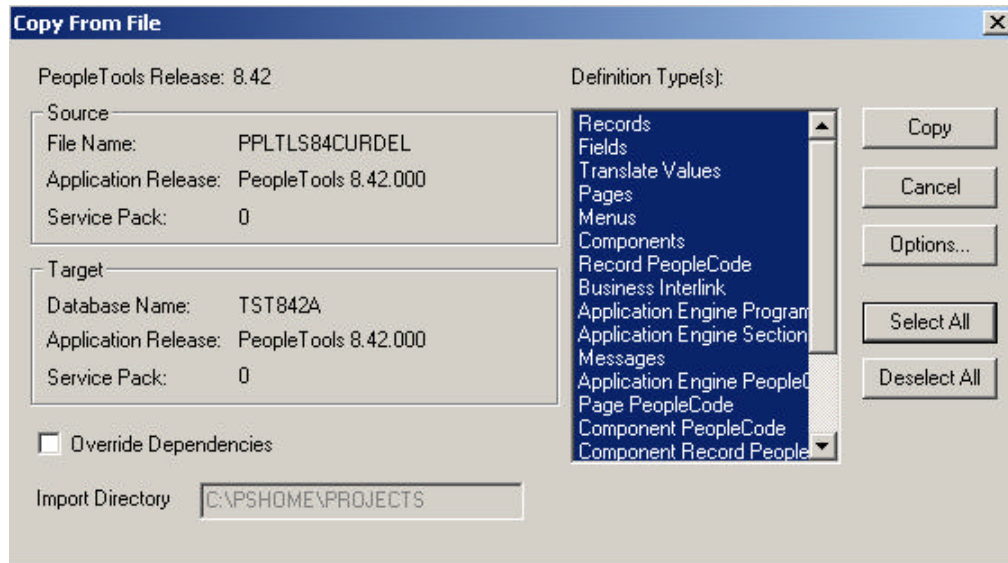
- Object Name: OPERPSWD OPERPSWD not copied, entire object already copied (62,32)
- Object Name: OPRID NEW not copied, entire object already copied (62,32)

### To delete obsolete PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CURDEL from the list of projects and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Copy** button. When the progress dialog disappears, the project has been copied.



**Note!** If you are applying a required for install patch **and if a DB project is included**, apply the DB project(s) now. Make sure to read the patch release notes to find out if DB changes are in the patch.

### Updating PeopleTools Multilingual Objects

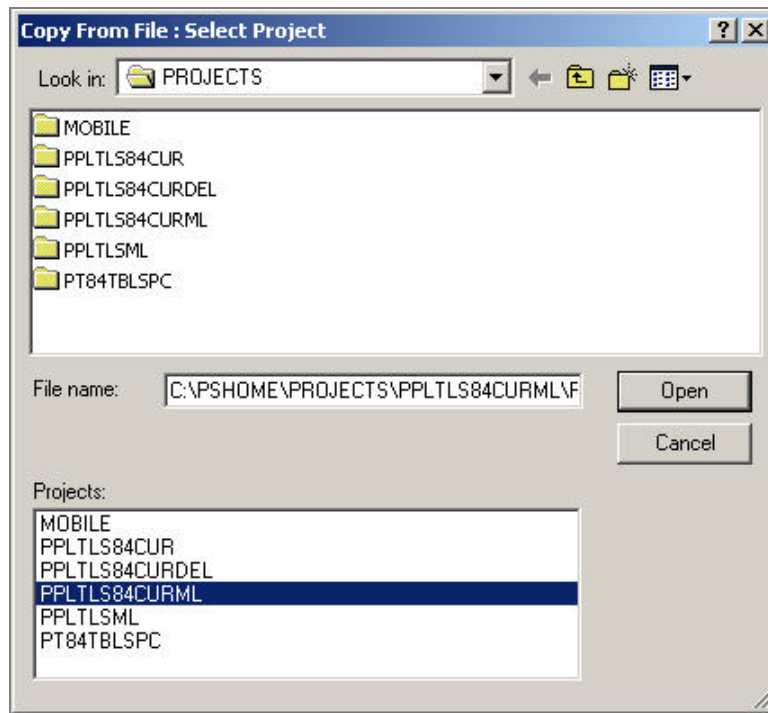
If you are currently installing a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleTools Objects. You can follow the same instructions above for copying the translated objects into your database.

To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file.

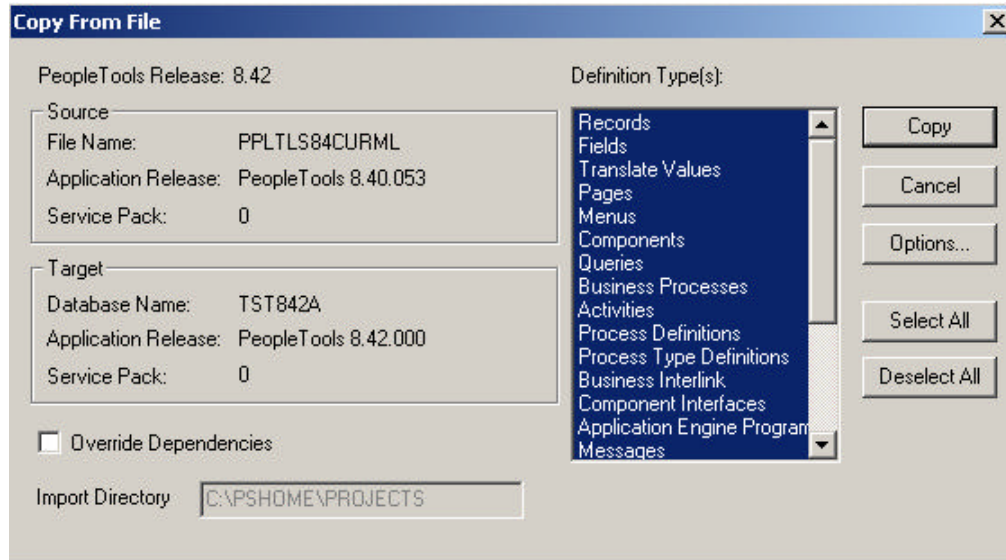
#### To apply the translation project for PeopleTools 8.42

1. Bring up the Configuration Manager and click on the Display tab. In here, ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer.
3. Choose **Tools, Copy Project, From File**.
4. In the resulting dialog, change the import directory to <PS\_HOME>\projects.





5. Select PPLTLS84CURML from the list of projects and click on the **Open** button.
6. You'll see the Upgrade Copy dialog. Make sure that all object types are selected.
7. Click on the **Options** button, Select the **Copy Options** tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should **not be selected**.
8. Choose the languages that you are currently installing from the Copy Options dialog.
9. Click the **Copy** button.



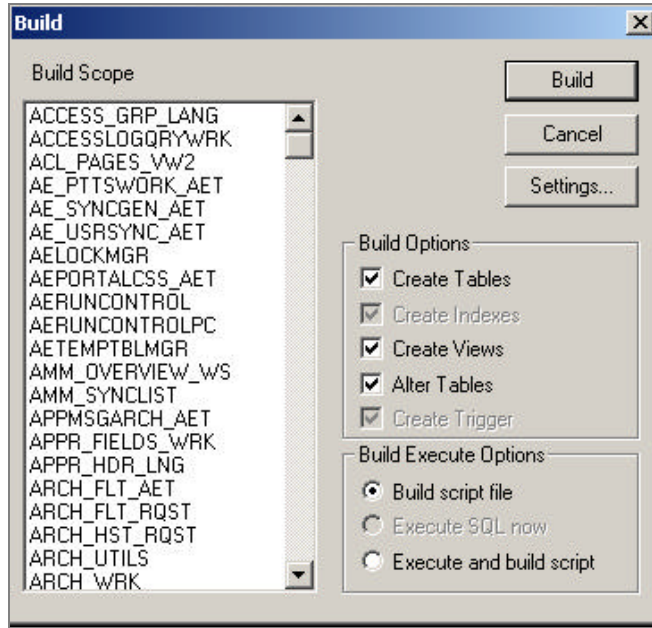
When the progress dialog disappears, the project has been copied.

## Alter Tools Tables

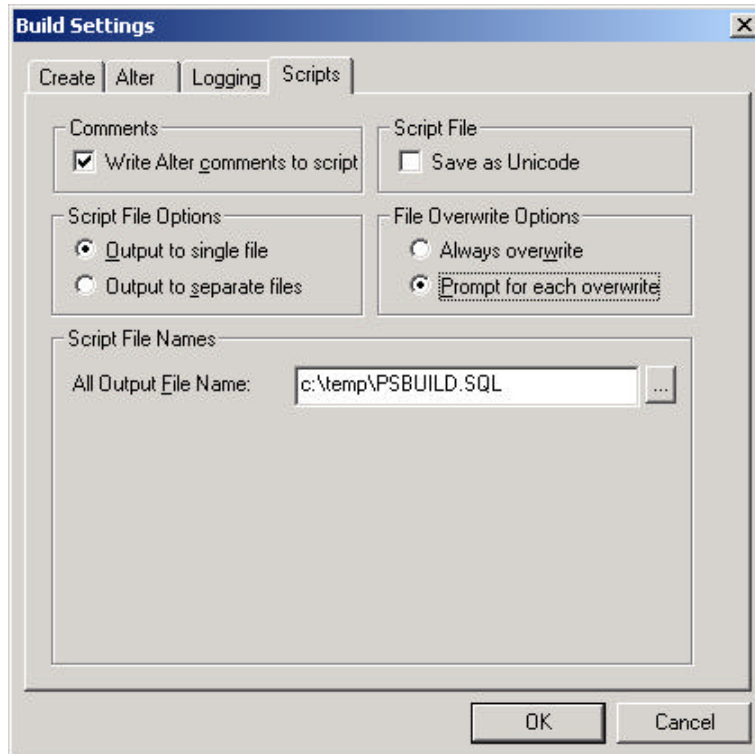
ALTER AUDIT is an online utility used to check whether the PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleTools tables to uncover inconsistencies. ALTER AUDIT then reports its findings. In this release, we expect to see differences between the database structure and the tools tables.

### To run Alter Tools tables

1. Launch PeopleTools and sign on to the Installed database.
2. From the Application Designer select **File, Open**.
3. Select **Project**, type PPLTLS84CUR in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears.

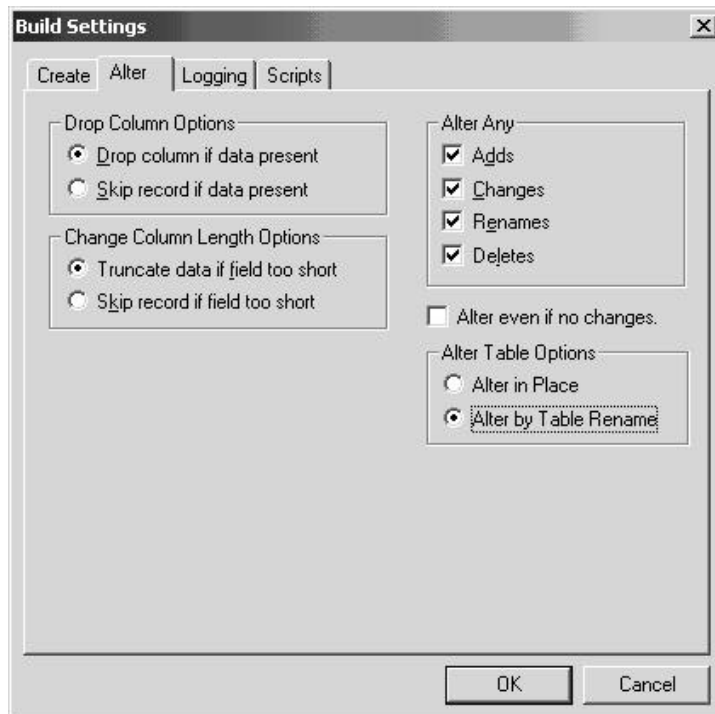


5. Select **Create Tables**, **Create Views**, and **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears:

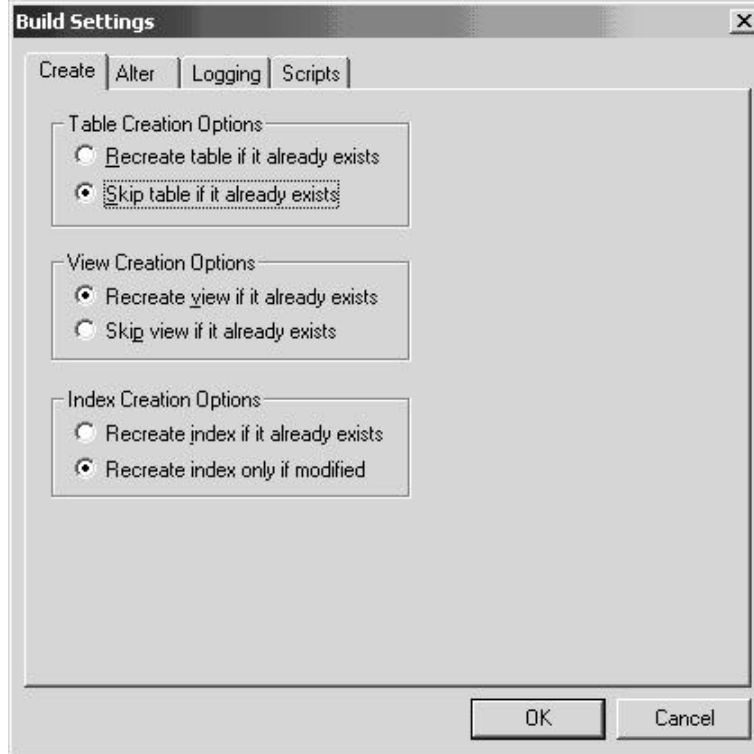


8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**

Make sure the alter table options is set to **Alter by Table Rename**.



11. Click on the **Create** tab and ensure that the radio buttons **Skip table if it already exists**, **Recreate view if it already exists**, and **Recreate index only if modified** are selected.



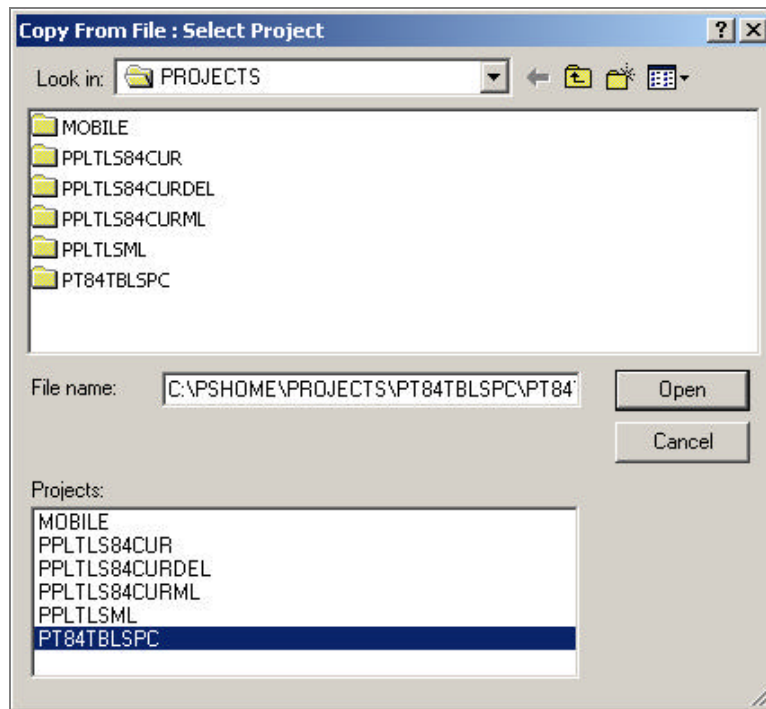
12. Click **OK**. The Build dialog box reappears.
13. Click **Build**.
14. Click **Close** when the process is completed.
15. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
16. Run the generated SQL script in your platform specific query tool to bring your database structure in synch with the PeopleTools tables.

### *Migrate Records to New Tablespaces*

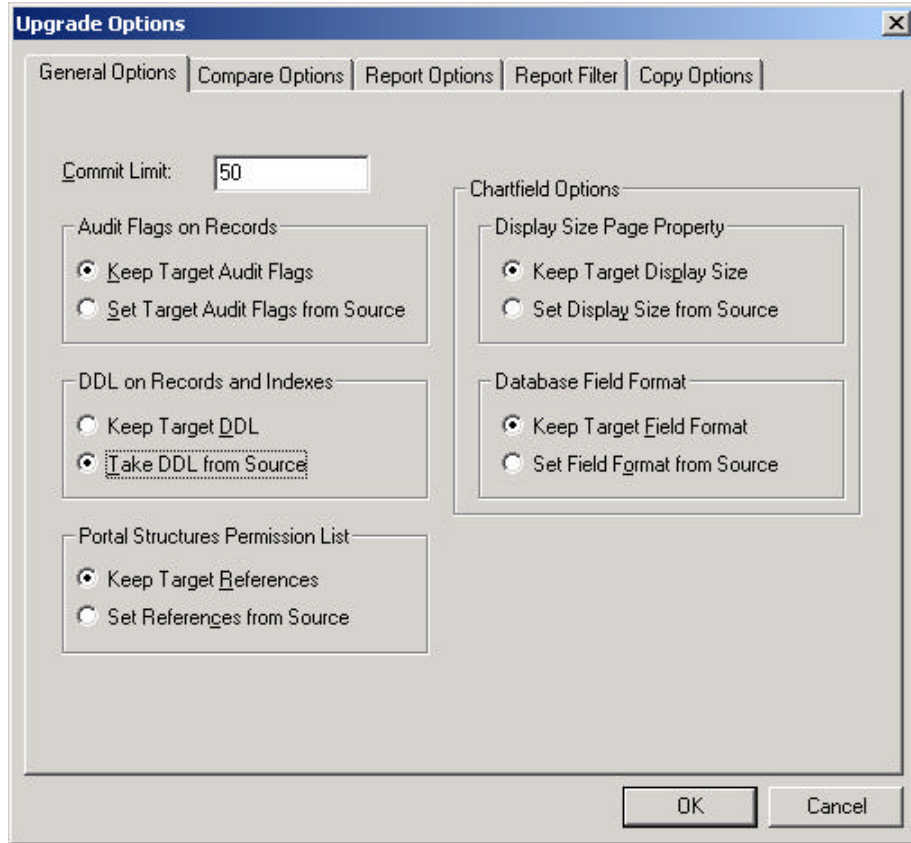
PeopleSoft has moved some delivered tables to different tablespaces in 8.42. You must run this step to move the tables.

#### **To copy Tablespace Record project**

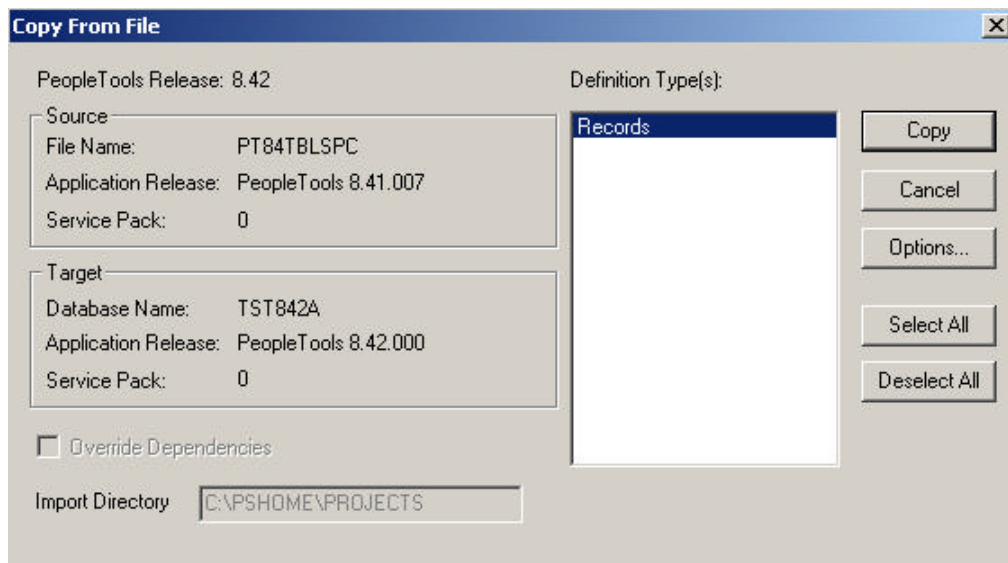
1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PT84TBLSPC from the list of projects, and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Options** button. Navigate to General Options and make sure that the **Take DDL from Source** radio button is set. Click **OK**.

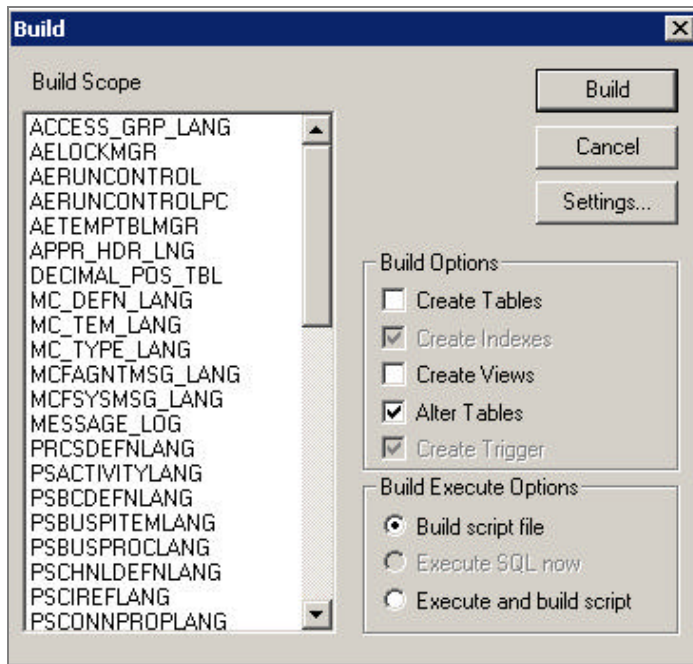


5. Click the **Copy** button. When the progress dialog disappears, the project has been copied.



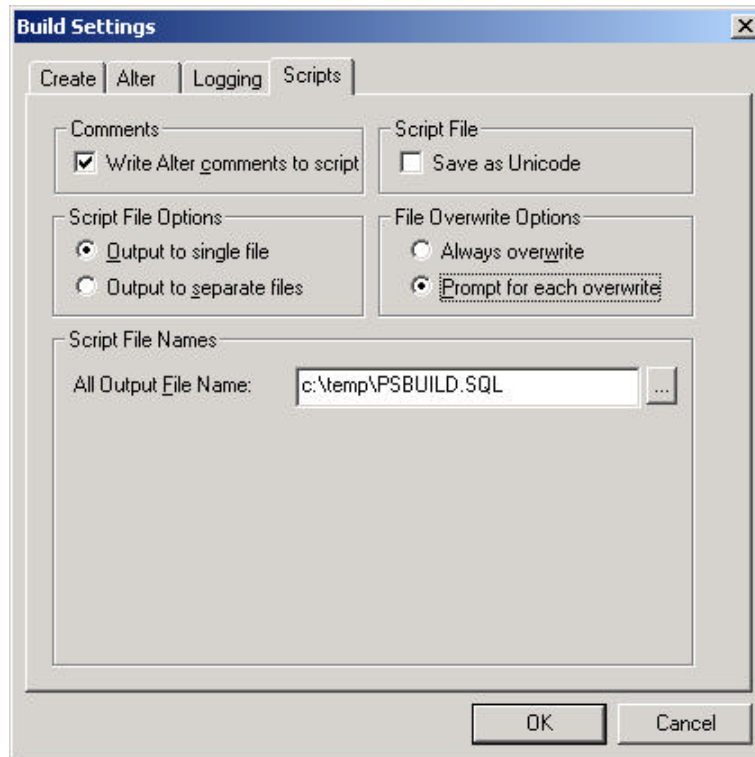
### To run Alter Tools tables

1. Launch PeopleTools and sign on to Installed database.
2. From the Application Designer, select **File, Open**.
3. Select **Project**, type PT84TBLSPC in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears:

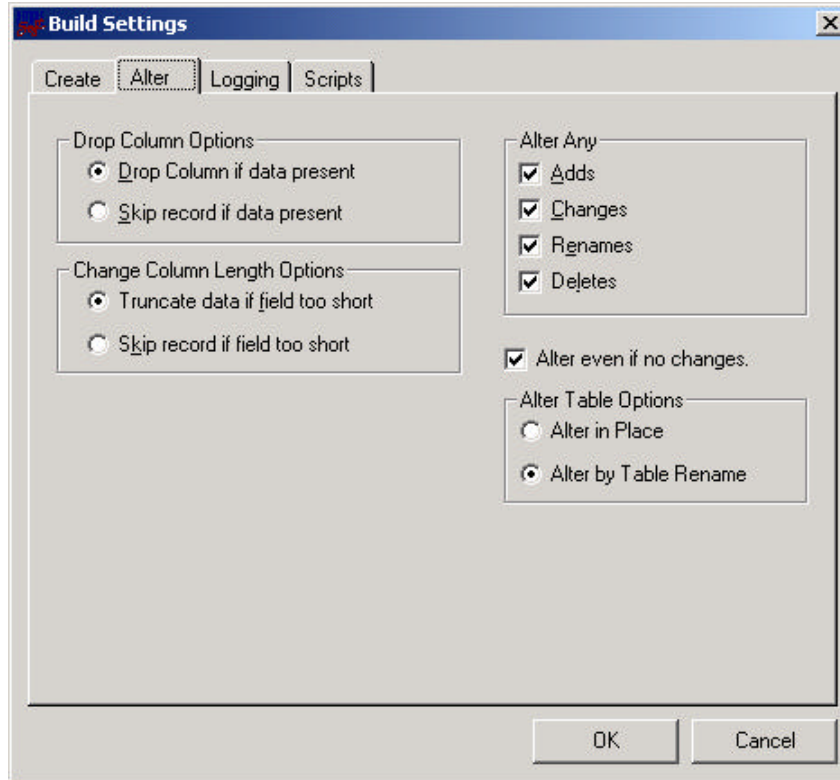


5. Select **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears.





8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**, and the **Alter even if no changes** check box has been checked. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**



11. Click **OK**. The Build dialog box reappears.
12. Click **Build**.
13. Click **Close** when the process is completed.
14. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
15. Run the generated SQL script in your platform specific query tool move the tables to the correct tablespaces.

### *Update PeopleTools System Data*

Data Mover scripts that update PeopleTools system data are run to enable new features and load new messages for the PeopleTools 8.42 release.

#### **To update the PeopleTools system data**

1. Open Data Mover using bootstrap mode.
2. Run the PT841TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT841TLS.DMS script if your application database was already at the 8.41 release prior to starting this step. (See table above.)

3. Run the PT842TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT842TLS.DMS script if your application database was already at the 8.42 release prior to starting this step. (See table above.)

4. Run the PSLANGUAGES.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.
5. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
6. Run the MSGTLENG.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. If you are a multilingual customer you must also run the appropriate MSGTLxxx.DMS, where xxx is the language code, for the languages that you have loaded in your databases.
7. Run the STOREDDL.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. This will update your platform-specific DDL model statements.
8. Run the STOREPT.DMS Data Mover Script in the <PS\_HOME>\src\cbl\base directory. This will update your PeopleTools COBOL Stored statements.

## Task D-15: Run Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover (DMS) scripts. These DMS script files are located in the <PS\_HOME>\SCRIPTS directory of your file server, and need to be run from the file server via Windows Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

**Note.** If you have installed a language other than English, you should run the PT84xTLSxxx.DMS script in user mode for all of your installed languages. (84x is the PeopleTools version number you are using, and xxx is the relevant language code, such as FRA for French; see the task “Plan Multilingual Strategy” in Chapter 1 for a list of language codes.) This script will import PTUSEROPTNLANG.DAT, PTWFTEMPLATE\_LANG.DAT, and PTSTRxxx.DAT which contain the records PSUSEROPTNLANG, PS\_WL\_TEMPLATE\_GLN / PS\_WL\_TEMPL\_GNTKLN, and PS\_STRINGS\_LNG\_TBL respectively.

**Note.** For detailed information about Data Mover, see the *PeopleSoft Administration Tools* PeopleBook.

In PeopleTools 8.42, a dat file ensures that the correct data will be loaded regardless of the base language of the database. The instructions to load this table are as follows.

### To load the correct data

1. Run Data Mover as a user (that is, **not in bootstrap mode**).
2. For each language that you have loaded, run PT84xTlSxxx.DMS, where xxx is the language code.

## Task D-16: Run VERSION Application Engine Program

Run the VERSION Application Engine program on your database. (It's found in <PS\_HOME>\bin\client\winx86.) From the DOS command line, the syntax is:

```
psae -CD <dbname> -CT ORACLE -CO <opri d> -CP <pswd> -R INSTALL -AI VERSION
```

## Task D-17: Change Base Language

If you have not already done so, review the task “Plan Multilingual Strategy” in Chapter 1, and determine whether you should change your base language. (That task includes a list of currently supported languages.)

This step applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. This step gives a performance boost to the language you designate as the base language, but would require more administrative overhead than leaving English as the base language does.

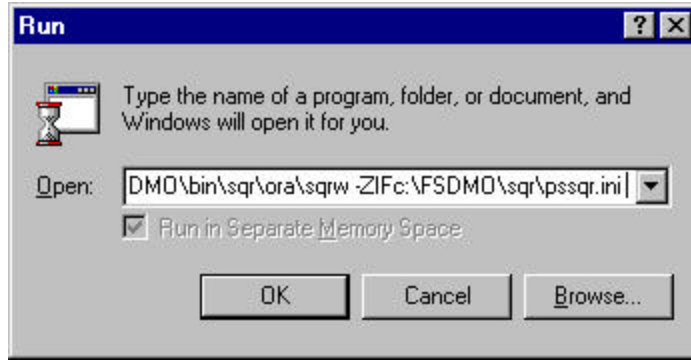
The steps for swapping your base language in are described in detail in the *PeopleTools Global Technology PeopleBook*, under “Global Configuration Considerations.”

## Task D-18: Prepare to Run SQR

The following instructions describe how to run SQR reports from the client workstation. You can use these instructions to run SQRs required in the upcoming task “Check Database.”

### To run an SQR report on the client workstation

1. Choose **Start, Run**, click **Browse**, and navigate to <PS\_HOME>\bin\sqr\DBPlatform\binw. Select SQRW.EXE and click **Open**.
2. Add the -ZIF flag as an argument after the command line before clicking **OK**. The -ZIF flag should point to your <PS\_HOME>\sqr\pssqr.ini file.

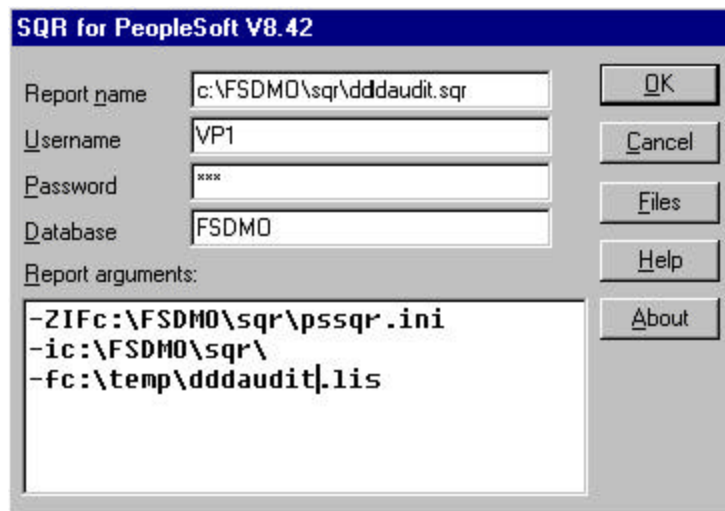


3. Click **OK**.
4. Add the remaining required SQR flags to the Report Arguments section in the SQR for PeopleSoft command window.

The following table summarizes the SQR report arguments used by PeopleSoft. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog.)

Flag	Description
-I	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent.
-ZIF	Sets the full path and name of the SQR initialization file. It should point to the PSSQR.ini file in the PeopleTools SQR directory.

After editing the dialog should look something like this:



5. Enter the following values:
  - Enter the Report Name. You must specify the full path.

- Set Username to the Access ID.
  - Set Password to the Access Password.
  - Enter the Database name.
6. Click **OK** to run the SQR report.

**Note.** In the Properties dialog box for your SQR icon make sure that the Start in path points to your Oracle connectivity on the Shortcut tab. If you take the default, you may see a misleading error message about TNS packet writer failure.

### To save the report arguments

1. To save the report arguments so you don't have to enter them again each time you run SQR, right-click on the Windows **Start** button.
2. Choose **Open All Users** or **Explore All Users**.
3. Navigate to the SQR program group created when you installed SQR.
4. Right-click on the **SQR** icon and choose **Properties**.
5. Select the **Shortcut** tab.
6. In the **Target** field, append or edit the report arguments.
7. Click **OK**.

## Task D-19: Check Database

Run and examine two SQR reports to verify that your database is complete.

Use the instructions provided in the earlier task "Prepare to Run SQR."

### To verify that the database is complete

1. Run the following SQRs from the <PS\_HOME>\SQR directory:
  - DDDAUDIT.SQR

**Note.** You can greatly improve the performance and run time of SYSAUDIT.SQR run by making the following configuration changes:

In the Oracle init.ora for your SID:

```
db_file_multiblock_read_count = 16
db_block_buffers = 2000 or greater
log_checkpoint_interval = 9999999
log_buffer = 102400
```

Increase the size of the RBSBIG rollback segment to 500MB.

Alter all other rollback segments but RBSBIG offline.

- SYSAUDIT.SQR.

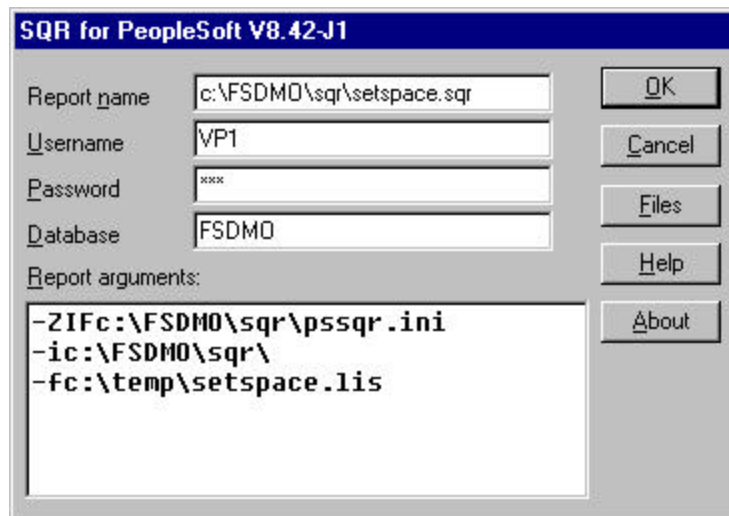
**Note.** If tables show up on the TABLE-3 section of DDDAUDIT and are contained within the PPLTLS84CURDEL project, you may safely drop these tables using your SQL query tool for your platform.

**Note.** For information on how to interpret these reports, see the *PeopleSoft Server Tools Administration* PeopleBook.

## Task D-20: Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog

### To run SETSPACE.SQR

1. Using the instructions provided in the earlier task “Prepare to Run SQR,” run SETSPACE.SQR from the <PS\_HOME>\SQR directory.



2. Click **OK**.

You'll get the following prompt:

```
Replace tablespace with default tablespace if table not found in database catalogs
Y/(N)?: y
```

3. As SETSPACE.SQR runs you'll get a dialog similar to the following indicating progress.

**Set Table Space Name in PSRECTBLSPC**

```
Table PSRECTBLSPC column DDLSPACEName have been updated
with the tablespace found in the system catalog table.
The total number of records updated appears at the bottom of this report.
```

Recname	New DDLSpaceName	Old DDLSpaceName
-----	-----	-----

```
This phase of SETSPACE will sync up the PSRECTBLSPC and
PSTBLSPCCAT tables
```

```
PSRECTBLSPC Records Updated:      0
```

```
PSTBLSPCCAT Records Inserted:     0
```

```
Ending SQR.
```

## Task D-21: Initialize Online Rollback Segments

This task will initialize the smaller rollback segments geared towards online processing.

### To initialize online rollback segments

1. Change directory to \$ORACLE\_HOME\database.
2. Edit the initialization parameter file, \$ORACLE\_HOME\database\init<SID>.ora. Add the following line:  
  
**ROLLBACK\_SEGMENTS = (r01, r02, r03, r04)**
3. Recycle the database by shutting it down and restarting it.



# CREATING A DATABASE MANUALLY ON UNIX

This chapter describes the tasks required to create a PeopleSoft product database. During a standard PeopleSoft installation you will execute these tasks to create two distinct types of databases.

- **System.** The System database has no company specific data, and can be used to load your data and begin development of your production database.
- **Demo.** The Demo database contains data for a sample company, and can be used immediately for demonstration, for testing, and as a development reference.

The requirements for these databases vary, so not all of this chapter's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

**Note!** Don't forget that *application-specific installation steps are provided in a separate document specific to the application*. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, go to Customer Connection. Under the Site Index, find the Category "Installation Guides and Notes," and then look under the subcategory for your particular application.

**Note.** Remember, you need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools development environment, refer to the chapter "PeopleSoft Configuration Manager" in the *PeopleSoft Administration Tools* PeopleBook.

## Task Overview

The following table summarizes the tasks in this chapter.

Task No.	Task Name
Task E-1	Edit Database Scripts

Task E-2	Create an Oracle Instance
Task E-3	Set NLS_LANG in the Windows Registry
Task E-4	Create an Oracle Database
Task E-5	Create Catalog Views and Utility Tablespaces
Task E-6	Create Rollback Segments
Task E-7	Create PS.PSDBOWNER Table
Task E-8	Create Application-Specific Tablespaces
Task E-9	Create PeopleSoft Database Roles
Task E-10	Create PeopleSoft Database Owner ID
Task E-11	Create Connect ID
Task E-12	Update Connection Information
Task E-13	Create Data Mover Import Script
Task E-14	Run Data Mover Import Scripts
Task E-15	Update Database to Latest PeopleTools Release
Task E-16	Run Additional Data Mover Scripts
Task E-17	Run VERSION Application Engine Program
Task E-18	Change Base Language
Task E-19	Prepare to Run SQR
Task E-20	Check Database
Task E-21	Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog
Task E-22	Initialize Online Rollback Segments

## Task E-1: Edit Database Scripts

The scripts required for creating the database were installed on the server using the PeopleSoft Installer described in Chapter 3. These scripts reside in the <PS\_HOME>/scripts/unix directory on the UNIX database server. You need to edit a few of these scripts for your environment before you execute them and go on with the following procedures.

Typically, you need to modify the file system locations and the Oracle SID name.

### To edit required database scripts

1. Go to the <PS\_HOME>/scripts/unix directory on the database server.
2. Edit the scripts to conform to your environment.

The following list presents the necessary scripts:

- **CREATEDB.SQL**

**Note.** When editing CREATEDB.SQL, if you are creating a Unicode database, ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to UTF8. See the PeopleSoft Hardware and Software Requirements Guide for a list of the Oracle character sets supported by PeopleSoft.

- **CONNECT.SQL** (Edit CONNECT.SQL only if you do not wish to use the default CONNECT\_ID.)
- **UTLSPACE.SQL**
- **XXDDL.SQL**, where XX is a two-letter code for your product line, as spelled out in the table below

Code	Product Line
CR	Customer Relationship Management
EP	Financials / Supply Chain Management
FO	Staffing Front Office
HC	HRMS
LM	Enterprise Learning Management
PA	Enterprise Portal
PF	Enterprise Performance Management
SA	Student Administration/ Contributor Relations

**Note.** This is a complete list of available product lines for PeopleTools 8.4x. Note that not all products go out on all PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Please see your application-specific installation documentation for details.

**Note.** For multilanguage installs, you need to increase the size of the PTTBL, PSIMAGE, and PSINDEX tablespaces. Refer to the comments in the DDL scripts for further details regarding the incremental increase for each additional language.

## Task E-2: Create an Oracle Instance

### To create an Oracle instance

1. Log on to the server as the Oracle owner.

2. Set the ORACLE\_SID value to point to the database you're going to set up, and then export the value. From the Bourne or Korn shell, enter the following:

```
$ ORACLE_SID=hdmo; export ORACLE_SID
```

3. Set the NLS\_LANG environment variable to indicate the Oracle language and character set. All PeopleSoft installations require the NLS\_LANG character set component to be set to UTF8, as the PeopleSoft Internet Application Server and reporting tools all run in Unicode regardless of the database character set. NLS\_LANG has three components, a language, a territory and a character set in the form LANGUAGE\_TERRITORY.CHARACTERSET. For example, for American English, the correct NLS\_LANG setting for PeopleSoft would be AMERICAN\_AMERICA.UTF8. See the Oracle National Language Support guide for full details.

These parameters need to be set each time you access your PeopleSoft system from the Unix shell. Therefore, we suggest you edit your psconfig.sh file to make these changes take effect each time you configure your environment.

From the Bourne or Korn shell, enter the following, substituting <language> and <territory> for the language and territory values you prefer to use. If unsure, use AMERICAN\_AMERICA.UTF8.

```
$ NLS_LANG=<language>_<territory>.UTF8; export NLS_LANG
```

Alternatively, from the C shell, enter the following:

```
$ setenv NLS_LANG <language>_<territory>
```

4. Create an initialization file by copying and editing the INIT.ORA file that is delivered with Oracle and typically resides in \$ORACLE\_HOME/dbs.

```
cd $ORACLE_HOME  
cd dbs  
cp init.ora init<sid>.ora
```

5. Add or modify the following parameters in the INIT<SID>.ora:

```
DB_NAME = <SID>  
DB_FILES = specify max allowed per your OS, typically 1021  
CONTROL_FILES = (/filesystem1/cntrl1<SID>, /filesystem2/cntrl2<SID>)  
OPEN_CURSORS = 255 <This is a minimum value; you may choose to set it higher.>  
  
db_block_size = 8192
```

**Note.** For installs on Oracle9i add the parameter UNDO\_MANAGEMENT to the init.ora file. Setting UNDO\_MANAGEMENT=MANUAL will allow the use of rollback segments for undo management.

**Note.** For UNIX the default DB\_BLOCK\_SIZE in the init.ora file is operating system dependent. On most operating systems the default is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases, (that is, CHARACTER\_SET UTF8), a DB\_BLOCK\_SIZE value of 8K is required.

**Note.** For more parameters that may be required for the INIT<SID>.ora file, consult the document “Operating System, RDBMS, & Third Party Product Patches Required for Installation” on Customer Connection. From Customer Connection, choose **Patches + Fixes, Supported Platforms**. Then from the Platforms Database, choose **Platform Communications by Topic, Platforms**.

## SQL Tools

When you execute PeopleSoft SQL scripts, use the appropriate tool included with your version of the RDBMS. You should use SQL\*Plus, which is available with each PeopleSoft supported version of the Oracle RDBMS.

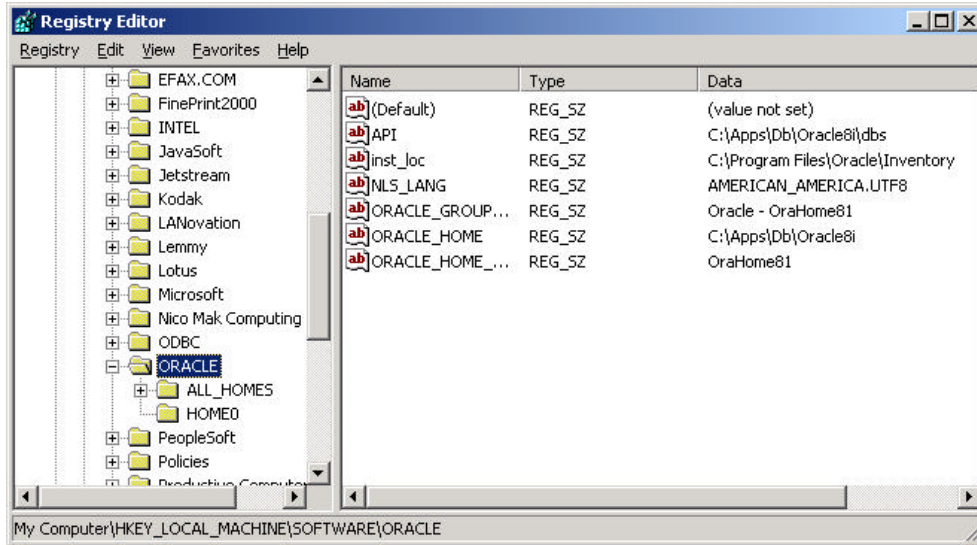
**Note.** Before PeopleSoft 8, PeopleSoft-delivered SQL scripts were written to be executed from SVRMGRL. Oracle has eliminated SVRMGRL with Oracle release 9i. Beginning with Oracle release 8.1.6 all SVRMGRL functions are supported by SQL\*Plus. All PeopleSoft SQL scripts have been modified to run from SQL\*Plus.

## Task E-3: Set NLS\_LANG in the Windows Registry

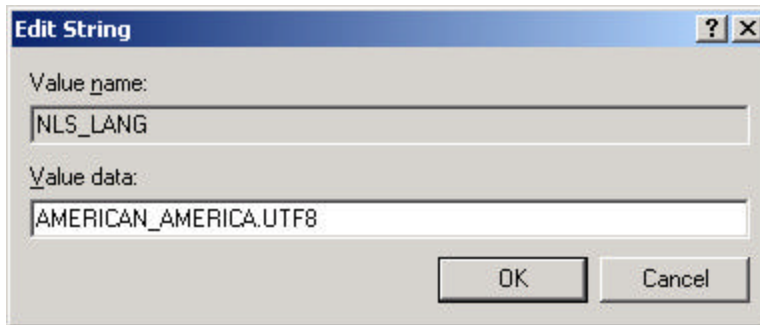
You must set the NLS\_LANG Oracle registry key to indicate the Oracle language and character set. All PeopleSoft installations require the NLS\_LANG character set component to be set to UTF8, as the PeopleSoft Internet Application Server and reporting tools all run in Unicode regardless of the database character set. NLS\_LANG has three components, a language, a territory and a character set in the form LANGUAGE\_TERRITORY.CHARACTERSET. For example, for American English, the correct NLS\_LANG setting for PeopleSoft would be AMERICAN\_AMERICA.UTF8. See the Oracle National Language Support guide for full details.

### To set NLS\_LANG in the Windows registry

1. The NLS\_LANG parameter should be set on each workstation you use to access PeopleSoft in two-tier mode, and on your application server machine.
2. Open the Windows Registry Editor by selecting **Run** from the Windows Start menu. Type REGEDIT in the Run dialog.
3. Navigate to the key HKEY\_LOCAL\_MACHINE\Software\Oracle.



- Double-click on the NLS\_LANG key in the right hand side of the window.



- Enter <language>\_<territory>.UTF8 in the “Value Data” field, substituting <language> and <territory> for your preferred language and territory settings. If unsure, use AMERICAN\_AMERICA.UTF8.
- Click **OK** and close the Registry Editor.

## Task E-4: Create an Oracle Database

Run the CREATEDB.SQL from SQL\*Plus to create an Oracle database.

### To create an Oracle database

- Invoke SQL\*PLUS (sqlplus), connecting as sysdba.

```
Sqlplus internal
```

2. Run the CREATEDB.SQL script using the following example as a guide:

```
sqlplus>@<PS_HOME>/scripts/uni x/createdb. sql
```

## Task E-5: Create Catalog Views and Utility Tablespaces

Run the UTLSPACE.SQL script from SQL\*Plus to create catalog views and utility tablespaces.

### To create catalog views and utility tablespaces

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>/scripts/uni x/utl space. sql
```

## Task E-6: Create Rollback Segments

Run the ROLLBACK.SQL script from SQL\*Plus to create your rollback segments. This script creates five rollback segments. The rollback segments r01, r02, r03, and r04 are suggested for use by online processes. The last rollback segment, rbsbig, should be used separately for enhanced installation performance, such as running Data Mover scripts, or for supporting large COBOL batch jobs.

### To create your rollback segments

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the ROLLBACK.SQL script using the following example as a guide:

```
sqlplus>@<PS_HOME>/scripts/uni x/roll back. sql
```

## Task E-7: Create PS.PSDBOWNER Table

Run the DBOWNER.SQL script from SQL\*Plus to create the PS.PSDBOWNER table.

### To create the PS.PSDBOWNER Table

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the DBOWNER.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>/scripts/uni x/dbowner. sql
```

## Task E-8: Create Application-Specific Tablespaces

To create tablespaces for the product you are installing, run the appropriate `XXDDL.SQR` scripts, logged on as the system user, where `XX` stands for your product line, as spelled out in the table below.

Code	Product Line
CR	Customer Relationship Management
EP	Financials / Supply Chain Management
FO	Staffing Front Office
HC	HRMS
LM	Enterprise Learning Management
PA	Enterprise Portal
PF	Enterprise Performance Management
SA	Student Administration/ Contributor Relations

**Note.** This is a complete list of available product lines for PeopleTools 8.4x. Note that not all products go out on all PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Please see your application-specific installation documentation for details.

### To create application specific tablespaces

1. Invoke SQL\*Plus (sqlplus), connecting as sysdba.
2. Run the appropriate DDL scripts.

For example:

```
sqlplus>@<PS_HOME>/scripts/uni x
```

## Task E-9: Create PeopleSoft Database Roles

Run the `PSROLES.SQL` script from SQL\*Plus to create the PeopleSoft database roles.

### To create the roles for your PeopleSoft database

1. Log on to SQL\*Plus to as the System user.
2. Run the `PSROLES.SQL` script:

```
SQLPLUS>@<PS_HOME>/scripts/uni x/psrol es. sql
```



## Task E-10: Create PeopleSoft Database Owner ID

This task creates the PeopleSoft database owner ID that will be referenced in future tasks. It grants the roles, created in the previous step, to this owner ID.

### To create the PeopleSoft database owner ID

1. Log on to SQL\*Plus as the System user.
2. Run the PSADMIN.SQL script.

```
SQLPLUS>@<PS_HOME>/scripts/unix/psadmin.sql
```

**Note.** **Oracle 8i:** You will have to run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSTEMP if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

**Oracle 9i:** You will have to run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

## Task E-11: Create Connect ID

With PeopleTools 8.4, you establish connections to a database simply by using the connect ID option, which allows you to associate multiple PeopleSoft operators to the same connect ID. The connect ID has the minimum privileges required to connect to the database—that is, it has only SELECT privileges on specific PeopleTools tables. After connection, PeopleSoft Security uses the operator ID to control access to objects in the database. The PeopleSoft sign-on process validates the connect ID on the server, rather than the operator ID. Connect ID simplifies database security maintenance. You don't have to maintain access for all PeopleSoft users, just for the connect ID.

The connect ID is granted access using the following script:

- **Connect.sql** Creates the connect ID and grants CREATE SESSION privilege to the connect ID. Access to the PeopleSoft database is then granted to the connect ID explicitly via the initial Data Mover load script generated by DBSETUP to include the following grants.

```
grant select on PSSTATUS to <CONNECT_ID>;
grant select on PSOPRDEFN to <CONNECT_ID>;
grant select on PSACCESSPRFL to <CONNECT_ID>;
```

In addition, the connect ID and connect password are added to the Configuration Manager settings, which must be in place on a workstation to allow a two-tier connection.

## How Does the Connect ID Work

When logging into a PeopleSoft database in two-tier mode, the user enters a Database Name, User ID, and Password in the PeopleSoft Signon dialog box.

The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/people/peop1e
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID = :1
Get the Access ID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPRFL WHERE SYMBOLICID = :1
Disconnect Connect ID	Disconnect
Login using the Access ID	Connect=PT84/ACCESSID/ACCESSPWD

At this point, access is governed by PeopleSoft security, which determines what applications a specific user ID has access to.

### To create Connect ID

1. Log on to SQL\*Plus as the System user.
2. Run the connect.sql script.

```
SQLPLUS>@<PS_HOME>/scri pts/uni x/connect. sql
```

3. The script will then create the connect ID and grant it CREATE Session privileges only.

## Task E-12: Update Connection Information

Update connection information on both the client and the server.

### To update connection information on the client

1. Update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

**To update connection information on the server**

1. Add the new SID name and \$ORACLE\_HOME location to the LISTENER.ORA on the database server.
2. Stop and start (or reload) the NET8i/NET9i listener.

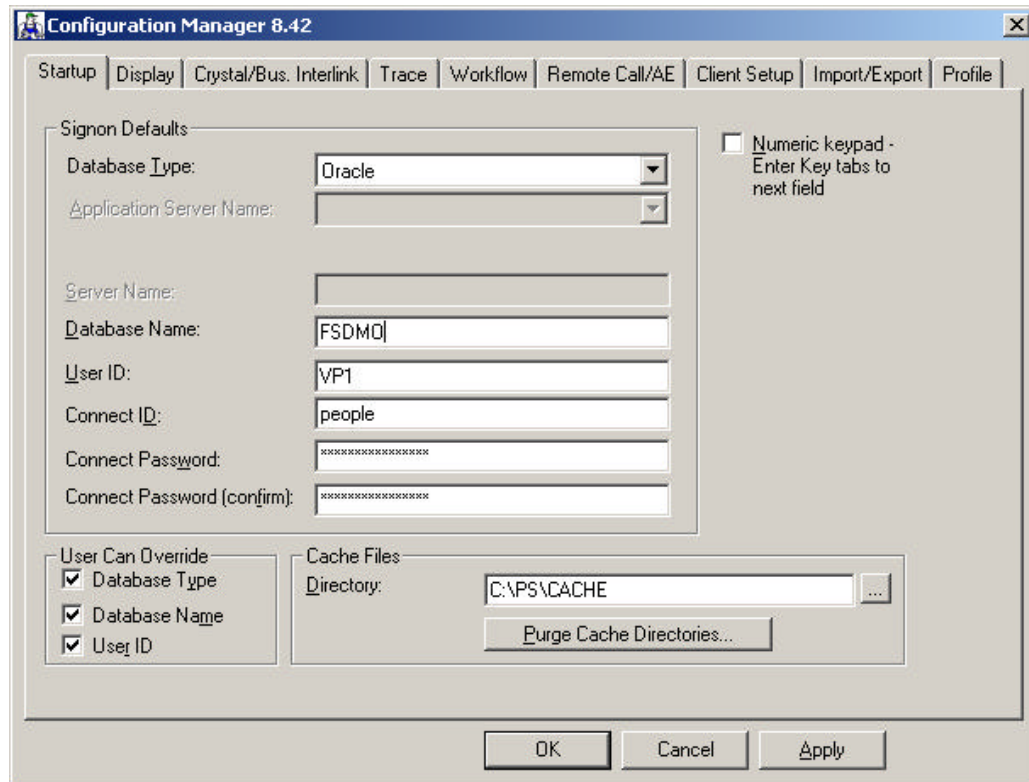
**Note.** For more information regarding optimum tnsnames.ora entry configuration for the DB server, see “NET8i/NET9i” in the Tuning and Administration documentation posted on the same Customer Connection page as the Installation Guides. Check your Oracle documentation for further information as well.

**Task E-13: Create Data Mover Import Script**

This task explains how to create the Data Mover Import script, which is used to populate the PeopleSoft database with data. The following procedure describes how to run Database Setup Wizard from Data Mover to generate the import scripts.

**Create Data Mover import script using Data Mover**

1. Verify that the same Connect ID was used in the connect.sql script, Database Setup, and Configuration Manager panel displayed below. If you accepted all defaults, the Connect ID/Password is: people/people (password has the number” 1”).



2. Run Data Mover in bootstrap mode using the Database Name, User ID, and Connect ID, and Connect Password defined in Chapter 1 under “Plan Database Creation.” This is the login you chose to create the database.
3. To invoke the Database Setup wizard, choose **File, Database Setup**.
4. Select your database platform.

**Note.** Choose the Database Type—Unicode or Non-Unicode—that you selected in Chapter 1, in the task “Plan Multilingual Strategy.” If you choose Non-Unicode, select the character set you decided upon in Chapter 1.

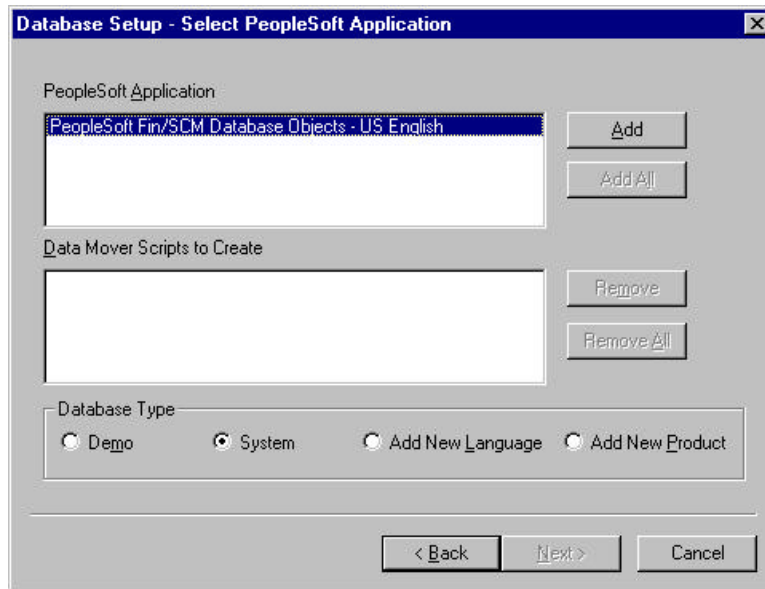
**Note.** The character set you select here must match the character set you used to create your database in the step “Create an Oracle Database.” If you choose to create a Unicode database, you must have created your instance using the UTF8 character set in the step “Create an Oracle Instance.”

5. Select your character set and click **Next**.

**Note.** DB Setup does not actually modify the character set of your database. That is done by your DBA during database creation. DB Setup will create customized scripts based on your selections.

**Note.** When you select a non-Unicode character set, only the characters within that character set can be stored in your database. If you require characters from multiple character sets or scripts to be stored in a single database, PeopleSoft recommends that you create your database using Unicode. Please consult the *PeopleTools Hardware and Software Requirements* book for more details.

6. Select your PeopleSoft Application and click **Next**.



Select the **Demo** or **System** radio button, depending on which type of PeopleSoft database you are installing.

Select the Product(s) for which you want to create a Data Mover script from the **PeopleSoft Application** list box. Only the Products and languages that you have licensed will be available. Move the item(s) you have selected into the **Data Mover Scripts to Create** list box by clicking on the **Add** or **Add All** button.

If you installed the Multilanguage CD, each application will be listed several times, once for each language. The format of these entries is *AA-LLL* where *AA* is the two-letter application abbreviation and *LLL* is the three-letter language abbreviation. See the task “Plan Multilingual Strategy” in Chapter 1 for a list of the PeopleSoft-provided languages and abbreviations. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

If you are installing an application in any language other than English, you must also select the English component of the application. For example, for HRMS if you select HR-French, you must also select HR-English. This ensures that you install the necessary base-language components.

**Note!** The PeopleTools System Database option is only available if you have separately licensed the capability to create custom applications outside of a PeopleSoft Application Database. This is also known as the “PeopleTools Enterprise License.”

7. Set the database parameters and click **Next**.

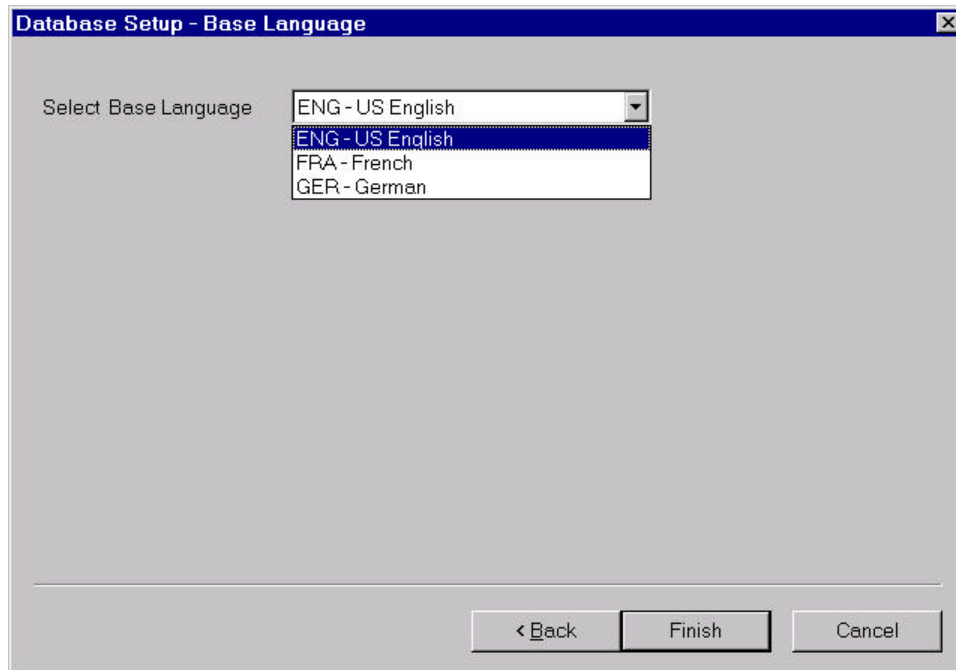
- **Database Name.** The database name that users will enter on the PeopleSoft signon screen. This corresponds to the owner ID. It can be up to eight characters long and must be entered in uppercase.
- **Symbolic ID.** This is used as the key to retrieve ACCESSID and ACCESSPSWD from PSACCESSPRFL. For initial installation set it equal to the Database Name. The Symbolic ID cannot be longer than eight characters.
- **Access ID.** This is the PeopleSoft Access ID defined in Chapter 1 under “Plan Database Creation.” This value is case sensitive. You will use it later in this chapter to sign on to Data Mover in “bootstrap mode.”
- **Access Password.** This is the PeopleSoft Access Password defined in Chapter 1 under “Plan Database Creation.” You will use this value later in this chapter to sign on to Data Mover in “bootstrap mode.”
- **Connect ID.** For Oracle, this is the Connect ID that can be used for the initial connection to Oracle. This ID is used for connecting to the database.

**Note.** The Connect ID was defined as a valid logon ID in the database security management software through the script connect.sql. The Connect ID only needs to be granted SELECT access on PSACCESSPRFL, PSOPERDEFN, and PSSTATUS. This ID should be granted no other database authorities.

8. Select your database’s base language and click **Finish**.

**Note.** This screen appears only if you selected a database for a language other than English. If you see this screen it's critical to select the correct base language. When you select a base language other than ENG, DBSETUP generates the Data Mover import script with the SWAP\_BASE\_LANGUAGE command to swap the base language.

At this point you are in Data Mover, with the DMS script you just created ready to run.



**Note.** If you haven't already done so, read the task "Plan Multilingual Strategy" in Chapter 1 before determining whether to install multiple languages and whether to change your base language.

**Note.** If you are creating a database and want to load PeopleSoft-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.

**Note.** If you are creating a non-Unicode database, you must ensure that the languages you select are all supported by the character set you used to create your database. See the task "Plan Multilingual Strategy" in Chapter 1 for more information.

**Note.** All PeopleSoft releases are shipped with English as the database's base language. Therefore when selecting components for the Data Mover Import script, you must select the English components in addition to any other languages you have licensed. During the Database Setup wizard, you need to select the database's base language that you plan to use most frequently. If your database's base language is different than the Database Setup wizard generate the SWAP\_BASE\_LANGUAGE command in the Data Mover Import script to swap the language

## Task E-14: Run Data Mover Import Scripts

Now you will run the Data Mover script(s) (DMS) that you created in the preceding task to import the data for your PeopleSoft database. The Data Mover script creates either a system (SYS) or a demo (DMO) database.

When you initially logged onto Data Mover to create the DMS scripts, you logged in using bootstrap mode. *Bootstrap mode* means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. You need to use bootstrap mode to run the Data Mover import script, because there are not yet any PeopleSoft security tables in the database.

When you start Data Mover in bootstrap mode, the word “BootStrap” appears in the Data Mover status bar.

**Note.** For more information about Data Mover and Data Mover command syntax, consult the Data Management PeopleBook.

### To populate tables in the PeopleSoft database

1. The DMS import script for your application will contain hard-coded file names for log files and data files. Modify the DMS script if you have moved any files from the delivered directories or want to write log files to another location than that specified in the script.
2. Select **File, Run** to execute the script.

When you run the script, Data Mover typically does the following:

- **IMPORT \***

Create all the PeopleTools and application tables with their indexes.

- **ENCRYPT\_PASSWORD \***

Encrypt security information for the database.

- **CREATE\_TRIGGER \***

Create application required triggers.

- **REPLACE\_VIEW \***

Create PeopleSoft views.

- **CREATE\_TEMP\_TABLE \***

Create PeopleSoft temporary tables.

### Validate Files

Each script will produce .LOG files. The log files are located in the directory you specified in the Data Mover Script.

Examine these files after each run to make sure that all the commands were executed successfully.



## Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the script and start again.

### To edit and restart the DMS script

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

**Note.** When building a DMO database or a multilingual database, adding the 'SET START' statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the 'SET START' statement before the first 'IMPORT \*;' statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding 'IMPORT \*;' statements and add the 'SET START' statement before the 'IMPORT\*;' statement of the section in which the failure occurred. This is very important. If you see any 'unique index constraint' error messages in the 'Create Indexes' step (found later in the chapter), your IMPORT script failed during a subsequent IMPORT but the 'SET START' statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement 'IMPORT \*;' to 'REPLACE\_DATA \*;'. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred)

```
Set start <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

**Note.** It's a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
3000
```

First drop the partially inserted table (eg. record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleTools 8.4, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred)

```
SET START <RECORD NAME>;
DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

Example:

Before:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

After:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP Statement, for records with a non leading PS rename, add PS\_ to the beginning of the rename otherwise the table will not be found.

Example:

```
PS_<RECNAME>
```

3. Re-start the script (**File, Run Script**).

## Tips for Performance

The following tips can help you save time when running the Data Mover scripts:

- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.

If you're comfortable changing the options available for an Oracle instance, you might consider "tuning" the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Increase the shared\_pool.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the redo log files when you create the database.
- Use asynchronous read and write.
- Use multiple db\_writers.

**Note!** EPM Customers must restore the Informatica repository at this point. For the details, see the EPM installation documentation.

## Task E-15: Update Database to Latest PeopleTools Release

Your PeopleSoft application database may be on a PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleTools versions for your database and your file server must match. The following steps ensure that your PeopleSoft database is in synch with the PeopleTools version that you are running.

Here is a list of applications for which this task must be run because the version of the database that was shipped is different than the version of PeopleTools that you are running.

Application Release	Application Database Version	Requires Update to 8.42?
Fin/SCM 8.4	8.40	Yes
Portal 8.4	8.40	Yes
CRM 8.4	8.40	Yes
Staffing Front Office 8.4	8.41	Yes

CRM 8.8	8.42	No
EPM 8.8	8.42	No
HRMS 8.8	8.42	No
ELM 8.8	8.42	No

**Note.** If you are installing a PeopleTools System Database or if your database is delivered on PeopleTools 8.42, you can skip this task since the delivered database already contains the updated PeopleTools objects.

## Update PeopleTools System Tables

### To update the PeopleTools system tables

1. Run SQL scripts to update your PeopleTools system tables to the latest PeopleTools release (currently 8.42).

Using a query tool, such as Query SQL\*Plus, run the following SQL script(s) while in the PeopleSoft database.

If your application database is at 8.40 you need to run the REL841 and REL842 scripts. If your application database is at 8.41 you need to run the REL842 script. If your application database is already at 8.42, you do not need to run any scripts.

```
<PS_HOME>\SCRIPTS\REL841.SQL
<PS_HOME>\SCRIPTS\REL842.SQL
```

If you are installing a Unicode database, run these scripts:

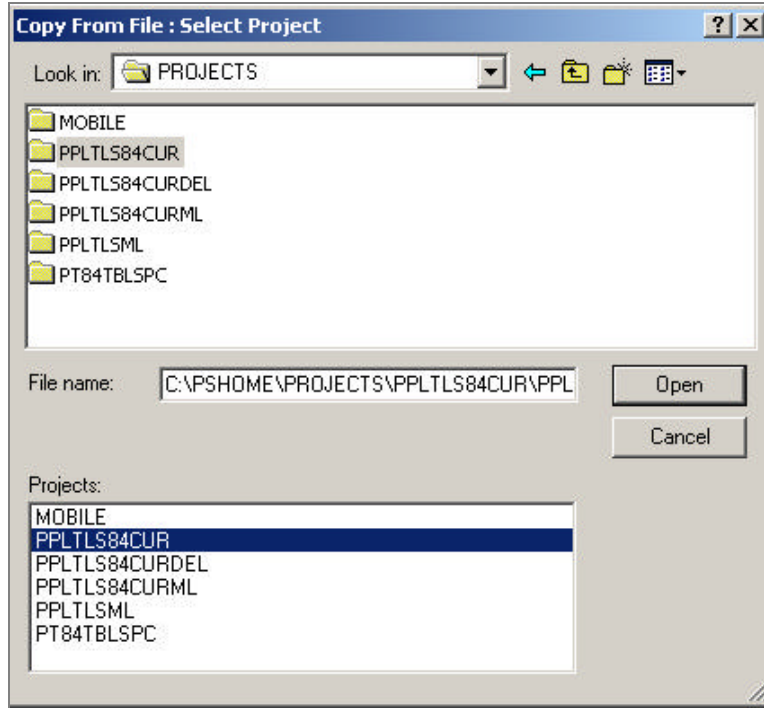
```
<PS_HOME>\SCRIPTS\REL841U.SQL
<PS_HOME>\SCRIPTS\REL842U.SQL
```

## Update PeopleTools Database Objects

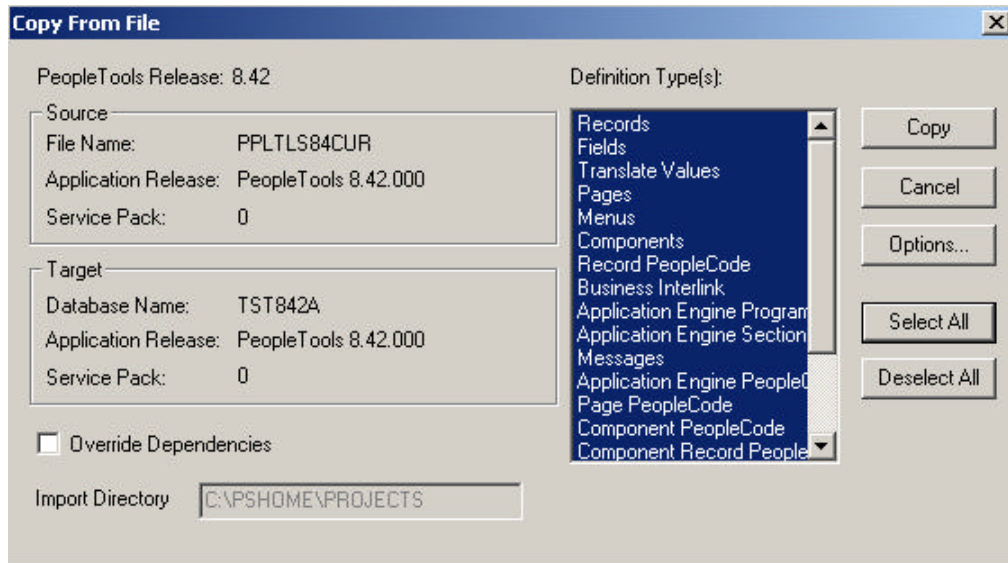
To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file. You must perform this step to bring the database objects in synch with the PeopleTools release. Failure to run this step will introduce problems to your environment.

### To update your PeopleTools database objects

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CUR from the list of projects and click on the **Open** button.



4. You'll see the Copy dialog. Select all object types and then click on the **Copy** button. When the progress dialog disappears, the project has been copied.

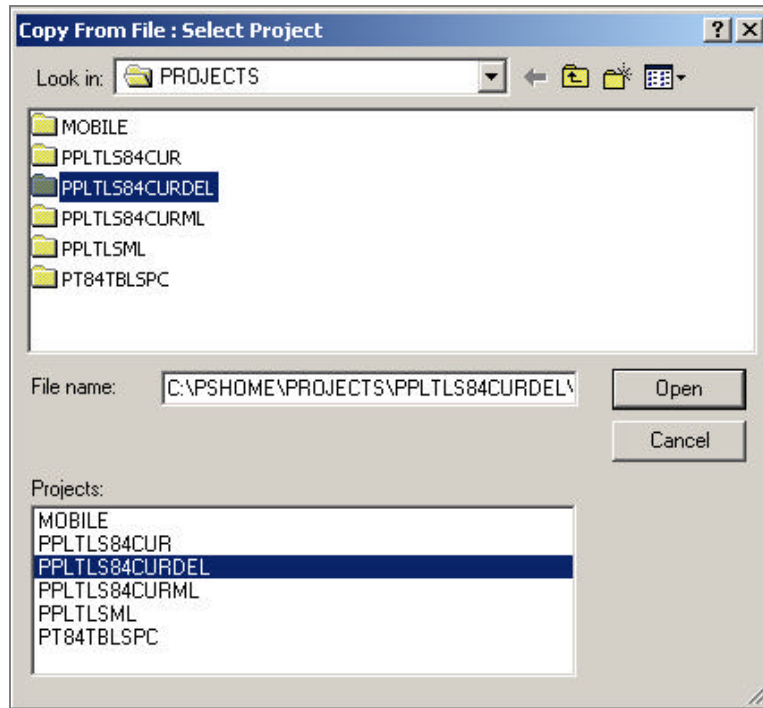


Don't worry if you see these types of messages in the output window; they are acceptable because the fieldlabel properties were copied with the field definition:

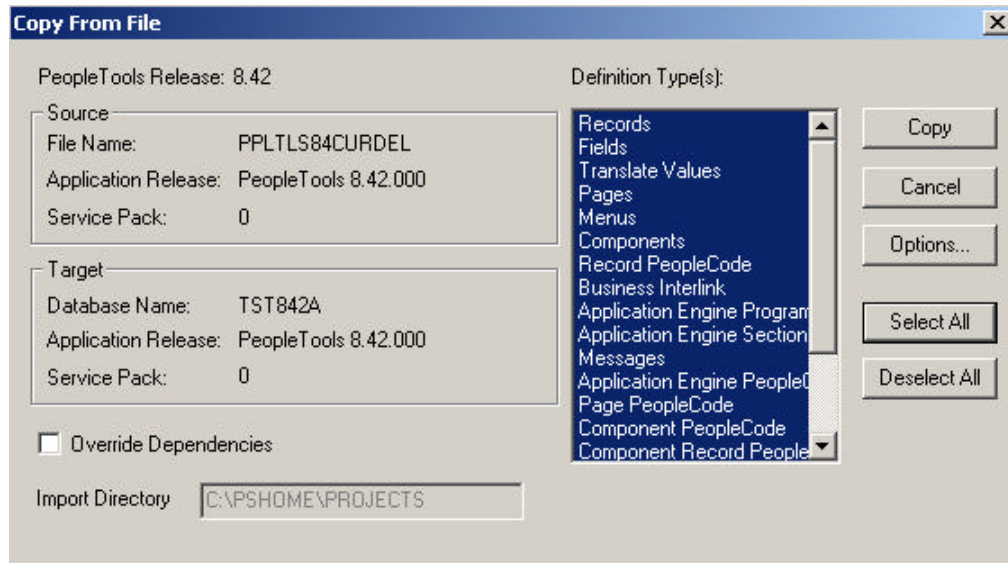
- Object Name: OPERPSWD OPERPSWD not copied, entire object already copied (62,32)
- Object Name: OPRID NEW not copied, entire object already copied (62,32)

**To delete obsolete PeopleTools database objects**

1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PPLTLS84CURDEL from the list of projects and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Copy** button. When the progress dialog disappears, the project has been copied.



**Note!** If you are applying a required for install patch **and if a DB project is included**, apply the DB project(s) now. Make sure to read the patch release notes to find out if DB changes are in the patch.

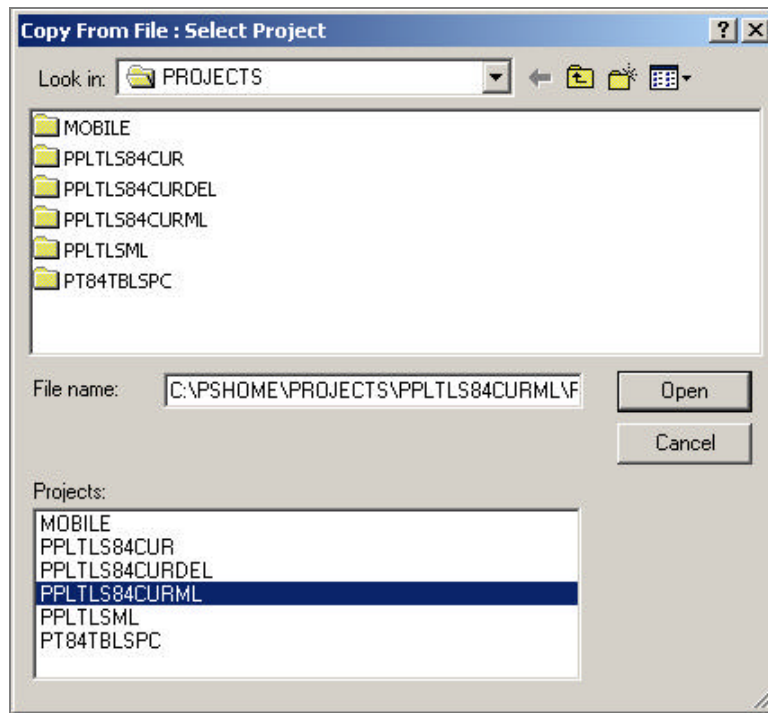
### Updating PeopleTools Multilingual Objects

If you are currently installing a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleTools Objects. You can follow the same instructions above for copying the translated objects into your database.

To update PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleTools database objects from a file.

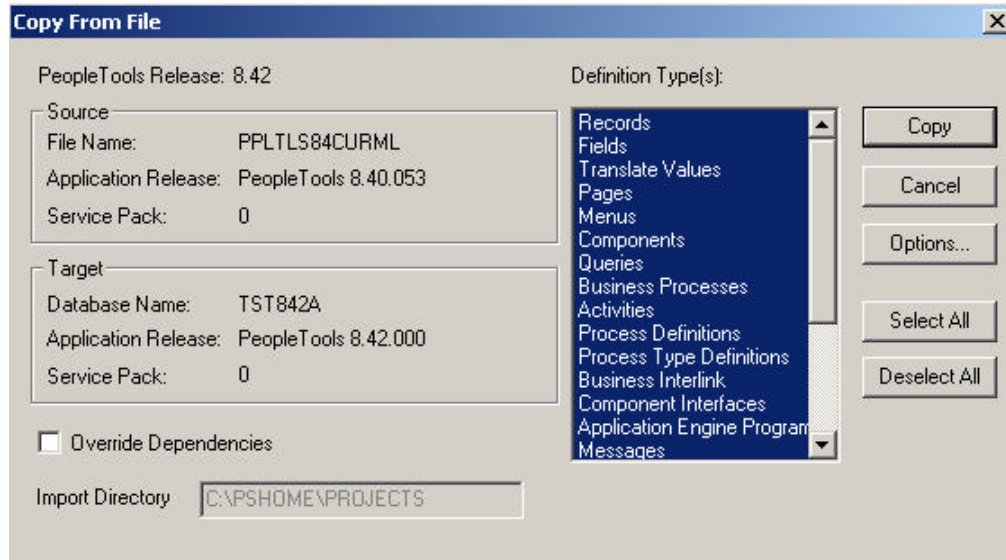
#### To apply the translation project for PeopleTools 8.42

1. Bring up the Configuration Manager and click on the Display tab. In here, ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer.
3. Choose **Tools, Copy Project, From File**.
4. In the resulting dialog, change the import directory to <PS\_HOME>\projects.



5. Select PPLTLS84CURML from the list of projects and click on the **Open** button.
6. You'll see the Upgrade Copy dialog. Make sure that all object types are selected.
7. Click on the **Options** button, Select the **Copy Options** tab and ensure that only the non-English languages you have installed are selected. Please note that English and Common should *not be selected*.
8. Choose the languages that you are currently installing from the Copy Options dialog.
9. Click the **Copy** button.





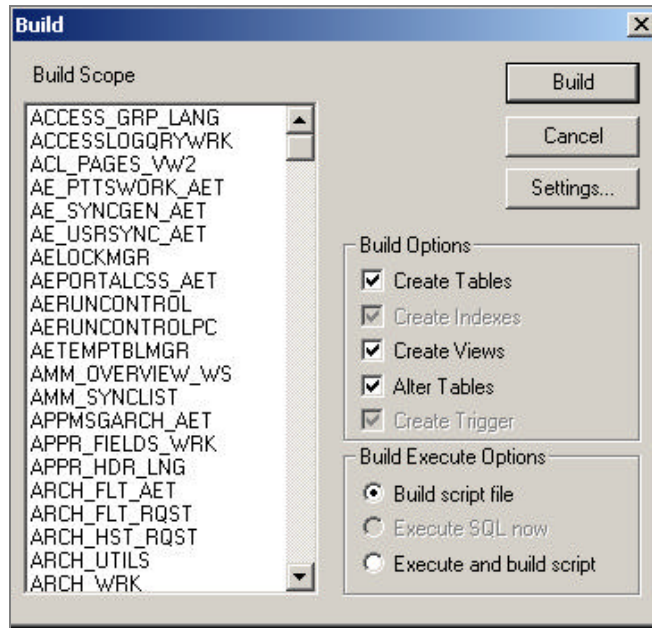
When the progress dialog disappears, the project has been copied.

## Alter Tools Tables

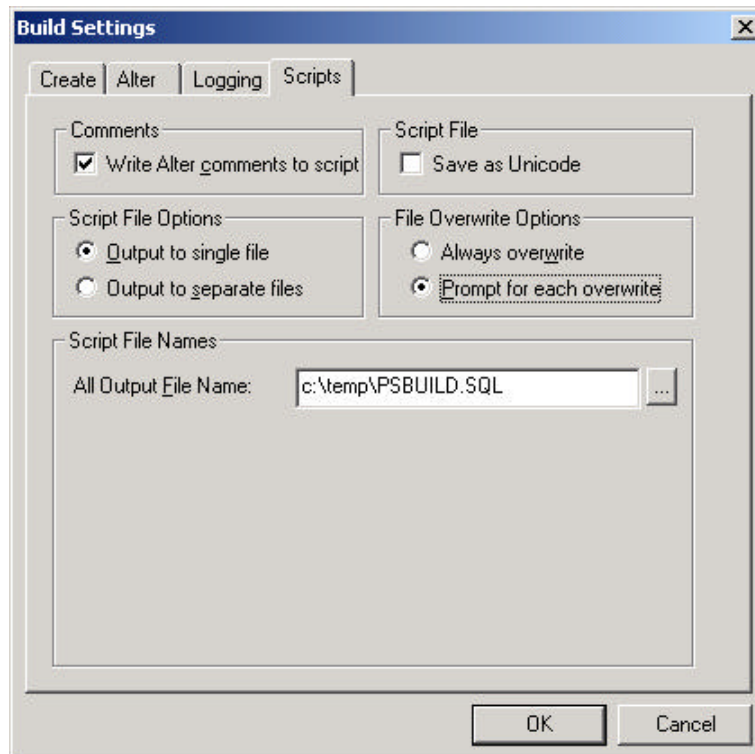
ALTER AUDIT is an online utility used to check whether the PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleTools tables to uncover inconsistencies. ALTER AUDIT then reports its findings. In this release, we expect to see differences between the database structure and the tools tables.

### To run Alter Tools tables

1. Launch PeopleTools and sign on to the Installed database.
2. From the Application Designer select **File, Open**.
3. Select **Project**, type PPLTLS84CUR in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears.

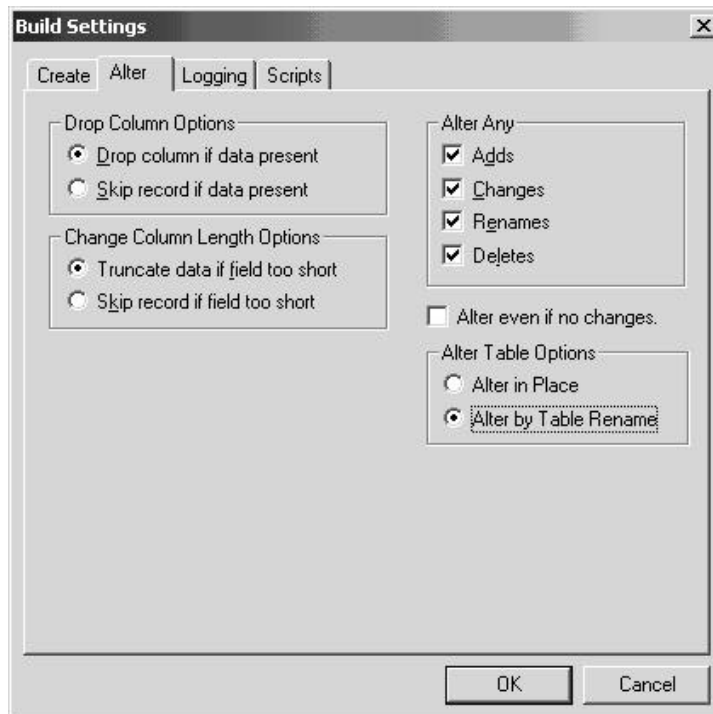


5. Select **Create Tables**, **Create Views**, and **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears:

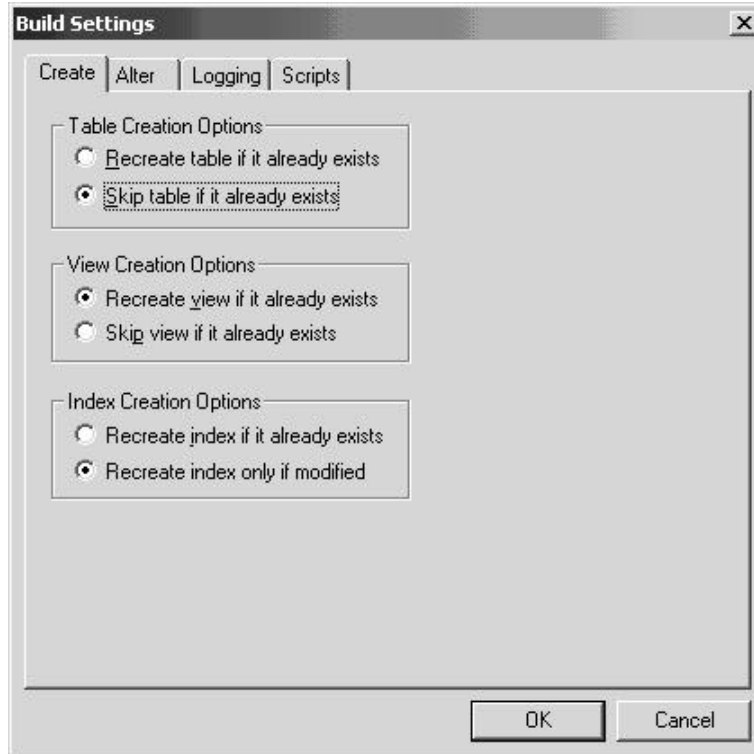


8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**. Drop Column Options should be set to **Drop column if data present**, and Change Column Length Options should be set to **Truncate data if field too short**

Make sure the alter table options is set to **Alter by Table Rename**.



11. Click on the **Create** tab and ensure that the radio buttons **Skip table if it already exists**, **Recreate view if it already exists**, and **Recreate index only if modified** are selected.



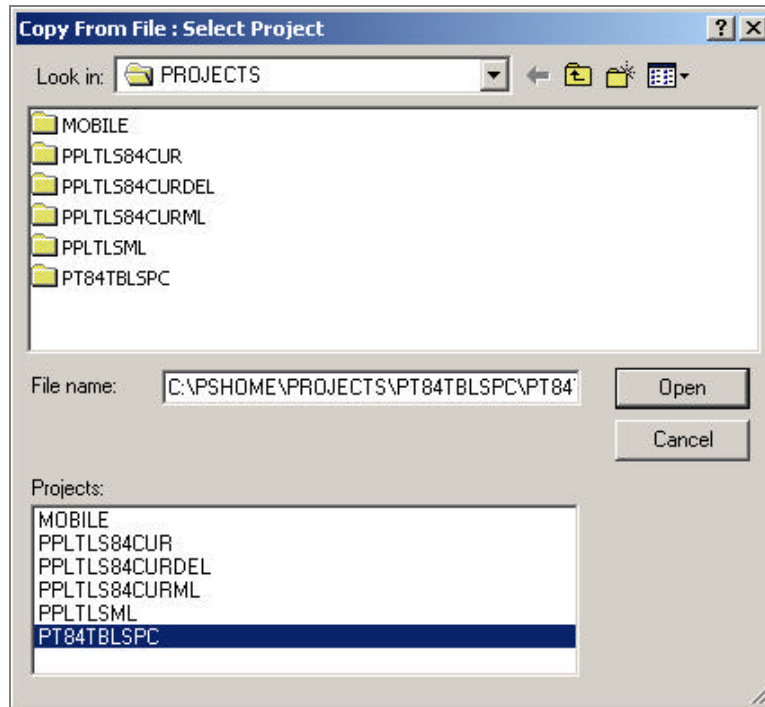
12. Click **OK**. The Build dialog box reappears.
13. Click **Build**.
14. Click **Close** when the process is completed.
15. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
16. Run the generated SQL script in your platform specific query tool to bring your database structure in synch with the PeopleTools tables.

### *Migrate Records to New Tablespaces*

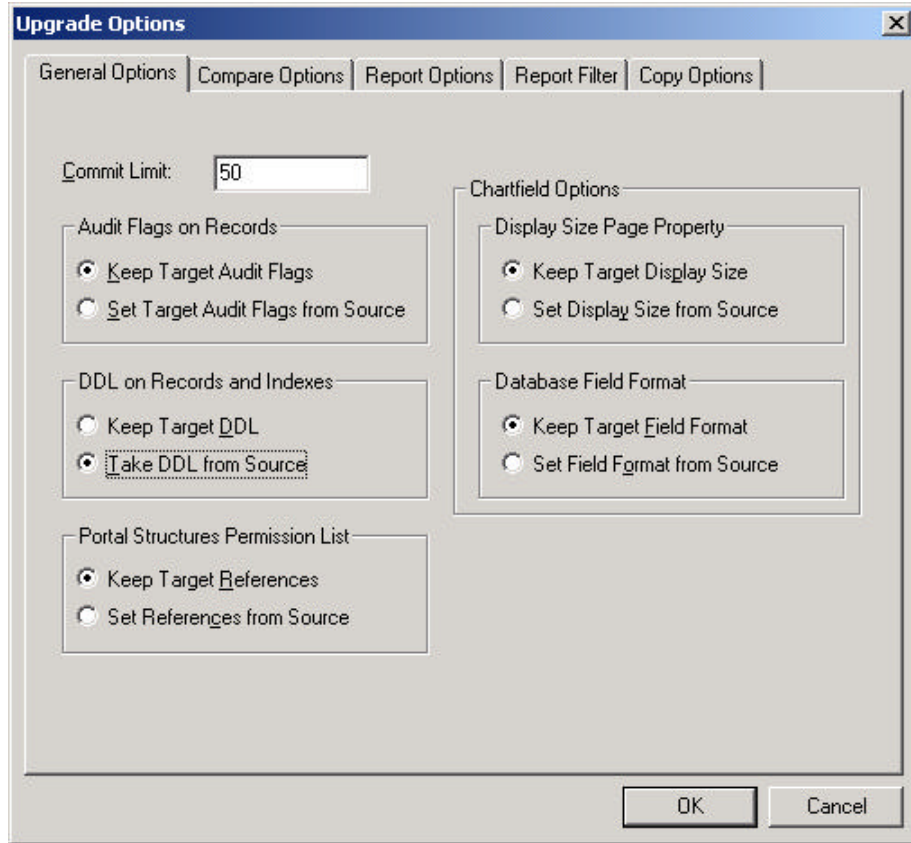
PeopleSoft has moved some delivered tables to different tablespaces in 8.42. You must run this step to move the tables.

#### **To copy Tablespace Record project**

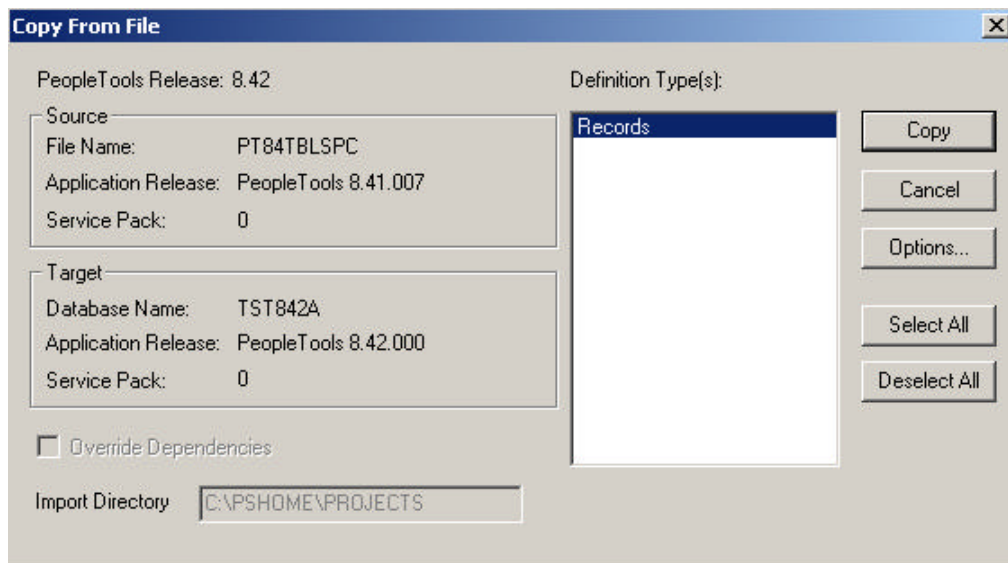
1. Launch Application Designer.
2. Choose **Tools, Copy Project, From File**.
3. In the resulting dialog, change the import directory to <PS\_HOME>\projects, select PT84TBLSPC from the list of projects, and click **Open**.



4. You'll see the Copy dialog. Select all object types and click the **Options** button. Navigate to General Options and make sure that the **Take DDL from Source** radio button is set. Click **OK**.

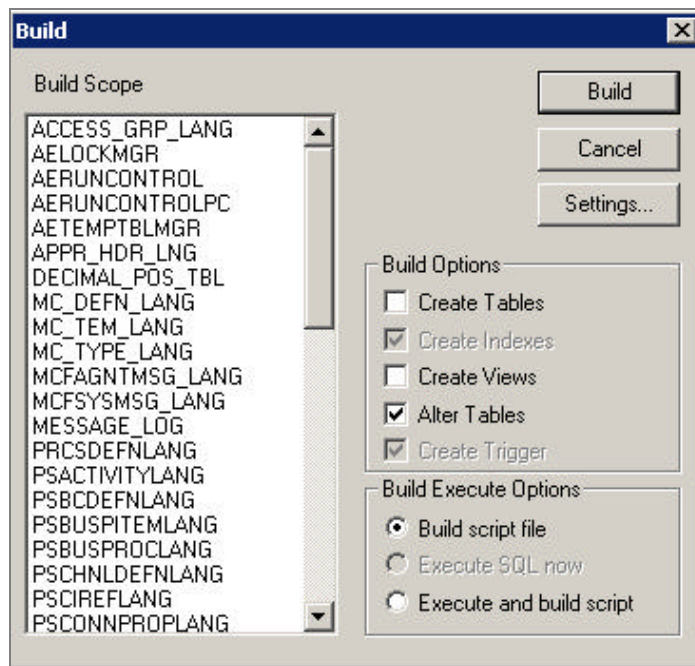


5. Click the **Copy** button. When the progress dialog disappears, the project has been copied.

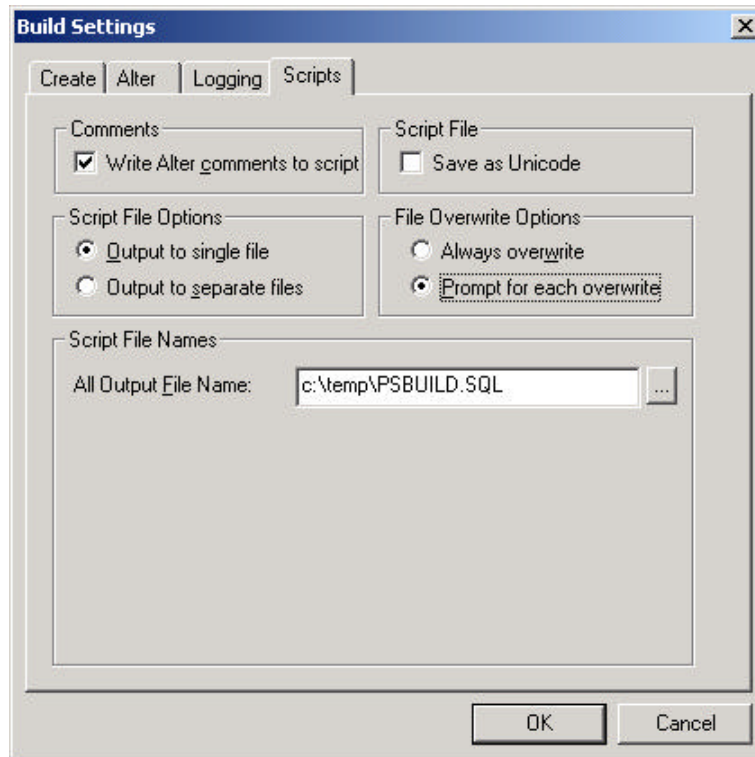


### To run Alter Tools tables

1. Launch PeopleTools and sign on to Installed database.
2. From the Application Designer, select **File, Open**.
3. Select **Project**, type PT84TBLSPC in the name dialog, and click **OK**.
4. Select **Build Project**. The Build dialog box appears:

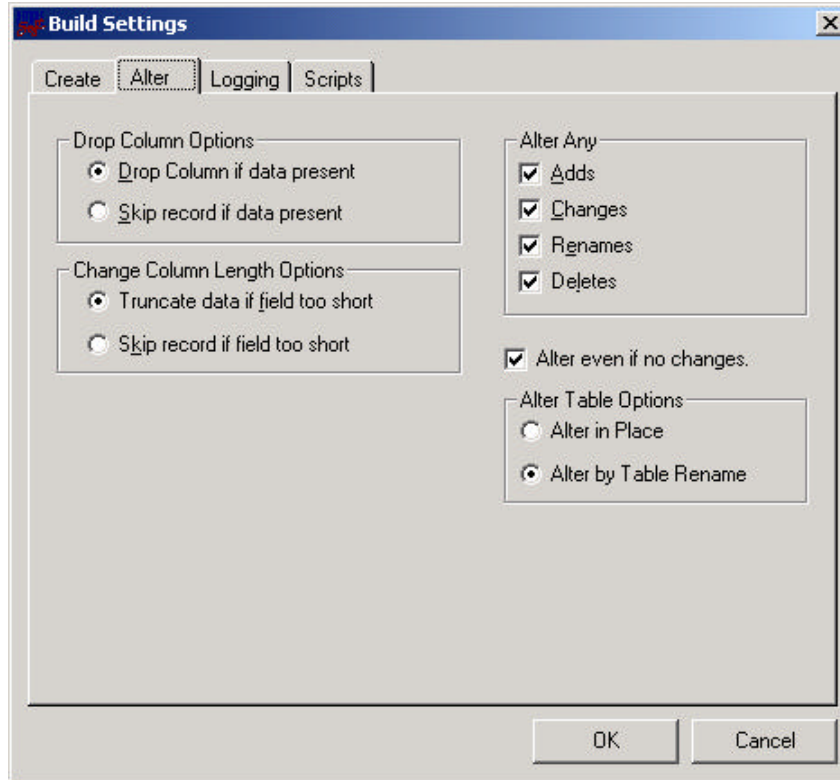


5. Select **Alter Tables** under Build Options (Create Indexes and Create Triggers will automatically be selected).
6. Select **Build script file** under Build Execute Options.
7. Click **Settings**. The Build Settings dialog box appears.



8. Choose the **Scripts** tab.
9. Select **Write Alter comments to script**.
10. Click on the **Alter** tab and ensure that the **Adds**, **Changes**, **Renames**, and **Deletes** check boxes are selected under **Alter Any**, and the **Alter even if no changes** check box has been checked. **Drop Column Options** should be set to **Drop column if data present**, and **Change Column Length Options** should be set to **Truncate data if field too short**.





11. Click **OK**. The Build dialog box reappears.
12. Click **Build**.
13. Click **Close** when the process is completed.
14. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.
15. Run the generated SQL script in your platform specific query tool move the tables to the correct tablespaces.

### *Update PeopleTools System Data*

Data Mover scripts that update PeopleTools system data are run to enable new features and load new messages for the PeopleTools 8.42 release.

#### **To update the PeopleTools system data**

1. Open Data Mover using bootstrap mode.
2. Run the PT841TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT841TLS.DMS script if your application database was already at the 8.41 release prior to starting this step. (See table above.)

3. Run the PT842TLS.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.

**Note!** Do not run the PT842TLS.DMS script if your application database was already at the 8.42 release prior to starting this step. (See table above.)

4. Run the PSLANGUAGES.DMS Data Mover script in the <PS\_HOME>\SCRIPTS directory.
5. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
6. Run the MSGTLENG.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. If you are a multilingual customer you must also run the appropriate MSGTLxxx.DMS, where xxx is the language code, for the languages that you have loaded in your databases.
7. Run the STOREDDL.DMS Data Mover Script in the <PS\_HOME>\SCRIPTS directory. This will update your platform-specific DDL model statements.
8. Run the STOREPT.DMS Data Mover Script in the <PS\_HOME>\src\cbl\base directory. This will update your PeopleTools COBOL Stored statements.

## Task E-16: Run Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover (DMS) scripts. These DMS script files are located in the <PS\_HOME>\SCRIPTS directory of your file server, and need to be run from the file server via Windows Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

**Note.** If you have installed a language other than English, you should run the PT84xTLSxxx.DMS script in user mode for all of your installed languages. (84x is the PeopleTools version number you are using, and xxx is the relevant language code, such as FRA for French; see the task “Plan Multilingual Strategy” in Chapter 1 for a list of language codes.) This script will import PTUSEROPTNLANG.DAT, PTWFTEMPLATE\_LANG.DAT, and PTSTRxxx.DAT which contain the records PSUSEROPTNLANG, PS\_WL\_TEMPLATE\_GLN / PS\_WL\_TEMPL\_GNTKLN, and PS\_STRINGS\_LNG\_TBL respectively.

**Note.** For detailed information about Data Mover, see the *PeopleSoft Administration Tools* PeopleBook.

In PeopleTools 8.42, a dat file ensures that the correct data will be loaded regardless of the base language of the database. The instructions to load this table are as follows.

### To load the correct data

1. Run Data Mover as a user (that is, **not in bootstrap mode**).
2. For each language that you have loaded, run PT84xTlSxxx.DMS, where xxx is the language code.

## Task E-17: Run VERSION Application Engine Program

Run the VERSION Application Engine program on your database. (It's found in <PS\_HOME>\bin\client\winx86.) From the DOS command line, the syntax is:

```
psae -CD <dbname> -CT ORACLE -CO <opri d> -CP <pswd> -R INSTALL -AI VERSION
```

## Task E-18: Change Base Language

If you have not already done so, review the task “Plan Multilingual Strategy” in Chapter 1, and determine whether you should change your base language. (That task includes a list of currently supported languages.)

This step applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. This step gives a performance boost to the language you designate as the base language, but would require more administrative overhead than leaving English as the base language does.

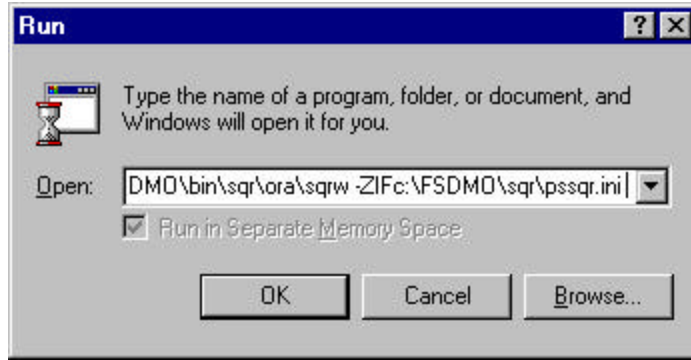
The steps for swapping your base language in are described in detail in the *PeopleTools Global Technology* PeopleBook, under “Global Configuration Considerations.”

## Task E-19: Prepare to Run SQR

The following instructions describe how to run SQR reports from the client workstation. You can use these instructions to run SQRs required in the upcoming task “Check Database.”

### To run an SQR report on the client workstation

1. Choose **Start, Run**, click **Browse**, and navigate to <PS\_HOME>\bin\sqr\DBPlatform\binw. Select SQRW.EXE and click **Open**.
2. Add the -ZIF flag as an argument after the command line before clicking **OK**. The -ZIF flag should point to your <PS\_HOME>\sqr\pssqr.ini file.

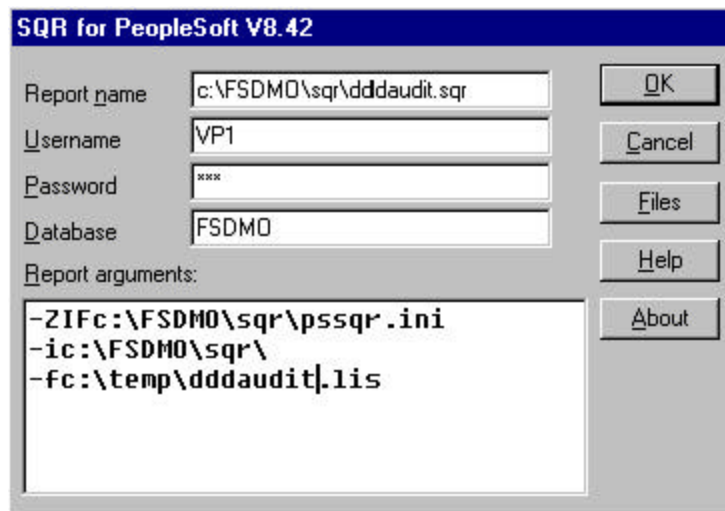


3. Click **OK**.
4. Add the remaining required SQR flags to the Report Arguments section in the SQR for PeopleSoft command window.

The following table summarizes the SQR report arguments used by PeopleSoft. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog.)

Flag	Description
-I	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent.
-ZIF	Sets the full path and name of the SQR initialization file. It should point to the PSSQR.ini file in the PeopleTools SQR directory.

After editing the dialog should look something like this:



5. Enter the following values:
  - Enter the Report Name. You must specify the full path.

- Set Username to the Access ID.
  - Set Password to the Access Password.
  - Enter the Database name.
6. Click **OK** to run the SQR report.

**Note.** In the Properties dialog box for your SQR icon make sure that the Start in path points to your Oracle connectivity on the Shortcut tab. If you take the default, you may see a misleading error message about TNS packet writer failure.

### To save the report arguments

1. To save the report arguments so you don't have to enter them again each time you run SQR, right-click on the Windows **Start** button.
2. Choose **Open All Users** or **Explore All Users**.
3. Navigate to the SQR program group created when you installed SQR.
4. Right-click on the **SQR** icon and choose **Properties**.
5. Select the **Shortcut** tab.
6. In the **Target** field, append or edit the report arguments.
7. Click **OK**.

## Task E-20: Check Database

Run and examine two SQR reports to verify that your database is complete.

Use the instructions provided in the earlier task "Prepare to Run SQR."

### To verify that the database is complete

1. Run the following SQRs from the <PS\_HOME>\SQR directory:
  - DDDAUDIT.SQR

**Note.** You can greatly improve the performance and run time of SYSAUDIT.SQR run by making the following configuration changes:

In the Oracle init.ora for your SID:

```
db_file_multiblock_read_count = 16
db_block_buffers = 2000 or greater
log_checkpoint_interval = 9999999
log_buffer = 102400
```

Increase the size of the RBSBIG rollback segment to 500MB.

- SYSAUDIT.SQR.

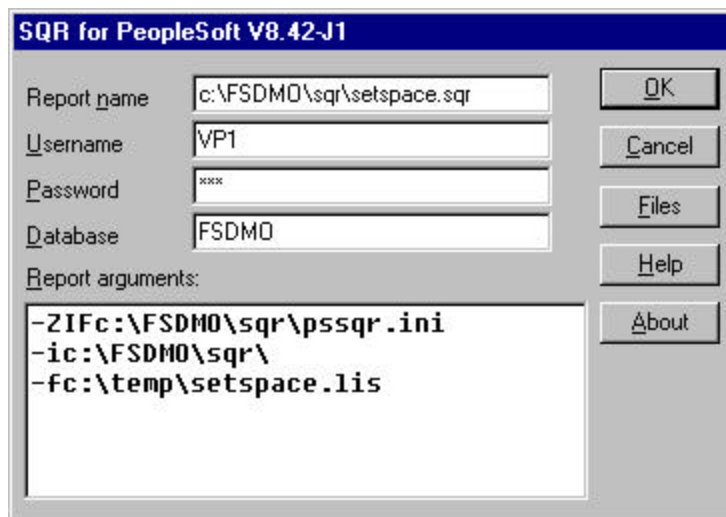
**Note.** If tables show up on the TABLE-3 section of DDDAUDIT and are contained within the PPLTLS84CURDEL project, you may safely drop these tables using your SQL query tool for your platform.

**Note.** For information on how to interpret these reports, see the *PeopleSoft Server Tools Administration* PeopleBook.

## Task E-21: Run SETSPACE.SQR to Populate/Synchronize Tablespace Information with System Catalog

### To run SETSPACE.SQR

1. Using the instructions provided in the earlier task “Prepare to Run SQR,” run SETSPACE.SQR from the <PS\_HOME>\SQR directory.



2. Click **OK**.

You'll get the following prompt:

```
Replace tablespace with default tablespace if table not found in database catalogs
Y/(N)?: y
```

3. As SETSPACE.SQR runs you'll get a dialog similar to the following indicating progress.

**Set Table Space Name in PSRECTBLSPC**

```
Table PSRECTBLSPC column DDLSPACENAME have been updated
with the tablespace found in the system catalog table.
The total number of records updated appears at the bottom of this report.
```

Recname	New DDLSpaceName	Old DDLSpaceName
-----	-----	-----

```
This phase of SETSPACE will sync up the PSRECTBLSPC and
PSTBLSPCCAT tables
```

```
PSRECTBLSPC Records Updated:      0
```

```
PSTBLSPCCAT Records Inserted:     0
```

```
Ending SQR.
```

## Task E-22: Initialize Online Rollback Segments

This task will initialize the smaller rollback segments geared towards online processing.

### To initialize online rollback segments

1. Change directory to \$ORACLE\_HOME/dbs.
2. Edit the initialization parameter file, \$ORACLE\_HOME/dbs/init<SID>.ora. Add the following line:

```
ROLLBACK_SEGMENTS = (r01, r02, r03, r04)
```

3. Recycle the database by shutting it down and restarting it.





# RELINKING SQR ON UNIX

PeopleSoft SQR is now linked with Unicode libraries and therefore no longer requires relinking with Unicode libraries. PeopleSoft SQR uses dynamic linking for database connectivity libraries and should not require relinking to support new versions of database connectivity. The exception to the rule is if the PeopleTools release spans multiple RDBMS releases and the database connectivity changes the names or functionality of required libraries in the new release.

## To relink SQR on UNIX

1. Log on to your UNIX server and change directories if necessary to the location of \$PS\_HOME.
2. Check for the \$SQRDIR environment variable in your environment and set it as necessary. It should point to the location where the sqr binaries are located, typically in \$PS\_HOME/bin/sqr/<database\_platform>/bin.

```
$ env | grep sqr
$ env | grep SQR
SQRDIR=/data1/PT842/bin/sqr/<Database_platform>/bin
```

3. Execute the psconfig.sh shell script found in \$PS\_HOME.
4. Verify that the path specified in your \$SQRDIR variable has been added to the \$PATH and operating system specific library path. If not, you need to add it and export the library path variable. Remove any other versions of SQR that may exist in your \$PATH or library path. Consult the following table to determine the correct library path variable:

Platform	Library Path Variable Where \$SQRDIR needs to exist
Solaris	LD_LIBRARY_PATH
IBM AIX	LIBPATH
HP-UX 11	SHLIB_PATH
Tru64	LD_LIBRARY_PATH

5. Make sure your database library directory is included in your \$PATH and library path variables.
6. Change into the \$PS\_HOME/bin/sqr/<Database\_platform>/lib directory and run the following command to relink sqr:
 

```
$ sqrmake
```
7. The relinking script will first prompt you with choices for your database version. If your specific version is supported by PeopleSoft but does not exist in the list of choices, please choose the closest match to your actual database release.
8. You will then be prompted to choose between relinking with Unicode or non-Unicode libraries. Since PeopleSoft is delivered linked with Unicode, we suggest always choosing the Unicode option.
9. When the relinking process completes, it will automatically move the new sqr, sqrt, and sqrp binaries into the \$\$QRDIR location.

**Note.** If any problems arise during the relinking process, please check the Customer Connection website for any updated scripts or make files. The two files used in relinking that may need to be edited or replaced are sqrmake and makefile.

For example:

PeopleTools 8.4 is currently supported on two major Oracle releases (Oracle 8i and Oracle9i).

Based on the timing of our release we built the SQR modules for a specific Peoplesoft release with the lowest supported RDBMS version.

For PeopleTools 8.4x, the minimum supported Oracle version is Oracle 8i (8.1.7.2.0)

This means PeopleSoft SQR will work right out of the box on Oracle8i (no relink required).

For Oracle 9i support we need to relink SQR so that the symbol names or functionality in the newer version can be found.

**Note.** For PeopleTools 8.4x and Oracle, the only platform upon which SQR needs to be relinked is HP-UX.

## HP-UX

### To relink SQR on HP-UX

1. Prior to executing the psconfig.sh shell script, check for SQR env variables and set them as necessary.

```
sp-hp12: $ env | grep sqr
sp-hp12: $ env | grep SQR
SQRDIR=
```

```
cd to $PS_HOME/bin/sqr/ORA/bin
sp-hp12: $ pwd
sp-hp12: $ /ds2/home/certora/qe842c08/bin/sqr/ORA/bin
```

**Note.** Since pconfig.sh has not yet been run, you will need to explicitly cd to your PeopleSoft installation and then CD down to /bin/sqr/ORA/bin.

2. Set the SQRDIR environment variable to the actual location of \$PS\_HOME/bin/sqr/ORA/bin.

```
sp-hp12: $ export SQRDIR=/ds2/home/certora/qe842c08/bin/sqr/ORA/bin
```

3. Add \$SQRDIR to \$PATH

```
sp-hp12: $ export PATH=$SQRDIR:$PATH
```

4. Add \$ORACLE\_HOME/lib32 and 'SQLLIB' to \$SHLIB\_PATH

```
sp-hp12: $ cd ..
sp-hp12: $ cd lib
sp-hp12: $ pwd
/ds2/home/certora/qe842c08/bin/sqr/ORA/lib
sp-hp12: $ export
SHLIB_PATH=/ds2/home/certora/qe842c08/bin/sqr/ORA/lib:$ORACLE_HOME/lib32:$SHLIB_PATH
```

5. Recheck SQR env:

```
sp-hp12: $ env | grep sqr
SHLIB_PATH=/ds2/home/certora/qe842c08/bin/sqr/ORA/lib:/lib:/usr/lib:/usr/local/2
PATH=/ds2/home/certora/qe842c08/bin/sqr/ORA/bin:/jre/prod/1.3/bin:/bin:/sbin:/un
SQRDIR=/ds2/home/certora/qe842c08/bin/sqr/ORA/bin
PWD=/ds2/home/certora/qe842c08/bin/sqr/ORA/lib
sp-hp12: $ env | grep SQR
SQRDIR=/ds2/home/certora/qe842c08/bin/sqr/ORA/bin
sp-hp12: $
```

6. Relink SQR for Oracle9i:

```
sp-hp12: $ sqrmake
Please select your version of Oracle:

1. Version 8.1.5/8.1.6/8.1.7 (HP-UX B.11.00)
2. Version 8.1.5/8.1.6/8.1.7 (HP-UX B.11.00) with NLS Support
3. Version 9.0.1 (64bit) (HP-UX B.11.00) with NLS Support
Please enter your selection:
3
```

```
cc -L/products/oracle/9.0.1-64bit/lib32 -o sqr sqr.o dbcalls7.o rosette.o -L. -O
(Bundled) cc: warning 480: The -z option is available only with the C/ANSI C pr.
cc -o sqrp sqrp.o rosette.o -L. -lsqrbtunicode -lpthread /usr/lib/libCsup.sl cp0
```

(Bundled) cc: warning 480: The -z option is available only with the C/ANSI C pr.  
 cc -L/products/oracle/9.0.1-64bit/lib32 -o sqrt sqrt.o dbcalls7.o rosette.o -L.0  
 (Bundled) cc: warning 480: The -z option is available only with the C/ANSI C pr.

```
mv sqr      /ds2/home/certora/qe842c08/bin/sqr/ORA/bin
mv sqrp    /ds2/home/certora/qe842c08/bin/sqr/ORA/bin
mv sqrt    /ds2/home/certora/qe842c08/bin/sqr/ORA/bin
```

sp-hp12: \$

7. Validate relinked SQR executable:

Once linked, cd to \$\$QRDIR

```
sp-hp12: $ cd $$QRDIR
sp-hp12: $ pwd
/ds2/home/certora/qe842c08/bin/sqr/ORA/bin
```

Validate SQR executable

```
sp-hp12: $ sqr -id
```

SQR for PeopleSoft/8.42/HP 9000/HPUX B.11.00/Oracle 8.0.6/June 25 2002

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SQR is a registered trademark.

Any other brand and product names used herein may be trademarks or registered trademarks of their respective companies.

sp-hp12: \$

```
sp-hp12: $ sqr
```

SQR for PeopleSoft V8.42

SQR for PeopleSoft [program] [username/password] [-flags...] [pars...] [@file..]

where

```
program = Report filename
username = Database username
password = Database password
  -A = Append to existing output file
  -Bn = Fetch n rows at a time
-Burst: {xx} = Generate .LIS using specified burst mode (S, T or P)
  -Dn = Display report while processing, pause every n lines
-DEBUGxx = Compile #DEBUG[x] lines
-DNT: {xx} = Set the default numeric type (Decimal, Integer, Float)
-E[file] = Direct errors to {program}.ERR or specified file
```

- EH\_BQD[:file] = Create BQD file or set linkage for Enhanced HTML
- EH\_APPLETS:dir = Set applets directory name for Enhanced HTML
- EH\_BROWSER:{xx} = Specify target browser for Enhanced HTML
- EH\_CSV[:file] = Create CSV file or set CSV linkage for Enhanced HTML
  - EH\_CSVONLY = Create CSV file but do not create HTML file
- EH\_ICONS:dir = Set icons directory name for Enhanced HTML
- EH\_IMAGES:dir = Set images directory name for Enhanced HTML
  - EH\_KEEP = Copy (not move) files when used with -EH\_ZIP
- EH\_FULLHTML:{xx} = Specify the level of the generated Enhanced HTML
- EH\_LANGUAGE:{xx} = Specify language for Enhanced HTML navigation bar
  - EH\_PDF = Set PDF linkage for Enhanced HTML
- EH\_SCALE:mn = Set scaling factor for Enhanced HTML
  - EH\_XIMG = Do not remove directory path from IMAGE reference
- EH\_XML[:file] = Set XML linkage for Enhanced HTML
- EH\_ZIP[:file] = Move files to ZIP container file
  - F[dir/file] = Use [dir]{program}.LIS or specified file for output
  - Idir\_list = Directory list to be searched for include files
  - ID = Display copyright banner
  - KEEP = Keep the .SPF file(s) after program run
- LL{s|d}{c|i} = Load-Lookup: S=SQR, D=DB, C=Case Sensitive, I=Insensitive
  - Mfile = Maximum sizes declared in file
  - NOLIS = Do not generate .LIS file(s) from .SPF file(s)
  - O[file] = Direct log messages to console or specified file
- PRINTER:{xx} = Printer mode: EP, EH, HT, LP, HP, PD, or PS
  - RS = Save run time file in {program}.sqt
  - RT = Use run time file (skip compile)
  - S = Display cursor status at end of run
  - Tn = Test report for n pages, ignore 'order by's
  - XB = Do not display the program banner
  - XI = Do not allow user interaction during program run
  - XL = Do not logon to database (no SQL in program)
  - XLFF = Do not generate trailing report form feed
  - XTB = Do not trim blanks from LP .LIS files
  - XNAV = Do not put navigation bar into .HTM file
  - XTOC = Do not generate Table Of Contents
- ZEN{name} = Set default encoding name
- ZIF[file] = Complete pathname of the initialization file to use
- ZMF[file] = Complete pathname of the message file to use
  - pars = Report parameters for ASK and INPUT commands
  - @file = File containing report parameters, one per line

sp-hp12: \$

8. CD to the actual location of \$PS\_HOME to set the PeopleSoft env with the correct SQR ENV.

sp-hp12: \$ . ./psconfig.sh

sp-hp12: \$

9. Test SQR from the UNIX command line

sp-hp12: \$ sqr \$PS\_HOME/sqr/xrfin QE842C13/QE842C13@QE842C13 -ZIF\$PS\_HOME/sqr/ps  
SQR for PeopleSoft V8.42

**Database Name (Optional, Press ENTER to continue):**  
**Process Instance (Optional, Press ENTER to continue):**

**SQR for PeopleSoft: End of Run.**  
**sp-hp12: S**

# SECURING REPORT REPOSITORY FOR HTTP

The SchedulerTransfer Java servlet is used to migrate reports to and from the report repository when using HTTP or HTTPS transfer protocol. In this appendix we discuss how to:

- Set up security in the web server.
- Update the report node definition.

## Setting Up Security in the Web Server

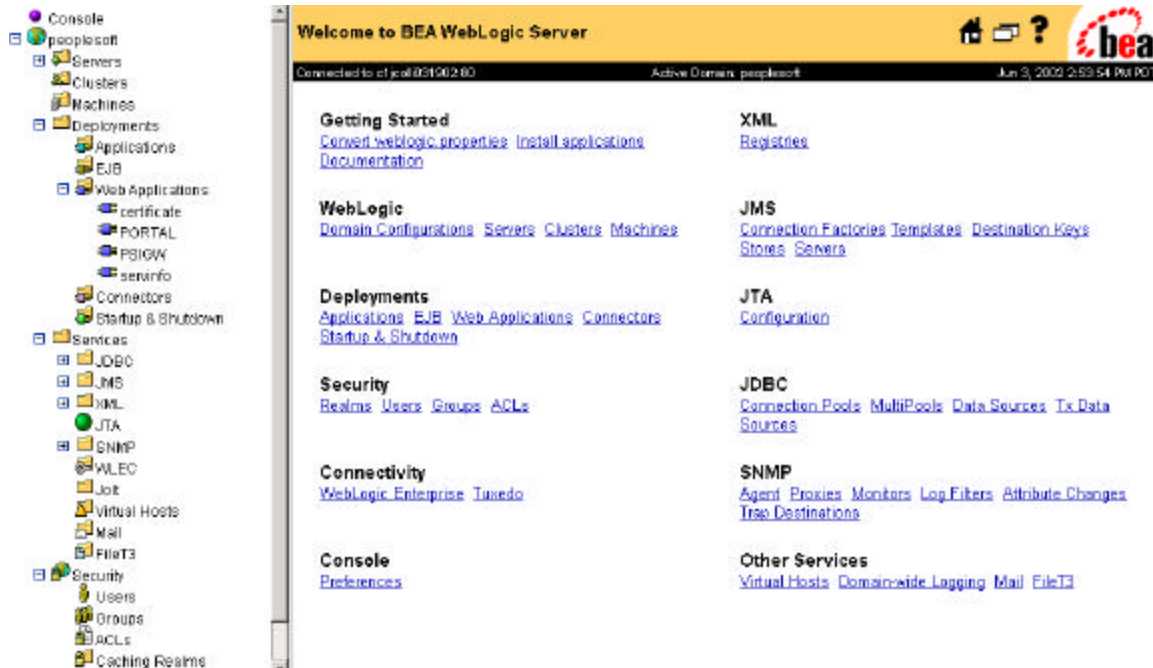
To prevent unauthorized users from accessing the report repository, when using HTTP or HTTPS transfer protocol, access to the SchedulerTransfer Java servlet needs to be secured. To do this you first need to set up an authorized user ID through the web server.

**Note.** Procedures for setting up the user ID differs between WebLogic and Websphere.

### *Setting Up Basic Authentication in WebLogic*

Select **Start, Settings, Control Panel, Administrative Tools, Services**. Scroll to the peoplesoft-PIA service and verify the service has been started. Access the Weblogic server administrative console at <http://<webservice>/console>.

**Note.** When prompted for a User Name and Password, specify the Weblogic system ID and password. If you followed the default WebLogic Server install, the User Name and Password are system and password. Otherwise, specify the password supplied during your WebLogic server installation.



BEA WebLogic Server Administrative Console

## To set up Basic Authentication in WebLogic

1. Create a new user account.
 

The Users page is displayed.

  - a) Select **Peoplesoft, Security, Users** to display the Users page.
  - b) Enter a name, password, and confirm password in the **Create new user** section.
  - c) Select **Create**.
  
2. Define a new security role.
  - a) Select **Peoplesoft, Deployments, Web Applications, PORTAL** to display the PORTAL page.
  - b) Select **Edit Web Application Descriptor**.
 

The navigation hierarchy will change to display options for Portal.
  - c) Select **Portal, Web App Descriptor, Security Roles** to display the Security Roles page.
  - d) Select **Configure a new Security Role**.
  - e) Enter a name and description for the new role—for example, Report Administrator and Report Administrator Role.
  - f) Select **Create**.



3. Define a new security role assignment.

**Note.** A security role assignment is used to assign users to a security assignment.

- a) Select **Portal, WebApp Ext, Security Role Assignments** to display the Security Role Assignments page.
- b) Select **Configure a new Security Role Assignment**.
- c) Select the new security role that you created from the drop-down list.
- d) Enter the new WebLogic user account name that you created in the **Principal Names** field.
- e) Select **Create**.

4. Define a new security constraint.

**Note.** Security constraints contain the association between roles and resources.

- a) Select **Portal WebApp Descriptor, Security Constraints** to display the Security Constraints page.
- b) Select **Configure a new Security Constraint**.
- c) Enter a display name for the new security constraint—for example, Report Security Constraint.
- d) Select **Create**.  
  
Additional options will display on the Security Constraints page.
- e) Select **Configure a new Auth Constraint**.
- f) Enter a description for the new authorization constraint—for example, Authorized Report Admin List.
- g) Select **Create**.  
  
All valid roles will display in the Available list.
- h) Highlight the new security role that you created, and click the right arrow to move the role to the Chosen list.
- i) Select **Apply**.

5. Define a new web resource collection.

- a) Select **Portal, WebApp Descriptor, Security Constraint, <New security constraint>, Web Resource Collections** to display the Web Resource Collections page.
- b) Select **Configure a new Web Resource Collection**.

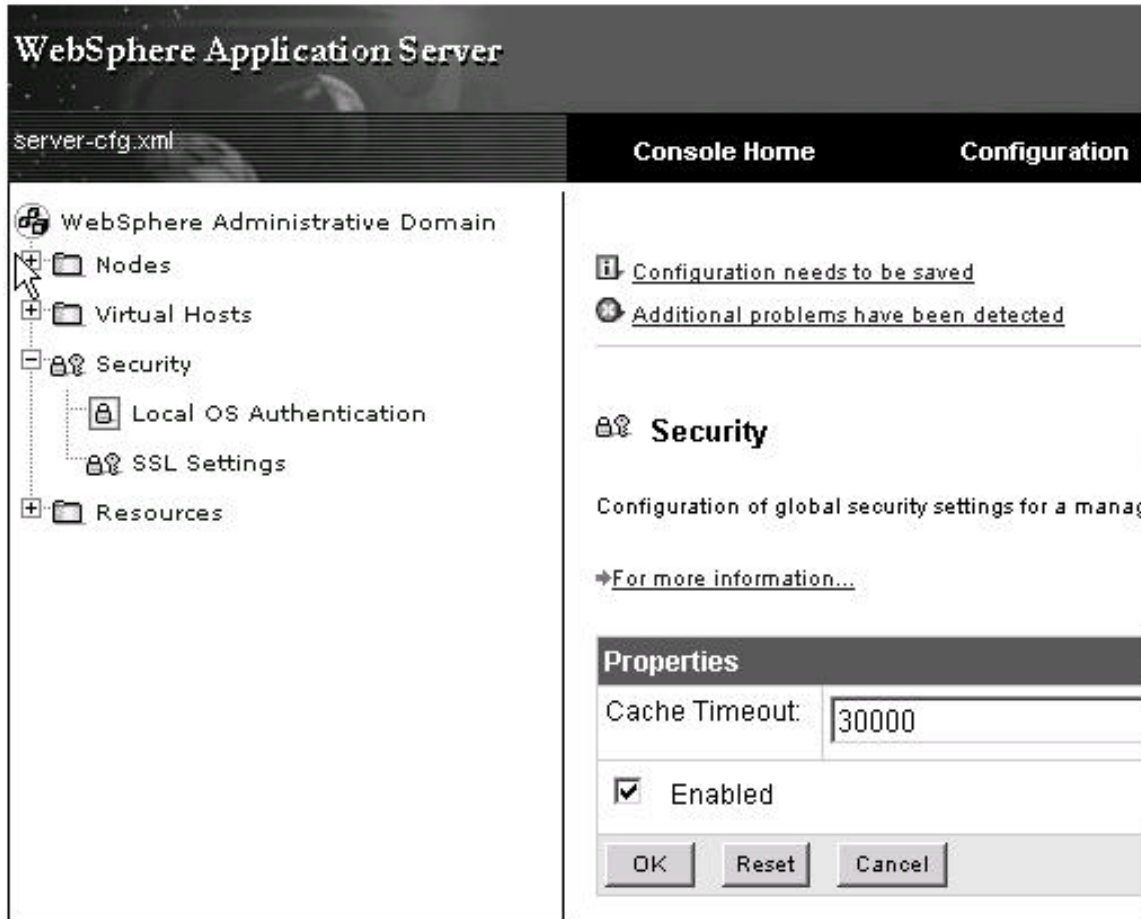
- c) Enter a resource name and description—for example, Report Repository Resource and Report Repository Collections.
  - d) Enter **/SchedulerTransfer/\*** in the Url Patterns field.
  - e) Select **Create**.
6. Define an authentication method.

**Note.** Authentication methods define how the user will need to authenticate themselves.

- a) Select **Portal WebApp Descriptor** to display the Web App Descriptor page.
  - b) Select **Configure a new Login Config**.
  - c) Select **BASIC** as the Auth Method.
  - d) Select **Create**.
7. Save your changes.
- a) Select **Portal** from the navigation hierarchy.
  - b) Select the **Validate** button to verify that your changes are valid.
  - c) Select **Portal** again, and then select the **Persist** button to save your changes.

## *Setting Up Basic Authentication in WebSphere*

Access the WebSphere server administrative console at <http://<webserver>/admin>. Enter a valid user ID, and select **Submit**



[WebSphere Administration Console](#)

**To setup Basic Authentication in WebSphere**

1. Enable security in WebSphere.
  - a) Select **WebSphere Administrative Domain, Security, Local OS Authentication**.
  - b) Select **Local OS Registry**.
  - c) Enter the user ID and password.

**Note.** When prompted for a user ID and password, specify a user that is part of the Administration group. On UNIX, use the root user name and password, or a user that has permission to run WebSphere.

- d) Select **OK**.
- e) Select the **Security** node.
- f) Select the **Enabled** check box.

- g) Select **Configuration needs to be saved** link.
- h) Select **OK** to save changes to the server-cfg.xml file.
- i) Log out of the WebSphere Administration Console, and close the browser.

2. Modify plugin-cfg.xml file.

- a) Open C:\Apps\Websphere\AppServer\config\plugin-cfg.xml.
- b) Add the security section that's highlighted:

```
<application id="Application_ID">
  <display-name>PeopleSoft 8.4 Web Application</display-name>
  <description>PeopleSoft 8.4 Web Application contains two web
  application (1)peoplesoft Internet Architecture
  (2)Integrati on Gateway</description>
  <module id="WebModule_1">
    <web>
      <web-uri>PORTAL</web-uri >
      <context-root>/PORTAL</context-root>
    </web>
  </module>
  <security-role id="SecurityRole_1">
    <description>SnoopServlet Descr</description>
    <role-name>SnoopServlet</role-name>
  </security-role>
  <module id="WebModule_2">
    <web>
      <web-uri>PSIGW</web-uri >
      <context-root>/PSIGW</context-root>
    </web>
  </module>
  <module id="WebModule_3">
    <web>
      <web-uri>PSINTERLINKS</web-uri >
      <context-root>/PSINTERLINKS</context-root>
    </web>
  </module>
</application>
```

- c) Save and close the file.

3. Modify the ibm-application-bnd.xmi file.

- a) Open C:\Apps\Websphere\AppServer\installedApps\peoplesoft\META-INF\ibm-application-bnd.xmi.
- b) Drop the “/” located after authorizationTable xmi:id="AuthorizationTable\_1", and add the section that's highlighted:

```

<applicationbnd: ApplicationBinding xmi:version="2.0"
  xmlns:xmi="http://www.omg.org/XML" xmlns:applicationbnd="applicationbnd.xmi"
  xmlns:application="application.xmi"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmi:id="Application_ID_Bnd">
  <appName xsi:nil="true"/>
  <application href="META-INF/application.xml#Application_ID"/>
  <authorizationTable xmi:id="AuthorizationTable_1">
    <authorizations xmi:id="RoleAssignment_1">
      <role href="META-INF/application.xml#SecurityRole_1"/>
      <users xmi:id="User_1" name="{Any User name which is part of
Administrator Group}"/>
      <specialSubjects xmi:type="applicationbnd:AllAuthenticatedUsers"
xmi:id="AllAuthenticatedUsers_1" name="AllAuthenticatedUsers"/>
    </authorizations>
  </authorizationTable>
</runAsMap xmi:id="RunAsMap_1"/>
</applicationbnd: ApplicationBinding>

```

c) Save and close the file.

#### 4. Modify the web.xml file.

- a) Open C:\Apps\Websphere\AppServer\installedApps\peoplesoft\PORTAL\WEB-INF\web.xml.
- b) Add the following section after the <welcome-file-list> element, and before the </web-app> element:

```

<security-constraint id="SecurityConstraint_1">
  <web-resource-collection id="WebResourceCollection_1">
    <web-resource-name>MyWebResource</web-resource-name>
    <url-pattern>/SnoopServlet/*</url-pattern>
    <http-method>GET</http-method>
  </web-resource-collection>
  <auth-constraint id="AuthConstraint_1">
    <description>MySecurityConstraint: +:</description>
    <role-name>SnoopServlet</role-name>
  </auth-constraint>
  <user-data-constraint id="UserDataConstraint_1">
    <transport-guarantee>NONE</transport-guarantee>
  </user-data-constraint>
</security-constraint>
<login-config id="LoginConfig_1">
<auth-method>BASIC</auth-method>
</login-config>
<security-role id="SecurityRole_1">
  <description>SnoopServlet Descr</description>
  <role-name>SnoopServlet</role-name>
</security-role>

```

- c) Save and close the file.
5. Test authentication.
    - a) Start Websphere.
    - b) Invoke the servlet, which has restricted access. In the above example the servlet is SnoopServlet. Use the URL `http://localhost/servlet/snoop`. If PIA is installed, use the URL `http://localhost/psftmodified/servlet/snoop`.
    - c) Enter the user name and password that was defined in the `C:\Apps\Websphere\AppServer\installedApps\peoplesoft\META-INF\ibm-application-bnd.xml` file.
    - d) You will be allowed access to the servlet.

## Updating the Report Node Definition

To secure the report repository, the new webserver user account is added to the report node definition. The Distribution Agent will use this login information when it accesses the report repository to post files.

Http Distribution Node
ETP/XCopy Distribution Node

### Report Node Definition

**Node Name:** DCRAIG042302

Ftp/XCopy
  **Http Information**

Distribution Node Details

**URL:**

**Description:**

**Operating System:**

Connection Information

**http**
 https

**URI Host:**  **URI Port:**

**URI Resource:**

**Login ID:**

**Password:**  **Confirm Password:**

[Process Scheduler - Report Node Definition page](#)

### To update the report node definition

1. Select **PeopleTools, Process Scheduler, Report Nodes**.
2. Select **Find an Existing Value**, and enter the report node name associated with the report repository where the basic authentication was set up.
3. Select **Search**.

The Report Node Definition page appears.

4. Go to the Connection Information section and enter the new web server user account information:
  - **Login ID.** Webserver user ID that was created in the previous procedure.
  - **Password.** Password for the webserver user ID.
  - **Confirm Password.** Enter the password again as confirmation.





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